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INTERVENTO

**FONDO COMPLEMENTARE AL PIANO NAZIONALE DI RIPRESA E RESILIENZA  
PROGRAMMA "SICURO, VERDE E SOCIALE: RIQUALIFICAZIONE DELL'EDILIZIA RESIDENZIALE PUBBLICA"**

**PROGETTO DI MANUTENZIONE STRAORDINARIA PER IL RESTAURO E RISANAMENTO  
CONSERVATIVO DI DUE CASAMENTI A CORTE SITI IN  
COMUNE DI BOLOGNA LOCALITA' CIRENAICA.  
VIA BENTIVOGLI CIV. 31+59 PER COMPLESSIVI 56 ALLOGGI  
DI ERP CON RELATIVE PERTINENZE E PARTI COMUNI**

LOTTO **3053/PN\_1**

**PROGETTO ESECUTIVO**

TAV.  <b>TAB_05</b>		OGGETTO  TABULATI DI CALCOLO CIVICO 35 STATO DI FATTO			DATA  <b>Settembre 2022</b>	
SCALA					N. DISEGNO	
VERSIONE	DESCRIZIONE	DATA	REDATTO	VERIFICATO		APPROVATO
00	PRIMA EMISSIONE	Settembre 2022	F. DALMONTE	N. LEONE		N. LEONE
01						
02						
03						

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TABULATI DI CALCOLO  
CIVICO 35  
STATO DI FATTO



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# 1 Risultati numerici

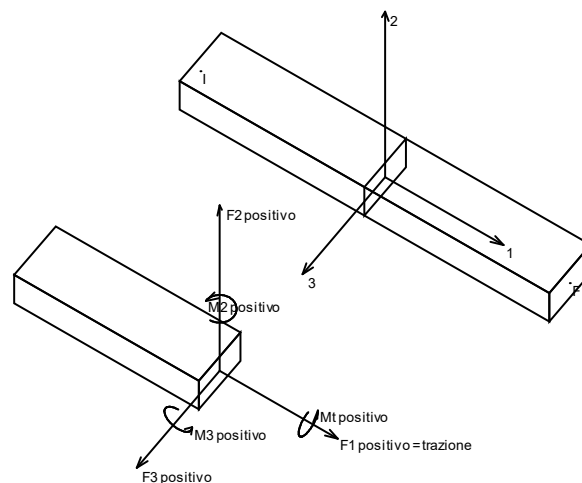
## 1.1 Sollecitazioni

### 1.1.1 Sollecitazioni aste

#### 1.1.1.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- $F1$  (N): sforzo normale nell'asta;
- $F2$ : sforzo di taglio agente nella direzione dell'asse locale 2;
- $F3$ : sforzo di taglio agente nella direzione dell'asse locale 3;
- $M1$  ( $M_t$ ): momento attorno all'asse locale 1; equivale al momento torcente;
- $M2$ : momento attorno all'asse locale 2;
- $M3$ : momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

presa un'asta con nodo iniziale  $i$  e nodo finale  $f$ , asse 1 che va da  $i$  a  $f$ , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

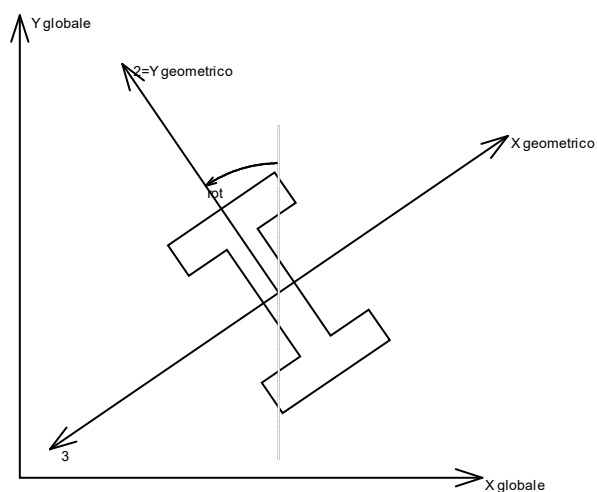
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

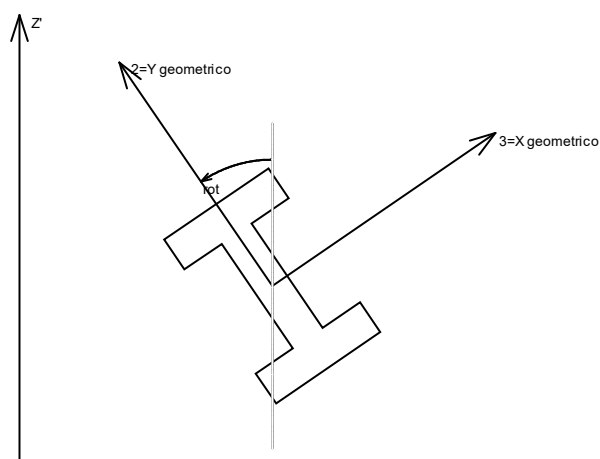


## Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

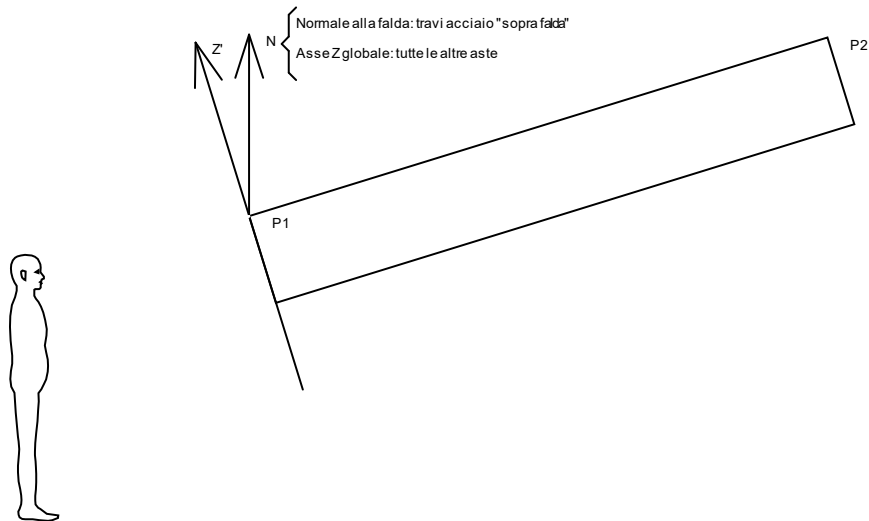
## Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

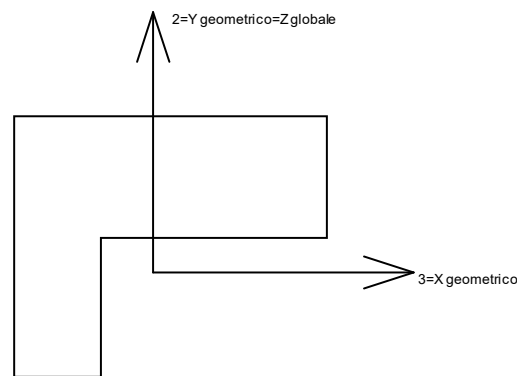
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



$Z'$  è quindi l'intersezione tra il piano passante per  $P1$ ,  $P2$  contenente  $N$  e il piano della sezione iniziale dell'asta.

**Sistema locale aste derivanti da travi in c.a.**



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse  $Z$  globale nonché con l'asse  $y$  geometrico. L'asse 3 coincide con l'asse  $x$  geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

## 1.1.2 Sollecitazioni gusci

### 1.1.2.1 Convenzioni di segno gusci

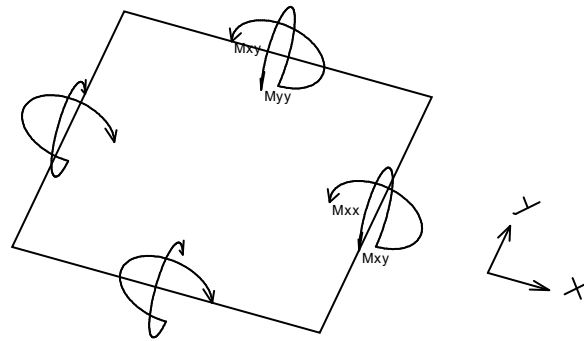
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

#### Convenzione di segno per gusci non verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse  $x$  e  $y$  contenuti nel piano dell'elemento e terzo asse ( $z$ ) ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse  $x$  ha proiezione in pianta parallela ed equiversa all'asse globale  $X$ . Nel caso di piastre orizzontali (caso più comune) gli assi  $x$ ,  $y$  e  $z$  locali all'elemento sono paralleli ed equiversi agli assi  $X$ ,  $Y$  e  $Z$  globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.

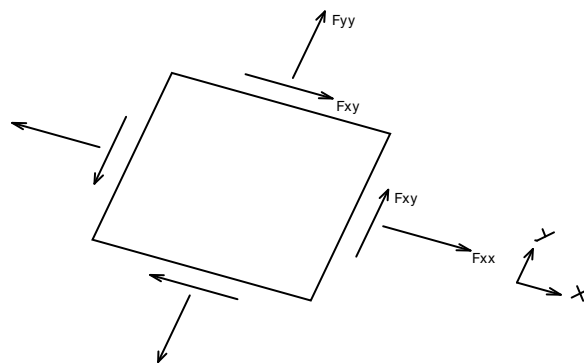
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ .



Si definiscono:

- $M_{xx}$ : momento flettente [Forza\*Lunghezza/Lunghezza] agente sul bordo di normale  $x$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{yy}$ : momento flettente [Forza\*Lunghezza/Lunghezza] agente sul bordo di normale  $y$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{xy}$ : momento torcente [Forza\*Lunghezza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $F_{xx}$ ,  $F_{yy}$ ,  $F_{xy}$ .



Si definiscono:

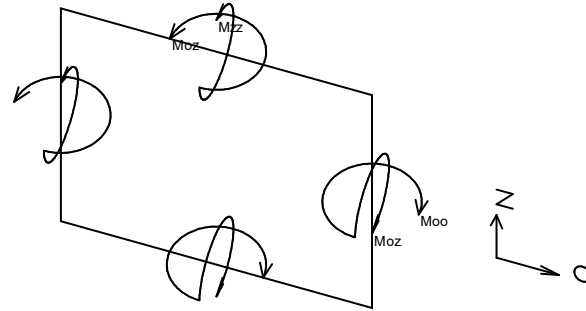
- $F_{xx}$ : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale  $x$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{yy}$ : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse  $y$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{xy}$ : sforzo di taglio [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- $V_x$ : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $x$ ;
- $V_y$ : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $y$ .

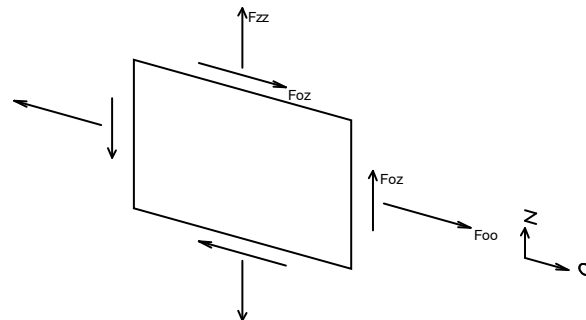
#### Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse  $O$  (ascisse) e  $z$  (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse  $O$  è orizzontale e l'asse  $z$  parallelo ed equiverso con l'asse  $Z$  globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione. In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ ,  $F_{xx}$ ,  $F_{yy}$ ,  $F_{xy}$ .



- Moo: momento flettente distribuito  $[Forza * Lunghezza / Lunghezza]$  applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Mzz: momento flettente distribuito  $[Forza * Lunghezza / Lunghezza]$  applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Moz: momento 'torcente' distribuito  $[Forza * Lunghezza / Lunghezza]$  applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione Foo, Fzz, Foz sono rispettivamente:



- Fzz: sforzo tensionale distribuito  $[Forza / Lunghezza]$  applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foo: sforzo tensionale distribuito  $[Forza / Lunghezza]$  applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foz: sforzo tagliante distribuito  $[Forza / Lunghezza]$  applicato sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- Vo: taglio fuori piano applicato al bordo di normale parallela all'asse O;
- Vz: taglio fuori piano applicato al bordo di normale parallela all'asse z.

#### 1.1.2.2 Sollecitazioni estreme gusci

**Shell:** elemento guscio a cui si riferiscono le sollecitazioni.

**Ind:** indice del guscio.

**Cont.:** contesto a cui si riferiscono le sollecitazioni.

**N.br.:** nome breve della condizione o combinazione di carico.

**Nodo:** nodo su cui si basa il guscio a cui si riferisce la sollecitazione.

**Ind:** indice del nodo.

**Sollecitazione:** valori della sollecitazione.

**M11:** componente M11 della sollecitazione del guscio nel nodo indicato.  $[daN * m / m]$

**M12:** componente M12 della sollecitazione del guscio nel nodo indicato.  $[daN * m / m]$

**M22:** componente M22 della sollecitazione del guscio nel nodo indicato.  $[daN * m / m]$

**F11:** componente F11 della sollecitazione del guscio nel nodo indicato.  $[daN / m]$

**F12:** componente F12 della sollecitazione del guscio nel nodo indicato.  $[daN / m]$

**F22:** componente F22 della sollecitazione del guscio nel nodo indicato.  $[daN / m]$

**V13:** componente V13 della sollecitazione del guscio nel nodo indicato.  $[daN / m]$

**V23:** componente V23 della sollecitazione del guscio nel nodo indicato.  $[daN / m]$

#### Sollecitazioni con momento M11 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23





Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
803	SLV 3	1044	-1043	-62	-138	-9930	-4100	-3983	-2051	-64
241	SLV 7	1089	-920	-100	-216	-389	149	-5234	-1751	508
234	SLV 15	1089	-914	-72	-221	449	831	-3527	1724	481
793	SLV 3	1077	-873	57	-172	-2505	-854	83	1802	652
650	SLV 15	1029	-827	15	-419	-1593	1196	-4780	-1884	-741

#### Sollecitazioni con momento M11 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
803	SLV 13	1044	1043	62	136	-5710	-6203	-1668	2047	74
241	SLV 9	1089	913	102	194	-142	86	-2569	1726	-416
234	SLV 1	1089	907	70	199	-1118	-730	-4354	-1700	-388
793	SLV 13	1077	872	-57	172	2329	967	453	-1801	-651
650	SLV 1	1029	835	-8	421	-364	-484	-5997	1918	707

#### Sollecitazioni con momento M22 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
1111	SLV 11	1089	-388	36	-702	-552	30	-2439	895	-1318
1112	SLV 7	1089	-417	-55	-702	-815	72	-2805	-977	-1280
650	SLV 15	1029	-827	15	-419	-1593	1196	-4780	-1884	-741
227	SLV 11	1088	-181	99	-419	-250	-99	-3322	295	544
248	SLV 7	1090	-198	-149	-408	-314	112	-3562	-360	488

#### Sollecitazioni con momento M22 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
1111	SLV 5	1089	388	-37	705	-430	-45	-4471	-898	1326
1112	SLV 9	1089	417	55	705	-30	64	-4014	981	1287
227	SLV 5	1088	182	-99	423	-620	-37	-4083	-299	-564
650	SLV 1	1029	835	-8	421	-364	-484	-5997	1918	707
248	SLV 9	1090	198	148	412	-362	131	-3660	364	-508

#### Sollecitazioni con sforzo F11 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
673	SLV 15	1020	-90	-56	19	-46038	9405	5155	-344	121
1942	SLV 15	1019	-46	29	59	-26106	1036	-136783	-83	151
649	SLV 1	801	115	21	16	-26007	-6896	10737	586	542
685	SLV 15	802	-95	-35	14	-24674	11525	-5684	-835	519
693	SLV 1	812	80	23	9	-20853	-8568	-2415	425	132

#### Sollecitazioni con sforzo F11 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
673	SLV 1	1020	90	56	-19	46152	-9296	-4713	344	-122
649	SLV 15	801	-114	-21	-16	26883	6563	-11642	-585	-539
1942	SLV 1	1019	46	-29	-59	25642	-1190	127180	84	-151
693	SLV 15	812	-80	-23	-9	21317	9070	2500	-425	-133
685	SLV 1	802	95	35	-14	20174	-9625	4522	836	-518

#### Sollecitazioni con sforzo F22 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
1942	SLV 15	1147	10	39	-26	-1479	13640	-140304	-159	151
1941	SLV 15	1147	11	28	-22	4182	2399	-113210	-122	-46
1940	SLV 15	1379	2	22	4	-3860	8929	-90198	-31	-15
1939	SLV 15	1379	2	22	4	-682	2456	-69189	-32	5
663	SLV 15	1019	-187	-13	52	-18335	790	-53886	151	-218

#### Sollecitazioni con sforzo F22 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
1942	SLV 1	1147	-10	-39	26	1441	-13511	130787	159	-151
1941	SLV 1	1147	-11	-28	22	-4170	-2580	104278	122	47
1940	SLV 1	1379	-2	-22	-4	3693	-8777	81762	31	15
1939	SLV 1	1379	-2	-22	-4	615	-2628	61200	32	-5
663	SLV 1	1019	188	13	-52	18623	-1093	50548	-152	219

#### 1.1.2.3 Sollecitazioni estreme gusci non verticali

**Shell:** elemento guscio a cui si riferiscono le sollecitazioni.

**Ind:** indice del guscio.

**Cont.:** contesto a cui si riferiscono le sollecitazioni.

**N.br.:** nome breve della condizione o combinazione di carico.

**Nodo:** nodo su cui si basa il guscio a cui si riferisce la sollecitazione.

**Ind:** indice del nodo.



**Sollecitazione:** valori della sollecitazione.

**Mxx:** componente Mxx della sollecitazione del guscio nel nodo indicato. [daN\*m/m]

**Mxy:** componente Mxy della sollecitazione del guscio nel nodo indicato. [daN\*m/m]

**Myy:** componente Myy della sollecitazione del guscio nel nodo indicato. [daN\*m/m]

**Fxx:** componente Fxx della sollecitazione del guscio nel nodo indicato. [daN/m]

**Fxy:** componente Fxy della sollecitazione del guscio nel nodo indicato. [daN/m]

**Fyy:** componente Fyy della sollecitazione del guscio nel nodo indicato. [daN/m]

**Vx:** componente Vo della sollecitazione del guscio nel nodo indicato. [daN/m]

**Vy:** componente Vz della sollecitazione del guscio nel nodo indicato. [daN/m]

#### Sollecitazioni con momento Mxx minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
929	SLV X	504	-81	12	-11	784	897	-727	65	26
1928	SLV 11	2093	-69	46	-82	-11106	2558	-1502	125	-163
1927	SLV 5	2029	-51	25	-34	-5131	1335	-1996	-84	57
935	SLV 11	151	-23	-6	1	1139	2128	-8112	-156	69
941	SLV 11	151	-20	5	-3	1475	-3070	-10552	-137	117

#### Sollecitazioni con momento Mxx massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
929	SLV 3	504	117	-8	49	-5155	-3395	1704	-246	33
1928	SLV 5	2093	65	-43	78	10321	-3297	742	-147	188
1927	SLV 11	2029	51	-25	35	4602	-2082	639	74	-46
941	SLU 82	233	35	4	43	2024	-3441	-6833	13	220
935	SLV 7	233	29	-9	11	2305	3788	-5703	-146	66

#### Sollecitazioni con momento Myy minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1928	SLV 11	2093	-69	46	-82	-11106	2558	-1502	125	-163
1927	SLV 1	1909	-44	26	-44	6763	-365	-1967	-13	51
929	SLV 5	363	-2	-9	-31	-2907	-2681	-3540	-64	-165
935	SLV 5	233	-9	3	-30	-372	-2310	-6171	68	48
941	SLV 3	52	-18	-13	-27	1235	390	-2545	116	73

#### Sollecitazioni con momento Myy massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1928	SLV 5	2093	65	-43	78	10321	-3297	742	-147	188
929	SLV 7	504	69	-4	61	-5852	-2685	3735	-250	137
941	SLV 15	233	25	1	53	144	-2546	-5599	-32	162
935	SLV 15	363	9	-15	47	1922	859	-3623	40	78
1927	SLV 15	1909	43	-26	44	-7140	-549	238	10	-47

#### Sollecitazioni con sforzo Fxx minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1928	SLV 11	2093	-69	46	-82	-11106	2558	-1502	125	-163
1927	SLV 5	2027	-31	9	-14	-7957	352	-4320	-52	91
929	SLV 7	281	-13	3	4	-7899	-1996	2057	-66	93
941	SLV 9	233	9	8	12	-4347	-3401	-3321	31	44
935	SLV 5	363	8	9	-7	-1426	-2106	-5809	-4	70

#### Sollecitazioni con sforzo Fxx massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1928	SLV 5	2093	65	-43	78	10321	-3297	742	-147	188
1927	SLV 11	2027	35	-8	20	8146	-350	3248	54	-68
941	SLV 7	233	32	-3	39	6661	-748	-4857	-16	218
935	SLV 11	363	-5	-4	37	2980	3413	-4247	38	29
929	SLV X	363	-50	0	6	2394	115	475	34	62

#### Sollecitazioni con sforzo Fyy minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
941	SLV 7	151	-16	8	-9	1810	-3473	-10963	-121	111
935	SLU 82	233	16	-12	-8	1084	1323	-9243	-69	119
1928	SLV 5	2027	21	-19	3	-5491	798	-7238	59	-86
1927	SLV 3	2029	-19	14	-27	546	880	-5147	-26	62
929	SLV 9	504	-5	13	-2	-1822	-2381	-3959	-69	-94

#### Sollecitazioni con sforzo Fyy massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
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Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1928	SLV 11	2027	-23	21	-4	5113	-654	7398	-61	74
1927	SLV X	2029	31	-20	35	597	-1620	4463	41	-66
929	SLV 7	504	69	-4	61	-5852	-2685	3735	-250	137
935	SLV X	281	14	-17	15	185	-1230	1748	14	20
941	SLV X	151	-6	-5	10	-558	672	685	-27	10

#### 1.1.2.4 Sollecitazioni estreme gusci verticali

**Shell:** elemento guscio a cui si riferiscono le sollecitazioni.

**Ind:** indice del guscio.

**Cont.:** contesto a cui si riferiscono le sollecitazioni.

**N.br.:** nome breve della condizione o combinazione di carico.

**Nodo:** nodo su cui si basa il guscio a cui si riferisce la sollecitazione.

**Ind:** indice del nodo.

**Sollecitazione:** valori della sollecitazione.

**Moo:** componente Moo della sollecitazione del guscio nel nodo indicato. [daN\*m/m]

**Moz:** componente Moz della sollecitazione del guscio nel nodo indicato. [daN\*m/m]

**Mzz:** componente Mzz della sollecitazione del guscio nel nodo indicato. [daN\*m/m]

**Foo:** componente Foo della sollecitazione del guscio nel nodo indicato. [daN/m]

**Foz:** componente Foz della sollecitazione del guscio nel nodo indicato. [daN/m]

**Fzz:** componente Fzz della sollecitazione del guscio nel nodo indicato. [daN/m]

**Vo:** componente Vo della sollecitazione del guscio nel nodo indicato. [daN/m]

**Vz:** componente Vz della sollecitazione del guscio nel nodo indicato. [daN/m]

#### Sollecitazioni con momento Moo minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
803	SLV 3	1044	-1043	-62	-138	-9930	-4100	-3983	-2051	-64
241	SLV 7	1089	-920	-100	-216	-389	149	-5234	-1751	508
234	SLV 15	1089	-914	-72	-221	449	831	-3527	1724	481
793	SLV 3	1077	-873	57	-172	-2505	-854	83	1802	652
650	SLV 15	1029	-827	15	-419	-1593	1196	-4780	-1884	-741

#### Sollecitazioni con momento Moo massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
803	SLV 13	1044	1043	62	136	-5710	-6203	-1668	2047	74
241	SLV 9	1089	913	102	194	-142	86	-2569	1726	-416
234	SLV 1	1089	907	70	199	-1118	-730	-4354	-1700	-388
793	SLV 13	1077	872	-57	172	2329	967	453	-1801	-651
650	SLV 1	1029	835	-8	421	-364	-484	-5997	1918	707

#### Sollecitazioni con momento Mzz minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
1111	SLV 11	1089	-388	36	-702	-552	30	-2439	895	-1318
1112	SLV 7	1089	-417	-55	-702	-815	72	-2805	-977	-1280
650	SLV 15	1029	-827	15	-419	-1593	1196	-4780	-1884	-741
227	SLV 11	1088	-181	99	-419	-250	-99	-3322	295	544
248	SLV 7	1090	-198	-149	-408	-314	112	-3562	-360	488

#### Sollecitazioni con momento Mzz massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
1111	SLV 5	1089	388	-37	705	-430	-45	-4471	-898	1326
1112	SLV 9	1089	417	55	705	-30	64	-4014	981	1287
227	SLV 5	1088	182	-99	423	-620	-37	-4083	-299	-564
650	SLV 1	1029	835	-8	421	-364	-484	-5997	1918	707
248	SLV 9	1090	198	148	412	-362	131	-3660	364	-508

#### Sollecitazioni con sforzo Foo minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
673	SLV 15	1020	-90	-56	19	-46038	9405	5155	-344	121
1942	SLV 15	1019	-46	29	59	-26106	1036	-136783	-83	151
649	SLV 1	801	115	21	16	-26007	-6896	10737	586	542
685	SLV 15	802	-95	-35	14	-24674	11525	-5684	-835	519
693	SLV 1	812	80	23	9	-20853	-8568	-2415	425	132

#### Sollecitazioni con sforzo Foo massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
673	SLV 1	1020	90	56	-19	46152	-9296	-4713	344	-122
649	SLV 15	801	-114	-21	-16	26883	6563	-11642	-585	-539
1942	SLV 1	1019	46	-29	-59	25642	-1190	127180	84	-151
693	SLV 15	812	-80	-23	-9	21317	9070	2500	-425	-133



Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
685	SLV 1	802	95	35	-14	20174	-9625	4522	836	-518

#### Sollecitazioni con sforzo Fzz minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
1942	SLV 15	1147	10	39	-26	-1479	13640	-140304	-159	151
1941	SLV 15	1147	11	28	-22	4182	2399	-113210	-122	-46
1940	SLV 15	1379	2	22	4	-3860	8929	-90198	-31	-15
1939	SLV 15	1379	2	22	4	-682	2456	-69189	-32	5
663	SLV 15	1019	-187	-13	52	-18335	790	-53886	151	-218

#### Sollecitazioni con sforzo Fzz massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
1942	SLV 1	1147	-10	-39	26	1441	-13511	130787	159	-151
1941	SLV 1	1147	-11	-28	22	-4170	-2580	104278	122	47
1940	SLV 1	1379	-2	-22	-4	3693	-8777	81762	31	15
1939	SLV 1	1379	-2	-22	-4	615	-2628	61200	32	-5
663	SLV 1	1019	188	13	-52	18623	-1093	50548	-152	219

### 1.1.3 Sollecitazioni gusci armati

#### 1.1.3.1 Convenzioni di segno gusci

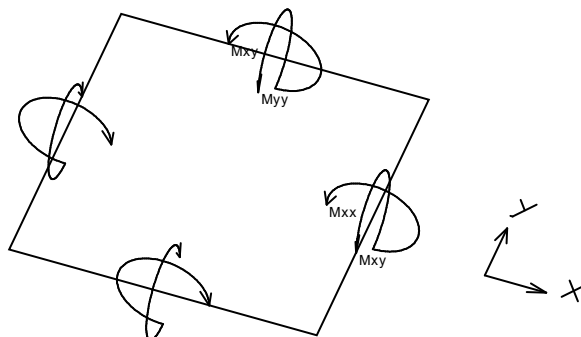
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

#### Convenzione di segno per gusci non verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse x e y contenuti nel piano dell'elemento e terzo asse (z) ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse x ha proiezione in pianta parallela ed equivale all'asse globale X. Nel caso di piastre orizzontali (caso più comune) gli assi x, y e z locali all'elemento sono paralleli ed equivale agli assi X, Y e Z globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.

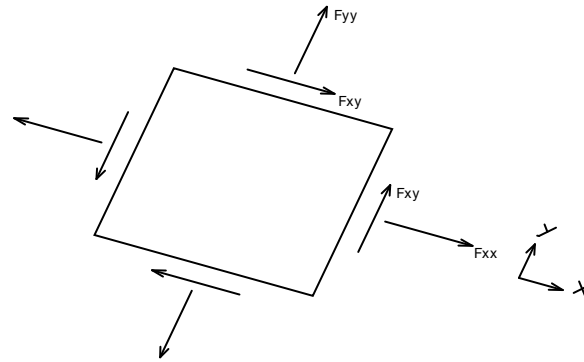
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ .



Si definiscono:

- $M_{xx}$ : momento flettente  $[Forza * Lunghezza / Lunghezza]$  agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{yy}$ : momento flettente  $[Forza * Lunghezza / Lunghezza]$  agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{xy}$ : momento torcente  $[Forza * Lunghezza / Lunghezza]$  agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $F_{xx}$ ,  $F_{yy}$ ,  $F_{xy}$ .



Si definiscono:

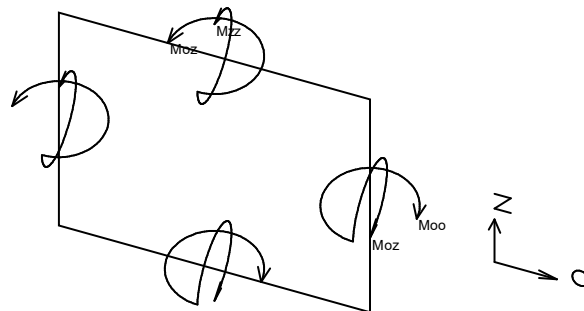
- $F_{xx}$ : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale  $x$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{yy}$ : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse  $y$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{xy}$ : sforzo di taglio [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- $V_x$ : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $x$ ;
- $V_y$ : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $y$ .

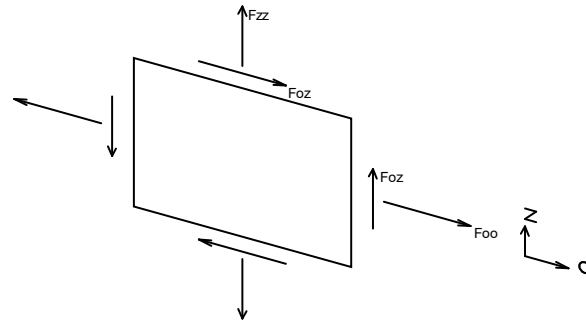
#### Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse  $O$  (ascisse) e  $z$  (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse  $O$  è orizzontale e l'asse  $z$  parallelo ed equiverso con l'asse  $Z$  globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione. In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{oo}$ ,  $M_{zz}$ ,  $M_{oz}$ .



- $M_{oo}$ : momento flettente distribuito [Forza\*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse  $O$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{zz}$ : momento flettente distribuito [Forza\*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse  $z$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{oz}$ : momento 'torcente' distribuito [Forza\*Lunghezza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione  $F_{oo}$ ,  $F_{zz}$ ,  $F_{oz}$  sono rispettivamente:



- $F_{zz}$ : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $z$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{oo}$ : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $O$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{oz}$ : sforzo tagliante distribuito [Forza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- $V_o$ : taglio fuori piano applicato al bordo di normale parallela all'asse  $O$ ;
- $V_z$ : taglio fuori piano applicato al bordo di normale parallela all'asse  $z$ .

## 1.1.4 Sollecitazioni gusci muratura

### 1.1.4.1 Convenzioni di segno gusci muratura

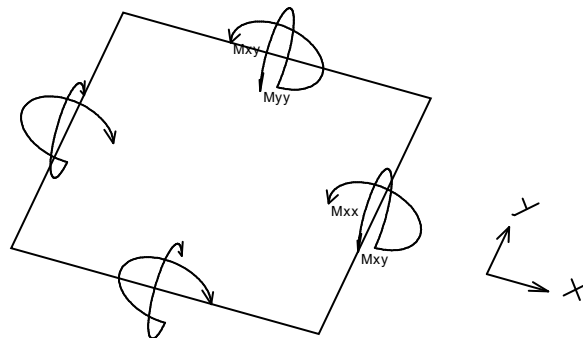
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio muratura si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

#### Convenzione di segno per gusci non verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse  $x$  e  $y$  contenuti nel piano dell'elemento e terzo asse ( $z$ ) ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse  $x$  ha proiezione in pianta parallela ed equivale all'asse globale  $X$ . Nel caso di piastre orizzontali (caso più comune) gli assi  $x$ ,  $y$  e  $z$  locali all'elemento sono paralleli ed equivale agli assi  $X$ ,  $Y$  e  $Z$  globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.

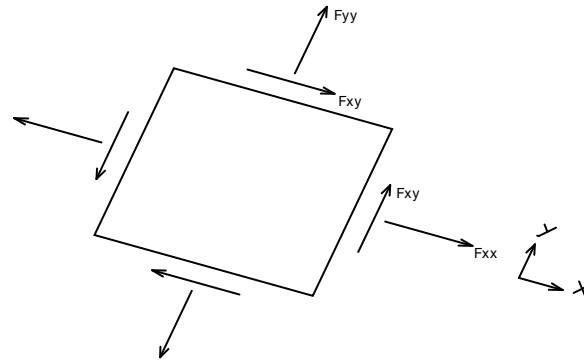
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ .



Si definiscono:

- $M_{xx}$ : momento flettente [Forza\*Lunghezza/Lunghezza] agente sul bordo di normale  $x$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{yy}$ : momento flettente [Forza\*Lunghezza/Lunghezza] agente sul bordo di normale  $y$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{xy}$ : momento torcente [Forza\*Lunghezza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $F_{xx}$ ,  $F_{yy}$ ,  $F_{xy}$ .

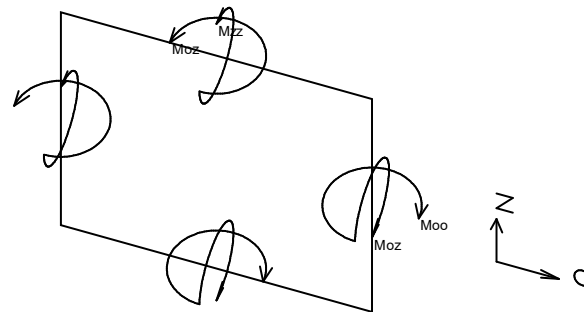


Si definiscono:

- $F_{xx}$ : sforzo tensionale [Forza/Lunghezza] agente sul bordo di normale  $x$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{yy}$ : sforzo tensionale [Forza/Lunghezza] agente sul bordo di normale all'asse  $y$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{xy}$ : sforzo tagliante [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

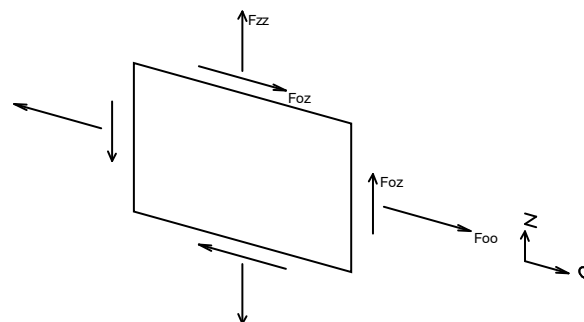
#### Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse  $O$  (ascisse) e  $z$  (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse  $O$  è orizzontale e l'asse  $z$  parallelo ed equiverso con l'asse  $Z$  globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione. In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{oo}$ ,  $M_{zz}$ ,  $M_{oz}$ .



- $M_{oo}$ : momento flettente distribuito [Forza\*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse  $O$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{zz}$ : momento flettente distribuito [Forza\*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse  $z$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{oz}$ : momento 'torcente' distribuito [Forza\*Lunghezza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione  $F_{oo}$ ,  $F_{zz}$ ,  $F_{oz}$  sono rispettivamente:



- $F_{zz}$ : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $z$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);



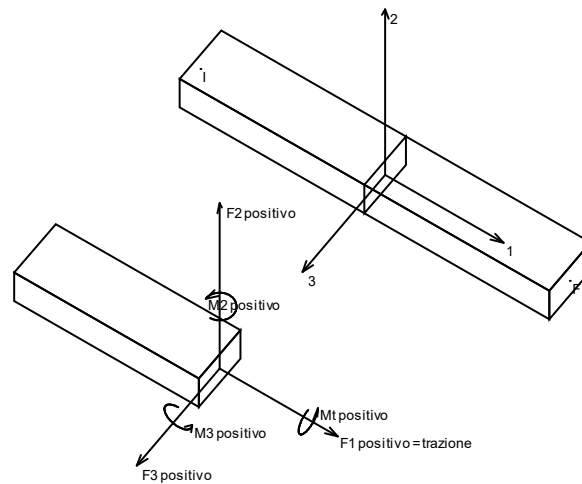
- $F_{oo}$ : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $O$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{oz}$ : sforzo tagliante distribuito [Forza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

## 1.1.5 Sollecitazioni aste in muratura

### 1.1.5.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- $F_1$  (N): sforzo normale nell'asta;
- $F_2$ : sforzo di taglio agente nella direzione dell'asse locale 2;
- $F_3$ : sforzo di taglio agente nella direzione dell'asse locale 3;
- $M_1$  (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- $M_2$ : momento attorno all'asse locale 2;
- $M_3$ : momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

presa un'asta con nodo iniziale  $i$  e nodo finale  $f$ , asse 1 che va da  $i$  a  $f$ , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

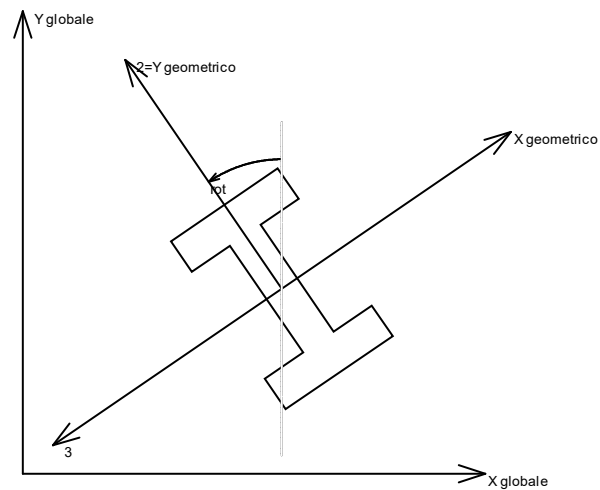
- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.



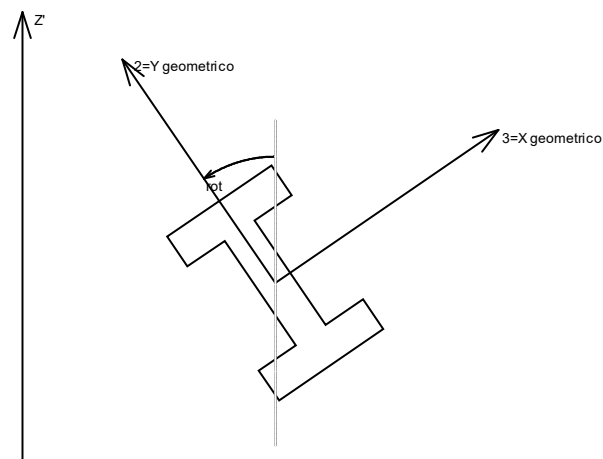


## Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

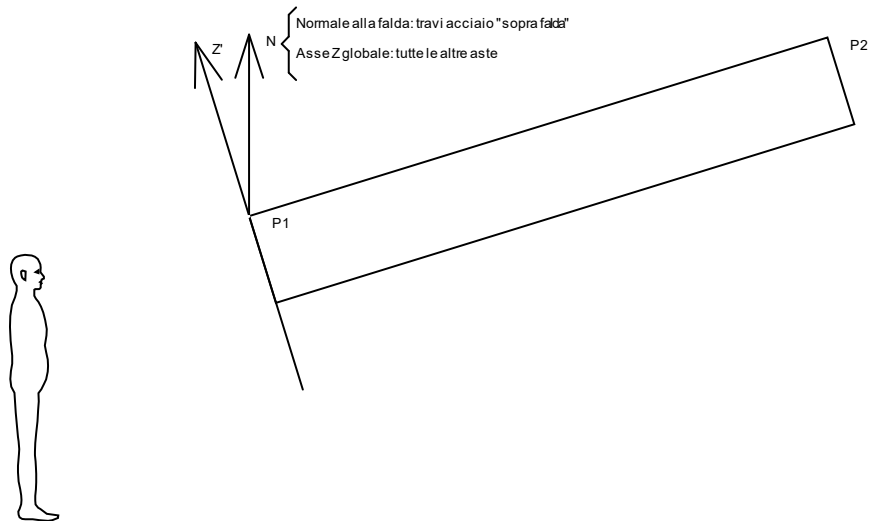
## Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

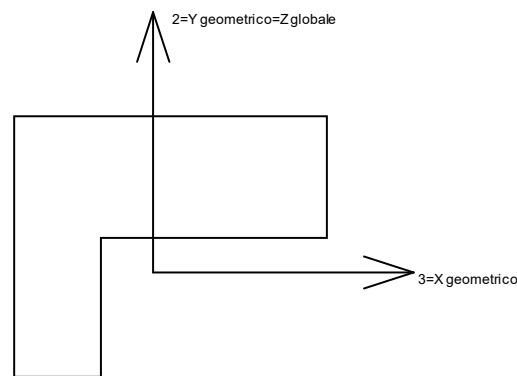
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



$Z'$  è quindi l'intersezione tra il piano passante per  $P1$ ,  $P2$  contenente  $N$  e il piano della sezione iniziale dell'asta.

**Sistema locale aste derivanti da travi in c.a.**



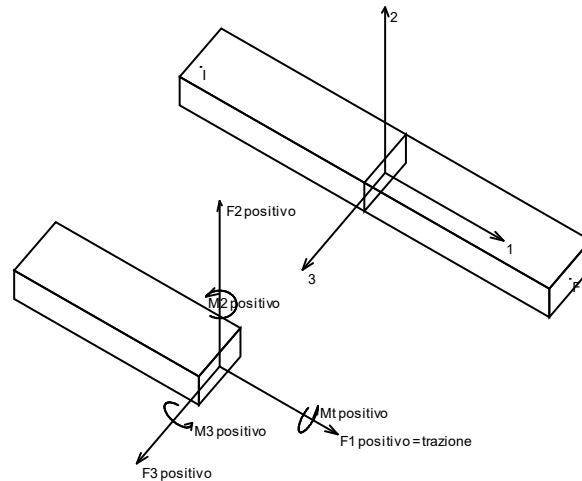
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse  $Z$  globale nonché con l'asse  $y$  geometrico. L'asse 3 coincide con l'asse  $x$  geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

## 1.1.6 Sollecitazioni aste in muratura FRCM

### 1.1.6.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- $F1$  (N): sforzo normale nell'asta;
- $F2$ : sforzo di taglio agente nella direzione dell'asse locale 2;
- $F3$ : sforzo di taglio agente nella direzione dell'asse locale 3;
- $M1$  (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- $M2$ : momento attorno all'asse locale 2;
- $M3$ : momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

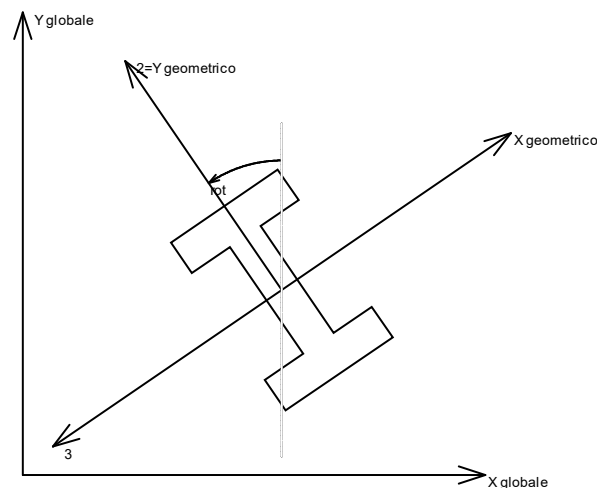
presa un'asta con nodo iniziale  $i$  e nodo finale  $f$ , asse 1 che va da  $i$  a  $f$ , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

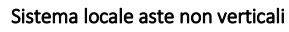
- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

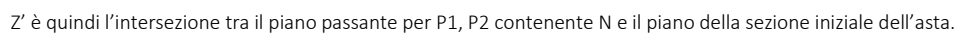
#### Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

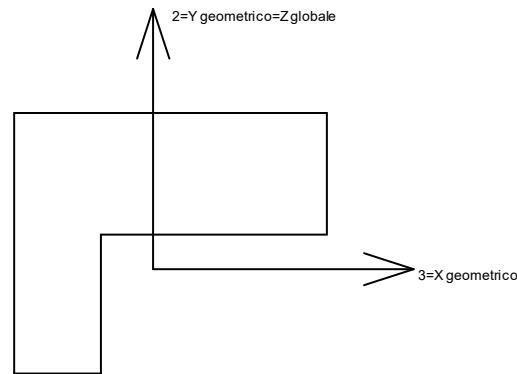


- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;





## Sistema locale aste derivanti da travi in c.a.



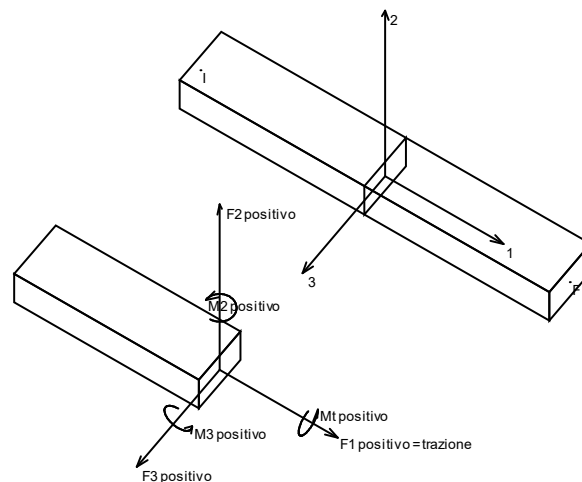
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

### 1.1.7 Sollecitazioni aste in muratura armata

#### 1.1.7.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- F1 (N): sforzo normale nell'asta;
- F2: sforzo di taglio agente nella direzione dell'asse locale 2;
- F3: sforzo di taglio agente nella direzione dell'asse locale 3;
- M1 (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- M2: momento attorno all'asse locale 2;
- M3: momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

presa un'asta con nodo iniziale i e nodo finale f, asse 1 che va da i a f, assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

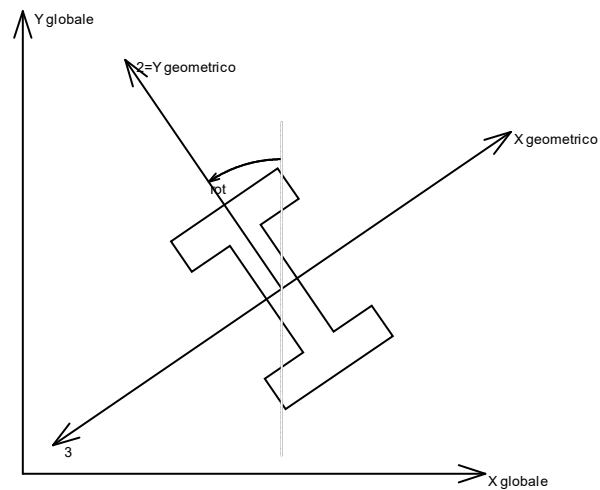
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

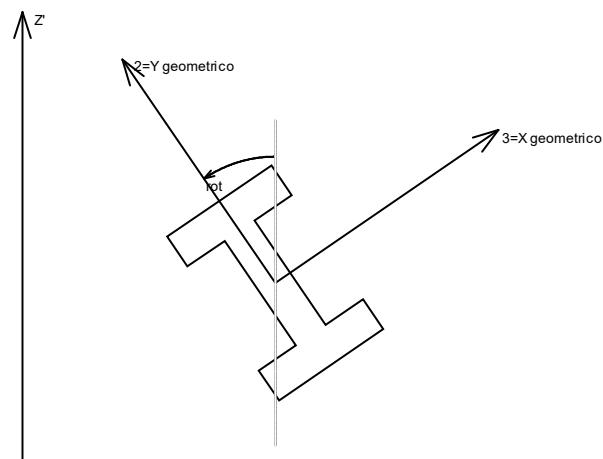


## Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

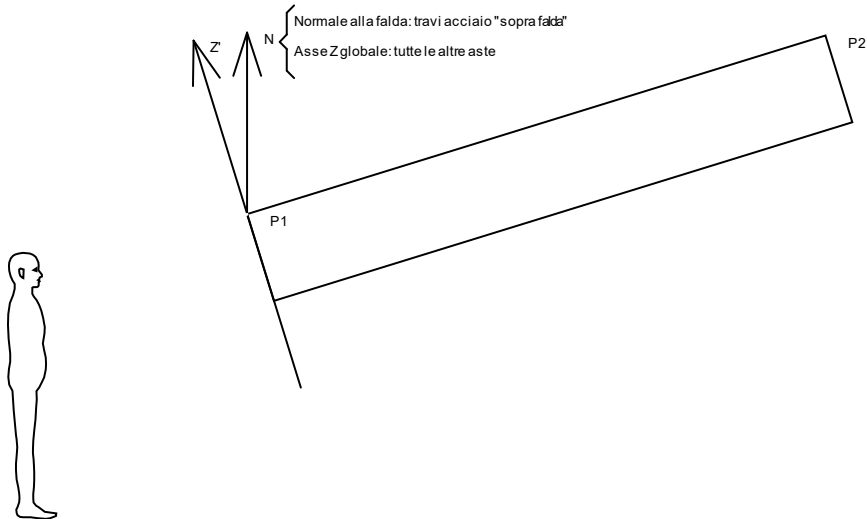
## Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

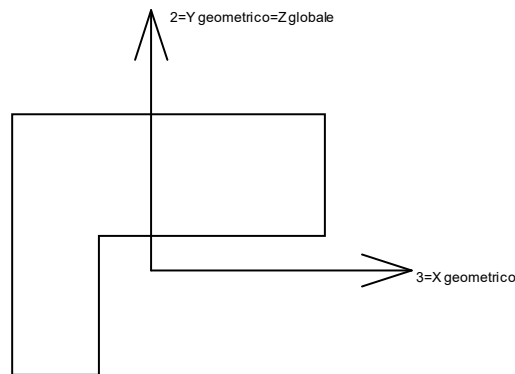
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per P1, P2 contenente N e il piano della sezione iniziale dell'asta.

**Sistema locale aste derivanti da travi in c.a.**



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

## 1.2 Reazioni nodali

### 1.2.1 Reazioni nodali estreme

**Nodo:** Nodo sollecitato dalla reazione vincolare.

**Ind.:** indice del nodo.

**Cont.:** Contesto a cui si riferisce la reazione vincolare.

**N.br.:** nome breve della condizione o combinazione di carico.

**Reazione a traslazione:** reazione vincolare traslazionale del nodo.

**x:** componente X della reazione vincolare del nodo. [daN]

**y:** componente Y della reazione vincolare del nodo. [daN]

**z:** componente Z della reazione vincolare del nodo. [daN]

**Reazione a rotazione:** reazione vincolare rotazionale del nodo.

**x:** componente X della reazione a rotazione del nodo. [daN\*m]

**y:** componente Y della reazione a rotazione del nodo. [daN\*m]

**z:** componente Z della reazione a rotazione del nodo. [daN\*m]

#### Reazioni Fx minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
74	SLV 15	-1045	-14	2786	6.31	-45.59	0.03
73	SLV 15	-961	-18	2570	9.89	-40.9	0.05
72	SLV 15	-892	-14	2488	33.07	-37.31	0.09
71	SLV 15	-860	-45	2480	38.89	-36.63	0.12
21	SLV 13	-841	37	1685	-32.68	-35.95	-0.07

#### Reazioni Fx massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
57	SLV 3	1049	18	781	-21.32	45.34	0.86
58	SLV 3	1007	21	688	-25.27	44.84	-1.58
61	SLV 3	862	45	2747	-3.03	27.55	0.89
56	SLV 3	846	63	2563	-49.98	51.74	1.44
7	SLV 1	787	-49	1571	61.31	34.21	0.05

#### Reazioni Fy minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
29	SLV Y	-10	-1176	-156	55.34	-3.76	0
52	SLV 7	60	-1114	65	70.01	9.73	-0.67
38	SLV 11	-47	-1112	4100	35.4	-21.27	-3.59
32	SLV Y	-11	-1103	907	53.28	-6.13	-0.02
66	SLV 11	-123	-1028	5614	52.27	4.62	4.31

#### Reazioni Fy massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
29	SLV 5	0	1785	2150	-79.57	6.88	0.01
32	SLV 5	6	1516	1546	-69.62	16.62	0.03
17	SLV 5	80	1189	5597	-49.61	3.24	-0.02
33	SLV 5	-22	1053	1885	-47.16	-16.61	-0.04
35	SLV 5	34	1049	374	-57.37	31.06	-0.15

#### Reazioni Fz minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
17	SLV Y	-66	-713	-2263	32.89	-2.8	0.02
962	SLV X	0	0	-2094	-19.02	8.95	0
1078	SLV X	0	0	-2051	16.23	7.83	0
49	SLV Y	-13	-543	-1851	19.89	-3.11	0.66
986	SLV Y	0	0	-1748	-6.93	-9.77	0

#### Reazioni Fz massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
1078	SLU 82	0	0	12120	-84.22	-78.08	0
962	SLU 81	0	0	11732	86.6	-75.3	0
1102	SLU 82	0	0	10733	-80.32	70.65	0
986	SLU 81	0	0	9412	70.3	58.54	0
66	SLU 82	-104	-899	7099	39.01	6.48	3.91

## 1.2.2 Reazioni nodali in combinazioni di carico

**Nodo:** Nodo sollecitato dalla reazione vincolare.

**Ind.:** indice del nodo.

**Cont.:** Contesto a cui si riferisce la reazione vincolare.

**N.br.:** nome breve della condizione o combinazione di carico.

**Reazione a traslazione:** reazione vincolare traslazionale del nodo.

**x:** componente X della reazione vincolare del nodo. [daN]

**y:** componente Y della reazione vincolare del nodo. [daN]

**z:** componente Z della reazione vincolare del nodo. [daN]

**Reazione a rotazione:** reazione vincolare rotazionale del nodo.

**x:** componente X della reazione a rotazione del nodo. [daN\*m]

**y:** componente Y della reazione a rotazione del nodo. [daN\*m]

**z:** componente Z della reazione a rotazione del nodo. [daN\*m]

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
2	SLU 1	280	348	2058	-10.41	7.94	0.02
2	SLU 2	280	337	2026	-9.94	8.01	0.02
2	SLU 3	280	348	2058	-10.41	7.94	0.02
2	SLU 4	280	341	2039	-10.13	7.98	0.02
2	SLU 5	280	337	2026	-9.94	8.01	0.02
2	SLU 6	280	348	2058	-10.41	7.94	0.02
2	SLU 7	280	341	2039	-10.13	7.98	0.02
2	SLU 8	280	348	2058	-10.41	7.94	0.02
2	SLU 9	280	341	2039	-10.13	7.98	0.02
2	SLU 10	365	388	2454	-11.2	10.88	0.01





Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
2	SLU 11	366	399	2487	-11.67	10.81	0.01
2	SLU 12	365	392	2467	-11.39	10.85	0.01
2	SLU 13	365	388	2454	-11.2	10.88	0.01
2	SLU 14	366	399	2487	-11.67	10.81	0.01
2	SLU 15	365	392	2467	-11.39	10.85	0.01
2	SLU 16	366	399	2487	-11.67	10.81	0.01
2	SLU 17	365	392	2467	-11.39	10.85	0.01
2	SLU 18	402	421	2670	-12.21	12.04	0.01
2	SLU 19	402	415	2651	-11.93	12.08	0
2	SLU 20	402	421	2670	-12.21	12.04	0.01
2	SLU 21	402	415	2651	-11.93	12.08	0
2	SLU 22	316	382	2275	-11.38	9.07	0.02
2	SLU 23	315	371	2243	-10.92	9.13	0.02
2	SLU 24	316	382	2275	-11.38	9.07	0.02
2	SLU 25	315	375	2256	-11.1	9.11	0.02
2	SLU 26	315	371	2243	-10.92	9.13	0.02
2	SLU 27	316	382	2275	-11.38	9.07	0.02
2	SLU 28	315	375	2256	-11.1	9.11	0.02
2	SLU 29	316	382	2275	-11.38	9.07	0.02
2	SLU 30	315	375	2256	-11.1	9.11	0.02
2	SLU 31	400	423	2671	-12.18	12	0.01
2	SLU 32	401	433	2703	-12.64	11.94	0.01
2	SLU 33	401	427	2684	-12.36	11.98	0.01
2	SLU 34	400	423	2671	-12.18	12	0.01
2	SLU 35	401	433	2703	-12.64	11.94	0.01
2	SLU 36	401	427	2684	-12.36	11.98	0.01
2	SLU 37	401	433	2703	-12.64	11.94	0.01
2	SLU 38	401	427	2684	-12.36	11.98	0.01
2	SLU 39	438	455	2887	-13.18	13.17	0.01
2	SLU 40	437	449	2868	-12.9	13.21	0
2	SLU 41	438	455	2887	-13.18	13.17	0.01
2	SLU 42	437	449	2868	-12.9	13.21	0
2	SLU 43	352	440	2602	-13.19	9.94	0.03
2	SLU 44	352	429	2569	-12.73	10	0.03
2	SLU 45	352	440	2602	-13.19	9.94	0.03
2	SLU 46	352	434	2582	-12.92	9.98	0.03
2	SLU 47	352	429	2569	-12.73	10	0.03
2	SLU 48	352	440	2602	-13.19	9.94	0.03
2	SLU 49	352	434	2582	-12.92	9.98	0.03
2	SLU 50	352	440	2602	-13.19	9.94	0.03
2	SLU 51	352	434	2582	-12.92	9.98	0.03
2	SLU 52	437	481	2998	-13.99	12.87	0.01
2	SLU 53	438	491	3030	-14.46	12.81	0.02
2	SLU 54	437	485	3011	-14.18	12.85	0.02
2	SLU 55	437	481	2998	-13.99	12.87	0.01
2	SLU 56	438	491	3030	-14.46	12.81	0.02
2	SLU 57	437	485	3011	-14.18	12.85	0.02
2	SLU 58	438	491	3030	-14.46	12.81	0.02
2	SLU 59	437	485	3011	-14.18	12.85	0.02
2	SLU 60	474	514	3213	-15	14.04	0.01
2	SLU 61	474	507	3194	-14.72	14.08	0.01
2	SLU 62	474	514	3213	-15	14.04	0.01
2	SLU 63	474	507	3194	-14.72	14.08	0.01
2	SLU 64	388	474	2818	-14.17	11.06	0.03
2	SLU 65	387	464	2786	-13.7	11.13	0.03
2	SLU 66	388	474	2818	-14.17	11.06	0.03
2	SLU 67	387	468	2799	-13.89	11.1	0.03
2	SLU 68	387	464	2786	-13.7	11.13	0.03
2	SLU 69	388	474	2818	-14.17	11.06	0.03
2	SLU 70	387	468	2799	-13.89	11.1	0.03
2	SLU 71	388	474	2818	-14.17	11.06	0.03
2	SLU 72	387	468	2799	-13.89	11.1	0.03
2	SLU 73	472	515	3214	-14.97	14	0.01
2	SLU 74	473	526	3247	-15.43	13.93	0.02
2	SLU 75	473	519	3227	-15.15	13.97	0.02
2	SLU 76	472	515	3214	-14.97	14	0.01
2	SLU 77	473	526	3247	-15.43	13.93	0.02
2	SLU 78	473	519	3227	-15.15	13.97	0.02
2	SLU 79	473	526	3247	-15.43	13.93	0.02
2	SLU 80	473	519	3227	-15.15	13.97	0.02
2	SLU 81	510	548	3430	-15.97	15.16	0.01
2	SLU 82	509	541	3411	-15.69	15.2	0.01
2	SLU 83	510	548	3430	-15.97	15.16	0.01
2	SLU 84	509	541	3411	-15.69	15.2	0.01
2	SLE RA 1	290	357	2120	-10.68	8.26	0.02
2	SLE RA 2	290	350	2099	-10.37	8.31	0.02
2	SLE RA 3	290	357	2120	-10.68	8.26	0.02
2	SLE RA 4	290	353	2107	-10.5	8.29	0.02
2	SLE RA 5	290	350	2099	-10.37	8.31	0.02
2	SLE RA 6	290	357	2120	-10.68	8.26	0.02
2	SLE RA 7	290	353	2107	-10.5	8.29	0.02
2	SLE RA 8	290	357	2120	-10.68	8.26	0.02
2	SLE RA 9	290	353	2107	-10.5	8.29	0.02
2	SLE RA 10	347	384	2384	-11.22	10.22	0.01
2	SLE RA 11	347	392	2406	-11.53	10.18	0.02
2	SLE RA 12	347	387	2393	-11.34	10.2	0.01
2	SLE RA 13	347	384	2384	-11.22	10.22	0.01
2	SLE RA 14	347	392	2406	-11.53	10.18	0.02
2	SLE RA 15	347	387	2393	-11.34	10.2	0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
2	SLE RA 16	347	392	2406	-11.53	10.18	0.02
2	SLE RA 17	347	387	2393	-11.34	10.2	0.01
2	SLE RA 18	372	406	2528	-11.89	11	0.01
2	SLE RA 19	371	402	2515	-11.7	11.02	0.01
2	SLE RA 20	372	406	2528	-11.89	11	0.01
2	SLE RA 21	371	402	2515	-11.7	11.02	0.01
2	SLE FR 1	290	357	2120	-10.68	8.26	0.02
2	SLE FR 2	290	356	2116	-10.62	8.27	0.02
2	SLE FR 3	290	357	2120	-10.68	8.26	0.02
2	SLE FR 4	315	371	2238	-10.98	9.09	0.02
2	SLE FR 5	315	372	2243	-11.05	9.08	0.02
2	SLE FR 6	331	382	2324	-11.29	9.63	0.02
2	SLE QP 1	290	357	2120	-10.68	8.26	0.02
2	SLE QP 2	315	372	2243	-11.05	9.08	0.02
2	SLD 1	398	464	2635	-14.02	12.08	0
2	SLD 2	398	464	2635	-14.02	12.08	0
2	SLD 3	386	383	2419	-10.75	12.78	-0.03
2	SLD 4	386	383	2419	-10.75	12.78	-0.03
2	SLD 5	357	523	2689	-16.91	8.92	0.07
2	SLD 6	357	523	2689	-16.91	8.92	0.07
2	SLD 7	319	252	1967	-5.99	11.25	-0.05
2	SLD 8	319	252	1967	-5.99	11.25	-0.05
2	SLD 9	310	492	2519	-16.1	6.91	0.09
2	SLD 10	310	492	2519	-16.1	6.91	0.09
2	SLD 11	273	221	1796	-5.18	9.24	-0.03
2	SLD 12	273	221	1796	-5.18	9.24	-0.03
2	SLD 13	243	361	2067	-11.34	5.39	0.07
2	SLD 14	243	361	2067	-11.34	5.39	0.07
2	SLD 15	232	280	1850	-8.07	6.09	0.04
2	SLD 16	232	280	1850	-8.07	6.09	0.04
2	SLV 1	511	599	3184	-18.29	16.21	-0.02
2	SLV 2	511	599	3184	-18.29	16.21	-0.02
2	SLV 3	483	407	2671	-10.55	17.91	-0.1
2	SLV 4	483	407	2671	-10.55	17.91	-0.1
2	SLV 5	416	731	3302	-24.97	8.65	0.13
2	SLV 6	416	731	3302	-24.97	8.65	0.13
2	SLV 7	322	92	1594	0.85	14.3	-0.14
2	SLV 8	322	92	1594	0.85	14.3	-0.14
2	SLV 9	307	653	2891	-22.94	3.86	0.18
2	SLV 10	307	653	2891	-22.94	3.86	0.18
2	SLV 11	213	13	1183	2.87	9.52	-0.09
2	SLV 12	213	13	1183	2.87	9.52	-0.09
2	SLV 13	147	337	1814	-11.54	0.26	0.14
2	SLV 14	147	337	1814	-11.54	0.26	0.14
2	SLV 15	119	145	1302	-3.8	1.96	0.06
2	SLV 16	119	145	1302	-3.8	1.96	0.06
3	SLU 1	285	3	1486	-0.96	15.71	-0.01
3	SLU 2	288	2	1469	-0.66	15.77	-0.01
3	SLU 3	285	3	1486	-0.96	15.71	-0.01
3	SLU 4	287	3	1475	-0.78	15.75	-0.01
3	SLU 5	288	2	1469	-0.66	15.77	-0.01
3	SLU 6	285	3	1486	-0.96	15.71	-0.01
3	SLU 7	287	3	1475	-0.78	15.75	-0.01
3	SLU 8	285	3	1486	-0.96	15.71	-0.01
3	SLU 9	287	3	1475	-0.78	15.75	-0.01
3	SLU 10	401	3	1759	-0.83	21.4	-0.01
3	SLU 11	398	3	1776	-1.13	21.34	-0.01
3	SLU 12	400	3	1765	-0.95	21.38	-0.01
3	SLU 13	401	3	1759	-0.83	21.4	-0.01
3	SLU 14	398	3	1776	-1.13	21.34	-0.01
3	SLU 15	400	3	1765	-0.95	21.38	-0.01
3	SLU 16	398	3	1776	-1.13	21.34	-0.01
3	SLU 17	400	3	1765	-0.95	21.38	-0.01
3	SLU 18	446	4	1900	-1.2	23.76	-0.01
3	SLU 19	449	3	1890	-1.02	23.79	-0.01
3	SLU 20	446	4	1900	-1.2	23.76	-0.01
3	SLU 21	449	3	1890	-1.02	23.79	-0.01
3	SLU 22	327	3	1627	-1.06	17.93	-0.01
3	SLU 23	330	3	1610	-0.76	17.99	-0.01
3	SLU 24	327	3	1627	-1.06	17.93	-0.01
3	SLU 25	329	3	1616	-0.88	17.97	-0.01
3	SLU 26	330	3	1610	-0.76	17.99	-0.01
3	SLU 27	327	3	1627	-1.06	17.93	-0.01
3	SLU 28	329	3	1616	-0.88	17.97	-0.01
3	SLU 29	327	3	1627	-1.06	17.93	-0.01
3	SLU 30	329	3	1616	-0.88	17.97	-0.01
3	SLU 31	443	3	1900	-0.93	23.62	-0.01
3	SLU 32	440	4	1917	-1.23	23.56	-0.01
3	SLU 33	442	3	1907	-1.05	23.6	-0.01
3	SLU 34	443	3	1900	-0.93	23.62	-0.01
3	SLU 35	440	4	1917	-1.23	23.56	-0.01
3	SLU 36	442	3	1907	-1.05	23.6	-0.01
3	SLU 37	440	4	1917	-1.23	23.56	-0.01
3	SLU 38	442	3	1907	-1.05	23.6	-0.01
3	SLU 39	488	4	2041	-1.3	25.98	-0.01
3	SLU 40	490	4	2031	-1.12	26.01	-0.01
3	SLU 41	488	4	2041	-1.3	25.98	-0.01
3	SLU 42	490	4	2031	-1.12	26.01	-0.01
3	SLU 43	356	4	1883	-1.22	19.67	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
3	SLU 44	360	3	1866	-0.91	19.73	-0.01
3	SLU 45	356	4	1883	-1.22	19.67	-0.01
3	SLU 46	358	3	1873	-1.03	19.7	-0.01
3	SLU 47	360	3	1866	-0.91	19.73	-0.01
3	SLU 48	356	4	1883	-1.22	19.67	-0.01
3	SLU 49	358	3	1873	-1.03	19.7	-0.01
3	SLU 50	356	4	1883	-1.22	19.67	-0.01
3	SLU 51	358	3	1873	-1.03	19.7	-0.01
3	SLU 52	473	4	2156	-1.08	25.36	-0.02
3	SLU 53	469	4	2173	-1.38	25.3	-0.02
3	SLU 54	471	4	2163	-1.2	25.33	-0.02
3	SLU 55	473	4	2156	-1.08	25.36	-0.02
3	SLU 56	469	4	2173	-1.38	25.3	-0.02
3	SLU 57	471	4	2163	-1.2	25.33	-0.02
3	SLU 58	469	4	2173	-1.38	25.3	-0.02
3	SLU 59	471	4	2163	-1.2	25.33	-0.02
3	SLU 60	518	4	2297	-1.45	27.71	-0.02
3	SLU 61	520	4	2287	-1.27	27.75	-0.02
3	SLU 62	518	4	2297	-1.45	27.71	-0.02
3	SLU 63	520	4	2287	-1.27	27.75	-0.02
3	SLU 64	398	4	2024	-1.32	21.89	-0.01
3	SLU 65	401	3	2007	-1.01	21.95	-0.01
3	SLU 66	398	4	2024	-1.32	21.89	-0.01
3	SLU 67	400	4	2014	-1.14	21.92	-0.01
3	SLU 68	401	3	2007	-1.01	21.95	-0.01
3	SLU 69	398	4	2024	-1.32	21.89	-0.01
3	SLU 70	400	4	2014	-1.14	21.92	-0.01
3	SLU 71	398	4	2024	-1.32	21.89	-0.01
3	SLU 72	400	4	2014	-1.14	21.92	-0.01
3	SLU 73	514	4	2297	-1.18	27.58	-0.02
3	SLU 74	511	4	2314	-1.48	27.52	-0.02
3	SLU 75	513	4	2304	-1.3	27.55	-0.02
3	SLU 76	514	4	2297	-1.18	27.58	-0.02
3	SLU 77	511	4	2314	-1.48	27.52	-0.02
3	SLU 78	513	4	2304	-1.3	27.55	-0.02
3	SLU 79	511	4	2314	-1.48	27.52	-0.02
3	SLU 80	513	4	2304	-1.3	27.55	-0.02
3	SLU 81	559	5	2439	-1.56	29.93	-0.02
3	SLU 82	561	4	2428	-1.37	29.97	-0.02
3	SLU 83	559	5	2439	-1.56	29.93	-0.02
3	SLU 84	561	4	2428	-1.37	29.97	-0.02
3	SLE RA 1	297	3	1526	-0.99	16.35	-0.01
3	SLE RA 2	299	3	1515	-0.79	16.39	-0.01
3	SLE RA 3	297	3	1526	-0.99	16.35	-0.01
3	SLE RA 4	298	3	1519	-0.87	16.37	-0.01
3	SLE RA 5	299	3	1515	-0.79	16.39	-0.01
3	SLE RA 6	297	3	1526	-0.99	16.35	-0.01
3	SLE RA 7	298	3	1519	-0.87	16.37	-0.01
3	SLE RA 8	297	3	1526	-0.99	16.35	-0.01
3	SLE RA 9	298	3	1519	-0.87	16.37	-0.01
3	SLE RA 10	375	3	1708	-0.9	20.14	-0.01
3	SLE RA 11	372	3	1719	-1.1	20.1	-0.01
3	SLE RA 12	374	3	1713	-0.98	20.13	-0.01
3	SLE RA 13	375	3	1708	-0.9	20.14	-0.01
3	SLE RA 14	372	3	1719	-1.1	20.1	-0.01
3	SLE RA 15	374	3	1713	-0.98	20.13	-0.01
3	SLE RA 16	372	3	1719	-1.1	20.1	-0.01
3	SLE RA 17	374	3	1713	-0.98	20.13	-0.01
3	SLE RA 18	405	3	1802	-1.15	21.71	-0.01
3	SLE RA 19	406	3	1795	-1.03	21.73	-0.01
3	SLE RA 20	405	3	1802	-1.15	21.71	-0.01
3	SLE RA 21	406	3	1795	-1.03	21.73	-0.01
3	SLE FR 1	297	3	1526	-0.99	16.35	-0.01
3	SLE FR 2	297	3	1524	-0.95	16.36	-0.01
3	SLE FR 3	297	3	1526	-0.99	16.35	-0.01
3	SLE FR 4	330	3	1607	-1	17.97	-0.01
3	SLE FR 5	329	3	1609	-1.04	17.96	-0.01
3	SLE FR 6	351	3	1664	-1.07	19.03	-0.01
3	SLE QP 1	297	3	1526	-0.99	16.35	-0.01
3	SLE QP 2	329	3	1609	-1.04	17.96	-0.01
3	SLD 1	469	-11	1811	6.18	24.23	-0.04
3	SLD 2	469	-11	1811	6.18	24.23	-0.04
3	SLD 3	430	-15	1693	10.28	23.1	-0.04
3	SLD 4	430	-15	1693	10.28	23.1	-0.04
3	SLD 5	430	5	1848	-5.1	21.56	-0.03
3	SLD 6	430	5	1848	-5.1	21.56	-0.03
3	SLD 7	301	-8	1456	8.58	17.78	-0.01
3	SLD 8	301	-8	1456	8.58	17.78	-0.01
3	SLD 9	358	14	1762	-10.66	18.13	-0.01
3	SLD 10	358	14	1762	-10.66	18.13	-0.01
3	SLD 11	229	1	1370	3.02	14.36	0.01
3	SLD 12	229	1	1370	3.02	14.36	0.01
3	SLD 13	229	21	1525	-12.36	12.82	0.02
3	SLD 14	229	21	1525	-12.36	12.82	0.02
3	SLD 15	190	17	1407	-8.26	11.68	0.02
3	SLD 16	190	17	1407	-8.26	11.68	0.02
3	SLV 1	657	-33	2093	17.42	32.72	-0.09
3	SLV 2	657	-33	2093	17.42	32.72	-0.09
3	SLV 3	566	-43	1815	27.97	30.02	-0.08



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
3	SLV 4	566	-43	1815	27.97	30.02	-0.08
3	SLV 5	567	8	2176	-11.5	26.48	-0.06
3	SLV 6	567	8	2176	-11.5	26.48	-0.06
3	SLV 7	261	-26	1249	23.67	17.48	0
3	SLV 8	261	-26	1249	23.67	17.48	0
3	SLV 9	398	32	1969	-25.75	18.43	-0.02
3	SLV 10	398	32	1969	-25.75	18.43	-0.02
3	SLV 11	91	-1	1042	9.43	9.43	0.04
3	SLV 12	91	-1	1042	9.43	9.43	0.04
3	SLV 13	93	49	1403	-30.05	5.89	0.05
3	SLV 14	93	49	1403	-30.05	5.89	0.05
3	SLV 15	1	39	1125	-19.5	3.19	0.07
3	SLV 16	1	39	1125	-19.5	3.19	0.07
4	SLU 1	278	0	1276	-0.42	11	0
4	SLU 2	280	0	1267	0.06	11.1	0
4	SLU 3	278	0	1276	-0.42	11	0
4	SLU 4	279	0	1271	-0.13	11.06	0
4	SLU 5	280	0	1267	0.06	11.1	0
4	SLU 6	278	0	1276	-0.42	11	0
4	SLU 7	279	0	1271	-0.13	11.06	0
4	SLU 8	278	0	1276	-0.42	11	0
4	SLU 9	279	0	1271	-0.13	11.06	0
4	SLU 10	399	0	1501	-0.03	16.05	0.01
4	SLU 11	397	0	1511	-0.51	15.95	0.01
4	SLU 12	398	0	1505	-0.22	16.01	0.01
4	SLU 13	399	0	1501	-0.03	16.05	0.01
4	SLU 14	397	0	1511	-0.51	15.95	0.01
4	SLU 15	398	0	1505	-0.22	16.01	0.01
4	SLU 16	397	0	1511	-0.51	15.95	0.01
4	SLU 17	398	0	1505	-0.22	16.01	0.01
4	SLU 18	448	0	1611	-0.55	18.07	0.01
4	SLU 19	449	0	1606	-0.26	18.13	0.01
4	SLU 20	448	0	1611	-0.55	18.07	0.01
4	SLU 21	449	0	1606	-0.26	18.13	0.01
4	SLU 22	323	0	1384	-0.47	12.89	0.01
4	SLU 23	326	0	1375	0.01	12.99	0
4	SLU 24	323	0	1384	-0.47	12.89	0.01
4	SLU 25	325	0	1379	-0.18	12.95	0
4	SLU 26	326	0	1375	0.01	12.99	0
4	SLU 27	323	0	1384	-0.47	12.89	0.01
4	SLU 28	325	0	1379	-0.18	12.95	0
4	SLU 29	323	0	1384	-0.47	12.89	0.01
4	SLU 30	325	0	1379	-0.18	12.95	0
4	SLU 31	445	0	1610	-0.08	17.94	0.01
4	SLU 32	442	0	1619	-0.56	17.85	0.01
4	SLU 33	444	0	1613	-0.27	17.9	0.01
4	SLU 34	445	0	1610	-0.08	17.94	0.01
4	SLU 35	442	0	1619	-0.56	17.85	0.01
4	SLU 36	444	0	1613	-0.27	17.9	0.01
4	SLU 37	442	0	1619	-0.56	17.85	0.01
4	SLU 38	444	0	1613	-0.27	17.9	0.01
4	SLU 39	493	1	1719	-0.6	19.97	0.01
4	SLU 40	495	0	1714	-0.31	20.02	0.01
4	SLU 41	493	1	1719	-0.6	19.97	0.01
4	SLU 42	495	0	1714	-0.31	20.02	0.01
4	SLU 43	346	0	1622	-0.53	13.65	0.01
4	SLU 44	348	0	1613	-0.05	13.75	0.01
4	SLU 45	346	0	1622	-0.53	13.65	0.01
4	SLU 46	347	0	1616	-0.24	13.71	0.01
4	SLU 47	348	0	1613	-0.05	13.75	0.01
4	SLU 48	346	0	1622	-0.53	13.65	0.01
4	SLU 49	347	0	1616	-0.24	13.71	0.01
4	SLU 50	346	0	1622	-0.53	13.65	0.01
4	SLU 51	347	0	1616	-0.24	13.71	0.01
4	SLU 52	467	0	1847	-0.14	18.7	0.01
4	SLU 53	465	1	1856	-0.62	18.6	0.01
4	SLU 54	466	0	1851	-0.33	18.66	0.01
4	SLU 55	467	0	1847	-0.14	18.7	0.01
4	SLU 56	465	1	1856	-0.62	18.6	0.01
4	SLU 57	466	0	1851	-0.33	18.66	0.01
4	SLU 58	465	1	1856	-0.62	18.6	0.01
4	SLU 59	466	0	1851	-0.33	18.66	0.01
4	SLU 60	516	1	1957	-0.66	20.72	0.01
4	SLU 61	517	0	1951	-0.37	20.78	0.01
4	SLU 62	516	1	1957	-0.66	20.72	0.01
4	SLU 63	517	0	1951	-0.37	20.78	0.01
4	SLU 64	391	0	1730	-0.58	15.55	0.01
4	SLU 65	393	0	1721	-0.1	15.64	0.01
4	SLU 66	391	0	1730	-0.58	15.55	0.01
4	SLU 67	392	0	1725	-0.29	15.6	0.01
4	SLU 68	393	0	1721	-0.1	15.64	0.01
4	SLU 69	391	0	1730	-0.58	15.55	0.01
4	SLU 70	392	0	1725	-0.29	15.6	0.01
4	SLU 71	391	0	1730	-0.58	15.55	0.01
4	SLU 72	392	0	1725	-0.29	15.6	0.01
4	SLU 73	512	0	1955	-0.19	20.59	0.01
4	SLU 74	510	1	1965	-0.67	20.5	0.01
4	SLU 75	511	0	1959	-0.38	20.55	0.01
4	SLU 76	512	0	1955	-0.19	20.59	0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
4	SLU 77	510	1	1965	-0.67	20.5	0.01
4	SLU 78	511	0	1959	-0.38	20.55	0.01
4	SLU 79	510	1	1965	-0.67	20.5	0.01
4	SLU 80	511	0	1959	-0.38	20.55	0.01
4	SLU 81	561	1	2065	-0.71	22.62	0.01
4	SLU 82	562	0	2060	-0.42	22.67	0.01
4	SLU 83	561	1	2065	-0.71	22.62	0.01
4	SLU 84	562	0	2060	-0.42	22.67	0.01
4	SLE RA 1	291	0	1307	-0.44	11.54	0
4	SLE RA 2	292	0	1301	-0.11	11.6	0
4	SLE RA 3	291	0	1307	-0.44	11.54	0
4	SLE RA 4	292	0	1303	-0.24	11.58	0
4	SLE RA 5	292	0	1301	-0.11	11.6	0
4	SLE RA 6	291	0	1307	-0.44	11.54	0
4	SLE RA 7	292	0	1303	-0.24	11.58	0
4	SLE RA 8	291	0	1307	-0.44	11.54	0
4	SLE RA 9	292	0	1303	-0.24	11.58	0
4	SLE RA 10	372	0	1457	-0.17	14.91	0.01
4	SLE RA 11	370	0	1463	-0.49	14.84	0.01
4	SLE RA 12	371	0	1460	-0.3	14.88	0.01
4	SLE RA 13	372	0	1457	-0.17	14.91	0.01
4	SLE RA 14	370	0	1463	-0.49	14.84	0.01
4	SLE RA 15	371	0	1460	-0.3	14.88	0.01
4	SLE RA 16	370	0	1463	-0.49	14.84	0.01
4	SLE RA 17	371	0	1460	-0.3	14.88	0.01
4	SLE RA 18	404	0	1530	-0.52	16.26	0.01
4	SLE RA 19	405	0	1527	-0.33	16.29	0.01
4	SLE RA 20	404	0	1530	-0.52	16.26	0.01
4	SLE RA 21	405	0	1527	-0.33	16.29	0.01
4	SLE FR 1	291	0	1307	-0.44	11.54	0
4	SLE FR 2	291	0	1306	-0.37	11.55	0
4	SLE FR 3	291	0	1307	-0.44	11.54	0
4	SLE FR 4	325	0	1373	-0.4	12.97	0.01
4	SLE FR 5	325	0	1374	-0.46	12.96	0.01
4	SLE FR 6	347	0	1419	-0.48	13.9	0.01
4	SLE QP 1	291	0	1307	-0.44	11.54	0
4	SLE QP 2	325	0	1374	-0.46	12.96	0.01
4	SLD 1	478	-18	1456	12.35	19.7	-0.01
4	SLD 2	478	-18	1456	12.35	19.7	-0.01
4	SLD 3	447	-25	1396	20.81	18.5	-0.02
4	SLD 4	447	-25	1396	20.81	18.5	-0.02
4	SLD 5	417	5	1489	-9.44	16.8	0.01
4	SLD 6	417	5	1489	-9.44	16.8	0.01
4	SLD 7	315	-17	1290	18.74	12.8	-0.02
4	SLD 8	315	-17	1290	18.74	12.8	-0.02
4	SLD 9	334	18	1458	-19.67	13.11	0.03
4	SLD 10	334	18	1458	-19.67	13.11	0.03
4	SLD 11	233	-4	1259	8.52	9.11	0
4	SLD 12	233	-4	1259	8.52	9.11	0
4	SLD 13	202	25	1352	-21.73	7.41	0.03
4	SLD 14	202	25	1352	-21.73	7.41	0.03
4	SLD 15	172	19	1292	-13.28	6.21	0.02
4	SLD 16	172	19	1292	-13.28	6.21	0.02
4	SLV 1	685	-47	1570	32.34	28.85	-0.03
4	SLV 2	685	-47	1570	32.34	28.85	-0.03
4	SLV 3	612	-63	1430	54.05	26	-0.05
4	SLV 4	612	-63	1430	54.05	26	-0.05
4	SLV 5	542	11	1646	-23.56	22.04	0.03
4	SLV 6	542	11	1646	-23.56	22.04	0.03
4	SLV 7	301	-44	1177	48.83	12.55	-0.05
4	SLV 8	301	-44	1177	48.83	12.55	-0.05
4	SLV 9	348	45	1571	-49.75	13.36	0.06
4	SLV 10	348	45	1571	-49.75	13.36	0.06
4	SLV 11	107	-11	1102	22.64	3.87	-0.02
4	SLV 12	107	-11	1102	22.64	3.87	-0.02
4	SLV 13	37	64	1319	-54.98	-0.09	0.07
4	SLV 14	37	64	1319	-54.98	-0.09	0.07
4	SLV 15	-35	48	1178	-33.26	-2.94	0.04
4	SLV 16	-35	48	1178	-33.26	-2.94	0.04
5	SLU 1	308	0	1256	-0.21	14.28	0
5	SLU 2	309	-1	1250	0.37	14.32	0
5	SLU 3	308	0	1256	-0.21	14.28	0
5	SLU 4	309	0	1253	0.14	14.3	0
5	SLU 5	309	-1	1250	0.37	14.32	0
5	SLU 6	308	0	1256	-0.21	14.28	0
5	SLU 7	309	0	1253	0.14	14.3	0
5	SLU 8	308	0	1256	-0.21	14.28	0
5	SLU 9	309	0	1253	0.14	14.3	0
5	SLU 10	441	0	1484	0.32	20.12	0
5	SLU 11	440	0	1490	-0.27	20.08	0
5	SLU 12	441	0	1486	0.08	20.1	0
5	SLU 13	441	0	1484	0.32	20.12	0
5	SLU 14	440	0	1490	-0.27	20.08	0
5	SLU 15	441	0	1486	0.08	20.1	0
5	SLU 16	440	0	1490	-0.27	20.08	0
5	SLU 17	441	0	1486	0.08	20.1	0
5	SLU 18	496	0	1590	-0.29	22.56	0
5	SLU 19	497	0	1586	0.06	22.59	0
5	SLU 20	496	0	1590	-0.29	22.56	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
5	SLU 21	497	0	1586	0.06	22.59	0
5	SLU 22	360	0	1359	-0.24	16.61	0
5	SLU 23	361	-1	1354	0.35	16.65	0
5	SLU 24	360	0	1359	-0.24	16.61	0
5	SLU 25	361	0	1356	0.11	16.63	0
5	SLU 26	361	-1	1354	0.35	16.65	0
5	SLU 27	360	0	1359	-0.24	16.61	0
5	SLU 28	361	0	1356	0.11	16.63	0
5	SLU 29	360	0	1359	-0.24	16.61	0
5	SLU 30	361	0	1356	0.11	16.63	0
5	SLU 31	493	0	1587	0.29	22.45	0
5	SLU 32	492	0	1593	-0.29	22.41	0
5	SLU 33	493	0	1589	0.06	22.43	0
5	SLU 34	493	0	1587	0.29	22.45	0
5	SLU 35	492	0	1593	-0.29	22.41	0
5	SLU 36	493	0	1589	0.06	22.43	0
5	SLU 37	492	0	1593	-0.29	22.41	0
5	SLU 38	493	0	1589	0.06	22.43	0
5	SLU 39	548	0	1693	-0.32	24.89	0
5	SLU 40	549	0	1689	0.03	24.92	0
5	SLU 41	548	0	1693	-0.32	24.89	0
5	SLU 42	549	0	1689	0.03	24.92	0
5	SLU 43	382	0	1598	-0.26	17.76	0
5	SLU 44	384	-1	1592	0.32	17.8	0
5	SLU 45	382	0	1598	-0.26	17.76	0
5	SLU 46	383	0	1594	0.09	17.79	0
5	SLU 47	384	-1	1592	0.32	17.8	0
5	SLU 48	382	0	1598	-0.26	17.76	0
5	SLU 49	383	0	1594	0.09	17.79	0
5	SLU 50	382	0	1598	-0.26	17.76	0
5	SLU 51	383	0	1594	0.09	17.79	0
5	SLU 52	516	0	1825	0.27	23.6	0
5	SLU 53	514	0	1831	-0.32	23.56	0
5	SLU 54	515	0	1828	0.03	23.59	0
5	SLU 55	516	0	1825	0.27	23.6	0
5	SLU 56	514	0	1831	-0.32	23.56	0
5	SLU 57	515	0	1828	0.03	23.59	0
5	SLU 58	514	0	1831	-0.32	23.56	0
5	SLU 59	515	0	1828	0.03	23.59	0
5	SLU 60	571	0	1931	-0.34	26.05	0
5	SLU 61	572	0	1928	0.01	26.07	0
5	SLU 62	571	0	1931	-0.34	26.05	0
5	SLU 63	572	0	1928	0.01	26.07	0
5	SLU 64	434	0	1701	-0.29	20.09	0
5	SLU 65	436	0	1695	0.29	20.13	0
5	SLU 66	434	0	1701	-0.29	20.09	0
5	SLU 67	435	0	1697	0.06	20.12	0
5	SLU 68	436	0	1695	0.29	20.13	0
5	SLU 69	434	0	1701	-0.29	20.09	0
5	SLU 70	435	0	1697	0.06	20.12	0
5	SLU 71	434	0	1701	-0.29	20.09	0
5	SLU 72	435	0	1697	0.06	20.12	0
5	SLU 73	568	0	1929	0.24	25.93	0
5	SLU 74	566	0	1934	-0.35	25.89	0
5	SLU 75	567	0	1931	0	25.92	0
5	SLU 76	568	0	1929	0.24	25.93	0
5	SLU 77	566	0	1934	-0.35	25.89	0
5	SLU 78	567	0	1931	0	25.92	0
5	SLU 79	566	0	1934	-0.35	25.89	0
5	SLU 80	567	0	1931	0	25.92	0
5	SLU 81	623	0	2034	-0.37	28.38	0
5	SLU 82	624	0	2031	-0.02	28.4	0
5	SLU 83	623	0	2034	-0.37	28.38	0
5	SLU 84	624	0	2031	-0.02	28.4	0
5	SLE RA 1	323	0	1286	-0.22	14.94	0
5	SLE RA 2	324	0	1282	0.17	14.97	0
5	SLE RA 3	323	0	1286	-0.22	14.94	0
5	SLE RA 4	323	0	1283	0.02	14.96	0
5	SLE RA 5	324	0	1282	0.17	14.97	0
5	SLE RA 6	323	0	1286	-0.22	14.94	0
5	SLE RA 7	323	0	1283	0.02	14.96	0
5	SLE RA 8	323	0	1286	-0.22	14.94	0
5	SLE RA 9	323	0	1283	0.02	14.96	0
5	SLE RA 10	412	0	1438	0.13	18.84	0
5	SLE RA 11	410	0	1441	-0.26	18.81	0
5	SLE RA 12	411	0	1439	-0.02	18.83	0
5	SLE RA 13	412	0	1438	0.13	18.84	0
5	SLE RA 14	410	0	1441	-0.26	18.81	0
5	SLE RA 15	411	0	1439	-0.02	18.83	0
5	SLE RA 16	410	0	1441	-0.26	18.81	0
5	SLE RA 17	411	0	1439	-0.02	18.83	0
5	SLE RA 18	448	0	1508	-0.27	20.47	0
5	SLE RA 19	449	0	1506	-0.04	20.48	0
5	SLE RA 20	448	0	1508	-0.27	20.47	0
5	SLE RA 21	449	0	1506	-0.04	20.48	0
5	SLE FR 1	323	0	1286	-0.22	14.94	0
5	SLE FR 2	323	0	1285	-0.14	14.95	0
5	SLE FR 3	323	0	1286	-0.22	14.94	0
5	SLE FR 4	360	0	1352	-0.16	16.61	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
5	SLE FR 5	360	0	1352	-0.23	16.6	0
5	SLE FR 6	385	0	1397	-0.24	17.71	0
5	SLE QP 1	323	0	1286	-0.22	14.94	0
5	SLE QP 2	360	0	1352	-0.23	16.6	0
5	SLD 1	527	-18	1387	16.88	23.76	-0.02
5	SLD 2	527	-18	1387	16.88	23.76	-0.02
5	SLD 3	503	-28	1352	29.8	22.84	-0.03
5	SLD 4	503	-28	1352	29.8	22.84	-0.03
5	SLD 5	447	11	1415	-14.69	20.15	0.01
5	SLD 6	447	11	1415	-14.69	20.15	0.01
5	SLD 7	366	-24	1300	28.36	17.08	-0.02
5	SLD 8	366	-24	1300	28.36	17.08	-0.02
5	SLD 9	354	24	1405	-28.83	16.13	0.03
5	SLD 10	354	24	1405	-28.83	16.13	0.03
5	SLD 11	273	-10	1289	14.22	13.05	-0.01
5	SLD 12	273	-10	1289	14.22	13.05	-0.01
5	SLD 13	217	28	1352	-30.27	10.36	0.03
5	SLD 14	217	28	1352	-30.27	10.36	0.03
5	SLD 15	193	18	1318	-17.35	9.44	0.02
5	SLD 16	193	18	1318	-17.35	9.44	0.02
5	SLV 1	754	-46	1436	43.58	33.5	-0.05
5	SLV 2	754	-46	1436	43.58	33.5	-0.05
5	SLV 3	696	-71	1354	76.73	31.3	-0.08
5	SLV 4	696	-71	1354	76.73	31.3	-0.08
5	SLV 5	566	26	1502	-37.37	25.01	0.02
5	SLV 6	566	26	1502	-37.37	25.01	0.02
5	SLV 7	373	-61	1228	73.14	17.67	-0.06
5	SLV 8	373	-61	1228	73.14	17.67	-0.06
5	SLV 9	347	61	1477	-73.61	15.53	0.06
5	SLV 10	347	61	1477	-73.61	15.53	0.06
5	SLV 11	154	-25	1202	36.9	8.19	-0.02
5	SLV 12	154	-25	1202	36.9	8.19	-0.02
5	SLV 13	24	72	1351	-77.2	1.9	0.08
5	SLV 14	24	72	1351	-77.2	1.9	0.08
5	SLV 15	-34	46	1268	-44.05	-0.3	0.05
5	SLV 16	-34	46	1268	-44.05	-0.3	0.05
6	SLU 1	292	0	1305	-0.11	11.28	0
6	SLU 2	293	-1	1301	0.5	11.33	0
6	SLU 3	292	0	1305	-0.11	11.28	0
6	SLU 4	293	0	1302	0.26	11.31	0
6	SLU 5	293	-1	1301	0.5	11.33	0
6	SLU 6	292	0	1305	-0.11	11.28	0
6	SLU 7	293	0	1302	0.26	11.31	0
6	SLU 8	292	0	1305	-0.11	11.28	0
6	SLU 9	293	0	1302	0.26	11.31	0
6	SLU 10	428	-1	1561	0.46	16.81	0
6	SLU 11	427	0	1565	-0.15	16.75	0
6	SLU 12	428	0	1563	0.22	16.79	0
6	SLU 13	428	-1	1561	0.46	16.81	0
6	SLU 14	427	0	1565	-0.15	16.75	0
6	SLU 15	428	0	1563	0.22	16.79	0
6	SLU 16	427	0	1565	-0.15	16.75	0
6	SLU 17	428	0	1563	0.22	16.79	0
6	SLU 18	485	0	1677	-0.17	19.1	0
6	SLU 19	486	0	1674	0.2	19.13	0
6	SLU 20	485	0	1677	-0.17	19.1	0
6	SLU 21	486	0	1674	0.2	19.13	0
6	SLU 22	346	0	1416	-0.13	13.45	0
6	SLU 23	347	-1	1412	0.49	13.51	0
6	SLU 24	346	0	1416	-0.13	13.45	0
6	SLU 25	347	0	1414	0.24	13.49	0
6	SLU 26	347	-1	1412	0.49	13.51	0
6	SLU 27	346	0	1416	-0.13	13.45	0
6	SLU 28	347	0	1414	0.24	13.49	0
6	SLU 29	346	0	1416	-0.13	13.45	0
6	SLU 30	347	0	1414	0.24	13.49	0
6	SLU 31	482	-1	1672	0.45	18.98	0
6	SLU 32	481	0	1676	-0.17	18.93	0
6	SLU 33	482	0	1674	0.2	18.96	0
6	SLU 34	482	-1	1672	0.45	18.98	0
6	SLU 35	481	0	1676	-0.17	18.93	0
6	SLU 36	482	0	1674	0.2	18.96	0
6	SLU 37	481	0	1676	-0.17	18.93	0
6	SLU 38	482	0	1674	0.2	18.96	0
6	SLU 39	539	0	1788	-0.19	21.27	0
6	SLU 40	539	0	1785	0.18	21.31	0
6	SLU 41	539	0	1788	-0.19	21.27	0
6	SLU 42	539	0	1785	0.18	21.31	0
6	SLU 43	361	0	1658	-0.14	13.91	0
6	SLU 44	362	-1	1654	0.48	13.97	0
6	SLU 45	361	0	1658	-0.14	13.91	0
6	SLU 46	362	0	1656	0.23	13.95	0
6	SLU 47	362	-1	1654	0.48	13.97	0
6	SLU 48	361	0	1658	-0.14	13.91	0
6	SLU 49	362	0	1656	0.23	13.95	0
6	SLU 50	361	0	1658	-0.14	13.91	0
6	SLU 51	362	0	1656	0.23	13.95	0
6	SLU 52	497	-1	1915	0.44	19.44	0
6	SLU 53	496	0	1918	-0.18	19.39	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
6	SLU 54	497	0	1916	0.19	19.42	0
6	SLU 55	497	-1	1915	0.44	19.44	0
6	SLU 56	496	0	1918	-0.18	19.39	0
6	SLU 57	497	0	1916	0.19	19.42	0
6	SLU 58	496	0	1918	-0.18	19.39	0
6	SLU 59	497	0	1916	0.19	19.42	0
6	SLU 60	554	0	2030	-0.2	21.73	0
6	SLU 61	555	0	2028	0.17	21.77	0
6	SLU 62	554	0	2030	-0.2	21.73	0
6	SLU 63	555	0	2028	0.17	21.77	0
6	SLU 64	415	0	1769	-0.16	16.09	0
6	SLU 65	416	-1	1765	0.46	16.15	0
6	SLU 66	415	0	1769	-0.16	16.09	0
6	SLU 67	416	0	1767	0.21	16.12	0
6	SLU 68	416	-1	1765	0.46	16.15	0
6	SLU 69	415	0	1769	-0.16	16.09	0
6	SLU 70	416	0	1767	0.21	16.12	0
6	SLU 71	415	0	1769	-0.16	16.09	0
6	SLU 72	416	0	1767	0.21	16.12	0
6	SLU 73	551	0	2026	0.42	21.62	0
6	SLU 74	550	0	2029	-0.2	21.56	0
6	SLU 75	551	0	2027	0.17	21.6	0
6	SLU 76	551	0	2026	0.42	21.62	0
6	SLU 77	550	0	2029	-0.2	21.56	0
6	SLU 78	551	0	2027	0.17	21.6	0
6	SLU 79	550	0	2029	-0.2	21.56	0
6	SLU 80	551	0	2027	0.17	21.6	0
6	SLU 81	608	0	2141	-0.21	23.91	0
6	SLU 82	609	0	2139	0.16	23.95	0
6	SLU 83	608	0	2141	-0.21	23.91	0
6	SLU 84	609	0	2139	0.16	23.95	0
6	SLE RA 1	307	0	1336	-0.12	11.9	0
6	SLE RA 2	308	0	1334	0.29	11.94	0
6	SLE RA 3	307	0	1336	-0.12	11.9	0
6	SLE RA 4	308	0	1335	0.13	11.92	0
6	SLE RA 5	308	0	1334	0.29	11.94	0
6	SLE RA 6	307	0	1336	-0.12	11.9	0
6	SLE RA 7	308	0	1335	0.13	11.92	0
6	SLE RA 8	307	0	1336	-0.12	11.9	0
6	SLE RA 9	308	0	1335	0.13	11.92	0
6	SLE RA 10	398	0	1508	0.27	15.59	0
6	SLE RA 11	397	0	1510	-0.14	15.55	0
6	SLE RA 12	398	0	1509	0.1	15.57	0
6	SLE RA 13	398	0	1508	0.27	15.59	0
6	SLE RA 14	397	0	1510	-0.14	15.55	0
6	SLE RA 15	398	0	1509	0.1	15.57	0
6	SLE RA 16	397	0	1510	-0.14	15.55	0
6	SLE RA 17	398	0	1509	0.1	15.57	0
6	SLE RA 18	436	0	1584	-0.16	17.11	0
6	SLE RA 19	436	0	1583	0.09	17.14	0
6	SLE RA 20	436	0	1584	-0.16	17.11	0
6	SLE RA 21	436	0	1583	0.09	17.14	0
6	SLE FR 1	307	0	1336	-0.12	11.9	0
6	SLE FR 2	307	0	1336	-0.03	11.91	0
6	SLE FR 3	307	0	1336	-0.12	11.9	0
6	SLE FR 4	346	0	1410	-0.05	13.47	0
6	SLE FR 5	346	0	1411	-0.13	13.46	0
6	SLE FR 6	372	0	1460	-0.14	14.51	0
6	SLE QP 1	307	0	1336	-0.12	11.9	0
6	SLE QP 2	346	0	1411	-0.13	13.46	0
6	SLD 1	524	-18	1435	20.69	21.15	0.04
6	SLD 2	524	-18	1435	20.69	21.15	0.04
6	SLD 3	502	-32	1414	37.65	20.19	0.03
6	SLD 4	502	-32	1414	37.65	20.19	0.03
6	SLD 5	433	16	1451	-19.6	17.23	0.02
6	SLD 6	433	16	1451	-19.6	17.23	0.02
6	SLD 7	359	-31	1379	36.92	14.02	0
6	SLD 8	359	-31	1379	36.92	14.02	0
6	SLD 9	333	31	1442	-37.18	12.91	0
6	SLD 10	333	31	1442	-37.18	12.91	0
6	SLD 11	258	-16	1371	19.34	9.69	-0.02
6	SLD 12	258	-16	1371	19.34	9.69	-0.02
6	SLD 13	190	32	1408	-37.91	6.74	-0.03
6	SLD 14	190	32	1408	-37.91	6.74	-0.03
6	SLD 15	168	18	1386	-20.95	5.77	-0.04
6	SLD 16	168	18	1386	-20.95	5.77	-0.04
6	SLV 1	767	-46	1471	53.17	31.62	0.08
6	SLV 2	767	-46	1471	53.17	31.62	0.08
6	SLV 3	713	-82	1420	96.71	29.31	0.07
6	SLV 4	713	-82	1420	96.71	29.31	0.07
6	SLV 5	553	40	1506	-50.17	22.41	0.04
6	SLV 6	553	40	1506	-50.17	22.41	0.04
6	SLV 7	375	-78	1336	94.96	14.72	0.01
6	SLV 8	375	-78	1336	94.96	14.72	0.01
6	SLV 9	317	79	1485	-95.21	12.2	0
6	SLV 10	317	79	1485	-95.21	12.2	0
6	SLV 11	138	-40	1316	49.92	4.52	-0.04
6	SLV 12	138	-40	1316	49.92	4.52	-0.04
6	SLV 13	-22	82	1402	-96.97	-2.39	-0.07





Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
6	SLV 14	-22	82	1402	-96.97	-2.39	-0.07
6	SLV 15	-75	46	1351	-53.43	-4.7	-0.08
6	SLV 16	-75	46	1351	-53.43	-4.7	-0.08
7	SLU 1	303	0	1395	-0.05	13.29	0
7	SLU 2	304	-1	1392	0.54	13.31	0
7	SLU 3	303	0	1395	-0.05	13.29	0
7	SLU 4	303	0	1393	0.31	13.3	0
7	SLU 5	304	-1	1392	0.54	13.31	0
7	SLU 6	303	0	1395	-0.05	13.29	0
7	SLU 7	303	0	1393	0.31	13.3	0
7	SLU 8	303	0	1395	-0.05	13.29	0
7	SLU 9	303	0	1393	0.31	13.3	0
7	SLU 10	441	0	1699	0.51	19.06	0
7	SLU 11	440	0	1701	-0.08	19.04	0
7	SLU 12	440	0	1700	0.28	19.05	0
7	SLU 13	441	0	1699	0.51	19.06	0
7	SLU 14	440	0	1701	-0.08	19.04	0
7	SLU 15	440	0	1700	0.28	19.05	0
7	SLU 16	440	0	1701	-0.08	19.04	0
7	SLU 17	440	0	1700	0.28	19.05	0
7	SLU 18	499	0	1833	-0.09	21.51	0
7	SLU 19	499	0	1831	0.26	21.52	0
7	SLU 20	499	0	1833	-0.09	21.51	0
7	SLU 21	499	0	1831	0.26	21.52	0
7	SLU 22	359	0	1523	-0.06	15.66	0
7	SLU 23	359	0	1521	0.53	15.67	0
7	SLU 24	359	0	1523	-0.06	15.66	0
7	SLU 25	359	0	1522	0.3	15.67	0
7	SLU 26	359	0	1521	0.53	15.67	0
7	SLU 27	359	0	1523	-0.06	15.66	0
7	SLU 28	359	0	1522	0.3	15.67	0
7	SLU 29	359	0	1523	-0.06	15.66	0
7	SLU 30	359	0	1522	0.3	15.67	0
7	SLU 31	496	0	1827	0.51	21.43	0
7	SLU 32	496	0	1829	-0.09	21.41	0
7	SLU 33	496	0	1828	0.27	21.42	0
7	SLU 34	496	0	1827	0.51	21.43	0
7	SLU 35	496	0	1829	-0.09	21.41	0
7	SLU 36	496	0	1828	0.27	21.42	0
7	SLU 37	496	0	1829	-0.09	21.41	0
7	SLU 38	496	0	1828	0.27	21.42	0
7	SLU 39	554	0	1961	-0.1	23.87	0
7	SLU 40	555	0	1959	0.26	23.88	0
7	SLU 41	554	0	1961	-0.1	23.87	0
7	SLU 42	555	0	1959	0.26	23.88	0
7	SLU 43	375	0	1770	-0.06	16.47	0
7	SLU 44	376	-1	1767	0.53	16.49	0
7	SLU 45	375	0	1770	-0.06	16.47	0
7	SLU 46	375	0	1768	0.29	16.48	0
7	SLU 47	376	-1	1767	0.53	16.49	0
7	SLU 48	375	0	1770	-0.06	16.47	0
7	SLU 49	375	0	1768	0.29	16.48	0
7	SLU 50	375	0	1770	-0.06	16.47	0
7	SLU 51	375	0	1768	0.29	16.48	0
7	SLU 52	512	0	2074	0.5	22.24	0
7	SLU 53	512	0	2076	-0.09	22.22	0
7	SLU 54	512	0	2075	0.26	22.23	0
7	SLU 55	512	0	2074	0.5	22.24	0
7	SLU 56	512	0	2076	-0.09	22.22	0
7	SLU 57	512	0	2075	0.26	22.23	0
7	SLU 58	512	0	2076	-0.09	22.22	0
7	SLU 59	512	0	2075	0.26	22.23	0
7	SLU 60	570	0	2207	-0.1	24.69	0
7	SLU 61	571	0	2206	0.25	24.7	0
7	SLU 62	570	0	2207	-0.1	24.69	0
7	SLU 63	571	0	2206	0.25	24.7	0
7	SLU 64	431	0	1898	-0.07	18.83	0
7	SLU 65	431	0	1895	0.52	18.85	0
7	SLU 66	431	0	1898	-0.07	18.83	0
7	SLU 67	431	0	1896	0.28	18.84	0
7	SLU 68	431	0	1895	0.52	18.85	0
7	SLU 69	431	0	1898	-0.07	18.83	0
7	SLU 70	431	0	1896	0.28	18.84	0
7	SLU 71	431	0	1898	-0.07	18.83	0
7	SLU 72	431	0	1896	0.28	18.84	0
7	SLU 73	568	0	2202	0.49	24.6	0
7	SLU 74	567	0	2204	-0.1	24.59	0
7	SLU 75	568	0	2203	0.26	24.6	0
7	SLU 76	568	0	2202	0.49	24.6	0
7	SLU 77	567	0	2204	-0.1	24.59	0
7	SLU 78	568	0	2203	0.26	24.6	0
7	SLU 79	567	0	2204	-0.1	24.59	0
7	SLU 80	568	0	2203	0.26	24.6	0
7	SLU 81	626	0	2335	-0.11	27.05	0
7	SLU 82	627	0	2334	0.24	27.06	0
7	SLU 83	626	0	2335	-0.11	27.05	0
7	SLU 84	627	0	2334	0.24	27.06	0
7	SLE RA 1	319	0	1432	-0.05	13.97	0
7	SLE RA 2	319	0	1430	0.34	13.98	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
7	SLE RA 3	319	0	1432	-0.05	13.97	0
7	SLE RA 4	319	0	1431	0.18	13.97	0
7	SLE RA 5	319	0	1430	0.34	13.98	0
7	SLE RA 6	319	0	1432	-0.05	13.97	0
7	SLE RA 7	319	0	1431	0.18	13.97	0
7	SLE RA 8	319	0	1432	-0.05	13.97	0
7	SLE RA 9	319	0	1431	0.18	13.97	0
7	SLE RA 10	411	0	1634	0.32	17.81	0
7	SLE RA 11	410	0	1636	-0.07	17.8	0
7	SLE RA 12	410	0	1635	0.17	17.81	0
7	SLE RA 13	411	0	1634	0.32	17.81	0
7	SLE RA 14	410	0	1636	-0.07	17.8	0
7	SLE RA 15	410	0	1635	0.17	17.81	0
7	SLE RA 16	410	0	1636	-0.07	17.8	0
7	SLE RA 17	410	0	1635	0.17	17.81	0
7	SLE RA 18	449	0	1723	-0.08	19.45	0
7	SLE RA 19	450	0	1722	0.16	19.45	0
7	SLE RA 20	449	0	1723	-0.08	19.45	0
7	SLE RA 21	450	0	1722	0.16	19.45	0
7	SLE FR 1	319	0	1432	-0.05	13.97	0
7	SLE FR 2	319	0	1431	0.03	13.97	0
7	SLE FR 3	319	0	1432	-0.05	13.97	0
7	SLE FR 4	358	0	1519	0.02	15.61	0
7	SLE FR 5	358	0	1519	-0.06	15.61	0
7	SLE FR 6	384	0	1577	-0.07	16.71	0
7	SLE QP 1	319	0	1432	-0.05	13.97	0
7	SLE QP 2	358	0	1519	-0.06	15.61	0
7	SLD 1	540	-19	1540	23.92	23.48	0.02
7	SLD 2	540	-19	1540	23.92	23.48	0.02
7	SLD 3	519	-36	1525	44.04	22.65	0.03
7	SLD 4	519	-36	1525	44.04	22.65	0.03
7	SLD 5	444	20	1548	-23.39	19.24	-0.02
7	SLD 6	444	20	1548	-23.39	19.24	-0.02
7	SLD 7	375	-37	1498	43.69	16.46	0.03
7	SLD 8	375	-37	1498	43.69	16.46	0.03
7	SLD 9	341	37	1540	-43.81	14.76	-0.03
7	SLD 10	341	37	1540	-43.81	14.76	-0.03
7	SLD 11	273	-20	1490	23.27	11.99	0.02
7	SLD 12	273	-20	1490	23.27	11.99	0.02
7	SLD 13	197	36	1513	-44.16	8.57	-0.03
7	SLD 14	197	36	1513	-44.16	8.57	-0.03
7	SLD 15	177	19	1498	-24.04	7.74	-0.02
7	SLD 16	177	19	1498	-24.04	7.74	-0.02
7	SLV 1	787	-49	1571	61.31	34.21	0.05
7	SLV 2	787	-49	1571	61.31	34.21	0.05
7	SLV 3	738	-92	1535	113.01	32.21	0.09
7	SLV 4	738	-92	1535	113.01	32.21	0.09
7	SLV 5	561	51	1588	-60.06	24.22	-0.04
7	SLV 6	561	51	1588	-60.06	24.22	-0.04
7	SLV 7	397	-93	1470	112.27	17.56	0.08
7	SLV 8	397	-93	1470	112.27	17.56	0.08
7	SLV 9	319	93	1568	-112.39	13.66	-0.08
7	SLV 10	319	93	1568	-112.39	13.66	-0.08
7	SLV 11	155	-51	1450	59.94	7	0.04
7	SLV 12	155	-51	1450	59.94	7	0.04
7	SLV 13	-22	92	1503	-113.13	-0.99	-0.08
7	SLV 14	-22	92	1503	-113.13	-0.99	-0.08
7	SLV 15	-71	49	1468	-61.43	-2.98	-0.05
7	SLV 16	-71	49	1468	-61.43	-2.98	-0.05
8	SLU 1	260	0	1509	-0.01	9.98	0
8	SLU 2	261	0	1508	0.52	10.01	0
8	SLU 3	260	0	1509	-0.01	9.98	0
8	SLU 4	260	0	1508	0.31	9.99	0
8	SLU 5	261	0	1508	0.52	10.01	0
8	SLU 6	260	0	1509	-0.01	9.98	0
8	SLU 7	260	0	1508	0.31	9.99	0
8	SLU 8	260	0	1509	-0.01	9.98	0
8	SLU 9	260	0	1508	0.31	9.99	0
8	SLU 10	381	0	1869	0.5	14.8	0
8	SLU 11	380	0	1871	-0.02	14.77	0
8	SLU 12	381	0	1870	0.29	14.79	0
8	SLU 13	381	0	1869	0.5	14.8	0
8	SLU 14	380	0	1871	-0.02	14.77	0
8	SLU 15	381	0	1870	0.29	14.79	0
8	SLU 16	380	0	1871	-0.02	14.77	0
8	SLU 17	381	0	1870	0.29	14.79	0
8	SLU 18	432	0	2025	-0.03	16.83	0
8	SLU 19	432	0	2024	0.28	16.85	0
8	SLU 20	432	0	2025	-0.03	16.83	0
8	SLU 21	432	0	2024	0.28	16.85	0
8	SLU 22	309	0	1659	-0.01	11.95	0
8	SLU 23	310	0	1657	0.52	11.98	0
8	SLU 24	309	0	1659	-0.01	11.95	0
8	SLU 25	310	0	1658	0.31	11.97	0
8	SLU 26	310	0	1657	0.52	11.98	0
8	SLU 27	309	0	1659	-0.01	11.95	0
8	SLU 28	310	0	1658	0.31	11.97	0
8	SLU 29	309	0	1659	-0.01	11.95	0
8	SLU 30	310	0	1658	0.31	11.97	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
8	SLU 31	430	0	2018	0.5	16.78	0
8	SLU 32	430	0	2020	-0.03	16.75	0
8	SLU 33	430	0	2019	0.29	16.76	0
8	SLU 34	430	0	2018	0.5	16.78	0
8	SLU 35	430	0	2020	-0.03	16.75	0
8	SLU 36	430	0	2019	0.29	16.76	0
8	SLU 37	430	0	2020	-0.03	16.75	0
8	SLU 38	430	0	2019	0.29	16.76	0
8	SLU 39	481	0	2175	-0.03	18.8	0
8	SLU 40	482	0	2174	0.28	18.82	0
8	SLU 41	481	0	2175	-0.03	18.8	0
8	SLU 42	482	0	2174	0.28	18.82	0
8	SLU 43	321	0	1911	-0.01	12.29	0
8	SLU 44	322	0	1909	0.52	12.32	0
8	SLU 45	321	0	1911	-0.01	12.29	0
8	SLU 46	321	0	1910	0.31	12.31	0
8	SLU 47	322	0	1909	0.52	12.32	0
8	SLU 48	321	0	1911	-0.01	12.29	0
8	SLU 49	321	0	1910	0.31	12.31	0
8	SLU 50	321	0	1911	-0.01	12.29	0
8	SLU 51	321	0	1910	0.31	12.31	0
8	SLU 52	442	0	2270	0.5	17.12	0
8	SLU 53	441	0	2272	-0.03	17.09	0
8	SLU 54	442	0	2271	0.29	17.11	0
8	SLU 55	442	0	2270	0.5	17.12	0
8	SLU 56	441	0	2272	-0.03	17.09	0
8	SLU 57	442	0	2271	0.29	17.11	0
8	SLU 58	441	0	2272	-0.03	17.09	0
8	SLU 59	442	0	2271	0.29	17.11	0
8	SLU 60	493	0	2427	-0.03	19.15	0
8	SLU 61	493	0	2426	0.28	19.17	0
8	SLU 62	493	0	2427	-0.03	19.15	0
8	SLU 63	493	0	2426	0.28	19.17	0
8	SLU 64	370	0	2060	-0.01	14.26	0
8	SLU 65	371	0	2059	0.52	14.29	0
8	SLU 66	370	0	2060	-0.01	14.26	0
8	SLU 67	371	0	2059	0.31	14.28	0
8	SLU 68	371	0	2059	0.52	14.29	0
8	SLU 69	370	0	2060	-0.01	14.26	0
8	SLU 70	371	0	2059	0.31	14.28	0
8	SLU 71	370	0	2060	-0.01	14.26	0
8	SLU 72	371	0	2059	0.31	14.28	0
8	SLU 73	491	0	2420	0.5	19.09	0
8	SLU 74	491	0	2422	-0.03	19.06	0
8	SLU 75	491	0	2421	0.29	19.08	0
8	SLU 76	491	0	2420	0.5	19.09	0
8	SLU 77	491	0	2422	-0.03	19.06	0
8	SLU 78	491	0	2421	0.29	19.08	0
8	SLU 79	491	0	2422	-0.03	19.06	0
8	SLU 80	491	0	2421	0.29	19.08	0
8	SLU 81	542	0	2576	-0.03	21.12	0
8	SLU 82	543	0	2575	0.28	21.14	0
8	SLU 83	542	0	2576	-0.03	21.12	0
8	SLU 84	543	0	2575	0.28	21.14	0
8	SLE RA 1	274	0	1552	-0.01	10.54	0
8	SLE RA 2	274	0	1551	0.34	10.56	0
8	SLE RA 3	274	0	1552	-0.01	10.54	0
8	SLE RA 4	274	0	1551	0.2	10.55	0
8	SLE RA 5	274	0	1551	0.34	10.56	0
8	SLE RA 6	274	0	1552	-0.01	10.54	0
8	SLE RA 7	274	0	1551	0.2	10.55	0
8	SLE RA 8	274	0	1552	-0.01	10.54	0
8	SLE RA 9	274	0	1551	0.2	10.55	0
8	SLE RA 10	355	0	1792	0.33	13.76	0
8	SLE RA 11	354	0	1793	-0.02	13.74	0
8	SLE RA 12	355	0	1792	0.19	13.75	0
8	SLE RA 13	355	0	1792	0.33	13.76	0
8	SLE RA 14	354	0	1793	-0.02	13.74	0
8	SLE RA 15	355	0	1792	0.19	13.75	0
8	SLE RA 16	354	0	1793	-0.02	13.74	0
8	SLE RA 17	355	0	1792	0.19	13.75	0
8	SLE RA 18	389	0	1896	-0.02	15.11	0
8	SLE RA 19	389	0	1895	0.19	15.12	0
8	SLE RA 20	389	0	1896	-0.02	15.11	0
8	SLE RA 21	389	0	1895	0.19	15.12	0
8	SLE FR 1	274	0	1552	-0.01	10.54	0
8	SLE FR 2	274	0	1552	0.06	10.54	0
8	SLE FR 3	274	0	1552	-0.01	10.54	0
8	SLE FR 4	309	0	1655	0.06	11.91	0
8	SLE FR 5	308	0	1655	-0.01	11.91	0
8	SLE FR 6	331	0	1724	-0.02	12.82	0
8	SLE QP 1	274	0	1552	-0.01	10.54	0
8	SLE QP 2	308	0	1655	-0.01	11.91	0
8	SLD 1	486	-21	1676	26.34	19.52	0.04
8	SLD 2	486	-21	1676	26.34	19.52	0.04
8	SLD 3	466	-39	1661	48.51	18.65	0.08
8	SLD 4	466	-39	1661	48.51	18.65	0.08
8	SLD 5	392	23	1683	-25.73	15.51	-0.04
8	SLD 6	392	23	1683	-25.73	15.51	-0.04



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
8	SLD 7	325	-41	1636	48.16	12.62	0.08
8	SLD 8	325	-41	1636	48.16	12.62	0.08
8	SLD 9	292	41	1675	-48.19	11.2	-0.08
8	SLD 10	292	41	1675	-48.19	11.2	-0.08
8	SLD 11	224	-23	1628	25.7	8.31	0.04
8	SLD 12	224	-23	1628	25.7	8.31	0.04
8	SLD 13	151	39	1649	-48.53	5.17	-0.08
8	SLD 14	151	39	1649	-48.53	5.17	-0.08
8	SLD 15	131	21	1635	-26.37	4.3	-0.04
8	SLD 16	131	21	1635	-26.37	4.3	-0.04
8	SLV 1	728	-53	1705	67.43	29.88	0.11
8	SLV 2	728	-53	1705	67.43	29.88	0.11
8	SLV 3	680	-101	1671	124.42	27.81	0.2
8	SLV 4	680	-101	1671	124.42	27.81	0.2
8	SLV 5	508	56	1721	-66.21	20.44	-0.11
8	SLV 6	508	56	1721	-66.21	20.44	-0.11
8	SLV 7	346	-102	1609	123.75	13.54	0.2
8	SLV 8	346	-102	1609	123.75	13.54	0.2
8	SLV 9	271	102	1702	-123.77	10.28	-0.2
8	SLV 10	271	102	1702	-123.77	10.28	-0.2
8	SLV 11	109	-56	1589	66.18	3.38	0.11
8	SLV 12	109	-56	1589	66.18	3.38	0.11
8	SLV 13	-63	101	1639	-124.44	-3.99	-0.2
8	SLV 14	-63	101	1639	-124.44	-3.99	-0.2
8	SLV 15	-111	53	1605	-67.45	-6.06	-0.11
8	SLV 16	-111	53	1605	-67.45	-6.06	-0.11
9	SLU 1	220	0	1611	0.03	9.42	0
9	SLU 2	220	0	1610	0.46	9.43	0
9	SLU 3	220	0	1611	0.03	9.42	0
9	SLU 4	220	0	1611	0.29	9.43	0
9	SLU 5	220	0	1610	0.46	9.43	0
9	SLU 6	220	0	1611	0.03	9.42	0
9	SLU 7	220	0	1611	0.29	9.43	0
9	SLU 8	220	0	1611	0.03	9.42	0
9	SLU 9	220	0	1611	0.29	9.43	0
9	SLU 10	315	0	2018	0.45	13.37	0
9	SLU 11	315	0	2020	0.02	13.36	0
9	SLU 12	315	0	2019	0.28	13.37	0
9	SLU 13	315	0	2018	0.45	13.37	0
9	SLU 14	315	0	2020	0.02	13.36	0
9	SLU 15	315	0	2019	0.28	13.37	0
9	SLU 16	315	0	2020	0.02	13.36	0
9	SLU 17	315	0	2019	0.28	13.37	0
9	SLU 18	356	0	2194	0.01	15.05	0
9	SLU 19	356	0	2194	0.28	15.06	0
9	SLU 20	356	0	2194	0.01	15.05	0
9	SLU 21	356	0	2194	0.28	15.06	0
9	SLU 22	260	0	1780	0.03	11.11	0
9	SLU 23	261	0	1778	0.47	11.12	0
9	SLU 24	260	0	1780	0.03	11.11	0
9	SLU 25	260	0	1779	0.29	11.11	0
9	SLU 26	261	0	1778	0.47	11.12	0
9	SLU 27	260	0	1780	0.03	11.11	0
9	SLU 28	260	0	1779	0.29	11.11	0
9	SLU 29	260	0	1780	0.03	11.11	0
9	SLU 30	260	0	1779	0.29	11.11	0
9	SLU 31	356	0	2187	0.46	15.06	0
9	SLU 32	355	0	2188	0.02	15.05	0
9	SLU 33	355	0	2187	0.28	15.05	0
9	SLU 34	356	0	2187	0.46	15.06	0
9	SLU 35	355	0	2188	0.02	15.05	0
9	SLU 36	355	0	2187	0.28	15.05	0
9	SLU 37	355	0	2188	0.02	15.05	0
9	SLU 38	355	0	2187	0.28	15.05	0
9	SLU 39	396	0	2363	0.02	16.74	0
9	SLU 40	396	0	2362	0.28	16.74	0
9	SLU 41	396	0	2363	0.02	16.74	0
9	SLU 42	396	0	2362	0.28	16.74	0
9	SLU 43	272	0	2037	0.03	11.67	0
9	SLU 44	272	0	2036	0.47	11.68	0
9	SLU 45	272	0	2037	0.03	11.67	0
9	SLU 46	272	0	2036	0.29	11.68	0
9	SLU 47	272	0	2036	0.47	11.68	0
9	SLU 48	272	0	2037	0.03	11.67	0
9	SLU 49	272	0	2036	0.29	11.68	0
9	SLU 50	272	0	2037	0.03	11.67	0
9	SLU 51	272	0	2036	0.29	11.68	0
9	SLU 52	367	0	2444	0.46	15.62	0
9	SLU 53	367	0	2445	0.02	15.61	0
9	SLU 54	367	0	2444	0.29	15.62	0
9	SLU 55	367	0	2444	0.46	15.62	0
9	SLU 56	367	0	2445	0.02	15.61	0
9	SLU 57	367	0	2444	0.29	15.62	0
9	SLU 58	367	0	2445	0.02	15.61	0
9	SLU 59	367	0	2444	0.29	15.62	0
9	SLU 60	408	0	2620	0.02	17.3	0
9	SLU 61	408	0	2619	0.28	17.31	0
9	SLU 62	408	0	2620	0.02	17.3	0
9	SLU 63	408	0	2619	0.28	17.31	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
9	SLU 64	312	0	2205	0.04	13.36	0
9	SLU 65	313	0	2204	0.47	13.36	0
9	SLU 66	312	0	2205	0.04	13.36	0
9	SLU 67	313	0	2205	0.3	13.36	0
9	SLU 68	313	0	2204	0.47	13.36	0
9	SLU 69	312	0	2205	0.04	13.36	0
9	SLU 70	313	0	2205	0.3	13.36	0
9	SLU 71	312	0	2205	0.04	13.36	0
9	SLU 72	313	0	2205	0.3	13.36	0
9	SLU 73	408	0	2612	0.46	17.31	0
9	SLU 74	407	0	2614	0.03	17.3	0
9	SLU 75	408	0	2613	0.29	17.3	0
9	SLU 76	408	0	2612	0.46	17.31	0
9	SLU 77	407	0	2614	0.03	17.3	0
9	SLU 78	408	0	2613	0.29	17.3	0
9	SLU 79	407	0	2614	0.03	17.3	0
9	SLU 80	408	0	2613	0.29	17.3	0
9	SLU 81	448	0	2788	0.02	18.99	0
9	SLU 82	448	0	2788	0.29	18.99	0
9	SLU 83	448	0	2788	0.02	18.99	0
9	SLU 84	448	0	2788	0.29	18.99	0
9	SLE RA 1	231	0	1659	0.03	9.9	0
9	SLE RA 2	232	0	1659	0.32	9.91	0
9	SLE RA 3	231	0	1659	0.03	9.9	0
9	SLE RA 4	232	0	1659	0.2	9.91	0
9	SLE RA 5	232	0	1659	0.32	9.91	0
9	SLE RA 6	231	0	1659	0.03	9.9	0
9	SLE RA 7	232	0	1659	0.2	9.91	0
9	SLE RA 8	231	0	1659	0.03	9.9	0
9	SLE RA 9	232	0	1659	0.2	9.91	0
9	SLE RA 10	295	0	1931	0.31	12.54	0
9	SLE RA 11	295	0	1932	0.02	12.53	0
9	SLE RA 12	295	0	1931	0.2	12.54	0
9	SLE RA 13	295	0	1931	0.31	12.54	0
9	SLE RA 14	295	0	1932	0.02	12.53	0
9	SLE RA 15	295	0	1931	0.2	12.54	0
9	SLE RA 16	295	0	1932	0.02	12.53	0
9	SLE RA 17	295	0	1931	0.2	12.54	0
9	SLE RA 18	322	0	2048	0.02	13.66	0
9	SLE RA 19	322	0	2048	0.19	13.66	0
9	SLE RA 20	322	0	2048	0.02	13.66	0
9	SLE RA 21	322	0	2048	0.19	13.66	0
9	SLE FR 1	231	0	1659	0.03	9.9	0
9	SLE FR 2	231	0	1659	0.08	9.9	0
9	SLE FR 3	231	0	1659	0.03	9.9	0
9	SLE FR 4	259	0	1776	0.08	11.03	0
9	SLE FR 5	259	0	1776	0.02	11.03	0
9	SLE FR 6	277	0	1854	0.02	11.78	0
9	SLE QP 1	231	0	1659	0.03	9.9	0
9	SLE QP 2	259	0	1776	0.02	11.03	0
9	SLD 1	431	-22	1768	27.74	18.44	0.07
9	SLD 2	431	-22	1768	27.74	18.44	0.07
9	SLD 3	411	-41	1751	50.73	17.58	0.13
9	SLD 4	411	-41	1751	50.73	17.58	0.13
9	SLD 5	342	23	1800	-26.52	14.56	-0.07
9	SLD 6	342	23	1800	-26.52	14.56	-0.07
9	SLD 7	273	-42	1742	50.1	11.69	0.13
9	SLD 8	273	-42	1742	50.1	11.69	0.13
9	SLD 9	244	42	1810	-50.05	10.37	-0.13
9	SLD 10	244	42	1810	-50.05	10.37	-0.13
9	SLD 11	175	-23	1752	26.57	7.5	0.07
9	SLD 12	175	-23	1752	26.57	7.5	0.07
9	SLD 13	106	41	1801	-50.68	4.48	-0.13
9	SLD 14	106	41	1801	-50.68	4.48	-0.13
9	SLD 15	86	22	1784	-27.7	3.62	-0.07
9	SLD 16	86	22	1784	-27.7	3.62	-0.07
9	SLV 1	667	-56	1756	70.93	28.55	0.17
9	SLV 2	667	-56	1756	70.93	28.55	0.17
9	SLV 3	618	-105	1715	130.06	26.5	0.32
9	SLV 4	618	-105	1715	130.06	26.5	0.32
9	SLV 5	456	58	1833	-68.38	19.4	-0.18
9	SLV 6	456	58	1833	-68.38	19.4	-0.18
9	SLV 7	292	-106	1695	128.71	12.56	0.33
9	SLV 8	292	-106	1695	128.71	12.56	0.33
9	SLV 9	225	106	1857	-128.66	9.5	-0.33
9	SLV 10	225	106	1857	-128.66	9.5	-0.33
9	SLV 11	61	-58	1719	68.43	2.66	0.18
9	SLV 12	61	-58	1719	68.43	2.66	0.18
9	SLV 13	-101	105	1837	-130.01	-4.44	-0.32
9	SLV 14	-101	105	1837	-130.01	-4.44	-0.32
9	SLV 15	-150	56	1796	-70.88	-6.49	-0.17
9	SLV 16	-150	56	1796	-70.88	-6.49	-0.17
10	SLU 1	148	0	1684	0.05	5.78	0
10	SLU 2	149	0	1683	0.38	5.8	0
10	SLU 3	148	0	1684	0.05	5.78	0
10	SLU 4	149	0	1684	0.25	5.79	0
10	SLU 5	149	0	1683	0.38	5.8	0
10	SLU 6	148	0	1684	0.05	5.78	0
10	SLU 7	149	0	1684	0.25	5.79	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
10	SLU 8	148	0	1684	0.05	5.78	0
10	SLU 9	149	0	1684	0.25	5.79	0
10	SLU 10	208	0	2121	0.38	8.23	0
10	SLU 11	208	0	2122	0.05	8.21	0
10	SLU 12	208	0	2121	0.25	8.22	0
10	SLU 13	208	0	2121	0.38	8.23	0
10	SLU 14	208	0	2122	0.05	8.21	0
10	SLU 15	208	0	2121	0.25	8.22	0
10	SLU 16	208	0	2122	0.05	8.21	0
10	SLU 17	208	0	2121	0.25	8.22	0
10	SLU 18	233	0	2309	0.05	9.25	0
10	SLU 19	234	0	2309	0.25	9.26	0
10	SLU 20	233	0	2309	0.05	9.25	0
10	SLU 21	234	0	2309	0.25	9.26	0
10	SLU 22	175	0	1865	0.06	6.87	0
10	SLU 23	176	0	1864	0.39	6.89	0
10	SLU 24	175	0	1865	0.06	6.87	0
10	SLU 25	175	0	1865	0.25	6.88	0
10	SLU 26	176	0	1864	0.39	6.89	0
10	SLU 27	175	0	1865	0.06	6.87	0
10	SLU 28	175	0	1865	0.25	6.88	0
10	SLU 29	175	0	1865	0.06	6.87	0
10	SLU 30	175	0	1865	0.25	6.88	0
10	SLU 31	235	0	2302	0.39	9.31	0
10	SLU 32	235	0	2303	0.06	9.3	0
10	SLU 33	235	0	2302	0.26	9.31	0
10	SLU 34	235	0	2302	0.39	9.31	0
10	SLU 35	235	0	2303	0.06	9.3	0
10	SLU 36	235	0	2302	0.26	9.31	0
10	SLU 37	235	0	2303	0.06	9.3	0
10	SLU 38	235	0	2302	0.26	9.31	0
10	SLU 39	260	0	2490	0.06	10.34	0
10	SLU 40	260	0	2490	0.26	10.35	0
10	SLU 41	260	0	2490	0.06	10.34	0
10	SLU 42	260	0	2490	0.26	10.35	0
10	SLU 43	184	0	2128	0.06	7.15	0
10	SLU 44	184	0	2127	0.39	7.16	0
10	SLU 45	184	0	2128	0.06	7.15	0
10	SLU 46	184	0	2127	0.26	7.16	0
10	SLU 47	184	0	2127	0.39	7.16	0
10	SLU 48	184	0	2128	0.06	7.15	0
10	SLU 49	184	0	2127	0.26	7.16	0
10	SLU 50	184	0	2128	0.06	7.15	0
10	SLU 51	184	0	2127	0.26	7.16	0
10	SLU 52	244	0	2564	0.39	9.59	0
10	SLU 53	243	0	2565	0.06	9.57	0
10	SLU 54	243	0	2565	0.26	9.58	0
10	SLU 55	244	0	2564	0.39	9.59	0
10	SLU 56	243	0	2565	0.06	9.57	0
10	SLU 57	243	0	2565	0.26	9.58	0
10	SLU 58	243	0	2565	0.06	9.57	0
10	SLU 59	243	0	2565	0.26	9.58	0
10	SLU 60	269	0	2753	0.06	10.61	0
10	SLU 61	269	0	2752	0.26	10.62	0
10	SLU 62	269	0	2753	0.06	10.61	0
10	SLU 63	269	0	2752	0.26	10.62	0
10	SLU 64	210	0	2308	0.07	8.23	0
10	SLU 65	211	0	2307	0.4	8.25	0
10	SLU 66	210	0	2308	0.07	8.23	0
10	SLU 67	211	0	2308	0.27	8.24	0
10	SLU 68	211	0	2307	0.4	8.25	0
10	SLU 69	210	0	2308	0.07	8.23	0
10	SLU 70	211	0	2308	0.27	8.24	0
10	SLU 71	210	0	2308	0.07	8.23	0
10	SLU 72	211	0	2308	0.27	8.24	0
10	SLU 73	270	0	2745	0.4	10.68	0
10	SLU 74	270	0	2746	0.07	10.66	0
10	SLU 75	270	0	2745	0.27	10.67	0
10	SLU 76	270	0	2745	0.4	10.68	0
10	SLU 77	270	0	2746	0.07	10.66	0
10	SLU 78	270	0	2745	0.27	10.67	0
10	SLU 79	270	0	2746	0.07	10.66	0
10	SLU 80	270	0	2745	0.27	10.67	0
10	SLU 81	295	0	2933	0.07	11.7	0
10	SLU 82	296	0	2933	0.27	11.71	0
10	SLU 83	295	0	2933	0.07	11.7	0
10	SLU 84	296	0	2933	0.27	11.71	0
10	SLE RA 1	156	0	1736	0.05	6.09	0
10	SLE RA 2	156	0	1735	0.27	6.11	0
10	SLE RA 3	156	0	1736	0.05	6.09	0
10	SLE RA 4	156	0	1736	0.18	6.1	0
10	SLE RA 5	156	0	1735	0.27	6.11	0
10	SLE RA 6	156	0	1736	0.05	6.09	0
10	SLE RA 7	156	0	1736	0.18	6.1	0
10	SLE RA 8	156	0	1736	0.05	6.09	0
10	SLE RA 9	156	0	1736	0.18	6.1	0
10	SLE RA 10	196	0	2027	0.27	7.72	0
10	SLE RA 11	196	0	2028	0.05	7.71	0
10	SLE RA 12	196	0	2027	0.18	7.72	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
10	SLE RA 13	196	0	2027	0.27	7.72	0
10	SLE RA 14	196	0	2028	0.05	7.71	0
10	SLE RA 15	196	0	2027	0.18	7.72	0
10	SLE RA 16	196	0	2028	0.05	7.71	0
10	SLE RA 17	196	0	2027	0.18	7.72	0
10	SLE RA 18	213	0	2153	0.05	8.4	0
10	SLE RA 19	213	0	2152	0.18	8.41	0
10	SLE RA 20	213	0	2153	0.05	8.4	0
10	SLE RA 21	213	0	2152	0.18	8.41	0
10	SLE FR 1	156	0	1736	0.05	6.09	0
10	SLE FR 2	156	0	1736	0.09	6.1	0
10	SLE FR 3	156	0	1736	0.05	6.09	0
10	SLE FR 4	173	0	1861	0.09	6.79	0
10	SLE FR 5	173	0	1861	0.05	6.79	0
10	SLE FR 6	184	0	1944	0.05	7.25	0
10	SLE QP 1	156	0	1736	0.05	6.09	0
10	SLE QP 2	173	0	1861	0.05	6.79	0
10	SLD 1	344	-22	1847	27.9	14	0.08
10	SLD 2	344	-22	1847	27.9	14	0.08
10	SLD 3	321	-41	1823	50.44	13.06	0.16
10	SLD 4	321	-41	1823	50.44	13.06	0.16
10	SLD 5	259	22	1893	-25.78	10.37	-0.09
10	SLD 6	259	22	1893	-25.78	10.37	-0.09
10	SLD 7	183	-41	1813	49.36	7.25	0.16
10	SLD 8	183	-41	1813	49.36	7.25	0.16
10	SLD 9	163	41	1909	-49.26	6.33	-0.16
10	SLD 10	163	41	1909	-49.26	6.33	-0.16
10	SLD 11	87	-22	1829	25.88	3.2	0.09
10	SLD 12	87	-22	1829	25.88	3.2	0.09
10	SLD 13	25	41	1899	-50.34	0.51	-0.16
10	SLD 14	25	41	1899	-50.34	0.51	-0.16
10	SLD 15	3	22	1875	-27.8	-0.43	-0.08
10	SLD 16	3	22	1875	-27.8	-0.43	-0.08
10	SLV 1	576	-57	1828	71.23	23.83	0.22
10	SLV 2	576	-57	1828	71.23	23.83	0.22
10	SLV 3	522	-105	1771	129.26	21.6	0.4
10	SLV 4	522	-105	1771	129.26	21.6	0.4
10	SLV 5	376	56	1937	-66.6	15.29	-0.22
10	SLV 6	376	56	1937	-66.6	15.29	-0.22
10	SLV 7	196	-105	1748	126.82	7.84	0.4
10	SLV 8	196	-105	1748	126.82	7.84	0.4
10	SLV 9	150	105	1974	-126.72	5.73	-0.4
10	SLV 10	150	105	1974	-126.72	5.73	-0.4
10	SLV 11	-30	-56	1785	66.7	-1.72	0.22
10	SLV 12	-30	-56	1785	66.7	-1.72	0.22
10	SLV 13	-176	105	1951	-129.16	-8.02	-0.4
10	SLV 14	-176	105	1951	-129.16	-8.02	-0.4
10	SLV 15	-230	57	1894	-71.13	-10.26	-0.22
10	SLV 16	-230	57	1894	-71.13	-10.26	-0.22
11	SLU 1	94	0	1716	0.06	4.08	0
11	SLU 2	94	0	1715	0.28	4.09	0
11	SLU 3	94	0	1716	0.06	4.08	0
11	SLU 4	94	0	1715	0.19	4.08	0
11	SLU 5	94	0	1715	0.28	4.09	0
11	SLU 6	94	0	1716	0.06	4.08	0
11	SLU 7	94	0	1715	0.19	4.08	0
11	SLU 8	94	0	1716	0.06	4.08	0
11	SLU 9	94	0	1715	0.19	4.08	0
11	SLU 10	120	0	2159	0.29	5.22	0
11	SLU 11	120	0	2160	0.06	5.21	0
11	SLU 12	120	0	2159	0.2	5.21	0
11	SLU 13	120	0	2159	0.29	5.22	0
11	SLU 14	120	0	2160	0.06	5.21	0
11	SLU 15	120	0	2159	0.2	5.21	0
11	SLU 16	120	0	2160	0.06	5.21	0
11	SLU 17	120	0	2159	0.2	5.21	0
11	SLU 18	131	0	2350	0.07	5.69	0
11	SLU 19	131	0	2349	0.2	5.69	0
11	SLU 20	131	0	2350	0.07	5.69	0
11	SLU 21	131	0	2349	0.2	5.69	0
11	SLU 22	108	0	1900	0.07	4.69	0
11	SLU 23	109	0	1900	0.29	4.71	0
11	SLU 24	108	0	1900	0.07	4.69	0
11	SLU 25	109	0	1900	0.2	4.7	0
11	SLU 26	109	0	1900	0.29	4.71	0
11	SLU 27	108	0	1900	0.07	4.69	0
11	SLU 28	109	0	1900	0.2	4.7	0
11	SLU 29	108	0	1900	0.07	4.69	0
11	SLU 30	109	0	1900	0.2	4.7	0
11	SLU 31	135	0	2344	0.3	5.83	0
11	SLU 32	135	0	2344	0.07	5.82	0
11	SLU 33	135	0	2344	0.21	5.83	0
11	SLU 34	135	0	2344	0.3	5.83	0
11	SLU 35	135	0	2344	0.07	5.82	0
11	SLU 36	135	0	2344	0.21	5.83	0
11	SLU 37	135	0	2344	0.07	5.82	0
11	SLU 38	135	0	2344	0.21	5.83	0
11	SLU 39	146	0	2535	0.08	6.31	0
11	SLU 40	146	0	2534	0.21	6.31	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
11	SLU 41	146	0	2535	0.08	6.31	0
11	SLU 42	146	0	2534	0.21	6.31	0
11	SLU 43	117	0	2167	0.07	5.09	0
11	SLU 44	117	0	2166	0.29	5.1	0
11	SLU 45	117	0	2167	0.07	5.09	0
11	SLU 46	117	0	2166	0.2	5.09	0
11	SLU 47	117	0	2166	0.29	5.1	0
11	SLU 48	117	0	2167	0.07	5.09	0
11	SLU 49	117	0	2166	0.2	5.09	0
11	SLU 50	117	0	2167	0.07	5.09	0
11	SLU 51	117	0	2166	0.2	5.09	0
11	SLU 52	144	0	2610	0.3	6.23	0
11	SLU 53	143	0	2611	0.08	6.22	0
11	SLU 54	143	0	2610	0.21	6.22	0
11	SLU 55	144	0	2610	0.3	6.23	0
11	SLU 56	143	0	2611	0.08	6.22	0
11	SLU 57	143	0	2610	0.21	6.22	0
11	SLU 58	143	0	2611	0.08	6.22	0
11	SLU 59	143	0	2610	0.21	6.22	0
11	SLU 60	154	0	2801	0.08	6.7	0
11	SLU 61	155	0	2801	0.22	6.71	0
11	SLU 62	154	0	2801	0.08	6.7	0
11	SLU 63	155	0	2801	0.22	6.71	0
11	SLU 64	132	0	2352	0.08	5.71	0
11	SLU 65	132	0	2351	0.31	5.72	0
11	SLU 66	132	0	2352	0.08	5.71	0
11	SLU 67	132	0	2351	0.22	5.71	0
11	SLU 68	132	0	2351	0.31	5.72	0
11	SLU 69	132	0	2352	0.08	5.71	0
11	SLU 70	132	0	2351	0.22	5.71	0
11	SLU 71	132	0	2352	0.08	5.71	0
11	SLU 72	132	0	2351	0.22	5.71	0
11	SLU 73	158	0	2795	0.31	6.84	0
11	SLU 74	158	0	2796	0.09	6.83	0
11	SLU 75	158	0	2795	0.22	6.84	0
11	SLU 76	158	0	2795	0.31	6.84	0
11	SLU 77	158	0	2796	0.09	6.83	0
11	SLU 78	158	0	2795	0.22	6.84	0
11	SLU 79	158	0	2796	0.09	6.83	0
11	SLU 80	158	0	2795	0.22	6.84	0
11	SLU 81	169	0	2986	0.09	7.32	0
11	SLU 82	169	0	2986	0.23	7.32	0
11	SLU 83	169	0	2986	0.09	7.32	0
11	SLU 84	169	0	2986	0.23	7.32	0
11	SLE RA 1	98	0	1768	0.06	4.25	0
11	SLE RA 2	98	0	1768	0.21	4.26	0
11	SLE RA 3	98	0	1768	0.06	4.25	0
11	SLE RA 4	98	0	1768	0.15	4.26	0
11	SLE RA 5	98	0	1768	0.21	4.26	0
11	SLE RA 6	98	0	1768	0.06	4.25	0
11	SLE RA 7	98	0	1768	0.15	4.26	0
11	SLE RA 8	98	0	1768	0.06	4.25	0
11	SLE RA 9	98	0	1768	0.15	4.26	0
11	SLE RA 10	116	0	2064	0.21	5.01	0
11	SLE RA 11	115	0	2064	0.06	5.01	0
11	SLE RA 12	116	0	2064	0.15	5.01	0
11	SLE RA 13	116	0	2064	0.21	5.01	0
11	SLE RA 14	115	0	2064	0.06	5.01	0
11	SLE RA 15	116	0	2064	0.15	5.01	0
11	SLE RA 16	115	0	2064	0.06	5.01	0
11	SLE RA 17	116	0	2064	0.15	5.01	0
11	SLE RA 18	123	0	2191	0.07	5.33	0
11	SLE RA 19	123	0	2191	0.16	5.33	0
11	SLE RA 20	123	0	2191	0.07	5.33	0
11	SLE RA 21	123	0	2191	0.16	5.33	0
11	SLE FR 1	98	0	1768	0.06	4.25	0
11	SLE FR 2	98	0	1768	0.09	4.25	0
11	SLE FR 3	98	0	1768	0.06	4.25	0
11	SLE FR 4	106	0	1895	0.09	4.58	0
11	SLE FR 5	106	0	1895	0.06	4.58	0
11	SLE FR 6	111	0	1980	0.06	4.79	0
11	SLE QP 1	98	0	1768	0.06	4.25	0
11	SLE QP 2	106	0	1895	0.06	4.58	0
11	SLD 1	282	39	1876	26.67	12.12	-0.17
11	SLD 2	282	39	1876	26.67	12.12	-0.17
11	SLD 3	256	21	1841	47.52	11.04	-0.09
11	SLD 4	256	21	1841	47.52	11.04	-0.09
11	SLD 5	199	38	1942	-23.59	8.48	-0.16
11	SLD 6	199	38	1942	-23.59	8.48	-0.16
11	SLD 7	110	-20	1827	45.93	4.88	0.09
11	SLD 8	110	-20	1827	45.93	4.88	0.09
11	SLD 9	101	20	1964	-45.81	4.27	-0.09
11	SLD 10	101	20	1964	-45.81	4.27	-0.09
11	SLD 11	12	-38	1849	23.71	0.67	0.16
11	SLD 12	12	-38	1849	23.71	0.67	0.16
11	SLD 13	-45	-21	1949	-47.4	-1.89	0.09
11	SLD 14	-45	-21	1949	-47.4	-1.89	0.09
11	SLD 15	-71	-39	1915	-26.55	-2.97	0.17
11	SLD 16	-71	-39	1915	-26.55	-2.97	0.17





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
11	SLV 1	523	99	1849	67.99	22.41	-0.42
11	SLV 2	523	99	1849	67.99	22.41	-0.42
11	SLV 3	460	55	1767	121.72	19.85	-0.23
11	SLV 4	460	55	1767	121.72	19.85	-0.23
11	SLV 5	327	96	2005	-61.05	13.81	-0.41
11	SLV 6	327	96	2005	-61.05	13.81	-0.41
11	SLV 7	116	-50	1733	118.04	5.28	0.22
11	SLV 8	116	-50	1733	118.04	5.28	0.22
11	SLV 9	95	50	2057	-117.92	3.88	-0.22
11	SLV 10	95	50	2057	-117.92	3.88	-0.22
11	SLV 11	-116	-96	1786	61.17	-4.66	0.41
11	SLV 12	-116	-96	1786	61.17	-4.66	0.41
11	SLV 13	-249	-55	2023	-121.6	-10.7	0.23
11	SLV 14	-249	-55	2023	-121.6	-10.7	0.23
11	SLV 15	-312	-99	1942	-67.87	-13.26	0.42
11	SLV 16	-312	-99	1942	-67.87	-13.26	0.42
12	SLU 1	49	0	1722	0.04	1.98	0
12	SLU 2	49	0	1721	0.17	1.99	0
12	SLU 3	49	0	1722	0.04	1.98	0
12	SLU 4	49	0	1721	0.12	1.99	0
12	SLU 5	49	0	1721	0.17	1.99	0
12	SLU 6	49	0	1722	0.04	1.98	0
12	SLU 7	49	0	1721	0.12	1.99	0
12	SLU 8	49	0	1722	0.04	1.98	0
12	SLU 9	49	0	1721	0.12	1.99	0
12	SLU 10	49	0	2155	0.18	2.09	0
12	SLU 11	49	0	2155	0.05	2.07	0
12	SLU 12	49	0	2155	0.13	2.08	0
12	SLU 13	49	0	2155	0.18	2.09	0
12	SLU 14	49	0	2155	0.05	2.07	0
12	SLU 15	49	0	2155	0.13	2.08	0
12	SLU 16	49	0	2155	0.05	2.07	0
12	SLU 17	49	0	2155	0.13	2.08	0
12	SLU 18	49	0	2341	0.06	2.12	0
12	SLU 19	49	0	2341	0.13	2.13	0
12	SLU 20	49	0	2341	0.06	2.12	0
12	SLU 21	49	0	2341	0.13	2.13	0
12	SLU 22	54	0	1905	0.05	2.22	0
12	SLU 23	54	0	1904	0.18	2.24	0
12	SLU 24	54	0	1905	0.05	2.22	0
12	SLU 25	54	0	1905	0.13	2.23	0
12	SLU 26	54	0	1904	0.18	2.24	0
12	SLU 27	54	0	1905	0.05	2.22	0
12	SLU 28	54	0	1905	0.13	2.23	0
12	SLU 29	54	0	1905	0.05	2.22	0
12	SLU 30	54	0	1905	0.13	2.23	0
12	SLU 31	54	0	2338	0.19	2.33	0
12	SLU 32	54	0	2338	0.06	2.32	0
12	SLU 33	54	0	2338	0.14	2.33	0
12	SLU 34	54	0	2338	0.19	2.33	0
12	SLU 35	54	0	2338	0.06	2.32	0
12	SLU 36	54	0	2338	0.14	2.33	0
12	SLU 37	54	0	2338	0.06	2.32	0
12	SLU 38	54	0	2338	0.14	2.33	0
12	SLU 39	54	0	2524	0.07	2.36	0
12	SLU 40	54	0	2524	0.14	2.37	0
12	SLU 41	54	0	2524	0.07	2.36	0
12	SLU 42	54	0	2524	0.14	2.37	0
12	SLU 43	61	0	2175	0.06	2.49	0
12	SLU 44	62	0	2175	0.18	2.5	0
12	SLU 45	61	0	2175	0.06	2.49	0
12	SLU 46	62	0	2175	0.13	2.5	0
12	SLU 47	62	0	2175	0.18	2.5	0
12	SLU 48	61	0	2175	0.06	2.49	0
12	SLU 49	62	0	2175	0.13	2.5	0
12	SLU 50	61	0	2175	0.06	2.49	0
12	SLU 51	62	0	2175	0.13	2.5	0
12	SLU 52	62	0	2608	0.19	2.6	0
12	SLU 53	61	0	2609	0.06	2.58	0
12	SLU 54	62	0	2608	0.14	2.59	0
12	SLU 55	62	0	2608	0.19	2.6	0
12	SLU 56	61	0	2609	0.06	2.58	0
12	SLU 57	62	0	2608	0.14	2.59	0
12	SLU 58	61	0	2609	0.06	2.58	0
12	SLU 59	62	0	2608	0.14	2.59	0
12	SLU 60	62	0	2794	0.07	2.63	0
12	SLU 61	62	0	2794	0.14	2.64	0
12	SLU 62	62	0	2794	0.07	2.63	0
12	SLU 63	62	0	2794	0.14	2.64	0
12	SLU 64	67	0	2358	0.06	2.73	0
12	SLU 65	67	0	2358	0.19	2.75	0
12	SLU 66	67	0	2358	0.06	2.73	0
12	SLU 67	67	0	2358	0.14	2.74	0
12	SLU 68	67	0	2358	0.19	2.75	0
12	SLU 69	67	0	2358	0.06	2.73	0
12	SLU 70	67	0	2358	0.14	2.74	0
12	SLU 71	67	0	2358	0.06	2.73	0
12	SLU 72	67	0	2358	0.14	2.74	0
12	SLU 73	67	0	2792	0.2	2.84	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
12	SLU 74	67	0	2792	0.07	2.83	0
12	SLU 75	67	0	2792	0.15	2.84	0
12	SLU 76	67	0	2792	0.2	2.84	0
12	SLU 77	67	0	2792	0.07	2.83	0
12	SLU 78	67	0	2792	0.15	2.84	0
12	SLU 79	67	0	2792	0.07	2.83	0
12	SLU 80	67	0	2792	0.15	2.84	0
12	SLU 81	67	0	2978	0.08	2.87	0
12	SLU 82	67	0	2977	0.15	2.88	0
12	SLU 83	67	0	2978	0.08	2.87	0
12	SLU 84	67	0	2977	0.15	2.88	0
12	SLE RA 1	50	0	1774	0.05	2.05	0
12	SLE RA 2	50	0	1774	0.13	2.06	0
12	SLE RA 3	50	0	1774	0.05	2.05	0
12	SLE RA 4	50	0	1774	0.1	2.05	0
12	SLE RA 5	50	0	1774	0.13	2.06	0
12	SLE RA 6	50	0	1774	0.05	2.05	0
12	SLE RA 7	50	0	1774	0.1	2.05	0
12	SLE RA 8	50	0	1774	0.05	2.05	0
12	SLE RA 9	50	0	1774	0.1	2.05	0
12	SLE RA 10	50	0	2063	0.14	2.12	0
12	SLE RA 11	50	0	2063	0.05	2.11	0
12	SLE RA 12	50	0	2063	0.1	2.12	0
12	SLE RA 13	50	0	2063	0.14	2.12	0
12	SLE RA 14	50	0	2063	0.05	2.11	0
12	SLE RA 15	50	0	2063	0.1	2.12	0
12	SLE RA 16	50	0	2063	0.05	2.11	0
12	SLE RA 17	50	0	2063	0.1	2.12	0
12	SLE RA 18	50	0	2187	0.06	2.14	0
12	SLE RA 19	50	0	2187	0.11	2.15	0
12	SLE RA 20	50	0	2187	0.06	2.14	0
12	SLE RA 21	50	0	2187	0.11	2.15	0
12	SLE FR 1	50	0	1774	0.05	2.05	0
12	SLE FR 2	50	0	1774	0.06	2.05	0
12	SLE FR 3	50	0	1774	0.05	2.05	0
12	SLE FR 4	50	0	1898	0.07	2.08	0
12	SLE FR 5	50	0	1898	0.05	2.07	0
12	SLE FR 6	50	0	1980	0.05	2.09	0
12	SLE QP 1	50	0	1774	0.05	2.05	0
12	SLE QP 2	50	0	1898	0.05	2.07	0
12	SLD 1	237	34	1881	-42.04	9.97	-0.15
12	SLD 2	237	34	1881	-42.04	9.97	-0.15
12	SLD 3	205	19	1830	-23.98	8.69	-0.08
12	SLD 4	205	19	1830	-23.98	8.69	-0.08
12	SLD 5	155	32	1970	-39.96	6.38	-0.14
12	SLD 6	155	32	1970	-39.96	6.38	-0.14
12	SLD 7	47	-17	1801	20.22	2.12	0.07
12	SLD 8	47	-17	1801	20.22	2.12	0.07
12	SLD 9	53	16	1995	-20.12	2.03	-0.07
12	SLD 10	53	16	1995	-20.12	2.03	-0.07
12	SLD 11	-55	-32	1826	40.06	-2.23	0.14
12	SLD 12	-55	-32	1826	40.06	-2.23	0.14
12	SLD 13	-105	-19	1965	24.08	-4.54	0.08
12	SLD 14	-105	-19	1965	24.08	-4.54	0.08
12	SLD 15	-137	-34	1914	42.14	-5.82	0.15
12	SLD 16	-137	-34	1914	42.14	-5.82	0.15
12	SLV 1	492	86	1858	-107.76	20.7	-0.38
12	SLV 2	492	86	1858	-107.76	20.7	-0.38
12	SLV 3	415	49	1738	-61.23	17.68	-0.21
12	SLV 4	415	49	1738	-61.23	17.68	-0.21
12	SLV 5	299	82	2067	-102.86	12.25	-0.36
12	SLV 6	299	82	2067	-102.86	12.25	-0.36
12	SLV 7	44	-41	1668	52.23	2.17	0.18
12	SLV 8	44	-41	1668	52.23	2.17	0.18
12	SLV 9	57	41	2127	-52.13	1.98	-0.18
12	SLV 10	57	41	2127	-52.13	1.98	-0.18
12	SLV 11	-199	-82	1728	102.96	-8.1	0.36
12	SLV 12	-199	-82	1728	102.96	-8.1	0.36
12	SLV 13	-315	-49	2057	61.33	-13.53	0.21
12	SLV 14	-315	-49	2057	61.33	-13.53	0.21
12	SLV 15	-392	-86	1938	107.86	-16.55	0.38
12	SLV 16	-392	-86	1938	107.86	-16.55	0.38
13	SLU 1	28	0	1719	0	1.14	0
13	SLU 2	28	0	1719	0.04	1.16	0
13	SLU 3	28	0	1719	0	1.14	0
13	SLU 4	28	0	1719	0.02	1.15	0
13	SLU 5	28	0	1719	0.04	1.16	0
13	SLU 6	28	0	1719	0	1.14	0
13	SLU 7	28	0	1719	0.02	1.15	0
13	SLU 8	28	0	1719	0	1.14	0
13	SLU 9	28	0	1719	0.02	1.15	0
13	SLU 10	13	0	2133	0.04	0.56	0
13	SLU 11	12	0	2133	0	0.55	0
13	SLU 12	13	0	2133	0.02	0.56	0
13	SLU 13	13	0	2133	0.04	0.56	0
13	SLU 14	12	0	2133	0	0.55	0
13	SLU 15	13	0	2133	0.02	0.56	0
13	SLU 16	12	0	2133	0	0.55	0
13	SLU 17	13	0	2133	0.02	0.56	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
13	SLU 18	6	0	2311	0	0.29	0
13	SLU 19	6	0	2311	0.02	0.3	0
13	SLU 20	6	0	2311	0	0.29	0
13	SLU 21	6	0	2311	0.02	0.3	0
13	SLU 22	28	0	1898	0	1.15	0
13	SLU 23	29	0	1898	0.04	1.17	0
13	SLU 24	28	0	1898	0	1.15	0
13	SLU 25	28	0	1898	0.02	1.16	0
13	SLU 26	29	0	1898	0.04	1.17	0
13	SLU 27	28	0	1898	0	1.15	0
13	SLU 28	28	0	1898	0.02	1.16	0
13	SLU 29	28	0	1898	0	1.15	0
13	SLU 30	28	0	1898	0.02	1.16	0
13	SLU 31	13	0	2313	0.03	0.57	0
13	SLU 32	13	0	2313	0	0.56	0
13	SLU 33	13	0	2313	0.02	0.57	0
13	SLU 34	13	0	2313	0.03	0.57	0
13	SLU 35	13	0	2313	0	0.56	0
13	SLU 36	13	0	2313	0.02	0.57	0
13	SLU 37	13	0	2313	0	0.56	0
13	SLU 38	13	0	2313	0.02	0.57	0
13	SLU 39	6	0	2491	0	0.3	0
13	SLU 40	6	0	2491	0.02	0.31	0
13	SLU 41	6	0	2491	0	0.3	0
13	SLU 42	6	0	2491	0.02	0.31	0
13	SLU 43	36	0	2173	0	1.48	0
13	SLU 44	37	0	2173	0.04	1.5	0
13	SLU 45	36	0	2173	0	1.48	0
13	SLU 46	36	0	2173	0.02	1.49	0
13	SLU 47	37	0	2173	0.04	1.5	0
13	SLU 48	36	0	2173	0	1.48	0
13	SLU 49	36	0	2173	0.02	1.49	0
13	SLU 50	36	0	2173	0	1.48	0
13	SLU 51	36	0	2173	0.02	1.49	0
13	SLU 52	21	0	2587	0.04	0.9	0
13	SLU 53	21	0	2587	0	0.89	0
13	SLU 54	21	0	2587	0.02	0.9	0
13	SLU 55	21	0	2587	0.04	0.9	0
13	SLU 56	21	0	2587	0	0.89	0
13	SLU 57	21	0	2587	0.02	0.9	0
13	SLU 58	21	0	2587	0	0.89	0
13	SLU 59	21	0	2587	0.02	0.9	0
13	SLU 60	14	0	2765	0	0.63	0
13	SLU 61	14	0	2765	0.02	0.64	0
13	SLU 62	14	0	2765	0	0.63	0
13	SLU 63	14	0	2765	0.02	0.64	0
13	SLU 64	36	0	2352	0	1.49	0
13	SLU 65	37	0	2352	0.04	1.51	0
13	SLU 66	36	0	2352	0	1.49	0
13	SLU 67	37	0	2352	0.02	1.5	0
13	SLU 68	37	0	2352	0.04	1.51	0
13	SLU 69	36	0	2352	0	1.49	0
13	SLU 70	37	0	2352	0.02	1.5	0
13	SLU 71	36	0	2352	0	1.49	0
13	SLU 72	37	0	2352	0.02	1.5	0
13	SLU 73	21	0	2767	0.04	0.91	0
13	SLU 74	21	0	2767	0	0.9	0
13	SLU 75	21	0	2767	0.02	0.91	0
13	SLU 76	21	0	2767	0.04	0.91	0
13	SLU 77	21	0	2767	0	0.9	0
13	SLU 78	21	0	2767	0.02	0.91	0
13	SLU 79	21	0	2767	0	0.9	0
13	SLU 80	21	0	2767	0.02	0.91	0
13	SLU 81	14	0	2945	0	0.64	0
13	SLU 82	14	0	2945	0.02	0.65	0
13	SLU 83	14	0	2945	0	0.64	0
13	SLU 84	14	0	2945	0.02	0.65	0
13	SLE RA 1	28	0	1770	0	1.15	0
13	SLE RA 2	28	0	1770	0.03	1.16	0
13	SLE RA 3	28	0	1770	0	1.15	0
13	SLE RA 4	28	0	1770	0.02	1.15	0
13	SLE RA 5	28	0	1770	0.03	1.16	0
13	SLE RA 6	28	0	1770	0	1.15	0
13	SLE RA 7	28	0	1770	0.02	1.15	0
13	SLE RA 8	28	0	1770	0	1.15	0
13	SLE RA 9	28	0	1770	0.02	1.15	0
13	SLE RA 10	18	0	2046	0.02	0.76	0
13	SLE RA 11	18	0	2046	0	0.75	0
13	SLE RA 12	18	0	2046	0.01	0.75	0
13	SLE RA 13	18	0	2046	0.02	0.76	0
13	SLE RA 14	18	0	2046	0	0.75	0
13	SLE RA 15	18	0	2046	0.01	0.75	0
13	SLE RA 16	18	0	2046	0	0.75	0
13	SLE RA 17	18	0	2046	0.01	0.75	0
13	SLE RA 18	13	0	2165	0	0.58	0
13	SLE RA 19	13	0	2165	0.01	0.58	0
13	SLE RA 20	13	0	2165	0	0.58	0
13	SLE RA 21	13	0	2165	0.01	0.58	0
13	SLE FR 1	28	0	1770	0	1.15	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
13	SLE FR 2	28	0	1770	0.01	1.15	0
13	SLE FR 3	28	0	1770	0	1.15	0
13	SLE FR 4	24	0	1888	0	0.98	0
13	SLE FR 5	24	0	1888	0	0.98	0
13	SLE FR 6	21	0	1967	0	0.86	0
13	SLE QP 1	28	0	1770	0	1.15	0
13	SLE QP 2	24	0	1888	0	0.98	0
13	SLD 1	223	28	1887	-34.83	9.33	-0.11
13	SLD 2	223	28	1887	-34.83	9.33	-0.11
13	SLD 3	183	17	1811	-20.43	7.79	-0.07
13	SLD 4	183	17	1811	-20.43	7.79	-0.07
13	SLD 5	144	25	2002	-32.28	5.81	-0.11
13	SLD 6	144	25	2002	-32.28	5.81	-0.11
13	SLD 7	11	-12	1751	15.71	0.69	0.05
13	SLD 8	11	-12	1751	15.71	0.69	0.05
13	SLD 9	36	12	2026	-15.71	1.26	-0.05
13	SLD 10	36	12	2026	-15.71	1.26	-0.05
13	SLD 11	-97	-25	1775	32.28	-3.86	0.1
13	SLD 12	-97	-25	1775	32.28	-3.86	0.1
13	SLD 13	-136	-17	1965	20.43	-5.84	0.07
13	SLD 14	-136	-17	1965	20.43	-5.84	0.07
13	SLD 15	-176	-28	1890	34.83	-7.38	0.11
13	SLD 16	-176	-28	1890	34.83	-7.38	0.11
13	SLV 1	495	70	1882	-89.12	20.69	-0.29
13	SLV 2	495	70	1882	-89.12	20.69	-0.29
13	SLV 3	401	43	1705	-52.03	17.07	-0.17
13	SLV 4	401	43	1705	-52.03	17.07	-0.17
13	SLV 5	307	63	2155	-82.99	12.38	-0.26
13	SLV 6	307	63	2155	-82.99	12.38	-0.26
13	SLV 7	-6	-29	1565	40.65	0.32	0.12
13	SLV 8	-6	-29	1565	40.65	0.32	0.12
13	SLV 9	53	29	2212	-40.65	1.64	-0.13
13	SLV 10	53	29	2212	-40.65	1.64	-0.13
13	SLV 11	-260	-63	1622	82.99	-10.43	0.26
13	SLV 12	-260	-63	1622	82.99	-10.43	0.26
13	SLV 13	-354	-43	2072	52.03	-15.12	0.17
13	SLV 14	-354	-43	2072	52.03	-15.12	0.17
13	SLV 15	-448	-70	1895	89.12	-18.74	0.29
13	SLV 16	-448	-70	1895	89.12	-18.74	0.29
14	SLU 1	22	0	1732	-0.11	0.92	0
14	SLU 2	23	0	1732	-0.14	0.94	0
14	SLU 3	22	0	1732	-0.11	0.92	0
14	SLU 4	22	0	1732	-0.13	0.93	0
14	SLU 5	23	0	1732	-0.14	0.94	0
14	SLU 6	22	0	1732	-0.11	0.92	0
14	SLU 7	22	0	1732	-0.13	0.93	0
14	SLU 8	22	0	1732	-0.11	0.92	0
14	SLU 9	22	0	1732	-0.13	0.93	0
14	SLU 10	2	0	2132	-0.18	0.16	0
14	SLU 11	1	0	2131	-0.15	0.15	0
14	SLU 12	2	0	2132	-0.17	0.16	0
14	SLU 13	2	0	2132	-0.18	0.16	0
14	SLU 14	1	0	2131	-0.15	0.15	0
14	SLU 15	2	0	2132	-0.17	0.16	0
14	SLU 16	1	0	2131	-0.15	0.15	0
14	SLU 17	2	0	2132	-0.17	0.16	0
14	SLU 18	-8	0	2303	-0.17	-0.19	0
14	SLU 19	-7	0	2303	-0.18	-0.17	0
14	SLU 20	-8	0	2303	-0.17	-0.19	0
14	SLU 21	-7	0	2303	-0.18	-0.17	0
14	SLU 22	21	0	1911	-0.14	0.9	0
14	SLU 23	22	0	1911	-0.16	0.92	0
14	SLU 24	21	0	1911	-0.14	0.9	0
14	SLU 25	22	0	1911	-0.15	0.91	0
14	SLU 26	22	0	1911	-0.16	0.92	0
14	SLU 27	21	0	1911	-0.14	0.9	0
14	SLU 28	22	0	1911	-0.15	0.91	0
14	SLU 29	21	0	1911	-0.14	0.9	0
14	SLU 30	22	0	1911	-0.15	0.91	0
14	SLU 31	1	0	2311	-0.2	0.15	0
14	SLU 32	1	0	2311	-0.17	0.13	0
14	SLU 33	1	0	2311	-0.19	0.14	0
14	SLU 34	1	0	2311	-0.2	0.15	0
14	SLU 35	1	0	2311	-0.17	0.13	0
14	SLU 36	1	0	2311	-0.19	0.14	0
14	SLU 37	1	0	2311	-0.17	0.13	0
14	SLU 38	1	0	2311	-0.19	0.14	0
14	SLU 39	-8	0	2482	-0.19	-0.2	0
14	SLU 40	-8	0	2482	-0.21	-0.19	0
14	SLU 41	-8	0	2482	-0.19	-0.2	0
14	SLU 42	-8	0	2482	-0.21	-0.19	0
14	SLU 43	29	0	2190	-0.14	1.2	0
14	SLU 44	29	0	2190	-0.16	1.22	0
14	SLU 45	29	0	2190	-0.14	1.2	0
14	SLU 46	29	0	2190	-0.15	1.21	0
14	SLU 47	29	0	2190	-0.16	1.22	0
14	SLU 48	29	0	2190	-0.14	1.2	0
14	SLU 49	29	0	2190	-0.15	1.21	0
14	SLU 50	29	0	2190	-0.14	1.2	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
14	SLU 51	29	0	2190	-0.15	1.21	0
14	SLU 52	9	0	2590	-0.2	0.44	0
14	SLU 53	8	0	2589	-0.17	0.43	0
14	SLU 54	9	0	2590	-0.19	0.44	0
14	SLU 55	9	0	2590	-0.2	0.44	0
14	SLU 56	8	0	2589	-0.17	0.43	0
14	SLU 57	9	0	2590	-0.19	0.44	0
14	SLU 58	8	0	2589	-0.17	0.43	0
14	SLU 59	9	0	2590	-0.19	0.44	0
14	SLU 60	-1	0	2761	-0.19	0.09	0
14	SLU 61	0	0	2761	-0.21	0.11	0
14	SLU 62	-1	0	2761	-0.19	0.09	0
14	SLU 63	0	0	2761	-0.21	0.11	0
14	SLU 64	28	0	2369	-0.16	1.18	0
14	SLU 65	29	0	2369	-0.19	1.2	0
14	SLU 66	28	0	2369	-0.16	1.18	0
14	SLU 67	29	0	2369	-0.18	1.19	0
14	SLU 68	29	0	2369	-0.19	1.2	0
14	SLU 69	28	0	2369	-0.16	1.18	0
14	SLU 70	29	0	2369	-0.18	1.19	0
14	SLU 71	28	0	2369	-0.16	1.18	0
14	SLU 72	29	0	2369	-0.18	1.19	0
14	SLU 73	8	0	2769	-0.23	0.43	0
14	SLU 74	8	0	2769	-0.2	0.41	0
14	SLU 75	8	0	2769	-0.22	0.42	0
14	SLU 76	8	0	2769	-0.23	0.43	0
14	SLU 77	8	0	2769	-0.2	0.41	0
14	SLU 78	8	0	2769	-0.22	0.42	0
14	SLU 79	8	0	2769	-0.2	0.41	0
14	SLU 80	8	0	2769	-0.22	0.42	0
14	SLU 81	-1	0	2940	-0.22	0.08	0
14	SLU 82	-1	0	2940	-0.23	0.09	0
14	SLU 83	-1	0	2940	-0.22	0.08	0
14	SLU 84	-1	0	2940	-0.23	0.09	0
14	SLE RA 1	22	0	1783	-0.12	0.91	0
14	SLE RA 2	22	0	1783	-0.14	0.92	0
14	SLE RA 3	22	0	1783	-0.12	0.91	0
14	SLE RA 4	22	0	1783	-0.13	0.92	0
14	SLE RA 5	22	0	1783	-0.14	0.92	0
14	SLE RA 6	22	0	1783	-0.12	0.91	0
14	SLE RA 7	22	0	1783	-0.13	0.92	0
14	SLE RA 8	22	0	1783	-0.12	0.91	0
14	SLE RA 9	22	0	1783	-0.13	0.92	0
14	SLE RA 10	8	0	2050	-0.16	0.41	0
14	SLE RA 11	8	0	2049	-0.14	0.4	0
14	SLE RA 12	8	0	2050	-0.16	0.41	0
14	SLE RA 13	8	0	2050	-0.16	0.41	0
14	SLE RA 14	8	0	2049	-0.14	0.4	0
14	SLE RA 15	8	0	2050	-0.16	0.41	0
14	SLE RA 16	8	0	2049	-0.14	0.4	0
14	SLE RA 17	8	0	2050	-0.16	0.41	0
14	SLE RA 18	2	0	2164	-0.15	0.18	0
14	SLE RA 19	2	0	2164	-0.17	0.18	0
14	SLE RA 20	2	0	2164	-0.15	0.18	0
14	SLE RA 21	2	0	2164	-0.17	0.18	0
14	SLE FR 1	22	0	1783	-0.12	0.91	0
14	SLE FR 2	22	0	1783	-0.12	0.91	0
14	SLE FR 3	22	0	1783	-0.12	0.91	0
14	SLE FR 4	16	0	1897	-0.13	0.69	0
14	SLE FR 5	16	0	1897	-0.13	0.69	0
14	SLE FR 6	12	0	1973	-0.14	0.54	0
14	SLE QP 1	22	0	1783	-0.12	0.91	0
14	SLE QP 2	16	0	1897	-0.13	0.69	0
14	SLD 1	224	16	1918	-26.7	9.24	-0.08
14	SLD 2	224	16	1918	-26.7	9.24	-0.08
14	SLD 3	176	23	1806	-16.4	7.41	-0.05
14	SLD 4	176	23	1806	-16.4	7.41	-0.05
14	SLD 5	151	-6	2073	-23.72	6.04	-0.07
14	SLD 6	151	-6	2073	-23.72	6.04	-0.07
14	SLD 7	-9	18	1700	10.61	-0.08	0.03
14	SLD 8	-9	18	1700	10.61	-0.08	0.03
14	SLD 9	41	-18	2094	-10.87	1.46	-0.03
14	SLD 10	41	-18	2094	-10.87	1.46	-0.03
14	SLD 11	-119	6	1721	23.46	-4.65	0.06
14	SLD 12	-119	6	1721	23.46	-4.65	0.06
14	SLD 13	-144	-23	1988	16.14	-6.02	0.05
14	SLD 14	-144	-23	1988	16.14	-6.02	0.05
14	SLD 15	-192	-16	1876	26.44	-7.86	0.08
14	SLD 16	-192	-16	1876	26.44	-7.86	0.08
14	SLV 1	507	40	1942	-68.03	20.85	-0.19
14	SLV 2	507	40	1942	-68.03	20.85	-0.19
14	SLV 3	394	58	1679	-41.53	16.53	-0.13
14	SLV 4	394	58	1679	-41.53	16.53	-0.13
14	SLV 5	335	-15	2310	-60.7	13.29	-0.16
14	SLV 6	335	-15	2310	-60.7	13.29	-0.16
14	SLV 7	-42	44	1432	27.65	-1.11	0.07
14	SLV 8	-42	44	1432	27.65	-1.11	0.07
14	SLV 9	74	-44	2362	-27.9	2.49	-0.07
14	SLV 10	74	-44	2362	-27.9	2.49	-0.07



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
14	SLV 11	-303	15	1484	60.44	-11.91	0.16
14	SLV 12	-303	15	1484	60.44	-11.91	0.16
14	SLV 13	-362	-58	2115	41.27	-15.14	0.12
14	SLV 14	-362	-58	2115	41.27	-15.14	0.12
14	SLV 15	-475	-40	1852	67.77	-19.46	0.19
14	SLV 16	-475	-40	1852	67.77	-19.46	0.19
15	SLU 1	18	0	1771	-0.41	0.19	-0.01
15	SLU 2	19	1	1772	-0.47	0.2	-0.01
15	SLU 3	18	0	1771	-0.41	0.19	-0.01
15	SLU 4	18	1	1772	-0.44	0.2	-0.01
15	SLU 5	19	1	1772	-0.47	0.2	-0.01
15	SLU 6	18	0	1771	-0.41	0.19	-0.01
15	SLU 7	18	1	1772	-0.44	0.2	-0.01
15	SLU 8	18	0	1771	-0.41	0.19	-0.01
15	SLU 9	18	1	1772	-0.44	0.2	-0.01
15	SLU 10	-3	1	2168	-0.6	-0.83	-0.01
15	SLU 11	-4	1	2167	-0.54	-0.85	-0.01
15	SLU 12	-4	1	2168	-0.58	-0.84	-0.01
15	SLU 13	-3	1	2168	-0.6	-0.83	-0.01
15	SLU 14	-4	1	2167	-0.54	-0.85	-0.01
15	SLU 15	-4	1	2168	-0.58	-0.84	-0.01
15	SLU 16	-4	1	2167	-0.54	-0.85	-0.01
15	SLU 17	-4	1	2168	-0.58	-0.84	-0.01
15	SLU 18	-13	1	2337	-0.6	-1.29	-0.01
15	SLU 19	-13	1	2337	-0.63	-1.28	-0.01
15	SLU 20	-13	1	2337	-0.6	-1.29	-0.01
15	SLU 21	-13	1	2337	-0.63	-1.28	-0.01
15	SLU 22	18	0	1956	-0.49	0.06	-0.01
15	SLU 23	18	1	1957	-0.56	0.08	-0.01
15	SLU 24	18	0	1956	-0.49	0.06	-0.01
15	SLU 25	18	1	1957	-0.53	0.07	-0.01
15	SLU 26	18	1	1957	-0.56	0.08	-0.01
15	SLU 27	18	0	1956	-0.49	0.06	-0.01
15	SLU 28	18	1	1957	-0.53	0.07	-0.01
15	SLU 29	18	0	1956	-0.49	0.06	-0.01
15	SLU 30	18	1	1957	-0.53	0.07	-0.01
15	SLU 31	-4	1	2354	-0.69	-0.95	-0.01
15	SLU 32	-4	1	2353	-0.63	-0.97	-0.01
15	SLU 33	-4	1	2353	-0.66	-0.96	-0.01
15	SLU 34	-4	1	2354	-0.69	-0.95	-0.01
15	SLU 35	-4	1	2353	-0.63	-0.97	-0.01
15	SLU 36	-4	1	2353	-0.66	-0.96	-0.01
15	SLU 37	-4	1	2353	-0.63	-0.97	-0.01
15	SLU 38	-4	1	2353	-0.66	-0.96	-0.01
15	SLU 39	-14	1	2522	-0.68	-1.41	-0.01
15	SLU 40	-13	1	2523	-0.72	-1.4	-0.01
15	SLU 41	-14	1	2522	-0.68	-1.41	-0.01
15	SLU 42	-13	1	2523	-0.72	-1.4	-0.01
15	SLU 43	24	0	2239	-0.5	0.28	-0.01
15	SLU 44	24	1	2240	-0.56	0.3	-0.01
15	SLU 45	24	0	2239	-0.5	0.28	-0.01
15	SLU 46	24	1	2239	-0.54	0.3	-0.01
15	SLU 47	24	1	2240	-0.56	0.3	-0.01
15	SLU 48	24	0	2239	-0.5	0.28	-0.01
15	SLU 49	24	1	2239	-0.54	0.3	-0.01
15	SLU 50	24	0	2239	-0.5	0.28	-0.01
15	SLU 51	24	1	2239	-0.54	0.3	-0.01
15	SLU 52	2	1	2636	-0.69	-0.73	-0.01
15	SLU 53	2	1	2635	-0.63	-0.75	-0.01
15	SLU 54	2	1	2635	-0.67	-0.74	-0.01
15	SLU 55	2	1	2636	-0.69	-0.73	-0.01
15	SLU 56	2	1	2635	-0.63	-0.75	-0.01
15	SLU 57	2	1	2635	-0.67	-0.74	-0.01
15	SLU 58	2	1	2635	-0.63	-0.75	-0.01
15	SLU 59	2	1	2635	-0.67	-0.74	-0.01
15	SLU 60	-8	1	2804	-0.69	-1.19	-0.01
15	SLU 61	-7	1	2805	-0.73	-1.18	-0.01
15	SLU 62	-8	1	2804	-0.69	-1.19	-0.01
15	SLU 63	-7	1	2805	-0.73	-1.18	-0.01
15	SLU 64	23	1	2424	-0.59	0.16	-0.01
15	SLU 65	24	1	2425	-0.65	0.18	-0.01
15	SLU 66	23	1	2424	-0.59	0.16	-0.01
15	SLU 67	23	1	2425	-0.62	0.17	-0.01
15	SLU 68	24	1	2425	-0.65	0.18	-0.01
15	SLU 69	23	1	2424	-0.59	0.16	-0.01
15	SLU 70	23	1	2425	-0.62	0.17	-0.01
15	SLU 71	23	1	2424	-0.59	0.16	-0.01
15	SLU 72	23	1	2425	-0.62	0.17	-0.01
15	SLU 73	2	1	2821	-0.78	-0.85	-0.01
15	SLU 74	1	1	2820	-0.72	-0.87	-0.01
15	SLU 75	2	1	2821	-0.76	-0.86	-0.01
15	SLU 76	2	1	2821	-0.78	-0.85	-0.01
15	SLU 77	1	1	2820	-0.72	-0.87	-0.01
15	SLU 78	2	1	2821	-0.76	-0.86	-0.01
15	SLU 79	1	1	2820	-0.72	-0.87	-0.01
15	SLU 80	2	1	2821	-0.76	-0.86	-0.01
15	SLU 81	-8	1	2990	-0.78	-1.32	-0.01
15	SLU 82	-8	1	2991	-0.81	-1.31	-0.01
15	SLU 83	-8	1	2990	-0.78	-1.32	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
15	SLU 84	-8	1	2991	-0.81	-1.31	-0.01
15	SLE RA 1	18	0	1824	-0.43	0.15	-0.01
15	SLE RA 2	18	1	1825	-0.47	0.16	-0.01
15	SLE RA 3	18	0	1824	-0.43	0.15	-0.01
15	SLE RA 4	18	1	1824	-0.46	0.16	-0.01
15	SLE RA 5	18	1	1825	-0.47	0.16	-0.01
15	SLE RA 6	18	0	1824	-0.43	0.15	-0.01
15	SLE RA 7	18	1	1824	-0.46	0.16	-0.01
15	SLE RA 8	18	0	1824	-0.43	0.15	-0.01
15	SLE RA 9	18	1	1824	-0.46	0.16	-0.01
15	SLE RA 10	4	1	2089	-0.56	-0.53	-0.01
15	SLE RA 11	3	1	2088	-0.52	-0.54	-0.01
15	SLE RA 12	4	1	2088	-0.55	-0.53	-0.01
15	SLE RA 13	4	1	2089	-0.56	-0.53	-0.01
15	SLE RA 14	3	1	2088	-0.52	-0.54	-0.01
15	SLE RA 15	4	1	2088	-0.55	-0.53	-0.01
15	SLE RA 16	3	1	2088	-0.52	-0.54	-0.01
15	SLE RA 17	4	1	2088	-0.55	-0.53	-0.01
15	SLE RA 18	-3	1	2201	-0.56	-0.83	-0.01
15	SLE RA 19	-3	1	2202	-0.58	-0.83	-0.01
15	SLE RA 20	-3	1	2201	-0.56	-0.83	-0.01
15	SLE RA 21	-3	1	2202	-0.58	-0.83	-0.01
15	SLE FR 1	18	0	1824	-0.43	0.15	-0.01
15	SLE FR 2	18	0	1824	-0.44	0.15	-0.01
15	SLE FR 3	18	0	1824	-0.43	0.15	-0.01
15	SLE FR 4	12	0	1937	-0.48	-0.14	-0.01
15	SLE FR 5	12	0	1937	-0.47	-0.15	-0.01
15	SLE FR 6	7	0	2013	-0.49	-0.34	-0.01
15	SLE QP 1	18	0	1824	-0.43	0.15	-0.01
15	SLE QP 2	12	0	1937	-0.47	-0.15	-0.01
15	SLD 1	224	16	2062	-18.61	8.61	-0.06
15	SLD 2	224	16	2062	-18.61	8.61	-0.06
15	SLD 3	167	22	1894	-12.27	6.64	-0.05
15	SLD 4	167	22	1894	-12.27	6.64	-0.05
15	SLD 5	162	-3	2229	-15.52	5.46	-0.05
15	SLD 6	162	-3	2229	-15.52	5.46	-0.05
15	SLD 7	-28	15	1670	5.6	-1.09	0
15	SLD 8	-28	15	1670	5.6	-1.09	0
15	SLD 9	52	-14	2205	-6.53	0.8	-0.02
15	SLD 10	52	-14	2205	-6.53	0.8	-0.02
15	SLD 11	-138	4	1645	14.58	-5.75	0.03
15	SLD 12	-138	4	1645	14.58	-5.75	0.03
15	SLD 13	-143	-21	1980	11.33	-6.93	0.03
15	SLD 14	-143	-21	1980	11.33	-6.93	0.03
15	SLD 15	-200	-15	1812	17.67	-8.9	0.04
15	SLD 16	-200	-15	1812	17.67	-8.9	0.04
15	SLV 1	512	41	2237	-46.75	20.5	-0.14
15	SLV 2	512	41	2237	-46.75	20.5	-0.14
15	SLV 3	378	54	1843	-30.5	15.88	-0.1
15	SLV 4	378	54	1843	-30.5	15.88	-0.1
15	SLV 5	365	-7	2624	-39	13.06	-0.1
15	SLV 6	365	-7	2624	-39	13.06	-0.1
15	SLV 7	-81	36	1312	15.17	-2.35	0.02
15	SLV 8	-81	36	1312	15.17	-2.35	0.02
15	SLV 9	105	-35	2563	-16.11	2.06	-0.04
15	SLV 10	105	-35	2563	-16.11	2.06	-0.04
15	SLV 11	-341	8	1250	38.06	-13.35	0.09
15	SLV 12	-341	8	1250	38.06	-13.35	0.09
15	SLV 13	-354	-53	2031	29.56	-16.17	0.08
15	SLV 14	-354	-53	2031	29.56	-16.17	0.08
15	SLV 15	-488	-40	1637	45.81	-20.79	0.12
15	SLV 16	-488	-40	1637	45.81	-20.79	0.12
16	SLU 1	22	4	1888	-1.21	0.35	0.01
16	SLU 2	23	4	1890	-1.27	0.37	0.01
16	SLU 3	22	4	1888	-1.21	0.35	0.01
16	SLU 4	23	4	1889	-1.25	0.36	0.01
16	SLU 5	23	4	1890	-1.27	0.37	0.01
16	SLU 6	22	4	1888	-1.21	0.35	0.01
16	SLU 7	23	4	1889	-1.25	0.36	0.01
16	SLU 8	22	4	1888	-1.21	0.35	0.01
16	SLU 9	23	4	1889	-1.25	0.36	0.01
16	SLU 10	5	6	2313	-1.66	-0.55	0.02
16	SLU 11	4	6	2311	-1.6	-0.57	0.02
16	SLU 12	5	6	2312	-1.63	-0.56	0.02
16	SLU 13	5	6	2313	-1.66	-0.55	0.02
16	SLU 14	4	6	2311	-1.6	-0.57	0.02
16	SLU 15	5	6	2312	-1.63	-0.56	0.02
16	SLU 16	4	6	2311	-1.6	-0.57	0.02
16	SLU 17	5	6	2312	-1.63	-0.56	0.02
16	SLU 18	-3	6	2492	-1.77	-0.96	0.02
16	SLU 19	-3	6	2493	-1.8	-0.95	0.02
16	SLU 20	-3	6	2492	-1.77	-0.96	0.02
16	SLU 21	-3	6	2493	-1.8	-0.95	0.02
16	SLU 22	24	5	2098	-1.47	0.29	0.02
16	SLU 23	25	5	2100	-1.52	0.31	0.02
16	SLU 24	24	5	2098	-1.47	0.29	0.02
16	SLU 25	25	5	2099	-1.5	0.3	0.02
16	SLU 26	25	5	2100	-1.52	0.31	0.02
16	SLU 27	24	5	2098	-1.47	0.29	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
16	SLU 28	25	5	2099	-1.5	0.3	0.02
16	SLU 29	24	5	2098	-1.47	0.29	0.02
16	SLU 30	25	5	2099	-1.5	0.3	0.02
16	SLU 31	7	7	2523	-1.91	-0.61	0.02
16	SLU 32	6	6	2521	-1.85	-0.63	0.02
16	SLU 33	7	7	2522	-1.89	-0.62	0.02
16	SLU 34	7	7	2523	-1.91	-0.61	0.02
16	SLU 35	6	6	2521	-1.85	-0.63	0.02
16	SLU 36	7	7	2522	-1.89	-0.62	0.02
16	SLU 37	6	6	2521	-1.85	-0.63	0.02
16	SLU 38	7	7	2522	-1.89	-0.62	0.02
16	SLU 39	-1	7	2702	-2.02	-1.02	0.02
16	SLU 40	-1	7	2703	-2.05	-1.01	0.02
16	SLU 41	-1	7	2702	-2.02	-1.02	0.02
16	SLU 42	-1	7	2703	-2.05	-1.01	0.02
16	SLU 43	28	5	2382	-1.49	0.47	0.02
16	SLU 44	29	5	2384	-1.55	0.49	0.02
16	SLU 45	28	5	2382	-1.49	0.47	0.02
16	SLU 46	29	5	2383	-1.53	0.48	0.02
16	SLU 47	29	5	2384	-1.55	0.49	0.02
16	SLU 48	28	5	2382	-1.49	0.47	0.02
16	SLU 49	29	5	2383	-1.53	0.48	0.02
16	SLU 50	28	5	2382	-1.49	0.47	0.02
16	SLU 51	29	5	2383	-1.53	0.48	0.02
16	SLU 52	11	7	2807	-1.94	-0.43	0.02
16	SLU 53	10	7	2805	-1.88	-0.44	0.02
16	SLU 54	11	7	2806	-1.91	-0.43	0.02
16	SLU 55	11	7	2807	-1.94	-0.43	0.02
16	SLU 56	10	7	2805	-1.88	-0.44	0.02
16	SLU 57	11	7	2806	-1.91	-0.43	0.02
16	SLU 58	10	7	2805	-1.88	-0.44	0.02
16	SLU 59	11	7	2806	-1.91	-0.43	0.02
16	SLU 60	2	7	2986	-2.04	-0.84	0.02
16	SLU 61	3	7	2987	-2.08	-0.83	0.02
16	SLU 62	2	7	2986	-2.04	-0.84	0.02
16	SLU 63	3	7	2987	-2.08	-0.83	0.02
16	SLU 64	30	6	2592	-1.74	0.41	0.02
16	SLU 65	31	6	2595	-1.8	0.43	0.02
16	SLU 66	30	6	2592	-1.74	0.41	0.02
16	SLU 67	31	6	2594	-1.78	0.42	0.02
16	SLU 68	31	6	2595	-1.8	0.43	0.02
16	SLU 69	30	6	2592	-1.74	0.41	0.02
16	SLU 70	31	6	2594	-1.78	0.42	0.02
16	SLU 71	30	6	2592	-1.74	0.41	0.02
16	SLU 72	31	6	2594	-1.78	0.42	0.02
16	SLU 73	13	8	3017	-2.19	-0.49	0.02
16	SLU 74	12	7	3015	-2.13	-0.5	0.02
16	SLU 75	13	8	3016	-2.16	-0.49	0.02
16	SLU 76	13	8	3017	-2.19	-0.49	0.02
16	SLU 77	12	7	3015	-2.13	-0.5	0.02
16	SLU 78	13	8	3016	-2.16	-0.49	0.02
16	SLU 79	12	7	3015	-2.13	-0.5	0.02
16	SLU 80	13	8	3016	-2.16	-0.49	0.02
16	SLU 81	5	8	3196	-2.3	-0.9	0.02
16	SLU 82	5	8	3198	-2.33	-0.89	0.02
16	SLU 83	5	8	3196	-2.3	-0.9	0.02
16	SLU 84	5	8	3198	-2.33	-0.89	0.02
16	SLE RA 1	23	5	1948	-1.29	0.33	0.01
16	SLE RA 2	23	5	1949	-1.32	0.34	0.01
16	SLE RA 3	23	5	1948	-1.29	0.33	0.01
16	SLE RA 4	23	5	1949	-1.31	0.34	0.01
16	SLE RA 5	23	5	1949	-1.32	0.34	0.01
16	SLE RA 6	23	5	1948	-1.29	0.33	0.01
16	SLE RA 7	23	5	1949	-1.31	0.34	0.01
16	SLE RA 8	23	5	1948	-1.29	0.33	0.01
16	SLE RA 9	23	5	1949	-1.31	0.34	0.01
16	SLE RA 10	11	6	2231	-1.58	-0.27	0.02
16	SLE RA 11	11	5	2230	-1.54	-0.28	0.02
16	SLE RA 12	11	5	2231	-1.57	-0.27	0.02
16	SLE RA 13	11	6	2231	-1.58	-0.27	0.02
16	SLE RA 14	11	5	2230	-1.54	-0.28	0.02
16	SLE RA 15	11	5	2231	-1.57	-0.27	0.02
16	SLE RA 16	11	5	2230	-1.54	-0.28	0.02
16	SLE RA 17	11	5	2231	-1.57	-0.27	0.02
16	SLE RA 18	6	6	2351	-1.65	-0.54	0.02
16	SLE RA 19	6	6	2351	-1.68	-0.54	0.02
16	SLE RA 20	6	6	2351	-1.65	-0.54	0.02
16	SLE RA 21	6	6	2351	-1.68	-0.54	0.02
16	SLE FR 1	23	5	1948	-1.29	0.33	0.01
16	SLE FR 2	23	5	1948	-1.29	0.33	0.01
16	SLE FR 3	23	5	1948	-1.29	0.33	0.01
16	SLE FR 4	18	5	2069	-1.4	0.07	0.02
16	SLE FR 5	18	5	2069	-1.4	0.07	0.02
16	SLE FR 6	14	5	2149	-1.47	-0.11	0.02
16	SLE QP 1	23	5	1948	-1.29	0.33	0.01
16	SLE QP 2	18	5	2069	-1.4	0.07	0.02
16	SLD 1	231	17	2272	-10.94	8.57	-0.01
16	SLD 2	231	17	2272	-10.94	8.57	-0.01
16	SLD 3	163	21	1994	-7.88	6.41	-0.03





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
16	SLD 4	163	21	1994	-7.88	6.41	-0.03
16	SLD 5	184	2	2552	-8.89	5.9	0.03
16	SLD 6	184	2	2552	-8.89	5.9	0.03
16	SLD 7	-41	17	1624	1.29	-1.31	-0.02
16	SLD 8	-41	17	1624	1.29	-1.31	-0.02
16	SLD 9	76	-7	2514	-4.09	1.45	0.05
16	SLD 10	76	-7	2514	-4.09	1.45	0.05
16	SLD 11	-148	8	1585	6.1	-5.76	0
16	SLD 12	-148	8	1585	6.1	-5.76	0
16	SLD 13	-128	-11	2144	5.09	-6.27	0.06
16	SLD 14	-128	-11	2144	5.09	-6.27	0.06
16	SLD 15	-195	-7	1865	8.15	-8.43	0.04
16	SLD 16	-195	-7	1865	8.15	-8.43	0.04
16	SLV 1	519	35	2555	-25.71	20.11	-0.05
16	SLV 2	519	35	2555	-25.71	20.11	-0.05
16	SLV 3	362	46	1903	-17.93	15.03	-0.09
16	SLV 4	362	46	1903	-17.93	15.03	-0.09
16	SLV 5	408	-2	3205	-20.48	13.77	0.05
16	SLV 6	408	-2	3205	-20.48	13.77	0.05
16	SLV 7	-119	33	1029	5.43	-3.14	-0.07
16	SLV 8	-119	33	1029	5.43	-3.14	-0.07
16	SLV 9	154	-23	3108	-8.22	3.27	0.1
16	SLV 10	154	-23	3108	-8.22	3.27	0.1
16	SLV 11	-372	12	933	17.68	-13.63	-0.02
16	SLV 12	-372	12	933	17.68	-13.63	-0.02
16	SLV 13	-326	-36	2235	15.14	-14.89	0.12
16	SLV 14	-326	-36	2235	15.14	-14.89	0.12
16	SLV 15	-484	-25	1582	22.91	-19.97	0.09
16	SLV 16	-484	-25	1582	22.91	-19.97	0.09
17	SLU 1	-86	390	2932	-13.38	-3.83	0
17	SLU 2	-86	392	2937	-13.48	-3.83	0
17	SLU 3	-86	390	2932	-13.38	-3.83	0
17	SLU 4	-86	391	2935	-13.44	-3.83	0
17	SLU 5	-86	392	2937	-13.48	-3.83	0
17	SLU 6	-86	390	2932	-13.38	-3.83	0
17	SLU 7	-86	391	2935	-13.44	-3.83	0
17	SLU 8	-86	390	2932	-13.38	-3.83	0
17	SLU 9	-86	391	2935	-13.44	-3.83	0
17	SLU 10	-138	512	3629	-17.76	-6.02	0.01
17	SLU 11	-138	510	3624	-17.67	-6.02	0.01
17	SLU 12	-138	511	3627	-17.73	-6.02	0.01
17	SLU 13	-138	512	3629	-17.76	-6.02	0.01
17	SLU 14	-138	510	3624	-17.67	-6.02	0.01
17	SLU 15	-138	511	3627	-17.73	-6.02	0.01
17	SLU 16	-138	510	3624	-17.67	-6.02	0.01
17	SLU 17	-138	511	3627	-17.73	-6.02	0.01
17	SLU 18	-160	561	3921	-19.51	-6.95	0.01
17	SLU 19	-160	563	3924	-19.56	-6.95	0.01
17	SLU 20	-160	561	3921	-19.51	-6.95	0.01
17	SLU 21	-160	563	3924	-19.56	-6.95	0.01
17	SLU 22	-106	466	3304	-16.19	-4.67	0.01
17	SLU 23	-106	468	3309	-16.28	-4.67	0.01
17	SLU 24	-106	466	3304	-16.19	-4.67	0.01
17	SLU 25	-106	468	3307	-16.25	-4.67	0.01
17	SLU 26	-106	468	3309	-16.28	-4.67	0.01
17	SLU 27	-106	466	3304	-16.19	-4.67	0.01
17	SLU 28	-106	468	3307	-16.25	-4.67	0.01
17	SLU 29	-106	466	3304	-16.19	-4.67	0.01
17	SLU 30	-106	468	3307	-16.25	-4.67	0.01
17	SLU 31	-157	589	4001	-20.57	-6.86	0.01
17	SLU 32	-157	586	3996	-20.48	-6.86	0.01
17	SLU 33	-157	588	3999	-20.53	-6.86	0.01
17	SLU 34	-157	589	4001	-20.57	-6.86	0.01
17	SLU 35	-157	586	3996	-20.48	-6.86	0.01
17	SLU 36	-157	588	3999	-20.53	-6.86	0.01
17	SLU 37	-157	586	3996	-20.48	-6.86	0.01
17	SLU 38	-157	588	3999	-20.53	-6.86	0.01
17	SLU 39	-179	638	4292	-22.32	-7.79	0.01
17	SLU 40	-180	639	4296	-22.37	-7.79	0.01
17	SLU 41	-179	638	4292	-22.32	-7.79	0.01
17	SLU 42	-180	639	4296	-22.37	-7.79	0.01
17	SLU 43	-105	480	3684	-16.43	-4.7	0.01
17	SLU 44	-105	483	3689	-16.53	-4.7	0
17	SLU 45	-105	480	3684	-16.43	-4.7	0.01
17	SLU 46	-105	482	3687	-16.49	-4.7	0
17	SLU 47	-105	483	3689	-16.53	-4.7	0
17	SLU 48	-105	480	3684	-16.43	-4.7	0.01
17	SLU 49	-105	482	3687	-16.49	-4.7	0
17	SLU 50	-105	480	3684	-16.43	-4.7	0.01
17	SLU 51	-105	482	3687	-16.49	-4.7	0
17	SLU 52	-157	603	4381	-20.82	-6.88	0.01
17	SLU 53	-157	601	4376	-20.72	-6.88	0.01
17	SLU 54	-157	602	4379	-20.78	-6.88	0.01
17	SLU 55	-157	603	4381	-20.82	-6.88	0.01
17	SLU 56	-157	601	4376	-20.72	-6.88	0.01
17	SLU 57	-157	602	4379	-20.78	-6.88	0.01
17	SLU 58	-157	601	4376	-20.72	-6.88	0.01
17	SLU 59	-157	602	4379	-20.78	-6.88	0.01
17	SLU 60	-179	652	4673	-22.56	-7.82	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
17	SLU 61	-179	653	4676	-22.62	-7.82	0.01
17	SLU 62	-179	652	4673	-22.56	-7.82	0.01
17	SLU 63	-179	653	4676	-22.62	-7.82	0.01
17	SLU 64	-125	557	4056	-19.24	-5.54	0.01
17	SLU 65	-125	559	4061	-19.34	-5.54	0.01
17	SLU 66	-125	557	4056	-19.24	-5.54	0.01
17	SLU 67	-125	558	4059	-19.3	-5.54	0.01
17	SLU 68	-125	559	4061	-19.34	-5.54	0.01
17	SLU 69	-125	557	4056	-19.24	-5.54	0.01
17	SLU 70	-125	558	4059	-19.3	-5.54	0.01
17	SLU 71	-125	557	4056	-19.24	-5.54	0.01
17	SLU 72	-125	558	4059	-19.3	-5.54	0.01
17	SLU 73	-176	679	4753	-23.62	-7.72	0.01
17	SLU 74	-176	677	4748	-23.53	-7.72	0.01
17	SLU 75	-176	678	4751	-23.59	-7.72	0.01
17	SLU 76	-176	679	4753	-23.62	-7.72	0.01
17	SLU 77	-176	677	4748	-23.53	-7.72	0.01
17	SLU 78	-176	678	4751	-23.59	-7.72	0.01
17	SLU 79	-176	677	4748	-23.53	-7.72	0.01
17	SLU 80	-176	678	4751	-23.59	-7.72	0.01
17	SLU 81	-198	729	5045	-25.37	-8.65	0.01
17	SLU 82	-199	730	5048	-25.42	-8.65	0.01
17	SLU 83	-198	729	5045	-25.37	-8.65	0.01
17	SLU 84	-199	730	5048	-25.42	-8.65	0.01
17	SLE RA 1	-92	412	3038	-14.18	-4.07	0
17	SLE RA 2	-92	413	3042	-14.25	-4.07	0
17	SLE RA 3	-92	412	3038	-14.18	-4.07	0
17	SLE RA 4	-92	412	3040	-14.22	-4.07	0
17	SLE RA 5	-92	413	3042	-14.25	-4.07	0
17	SLE RA 6	-92	412	3038	-14.18	-4.07	0
17	SLE RA 7	-92	412	3040	-14.22	-4.07	0
17	SLE RA 8	-92	412	3038	-14.18	-4.07	0
17	SLE RA 9	-92	412	3040	-14.22	-4.07	0
17	SLE RA 10	-126	493	3503	-17.11	-5.53	0.01
17	SLE RA 11	-126	492	3500	-17.04	-5.53	0.01
17	SLE RA 12	-126	493	3502	-17.08	-5.53	0.01
17	SLE RA 13	-126	493	3503	-17.11	-5.53	0.01
17	SLE RA 14	-126	492	3500	-17.04	-5.53	0.01
17	SLE RA 15	-126	493	3502	-17.08	-5.53	0.01
17	SLE RA 16	-126	492	3500	-17.04	-5.53	0.01
17	SLE RA 17	-126	493	3502	-17.08	-5.53	0.01
17	SLE RA 18	-141	526	3697	-18.27	-6.15	0.01
17	SLE RA 19	-141	527	3699	-18.31	-6.15	0.01
17	SLE RA 20	-141	526	3697	-18.27	-6.15	0.01
17	SLE RA 21	-141	527	3699	-18.31	-6.15	0.01
17	SLE FR 1	-92	412	3038	-14.18	-4.07	0
17	SLE FR 2	-92	412	3039	-14.2	-4.07	0
17	SLE FR 3	-92	412	3038	-14.18	-4.07	0
17	SLE FR 4	-106	446	3237	-15.42	-4.7	0.01
17	SLE FR 5	-106	446	3236	-15.41	-4.7	0.01
17	SLE FR 6	-116	469	3368	-16.23	-5.11	0.01
17	SLE QP 1	-92	412	3038	-14.18	-4.07	0
17	SLE QP 2	-106	446	3236	-15.41	-4.7	0.01
17	SLD 1	71	579	3659	-21.42	2.9	-0.01
17	SLD 2	71	579	3659	-21.42	2.9	-0.01
17	SLD 3	55	395	3079	-12.96	2.2	-0.01
17	SLD 4	55	395	3079	-12.96	2.2	-0.01
17	SLD 5	-28	764	4243	-30.05	-1.35	-0.01
17	SLD 6	-28	764	4243	-30.05	-1.35	-0.01
17	SLD 7	-83	153	2309	-1.84	-3.69	0.01
17	SLD 8	-83	153	2309	-1.84	-3.69	0.01
17	SLD 9	-129	739	4163	-28.97	-5.7	0
17	SLD 10	-129	739	4163	-28.97	-5.7	0
17	SLD 11	-185	128	2229	-0.77	-8.04	0.02
17	SLD 12	-185	128	2229	-0.77	-8.04	0.02
17	SLD 13	-267	497	3393	-17.86	-11.6	0.02
17	SLD 14	-267	497	3393	-17.86	-11.6	0.02
17	SLD 15	-284	313	2813	-9.39	-12.3	0.02
17	SLD 16	-284	313	2813	-9.39	-12.3	0.02
17	SLV 1	313	759	4244	-29.64	13.28	-0.03
17	SLV 2	313	759	4244	-29.64	13.28	-0.03
17	SLV 3	273	332	2887	-9.9	11.6	-0.02
17	SLV 4	273	332	2887	-9.9	11.6	-0.02
17	SLV 5	80	1189	5597	-49.61	3.24	-0.02
17	SLV 6	80	1189	5597	-49.61	3.24	-0.02
17	SLV 7	-53	-237	1072	16.17	-2.35	0.01
17	SLV 8	-53	-237	1072	16.17	-2.35	0.01
17	SLV 9	-160	1129	5400	-46.99	-7.04	0
17	SLV 10	-160	1129	5400	-46.99	-7.04	0
17	SLV 11	-292	-297	875	18.79	-12.63	0.03
17	SLV 12	-292	-297	875	18.79	-12.63	0.03
17	SLV 13	-486	560	3585	-20.91	-20.99	0.03
17	SLV 14	-486	560	3585	-20.91	-20.99	0.03
17	SLV 15	-525	133	2228	-1.18	-22.67	0.04
17	SLV 16	-525	133	2228	-1.18	-22.67	0.04
18	SLU 1	-200	4	1876	-1.25	-7.01	-0.02
18	SLU 2	-201	4	1878	-1.2	-7.04	-0.02
18	SLU 3	-200	4	1876	-1.25	-7.01	-0.02
18	SLU 4	-200	4	1877	-1.22	-7.03	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
18	SLU 5	-201	4	1878	-1.2	-7.04	-0.02
18	SLU 6	-200	4	1876	-1.25	-7.01	-0.02
18	SLU 7	-200	4	1877	-1.22	-7.03	-0.02
18	SLU 8	-200	4	1876	-1.25	-7.01	-0.02
18	SLU 9	-200	4	1877	-1.22	-7.03	-0.02
18	SLU 10	-289	6	2279	-1.6	-10.34	-0.02
18	SLU 11	-289	6	2277	-1.64	-10.3	-0.02
18	SLU 12	-289	6	2278	-1.62	-10.32	-0.02
18	SLU 13	-289	6	2279	-1.6	-10.34	-0.02
18	SLU 14	-289	6	2277	-1.64	-10.3	-0.02
18	SLU 15	-289	6	2278	-1.62	-10.32	-0.02
18	SLU 16	-289	6	2277	-1.64	-10.3	-0.02
18	SLU 17	-289	6	2278	-1.62	-10.32	-0.02
18	SLU 18	-327	6	2449	-1.81	-11.71	-0.03
18	SLU 19	-327	6	2450	-1.78	-11.73	-0.03
18	SLU 20	-327	6	2449	-1.81	-11.71	-0.03
18	SLU 21	-327	6	2450	-1.78	-11.73	-0.03
18	SLU 22	-242	5	2080	-1.51	-8.55	-0.02
18	SLU 23	-243	5	2081	-1.46	-8.58	-0.02
18	SLU 24	-242	5	2080	-1.51	-8.55	-0.02
18	SLU 25	-243	5	2081	-1.48	-8.57	-0.02
18	SLU 26	-243	5	2081	-1.46	-8.58	-0.02
18	SLU 27	-242	5	2080	-1.51	-8.55	-0.02
18	SLU 28	-243	5	2081	-1.48	-8.57	-0.02
18	SLU 29	-242	5	2080	-1.51	-8.55	-0.02
18	SLU 30	-243	5	2081	-1.48	-8.57	-0.02
18	SLU 31	-332	6	2483	-1.86	-11.88	-0.03
18	SLU 32	-331	6	2481	-1.9	-11.84	-0.03
18	SLU 33	-332	6	2482	-1.87	-11.86	-0.03
18	SLU 34	-332	6	2483	-1.86	-11.88	-0.03
18	SLU 35	-331	6	2481	-1.9	-11.84	-0.03
18	SLU 36	-332	6	2482	-1.87	-11.86	-0.03
18	SLU 37	-331	6	2481	-1.9	-11.84	-0.03
18	SLU 38	-332	6	2482	-1.87	-11.86	-0.03
18	SLU 39	-370	7	2653	-2.07	-13.25	-0.03
18	SLU 40	-370	7	2654	-2.04	-13.27	-0.03
18	SLU 41	-370	7	2653	-2.07	-13.25	-0.03
18	SLU 42	-370	7	2654	-2.04	-13.27	-0.03
18	SLU 43	-245	5	2368	-1.54	-8.58	-0.02
18	SLU 44	-246	5	2370	-1.49	-8.62	-0.02
18	SLU 45	-245	5	2368	-1.54	-8.58	-0.02
18	SLU 46	-245	5	2370	-1.51	-8.6	-0.02
18	SLU 47	-246	5	2370	-1.49	-8.62	-0.02
18	SLU 48	-245	5	2368	-1.54	-8.58	-0.02
18	SLU 49	-245	5	2370	-1.51	-8.6	-0.02
18	SLU 50	-245	5	2368	-1.54	-8.58	-0.02
18	SLU 51	-245	5	2370	-1.51	-8.6	-0.02
18	SLU 52	-335	7	2772	-1.88	-11.91	-0.03
18	SLU 53	-334	7	2770	-1.93	-11.88	-0.03
18	SLU 54	-334	7	2771	-1.9	-11.9	-0.03
18	SLU 55	-335	7	2772	-1.88	-11.91	-0.03
18	SLU 56	-334	7	2770	-1.93	-11.88	-0.03
18	SLU 57	-334	7	2771	-1.9	-11.9	-0.03
18	SLU 58	-334	7	2770	-1.93	-11.88	-0.03
18	SLU 59	-334	7	2771	-1.9	-11.9	-0.03
18	SLU 60	-372	7	2942	-2.1	-13.29	-0.03
18	SLU 61	-372	7	2943	-2.07	-13.31	-0.03
18	SLU 62	-372	7	2942	-2.1	-13.29	-0.03
18	SLU 63	-372	7	2943	-2.07	-13.31	-0.03
18	SLU 64	-288	6	2572	-1.79	-10.12	-0.03
18	SLU 65	-289	6	2574	-1.75	-10.16	-0.03
18	SLU 66	-288	6	2572	-1.79	-10.12	-0.03
18	SLU 67	-288	6	2573	-1.77	-10.14	-0.03
18	SLU 68	-289	6	2574	-1.75	-10.16	-0.03
18	SLU 69	-288	6	2572	-1.79	-10.12	-0.03
18	SLU 70	-288	6	2573	-1.77	-10.14	-0.03
18	SLU 71	-288	6	2572	-1.79	-10.12	-0.03
18	SLU 72	-288	6	2573	-1.77	-10.14	-0.03
18	SLU 73	-378	7	2976	-2.14	-13.45	-0.03
18	SLU 74	-377	7	2974	-2.19	-13.42	-0.03
18	SLU 75	-377	7	2975	-2.16	-13.44	-0.03
18	SLU 76	-378	7	2976	-2.14	-13.45	-0.03
18	SLU 77	-377	7	2974	-2.19	-13.42	-0.03
18	SLU 78	-377	7	2975	-2.16	-13.44	-0.03
18	SLU 79	-377	7	2974	-2.19	-13.42	-0.03
18	SLU 80	-377	7	2975	-2.16	-13.44	-0.03
18	SLU 81	-415	8	3146	-2.36	-14.83	-0.04
18	SLU 82	-415	8	3147	-2.33	-14.85	-0.04
18	SLU 83	-415	8	3146	-2.36	-14.83	-0.04
18	SLU 84	-415	8	3147	-2.33	-14.85	-0.04
18	SLE RA 1	-212	4	1934	-1.32	-7.45	-0.02
18	SLE RA 2	-212	5	1935	-1.29	-7.47	-0.02
18	SLE RA 3	-212	4	1934	-1.32	-7.45	-0.02
18	SLE RA 4	-212	5	1935	-1.31	-7.46	-0.02
18	SLE RA 5	-212	5	1935	-1.29	-7.47	-0.02
18	SLE RA 6	-212	4	1934	-1.32	-7.45	-0.02
18	SLE RA 7	-212	5	1935	-1.31	-7.46	-0.02
18	SLE RA 8	-212	4	1934	-1.32	-7.45	-0.02
18	SLE RA 9	-212	5	1935	-1.31	-7.46	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
18	SLE RA 10	-272	5	2203	-1.56	-9.67	-0.02
18	SLE RA 11	-271	5	2201	-1.59	-9.64	-0.02
18	SLE RA 12	-272	5	2202	-1.57	-9.66	-0.02
18	SLE RA 13	-272	5	2203	-1.56	-9.67	-0.02
18	SLE RA 14	-271	5	2201	-1.59	-9.64	-0.02
18	SLE RA 15	-272	5	2202	-1.57	-9.66	-0.02
18	SLE RA 16	-271	5	2201	-1.59	-9.64	-0.02
18	SLE RA 17	-272	5	2202	-1.57	-9.66	-0.02
18	SLE RA 18	-297	6	2316	-1.7	-10.58	-0.03
18	SLE RA 19	-297	6	2317	-1.68	-10.6	-0.03
18	SLE RA 20	-297	6	2316	-1.7	-10.58	-0.03
18	SLE RA 21	-297	6	2317	-1.68	-10.6	-0.03
18	SLE FR 1	-212	4	1934	-1.32	-7.45	-0.02
18	SLE FR 2	-212	4	1934	-1.32	-7.45	-0.02
18	SLE FR 3	-212	4	1934	-1.32	-7.45	-0.02
18	SLE FR 4	-237	5	2049	-1.43	-8.39	-0.02
18	SLE FR 5	-237	5	2049	-1.44	-8.39	-0.02
18	SLE FR 6	-254	5	2125	-1.51	-9.02	-0.02
18	SLE QP 1	-212	4	1934	-1.32	-7.45	-0.02
18	SLE QP 2	-237	5	2049	-1.44	-8.39	-0.02
18	SLD 1	-109	-14	2257	8.26	-2.57	-0.04
18	SLD 2	-109	-14	2257	8.26	-2.57	-0.04
18	SLD 3	-41	-9	1972	4.86	-0.41	-0.03
18	SLD 4	-41	-9	1972	4.86	-0.41	-0.03
18	SLD 5	-300	-8	2542	6.64	-9.92	-0.04
18	SLD 6	-300	-8	2542	6.64	-9.92	-0.04
18	SLD 7	-77	8	1595	-4.71	-2.72	-0.01
18	SLD 8	-77	8	1595	-4.71	-2.72	-0.01
18	SLD 9	-398	2	2503	1.84	-14.06	-0.03
18	SLD 10	-398	2	2503	1.84	-14.06	-0.03
18	SLD 11	-174	18	1555	-9.51	-6.86	0
18	SLD 12	-174	18	1555	-9.51	-6.86	0
18	SLD 13	-433	19	2125	-7.73	-16.37	-0.01
18	SLD 14	-433	19	2125	-7.73	-16.37	-0.01
18	SLD 15	-366	23	1840	-11.14	-14.21	0
18	SLD 16	-366	23	1840	-11.14	-14.21	0
18	SLV 1	67	-42	2546	23.13	5.36	-0.07
18	SLV 2	67	-42	2546	23.13	5.36	-0.07
18	SLV 3	224	-30	1880	14.68	10.41	-0.05
18	SLV 4	224	-30	1880	14.68	10.41	-0.05
18	SLV 5	-384	-27	3208	18.74	-11.93	-0.08
18	SLV 6	-384	-27	3208	18.74	-11.93	-0.08
18	SLV 7	139	12	988	-9.41	4.91	0.01
18	SLV 8	139	12	988	-9.41	4.91	0.01
18	SLV 9	-614	-3	3109	6.54	-21.69	-0.05
18	SLV 10	-614	-3	3109	6.54	-21.69	-0.05
18	SLV 11	-91	37	889	-21.61	-4.85	0.03
18	SLV 12	-91	37	889	-21.61	-4.85	0.03
18	SLV 13	-699	40	2217	-17.55	-27.19	0.01
18	SLV 14	-699	40	2217	-17.55	-27.19	0.01
18	SLV 15	-542	52	1551	-26	-22.14	0.03
18	SLV 16	-542	52	1551	-26	-22.14	0.03
19	SLU 1	-250	0	1698	-0.48	-10.34	0.01
19	SLU 2	-251	0	1699	-0.35	-10.37	0.01
19	SLU 3	-250	0	1698	-0.48	-10.34	0.01
19	SLU 4	-250	0	1699	-0.4	-10.36	0.01
19	SLU 5	-251	0	1699	-0.35	-10.37	0.01
19	SLU 6	-250	0	1698	-0.48	-10.34	0.01
19	SLU 7	-250	0	1699	-0.4	-10.36	0.01
19	SLU 8	-250	0	1698	-0.48	-10.34	0.01
19	SLU 9	-250	0	1699	-0.4	-10.36	0.01
19	SLU 10	-353	1	2035	-0.5	-14.55	0.01
19	SLU 11	-352	1	2035	-0.63	-14.52	0.01
19	SLU 12	-353	1	2035	-0.55	-14.53	0.01
19	SLU 13	-353	1	2035	-0.5	-14.55	0.01
19	SLU 14	-352	1	2035	-0.63	-14.52	0.01
19	SLU 15	-353	1	2035	-0.55	-14.53	0.01
19	SLU 16	-352	1	2035	-0.63	-14.52	0.01
19	SLU 17	-353	1	2035	-0.55	-14.53	0.01
19	SLU 18	-396	1	2179	-0.69	-16.31	0.01
19	SLU 19	-397	1	2179	-0.61	-16.33	0.01
19	SLU 20	-396	1	2179	-0.69	-16.31	0.01
19	SLU 21	-397	1	2179	-0.61	-16.33	0.01
19	SLU 22	-298	1	1864	-0.58	-12.27	0.01
19	SLU 23	-299	1	1864	-0.45	-12.3	0.01
19	SLU 24	-298	1	1864	-0.58	-12.27	0.01
19	SLU 25	-299	1	1864	-0.5	-12.29	0.01
19	SLU 26	-299	1	1864	-0.45	-12.3	0.01
19	SLU 27	-298	1	1864	-0.58	-12.27	0.01
19	SLU 28	-299	1	1864	-0.5	-12.29	0.01
19	SLU 29	-298	1	1864	-0.58	-12.27	0.01
19	SLU 30	-299	1	1864	-0.5	-12.29	0.01
19	SLU 31	-402	1	2201	-0.6	-16.48	0.01
19	SLU 32	-401	1	2200	-0.73	-16.45	0.01
19	SLU 33	-401	1	2200	-0.65	-16.47	0.01
19	SLU 34	-402	1	2201	-0.6	-16.48	0.01
19	SLU 35	-401	1	2200	-0.73	-16.45	0.01
19	SLU 36	-401	1	2200	-0.65	-16.47	0.01
19	SLU 37	-401	1	2200	-0.73	-16.45	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
19	SLU 38	-401	1	2200	-0.65	-16.47	0.01
19	SLU 39	-445	1	2344	-0.79	-18.24	0.01
19	SLU 40	-445	1	2344	-0.72	-18.26	0.01
19	SLU 41	-445	1	2344	-0.79	-18.24	0.01
19	SLU 42	-445	1	2344	-0.72	-18.26	0.01
19	SLU 43	-308	1	2151	-0.59	-12.78	0.01
19	SLU 44	-309	1	2152	-0.46	-12.8	0.01
19	SLU 45	-308	1	2151	-0.59	-12.78	0.01
19	SLU 46	-309	1	2152	-0.51	-12.79	0.01
19	SLU 47	-309	1	2152	-0.46	-12.8	0.01
19	SLU 48	-308	1	2151	-0.59	-12.78	0.01
19	SLU 49	-309	1	2152	-0.51	-12.79	0.01
19	SLU 50	-308	1	2151	-0.59	-12.78	0.01
19	SLU 51	-309	1	2152	-0.51	-12.79	0.01
19	SLU 52	-412	1	2488	-0.61	-16.98	0.01
19	SLU 53	-411	1	2488	-0.73	-16.96	0.01
19	SLU 54	-411	1	2488	-0.66	-16.97	0.01
19	SLU 55	-412	1	2488	-0.61	-16.98	0.01
19	SLU 56	-411	1	2488	-0.73	-16.96	0.01
19	SLU 57	-411	1	2488	-0.66	-16.97	0.01
19	SLU 58	-411	1	2488	-0.73	-16.96	0.01
19	SLU 59	-411	1	2488	-0.66	-16.97	0.01
19	SLU 60	-455	1	2632	-0.8	-18.75	0.01
19	SLU 61	-455	1	2632	-0.72	-18.76	0.01
19	SLU 62	-455	1	2632	-0.8	-18.75	0.01
19	SLU 63	-455	1	2632	-0.72	-18.76	0.01
19	SLU 64	-356	1	2317	-0.69	-14.71	0.01
19	SLU 65	-357	1	2317	-0.56	-14.74	0.01
19	SLU 66	-356	1	2317	-0.69	-14.71	0.01
19	SLU 67	-357	1	2317	-0.61	-14.73	0.01
19	SLU 68	-357	1	2317	-0.56	-14.74	0.01
19	SLU 69	-356	1	2317	-0.69	-14.71	0.01
19	SLU 70	-357	1	2317	-0.61	-14.73	0.01
19	SLU 71	-356	1	2317	-0.69	-14.71	0.01
19	SLU 72	-357	1	2317	-0.61	-14.73	0.01
19	SLU 73	-460	1	2653	-0.71	-18.92	0.01
19	SLU 74	-459	1	2653	-0.84	-18.89	0.01
19	SLU 75	-460	1	2653	-0.76	-18.91	0.01
19	SLU 76	-460	1	2653	-0.71	-18.92	0.01
19	SLU 77	-459	1	2653	-0.84	-18.89	0.01
19	SLU 78	-460	1	2653	-0.76	-18.91	0.01
19	SLU 79	-459	1	2653	-0.84	-18.89	0.01
19	SLU 80	-460	1	2653	-0.76	-18.91	0.01
19	SLU 81	-503	1	2797	-0.9	-20.68	0.01
19	SLU 82	-504	1	2797	-0.82	-20.7	0.01
19	SLU 83	-503	1	2797	-0.9	-20.68	0.01
19	SLU 84	-504	1	2797	-0.82	-20.7	0.01
19	SLE RA 1	-264	0	1746	-0.51	-10.89	0.01
19	SLE RA 2	-264	0	1746	-0.42	-10.91	0.01
19	SLE RA 3	-264	0	1746	-0.51	-10.89	0.01
19	SLE RA 4	-264	0	1746	-0.46	-10.9	0.01
19	SLE RA 5	-264	0	1746	-0.42	-10.91	0.01
19	SLE RA 6	-264	0	1746	-0.51	-10.89	0.01
19	SLE RA 7	-264	0	1746	-0.46	-10.9	0.01
19	SLE RA 8	-264	0	1746	-0.51	-10.89	0.01
19	SLE RA 9	-264	0	1746	-0.46	-10.9	0.01
19	SLE RA 10	-333	1	1970	-0.52	-13.7	0.01
19	SLE RA 11	-332	1	1970	-0.61	-13.68	0.01
19	SLE RA 12	-332	1	1970	-0.55	-13.69	0.01
19	SLE RA 13	-333	1	1970	-0.52	-13.7	0.01
19	SLE RA 14	-332	1	1970	-0.61	-13.68	0.01
19	SLE RA 15	-332	1	1970	-0.55	-13.69	0.01
19	SLE RA 16	-332	1	1970	-0.61	-13.68	0.01
19	SLE RA 17	-332	1	1970	-0.55	-13.69	0.01
19	SLE RA 18	-361	1	2066	-0.65	-14.87	0.01
19	SLE RA 19	-362	1	2066	-0.6	-14.88	0.01
19	SLE RA 20	-361	1	2066	-0.65	-14.87	0.01
19	SLE RA 21	-362	1	2066	-0.6	-14.88	0.01
19	SLE FR 1	-264	0	1746	-0.51	-10.89	0.01
19	SLE FR 2	-264	0	1746	-0.49	-10.9	0.01
19	SLE FR 3	-264	0	1746	-0.51	-10.89	0.01
19	SLE FR 4	-293	1	1842	-0.53	-12.09	0.01
19	SLE FR 5	-293	1	1842	-0.55	-12.09	0.01
19	SLE FR 6	-312	1	1906	-0.58	-12.88	0.01
19	SLE QP 1	-264	0	1746	-0.51	-10.89	0.01
19	SLE QP 2	-293	1	1842	-0.55	-12.09	0.01
19	SLD 1	-155	-25	1886	16.08	-5.81	0.03
19	SLD 2	-155	-25	1886	16.08	-5.81	0.03
19	SLD 3	-97	-18	1710	9.71	-3.73	0.02
19	SLD 4	-97	-18	1710	9.71	-3.73	0.02
19	SLD 5	-339	-17	2122	14.1	-13.35	0.03
19	SLD 6	-339	-17	2122	14.1	-13.35	0.03
19	SLD 7	-146	6	1535	-7.13	-6.43	-0.01
19	SLD 8	-146	6	1535	-7.13	-6.43	-0.01
19	SLD 9	-439	-5	2149	6.03	-17.74	0.02
19	SLD 10	-439	-5	2149	6.03	-17.74	0.02
19	SLD 11	-247	19	1561	-15.19	-10.82	-0.02
19	SLD 12	-247	19	1561	-15.19	-10.82	-0.02
19	SLD 13	-489	19	1974	-10.81	-20.44	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
19	SLD 14	-489	19	1974	-10.81	-20.44	-0.01
19	SLD 15	-431	26	1798	-17.18	-18.37	-0.02
19	SLD 16	-431	26	1798	-17.18	-18.37	-0.02
19	SLV 1	35	-64	1938	41.38	2.78	0.07
19	SLV 2	35	-64	1938	41.38	2.78	0.07
19	SLV 3	170	-46	1524	25.68	7.64	0.05
19	SLV 4	170	-46	1524	25.68	7.64	0.05
19	SLV 5	-400	-46	2498	35.84	-15	0.07
19	SLV 6	-400	-46	2498	35.84	-15	0.07
19	SLV 7	51	14	1119	-16.49	1.21	-0.02
19	SLV 8	51	14	1119	-16.49	1.21	-0.02
19	SLV 9	-637	-13	2565	15.4	-25.38	0.03
19	SLV 10	-637	-13	2565	15.4	-25.38	0.03
19	SLV 11	-186	47	1185	-36.94	-9.17	-0.05
19	SLV 12	-186	47	1185	-36.94	-9.17	-0.05
19	SLV 13	-756	47	2159	-26.78	-31.81	-0.04
19	SLV 14	-756	47	2159	-26.78	-31.81	-0.04
19	SLV 15	-620	65	1746	-42.48	-26.95	-0.06
19	SLV 16	-620	65	1746	-42.48	-26.95	-0.06
20	SLU 1	-279	0	1558	-0.22	-10.55	0
20	SLU 2	-281	0	1558	0.01	-10.6	0
20	SLU 3	-279	0	1558	-0.22	-10.55	0
20	SLU 4	-280	0	1558	-0.08	-10.58	0
20	SLU 5	-281	0	1558	0.01	-10.6	0
20	SLU 6	-279	0	1558	-0.22	-10.55	0
20	SLU 7	-280	0	1558	-0.08	-10.58	0
20	SLU 8	-279	0	1558	-0.22	-10.55	0
20	SLU 9	-280	0	1558	-0.08	-10.58	0
20	SLU 10	-393	0	1842	-0.05	-15.03	0
20	SLU 11	-392	0	1842	-0.28	-14.98	0
20	SLU 12	-393	0	1842	-0.14	-15.01	0
20	SLU 13	-393	0	1842	-0.05	-15.03	0
20	SLU 14	-392	0	1842	-0.28	-14.98	0
20	SLU 15	-393	0	1842	-0.14	-15.01	0
20	SLU 16	-392	0	1842	-0.28	-14.98	0
20	SLU 17	-393	0	1842	-0.14	-15.01	0
20	SLU 18	-441	0	1964	-0.31	-16.88	0
20	SLU 19	-441	0	1963	-0.17	-16.91	0
20	SLU 20	-441	0	1964	-0.31	-16.88	0
20	SLU 21	-441	0	1963	-0.17	-16.91	0
20	SLU 22	-332	0	1696	-0.26	-12.59	0
20	SLU 23	-333	0	1695	-0.03	-12.63	0
20	SLU 24	-332	0	1696	-0.26	-12.59	0
20	SLU 25	-332	0	1696	-0.12	-12.61	0
20	SLU 26	-333	0	1695	-0.03	-12.63	0
20	SLU 27	-332	0	1696	-0.26	-12.59	0
20	SLU 28	-332	0	1696	-0.12	-12.61	0
20	SLU 29	-332	0	1696	-0.26	-12.59	0
20	SLU 30	-332	0	1696	-0.12	-12.61	0
20	SLU 31	-445	0	1979	-0.1	-17.06	0
20	SLU 32	-444	0	1980	-0.32	-17.02	0
20	SLU 33	-445	0	1979	-0.19	-17.04	0
20	SLU 34	-445	0	1979	-0.1	-17.06	0
20	SLU 35	-444	0	1980	-0.32	-17.02	0
20	SLU 36	-445	0	1979	-0.19	-17.04	0
20	SLU 37	-444	0	1980	-0.32	-17.02	0
20	SLU 38	-445	0	1979	-0.19	-17.04	0
20	SLU 39	-493	0	2101	-0.35	-18.91	0
20	SLU 40	-493	0	2101	-0.21	-18.94	0
20	SLU 41	-493	0	2101	-0.35	-18.91	0
20	SLU 42	-493	0	2101	-0.21	-18.94	0
20	SLU 43	-345	0	1978	-0.27	-13.02	0
20	SLU 44	-346	0	1978	-0.04	-13.07	0
20	SLU 45	-345	0	1978	-0.27	-13.02	0
20	SLU 46	-346	0	1978	-0.13	-13.05	0
20	SLU 47	-346	0	1978	-0.04	-13.07	0
20	SLU 48	-345	0	1978	-0.27	-13.02	0
20	SLU 49	-346	0	1978	-0.13	-13.05	0
20	SLU 50	-345	0	1978	-0.27	-13.02	0
20	SLU 51	-346	0	1978	-0.13	-13.05	0
20	SLU 52	-459	0	2262	-0.1	-17.5	0
20	SLU 53	-458	0	2262	-0.33	-17.45	0
20	SLU 54	-459	0	2262	-0.19	-17.48	0
20	SLU 55	-459	0	2262	-0.1	-17.5	0
20	SLU 56	-458	0	2262	-0.33	-17.45	0
20	SLU 57	-459	0	2262	-0.19	-17.48	0
20	SLU 58	-458	0	2262	-0.33	-17.45	0
20	SLU 59	-459	0	2262	-0.19	-17.48	0
20	SLU 60	-507	0	2384	-0.36	-19.35	0
20	SLU 61	-507	0	2384	-0.22	-19.38	0
20	SLU 62	-507	0	2384	-0.36	-19.35	0
20	SLU 63	-507	0	2384	-0.22	-19.38	0
20	SLU 64	-398	0	2116	-0.31	-15.06	0
20	SLU 65	-399	0	2116	-0.08	-15.1	0
20	SLU 66	-398	0	2116	-0.31	-15.06	0
20	SLU 67	-398	0	2116	-0.18	-15.08	0
20	SLU 68	-399	0	2116	-0.08	-15.1	0
20	SLU 69	-398	0	2116	-0.31	-15.06	0
20	SLU 70	-398	0	2116	-0.18	-15.08	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
20	SLU 71	-398	0	2116	-0.31	-15.06	0
20	SLU 72	-398	0	2116	-0.18	-15.08	0
20	SLU 73	-511	0	2399	-0.15	-19.53	0
20	SLU 74	-510	0	2400	-0.37	-19.48	0
20	SLU 75	-511	0	2400	-0.24	-19.51	0
20	SLU 76	-511	0	2399	-0.15	-19.53	0
20	SLU 77	-510	0	2400	-0.37	-19.48	0
20	SLU 78	-511	0	2400	-0.24	-19.51	0
20	SLU 79	-510	0	2400	-0.37	-19.48	0
20	SLU 80	-511	0	2400	-0.24	-19.51	0
20	SLU 81	-559	0	2522	-0.4	-21.38	0
20	SLU 82	-559	0	2521	-0.26	-21.41	0
20	SLU 83	-559	0	2522	-0.4	-21.38	0
20	SLU 84	-559	0	2521	-0.26	-21.41	0
20	SLE RA 1	-294	0	1598	-0.23	-11.14	0
20	SLE RA 2	-295	0	1597	-0.08	-11.17	0
20	SLE RA 3	-294	0	1598	-0.23	-11.14	0
20	SLE RA 4	-295	0	1597	-0.14	-11.15	0
20	SLE RA 5	-295	0	1597	-0.08	-11.17	0
20	SLE RA 6	-294	0	1598	-0.23	-11.14	0
20	SLE RA 7	-295	0	1597	-0.14	-11.15	0
20	SLE RA 8	-294	0	1598	-0.23	-11.14	0
20	SLE RA 9	-295	0	1597	-0.14	-11.15	0
20	SLE RA 10	-370	0	1786	-0.12	-14.12	0
20	SLE RA 11	-370	0	1787	-0.27	-14.09	0
20	SLE RA 12	-370	0	1787	-0.18	-14.1	0
20	SLE RA 13	-370	0	1786	-0.12	-14.12	0
20	SLE RA 14	-370	0	1787	-0.27	-14.09	0
20	SLE RA 15	-370	0	1787	-0.18	-14.1	0
20	SLE RA 16	-370	0	1787	-0.27	-14.09	0
20	SLE RA 17	-370	0	1787	-0.18	-14.1	0
20	SLE RA 18	-402	0	1868	-0.29	-15.35	0
20	SLE RA 19	-402	0	1868	-0.2	-15.37	0
20	SLE RA 20	-402	0	1868	-0.29	-15.35	0
20	SLE RA 21	-402	0	1868	-0.2	-15.37	0
20	SLE FR 1	-294	0	1598	-0.23	-11.14	0
20	SLE FR 2	-294	0	1597	-0.2	-11.14	0
20	SLE FR 3	-294	0	1598	-0.23	-11.14	0
20	SLE FR 4	-327	0	1679	-0.22	-12.41	0
20	SLE FR 5	-327	0	1679	-0.25	-12.4	0
20	SLE FR 6	-348	0	1733	-0.26	-13.24	0
20	SLE QP 1	-294	0	1598	-0.23	-11.14	0
20	SLE QP 2	-327	0	1679	-0.25	-12.4	0
20	SLD 1	-178	-26	1704	20.84	-6.07	0.04
20	SLD 2	-178	-26	1704	20.84	-6.07	0.04
20	SLD 3	-128	-16	1583	11.7	-4.14	0.03
20	SLD 4	-128	-16	1583	11.7	-4.14	0.03
20	SLD 5	-358	-23	1871	19.94	-13.42	0.03
20	SLD 6	-358	-23	1871	19.94	-13.42	0.03
20	SLD 7	-191	11	1466	-10.52	-7	-0.01
20	SLD 8	-191	11	1466	-10.52	-7	-0.01
20	SLD 9	-462	-11	1892	10.02	-17.8	0.01
20	SLD 10	-462	-11	1892	10.02	-17.8	0.01
20	SLD 11	-295	24	1487	-20.43	-11.38	-0.02
20	SLD 12	-295	24	1487	-20.43	-11.38	-0.02
20	SLD 13	-525	16	1774	-12.2	-20.66	-0.03
20	SLD 14	-525	16	1774	-12.2	-20.66	-0.03
20	SLD 15	-475	27	1653	-21.33	-18.73	-0.04
20	SLD 16	-475	27	1653	-21.33	-18.73	-0.04
20	SLV 1	24	-66	1734	52.53	2.59	0.09
20	SLV 2	24	-66	1734	52.53	2.59	0.09
20	SLV 3	142	-41	1448	30.32	7.11	0.07
20	SLV 4	142	-41	1448	30.32	7.11	0.07
20	SLV 5	-399	-58	2129	49.28	-14.75	0.07
20	SLV 6	-399	-58	2129	49.28	-14.75	0.07
20	SLV 7	-8	26	1176	-24.77	0.3	-0.02
20	SLV 8	-8	26	1176	-24.77	0.3	-0.02
20	SLV 9	-645	-26	2182	24.28	-25.1	0.02
20	SLV 10	-645	-26	2182	24.28	-25.1	0.02
20	SLV 11	-254	58	1228	-49.78	-10.05	-0.06
20	SLV 12	-254	58	1228	-49.78	-10.05	-0.06
20	SLV 13	-795	41	1909	-30.81	-31.91	-0.07
20	SLV 14	-795	41	1909	-30.81	-31.91	-0.07
20	SLV 15	-677	67	1623	-53.03	-27.39	-0.09
20	SLV 16	-677	67	1623	-53.03	-27.39	-0.09
21	SLU 1	-318	0	1418	-0.14	-13.81	0
21	SLU 2	-319	0	1416	0.18	-13.84	0
21	SLU 3	-318	0	1418	-0.14	-13.81	0
21	SLU 4	-319	0	1417	0.05	-13.83	0
21	SLU 5	-319	0	1416	0.18	-13.84	0
21	SLU 6	-318	0	1418	-0.14	-13.81	0
21	SLU 7	-319	0	1417	0.05	-13.83	0
21	SLU 8	-318	0	1418	-0.14	-13.81	0
21	SLU 9	-319	0	1417	0.05	-13.83	0
21	SLU 10	-440	0	1649	0.15	-18.93	0
21	SLU 11	-439	0	1650	-0.18	-18.9	0
21	SLU 12	-439	0	1649	0.02	-18.92	0
21	SLU 13	-440	0	1649	0.15	-18.93	0
21	SLU 14	-439	0	1650	-0.18	-18.9	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
21	SLU 15	-439	0	1649	0.02	-18.92	0
21	SLU 16	-439	0	1650	-0.18	-18.9	0
21	SLU 17	-439	0	1649	0.02	-18.92	0
21	SLU 18	-491	0	1750	-0.19	-21.08	0
21	SLU 19	-491	0	1749	0	-21.1	0
21	SLU 20	-491	0	1750	-0.19	-21.08	0
21	SLU 21	-491	0	1749	0	-21.1	0
21	SLU 22	-373	0	1530	-0.17	-16.12	0
21	SLU 23	-374	0	1528	0.16	-16.15	0
21	SLU 24	-373	0	1530	-0.17	-16.12	0
21	SLU 25	-374	0	1529	0.03	-16.14	0
21	SLU 26	-374	0	1528	0.16	-16.15	0
21	SLU 27	-373	0	1530	-0.17	-16.12	0
21	SLU 28	-374	0	1529	0.03	-16.14	0
21	SLU 29	-373	0	1530	-0.17	-16.12	0
21	SLU 30	-374	0	1529	0.03	-16.14	0
21	SLU 31	-495	0	1761	0.12	-21.24	0
21	SLU 32	-494	0	1762	-0.2	-21.21	0
21	SLU 33	-495	0	1761	0	-21.22	0
21	SLU 34	-495	0	1761	0.12	-21.24	0
21	SLU 35	-494	0	1762	-0.2	-21.21	0
21	SLU 36	-495	0	1761	0	-21.22	0
21	SLU 37	-494	0	1762	-0.2	-21.21	0
21	SLU 38	-495	0	1761	0	-21.22	0
21	SLU 39	-546	0	1862	-0.21	-23.39	0
21	SLU 40	-546	0	1861	-0.02	-23.4	0
21	SLU 41	-546	0	1862	-0.21	-23.39	0
21	SLU 42	-546	0	1861	-0.02	-23.4	0
21	SLU 43	-394	0	1805	-0.18	-17.16	0
21	SLU 44	-395	0	1803	0.15	-17.2	0
21	SLU 45	-394	0	1805	-0.18	-17.16	0
21	SLU 46	-395	0	1804	0.02	-17.18	0
21	SLU 47	-395	0	1803	0.15	-17.2	0
21	SLU 48	-394	0	1805	-0.18	-17.16	0
21	SLU 49	-395	0	1804	0.02	-17.18	0
21	SLU 50	-394	0	1805	-0.18	-17.16	0
21	SLU 51	-395	0	1804	0.02	-17.18	0
21	SLU 52	-516	0	2036	0.11	-22.28	0
21	SLU 53	-515	0	2037	-0.21	-22.25	0
21	SLU 54	-516	0	2036	-0.02	-22.27	0
21	SLU 55	-516	0	2036	0.11	-22.28	0
21	SLU 56	-515	0	2037	-0.21	-22.25	0
21	SLU 57	-516	0	2036	-0.02	-22.27	0
21	SLU 58	-515	0	2037	-0.21	-22.25	0
21	SLU 59	-516	0	2036	-0.02	-22.27	0
21	SLU 60	-567	0	2137	-0.23	-24.43	0
21	SLU 61	-568	0	2136	-0.03	-24.45	0
21	SLU 62	-567	0	2137	-0.23	-24.43	0
21	SLU 63	-568	0	2136	-0.03	-24.45	0
21	SLU 64	-449	0	1917	-0.2	-19.47	0
21	SLU 65	-451	0	1915	0.12	-19.5	0
21	SLU 66	-449	0	1917	-0.2	-19.47	0
21	SLU 67	-450	0	1916	-0.01	-19.49	0
21	SLU 68	-451	0	1915	0.12	-19.5	0
21	SLU 69	-449	0	1917	-0.2	-19.47	0
21	SLU 70	-450	0	1916	-0.01	-19.49	0
21	SLU 71	-449	0	1917	-0.2	-19.47	0
21	SLU 72	-450	0	1916	-0.01	-19.49	0
21	SLU 73	-571	0	2148	0.09	-24.59	0
21	SLU 74	-570	0	2149	-0.23	-24.56	0
21	SLU 75	-571	0	2148	-0.04	-24.58	0
21	SLU 76	-571	0	2148	0.09	-24.59	0
21	SLU 77	-570	0	2149	-0.23	-24.56	0
21	SLU 78	-571	0	2148	-0.04	-24.58	0
21	SLU 79	-570	0	2149	-0.23	-24.56	0
21	SLU 80	-571	0	2148	-0.04	-24.58	0
21	SLU 81	-622	0	2249	-0.25	-26.74	0
21	SLU 82	-623	0	2248	-0.05	-26.76	0
21	SLU 83	-622	0	2249	-0.25	-26.74	0
21	SLU 84	-623	0	2248	-0.05	-26.76	0
21	SLE RA 1	-334	0	1450	-0.15	-14.47	0
21	SLE RA 2	-334	0	1449	0.07	-14.49	0
21	SLE RA 3	-334	0	1450	-0.15	-14.47	0
21	SLE RA 4	-334	0	1449	-0.02	-14.48	0
21	SLE RA 5	-334	0	1449	0.07	-14.49	0
21	SLE RA 6	-334	0	1450	-0.15	-14.47	0
21	SLE RA 7	-334	0	1449	-0.02	-14.48	0
21	SLE RA 8	-334	0	1450	-0.15	-14.47	0
21	SLE RA 9	-334	0	1449	-0.02	-14.48	0
21	SLE RA 10	-415	0	1604	0.04	-17.88	0
21	SLE RA 11	-414	0	1605	-0.17	-17.86	0
21	SLE RA 12	-415	0	1604	-0.04	-17.87	0
21	SLE RA 13	-415	0	1604	0.04	-17.88	0
21	SLE RA 14	-414	0	1605	-0.17	-17.86	0
21	SLE RA 15	-415	0	1604	-0.04	-17.87	0
21	SLE RA 16	-414	0	1605	-0.17	-17.86	0
21	SLE RA 17	-415	0	1604	-0.04	-17.87	0
21	SLE RA 18	-449	0	1671	-0.18	-19.32	0
21	SLE RA 19	-449	0	1671	-0.05	-19.33	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
21	SLE RA 20	-449	0	1671	-0.18	-19.32	0
21	SLE RA 21	-449	0	1671	-0.05	-19.33	0
21	SLE FR 1	-334	0	1450	-0.15	-14.47	0
21	SLE FR 2	-334	0	1450	-0.11	-14.48	0
21	SLE FR 3	-334	0	1450	-0.15	-14.47	0
21	SLE FR 4	-368	0	1516	-0.12	-15.93	0
21	SLE FR 5	-368	0	1516	-0.16	-15.93	0
21	SLE FR 6	-391	0	1561	-0.17	-16.89	0
21	SLE QP 1	-334	0	1450	-0.15	-14.47	0
21	SLE QP 2	-368	0	1516	-0.16	-15.93	0
21	SLD 1	-211	-27	1531	23.43	-9.18	0.05
21	SLD 2	-211	-27	1531	23.43	-9.18	0.05
21	SLD 3	-168	-14	1446	12.54	-7.46	0.03
21	SLD 4	-168	-14	1446	12.54	-7.46	0.03
21	SLD 5	-387	-28	1649	23.43	-16.52	0.04
21	SLD 6	-387	-28	1649	23.43	-16.52	0.04
21	SLD 7	-243	16	1367	-12.86	-10.77	-0.02
21	SLD 8	-243	16	1367	-12.86	-10.77	-0.02
21	SLD 9	-494	-15	1665	12.54	-21.08	0.02
21	SLD 10	-494	-15	1665	12.54	-21.08	0.02
21	SLD 11	-350	28	1384	-23.75	-15.33	-0.04
21	SLD 12	-350	28	1384	-23.75	-15.33	-0.04
21	SLD 13	-568	15	1586	-12.86	-24.39	-0.03
21	SLD 14	-568	15	1586	-12.86	-24.39	-0.03
21	SLD 15	-525	28	1502	-23.75	-22.67	-0.05
21	SLD 16	-525	28	1502	-23.75	-22.67	-0.05
21	SLV 1	3	-68	1547	58.6	0.04	0.12
21	SLV 2	3	-68	1547	58.6	0.04	0.12
21	SLV 3	104	-37	1347	32.36	4.1	0.07
21	SLV 4	104	-37	1347	32.36	4.1	0.07
21	SLV 5	-411	-68	1827	57.26	-17.3	0.1
21	SLV 6	-411	-68	1827	57.26	-17.3	0.1
21	SLV 7	-73	37	1164	-30.19	-3.76	-0.05
21	SLV 8	-73	37	1164	-30.19	-3.76	-0.05
21	SLV 9	-664	-36	1869	29.87	-28.09	0.05
21	SLV 10	-664	-36	1869	29.87	-28.09	0.05
21	SLV 11	-326	68	1205	-57.57	-14.55	-0.1
21	SLV 12	-326	68	1205	-57.57	-14.55	-0.1
21	SLV 13	-841	37	1685	-32.68	-35.95	-0.07
21	SLV 14	-841	37	1685	-32.68	-35.95	-0.07
21	SLV 15	-740	69	1486	-58.92	-31.89	-0.12
21	SLV 16	-740	69	1486	-58.92	-31.89	-0.12
22	SLU 1	-303	0	1308	-0.15	-11.61	0
22	SLU 2	-304	0	1305	0.25	-11.68	0
22	SLU 3	-303	0	1308	-0.15	-11.61	0
22	SLU 4	-304	0	1306	0.09	-11.65	0
22	SLU 5	-304	0	1305	0.25	-11.68	0
22	SLU 6	-303	0	1308	-0.15	-11.61	0
22	SLU 7	-304	0	1306	0.09	-11.65	0
22	SLU 8	-303	0	1308	-0.15	-11.61	0
22	SLU 9	-304	0	1306	0.09	-11.65	0
22	SLU 10	-419	0	1496	0.22	-16.29	0
22	SLU 11	-417	0	1499	-0.18	-16.23	0
22	SLU 12	-418	0	1497	0.06	-16.27	0
22	SLU 13	-419	0	1496	0.22	-16.29	0
22	SLU 14	-417	0	1499	-0.18	-16.23	0
22	SLU 15	-418	0	1497	0.06	-16.27	0
22	SLU 16	-417	0	1499	-0.18	-16.23	0
22	SLU 17	-418	0	1497	0.06	-16.27	0
22	SLU 18	-467	0	1581	-0.19	-18.2	0
22	SLU 19	-467	0	1579	0.05	-18.24	0
22	SLU 20	-467	0	1581	-0.19	-18.2	0
22	SLU 21	-467	0	1579	0.05	-18.24	0
22	SLU 22	-354	0	1400	-0.17	-13.66	0
22	SLU 23	-355	0	1397	0.23	-13.73	0
22	SLU 24	-354	0	1400	-0.17	-13.66	0
22	SLU 25	-355	0	1398	0.07	-13.7	0
22	SLU 26	-355	0	1397	0.23	-13.73	0
22	SLU 27	-354	0	1400	-0.17	-13.66	0
22	SLU 28	-355	0	1398	0.07	-13.7	0
22	SLU 29	-354	0	1400	-0.17	-13.66	0
22	SLU 30	-355	0	1398	0.07	-13.7	0
22	SLU 31	-470	0	1588	0.2	-18.34	0
22	SLU 32	-469	0	1591	-0.19	-18.28	0
22	SLU 33	-470	0	1589	0.04	-18.31	0
22	SLU 34	-470	0	1588	0.2	-18.34	0
22	SLU 35	-469	0	1591	-0.19	-18.28	0
22	SLU 36	-470	0	1589	0.04	-18.31	0
22	SLU 37	-469	0	1591	-0.19	-18.28	0
22	SLU 38	-470	0	1589	0.04	-18.31	0
22	SLU 39	-518	0	1673	-0.21	-20.25	0
22	SLU 40	-519	0	1671	0.03	-20.29	0
22	SLU 41	-518	0	1673	-0.21	-20.25	0
22	SLU 42	-519	0	1671	0.03	-20.29	0
22	SLU 43	-376	0	1669	-0.19	-14.4	0
22	SLU 44	-378	0	1666	0.21	-14.46	0
22	SLU 45	-376	0	1669	-0.19	-14.4	0
22	SLU 46	-377	0	1667	0.05	-14.43	0
22	SLU 47	-378	0	1666	0.21	-14.46	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
22	SLU 48	-376	0	1669	-0.19	-14.4	0
22	SLU 49	-377	0	1667	0.05	-14.43	0
22	SLU 50	-376	0	1669	-0.19	-14.4	0
22	SLU 51	-377	0	1667	0.05	-14.43	0
22	SLU 52	-492	0	1857	0.18	-19.07	0
22	SLU 53	-491	0	1860	-0.22	-19.01	0
22	SLU 54	-492	0	1858	0.02	-19.05	0
22	SLU 55	-492	0	1857	0.18	-19.07	0
22	SLU 56	-491	0	1860	-0.22	-19.01	0
22	SLU 57	-492	0	1858	0.02	-19.05	0
22	SLU 58	-491	0	1860	-0.22	-19.01	0
22	SLU 59	-492	0	1858	0.02	-19.05	0
22	SLU 60	-540	0	1942	-0.23	-20.99	0
22	SLU 61	-541	0	1940	0.01	-21.02	0
22	SLU 62	-540	0	1942	-0.23	-20.99	0
22	SLU 63	-541	0	1940	0.01	-21.02	0
22	SLU 64	-427	0	1761	-0.2	-16.45	0
22	SLU 65	-429	0	1758	0.19	-16.51	0
22	SLU 66	-427	0	1761	-0.2	-16.45	0
22	SLU 67	-428	0	1759	0.03	-16.48	0
22	SLU 68	-429	0	1758	0.19	-16.51	0
22	SLU 69	-427	0	1761	-0.2	-16.45	0
22	SLU 70	-428	0	1759	0.03	-16.48	0
22	SLU 71	-427	0	1761	-0.2	-16.45	0
22	SLU 72	-428	0	1759	0.03	-16.48	0
22	SLU 73	-543	0	1949	0.16	-21.12	0
22	SLU 74	-542	0	1952	-0.23	-21.06	0
22	SLU 75	-543	0	1950	0	-21.1	0
22	SLU 76	-543	0	1949	0.16	-21.12	0
22	SLU 77	-542	0	1952	-0.23	-21.06	0
22	SLU 78	-543	0	1950	0	-21.1	0
22	SLU 79	-542	0	1952	-0.23	-21.06	0
22	SLU 80	-543	0	1950	0	-21.1	0
22	SLU 81	-591	0	2034	-0.25	-23.04	0
22	SLU 82	-592	0	2032	-0.01	-23.07	0
22	SLU 83	-591	0	2034	-0.25	-23.04	0
22	SLU 84	-592	0	2032	-0.01	-23.07	0
22	SLE RA 1	-317	0	1334	-0.15	-12.2	0
22	SLE RA 2	-318	0	1332	0.11	-12.24	0
22	SLE RA 3	-317	0	1334	-0.15	-12.2	0
22	SLE RA 4	-318	0	1333	0	-12.22	0
22	SLE RA 5	-318	0	1332	0.11	-12.24	0
22	SLE RA 6	-317	0	1334	-0.15	-12.2	0
22	SLE RA 7	-318	0	1333	0	-12.22	0
22	SLE RA 8	-317	0	1334	-0.15	-12.2	0
22	SLE RA 9	-318	0	1333	0	-12.22	0
22	SLE RA 10	-395	0	1460	0.09	-15.32	0
22	SLE RA 11	-394	0	1462	-0.17	-15.28	0
22	SLE RA 12	-394	0	1460	-0.01	-15.3	0
22	SLE RA 13	-395	0	1460	0.09	-15.32	0
22	SLE RA 14	-394	0	1462	-0.17	-15.28	0
22	SLE RA 15	-394	0	1460	-0.01	-15.3	0
22	SLE RA 16	-394	0	1462	-0.17	-15.28	0
22	SLE RA 17	-394	0	1460	-0.01	-15.3	0
22	SLE RA 18	-427	0	1516	-0.18	-16.59	0
22	SLE RA 19	-427	0	1515	-0.02	-16.62	0
22	SLE RA 20	-427	0	1516	-0.18	-16.59	0
22	SLE RA 21	-427	0	1515	-0.02	-16.62	0
22	SLE FR 1	-317	0	1334	-0.15	-12.2	0
22	SLE FR 2	-318	0	1334	-0.1	-12.21	0
22	SLE FR 3	-317	0	1334	-0.15	-12.2	0
22	SLE FR 4	-350	0	1389	-0.11	-13.53	0
22	SLE FR 5	-350	0	1389	-0.16	-13.52	0
22	SLE FR 6	-372	0	1425	-0.17	-14.4	0
22	SLE QP 1	-317	0	1334	-0.15	-12.2	0
22	SLE QP 2	-350	0	1389	-0.16	-13.52	0
22	SLD 1	-195	15	1396	-13.28	-6.75	0.06
22	SLD 2	-195	15	1396	-13.28	-6.75	0.06
22	SLD 3	-160	29	1336	-24.31	-5.35	0.03
22	SLD 4	-160	29	1336	-24.31	-5.35	0.03
22	SLD 5	-357	-16	1483	12.63	-13.61	0.06
22	SLD 6	-357	-16	1483	12.63	-13.61	0.06
22	SLD 7	-240	29	1281	-24.14	-8.95	-0.03
22	SLD 8	-240	29	1281	-24.14	-8.95	-0.03
22	SLD 9	-461	-29	1497	23.81	-18.09	0.03
22	SLD 10	-461	-29	1497	23.81	-18.09	0.03
22	SLD 11	-343	16	1295	-12.95	-13.43	-0.06
22	SLD 12	-343	16	1295	-12.95	-13.43	-0.06
22	SLD 13	-541	-29	1442	23.99	-21.69	-0.03
22	SLD 14	-541	-29	1442	23.99	-21.69	-0.03
22	SLD 15	-506	-15	1381	12.96	-20.29	-0.06
22	SLD 16	-506	-15	1381	12.96	-20.29	-0.06
22	SLV 1	17	39	1404	-33.79	2.5	0.15
22	SLV 2	17	39	1404	-33.79	2.5	0.15
22	SLV 3	100	71	1260	-60.25	5.78	0.08
22	SLV 4	100	71	1260	-60.25	5.78	0.08
22	SLV 5	-366	-37	1611	29.88	-13.7	0.15
22	SLV 6	-366	-37	1611	29.88	-13.7	0.15
22	SLV 7	-89	70	1133	-58.32	-2.74	-0.08



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
22	SLV 8	-89	70	1133	-58.32	-2.74	-0.08
22	SLV 9	-611	-70	1645	58	-24.3	0.08
22	SLV 10	-611	-70	1645	58	-24.3	0.08
22	SLV 11	-335	37	1167	-30.2	-13.34	-0.15
22	SLV 12	-335	37	1167	-30.2	-13.34	-0.15
22	SLV 13	-801	-71	1517	59.92	-32.82	-0.08
22	SLV 14	-801	-71	1517	59.92	-32.82	-0.08
22	SLV 15	-718	-39	1374	33.46	-29.53	-0.15
22	SLV 16	-718	-39	1374	33.46	-29.53	-0.15
23	SLU 1	-317	0	1241	-0.22	-14.53	0
23	SLU 2	-319	0	1236	0.2	-14.57	0
23	SLU 3	-317	0	1241	-0.22	-14.53	0
23	SLU 4	-318	0	1238	0.03	-14.55	0
23	SLU 5	-319	0	1236	0.2	-14.57	0
23	SLU 6	-317	0	1241	-0.22	-14.53	0
23	SLU 7	-318	0	1238	0.03	-14.55	0
23	SLU 8	-317	0	1241	-0.22	-14.53	0
23	SLU 9	-318	0	1238	0.03	-14.55	0
23	SLU 10	-428	0	1403	0.16	-19.35	0
23	SLU 11	-426	0	1408	-0.26	-19.31	0
23	SLU 12	-427	0	1405	-0.01	-19.34	0
23	SLU 13	-428	0	1403	0.16	-19.35	0
23	SLU 14	-426	0	1408	-0.26	-19.31	0
23	SLU 15	-427	0	1405	-0.01	-19.34	0
23	SLU 16	-426	0	1408	-0.26	-19.31	0
23	SLU 17	-427	0	1405	-0.01	-19.34	0
23	SLU 18	-473	0	1480	-0.27	-21.36	0
23	SLU 19	-474	0	1477	-0.02	-21.39	0
23	SLU 20	-473	0	1480	-0.27	-21.36	0
23	SLU 21	-474	0	1477	-0.02	-21.39	0
23	SLU 22	-365	0	1322	-0.24	-16.64	0
23	SLU 23	-367	0	1317	0.18	-16.68	0
23	SLU 24	-365	0	1322	-0.24	-16.64	0
23	SLU 25	-366	0	1319	0.01	-16.67	0
23	SLU 26	-367	0	1317	0.18	-16.68	0
23	SLU 27	-365	0	1322	-0.24	-16.64	0
23	SLU 28	-366	0	1319	0.01	-16.67	0
23	SLU 29	-365	0	1322	-0.24	-16.64	0
23	SLU 30	-366	0	1319	0.01	-16.67	0
23	SLU 31	-476	0	1484	0.14	-21.47	0
23	SLU 32	-474	0	1488	-0.28	-21.42	0
23	SLU 33	-475	0	1486	-0.03	-21.45	0
23	SLU 34	-476	0	1484	0.14	-21.47	0
23	SLU 35	-474	0	1488	-0.28	-21.42	0
23	SLU 36	-475	0	1486	-0.03	-21.45	0
23	SLU 37	-474	0	1488	-0.28	-21.42	0
23	SLU 38	-475	0	1486	-0.03	-21.45	0
23	SLU 39	-521	0	1560	-0.3	-23.47	0
23	SLU 40	-522	0	1557	-0.05	-23.5	0
23	SLU 41	-521	0	1560	-0.3	-23.47	0
23	SLU 42	-522	0	1557	-0.05	-23.5	0
23	SLU 43	-396	0	1586	-0.27	-18.16	0
23	SLU 44	-397	0	1581	0.14	-18.21	0
23	SLU 45	-396	0	1586	-0.27	-18.16	0
23	SLU 46	-397	0	1583	-0.02	-18.19	0
23	SLU 47	-397	0	1581	0.14	-18.21	0
23	SLU 48	-396	0	1586	-0.27	-18.16	0
23	SLU 49	-397	0	1583	-0.02	-18.19	0
23	SLU 50	-396	0	1586	-0.27	-18.16	0
23	SLU 51	-397	0	1583	-0.02	-18.19	0
23	SLU 52	-506	0	1748	0.1	-22.99	0
23	SLU 53	-505	0	1753	-0.31	-22.94	0
23	SLU 54	-506	0	1750	-0.06	-22.97	0
23	SLU 55	-506	0	1748	0.1	-22.99	0
23	SLU 56	-505	0	1753	-0.31	-22.94	0
23	SLU 57	-506	0	1750	-0.06	-22.97	0
23	SLU 58	-505	0	1753	-0.31	-22.94	0
23	SLU 59	-506	0	1750	-0.06	-22.97	0
23	SLU 60	-552	0	1825	-0.33	-24.99	0
23	SLU 61	-552	0	1822	-0.08	-25.02	0
23	SLU 62	-552	0	1825	-0.33	-24.99	0
23	SLU 63	-552	0	1822	-0.08	-25.02	0
23	SLU 64	-444	0	1666	-0.3	-20.27	0
23	SLU 65	-445	0	1661	0.12	-20.32	0
23	SLU 66	-444	0	1666	-0.3	-20.27	0
23	SLU 67	-445	0	1663	-0.05	-20.3	0
23	SLU 68	-445	0	1661	0.12	-20.32	0
23	SLU 69	-444	0	1666	-0.3	-20.27	0
23	SLU 70	-445	0	1663	-0.05	-20.3	0
23	SLU 71	-444	0	1666	-0.3	-20.27	0
23	SLU 72	-445	0	1663	-0.05	-20.3	0
23	SLU 73	-554	0	1828	0.08	-25.1	0
23	SLU 74	-553	0	1833	-0.34	-25.06	0
23	SLU 75	-554	0	1830	-0.09	-25.08	0
23	SLU 76	-554	0	1828	0.08	-25.1	0
23	SLU 77	-553	0	1833	-0.34	-25.06	0
23	SLU 78	-554	0	1830	-0.09	-25.08	0
23	SLU 79	-553	0	1833	-0.34	-25.06	0
23	SLU 80	-554	0	1830	-0.09	-25.08	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
23	SLU 81	-600	0	1905	-0.35	-27.11	0
23	SLU 82	-600	0	1902	-0.1	-27.13	0
23	SLU 83	-600	0	1905	-0.35	-27.11	0
23	SLU 84	-600	0	1902	-0.1	-27.13	0
23	SLE RA 1	-331	0	1264	-0.22	-15.13	0
23	SLE RA 2	-332	0	1261	0.06	-15.16	0
23	SLE RA 3	-331	0	1264	-0.22	-15.13	0
23	SLE RA 4	-331	0	1262	-0.06	-15.15	0
23	SLE RA 5	-332	0	1261	0.06	-15.16	0
23	SLE RA 6	-331	0	1264	-0.22	-15.13	0
23	SLE RA 7	-331	0	1262	-0.06	-15.15	0
23	SLE RA 8	-331	0	1264	-0.22	-15.13	0
23	SLE RA 9	-331	0	1262	-0.06	-15.15	0
23	SLE RA 10	-405	0	1372	0.03	-18.35	0
23	SLE RA 11	-403	0	1375	-0.25	-18.32	0
23	SLE RA 12	-404	0	1374	-0.08	-18.34	0
23	SLE RA 13	-405	0	1372	0.03	-18.35	0
23	SLE RA 14	-403	0	1375	-0.25	-18.32	0
23	SLE RA 15	-404	0	1374	-0.08	-18.34	0
23	SLE RA 16	-403	0	1375	-0.25	-18.32	0
23	SLE RA 17	-404	0	1374	-0.08	-18.34	0
23	SLE RA 18	-435	0	1423	-0.26	-19.69	0
23	SLE RA 19	-435	0	1421	-0.09	-19.7	0
23	SLE RA 20	-435	0	1423	-0.26	-19.69	0
23	SLE RA 21	-435	0	1421	-0.09	-19.7	0
23	SLE FR 1	-331	0	1264	-0.22	-15.13	0
23	SLE FR 2	-331	0	1264	-0.17	-15.14	0
23	SLE FR 3	-331	0	1264	-0.22	-15.13	0
23	SLE FR 4	-362	0	1311	-0.18	-16.5	0
23	SLE FR 5	-362	0	1312	-0.23	-16.5	0
23	SLE FR 6	-383	0	1344	-0.24	-17.41	0
23	SLE QP 1	-331	0	1264	-0.22	-15.13	0
23	SLE QP 2	-362	0	1312	-0.23	-16.5	0
23	SLD 1	-215	18	1311	-13.21	-10.09	-0.03
23	SLD 2	-215	18	1311	-13.21	-10.09	-0.03
23	SLD 3	-186	29	1259	-22.7	-8.85	-0.06
23	SLD 4	-186	29	1259	-22.7	-8.85	-0.06
23	SLD 5	-363	-11	1390	10.26	-16.46	0.03
23	SLD 6	-363	-11	1390	10.26	-16.46	0.03
23	SLD 7	-264	26	1217	-21.36	-12.32	-0.06
23	SLD 8	-264	26	1217	-21.36	-12.32	-0.06
23	SLD 9	-460	-25	1406	20.89	-20.68	0.06
23	SLD 10	-460	-25	1406	20.89	-20.68	0.06
23	SLD 11	-361	12	1233	-10.73	-16.54	-0.03
23	SLD 12	-361	12	1233	-10.73	-16.54	-0.03
23	SLD 13	-538	-29	1364	22.23	-24.15	0.06
23	SLD 14	-538	-29	1364	22.23	-24.15	0.06
23	SLD 15	-508	-18	1312	12.74	-22.91	0.03
23	SLD 16	-508	-18	1312	12.74	-22.91	0.03
23	SLV 1	-16	46	1310	-33.49	-1.35	-0.08
23	SLV 2	-16	46	1310	-33.49	-1.35	-0.08
23	SLV 3	54	73	1187	-56.21	1.58	-0.14
23	SLV 4	54	73	1187	-56.21	1.58	-0.14
23	SLV 5	-364	-26	1498	24.26	-16.39	0.07
23	SLV 6	-364	-26	1498	24.26	-16.39	0.07
23	SLV 7	-131	62	1088	-51.49	-6.63	-0.14
23	SLV 8	-131	62	1088	-51.49	-6.63	-0.14
23	SLV 9	-593	-62	1536	51.03	-26.36	0.14
23	SLV 10	-593	-62	1536	51.03	-26.36	0.14
23	SLV 11	-359	26	1126	-24.72	-16.6	-0.07
23	SLV 12	-359	26	1126	-24.72	-16.6	-0.07
23	SLV 13	-778	-72	1437	55.74	-34.58	0.14
23	SLV 14	-778	-72	1437	55.74	-34.58	0.14
23	SLV 15	-708	-46	1314	33.02	-31.65	0.08
23	SLV 16	-708	-46	1314	33.02	-31.65	0.08
24	SLU 1	-287	0	1241	-0.41	-11.3	-0.01
24	SLU 2	-289	0	1233	-0.03	-11.39	0
24	SLU 3	-287	0	1241	-0.41	-11.3	-0.01
24	SLU 4	-288	0	1236	-0.18	-11.35	0
24	SLU 5	-289	0	1233	-0.03	-11.39	0
24	SLU 6	-287	0	1241	-0.41	-11.3	-0.01
24	SLU 7	-288	0	1236	-0.18	-11.35	0
24	SLU 8	-287	0	1241	-0.41	-11.3	-0.01
24	SLU 9	-288	0	1236	-0.18	-11.35	0
24	SLU 10	-384	0	1399	-0.11	-15.35	0
24	SLU 11	-382	0	1407	-0.48	-15.26	-0.01
24	SLU 12	-383	0	1403	-0.26	-15.31	-0.01
24	SLU 13	-384	0	1399	-0.11	-15.35	0
24	SLU 14	-382	0	1407	-0.48	-15.26	-0.01
24	SLU 15	-383	0	1403	-0.26	-15.31	-0.01
24	SLU 16	-382	0	1407	-0.48	-15.26	-0.01
24	SLU 17	-383	0	1403	-0.26	-15.31	-0.01
24	SLU 18	-423	0	1479	-0.51	-16.96	-0.01
24	SLU 19	-424	0	1474	-0.29	-17.01	-0.01
24	SLU 20	-423	0	1479	-0.51	-16.96	-0.01
24	SLU 21	-424	0	1474	-0.29	-17.01	-0.01
24	SLU 22	-327	0	1322	-0.45	-12.99	-0.01
24	SLU 23	-330	0	1314	-0.07	-13.08	0
24	SLU 24	-327	0	1322	-0.45	-12.99	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
24	SLU 25	-329	0	1317	-0.22	-13.04	0
24	SLU 26	-330	0	1314	-0.07	-13.08	0
24	SLU 27	-327	0	1322	-0.45	-12.99	-0.01
24	SLU 28	-329	0	1317	-0.22	-13.04	0
24	SLU 29	-327	0	1322	-0.45	-12.99	-0.01
24	SLU 30	-329	0	1317	-0.22	-13.04	0
24	SLU 31	-425	0	1480	-0.15	-17.04	-0.01
24	SLU 32	-423	0	1488	-0.52	-16.95	-0.01
24	SLU 33	-424	0	1483	-0.3	-17	-0.01
24	SLU 34	-425	0	1480	-0.15	-17.04	-0.01
24	SLU 35	-423	0	1488	-0.52	-16.95	-0.01
24	SLU 36	-424	0	1483	-0.3	-17	-0.01
24	SLU 37	-423	0	1488	-0.52	-16.95	-0.01
24	SLU 38	-424	0	1483	-0.3	-17	-0.01
24	SLU 39	-464	0	1559	-0.55	-18.65	-0.01
24	SLU 40	-465	0	1555	-0.33	-18.7	-0.01
24	SLU 41	-464	0	1559	-0.55	-18.65	-0.01
24	SLU 42	-465	0	1555	-0.33	-18.7	-0.01
24	SLU 43	-359	0	1586	-0.51	-14.11	-0.01
24	SLU 44	-361	0	1578	-0.14	-14.19	-0.01
24	SLU 45	-359	0	1586	-0.51	-14.11	-0.01
24	SLU 46	-360	0	1581	-0.29	-14.16	-0.01
24	SLU 47	-361	0	1578	-0.14	-14.19	-0.01
24	SLU 48	-359	0	1586	-0.51	-14.11	-0.01
24	SLU 49	-360	0	1581	-0.29	-14.16	-0.01
24	SLU 50	-359	0	1586	-0.51	-14.11	-0.01
24	SLU 51	-360	0	1581	-0.29	-14.16	-0.01
24	SLU 52	-456	0	1744	-0.21	-18.16	-0.01
24	SLU 53	-454	0	1752	-0.59	-18.07	-0.01
24	SLU 54	-456	0	1747	-0.36	-18.12	-0.01
24	SLU 55	-456	0	1744	-0.21	-18.16	-0.01
24	SLU 56	-454	0	1752	-0.59	-18.07	-0.01
24	SLU 57	-456	0	1747	-0.36	-18.12	-0.01
24	SLU 58	-454	0	1752	-0.59	-18.07	-0.01
24	SLU 59	-456	0	1747	-0.36	-18.12	-0.01
24	SLU 60	-495	1	1823	-0.62	-19.77	-0.01
24	SLU 61	-496	0	1819	-0.39	-19.82	-0.01
24	SLU 62	-495	1	1823	-0.62	-19.77	-0.01
24	SLU 63	-496	0	1819	-0.39	-19.82	-0.01
24	SLU 64	-400	0	1666	-0.55	-15.8	-0.01
24	SLU 65	-402	0	1658	-0.18	-15.89	-0.01
24	SLU 66	-400	0	1666	-0.55	-15.8	-0.01
24	SLU 67	-401	0	1661	-0.33	-15.85	-0.01
24	SLU 68	-402	0	1658	-0.18	-15.89	-0.01
24	SLU 69	-400	0	1666	-0.55	-15.8	-0.01
24	SLU 70	-401	0	1661	-0.33	-15.85	-0.01
24	SLU 71	-400	0	1666	-0.55	-15.8	-0.01
24	SLU 72	-401	0	1661	-0.33	-15.85	-0.01
24	SLU 73	-497	0	1825	-0.25	-19.85	-0.01
24	SLU 74	-495	1	1833	-0.63	-19.76	-0.01
24	SLU 75	-496	0	1828	-0.4	-19.81	-0.01
24	SLU 76	-497	0	1825	-0.25	-19.85	-0.01
24	SLU 77	-495	1	1833	-0.63	-19.76	-0.01
24	SLU 78	-496	0	1828	-0.4	-19.81	-0.01
24	SLU 79	-495	1	1833	-0.63	-19.76	-0.01
24	SLU 80	-496	0	1828	-0.4	-19.81	-0.01
24	SLU 81	-536	1	1904	-0.66	-21.46	-0.01
24	SLU 82	-537	0	1899	-0.43	-21.51	-0.01
24	SLU 83	-536	1	1904	-0.66	-21.46	-0.01
24	SLU 84	-537	0	1899	-0.43	-21.51	-0.01
24	SLE RA 1	-298	0	1264	-0.42	-11.78	-0.01
24	SLE RA 2	-300	0	1259	-0.17	-11.84	0
24	SLE RA 3	-298	0	1264	-0.42	-11.78	-0.01
24	SLE RA 4	-299	0	1261	-0.27	-11.82	0
24	SLE RA 5	-300	0	1259	-0.17	-11.84	0
24	SLE RA 6	-298	0	1264	-0.42	-11.78	-0.01
24	SLE RA 7	-299	0	1261	-0.27	-11.82	0
24	SLE RA 8	-298	0	1264	-0.42	-11.78	-0.01
24	SLE RA 9	-299	0	1261	-0.27	-11.82	0
24	SLE RA 10	-364	0	1370	-0.22	-14.48	-0.01
24	SLE RA 11	-362	0	1375	-0.47	-14.42	-0.01
24	SLE RA 12	-363	0	1372	-0.32	-14.46	-0.01
24	SLE RA 13	-364	0	1370	-0.22	-14.48	-0.01
24	SLE RA 14	-362	0	1375	-0.47	-14.42	-0.01
24	SLE RA 15	-363	0	1372	-0.32	-14.46	-0.01
24	SLE RA 16	-362	0	1375	-0.47	-14.42	-0.01
24	SLE RA 17	-363	0	1372	-0.32	-14.46	-0.01
24	SLE RA 18	-389	0	1423	-0.49	-15.55	-0.01
24	SLE RA 19	-390	0	1419	-0.34	-15.59	-0.01
24	SLE RA 20	-389	0	1423	-0.49	-15.55	-0.01
24	SLE RA 21	-390	0	1419	-0.34	-15.59	-0.01
24	SLE FR 1	-298	0	1264	-0.42	-11.78	-0.01
24	SLE FR 2	-299	0	1263	-0.37	-11.79	-0.01
24	SLE FR 3	-298	0	1264	-0.42	-11.78	-0.01
24	SLE FR 4	-326	0	1311	-0.39	-12.92	-0.01
24	SLE FR 5	-326	0	1312	-0.44	-12.91	-0.01
24	SLE FR 6	-344	0	1343	-0.45	-13.67	-0.01
24	SLE QP 1	-298	0	1264	-0.42	-11.78	-0.01
24	SLE QP 2	-326	0	1312	-0.44	-12.91	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
24	SLD 1	-193	27	1288	-11.83	-7.07	-0.05
24	SLD 2	-193	27	1288	-11.83	-7.07	-0.05
24	SLD 3	-167	20	1221	-18.51	-6.04	-0.03
24	SLD 4	-167	20	1221	-18.51	-6.04	-0.03
24	SLD 5	-326	19	1405	6.27	-12.73	-0.05
24	SLD 6	-326	19	1405	6.27	-12.73	-0.05
24	SLD 7	-237	-4	1184	-15.99	-9.28	0.02
24	SLD 8	-237	-4	1184	-15.99	-9.28	0.02
24	SLD 9	-414	5	1440	15.11	-16.54	-0.03
24	SLD 10	-414	5	1440	15.11	-16.54	-0.03
24	SLD 11	-325	-18	1218	-7.15	-13.1	0.04
24	SLD 12	-325	-18	1218	-7.15	-13.1	0.04
24	SLD 13	-485	-20	1402	17.63	-19.78	0.02
24	SLD 14	-485	-20	1402	17.63	-19.78	0.02
24	SLD 15	-458	-27	1335	10.95	-18.75	0.04
24	SLD 16	-458	-27	1335	10.95	-18.75	0.04
24	SLV 1	-13	68	1256	-29.59	0.87	-0.12
24	SLV 2	-13	68	1256	-29.59	0.87	-0.12
24	SLV 3	50	52	1098	-45.62	3.31	-0.08
24	SLV 4	50	52	1098	-45.62	3.31	-0.08
24	SLV 5	-327	46	1534	15.12	-12.46	-0.11
24	SLV 6	-327	46	1534	15.12	-12.46	-0.11
24	SLV 7	-118	-10	1009	-38.29	-4.36	0.04
24	SLV 8	-118	-10	1009	-38.29	-4.36	0.04
24	SLV 9	-533	10	1615	37.42	-21.47	-0.05
24	SLV 10	-533	10	1615	37.42	-21.47	-0.05
24	SLV 11	-324	-45	1089	-15.99	-13.36	0.1
24	SLV 12	-324	-45	1089	-15.99	-13.36	0.1
24	SLV 13	-701	-51	1525	44.74	-29.13	0.07
24	SLV 14	-701	-51	1525	44.74	-29.13	0.07
24	SLV 15	-638	-68	1367	28.72	-26.7	0.11
24	SLV 16	-638	-68	1367	28.72	-26.7	0.11
25	SLU 1	-292	3	1423	-0.91	-15.73	0.01
25	SLU 2	-295	2	1408	-0.66	-15.79	0.01
25	SLU 3	-292	3	1423	-0.91	-15.73	0.01
25	SLU 4	-294	2	1414	-0.76	-15.76	0.01
25	SLU 5	-295	2	1408	-0.66	-15.79	0.01
25	SLU 6	-292	3	1423	-0.91	-15.73	0.01
25	SLU 7	-294	2	1414	-0.76	-15.76	0.01
25	SLU 8	-292	3	1423	-0.91	-15.73	0.01
25	SLU 9	-294	2	1414	-0.76	-15.76	0.01
25	SLU 10	-381	3	1622	-0.82	-20.12	0.01
25	SLU 11	-378	3	1638	-1.06	-20.07	0.01
25	SLU 12	-380	3	1628	-0.91	-20.1	0.01
25	SLU 13	-381	3	1622	-0.82	-20.12	0.01
25	SLU 14	-378	3	1638	-1.06	-20.07	0.01
25	SLU 15	-380	3	1628	-0.91	-20.1	0.01
25	SLU 16	-378	3	1638	-1.06	-20.07	0.01
25	SLU 17	-380	3	1628	-0.91	-20.1	0.01
25	SLU 18	-415	3	1729	-1.13	-21.93	0.01
25	SLU 19	-417	3	1720	-0.98	-21.96	0.01
25	SLU 20	-415	3	1729	-1.13	-21.93	0.01
25	SLU 21	-417	3	1720	-0.98	-21.96	0.01
25	SLU 22	-328	3	1529	-1	-17.59	0.01
25	SLU 23	-331	2	1513	-0.75	-17.65	0.01
25	SLU 24	-328	3	1529	-1	-17.59	0.01
25	SLU 25	-330	3	1519	-0.85	-17.63	0.01
25	SLU 26	-331	2	1513	-0.75	-17.65	0.01
25	SLU 27	-328	3	1529	-1	-17.59	0.01
25	SLU 28	-330	3	1519	-0.85	-17.63	0.01
25	SLU 29	-328	3	1529	-1	-17.59	0.01
25	SLU 30	-330	3	1519	-0.85	-17.63	0.01
25	SLU 31	-417	3	1727	-0.9	-21.99	0.01
25	SLU 32	-414	3	1743	-1.15	-21.93	0.01
25	SLU 33	-416	3	1734	-1	-21.97	0.01
25	SLU 34	-417	3	1727	-0.9	-21.99	0.01
25	SLU 35	-414	3	1743	-1.15	-21.93	0.01
25	SLU 36	-416	3	1734	-1	-21.97	0.01
25	SLU 37	-414	3	1743	-1.15	-21.93	0.01
25	SLU 38	-416	3	1734	-1	-21.97	0.01
25	SLU 39	-451	4	1835	-1.22	-23.79	0.01
25	SLU 40	-452	3	1825	-1.07	-23.83	0.01
25	SLU 41	-451	4	1835	-1.22	-23.79	0.01
25	SLU 42	-452	3	1825	-1.07	-23.83	0.01
25	SLU 43	-367	3	1814	-1.15	-19.81	0.01
25	SLU 44	-370	3	1799	-0.91	-19.87	0.01
25	SLU 45	-367	3	1814	-1.15	-19.81	0.01
25	SLU 46	-369	3	1805	-1	-19.84	0.01
25	SLU 47	-370	3	1799	-0.91	-19.87	0.01
25	SLU 48	-367	3	1814	-1.15	-19.81	0.01
25	SLU 49	-369	3	1805	-1	-19.84	0.01
25	SLU 50	-367	3	1814	-1.15	-19.81	0.01
25	SLU 51	-369	3	1805	-1	-19.84	0.01
25	SLU 52	-456	3	2013	-1.06	-24.2	0.01
25	SLU 53	-453	4	2029	-1.31	-24.15	0.01
25	SLU 54	-455	4	2019	-1.16	-24.18	0.01
25	SLU 55	-456	3	2013	-1.06	-24.2	0.01
25	SLU 56	-453	4	2029	-1.31	-24.15	0.01
25	SLU 57	-455	4	2019	-1.16	-24.18	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
25	SLU 58	-453	4	2029	-1.31	-24.15	0.01
25	SLU 59	-455	4	2019	-1.16	-24.18	0.01
25	SLU 60	-490	4	2120	-1.37	-26.01	0.01
25	SLU 61	-492	4	2111	-1.22	-26.04	0.01
25	SLU 62	-490	4	2120	-1.37	-26.01	0.01
25	SLU 63	-492	4	2111	-1.22	-26.04	0.01
25	SLU 64	-403	4	1920	-1.24	-21.67	0.01
25	SLU 65	-406	3	1904	-0.99	-21.73	0.01
25	SLU 66	-403	4	1920	-1.24	-21.67	0.01
25	SLU 67	-405	3	1910	-1.09	-21.71	0.01
25	SLU 68	-406	3	1904	-0.99	-21.73	0.01
25	SLU 69	-403	4	1920	-1.24	-21.67	0.01
25	SLU 70	-405	3	1910	-1.09	-21.71	0.01
25	SLU 71	-403	4	1920	-1.24	-21.67	0.01
25	SLU 72	-405	3	1910	-1.09	-21.71	0.01
25	SLU 73	-492	4	2118	-1.14	-26.07	0.01
25	SLU 74	-489	4	2134	-1.39	-26.01	0.01
25	SLU 75	-491	4	2125	-1.24	-26.05	0.01
25	SLU 76	-492	4	2118	-1.14	-26.07	0.01
25	SLU 77	-489	4	2134	-1.39	-26.01	0.01
25	SLU 78	-491	4	2125	-1.24	-26.05	0.01
25	SLU 79	-489	4	2134	-1.39	-26.01	0.01
25	SLU 80	-491	4	2125	-1.24	-26.05	0.01
25	SLU 81	-526	4	2226	-1.46	-27.87	0.01
25	SLU 82	-528	4	2216	-1.31	-27.91	0.01
25	SLU 83	-526	4	2226	-1.46	-27.87	0.01
25	SLU 84	-528	4	2216	-1.31	-27.91	0.01
25	SLE RA 1	-302	3	1453	-0.94	-16.26	0.01
25	SLE RA 2	-304	2	1443	-0.77	-16.3	0.01
25	SLE RA 3	-302	3	1453	-0.94	-16.26	0.01
25	SLE RA 4	-303	3	1447	-0.84	-16.28	0.01
25	SLE RA 5	-304	2	1443	-0.77	-16.3	0.01
25	SLE RA 6	-302	3	1453	-0.94	-16.26	0.01
25	SLE RA 7	-303	3	1447	-0.84	-16.28	0.01
25	SLE RA 8	-302	3	1453	-0.94	-16.26	0.01
25	SLE RA 9	-303	3	1447	-0.84	-16.28	0.01
25	SLE RA 10	-362	3	1586	-0.87	-19.19	0.01
25	SLE RA 11	-359	3	1596	-1.04	-19.15	0.01
25	SLE RA 12	-361	3	1590	-0.94	-19.18	0.01
25	SLE RA 13	-362	3	1586	-0.87	-19.19	0.01
25	SLE RA 14	-359	3	1596	-1.04	-19.15	0.01
25	SLE RA 15	-361	3	1590	-0.94	-19.18	0.01
25	SLE RA 16	-359	3	1596	-1.04	-19.15	0.01
25	SLE RA 17	-361	3	1590	-0.94	-19.18	0.01
25	SLE RA 18	-384	3	1657	-1.08	-20.39	0.01
25	SLE RA 19	-385	3	1651	-0.98	-20.42	0.01
25	SLE RA 20	-384	3	1657	-1.08	-20.39	0.01
25	SLE RA 21	-385	3	1651	-0.98	-20.42	0.01
25	SLE FR 1	-302	3	1453	-0.94	-16.26	0.01
25	SLE FR 2	-303	3	1451	-0.9	-16.27	0.01
25	SLE FR 3	-302	3	1453	-0.94	-16.26	0.01
25	SLE FR 4	-327	3	1513	-0.95	-17.51	0.01
25	SLE FR 5	-327	3	1515	-0.98	-17.5	0.01
25	SLE FR 6	-343	3	1555	-1.01	-18.33	0.01
25	SLE QP 1	-302	3	1453	-0.94	-16.26	0.01
25	SLE QP 2	-327	3	1515	-0.98	-17.5	0.01
25	SLD 1	-218	22	1432	-11.43	-12.04	-0.03
25	SLD 2	-218	22	1432	-11.43	-12.04	-0.03
25	SLD 3	-188	18	1306	-8.09	-11	-0.02
25	SLD 4	-188	18	1306	-8.09	-11	-0.02
25	SLD 5	-341	13	1681	-9.19	-17.43	-0.01
25	SLD 6	-341	13	1681	-9.19	-17.43	-0.01
25	SLD 7	-239	3	1261	1.97	-13.98	0.01
25	SLD 8	-239	3	1261	1.97	-13.98	0.01
25	SLD 9	-415	3	1768	-3.92	-21.02	0.01
25	SLD 10	-415	3	1768	-3.92	-21.02	0.01
25	SLD 11	-313	-8	1349	7.23	-17.57	0.03
25	SLD 12	-313	-8	1349	7.23	-17.57	0.03
25	SLD 13	-466	-13	1723	6.13	-24	0.04
25	SLD 14	-466	-13	1723	6.13	-24	0.04
25	SLD 15	-435	-16	1597	9.48	-22.97	0.05
25	SLD 16	-435	-16	1597	9.48	-22.97	0.05
25	SLV 1	-72	50	1319	-27.18	-4.63	-0.09
25	SLV 2	-72	50	1319	-27.18	-4.63	-0.09
25	SLV 3	0	42	1022	-19.12	-2.19	-0.07
25	SLV 4	0	42	1022	-19.12	-2.19	-0.07
25	SLV 5	-359	29	1907	-21.06	-17.33	-0.04
25	SLV 6	-359	29	1907	-21.06	-17.33	-0.04
25	SLV 7	-119	3	916	5.79	-9.22	0.01
25	SLV 8	-119	3	916	5.79	-9.22	0.01
25	SLV 9	-534	3	2114	-7.75	-25.79	0.01
25	SLV 10	-534	3	2114	-7.75	-25.79	0.01
25	SLV 11	-294	-23	1122	19.1	-17.67	0.06
25	SLV 12	-294	-23	1122	19.1	-17.67	0.06
25	SLV 13	-654	-37	2007	17.17	-32.81	0.09
25	SLV 14	-654	-37	2007	17.17	-32.81	0.09
25	SLV 15	-582	-44	1710	25.22	-30.38	0.11
25	SLV 16	-582	-44	1710	25.22	-30.38	0.11
26	SLU 1	-275	324	1951	-9.71	-7.97	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
26	SLU 2	-275	314	1923	-9.29	-8.02	-0.01
26	SLU 3	-275	324	1951	-9.71	-7.97	-0.02
26	SLU 4	-275	318	1934	-9.45	-8	-0.02
26	SLU 5	-275	314	1923	-9.29	-8.02	-0.01
26	SLU 6	-275	324	1951	-9.71	-7.97	-0.02
26	SLU 7	-275	318	1934	-9.45	-8	-0.02
26	SLU 8	-275	324	1951	-9.71	-7.97	-0.02
26	SLU 9	-275	318	1934	-9.45	-8	-0.02
26	SLU 10	-339	363	2255	-10.67	-10.2	-0.01
26	SLU 11	-340	372	2283	-11.09	-10.14	-0.01
26	SLU 12	-339	367	2266	-10.83	-10.18	-0.01
26	SLU 13	-339	363	2255	-10.67	-10.2	-0.01
26	SLU 14	-340	372	2283	-11.09	-10.14	-0.01
26	SLU 15	-339	367	2266	-10.83	-10.18	-0.01
26	SLU 16	-340	372	2283	-11.09	-10.14	-0.01
26	SLU 17	-339	367	2266	-10.83	-10.18	-0.01
26	SLU 18	-367	393	2426	-11.68	-11.08	-0.01
26	SLU 19	-367	387	2409	-11.43	-11.11	-0.01
26	SLU 20	-367	393	2426	-11.68	-11.08	-0.01
26	SLU 21	-367	387	2409	-11.43	-11.11	-0.01
26	SLU 22	-304	352	2117	-10.55	-8.89	-0.02
26	SLU 23	-303	342	2089	-10.13	-8.95	-0.01
26	SLU 24	-304	352	2117	-10.55	-8.89	-0.02
26	SLU 25	-303	346	2100	-10.3	-8.93	-0.01
26	SLU 26	-303	342	2089	-10.13	-8.95	-0.01
26	SLU 27	-304	352	2117	-10.55	-8.89	-0.02
26	SLU 28	-303	346	2100	-10.3	-8.93	-0.01
26	SLU 29	-304	352	2117	-10.55	-8.89	-0.02
26	SLU 30	-303	346	2100	-10.3	-8.93	-0.01
26	SLU 31	-367	391	2421	-11.51	-11.13	-0.01
26	SLU 32	-368	400	2449	-11.93	-11.07	-0.01
26	SLU 33	-368	395	2432	-11.68	-11.11	-0.01
26	SLU 34	-367	391	2421	-11.51	-11.13	-0.01
26	SLU 35	-368	400	2449	-11.93	-11.07	-0.01
26	SLU 36	-368	395	2432	-11.68	-11.11	-0.01
26	SLU 37	-368	400	2449	-11.93	-11.07	-0.01
26	SLU 38	-368	395	2432	-11.68	-11.11	-0.01
26	SLU 39	-395	421	2591	-12.52	-12.01	-0.01
26	SLU 40	-395	415	2574	-12.27	-12.04	-0.01
26	SLU 41	-395	421	2591	-12.52	-12.01	-0.01
26	SLU 42	-395	415	2574	-12.27	-12.04	-0.01
26	SLU 43	-348	412	2480	-12.33	-10.04	-0.02
26	SLU 44	-348	402	2452	-11.91	-10.09	-0.02
26	SLU 45	-348	412	2480	-12.33	-10.04	-0.02
26	SLU 46	-348	406	2463	-12.08	-10.07	-0.02
26	SLU 47	-348	402	2452	-11.91	-10.09	-0.02
26	SLU 48	-348	412	2480	-12.33	-10.04	-0.02
26	SLU 49	-348	406	2463	-12.08	-10.07	-0.02
26	SLU 50	-348	412	2480	-12.33	-10.04	-0.02
26	SLU 51	-348	406	2463	-12.08	-10.07	-0.02
26	SLU 52	-412	450	2784	-13.29	-12.27	-0.01
26	SLU 53	-413	460	2812	-13.71	-12.22	-0.02
26	SLU 54	-412	454	2795	-13.46	-12.25	-0.01
26	SLU 55	-412	450	2784	-13.29	-12.27	-0.01
26	SLU 56	-413	460	2812	-13.71	-12.22	-0.02
26	SLU 57	-412	454	2795	-13.46	-12.25	-0.01
26	SLU 58	-413	460	2812	-13.71	-12.22	-0.02
26	SLU 59	-412	454	2795	-13.46	-12.25	-0.01
26	SLU 60	-440	481	2954	-14.3	-13.15	-0.01
26	SLU 61	-440	475	2937	-14.05	-13.18	-0.01
26	SLU 62	-440	481	2954	-14.3	-13.15	-0.01
26	SLU 63	-440	475	2937	-14.05	-13.18	-0.01
26	SLU 64	-377	440	2646	-13.17	-10.97	-0.02
26	SLU 65	-376	430	2617	-12.75	-11.02	-0.02
26	SLU 66	-377	440	2646	-13.17	-10.97	-0.02
26	SLU 67	-376	434	2629	-12.92	-11	-0.02
26	SLU 68	-376	430	2617	-12.75	-11.02	-0.02
26	SLU 69	-377	440	2646	-13.17	-10.97	-0.02
26	SLU 70	-376	434	2629	-12.92	-11	-0.02
26	SLU 71	-377	440	2646	-13.17	-10.97	-0.02
26	SLU 72	-376	434	2629	-12.92	-11	-0.02
26	SLU 73	-440	478	2949	-14.13	-13.2	-0.01
26	SLU 74	-441	488	2978	-14.55	-13.14	-0.02
26	SLU 75	-441	482	2961	-14.3	-13.18	-0.01
26	SLU 76	-440	478	2949	-14.13	-13.2	-0.01
26	SLU 77	-441	488	2978	-14.55	-13.14	-0.02
26	SLU 78	-441	482	2961	-14.3	-13.18	-0.01
26	SLU 79	-441	488	2978	-14.55	-13.14	-0.02
26	SLU 80	-441	482	2961	-14.3	-13.18	-0.01
26	SLU 81	-468	509	3120	-15.15	-14.08	-0.01
26	SLU 82	-468	503	3103	-14.89	-14.11	-0.01
26	SLU 83	-468	509	3120	-15.15	-14.08	-0.01
26	SLU 84	-468	503	3103	-14.89	-14.11	-0.01
26	SLE RA 1	-284	332	1999	-9.95	-8.23	-0.02
26	SLE RA 2	-283	326	1980	-9.67	-8.27	-0.01
26	SLE RA 3	-284	332	1999	-9.95	-8.23	-0.02
26	SLE RA 4	-283	328	1987	-9.78	-8.25	-0.02
26	SLE RA 5	-283	326	1980	-9.67	-8.27	-0.01
26	SLE RA 6	-284	332	1999	-9.95	-8.23	-0.02





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
26	SLE RA 7	-283	328	1987	-9.78	-8.25	-0.02
26	SLE RA 8	-284	332	1999	-9.95	-8.23	-0.02
26	SLE RA 9	-283	328	1987	-9.78	-8.25	-0.02
26	SLE RA 10	-326	358	2201	-10.59	-9.72	-0.01
26	SLE RA 11	-326	364	2220	-10.87	-9.68	-0.01
26	SLE RA 12	-326	360	2209	-10.7	-9.71	-0.01
26	SLE RA 13	-326	358	2201	-10.59	-9.72	-0.01
26	SLE RA 14	-326	364	2220	-10.87	-9.68	-0.01
26	SLE RA 15	-326	360	2209	-10.7	-9.71	-0.01
26	SLE RA 16	-326	364	2220	-10.87	-9.68	-0.01
26	SLE RA 17	-326	360	2209	-10.7	-9.71	-0.01
26	SLE RA 18	-345	378	2315	-11.26	-10.31	-0.01
26	SLE RA 19	-344	374	2304	-11.09	-10.33	-0.01
26	SLE RA 20	-345	378	2315	-11.26	-10.31	-0.01
26	SLE RA 21	-344	374	2304	-11.09	-10.33	-0.01
26	SLE FR 1	-284	332	1999	-9.95	-8.23	-0.02
26	SLE FR 2	-283	331	1995	-9.89	-8.24	-0.02
26	SLE FR 3	-284	332	1999	-9.95	-8.23	-0.02
26	SLE FR 4	-302	345	2090	-10.29	-8.86	-0.02
26	SLE FR 5	-302	346	2094	-10.34	-8.85	-0.02
26	SLE FR 6	-314	355	2157	-10.61	-9.27	-0.01
26	SLE QP 1	-284	332	1999	-9.95	-8.23	-0.02
26	SLE QP 2	-302	346	2094	-10.34	-8.85	-0.02
26	SLD 1	-229	354	1921	-10.65	-5.6	-0.06
26	SLD 2	-229	354	1921	-10.65	-5.6	-0.06
26	SLD 3	-213	276	1689	-7.55	-5.11	-0.03
26	SLD 4	-213	276	1689	-7.55	-5.11	-0.03
26	SLD 5	-303	466	2395	-15.13	-8.62	-0.07
26	SLD 6	-303	466	2395	-15.13	-8.62	-0.07
26	SLD 7	-252	207	1619	-4.81	-6.99	0.02
26	SLD 8	-252	207	1619	-4.81	-6.99	0.02
26	SLD 9	-352	485	2568	-15.88	-10.72	-0.05
26	SLD 10	-352	485	2568	-15.88	-10.72	-0.05
26	SLD 11	-301	226	1793	-5.55	-9.09	0.04
26	SLD 12	-301	226	1793	-5.55	-9.09	0.04
26	SLD 13	-390	416	2499	-13.13	-12.59	0
26	SLD 14	-390	416	2499	-13.13	-12.59	0
26	SLD 15	-375	338	2266	-10.04	-12.11	0.03
26	SLD 16	-375	338	2266	-10.04	-12.11	0.03
26	SLV 1	-130	363	1687	-10.95	-1.09	-0.12
26	SLV 2	-130	363	1687	-10.95	-1.09	-0.12
26	SLV 3	-94	179	1137	-3.63	0.08	-0.05
26	SLV 4	-94	179	1137	-3.63	0.08	-0.05
26	SLV 5	-305	629	2806	-21.63	-8.3	-0.15
26	SLV 6	-305	629	2806	-21.63	-8.3	-0.15
26	SLV 7	-185	18	972	2.77	-4.4	0.08
26	SLV 8	-185	18	972	2.77	-4.4	0.08
26	SLV 9	-419	674	3215	-23.46	-13.31	-0.11
26	SLV 10	-419	674	3215	-23.46	-13.31	-0.11
26	SLV 11	-299	63	1381	0.94	-9.41	0.12
26	SLV 12	-299	63	1381	0.94	-9.41	0.12
26	SLV 13	-510	512	3050	-17.05	-17.79	0.02
26	SLV 14	-510	512	3050	-17.05	-17.79	0.02
26	SLV 15	-474	329	2500	-9.73	-16.62	0.08
26	SLV 16	-474	329	2500	-9.73	-16.62	0.08
27	SLU 1	3	419	1576	-21.08	0.84	0.01
27	SLU 2	3	401	1556	-20.25	1.11	0.01
27	SLU 3	3	419	1576	-21.08	0.84	0.01
27	SLU 4	3	408	1564	-20.58	1	0.01
27	SLU 5	3	401	1556	-20.25	1.11	0.01
27	SLU 6	3	419	1576	-21.08	0.84	0.01
27	SLU 7	3	408	1564	-20.58	1	0.01
27	SLU 8	3	419	1576	-21.08	0.84	0.01
27	SLU 9	3	408	1564	-20.58	1	0.01
27	SLU 10	3	449	1857	-23.23	1.37	0.01
27	SLU 11	3	467	1877	-24.06	1.1	0.01
27	SLU 12	3	456	1865	-23.56	1.26	0.01
27	SLU 13	3	449	1857	-23.23	1.37	0.01
27	SLU 14	3	467	1877	-24.06	1.1	0.01
27	SLU 15	3	456	1865	-23.56	1.26	0.01
27	SLU 16	3	467	1877	-24.06	1.1	0.01
27	SLU 17	3	456	1865	-23.56	1.26	0.01
27	SLU 18	4	487	2007	-25.34	1.21	0.02
27	SLU 19	3	476	1995	-24.84	1.37	0.02
27	SLU 20	4	487	2007	-25.34	1.21	0.02
27	SLU 21	3	476	1995	-24.84	1.37	0.02
27	SLU 22	3	460	1735	-23.28	0.96	0.01
27	SLU 23	3	442	1715	-22.45	1.22	0.01
27	SLU 24	3	460	1735	-23.28	0.96	0.01
27	SLU 25	3	449	1723	-22.78	1.12	0.01
27	SLU 26	3	442	1715	-22.45	1.22	0.01
27	SLU 27	3	460	1735	-23.28	0.96	0.01
27	SLU 28	3	449	1723	-22.78	1.12	0.01
27	SLU 29	3	460	1735	-23.28	0.96	0.01
27	SLU 30	3	449	1723	-22.78	1.12	0.01
27	SLU 31	4	490	2017	-25.43	1.48	0.02
27	SLU 32	4	508	2037	-26.26	1.22	0.02
27	SLU 33	4	497	2025	-25.76	1.38	0.02
27	SLU 34	4	490	2017	-25.43	1.48	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
27	SLU 35	4	508	2037	-26.26	1.22	0.02
27	SLU 36	4	497	2025	-25.76	1.38	0.02
27	SLU 37	4	508	2037	-26.26	1.22	0.02
27	SLU 38	4	497	2025	-25.76	1.38	0.02
27	SLU 39	4	528	2166	-27.54	1.33	0.02
27	SLU 40	4	517	2154	-27.04	1.49	0.02
27	SLU 41	4	528	2166	-27.54	1.33	0.02
27	SLU 42	4	517	2154	-27.04	1.49	0.02
27	SLU 43	3	530	1994	-26.64	1.06	0.01
27	SLU 44	3	513	1974	-25.81	1.32	0.02
27	SLU 45	3	530	1994	-26.64	1.06	0.01
27	SLU 46	3	520	1982	-26.15	1.22	0.02
27	SLU 47	3	513	1974	-25.81	1.32	0.02
27	SLU 48	3	530	1994	-26.64	1.06	0.01
27	SLU 49	3	520	1982	-26.15	1.22	0.02
27	SLU 50	3	530	1994	-26.64	1.06	0.01
27	SLU 51	3	520	1982	-26.15	1.22	0.02
27	SLU 52	4	560	2275	-28.8	1.58	0.02
27	SLU 53	4	578	2296	-29.62	1.32	0.02
27	SLU 54	4	568	2283	-29.13	1.48	0.02
27	SLU 55	4	560	2275	-28.8	1.58	0.02
27	SLU 56	4	578	2296	-29.62	1.32	0.02
27	SLU 57	4	568	2283	-29.13	1.48	0.02
27	SLU 58	4	578	2296	-29.62	1.32	0.02
27	SLU 59	4	568	2283	-29.13	1.48	0.02
27	SLU 60	4	599	2425	-30.9	1.43	0.02
27	SLU 61	4	588	2413	-30.4	1.59	0.02
27	SLU 62	4	599	2425	-30.9	1.43	0.02
27	SLU 63	4	588	2413	-30.4	1.59	0.02
27	SLU 64	4	571	2153	-28.85	1.17	0.02
27	SLU 65	4	554	2133	-28.02	1.44	0.02
27	SLU 66	4	571	2153	-28.85	1.17	0.02
27	SLU 67	4	561	2141	-28.35	1.33	0.02
27	SLU 68	4	554	2133	-28.02	1.44	0.02
27	SLU 69	4	571	2153	-28.85	1.17	0.02
27	SLU 70	4	561	2141	-28.35	1.33	0.02
27	SLU 71	4	571	2153	-28.85	1.17	0.02
27	SLU 72	4	561	2141	-28.35	1.33	0.02
27	SLU 73	4	601	2435	-31	1.7	0.02
27	SLU 74	4	619	2455	-31.83	1.43	0.02
27	SLU 75	4	608	2443	-31.33	1.59	0.02
27	SLU 76	4	601	2435	-31	1.7	0.02
27	SLU 77	4	619	2455	-31.83	1.43	0.02
27	SLU 78	4	608	2443	-31.33	1.59	0.02
27	SLU 79	4	619	2455	-31.83	1.43	0.02
27	SLU 80	4	608	2443	-31.33	1.59	0.02
27	SLU 81	4	640	2584	-33.11	1.54	0.02
27	SLU 82	4	629	2572	-32.61	1.7	0.02
27	SLU 83	4	640	2584	-33.11	1.54	0.02
27	SLU 84	4	629	2572	-32.61	1.7	0.02
27	SLE RA 1	3	431	1621	-21.71	0.88	0.01
27	SLE RA 2	3	419	1608	-21.15	1.05	0.01
27	SLE RA 3	3	431	1621	-21.71	0.88	0.01
27	SLE RA 4	3	423	1613	-21.37	0.98	0.01
27	SLE RA 5	3	419	1608	-21.15	1.05	0.01
27	SLE RA 6	3	431	1621	-21.71	0.88	0.01
27	SLE RA 7	3	423	1613	-21.37	0.98	0.01
27	SLE RA 8	3	431	1621	-21.71	0.88	0.01
27	SLE RA 9	3	423	1613	-21.37	0.98	0.01
27	SLE RA 10	3	450	1809	-23.14	1.23	0.01
27	SLE RA 11	3	462	1822	-23.69	1.05	0.01
27	SLE RA 12	3	455	1814	-23.36	1.16	0.01
27	SLE RA 13	3	450	1809	-23.14	1.23	0.01
27	SLE RA 14	3	462	1822	-23.69	1.05	0.01
27	SLE RA 15	3	455	1814	-23.36	1.16	0.01
27	SLE RA 16	3	462	1822	-23.69	1.05	0.01
27	SLE RA 17	3	455	1814	-23.36	1.16	0.01
27	SLE RA 18	3	476	1909	-24.55	1.12	0.01
27	SLE RA 19	3	469	1901	-24.21	1.23	0.01
27	SLE RA 20	3	476	1909	-24.55	1.12	0.01
27	SLE RA 21	3	469	1901	-24.21	1.23	0.01
27	SLE FR 1	3	431	1621	-21.71	0.88	0.01
27	SLE FR 2	3	428	1619	-21.6	0.91	0.01
27	SLE FR 3	3	431	1621	-21.71	0.88	0.01
27	SLE FR 4	3	442	1705	-22.45	0.99	0.01
27	SLE FR 5	3	444	1707	-22.56	0.95	0.01
27	SLE FR 6	3	453	1765	-23.13	1	0.01
27	SLE QP 1	3	431	1621	-21.71	0.88	0.01
27	SLE QP 2	3	444	1707	-22.56	0.95	0.01
27	SLD 1	10	578	1940	-28.75	8.93	0.03
27	SLD 2	10	578	1940	-28.75	8.93	0.03
27	SLD 3	16	446	1825	-22.59	12.67	0.02
27	SLD 4	16	446	1825	-22.59	12.67	0.02
27	SLD 5	-4	685	1952	-33.75	-2.32	0.02
27	SLD 6	-4	685	1952	-33.75	-2.32	0.02
27	SLD 7	16	244	1568	-13.23	10.13	0.01
27	SLD 8	16	244	1568	-13.23	10.13	0.01
27	SLD 9	-10	644	1847	-31.88	-8.23	0.02
27	SLD 10	-10	644	1847	-31.88	-8.23	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
27	SLD 11	10	204	1463	-11.37	4.22	0
27	SLD 12	10	204	1463	-11.37	4.22	0
27	SLD 13	-10	442	1590	-22.52	-10.77	0.01
27	SLD 14	-10	442	1590	-22.52	-10.77	0.01
27	SLD 15	-4	310	1475	-16.37	-7.03	0
27	SLD 16	-4	310	1475	-16.37	-7.03	0
27	SLV 1	20	771	2267	-37.72	21.32	0.04
27	SLV 2	20	771	2267	-37.72	21.32	0.04
27	SLV 3	36	459	1994	-23.18	31.01	0.03
27	SLV 4	36	459	1994	-23.18	31.01	0.03
27	SLV 5	-16	1016	2289	-49.15	-7.64	0.04
27	SLV 6	-16	1016	2289	-49.15	-7.64	0.04
27	SLV 7	36	-24	1380	-0.7	24.66	0
27	SLV 8	36	-24	1380	-0.7	24.66	0
27	SLV 9	-31	913	2035	-44.42	-22.77	0.03
27	SLV 10	-31	913	2035	-44.42	-22.77	0.03
27	SLV 11	21	-127	1126	4.04	9.53	-0.02
27	SLV 12	21	-127	1126	4.04	9.53	-0.02
27	SLV 13	-30	429	1421	-21.94	-29.11	0
27	SLV 14	-30	429	1421	-21.94	-29.11	0
27	SLV 15	-15	117	1148	-7.4	-19.42	-0.02
27	SLV 16	-15	117	1148	-7.4	-19.42	-0.02
28	SLU 1	-2	389	1474	-19.32	-0.81	-0.01
28	SLU 2	-2	373	1458	-18.57	-1.03	-0.01
28	SLU 3	-2	389	1474	-19.32	-0.81	-0.01
28	SLU 4	-2	380	1464	-18.87	-0.94	-0.01
28	SLU 5	-2	373	1458	-18.57	-1.03	-0.01
28	SLU 6	-2	389	1474	-19.32	-0.81	-0.01
28	SLU 7	-2	380	1464	-18.87	-0.94	-0.01
28	SLU 8	-2	389	1474	-19.32	-0.81	-0.01
28	SLU 9	-2	380	1464	-18.87	-0.94	-0.01
28	SLU 10	-3	428	1684	-21.58	-1.23	-0.01
28	SLU 11	-3	444	1700	-22.32	-1.02	-0.01
28	SLU 12	-3	435	1690	-21.88	-1.15	-0.01
28	SLU 13	-3	428	1684	-21.58	-1.23	-0.01
28	SLU 14	-3	444	1700	-22.32	-1.02	-0.01
28	SLU 15	-3	435	1690	-21.88	-1.15	-0.01
28	SLU 16	-3	444	1700	-22.32	-1.02	-0.01
28	SLU 17	-3	435	1690	-21.88	-1.15	-0.01
28	SLU 18	-3	468	1797	-23.61	-1.1	-0.01
28	SLU 19	-3	458	1787	-23.16	-1.23	-0.01
28	SLU 20	-3	468	1797	-23.61	-1.1	-0.01
28	SLU 21	-3	458	1787	-23.16	-1.23	-0.01
28	SLU 22	-3	425	1591	-21.15	-0.9	-0.01
28	SLU 23	-3	409	1574	-20.41	-1.12	-0.01
28	SLU 24	-3	425	1591	-21.15	-0.9	-0.01
28	SLU 25	-3	415	1581	-20.71	-1.03	-0.01
28	SLU 26	-3	409	1574	-20.41	-1.12	-0.01
28	SLU 27	-3	425	1591	-21.15	-0.9	-0.01
28	SLU 28	-3	415	1581	-20.71	-1.03	-0.01
28	SLU 29	-3	425	1591	-21.15	-0.9	-0.01
28	SLU 30	-3	415	1581	-20.71	-1.03	-0.01
28	SLU 31	-3	464	1800	-23.41	-1.33	-0.01
28	SLU 32	-3	480	1817	-24.15	-1.11	-0.01
28	SLU 33	-3	470	1807	-23.71	-1.24	-0.01
28	SLU 34	-3	464	1800	-23.41	-1.33	-0.01
28	SLU 35	-3	480	1817	-24.15	-1.11	-0.01
28	SLU 36	-3	470	1807	-23.71	-1.24	-0.01
28	SLU 37	-3	480	1817	-24.15	-1.11	-0.01
28	SLU 38	-3	470	1807	-23.71	-1.24	-0.01
28	SLU 39	-4	503	1914	-25.44	-1.2	-0.01
28	SLU 40	-3	494	1904	-25	-1.33	-0.01
28	SLU 41	-4	503	1914	-25.44	-1.2	-0.01
28	SLU 42	-3	494	1904	-25	-1.33	-0.01
28	SLU 43	-3	494	1876	-24.48	-1.02	-0.01
28	SLU 44	-3	478	1860	-23.74	-1.24	-0.01
28	SLU 45	-3	494	1876	-24.48	-1.02	-0.01
28	SLU 46	-3	484	1866	-24.04	-1.15	-0.01
28	SLU 47	-3	478	1860	-23.74	-1.24	-0.01
28	SLU 48	-3	494	1876	-24.48	-1.02	-0.01
28	SLU 49	-3	484	1866	-24.04	-1.15	-0.01
28	SLU 50	-3	494	1876	-24.48	-1.02	-0.01
28	SLU 51	-3	484	1866	-24.04	-1.15	-0.01
28	SLU 52	-4	533	2086	-26.74	-1.44	-0.02
28	SLU 53	-4	549	2103	-27.48	-1.23	-0.01
28	SLU 54	-4	539	2093	-27.04	-1.36	-0.01
28	SLU 55	-4	533	2086	-26.74	-1.44	-0.02
28	SLU 56	-4	549	2103	-27.48	-1.23	-0.01
28	SLU 57	-4	539	2093	-27.04	-1.36	-0.01
28	SLU 58	-4	549	2103	-27.48	-1.23	-0.01
28	SLU 59	-4	539	2093	-27.04	-1.36	-0.01
28	SLU 60	-4	572	2200	-28.77	-1.32	-0.02
28	SLU 61	-4	563	2190	-28.33	-1.45	-0.02
28	SLU 62	-4	572	2200	-28.77	-1.32	-0.02
28	SLU 63	-4	563	2190	-28.33	-1.45	-0.02
28	SLU 64	-3	529	1993	-26.32	-1.12	-0.01
28	SLU 65	-3	513	1976	-25.57	-1.33	-0.01
28	SLU 66	-3	529	1993	-26.32	-1.12	-0.01
28	SLU 67	-3	520	1983	-25.87	-1.25	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
28	SLU 68	-3	513	1976	-25.57	-1.33	-0.01
28	SLU 69	-3	529	1993	-26.32	-1.12	-0.01
28	SLU 70	-3	520	1983	-25.87	-1.25	-0.01
28	SLU 71	-3	529	1993	-26.32	-1.12	-0.01
28	SLU 72	-3	520	1983	-25.87	-1.25	-0.01
28	SLU 73	-4	568	2203	-28.58	-1.54	-0.02
28	SLU 74	-4	584	2219	-29.32	-1.32	-0.02
28	SLU 75	-4	575	2209	-28.88	-1.45	-0.02
28	SLU 76	-4	568	2203	-28.58	-1.54	-0.02
28	SLU 77	-4	584	2219	-29.32	-1.32	-0.02
28	SLU 78	-4	575	2209	-28.88	-1.45	-0.02
28	SLU 79	-4	584	2219	-29.32	-1.32	-0.02
28	SLU 80	-4	575	2209	-28.88	-1.45	-0.02
28	SLU 81	-4	608	2316	-30.61	-1.41	-0.02
28	SLU 82	-4	598	2306	-30.16	-1.54	-0.02
28	SLU 83	-4	608	2316	-30.61	-1.41	-0.02
28	SLU 84	-4	598	2306	-30.16	-1.54	-0.02
28	SLE RA 1	-3	399	1507	-19.84	-0.84	-0.01
28	SLE RA 2	-2	389	1496	-19.35	-0.98	-0.01
28	SLE RA 3	-3	399	1507	-19.84	-0.84	-0.01
28	SLE RA 4	-3	393	1501	-19.54	-0.92	-0.01
28	SLE RA 5	-2	389	1496	-19.35	-0.98	-0.01
28	SLE RA 6	-3	399	1507	-19.84	-0.84	-0.01
28	SLE RA 7	-3	393	1501	-19.54	-0.92	-0.01
28	SLE RA 8	-3	399	1507	-19.84	-0.84	-0.01
28	SLE RA 9	-3	393	1501	-19.54	-0.92	-0.01
28	SLE RA 10	-3	425	1647	-21.35	-1.12	-0.01
28	SLE RA 11	-3	436	1658	-21.84	-0.97	-0.01
28	SLE RA 12	-3	430	1652	-21.55	-1.06	-0.01
28	SLE RA 13	-3	425	1647	-21.35	-1.12	-0.01
28	SLE RA 14	-3	436	1658	-21.84	-0.97	-0.01
28	SLE RA 15	-3	430	1652	-21.55	-1.06	-0.01
28	SLE RA 16	-3	436	1658	-21.84	-0.97	-0.01
28	SLE RA 17	-3	430	1652	-21.55	-1.06	-0.01
28	SLE RA 18	-3	452	1723	-22.7	-1.03	-0.01
28	SLE RA 19	-3	445	1716	-22.4	-1.12	-0.01
28	SLE RA 20	-3	452	1723	-22.7	-1.03	-0.01
28	SLE RA 21	-3	445	1716	-22.4	-1.12	-0.01
28	SLE FR 1	-3	399	1507	-19.84	-0.84	-0.01
28	SLE FR 2	-3	397	1505	-19.74	-0.87	-0.01
28	SLE FR 3	-3	399	1507	-19.84	-0.84	-0.01
28	SLE FR 4	-3	413	1570	-20.6	-0.93	-0.01
28	SLE FR 5	-3	415	1572	-20.7	-0.9	-0.01
28	SLE FR 6	-3	426	1615	-21.27	-0.94	-0.01
28	SLE QP 1	-3	399	1507	-19.84	-0.84	-0.01
28	SLE QP 2	-3	415	1572	-20.7	-0.9	-0.01
28	SLD 1	1	447	1457	-22.03	7.24	-0.01
28	SLD 2	1	447	1457	-22.03	7.24	-0.01
28	SLD 3	7	323	1334	-16.25	10.03	0
28	SLD 4	7	323	1334	-16.25	10.03	0
28	SLD 5	-10	613	1724	-29.86	-2.69	-0.02
28	SLD 6	-10	613	1724	-29.86	-2.69	-0.02
28	SLD 7	8	199	1314	-10.6	6.61	0
28	SLD 8	8	199	1314	-10.6	6.61	0
28	SLD 9	-14	631	1830	-30.79	-8.41	-0.02
28	SLD 10	-14	631	1830	-30.79	-8.41	-0.02
28	SLD 11	4	217	1420	-11.54	0.89	0
28	SLD 12	4	217	1420	-11.54	0.89	0
28	SLD 13	-12	508	1810	-25.14	-11.82	-0.02
28	SLD 14	-12	508	1810	-25.14	-11.82	-0.02
28	SLD 15	-7	384	1687	-19.36	-9.03	-0.02
28	SLD 16	-7	384	1687	-19.36	-9.03	-0.02
28	SLV 1	7	489	1301	-23.82	19.78	0
28	SLV 2	7	489	1301	-23.82	19.78	0
28	SLV 3	20	196	1010	-10.18	26.55	0.02
28	SLV 4	20	196	1010	-10.18	26.55	0.02
28	SLV 5	-19	882	1932	-42.32	-4.97	-0.03
28	SLV 6	-19	882	1932	-42.32	-4.97	-0.03
28	SLV 7	24	-95	962	3.14	17.62	0.02
28	SLV 8	24	-95	962	3.14	17.62	0.02
28	SLV 9	-29	925	2182	-44.54	-19.41	-0.04
28	SLV 10	-29	925	2182	-44.54	-19.41	-0.04
28	SLV 11	14	-52	1212	0.92	3.18	0.01
28	SLV 12	14	-52	1212	0.92	3.18	0.01
28	SLV 13	-26	634	2134	-31.22	-28.35	-0.04
28	SLV 14	-26	634	2134	-31.22	-28.35	-0.04
28	SLV 15	-13	341	1843	-17.58	-21.57	-0.03
28	SLV 16	-13	341	1843	-17.58	-21.57	-0.03
29	SLU 1	0	482	1764	-18.75	-0.05	0
29	SLU 2	0	485	1764	-18.9	-0.03	0
29	SLU 3	0	482	1764	-18.75	-0.05	0
29	SLU 4	0	484	1764	-18.84	-0.04	0
29	SLU 5	0	485	1764	-18.9	-0.03	0
29	SLU 6	0	482	1764	-18.75	-0.05	0
29	SLU 7	0	484	1764	-18.84	-0.04	0
29	SLU 8	0	482	1764	-18.75	-0.05	0
29	SLU 9	0	484	1764	-18.84	-0.04	0
29	SLU 10	0	651	2229	-25.27	-0.06	0
29	SLU 11	0	648	2229	-25.11	-0.08	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
29	SLU 12	0	650	2229	-25.21	-0.07	0
29	SLU 13	0	651	2229	-25.27	-0.06	0
29	SLU 14	0	648	2229	-25.11	-0.08	0
29	SLU 15	0	650	2229	-25.21	-0.07	0
29	SLU 16	0	648	2229	-25.11	-0.08	0
29	SLU 17	0	650	2229	-25.21	-0.07	0
29	SLU 18	0	719	2429	-27.84	-0.09	0
29	SLU 19	0	721	2429	-27.94	-0.08	0
29	SLU 20	0	719	2429	-27.84	-0.09	0
29	SLU 21	0	721	2429	-27.94	-0.08	0
29	SLU 22	0	594	2031	-23.05	-0.06	0
29	SLU 23	0	598	2031	-23.21	-0.04	0
29	SLU 24	0	594	2031	-23.05	-0.06	0
29	SLU 25	0	596	2031	-23.15	-0.05	0
29	SLU 26	0	598	2031	-23.21	-0.04	0
29	SLU 27	0	594	2031	-23.05	-0.06	0
29	SLU 28	0	596	2031	-23.15	-0.05	0
29	SLU 29	0	594	2031	-23.05	-0.06	0
29	SLU 30	0	596	2031	-23.15	-0.05	0
29	SLU 31	0	764	2496	-29.58	-0.07	0
29	SLU 32	0	760	2496	-29.42	-0.09	0
29	SLU 33	0	762	2496	-29.52	-0.08	0
29	SLU 34	0	764	2496	-29.58	-0.07	0
29	SLU 35	0	760	2496	-29.42	-0.09	0
29	SLU 36	0	762	2496	-29.52	-0.08	0
29	SLU 37	0	760	2496	-29.42	-0.09	0
29	SLU 38	0	762	2496	-29.52	-0.08	0
29	SLU 39	0	832	2696	-32.15	-0.1	0
29	SLU 40	0	834	2695	-32.25	-0.09	0
29	SLU 41	0	832	2696	-32.15	-0.1	0
29	SLU 42	0	834	2695	-32.25	-0.09	0
29	SLU 43	0	588	2202	-22.89	-0.06	0
29	SLU 44	0	591	2202	-23.05	-0.04	0
29	SLU 45	0	588	2202	-22.89	-0.06	0
29	SLU 46	0	590	2202	-22.99	-0.05	0
29	SLU 47	0	591	2202	-23.05	-0.04	0
29	SLU 48	0	588	2202	-22.89	-0.06	0
29	SLU 49	0	590	2202	-22.99	-0.05	0
29	SLU 50	0	588	2202	-22.89	-0.06	0
29	SLU 51	0	590	2202	-22.99	-0.05	0
29	SLU 52	0	757	2667	-29.42	-0.07	0
29	SLU 53	0	754	2667	-29.26	-0.09	0
29	SLU 54	0	756	2667	-29.36	-0.08	0
29	SLU 55	0	757	2667	-29.42	-0.07	0
29	SLU 56	0	754	2667	-29.26	-0.09	0
29	SLU 57	0	756	2667	-29.36	-0.08	0
29	SLU 58	0	754	2667	-29.26	-0.09	0
29	SLU 59	0	756	2667	-29.36	-0.08	0
29	SLU 60	0	825	2866	-31.99	-0.1	0
29	SLU 61	0	827	2866	-32.09	-0.09	0
29	SLU 62	0	825	2866	-31.99	-0.1	0
29	SLU 63	0	827	2866	-32.09	-0.09	0
29	SLU 64	0	700	2469	-27.2	-0.07	0
29	SLU 65	0	704	2469	-27.36	-0.06	0
29	SLU 66	0	700	2469	-27.2	-0.07	0
29	SLU 67	0	702	2469	-27.29	-0.06	0
29	SLU 68	0	704	2469	-27.36	-0.06	0
29	SLU 69	0	700	2469	-27.2	-0.07	0
29	SLU 70	0	702	2469	-27.29	-0.06	0
29	SLU 71	0	700	2469	-27.2	-0.07	0
29	SLU 72	0	702	2469	-27.29	-0.06	0
29	SLU 73	0	870	2934	-33.73	-0.08	0
29	SLU 74	0	866	2934	-33.57	-0.1	0
29	SLU 75	0	868	2934	-33.66	-0.09	0
29	SLU 76	0	870	2934	-33.73	-0.08	0
29	SLU 77	0	866	2934	-33.57	-0.1	0
29	SLU 78	0	868	2934	-33.66	-0.09	0
29	SLU 79	0	866	2934	-33.57	-0.1	0
29	SLU 80	0	868	2934	-33.66	-0.09	0
29	SLU 81	0	938	3133	-36.3	-0.11	0
29	SLU 82	0	940	3133	-36.39	-0.1	0
29	SLU 83	0	938	3133	-36.3	-0.11	0
29	SLU 84	0	940	3133	-36.39	-0.1	0
29	SLE RA 1	0	514	1840	-19.98	-0.05	0
29	SLE RA 2	0	516	1840	-20.08	-0.04	0
29	SLE RA 3	0	514	1840	-19.98	-0.05	0
29	SLE RA 4	0	515	1840	-20.04	-0.05	0
29	SLE RA 5	0	516	1840	-20.08	-0.04	0
29	SLE RA 6	0	514	1840	-19.98	-0.05	0
29	SLE RA 7	0	515	1840	-20.04	-0.05	0
29	SLE RA 8	0	514	1840	-19.98	-0.05	0
29	SLE RA 9	0	515	1840	-20.04	-0.05	0
29	SLE RA 10	0	627	2150	-24.33	-0.06	0
29	SLE RA 11	0	625	2150	-24.22	-0.07	0
29	SLE RA 12	0	626	2150	-24.29	-0.06	0
29	SLE RA 13	0	627	2150	-24.33	-0.06	0
29	SLE RA 14	0	625	2150	-24.22	-0.07	0
29	SLE RA 15	0	626	2150	-24.29	-0.06	0
29	SLE RA 16	0	625	2150	-24.22	-0.07	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
29	SLE RA 17	0	626	2150	-24.29	-0.06	0
29	SLE RA 18	0	672	2283	-26.04	-0.08	0
29	SLE RA 19	0	674	2283	-26.11	-0.07	0
29	SLE RA 20	0	672	2283	-26.04	-0.08	0
29	SLE RA 21	0	674	2283	-26.11	-0.07	0
29	SLE FR 1	0	514	1840	-19.98	-0.05	0
29	SLE FR 2	0	514	1840	-20	-0.05	0
29	SLE FR 3	0	514	1840	-19.98	-0.05	0
29	SLE FR 4	0	562	1973	-21.82	-0.06	0
29	SLE FR 5	0	561	1973	-21.8	-0.06	0
29	SLE FR 6	0	593	2062	-23.01	-0.06	0
29	SLE QP 1	0	514	1840	-19.98	-0.05	0
29	SLE QP 2	0	561	1973	-21.8	-0.06	0
29	SLD 1	-12	778	2023	-32.26	4.52	0.02
29	SLD 2	-12	778	2023	-32.26	4.52	0.02
29	SLD 3	-15	475	1983	-18.02	3.65	0.02
29	SLD 4	-15	475	1983	-18.02	3.65	0.02
29	SLD 5	0	1085	2048	-46.52	2.63	0
29	SLD 6	0	1085	2048	-46.52	2.63	0
29	SLD 7	-8	77	1916	0.93	-0.27	0.01
29	SLD 8	-8	77	1916	0.93	-0.27	0.01
29	SLD 9	8	1046	2031	-44.52	0.15	-0.01
29	SLD 10	8	1046	2031	-44.52	0.15	-0.01
29	SLD 11	0	37	1898	2.93	-2.75	-0.01
29	SLD 12	0	37	1898	2.93	-2.75	-0.01
29	SLD 13	15	648	1964	-25.57	-3.77	-0.03
29	SLD 14	15	648	1964	-25.57	-3.77	-0.03
29	SLD 15	12	345	1924	-11.33	-4.64	-0.02
29	SLD 16	12	345	1924	-11.33	-4.64	-0.02
29	SLV 1	-31	1073	2090	-46.53	11.67	0.06
29	SLV 2	-31	1073	2090	-46.53	11.67	0.06
29	SLV 3	-38	367	1997	-13.32	9.41	0.06
29	SLV 4	-38	367	1997	-13.32	9.41	0.06
29	SLV 5	0	1785	2150	-79.57	6.88	0.01
29	SLV 6	0	1785	2150	-79.57	6.88	0.01
29	SLV 7	-21	-567	1839	31.1	-0.64	0.02
29	SLV 8	-21	-567	1839	31.1	-0.64	0.02
29	SLV 9	21	1690	2108	-74.69	0.52	-0.02
29	SLV 10	21	1690	2108	-74.69	0.52	-0.02
29	SLV 11	0	-663	1796	35.98	-7	-0.01
29	SLV 12	0	-663	1796	35.98	-7	-0.01
29	SLV 13	37	756	1950	-30.27	-9.53	-0.06
29	SLV 14	37	756	1950	-30.27	-9.53	-0.06
29	SLV 15	31	50	1856	2.94	-11.79	-0.06
29	SLV 16	31	50	1856	2.94	-11.79	-0.06
30	SLU 1	0	391	1481	-15.25	0.43	0
30	SLU 2	1	372	1466	-14.43	1.02	0
30	SLU 3	0	391	1481	-15.25	0.43	0
30	SLU 4	1	379	1472	-14.76	0.79	0
30	SLU 5	1	372	1466	-14.43	1.02	0
30	SLU 6	0	391	1481	-15.25	0.43	0
30	SLU 7	1	379	1472	-14.76	0.79	0
30	SLU 8	0	391	1481	-15.25	0.43	0
30	SLU 9	1	379	1472	-14.76	0.79	0
30	SLU 10	1	415	1724	-15.95	1.16	0
30	SLU 11	1	434	1739	-16.78	0.57	0
30	SLU 12	1	422	1730	-16.28	0.92	0
30	SLU 13	1	415	1724	-15.95	1.16	0
30	SLU 14	1	434	1739	-16.78	0.57	0
30	SLU 15	1	422	1730	-16.28	0.92	0
30	SLU 16	1	434	1739	-16.78	0.57	0
30	SLU 17	1	422	1730	-16.28	0.92	0
30	SLU 18	1	452	1849	-17.43	0.62	0
30	SLU 19	1	441	1841	-16.94	0.98	0
30	SLU 20	1	452	1849	-17.43	0.62	0
30	SLU 21	1	441	1841	-16.94	0.98	0
30	SLU 22	0	428	1625	-16.64	0.49	0
30	SLU 23	1	409	1611	-15.81	1.08	0
30	SLU 24	0	428	1625	-16.64	0.49	0
30	SLU 25	1	417	1617	-16.14	0.85	0
30	SLU 26	1	409	1611	-15.81	1.08	0
30	SLU 27	0	428	1625	-16.64	0.49	0
30	SLU 28	1	417	1617	-16.14	0.85	0
30	SLU 29	0	428	1625	-16.64	0.49	0
30	SLU 30	1	417	1617	-16.14	0.85	0
30	SLU 31	1	452	1869	-17.34	1.22	0
30	SLU 32	1	471	1883	-18.16	0.63	0
30	SLU 33	1	460	1875	-17.67	0.98	0
30	SLU 34	1	452	1869	-17.34	1.22	0
30	SLU 35	1	471	1883	-18.16	0.63	0
30	SLU 36	1	460	1875	-17.67	0.98	0
30	SLU 37	1	471	1883	-18.16	0.63	0
30	SLU 38	1	460	1875	-17.67	0.98	0
30	SLU 39	1	490	1994	-18.82	0.69	0
30	SLU 40	1	478	1985	-18.32	1.04	0
30	SLU 41	1	490	1994	-18.82	0.69	0
30	SLU 42	1	478	1985	-18.32	1.04	0
30	SLU 43	1	495	1875	-19.35	0.54	0
30	SLU 44	1	476	1861	-18.53	1.13	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
30	SLU 45	1	495	1875	-19.35	0.54	0
30	SLU 46	1	484	1866	-18.86	0.89	0
30	SLU 47	1	476	1861	-18.53	1.13	0
30	SLU 48	1	495	1875	-19.35	0.54	0
30	SLU 49	1	484	1866	-18.86	0.89	0
30	SLU 50	1	495	1875	-19.35	0.54	0
30	SLU 51	1	484	1866	-18.86	0.89	0
30	SLU 52	1	519	2119	-20.05	1.26	0
30	SLU 53	1	538	2133	-20.88	0.68	0
30	SLU 54	1	527	2125	-20.38	1.03	0
30	SLU 55	1	519	2119	-20.05	1.26	0
30	SLU 56	1	538	2133	-20.88	0.68	0
30	SLU 57	1	527	2125	-20.38	1.03	0
30	SLU 58	1	538	2133	-20.88	0.68	0
30	SLU 59	1	527	2125	-20.38	1.03	0
30	SLU 60	1	557	2244	-21.53	0.73	0
30	SLU 61	1	545	2235	-21.04	1.09	-0.01
30	SLU 62	1	557	2244	-21.53	0.73	0
30	SLU 63	1	545	2235	-21.04	1.09	-0.01
30	SLU 64	1	533	2020	-20.74	0.6	0
30	SLU 65	1	513	2005	-19.91	1.19	0
30	SLU 66	1	533	2020	-20.74	0.6	0
30	SLU 67	1	521	2011	-20.24	0.96	0
30	SLU 68	1	513	2005	-19.91	1.19	0
30	SLU 69	1	533	2020	-20.74	0.6	0
30	SLU 70	1	521	2011	-20.24	0.96	0
30	SLU 71	1	533	2020	-20.74	0.6	0
30	SLU 72	1	521	2011	-20.24	0.96	0
30	SLU 73	1	557	2263	-21.44	1.33	-0.01
30	SLU 74	1	576	2278	-22.26	0.74	0
30	SLU 75	1	564	2269	-21.77	1.09	-0.01
30	SLU 76	1	557	2263	-21.44	1.33	-0.01
30	SLU 77	1	576	2278	-22.26	0.74	0
30	SLU 78	1	564	2269	-21.77	1.09	-0.01
30	SLU 79	1	576	2278	-22.26	0.74	0
30	SLU 80	1	564	2269	-21.77	1.09	-0.01
30	SLU 81	1	594	2389	-22.92	0.8	-0.01
30	SLU 82	1	583	2380	-22.42	1.15	-0.01
30	SLU 83	1	594	2389	-22.92	0.8	-0.01
30	SLU 84	1	583	2380	-22.42	1.15	-0.01
30	SLE RA 1	0	401	1522	-15.65	0.45	0
30	SLE RA 2	1	389	1512	-15.1	0.84	0
30	SLE RA 3	0	401	1522	-15.65	0.45	0
30	SLE RA 4	0	394	1516	-15.32	0.69	0
30	SLE RA 5	1	389	1512	-15.1	0.84	0
30	SLE RA 6	0	401	1522	-15.65	0.45	0
30	SLE RA 7	0	394	1516	-15.32	0.69	0
30	SLE RA 8	0	401	1522	-15.65	0.45	0
30	SLE RA 9	0	394	1516	-15.32	0.69	0
30	SLE RA 10	1	417	1684	-16.12	0.93	0
30	SLE RA 11	0	430	1694	-16.66	0.54	0
30	SLE RA 12	1	423	1688	-16.33	0.78	0
30	SLE RA 13	1	417	1684	-16.12	0.93	0
30	SLE RA 14	0	430	1694	-16.66	0.54	0
30	SLE RA 15	1	423	1688	-16.33	0.78	0
30	SLE RA 16	0	430	1694	-16.66	0.54	0
30	SLE RA 17	1	423	1688	-16.33	0.78	0
30	SLE RA 18	1	443	1768	-17.1	0.58	0
30	SLE RA 19	1	435	1762	-16.77	0.81	0
30	SLE RA 20	1	443	1768	-17.1	0.58	0
30	SLE RA 21	1	435	1762	-16.77	0.81	0
30	SLE FR 1	0	401	1522	-15.65	0.45	0
30	SLE FR 2	0	399	1520	-15.54	0.53	0
30	SLE FR 3	0	401	1522	-15.65	0.45	0
30	SLE FR 4	0	411	1594	-15.97	0.57	0
30	SLE FR 5	0	414	1596	-16.08	0.49	0
30	SLE FR 6	0	422	1645	-16.37	0.51	0
30	SLE QP 1	0	401	1522	-15.65	0.45	0
30	SLE QP 2	0	414	1596	-16.08	0.49	0
30	SLD 1	15	550	1746	-21.88	16.95	-0.03
30	SLD 2	15	550	1746	-21.88	16.95	-0.03
30	SLD 3	24	407	1687	-15.59	23.72	-0.03
30	SLD 4	24	407	1687	-15.59	23.72	-0.03
30	SLD 5	-9	671	1729	-27.35	-4.85	-0.02
30	SLD 6	-9	671	1729	-27.35	-4.85	-0.02
30	SLD 7	21	195	1535	-6.41	17.74	0
30	SLD 8	21	195	1535	-6.41	17.74	0
30	SLD 9	-21	632	1657	-25.76	-16.76	-0.01
30	SLD 10	-21	632	1657	-25.76	-16.76	-0.01
30	SLD 11	10	156	1462	-4.82	5.83	0.02
30	SLD 12	10	156	1462	-4.82	5.83	0.02
30	SLD 13	-23	420	1504	-16.57	-22.75	0.02
30	SLD 14	-23	420	1504	-16.57	-22.75	0.02
30	SLD 15	-14	278	1446	-10.29	-15.97	0.03
30	SLD 16	-14	278	1446	-10.29	-15.97	0.03
30	SLV 1	38	746	1960	-30.19	42.47	-0.07
30	SLV 2	38	746	1960	-30.19	42.47	-0.07
30	SLV 3	61	408	1822	-15.36	60.12	-0.06
30	SLV 4	61	408	1822	-15.36	60.12	-0.06



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
30	SLV 5	-24	1025	1916	-42.81	-13.68	-0.05
30	SLV 6	-24	1025	1916	-42.81	-13.68	-0.05
30	SLV 7	54	-100	1453	6.62	45.14	0.01
30	SLV 8	54	-100	1453	6.62	45.14	0.01
30	SLV 9	-53	927	1738	-38.79	-44.16	-0.01
30	SLV 10	-53	927	1738	-38.79	-44.16	-0.01
30	SLV 11	25	-198	1276	10.64	14.66	0.04
30	SLV 12	25	-198	1276	10.64	14.66	0.04
30	SLV 13	-60	419	1370	-16.8	-59.14	0.05
30	SLV 14	-60	419	1370	-16.8	-59.14	0.05
30	SLV 15	-37	82	1231	-1.98	-41.49	0.07
30	SLV 16	-37	82	1231	-1.98	-41.49	0.07
31	SLU 1	0	369	1379	-14.2	-0.4	0
31	SLU 2	0	351	1368	-13.45	-0.9	0
31	SLU 3	0	369	1379	-14.2	-0.4	0
31	SLU 4	0	358	1372	-13.75	-0.7	0
31	SLU 5	0	351	1368	-13.45	-0.9	0
31	SLU 6	0	369	1379	-14.2	-0.4	0
31	SLU 7	0	358	1372	-13.75	-0.7	0
31	SLU 8	0	369	1379	-14.2	-0.4	0
31	SLU 9	0	358	1372	-13.75	-0.7	0
31	SLU 10	-1	408	1561	-15.61	-1.01	0
31	SLU 11	0	426	1572	-16.37	-0.51	0
31	SLU 12	-1	415	1565	-15.91	-0.81	0
31	SLU 13	-1	408	1561	-15.61	-1.01	0
31	SLU 14	0	426	1572	-16.37	-0.51	0
31	SLU 15	-1	415	1565	-15.91	-0.81	0
31	SLU 16	0	426	1572	-16.37	-0.51	0
31	SLU 17	-1	415	1565	-15.91	-0.81	0
31	SLU 18	-1	450	1654	-17.29	-0.56	0
31	SLU 19	-1	439	1648	-16.84	-0.86	0
31	SLU 20	-1	450	1654	-17.29	-0.56	0
31	SLU 21	-1	439	1648	-16.84	-0.86	0
31	SLU 22	0	405	1483	-15.55	-0.45	0
31	SLU 23	0	387	1472	-14.8	-0.95	0
31	SLU 24	0	405	1483	-15.55	-0.45	0
31	SLU 25	0	394	1476	-15.1	-0.75	0
31	SLU 26	0	387	1472	-14.8	-0.95	0
31	SLU 27	0	405	1483	-15.55	-0.45	0
31	SLU 28	0	394	1476	-15.1	-0.75	0
31	SLU 29	0	405	1483	-15.55	-0.45	0
31	SLU 30	0	394	1476	-15.1	-0.75	0
31	SLU 31	-1	444	1665	-16.96	-1.06	0
31	SLU 32	-1	461	1676	-17.72	-0.56	0
31	SLU 33	-1	451	1670	-17.26	-0.86	0
31	SLU 34	-1	444	1665	-16.96	-1.06	0
31	SLU 35	-1	461	1676	-17.72	-0.56	0
31	SLU 36	-1	451	1670	-17.26	-0.86	0
31	SLU 37	-1	461	1676	-17.72	-0.56	0
31	SLU 38	-1	451	1670	-17.26	-0.86	0
31	SLU 39	-1	486	1759	-18.64	-0.61	0
31	SLU 40	-1	475	1752	-18.19	-0.91	0
31	SLU 41	-1	486	1759	-18.64	-0.61	0
31	SLU 42	-1	475	1752	-18.19	-0.91	0
31	SLU 43	0	468	1756	-18	-0.51	0
31	SLU 44	-1	450	1746	-17.25	-1	0
31	SLU 45	0	468	1756	-18	-0.51	0
31	SLU 46	-1	457	1750	-17.55	-0.8	0
31	SLU 47	-1	450	1746	-17.25	-1	0
31	SLU 48	0	468	1756	-18	-0.51	0
31	SLU 49	-1	457	1750	-17.55	-0.8	0
31	SLU 50	0	468	1756	-18	-0.51	0
31	SLU 51	-1	457	1750	-17.55	-0.8	0
31	SLU 52	-1	507	1939	-19.41	-1.11	0.01
31	SLU 53	-1	524	1950	-20.16	-0.62	0
31	SLU 54	-1	514	1943	-19.71	-0.91	0
31	SLU 55	-1	507	1939	-19.41	-1.11	0.01
31	SLU 56	-1	524	1950	-20.16	-0.62	0
31	SLU 57	-1	514	1943	-19.71	-0.91	0
31	SLU 58	-1	524	1950	-20.16	-0.62	0
31	SLU 59	-1	514	1943	-19.71	-0.91	0
31	SLU 60	-1	549	2032	-21.09	-0.66	0.01
31	SLU 61	-1	538	2026	-20.64	-0.96	0.01
31	SLU 62	-1	549	2032	-21.09	-0.66	0.01
31	SLU 63	-1	538	2026	-20.64	-0.96	0.01
31	SLU 64	-1	503	1861	-19.35	-0.56	0
31	SLU 65	-1	486	1850	-18.6	-1.05	0
31	SLU 66	-1	503	1861	-19.35	-0.56	0
31	SLU 67	-1	493	1854	-18.9	-0.85	0
31	SLU 68	-1	486	1850	-18.6	-1.05	0
31	SLU 69	-1	503	1861	-19.35	-0.56	0
31	SLU 70	-1	493	1854	-18.9	-0.85	0
31	SLU 71	-1	503	1861	-19.35	-0.56	0
31	SLU 72	-1	493	1854	-18.9	-0.85	0
31	SLU 73	-1	542	2043	-20.76	-1.16	0.01
31	SLU 74	-1	560	2054	-21.51	-0.67	0.01
31	SLU 75	-1	549	2047	-21.06	-0.96	0.01
31	SLU 76	-1	542	2043	-20.76	-1.16	0.01
31	SLU 77	-1	560	2054	-21.51	-0.67	0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
31	SLU 78	-1	549	2047	-21.06	-0.96	0.01
31	SLU 79	-1	560	2054	-21.51	-0.67	0.01
31	SLU 80	-1	549	2047	-21.06	-0.96	0.01
31	SLU 81	-1	584	2137	-22.44	-0.71	0.01
31	SLU 82	-1	574	2130	-21.99	-1.01	0.01
31	SLU 83	-1	584	2137	-22.44	-0.71	0.01
31	SLU 84	-1	574	2130	-21.99	-1.01	0.01
31	SLE RA 1	0	379	1408	-14.59	-0.42	0
31	SLE RA 2	0	367	1401	-14.09	-0.75	0
31	SLE RA 3	0	379	1408	-14.59	-0.42	0
31	SLE RA 4	0	372	1404	-14.29	-0.62	0
31	SLE RA 5	0	367	1401	-14.09	-0.75	0
31	SLE RA 6	0	379	1408	-14.59	-0.42	0
31	SLE RA 7	0	372	1404	-14.29	-0.62	0
31	SLE RA 8	0	379	1408	-14.59	-0.42	0
31	SLE RA 9	0	372	1404	-14.29	-0.62	0
31	SLE RA 10	-1	405	1530	-15.53	-0.82	0
31	SLE RA 11	0	417	1537	-16.03	-0.49	0
31	SLE RA 12	0	410	1533	-15.73	-0.69	0
31	SLE RA 13	-1	405	1530	-15.53	-0.82	0
31	SLE RA 14	0	417	1537	-16.03	-0.49	0
31	SLE RA 15	0	410	1533	-15.73	-0.69	0
31	SLE RA 16	0	417	1537	-16.03	-0.49	0
31	SLE RA 17	0	410	1533	-15.73	-0.69	0
31	SLE RA 18	0	433	1592	-16.65	-0.52	0
31	SLE RA 19	-1	426	1588	-16.35	-0.72	0
31	SLE RA 20	0	433	1592	-16.65	-0.52	0
31	SLE RA 21	-1	426	1588	-16.35	-0.72	0
31	SLE FR 1	0	379	1408	-14.59	-0.42	0
31	SLE FR 2	0	377	1407	-14.49	-0.48	0
31	SLE FR 3	0	379	1408	-14.59	-0.42	0
31	SLE FR 4	0	393	1462	-15.11	-0.52	0
31	SLE FR 5	0	395	1464	-15.21	-0.45	0
31	SLE FR 6	0	406	1500	-15.62	-0.47	0
31	SLE QP 1	0	379	1408	-14.59	-0.42	0
31	SLE QP 2	0	395	1464	-15.21	-0.45	0
31	SLD 1	12	434	1375	-16.83	21.75	-0.02
31	SLD 2	12	434	1375	-16.83	21.75	-0.02
31	SLD 3	20	298	1313	-10.98	16.94	-0.01
31	SLD 4	20	298	1313	-10.98	16.94	-0.01
31	SLD 5	-8	614	1532	-24.57	13.5	-0.01
31	SLD 6	-8	614	1532	-24.57	13.5	-0.01
31	SLD 7	18	160	1324	-5.06	-2.53	0
31	SLD 8	18	160	1324	-5.06	-2.53	0
31	SLD 9	-18	631	1604	-25.35	1.63	0
31	SLD 10	-18	631	1604	-25.35	1.63	0
31	SLD 11	8	177	1395	-5.84	-14.4	0.02
31	SLD 12	8	177	1395	-5.84	-14.4	0.02
31	SLD 13	-21	493	1614	-19.43	-17.84	0.02
31	SLD 14	-21	493	1614	-19.43	-17.84	0.02
31	SLD 15	-13	356	1552	-13.58	-22.65	0.03
31	SLD 16	-13	356	1552	-13.58	-22.65	0.03
31	SLV 1	32	488	1256	-19.05	55.4	-0.05
31	SLV 2	32	488	1256	-19.05	55.4	-0.05
31	SLV 3	51	166	1108	-5.23	43.61	-0.04
31	SLV 4	51	166	1108	-5.23	43.61	-0.04
31	SLV 5	-19	910	1626	-37.32	34.19	-0.03
31	SLV 6	-19	910	1626	-37.32	34.19	-0.03
31	SLV 7	43	-161	1133	8.75	-5.12	0
31	SLV 8	43	-161	1133	8.75	-5.12	0
31	SLV 9	-44	952	1795	-39.16	4.22	0
31	SLV 10	-44	952	1795	-39.16	4.22	0
31	SLV 11	18	-120	1302	6.9	-35.09	0.04
31	SLV 12	18	-120	1302	6.9	-35.09	0.04
31	SLV 13	-52	625	1819	-25.19	-44.51	0.05
31	SLV 14	-52	625	1819	-25.19	-44.51	0.05
31	SLV 15	-33	303	1671	-11.37	-56.3	0.06
31	SLV 16	-33	303	1671	-11.37	-56.3	0.06
32	SLU 1	0	313	2131	-11.92	-0.05	0
32	SLU 2	0	316	2128	-12.07	-0.02	0
32	SLU 3	0	313	2131	-11.92	-0.05	0
32	SLU 4	0	315	2130	-12.01	-0.03	0
32	SLU 5	0	316	2128	-12.07	-0.02	0
32	SLU 6	0	313	2131	-11.92	-0.05	0
32	SLU 7	0	315	2130	-12.01	-0.03	0
32	SLU 8	0	313	2131	-11.92	-0.05	0
32	SLU 9	0	315	2130	-12.01	-0.03	0
32	SLU 10	0	434	2737	-16.5	-0.04	0
32	SLU 11	0	431	2740	-16.35	-0.07	0
32	SLU 12	0	433	2738	-16.44	-0.05	0
32	SLU 13	0	434	2737	-16.5	-0.04	0
32	SLU 14	0	431	2740	-16.35	-0.07	0
32	SLU 15	0	433	2738	-16.44	-0.05	0
32	SLU 16	0	431	2740	-16.35	-0.07	0
32	SLU 17	0	433	2738	-16.44	-0.05	0
32	SLU 18	0	481	3001	-18.24	-0.08	0
32	SLU 19	0	483	2999	-18.34	-0.06	0
32	SLU 20	0	481	3001	-18.24	-0.08	0
32	SLU 21	0	483	2999	-18.34	-0.06	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
32	SLU 22	0	397	2494	-15.1	-0.06	0
32	SLU 23	0	400	2491	-15.25	-0.03	0
32	SLU 24	0	397	2494	-15.1	-0.06	0
32	SLU 25	0	399	2492	-15.19	-0.04	0
32	SLU 26	0	400	2491	-15.25	-0.03	0
32	SLU 27	0	397	2494	-15.1	-0.06	0
32	SLU 28	0	399	2492	-15.19	-0.04	0
32	SLU 29	0	397	2494	-15.1	-0.06	0
32	SLU 30	0	399	2492	-15.19	-0.04	0
32	SLU 31	0	517	3100	-19.68	-0.05	0
32	SLU 32	0	514	3102	-19.53	-0.09	0
32	SLU 33	0	516	3101	-19.62	-0.07	0
32	SLU 34	0	517	3100	-19.68	-0.05	0
32	SLU 35	0	514	3102	-19.53	-0.09	0
32	SLU 36	0	516	3101	-19.62	-0.07	0
32	SLU 37	0	514	3102	-19.53	-0.09	0
32	SLU 38	0	516	3101	-19.62	-0.07	0
32	SLU 39	0	565	3363	-21.43	-0.1	0
32	SLU 40	0	566	3362	-21.52	-0.08	0
32	SLU 41	0	565	3363	-21.43	-0.1	0
32	SLU 42	0	566	3362	-21.52	-0.08	0
32	SLU 43	0	379	2646	-14.4	-0.06	0
32	SLU 44	0	382	2644	-14.55	-0.03	0
32	SLU 45	0	379	2646	-14.4	-0.06	0
32	SLU 46	0	381	2645	-14.49	-0.04	0
32	SLU 47	0	382	2644	-14.55	-0.03	0
32	SLU 48	0	379	2646	-14.4	-0.06	0
32	SLU 49	0	381	2645	-14.49	-0.04	0
32	SLU 50	0	379	2646	-14.4	-0.06	0
32	SLU 51	0	381	2645	-14.49	-0.04	0
32	SLU 52	0	499	3252	-18.98	-0.05	0
32	SLU 53	0	496	3255	-18.83	-0.08	0
32	SLU 54	0	498	3253	-18.92	-0.06	0
32	SLU 55	0	499	3252	-18.98	-0.05	0
32	SLU 56	0	496	3255	-18.83	-0.08	0
32	SLU 57	0	498	3253	-18.92	-0.06	0
32	SLU 58	0	496	3255	-18.83	-0.08	0
32	SLU 59	0	498	3253	-18.92	-0.06	0
32	SLU 60	0	546	3516	-20.73	-0.09	0
32	SLU 61	0	548	3514	-20.82	-0.07	0
32	SLU 62	0	546	3516	-20.73	-0.09	0
32	SLU 63	0	548	3514	-20.82	-0.07	0
32	SLU 64	0	462	3009	-17.58	-0.08	0
32	SLU 65	0	465	3006	-17.73	-0.04	0
32	SLU 66	0	462	3009	-17.58	-0.08	0
32	SLU 67	0	464	3007	-17.67	-0.05	0
32	SLU 68	0	465	3006	-17.73	-0.04	0
32	SLU 69	0	462	3009	-17.58	-0.08	0
32	SLU 70	0	464	3007	-17.67	-0.05	0
32	SLU 71	0	462	3009	-17.58	-0.08	0
32	SLU 72	0	464	3007	-17.67	-0.05	0
32	SLU 73	0	583	3615	-22.16	-0.06	0
32	SLU 74	0	580	3618	-22.01	-0.1	0
32	SLU 75	0	581	3616	-22.1	-0.08	0
32	SLU 76	0	583	3615	-22.16	-0.06	0
32	SLU 77	0	580	3618	-22.01	-0.1	0
32	SLU 78	0	581	3616	-22.1	-0.08	0
32	SLU 79	0	580	3618	-22.01	-0.1	0
32	SLU 80	0	581	3616	-22.1	-0.08	0
32	SLU 81	0	630	3878	-23.91	-0.11	0
32	SLU 82	0	632	3877	-24	-0.09	0
32	SLU 83	0	630	3878	-23.91	-0.11	0
32	SLU 84	0	632	3877	-24	-0.09	0
32	SLE RA 1	0	337	2235	-12.83	-0.06	0
32	SLE RA 2	0	339	2233	-12.93	-0.03	0
32	SLE RA 3	0	337	2235	-12.83	-0.06	0
32	SLE RA 4	0	338	2234	-12.89	-0.04	0
32	SLE RA 5	0	339	2233	-12.93	-0.03	0
32	SLE RA 6	0	337	2235	-12.83	-0.06	0
32	SLE RA 7	0	338	2234	-12.89	-0.04	0
32	SLE RA 8	0	337	2235	-12.83	-0.06	0
32	SLE RA 9	0	338	2234	-12.89	-0.04	0
32	SLE RA 10	0	418	2639	-15.88	-0.05	0
32	SLE RA 11	0	415	2641	-15.78	-0.07	0
32	SLE RA 12	0	417	2639	-15.84	-0.06	0
32	SLE RA 13	0	418	2639	-15.88	-0.05	0
32	SLE RA 14	0	415	2641	-15.78	-0.07	0
32	SLE RA 15	0	417	2639	-15.84	-0.06	0
32	SLE RA 16	0	415	2641	-15.78	-0.07	0
32	SLE RA 17	0	417	2639	-15.84	-0.06	0
32	SLE RA 18	0	449	2814	-17.04	-0.08	0
32	SLE RA 19	0	450	2813	-17.1	-0.06	0
32	SLE RA 20	0	449	2814	-17.04	-0.08	0
32	SLE RA 21	0	450	2813	-17.1	-0.06	0
32	SLE FR 1	0	337	2235	-12.83	-0.06	0
32	SLE FR 2	0	338	2235	-12.85	-0.05	0
32	SLE FR 3	0	337	2235	-12.83	-0.06	0
32	SLE FR 4	0	371	2408	-14.11	-0.06	0
32	SLE FR 5	0	371	2409	-14.09	-0.06	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
32	SLE FR 6	0	393	2525	-14.93	-0.07	0
32	SLE QP 1	0	337	2235	-12.83	-0.06	0
32	SLE QP 2	0	371	2409	-14.09	-0.06	0
32	SLD 1	-6	571	2351	-24.01	14.35	0.01
32	SLD 2	-6	571	2351	-24.01	14.35	0.01
32	SLD 3	-9	287	2583	-10.31	12.97	0.01
32	SLD 4	-9	287	2583	-10.31	12.97	0.01
32	SLD 5	2	861	2038	-37.85	6.36	0.01
32	SLD 6	2	861	2038	-37.85	6.36	0.01
32	SLD 7	-7	-85	2814	7.83	1.75	-0.01
32	SLD 8	-7	-85	2814	7.83	1.75	-0.01
32	SLD 9	7	826	2004	-36.01	-1.87	0.01
32	SLD 10	7	826	2004	-36.01	-1.87	0.01
32	SLD 11	-2	-120	2779	9.67	-6.48	-0.01
32	SLD 12	-2	-120	2779	9.67	-6.48	-0.01
32	SLD 13	9	454	2234	-17.87	-13.09	-0.01
32	SLD 14	9	454	2234	-17.87	-13.09	-0.01
32	SLD 15	6	171	2467	-4.17	-14.48	-0.01
32	SLD 16	6	171	2467	-4.17	-14.48	-0.01
32	SLV 1	-16	844	2282	-37.58	36.94	0.03
32	SLV 2	-16	844	2282	-37.58	36.94	0.03
32	SLV 3	-23	183	2826	-5.6	33.26	0.02
32	SLV 4	-23	183	2826	-5.6	33.26	0.02
32	SLV 5	6	1516	1546	-69.62	16.62	0.03
32	SLV 6	6	1516	1546	-69.62	16.62	0.03
32	SLV 7	-17	-689	3359	36.94	4.36	-0.01
32	SLV 8	-17	-689	3359	36.94	4.36	-0.01
32	SLV 9	17	1431	1459	-65.13	-4.48	0.01
32	SLV 10	17	1431	1459	-65.13	-4.48	0.01
32	SLV 11	-6	-775	3272	41.44	-16.74	-0.03
32	SLV 12	-6	-775	3272	41.44	-16.74	-0.03
32	SLV 13	23	559	1992	-22.58	-33.39	-0.02
32	SLV 14	23	559	1992	-22.58	-33.39	-0.02
32	SLV 15	16	-103	2536	9.39	-37.06	-0.03
32	SLV 16	16	-103	2536	9.39	-37.06	-0.03
33	SLU 1	0	390	1548	-17.7	0.27	0
33	SLU 2	1	370	1534	-16.83	1.22	0
33	SLU 3	0	390	1548	-17.7	0.27	0
33	SLU 4	0	378	1540	-17.18	0.84	0
33	SLU 5	1	370	1534	-16.83	1.22	0
33	SLU 6	0	390	1548	-17.7	0.27	0
33	SLU 7	0	378	1540	-17.18	0.84	0
33	SLU 8	0	390	1548	-17.7	0.27	0
33	SLU 9	0	378	1540	-17.18	0.84	0
33	SLU 10	1	418	1790	-19.24	1.31	0
33	SLU 11	0	437	1804	-20.11	0.35	0
33	SLU 12	1	426	1796	-19.59	0.93	0
33	SLU 13	1	418	1790	-19.24	1.31	0
33	SLU 14	0	437	1804	-20.11	0.35	0
33	SLU 15	1	426	1796	-19.59	0.93	0
33	SLU 16	0	437	1804	-20.11	0.35	0
33	SLU 17	1	426	1796	-19.59	0.93	0
33	SLU 18	0	458	1914	-21.14	0.39	0
33	SLU 19	1	446	1906	-20.62	0.97	0
33	SLU 20	0	458	1914	-21.14	0.39	0
33	SLU 21	1	446	1906	-20.62	0.97	0
33	SLU 22	0	428	1699	-19.54	0.31	0
33	SLU 23	1	409	1685	-18.67	1.26	0
33	SLU 24	0	428	1699	-19.54	0.31	0
33	SLU 25	1	416	1690	-19.01	0.88	0
33	SLU 26	1	409	1685	-18.67	1.26	0
33	SLU 27	0	428	1699	-19.54	0.31	0
33	SLU 28	1	416	1690	-19.01	0.88	0
33	SLU 29	0	428	1699	-19.54	0.31	0
33	SLU 30	1	416	1690	-19.01	0.88	0
33	SLU 31	1	456	1941	-21.08	1.35	0
33	SLU 32	0	476	1955	-21.94	0.4	0
33	SLU 33	1	464	1946	-21.42	0.97	0
33	SLU 34	1	456	1941	-21.08	1.35	0
33	SLU 35	0	476	1955	-21.94	0.4	0
33	SLU 36	1	464	1946	-21.42	0.97	0
33	SLU 37	0	476	1955	-21.94	0.4	0
33	SLU 38	1	464	1946	-21.42	0.97	0
33	SLU 39	0	497	2064	-22.98	0.43	0
33	SLU 40	1	485	2056	-22.45	1.01	0
33	SLU 41	0	497	2064	-22.98	0.43	0
33	SLU 42	1	485	2056	-22.45	1.01	0
33	SLU 43	0	493	1961	-22.39	0.33	0
33	SLU 44	1	473	1947	-21.52	1.29	0
33	SLU 45	0	493	1961	-22.39	0.33	0
33	SLU 46	1	481	1953	-21.86	0.9	0
33	SLU 47	1	473	1947	-21.52	1.29	0
33	SLU 48	0	493	1961	-22.39	0.33	0
33	SLU 49	1	481	1953	-21.86	0.9	0
33	SLU 50	0	493	1961	-22.39	0.33	0
33	SLU 51	1	481	1953	-21.86	0.9	0
33	SLU 52	1	521	2203	-23.93	1.37	0
33	SLU 53	0	541	2217	-24.79	0.42	0
33	SLU 54	1	529	2209	-24.27	0.99	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
33	SLU 55	1	521	2203	-23.93	1.37	0
33	SLU 56	0	541	2217	-24.79	0.42	0
33	SLU 57	1	529	2209	-24.27	0.99	0
33	SLU 58	0	541	2217	-24.79	0.42	0
33	SLU 59	1	529	2209	-24.27	0.99	0
33	SLU 60	0	561	2327	-25.83	0.46	0
33	SLU 61	1	550	2318	-25.3	1.03	0
33	SLU 62	0	561	2327	-25.83	0.46	0
33	SLU 63	1	550	2318	-25.3	1.03	0
33	SLU 64	0	532	2111	-24.22	0.37	0
33	SLU 65	1	512	2098	-23.35	1.33	0
33	SLU 66	0	532	2111	-24.22	0.37	0
33	SLU 67	1	520	2103	-23.7	0.95	0
33	SLU 68	1	512	2098	-23.35	1.33	0
33	SLU 69	0	532	2111	-24.22	0.37	0
33	SLU 70	1	520	2103	-23.7	0.95	0
33	SLU 71	0	532	2111	-24.22	0.37	0
33	SLU 72	1	520	2103	-23.7	0.95	0
33	SLU 73	1	560	2354	-25.76	1.42	0
33	SLU 74	0	580	2367	-26.63	0.46	0
33	SLU 75	1	568	2359	-26.11	1.03	0
33	SLU 76	1	560	2354	-25.76	1.42	0
33	SLU 77	0	580	2367	-26.63	0.46	0
33	SLU 78	1	568	2359	-26.11	1.03	0
33	SLU 79	0	580	2367	-26.63	0.46	0
33	SLU 80	1	568	2359	-26.11	1.03	0
33	SLU 81	0	600	2477	-27.66	0.5	0
33	SLU 82	1	588	2469	-27.14	1.07	0
33	SLU 83	0	600	2477	-27.66	0.5	0
33	SLU 84	1	588	2469	-27.14	1.07	0
33	SLE RA 1	0	401	1591	-18.23	0.28	0
33	SLE RA 2	1	387	1582	-17.65	0.91	0
33	SLE RA 3	0	401	1591	-18.23	0.28	0
33	SLE RA 4	0	393	1586	-17.88	0.66	0
33	SLE RA 5	1	387	1582	-17.65	0.91	0
33	SLE RA 6	0	401	1591	-18.23	0.28	0
33	SLE RA 7	0	393	1586	-17.88	0.66	0
33	SLE RA 8	0	401	1591	-18.23	0.28	0
33	SLE RA 9	0	393	1586	-17.88	0.66	0
33	SLE RA 10	1	419	1753	-19.25	0.97	0
33	SLE RA 11	0	433	1762	-19.83	0.34	0
33	SLE RA 12	0	425	1756	-19.48	0.72	0
33	SLE RA 13	1	419	1753	-19.25	0.97	0
33	SLE RA 14	0	433	1762	-19.83	0.34	0
33	SLE RA 15	0	425	1756	-19.48	0.72	0
33	SLE RA 16	0	433	1762	-19.83	0.34	0
33	SLE RA 17	0	425	1756	-19.48	0.72	0
33	SLE RA 18	0	446	1835	-20.52	0.36	0
33	SLE RA 19	0	438	1829	-20.17	0.74	0
33	SLE RA 20	0	446	1835	-20.52	0.36	0
33	SLE RA 21	0	438	1829	-20.17	0.74	0
33	SLE FR 1	0	401	1591	-18.23	0.28	0
33	SLE FR 2	0	398	1589	-18.11	0.4	0
33	SLE FR 3	0	401	1591	-18.23	0.28	0
33	SLE FR 4	0	412	1662	-18.8	0.43	0
33	SLE FR 5	0	414	1664	-18.92	0.3	0
33	SLE FR 6	0	423	1713	-19.37	0.32	0
33	SLE QP 1	0	401	1591	-18.23	0.28	0
33	SLE QP 2	0	414	1664	-18.92	0.3	0
33	SLD 1	25	551	1788	-24.99	24.75	-0.02
33	SLD 2	25	551	1788	-24.99	24.75	-0.02
33	SLD 3	36	401	1753	-18.35	33.75	-0.01
33	SLD 4	36	401	1753	-18.35	33.75	-0.01
33	SLD 5	-8	683	1756	-30.82	-6.02	-0.02
33	SLD 6	-8	683	1756	-30.82	-6.02	-0.02
33	SLD 7	27	182	1637	-8.66	23.99	0.01
33	SLD 8	27	182	1637	-8.66	23.99	0.01
33	SLD 9	-26	646	1692	-29.17	-23.39	-0.01
33	SLD 10	-26	646	1692	-29.17	-23.39	-0.01
33	SLD 11	9	145	1573	-7.01	6.62	0.01
33	SLD 12	9	145	1573	-7.01	6.62	0.01
33	SLD 13	-35	428	1576	-19.48	-33.15	0.01
33	SLD 14	-35	428	1576	-19.48	-33.15	0.01
33	SLD 15	-25	277	1540	-12.84	-24.15	0.02
33	SLD 16	-25	277	1540	-12.84	-24.15	0.02
33	SLV 1	64	748	1970	-33.73	62.66	-0.04
33	SLV 2	64	748	1970	-33.73	62.66	-0.04
33	SLV 3	91	393	1885	-18.03	86.14	-0.03
33	SLV 4	91	393	1885	-18.03	86.14	-0.03
33	SLV 5	-22	1053	1885	-47.16	-16.61	-0.04
33	SLV 6	-22	1053	1885	-47.16	-16.61	-0.04
33	SLV 7	68	-130	1601	5.15	61.67	0.02
33	SLV 8	68	-130	1601	5.15	61.67	0.02
33	SLV 9	-68	959	1728	-42.99	-61.07	-0.02
33	SLV 10	-68	959	1728	-42.99	-61.07	-0.02
33	SLV 11	22	-224	1443	9.33	17.22	0.04
33	SLV 12	22	-224	1443	9.33	17.22	0.04
33	SLV 13	-90	436	1444	-19.8	-85.54	0.02
33	SLV 14	-90	436	1444	-19.8	-85.54	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
33	SLV 15	-64	81	1358	-4.1	-62.05	0.04
33	SLV 16	-64	81	1358	-4.1	-62.05	0.04
34	SLU 1	0	371	1441	-16.22	-0.23	0
34	SLU 2	-1	352	1432	-15.42	-1.06	0
34	SLU 3	0	371	1441	-16.22	-0.23	0
34	SLU 4	0	360	1435	-15.74	-0.73	0
34	SLU 5	-1	352	1432	-15.42	-1.06	0
34	SLU 6	0	371	1441	-16.22	-0.23	0
34	SLU 7	0	360	1435	-15.74	-0.73	0
34	SLU 8	0	371	1441	-16.22	-0.23	0
34	SLU 9	0	360	1435	-15.74	-0.73	0
34	SLU 10	-1	415	1629	-18.22	-1.13	0
34	SLU 11	0	433	1638	-19.01	-0.3	0
34	SLU 12	0	422	1632	-18.54	-0.8	0
34	SLU 13	-1	415	1629	-18.22	-1.13	0
34	SLU 14	0	433	1638	-19.01	-0.3	0
34	SLU 15	0	422	1632	-18.54	-0.8	0
34	SLU 16	0	433	1638	-19.01	-0.3	0
34	SLU 17	0	422	1632	-18.54	-0.8	0
34	SLU 18	0	460	1722	-20.21	-0.33	0
34	SLU 19	0	449	1717	-19.73	-0.83	0
34	SLU 20	0	460	1722	-20.21	-0.33	0
34	SLU 21	0	449	1717	-19.73	-0.83	0
34	SLU 22	0	409	1551	-17.88	-0.26	0
34	SLU 23	-1	390	1542	-17.09	-1.09	0
34	SLU 24	0	409	1551	-17.88	-0.26	0
34	SLU 25	0	398	1545	-17.41	-0.76	0
34	SLU 26	-1	390	1542	-17.09	-1.09	0
34	SLU 27	0	409	1551	-17.88	-0.26	0
34	SLU 28	0	398	1545	-17.41	-0.76	0
34	SLU 29	0	409	1551	-17.88	-0.26	0
34	SLU 30	0	398	1545	-17.41	-0.76	0
34	SLU 31	-1	452	1739	-19.88	-1.16	0
34	SLU 32	0	471	1748	-20.68	-0.33	0
34	SLU 33	0	460	1742	-20.2	-0.83	0
34	SLU 34	-1	452	1739	-19.88	-1.16	0
34	SLU 35	0	471	1748	-20.68	-0.33	0
34	SLU 36	0	460	1742	-20.2	-0.83	0
34	SLU 37	0	471	1748	-20.68	-0.33	0
34	SLU 38	0	460	1742	-20.2	-0.83	0
34	SLU 39	0	498	1832	-21.88	-0.36	0
34	SLU 40	0	487	1827	-21.4	-0.86	0
34	SLU 41	0	498	1832	-21.88	-0.36	0
34	SLU 42	0	487	1827	-21.4	-0.86	0
34	SLU 43	0	469	1835	-20.51	-0.29	0
34	SLU 44	-1	451	1826	-19.71	-1.12	0
34	SLU 45	0	469	1835	-20.51	-0.29	0
34	SLU 46	0	458	1830	-20.03	-0.79	0
34	SLU 47	-1	451	1826	-19.71	-1.12	0
34	SLU 48	0	469	1835	-20.51	-0.29	0
34	SLU 49	0	458	1830	-20.03	-0.79	0
34	SLU 50	0	469	1835	-20.51	-0.29	0
34	SLU 51	0	458	1830	-20.03	-0.79	0
34	SLU 52	-1	513	2023	-22.51	-1.19	0
34	SLU 53	0	532	2032	-23.31	-0.36	0
34	SLU 54	0	521	2027	-22.83	-0.86	0
34	SLU 55	-1	513	2023	-22.51	-1.19	0
34	SLU 56	0	532	2032	-23.31	-0.36	0
34	SLU 57	0	521	2027	-22.83	-0.86	0
34	SLU 58	0	532	2032	-23.31	-0.36	0
34	SLU 59	0	521	2027	-22.83	-0.86	0
34	SLU 60	0	559	2117	-24.5	-0.39	0
34	SLU 61	0	547	2111	-24.03	-0.89	0
34	SLU 62	0	559	2117	-24.5	-0.39	0
34	SLU 63	0	547	2111	-24.03	-0.89	0
34	SLU 64	0	507	1945	-22.18	-0.32	0
34	SLU 65	-1	488	1936	-21.38	-1.15	0
34	SLU 66	0	507	1945	-22.18	-0.32	0
34	SLU 67	0	496	1940	-21.7	-0.82	0
34	SLU 68	-1	488	1936	-21.38	-1.15	0
34	SLU 69	0	507	1945	-22.18	-0.32	0
34	SLU 70	0	496	1940	-21.7	-0.82	0
34	SLU 71	0	507	1945	-22.18	-0.32	0
34	SLU 72	0	496	1940	-21.7	-0.82	0
34	SLU 73	-1	551	2133	-24.18	-1.22	0
34	SLU 74	0	570	2142	-24.97	-0.39	0
34	SLU 75	0	558	2137	-24.5	-0.89	0
34	SLU 76	-1	551	2133	-24.18	-1.22	0
34	SLU 77	0	570	2142	-24.97	-0.39	0
34	SLU 78	0	558	2137	-24.5	-0.89	0
34	SLU 79	0	570	2142	-24.97	-0.39	0
34	SLU 80	0	558	2137	-24.5	-0.89	0
34	SLU 81	0	596	2227	-26.17	-0.42	0
34	SLU 82	-1	585	2221	-25.69	-0.92	0
34	SLU 83	0	596	2227	-26.17	-0.42	0
34	SLU 84	-1	585	2221	-25.69	-0.92	0
34	SLE RA 1	0	382	1472	-16.69	-0.24	0
34	SLE RA 2	0	369	1466	-16.16	-0.8	0
34	SLE RA 3	0	382	1472	-16.69	-0.24	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
34	SLE RA 4	0	374	1468	-16.37	-0.57	0
34	SLE RA 5	0	369	1466	-16.16	-0.8	0
34	SLE RA 6	0	382	1472	-16.69	-0.24	0
34	SLE RA 7	0	374	1468	-16.37	-0.57	0
34	SLE RA 8	0	382	1472	-16.69	-0.24	0
34	SLE RA 9	0	374	1468	-16.37	-0.57	0
34	SLE RA 10	0	411	1597	-18.03	-0.84	0
34	SLE RA 11	0	423	1603	-18.56	-0.29	0
34	SLE RA 12	0	416	1600	-18.24	-0.62	0
34	SLE RA 13	0	411	1597	-18.03	-0.84	0
34	SLE RA 14	0	423	1603	-18.56	-0.29	0
34	SLE RA 15	0	416	1600	-18.24	-0.62	0
34	SLE RA 16	0	423	1603	-18.56	-0.29	0
34	SLE RA 17	0	416	1600	-18.24	-0.62	0
34	SLE RA 18	0	441	1660	-19.36	-0.31	0
34	SLE RA 19	0	434	1656	-19.04	-0.64	0
34	SLE RA 20	0	441	1660	-19.36	-0.31	0
34	SLE RA 21	0	434	1656	-19.04	-0.64	0
34	SLE FR 1	0	382	1472	-16.69	-0.24	0
34	SLE FR 2	0	379	1471	-16.59	-0.35	0
34	SLE FR 3	0	382	1472	-16.69	-0.24	0
34	SLE FR 4	0	397	1527	-17.39	-0.37	0
34	SLE FR 5	0	400	1528	-17.49	-0.26	0
34	SLE FR 6	0	412	1566	-18.02	-0.28	0
34	SLE QP 1	0	382	1472	-16.69	-0.24	0
34	SLE QP 2	0	400	1528	-17.49	-0.26	0
34	SLD 1	26	435	1442	-19.06	32.21	-0.02
34	SLD 2	26	435	1442	-19.06	32.21	-0.02
34	SLD 3	34	291	1405	-12.87	26.25	-0.01
34	SLD 4	34	291	1405	-12.87	26.25	-0.01
34	SLD 5	-5	629	1559	-27.34	18.51	-0.01
34	SLD 6	-5	629	1559	-27.34	18.51	-0.01
34	SLD 7	22	148	1435	-6.73	-1.34	0
34	SLD 8	22	148	1435	-6.73	-1.34	0
34	SLD 9	-23	651	1622	-28.26	0.81	0
34	SLD 10	-23	651	1622	-28.26	0.81	0
34	SLD 11	4	170	1497	-7.64	-19.03	0.01
34	SLD 12	4	170	1497	-7.64	-19.03	0.01
34	SLD 13	-34	509	1652	-22.11	-26.78	0.01
34	SLD 14	-34	509	1652	-22.11	-26.78	0.01
34	SLD 15	-26	364	1614	-15.93	-32.73	0.02
34	SLD 16	-26	364	1614	-15.93	-32.73	0.02
34	SLV 1	65	483	1327	-21.18	81.54	-0.05
34	SLV 2	65	483	1327	-21.18	81.54	-0.05
34	SLV 3	85	142	1238	-6.58	66.75	-0.04
34	SLV 4	85	142	1238	-6.58	66.75	-0.04
34	SLV 5	-10	941	1602	-40.74	46.71	-0.03
34	SLV 6	-10	941	1602	-40.74	46.71	-0.03
34	SLV 7	55	-194	1307	7.93	-2.59	0
34	SLV 8	55	-194	1307	7.93	-2.59	0
34	SLV 9	-55	993	1750	-42.91	2.07	0
34	SLV 10	-55	993	1750	-42.91	2.07	0
34	SLV 11	10	-142	1454	5.76	-47.24	0.03
34	SLV 12	10	-142	1454	5.76	-47.24	0.03
34	SLV 13	-85	657	1819	-28.4	-67.27	0.04
34	SLV 14	-85	657	1819	-28.4	-67.27	0.04
34	SLV 15	-66	316	1730	-13.8	-82.06	0.05
34	SLV 16	-66	316	1730	-13.8	-82.06	0.05
35	SLU 1	0	66	2440	-0.97	-0.08	0
35	SLU 2	0	69	2433	-1.12	-0.02	0
35	SLU 3	0	66	2440	-0.97	-0.08	0
35	SLU 4	0	68	2436	-1.06	-0.05	0
35	SLU 5	0	69	2433	-1.12	-0.02	0
35	SLU 6	0	66	2440	-0.97	-0.08	0
35	SLU 7	0	68	2436	-1.06	-0.05	0
35	SLU 8	0	66	2440	-0.97	-0.08	0
35	SLU 9	0	68	2436	-1.06	-0.05	0
35	SLU 10	0	106	3164	-2.04	-0.05	0
35	SLU 11	0	104	3171	-1.88	-0.11	0
35	SLU 12	0	105	3167	-1.97	-0.08	0
35	SLU 13	0	106	3164	-2.04	-0.05	0
35	SLU 14	0	104	3171	-1.88	-0.11	0
35	SLU 15	0	105	3167	-1.97	-0.08	0
35	SLU 16	0	104	3171	-1.88	-0.11	0
35	SLU 17	0	105	3167	-1.97	-0.08	0
35	SLU 18	0	120	3484	-2.28	-0.13	0
35	SLU 19	0	121	3480	-2.37	-0.09	0
35	SLU 20	0	120	3484	-2.28	-0.13	0
35	SLU 21	0	121	3480	-2.37	-0.09	0
35	SLU 22	0	98	2881	-1.94	-0.1	0
35	SLU 23	0	101	2874	-2.09	-0.04	0
35	SLU 24	0	98	2881	-1.94	-0.1	0
35	SLU 25	0	100	2877	-2.03	-0.07	0
35	SLU 26	0	101	2874	-2.09	-0.04	0
35	SLU 27	0	98	2881	-1.94	-0.1	0
35	SLU 28	0	100	2877	-2.03	-0.07	0
35	SLU 29	0	98	2881	-1.94	-0.1	0
35	SLU 30	0	100	2877	-2.03	-0.07	0
35	SLU 31	0	138	3604	-3.01	-0.08	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
35	SLU 32	0	136	3612	-2.86	-0.14	0
35	SLU 33	0	137	3607	-2.95	-0.1	0
35	SLU 34	0	138	3604	-3.01	-0.08	0
35	SLU 35	0	136	3612	-2.86	-0.14	0
35	SLU 36	0	137	3607	-2.95	-0.1	0
35	SLU 37	0	136	3612	-2.86	-0.14	0
35	SLU 38	0	137	3607	-2.95	-0.1	0
35	SLU 39	0	152	3925	-3.25	-0.15	0
35	SLU 40	0	153	3920	-3.34	-0.11	0
35	SLU 41	0	152	3925	-3.25	-0.15	0
35	SLU 42	0	153	3920	-3.34	-0.11	0
35	SLU 43	0	75	3021	-0.92	-0.1	0
35	SLU 44	0	78	3014	-1.07	-0.04	0
35	SLU 45	0	75	3021	-0.92	-0.1	0
35	SLU 46	0	77	3017	-1.01	-0.06	0
35	SLU 47	0	78	3014	-1.07	-0.04	0
35	SLU 48	0	75	3021	-0.92	-0.1	0
35	SLU 49	0	77	3017	-1.01	-0.06	0
35	SLU 50	0	75	3021	-0.92	-0.1	0
35	SLU 51	0	77	3017	-1.01	-0.06	0
35	SLU 52	0	115	3745	-1.99	-0.07	0
35	SLU 53	0	113	3752	-1.84	-0.13	0
35	SLU 54	0	114	3748	-1.93	-0.09	0
35	SLU 55	0	115	3745	-1.99	-0.07	0
35	SLU 56	0	113	3752	-1.84	-0.13	0
35	SLU 57	0	114	3748	-1.93	-0.09	0
35	SLU 58	0	113	3752	-1.84	-0.13	0
35	SLU 59	0	114	3748	-1.93	-0.09	0
35	SLU 60	0	129	4065	-2.23	-0.14	0
35	SLU 61	0	130	4061	-2.32	-0.11	0
35	SLU 62	0	129	4065	-2.23	-0.14	0
35	SLU 63	0	130	4061	-2.32	-0.11	0
35	SLU 64	0	107	3462	-1.9	-0.12	0
35	SLU 65	0	110	3455	-2.05	-0.06	0
35	SLU 66	0	107	3462	-1.9	-0.12	0
35	SLU 67	0	109	3458	-1.99	-0.08	0
35	SLU 68	0	110	3455	-2.05	-0.06	0
35	SLU 69	0	107	3462	-1.9	-0.12	0
35	SLU 70	0	109	3458	-1.99	-0.08	0
35	SLU 71	0	107	3462	-1.9	-0.12	0
35	SLU 72	0	109	3458	-1.99	-0.08	0
35	SLU 73	0	147	4185	-2.96	-0.09	0
35	SLU 74	0	145	4193	-2.81	-0.15	0
35	SLU 75	0	146	4188	-2.9	-0.12	0
35	SLU 76	0	147	4185	-2.96	-0.09	0
35	SLU 77	0	145	4193	-2.81	-0.15	0
35	SLU 78	0	146	4188	-2.9	-0.12	0
35	SLU 79	0	145	4193	-2.81	-0.15	0
35	SLU 80	0	146	4188	-2.9	-0.12	0
35	SLU 81	0	161	4506	-3.21	-0.17	0
35	SLU 82	0	162	4501	-3.3	-0.13	0
35	SLU 83	0	161	4506	-3.21	-0.17	0
35	SLU 84	0	162	4501	-3.3	-0.13	0
35	SLE RA 1	0	76	2566	-1.24	-0.09	0
35	SLE RA 2	0	77	2561	-1.34	-0.05	0
35	SLE RA 3	0	76	2566	-1.24	-0.09	0
35	SLE RA 4	0	77	2563	-1.3	-0.06	0
35	SLE RA 5	0	77	2561	-1.34	-0.05	0
35	SLE RA 6	0	76	2566	-1.24	-0.09	0
35	SLE RA 7	0	77	2563	-1.3	-0.06	0
35	SLE RA 8	0	76	2566	-1.24	-0.09	0
35	SLE RA 9	0	77	2563	-1.3	-0.06	0
35	SLE RA 10	0	102	3049	-1.96	-0.07	0
35	SLE RA 11	0	100	3053	-1.86	-0.11	0
35	SLE RA 12	0	101	3050	-1.92	-0.09	0
35	SLE RA 13	0	102	3049	-1.96	-0.07	0
35	SLE RA 14	0	100	3053	-1.86	-0.11	0
35	SLE RA 15	0	101	3050	-1.92	-0.09	0
35	SLE RA 16	0	100	3053	-1.86	-0.11	0
35	SLE RA 17	0	101	3050	-1.92	-0.09	0
35	SLE RA 18	0	111	3262	-2.12	-0.12	0
35	SLE RA 19	0	112	3259	-2.18	-0.1	0
35	SLE RA 20	0	111	3262	-2.12	-0.12	0
35	SLE RA 21	0	112	3259	-2.18	-0.1	0
35	SLE FR 1	0	76	2566	-1.24	-0.09	0
35	SLE FR 2	0	76	2565	-1.26	-0.08	0
35	SLE FR 3	0	76	2566	-1.24	-0.09	0
35	SLE FR 4	0	87	2774	-1.53	-0.09	0
35	SLE FR 5	0	86	2775	-1.51	-0.1	0
35	SLE FR 6	0	93	2914	-1.68	-0.1	0
35	SLE QP 1	0	76	2566	-1.24	-0.09	0
35	SLE QP 2	0	86	2775	-1.51	-0.1	0
35	SLD 1	31	258	2594	-11.29	30.27	-0.15
35	SLD 2	31	258	2594	-11.29	30.27	-0.15
35	SLD 3	29	21	3237	2.53	28.35	-0.14
35	SLD 4	29	21	3237	2.53	28.35	-0.14
35	SLD 5	13	498	1745	-25.39	11.92	-0.06
35	SLD 6	13	498	1745	-25.39	11.92	-0.06
35	SLD 7	5	-294	3889	20.66	5.53	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
35	SLD 8	5	-294	3889	20.66	5.53	-0.03
35	SLD 9	-5	466	1661	-23.67	-5.73	0.03
35	SLD 10	-5	466	1661	-23.67	-5.73	0.03
35	SLD 11	-13	-326	3805	22.38	-12.11	0.06
35	SLD 12	-13	-326	3805	22.38	-12.11	0.06
35	SLD 13	-29	152	2313	-5.54	-28.54	0.14
35	SLD 14	-29	152	2313	-5.54	-28.54	0.14
35	SLD 15	-32	-86	2956	8.28	-30.46	0.15
35	SLD 16	-32	-86	2956	8.28	-30.46	0.15
35	SLV 1	80	494	2375	-24.73	77.84	-0.37
35	SLV 2	80	494	2375	-24.73	77.84	-0.37
35	SLV 3	74	-61	3878	7.51	72.71	-0.35
35	SLV 4	74	-61	3878	7.51	72.71	-0.35
35	SLV 5	34	1049	374	-57.37	31.06	-0.15
35	SLV 6	34	1049	374	-57.37	31.06	-0.15
35	SLV 7	12	-799	5387	50.09	13.97	-0.07
35	SLV 8	12	-799	5387	50.09	13.97	-0.07
35	SLV 9	-12	971	163	-53.11	-14.16	0.07
35	SLV 10	-12	971	163	-53.11	-14.16	0.07
35	SLV 11	-35	-877	5176	54.35	-31.25	0.15
35	SLV 12	-35	-877	5176	54.35	-31.25	0.15
35	SLV 13	-74	233	1672	-10.53	-72.9	0.35
35	SLV 14	-74	233	1672	-10.53	-72.9	0.35
35	SLV 15	-81	-321	3175	21.71	-78.03	0.37
35	SLV 16	-81	-321	3175	21.71	-78.03	0.37
36	SLU 1	0	328	1645	-12.79	0.19	0
36	SLU 2	1	308	1631	-11.96	1.52	0
36	SLU 3	0	328	1645	-12.79	0.19	0
36	SLU 4	1	316	1637	-12.29	0.99	0
36	SLU 5	1	308	1631	-11.96	1.52	0
36	SLU 6	0	328	1645	-12.79	0.19	0
36	SLU 7	1	316	1637	-12.29	0.99	0
36	SLU 8	0	328	1645	-12.79	0.19	0
36	SLU 9	1	316	1637	-12.29	0.99	0
36	SLU 10	1	343	1895	-13.15	1.59	0
36	SLU 11	0	363	1909	-13.99	0.27	0
36	SLU 12	1	351	1901	-13.49	1.06	0
36	SLU 13	1	343	1895	-13.15	1.59	0
36	SLU 14	0	363	1909	-13.99	0.27	0
36	SLU 15	1	351	1901	-13.49	1.06	0
36	SLU 16	0	363	1909	-13.99	0.27	0
36	SLU 17	1	351	1901	-13.49	1.06	0
36	SLU 18	0	378	2022	-14.5	0.3	0
36	SLU 19	1	366	2014	-14	1.09	0
36	SLU 20	0	378	2022	-14.5	0.3	0
36	SLU 21	1	366	2014	-14	1.09	0
36	SLU 22	0	358	1806	-13.89	0.23	0
36	SLU 23	1	338	1792	-13.05	1.55	0
36	SLU 24	0	358	1806	-13.89	0.23	0
36	SLU 25	1	346	1797	-13.39	1.02	0
36	SLU 26	1	338	1792	-13.05	1.55	0
36	SLU 27	0	358	1806	-13.89	0.23	0
36	SLU 28	1	346	1797	-13.39	1.02	0
36	SLU 29	0	358	1806	-13.89	0.23	0
36	SLU 30	1	346	1797	-13.39	1.02	0
36	SLU 31	1	374	2055	-14.25	1.63	0
36	SLU 32	0	393	2069	-15.08	0.3	0
36	SLU 33	1	381	2061	-14.58	1.09	0
36	SLU 34	1	374	2055	-14.25	1.63	0
36	SLU 35	0	393	2069	-15.08	0.3	0
36	SLU 36	1	381	2061	-14.58	1.09	0
36	SLU 37	0	393	2069	-15.08	0.3	0
36	SLU 38	1	381	2061	-14.58	1.09	0
36	SLU 39	0	408	2182	-15.6	0.33	0
36	SLU 40	1	396	2174	-15.09	1.13	0
36	SLU 41	0	408	2182	-15.6	0.33	0
36	SLU 42	1	396	2174	-15.09	1.13	0
36	SLU 43	0	416	2084	-16.26	0.24	0
36	SLU 44	1	396	2070	-15.42	1.57	0
36	SLU 45	0	416	2084	-16.26	0.24	0
36	SLU 46	1	404	2076	-15.75	1.04	0
36	SLU 47	1	396	2070	-15.42	1.57	0
36	SLU 48	0	416	2084	-16.26	0.24	0
36	SLU 49	1	404	2076	-15.75	1.04	0
36	SLU 50	0	416	2084	-16.26	0.24	0
36	SLU 51	1	404	2076	-15.75	1.04	0
36	SLU 52	1	431	2334	-16.61	1.64	0
36	SLU 53	0	451	2348	-17.45	0.31	0
36	SLU 54	1	439	2339	-16.95	1.11	0
36	SLU 55	1	431	2334	-16.61	1.64	0
36	SLU 56	0	451	2348	-17.45	0.31	0
36	SLU 57	1	439	2339	-16.95	1.11	0
36	SLU 58	0	451	2348	-17.45	0.31	0
36	SLU 59	1	439	2339	-16.95	1.11	0
36	SLU 60	0	466	2461	-17.96	0.34	0
36	SLU 61	1	454	2452	-17.46	1.14	0
36	SLU 62	0	466	2461	-17.96	0.34	0
36	SLU 63	1	454	2452	-17.46	1.14	0
36	SLU 64	0	446	2244	-17.35	0.27	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
36	SLU 65	1	426	2230	-16.52	1.6	0
36	SLU 66	0	446	2244	-17.35	0.27	0
36	SLU 67	1	434	2236	-16.85	1.07	0
36	SLU 68	1	426	2230	-16.52	1.6	0
36	SLU 69	0	446	2244	-17.35	0.27	0
36	SLU 70	1	434	2236	-16.85	1.07	0
36	SLU 71	0	446	2244	-17.35	0.27	0
36	SLU 72	1	434	2236	-16.85	1.07	0
36	SLU 73	1	462	2494	-17.71	1.67	0
36	SLU 74	0	481	2508	-18.55	0.35	0
36	SLU 75	1	469	2499	-18.04	1.14	0
36	SLU 76	1	462	2494	-17.71	1.67	0
36	SLU 77	0	481	2508	-18.55	0.35	0
36	SLU 78	1	469	2499	-18.04	1.14	0
36	SLU 79	0	481	2508	-18.55	0.35	0
36	SLU 80	1	469	2499	-18.04	1.14	0
36	SLU 81	0	496	2621	-19.06	0.38	0
36	SLU 82	1	484	2612	-18.56	1.17	0
36	SLU 83	0	496	2621	-19.06	0.38	0
36	SLU 84	1	484	2612	-18.56	1.17	0
36	SLE RA 1	0	336	1691	-13.11	0.2	0
36	SLE RA 2	1	323	1682	-12.55	1.09	0
36	SLE RA 3	0	336	1691	-13.11	0.2	0
36	SLE RA 4	0	328	1686	-12.77	0.73	0
36	SLE RA 5	1	323	1682	-12.55	1.09	0
36	SLE RA 6	0	336	1691	-13.11	0.2	0
36	SLE RA 7	0	328	1686	-12.77	0.73	0
36	SLE RA 8	0	336	1691	-13.11	0.2	0
36	SLE RA 9	0	328	1686	-12.77	0.73	0
36	SLE RA 10	1	347	1858	-13.35	1.14	0
36	SLE RA 11	0	360	1867	-13.9	0.25	0
36	SLE RA 12	1	352	1861	-13.57	0.78	0
36	SLE RA 13	1	347	1858	-13.35	1.14	0
36	SLE RA 14	0	360	1867	-13.9	0.25	0
36	SLE RA 15	1	352	1861	-13.57	0.78	0
36	SLE RA 16	0	360	1867	-13.9	0.25	0
36	SLE RA 17	1	352	1861	-13.57	0.78	0
36	SLE RA 18	0	370	1942	-14.25	0.27	0
36	SLE RA 19	1	362	1937	-13.91	0.8	0
36	SLE RA 20	0	370	1942	-14.25	0.27	0
36	SLE RA 21	1	362	1937	-13.91	0.8	0
36	SLE FR 1	0	336	1691	-13.11	0.2	0
36	SLE FR 2	0	334	1689	-13	0.38	0
36	SLE FR 3	0	336	1691	-13.11	0.2	0
36	SLE FR 4	0	344	1765	-13.34	0.4	0
36	SLE FR 5	0	346	1766	-13.45	0.22	0
36	SLE FR 6	0	353	1817	-13.68	0.24	0
36	SLE QP 1	0	336	1691	-13.11	0.2	0
36	SLE QP 2	0	346	1766	-13.45	0.22	0
36	SLD 1	33	477	1882	-19.1	30.38	0.01
36	SLD 2	33	477	1882	-19.1	30.38	0.01
36	SLD 3	45	322	1858	-12.29	40.8	0.02
36	SLD 4	45	322	1858	-12.29	40.8	0.02
36	SLD 5	-7	619	1839	-25.46	-6.53	-0.01
36	SLD 6	-7	619	1839	-25.46	-6.53	-0.01
36	SLD 7	31	105	1756	-2.78	28.2	0.01
36	SLD 8	31	105	1756	-2.78	28.2	0.01
36	SLD 9	-30	587	1777	-24.12	-27.76	-0.01
36	SLD 10	-30	587	1777	-24.12	-27.76	-0.01
36	SLD 11	7	73	1694	-1.43	6.98	0.01
36	SLD 12	7	73	1694	-1.43	6.98	0.01
36	SLD 13	-44	370	1675	-14.6	-40.36	-0.02
36	SLD 14	-44	370	1675	-14.6	-40.36	-0.02
36	SLD 15	-33	216	1650	-7.8	-29.94	-0.01
36	SLD 16	-33	216	1650	-7.8	-29.94	-0.01
36	SLV 1	85	662	2055	-27.12	77.15	0.03
36	SLV 2	85	662	2055	-27.12	77.15	0.03
36	SLV 3	114	298	1995	-11.06	104.34	0.04
36	SLV 4	114	298	1995	-11.06	104.34	0.04
36	SLV 5	-19	994	1945	-41.92	-17.94	-0.01
36	SLV 6	-19	994	1945	-41.92	-17.94	-0.01
36	SLV 7	79	-221	1743	11.64	72.7	0.03
36	SLV 8	79	-221	1743	11.64	72.7	0.03
36	SLV 9	-79	913	1790	-38.53	-72.25	-0.03
36	SLV 10	-79	913	1790	-38.53	-72.25	-0.03
36	SLV 11	19	-301	1588	15.02	18.38	0.01
36	SLV 12	19	-301	1588	15.02	18.38	0.01
36	SLV 13	-114	394	1538	-15.84	-103.89	-0.04
36	SLV 14	-114	394	1538	-15.84	-103.89	-0.04
36	SLV 15	-85	30	1478	0.23	-76.7	-0.03
36	SLV 16	-85	30	1478	0.23	-76.7	-0.03
37	SLU 1	0	319	1534	-12.06	-0.15	0
37	SLU 2	-1	300	1525	-11.25	-1.34	0
37	SLU 3	0	319	1534	-12.06	-0.15	0
37	SLU 4	-1	308	1529	-11.58	-0.86	0
37	SLU 5	-1	300	1525	-11.25	-1.34	0
37	SLU 6	0	319	1534	-12.06	-0.15	0
37	SLU 7	-1	308	1529	-11.58	-0.86	0
37	SLU 8	0	319	1534	-12.06	-0.15	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
37	SLU 9	-1	308	1529	-11.58	-0.86	0
37	SLU 10	-1	356	1737	-13.34	-1.39	0
37	SLU 11	0	375	1745	-14.15	-0.2	0
37	SLU 12	-1	364	1740	-13.66	-0.91	0
37	SLU 13	-1	356	1737	-13.34	-1.39	0
37	SLU 14	0	375	1745	-14.15	-0.2	0
37	SLU 15	-1	364	1740	-13.66	-0.91	0
37	SLU 16	0	375	1745	-14.15	-0.2	0
37	SLU 17	-1	364	1740	-13.66	-0.91	0
37	SLU 18	0	400	1836	-15.04	-0.23	0
37	SLU 19	-1	388	1831	-14.56	-0.94	0
37	SLU 20	0	400	1836	-15.04	-0.23	0
37	SLU 21	-1	388	1831	-14.56	-0.94	0
37	SLU 22	0	352	1654	-13.29	-0.18	0
37	SLU 23	-1	333	1645	-12.48	-1.36	0
37	SLU 24	0	352	1654	-13.29	-0.18	0
37	SLU 25	-1	341	1649	-12.81	-0.89	0
37	SLU 26	-1	333	1645	-12.48	-1.36	0
37	SLU 27	0	352	1654	-13.29	-0.18	0
37	SLU 28	-1	341	1649	-12.81	-0.89	0
37	SLU 29	0	352	1654	-13.29	-0.18	0
37	SLU 30	-1	341	1649	-12.81	-0.89	0
37	SLU 31	-1	389	1857	-14.57	-1.41	0
37	SLU 32	0	409	1865	-15.38	-0.23	0
37	SLU 33	-1	397	1860	-14.89	-0.93	0
37	SLU 34	-1	389	1857	-14.57	-1.41	0
37	SLU 35	0	409	1865	-15.38	-0.23	0
37	SLU 36	-1	397	1860	-14.89	-0.93	0
37	SLU 37	0	409	1865	-15.38	-0.23	0
37	SLU 38	-1	397	1860	-14.89	-0.93	0
37	SLU 39	0	433	1956	-16.27	-0.25	0
37	SLU 40	-1	421	1951	-15.79	-0.96	0
37	SLU 41	0	433	1956	-16.27	-0.25	0
37	SLU 42	-1	421	1951	-15.79	-0.96	0
37	SLU 43	0	404	1953	-15.26	-0.19	0
37	SLU 44	-1	384	1944	-14.45	-1.38	0
37	SLU 45	0	404	1953	-15.26	-0.19	0
37	SLU 46	-1	392	1948	-14.77	-0.9	0
37	SLU 47	-1	384	1944	-14.45	-1.38	0
37	SLU 48	0	404	1953	-15.26	-0.19	0
37	SLU 49	-1	392	1948	-14.77	-0.9	0
37	SLU 50	0	404	1953	-15.26	-0.19	0
37	SLU 51	-1	392	1948	-14.77	-0.9	0
37	SLU 52	-1	441	2156	-16.53	-1.43	0
37	SLU 53	0	460	2164	-17.34	-0.24	0
37	SLU 54	-1	448	2159	-16.86	-0.95	0
37	SLU 55	-1	441	2156	-16.53	-1.43	0
37	SLU 56	0	460	2164	-17.34	-0.24	0
37	SLU 57	-1	448	2159	-16.86	-0.95	0
37	SLU 58	0	460	2164	-17.34	-0.24	0
37	SLU 59	-1	448	2159	-16.86	-0.95	0
37	SLU 60	0	484	2255	-18.24	-0.26	0
37	SLU 61	-1	472	2250	-17.75	-0.97	0
37	SLU 62	0	484	2255	-18.24	-0.26	0
37	SLU 63	-1	472	2250	-17.75	-0.97	0
37	SLU 64	0	437	2073	-16.49	-0.21	0
37	SLU 65	-1	418	2064	-15.68	-1.4	0
37	SLU 66	0	437	2073	-16.49	-0.21	0
37	SLU 67	-1	425	2068	-16	-0.92	0
37	SLU 68	-1	418	2064	-15.68	-1.4	0
37	SLU 69	0	437	2073	-16.49	-0.21	0
37	SLU 70	-1	425	2068	-16	-0.92	0
37	SLU 71	0	437	2073	-16.49	-0.21	0
37	SLU 72	-1	425	2068	-16	-0.92	0
37	SLU 73	-1	474	2276	-17.77	-1.45	0
37	SLU 74	0	493	2284	-18.58	-0.26	0
37	SLU 75	-1	481	2279	-18.09	-0.97	0
37	SLU 76	-1	474	2276	-17.77	-1.45	0
37	SLU 77	0	493	2284	-18.58	-0.26	0
37	SLU 78	-1	481	2279	-18.09	-0.97	0
37	SLU 79	0	493	2284	-18.58	-0.26	0
37	SLU 80	-1	481	2279	-18.09	-0.97	0
37	SLU 81	0	517	2375	-19.47	-0.29	0
37	SLU 82	-1	505	2370	-18.98	-1	0
37	SLU 83	0	517	2375	-19.47	-0.29	0
37	SLU 84	-1	505	2370	-18.98	-1	0
37	SLE RA 1	0	329	1568	-12.41	-0.16	0
37	SLE RA 2	-1	316	1562	-11.87	-0.95	0
37	SLE RA 3	0	329	1568	-12.41	-0.16	0
37	SLE RA 4	0	321	1565	-12.09	-0.63	0
37	SLE RA 5	-1	316	1562	-11.87	-0.95	0
37	SLE RA 6	0	329	1568	-12.41	-0.16	0
37	SLE RA 7	0	321	1565	-12.09	-0.63	0
37	SLE RA 8	0	329	1568	-12.41	-0.16	0
37	SLE RA 9	0	321	1565	-12.09	-0.63	0
37	SLE RA 10	-1	353	1703	-13.26	-0.98	0
37	SLE RA 11	0	366	1709	-13.8	-0.19	0
37	SLE RA 12	0	358	1706	-13.48	-0.67	0
37	SLE RA 13	-1	353	1703	-13.26	-0.98	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
37	SLE RA 14	0	366	1709	-13.8	-0.19	0
37	SLE RA 15	0	358	1706	-13.48	-0.67	0
37	SLE RA 16	0	366	1709	-13.8	-0.19	0
37	SLE RA 17	0	358	1706	-13.48	-0.67	0
37	SLE RA 18	0	382	1769	-14.4	-0.21	0
37	SLE RA 19	0	375	1766	-14.08	-0.68	0
37	SLE RA 20	0	382	1769	-14.4	-0.21	0
37	SLE RA 21	0	375	1766	-14.08	-0.68	0
37	SLE FR 1	0	329	1568	-12.41	-0.16	0
37	SLE FR 2	0	326	1567	-12.31	-0.32	0
37	SLE FR 3	0	329	1568	-12.41	-0.16	0
37	SLE FR 4	0	342	1627	-12.9	-0.33	0
37	SLE FR 5	0	345	1629	-13.01	-0.17	0
37	SLE FR 6	0	356	1669	-13.41	-0.18	0
37	SLE QP 1	0	329	1568	-12.41	-0.16	0
37	SLE QP 2	0	345	1629	-13.01	-0.17	0
37	SLD 1	44	385	1536	-14.59	39.51	-0.01
37	SLD 2	44	385	1536	-14.59	39.51	-0.01
37	SLD 3	36	236	1512	-8.31	33.07	-0.01
37	SLD 4	36	236	1512	-8.31	33.07	-0.01
37	SLD 5	25	583	1638	-23.01	21.49	-0.01
37	SLD 6	25	583	1638	-23.01	21.49	-0.01
37	SLD 7	-1	86	1557	-2.08	0.04	0
37	SLD 8	-1	86	1557	-2.08	0.04	0
37	SLD 9	1	604	1700	-23.94	-0.39	0
37	SLD 10	1	604	1700	-23.94	-0.39	0
37	SLD 11	-25	107	1619	-3.01	-21.84	0.01
37	SLD 12	-25	107	1619	-3.01	-21.84	0.01
37	SLD 13	-36	454	1745	-17.71	-33.42	0.01
37	SLD 14	-36	454	1745	-17.71	-33.42	0.01
37	SLD 15	-44	305	1721	-11.43	-39.86	0.01
37	SLD 16	-44	305	1721	-11.43	-39.86	0.01
37	SLV 1	110	440	1411	-16.75	99.89	-0.03
37	SLV 2	110	440	1411	-16.75	99.89	-0.03
37	SLV 3	91	87	1353	-1.92	83.7	-0.02
37	SLV 4	91	87	1353	-1.92	83.7	-0.02
37	SLV 5	61	907	1651	-36.62	54.4	-0.02
37	SLV 6	61	907	1651	-36.62	54.4	-0.02
37	SLV 7	-1	-267	1459	12.8	0.43	0
37	SLV 8	-1	-267	1459	12.8	0.43	0
37	SLV 9	1	956	1798	-38.82	-0.78	0
37	SLV 10	1	956	1798	-38.82	-0.78	0
37	SLV 11	-62	-218	1606	10.6	-54.75	0.02
37	SLV 12	-62	-218	1606	10.6	-54.75	0.02
37	SLV 13	-91	602	1904	-24.1	-84.05	0.02
37	SLV 14	-91	602	1904	-24.1	-84.05	0.02
37	SLV 15	-110	250	1846	-9.27	-100.24	0.03
37	SLV 16	-110	250	1846	-9.27	-100.24	0.03
38	SLU 1	0	-242	1383	3.75	-0.05	-0.01
38	SLU 2	0	-240	1376	3.66	-0.01	0
38	SLU 3	0	-242	1383	3.75	-0.05	-0.01
38	SLU 4	0	-241	1379	3.7	-0.03	-0.01
38	SLU 5	0	-240	1376	3.66	-0.01	0
38	SLU 6	0	-242	1383	3.75	-0.05	-0.01
38	SLU 7	0	-241	1379	3.7	-0.03	-0.01
38	SLU 8	0	-242	1383	3.75	-0.05	-0.01
38	SLU 9	0	-241	1379	3.7	-0.03	-0.01
38	SLU 10	0	-308	1795	4.55	-0.04	-0.01
38	SLU 11	0	-310	1802	4.63	-0.07	-0.01
38	SLU 12	0	-309	1798	4.58	-0.05	-0.01
38	SLU 13	0	-308	1795	4.55	-0.04	-0.01
38	SLU 14	0	-310	1802	4.63	-0.07	-0.01
38	SLU 15	0	-309	1798	4.58	-0.05	-0.01
38	SLU 16	0	-310	1802	4.63	-0.07	-0.01
38	SLU 17	0	-309	1798	4.58	-0.05	-0.01
38	SLU 18	0	-340	1981	5.01	-0.08	-0.01
38	SLU 19	0	-338	1977	4.96	-0.06	-0.01
38	SLU 20	0	-340	1981	5.01	-0.08	-0.01
38	SLU 21	0	-338	1977	4.96	-0.06	-0.01
38	SLU 22	0	-279	1633	4.09	-0.07	-0.01
38	SLU 23	0	-277	1626	4	-0.03	-0.01
38	SLU 24	0	-279	1633	4.09	-0.07	-0.01
38	SLU 25	0	-278	1629	4.04	-0.05	-0.01
38	SLU 26	0	-277	1626	4	-0.03	-0.01
38	SLU 27	0	-279	1633	4.09	-0.07	-0.01
38	SLU 28	0	-278	1629	4.04	-0.05	-0.01
38	SLU 29	0	-279	1633	4.09	-0.07	-0.01
38	SLU 30	0	-278	1629	4.04	-0.05	-0.01
38	SLU 31	0	-345	2045	4.89	-0.05	-0.01
38	SLU 32	0	-348	2052	4.97	-0.09	-0.01
38	SLU 33	0	-346	2048	4.92	-0.07	-0.01
38	SLU 34	0	-345	2045	4.89	-0.05	-0.01
38	SLU 35	0	-348	2052	4.97	-0.09	-0.01
38	SLU 36	0	-346	2048	4.92	-0.07	-0.01
38	SLU 37	0	-348	2052	4.97	-0.09	-0.01
38	SLU 38	0	-346	2048	4.92	-0.07	-0.01
38	SLU 39	0	-377	2231	5.35	-0.1	-0.02
38	SLU 40	0	-375	2227	5.3	-0.08	-0.01
38	SLU 41	0	-377	2231	5.35	-0.1	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
38	SLU 42	0	-375	2227	5.3	-0.08	-0.01
38	SLU 43	0	-302	1712	4.76	-0.06	-0.01
38	SLU 44	0	-300	1705	4.67	-0.03	0
38	SLU 45	0	-302	1712	4.76	-0.06	-0.01
38	SLU 46	0	-301	1708	4.71	-0.04	-0.01
38	SLU 47	0	-300	1705	4.67	-0.03	0
38	SLU 48	0	-302	1712	4.76	-0.06	-0.01
38	SLU 49	0	-301	1708	4.71	-0.04	-0.01
38	SLU 50	0	-302	1712	4.76	-0.06	-0.01
38	SLU 51	0	-301	1708	4.71	-0.04	-0.01
38	SLU 52	0	-368	2124	5.56	-0.05	-0.01
38	SLU 53	0	-370	2131	5.64	-0.09	-0.01
38	SLU 54	0	-369	2127	5.59	-0.06	-0.01
38	SLU 55	0	-368	2124	5.56	-0.05	-0.01
38	SLU 56	0	-370	2131	5.64	-0.09	-0.01
38	SLU 57	0	-369	2127	5.59	-0.06	-0.01
38	SLU 58	0	-370	2131	5.64	-0.09	-0.01
38	SLU 59	0	-369	2127	5.59	-0.06	-0.01
38	SLU 60	0	-400	2311	6.02	-0.09	-0.02
38	SLU 61	0	-398	2306	5.97	-0.07	-0.01
38	SLU 62	0	-400	2311	6.02	-0.09	-0.02
38	SLU 63	0	-398	2306	5.97	-0.07	-0.01
38	SLU 64	0	-339	1962	5.1	-0.08	-0.01
38	SLU 65	0	-337	1955	5.01	-0.04	-0.01
38	SLU 66	0	-339	1962	5.1	-0.08	-0.01
38	SLU 67	0	-338	1958	5.05	-0.06	-0.01
38	SLU 68	0	-337	1955	5.01	-0.04	-0.01
38	SLU 69	0	-339	1962	5.1	-0.08	-0.01
38	SLU 70	0	-338	1958	5.05	-0.06	-0.01
38	SLU 71	0	-339	1962	5.1	-0.08	-0.01
38	SLU 72	0	-338	1958	5.05	-0.06	-0.01
38	SLU 73	0	-405	2374	5.9	-0.06	-0.01
38	SLU 74	0	-407	2381	5.98	-0.1	-0.02
38	SLU 75	0	-406	2377	5.93	-0.08	-0.01
38	SLU 76	0	-405	2374	5.9	-0.06	-0.01
38	SLU 77	0	-407	2381	5.98	-0.1	-0.02
38	SLU 78	0	-406	2377	5.93	-0.08	-0.01
38	SLU 79	0	-407	2381	5.98	-0.1	-0.02
38	SLU 80	0	-406	2377	5.93	-0.08	-0.01
38	SLU 81	0	-437	2560	6.36	-0.11	-0.02
38	SLU 82	0	-435	2556	6.31	-0.09	-0.01
38	SLU 83	0	-437	2560	6.36	-0.11	-0.02
38	SLU 84	0	-435	2556	6.31	-0.09	-0.01
38	SLE RA 1	0	-253	1454	3.85	-0.06	-0.01
38	SLE RA 2	0	-251	1450	3.79	-0.03	-0.01
38	SLE RA 3	0	-253	1454	3.85	-0.06	-0.01
38	SLE RA 4	0	-252	1451	3.81	-0.04	-0.01
38	SLE RA 5	0	-251	1450	3.79	-0.03	-0.01
38	SLE RA 6	0	-253	1454	3.85	-0.06	-0.01
38	SLE RA 7	0	-252	1451	3.81	-0.04	-0.01
38	SLE RA 8	0	-253	1454	3.85	-0.06	-0.01
38	SLE RA 9	0	-252	1451	3.81	-0.04	-0.01
38	SLE RA 10	0	-297	1729	4.38	-0.05	-0.01
38	SLE RA 11	0	-298	1734	4.44	-0.07	-0.01
38	SLE RA 12	0	-297	1731	4.4	-0.06	-0.01
38	SLE RA 13	0	-297	1729	4.38	-0.05	-0.01
38	SLE RA 14	0	-298	1734	4.44	-0.07	-0.01
38	SLE RA 15	0	-297	1731	4.4	-0.06	-0.01
38	SLE RA 16	0	-298	1734	4.44	-0.07	-0.01
38	SLE RA 17	0	-297	1731	4.4	-0.06	-0.01
38	SLE RA 18	0	-318	1853	4.69	-0.08	-0.01
38	SLE RA 19	0	-317	1850	4.65	-0.06	-0.01
38	SLE RA 20	0	-318	1853	4.69	-0.08	-0.01
38	SLE RA 21	0	-317	1850	4.65	-0.06	-0.01
38	SLE FR 1	0	-253	1454	3.85	-0.06	-0.01
38	SLE FR 2	0	-253	1453	3.83	-0.05	-0.01
38	SLE FR 3	0	-253	1454	3.85	-0.06	-0.01
38	SLE FR 4	0	-272	1573	4.09	-0.06	-0.01
38	SLE FR 5	0	-272	1574	4.1	-0.06	-0.01
38	SLE FR 6	0	-285	1654	4.27	-0.07	-0.01
38	SLE QP 1	0	-253	1454	3.85	-0.06	-0.01
38	SLE QP 2	0	-272	1574	4.1	-0.06	-0.01
38	SLD 1	47	-127	1131	-1.44	21.21	3.59
38	SLD 2	47	-127	1131	-1.44	21.21	3.59
38	SLD 3	44	-335	1754	6.29	20	3.39
38	SLD 4	44	-335	1754	6.29	20	3.39
38	SLD 5	18	86	495	-9.28	8.14	1.37
38	SLD 6	18	86	495	-9.28	8.14	1.37
38	SLD 7	9	-606	2574	16.47	4.13	0.71
38	SLD 8	9	-606	2574	16.47	4.13	0.71
38	SLD 9	-9	61	574	-8.28	-4.26	-0.73
38	SLD 10	-9	61	574	-8.28	-4.26	-0.73
38	SLD 11	-18	-631	2652	17.48	-8.27	-1.4
38	SLD 12	-18	-631	2652	17.48	-8.27	-1.4
38	SLD 13	-44	-210	1394	1.91	-20.13	-3.41
38	SLD 14	-44	-210	1394	1.91	-20.13	-3.41
38	SLD 15	-47	-418	2017	9.64	-21.34	-3.61
38	SLD 16	-47	-418	2017	9.64	-21.34	-3.61
38	SLV 1	120	74	518	-9.04	54.51	9.23



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
38	SLV 2	120	74	518	-9.04	54.51	9.23
38	SLV 3	113	-412	1975	8.99	51.32	8.7
38	SLV 4	113	-412	1975	8.99	51.32	8.7
38	SLV 5	47	567	-952	-27.2	21.14	3.56
38	SLV 6	47	567	-952	-27.2	21.14	3.56
38	SLV 7	23	-1050	3904	32.92	10.52	1.8
38	SLV 8	23	-1050	3904	32.92	10.52	1.8
38	SLV 9	-24	505	-756	-24.73	-10.65	-1.82
38	SLV 10	-24	505	-756	-24.73	-10.65	-1.82
38	SLV 11	-47	-1112	4100	35.4	-21.27	-3.59
38	SLV 12	-47	-1112	4100	35.4	-21.27	-3.59
38	SLV 13	-114	-133	1173	-0.8	-51.45	-8.73
38	SLV 14	-114	-133	1173	-0.8	-51.45	-8.73
38	SLV 15	-121	-618	2630	17.24	-54.63	-9.25
38	SLV 16	-121	-618	2630	17.24	-54.63	-9.25
39	SLU 1	0	297	1738	-13.62	0.15	0
39	SLU 2	1	279	1724	-12.78	1.81	0
39	SLU 3	0	297	1738	-13.62	0.15	0
39	SLU 4	1	286	1729	-13.12	1.15	0
39	SLU 5	1	279	1724	-12.78	1.81	0
39	SLU 6	0	297	1738	-13.62	0.15	0
39	SLU 7	1	286	1729	-13.12	1.15	0
39	SLU 8	0	297	1738	-13.62	0.15	0
39	SLU 9	1	286	1729	-13.12	1.15	0
39	SLU 10	1	311	1995	-14.45	1.88	0
39	SLU 11	0	330	2009	-15.29	0.22	0
39	SLU 12	1	319	2001	-14.79	1.21	0
39	SLU 13	1	311	1995	-14.45	1.88	0
39	SLU 14	0	330	2009	-15.29	0.22	0
39	SLU 15	1	319	2001	-14.79	1.21	0
39	SLU 16	0	330	2009	-15.29	0.22	0
39	SLU 17	1	319	2001	-14.79	1.21	0
39	SLU 18	0	344	2126	-16	0.24	0
39	SLU 19	1	333	2117	-15.5	1.24	0
39	SLU 20	0	344	2126	-16	0.24	0
39	SLU 21	1	333	2117	-15.5	1.24	0
39	SLU 22	0	324	1907	-14.91	0.18	0
39	SLU 23	1	306	1892	-14.08	1.84	0
39	SLU 24	0	324	1907	-14.91	0.18	0
39	SLU 25	1	313	1898	-14.41	1.18	0
39	SLU 26	1	306	1892	-14.08	1.84	0
39	SLU 27	0	324	1907	-14.91	0.18	0
39	SLU 28	1	313	1898	-14.41	1.18	0
39	SLU 29	0	324	1907	-14.91	0.18	0
39	SLU 30	1	313	1898	-14.41	1.18	0
39	SLU 31	1	338	2164	-15.75	1.91	0
39	SLU 32	0	357	2178	-16.58	0.25	0
39	SLU 33	1	346	2170	-16.08	1.24	0
39	SLU 34	1	338	2164	-15.75	1.91	0
39	SLU 35	0	357	2178	-16.58	0.25	0
39	SLU 36	1	346	2170	-16.08	1.24	0
39	SLU 37	0	357	2178	-16.58	0.25	0
39	SLU 38	1	346	2170	-16.08	1.24	0
39	SLU 39	0	371	2295	-17.3	0.27	0
39	SLU 40	1	360	2286	-16.8	1.27	0
39	SLU 41	0	371	2295	-17.3	0.27	0
39	SLU 42	1	360	2286	-16.8	1.27	0
39	SLU 43	0	377	2201	-17.26	0.19	0
39	SLU 44	1	359	2187	-16.43	1.85	0
39	SLU 45	0	377	2201	-17.26	0.19	0
39	SLU 46	1	366	2193	-16.76	1.18	0
39	SLU 47	1	359	2187	-16.43	1.85	0
39	SLU 48	0	377	2201	-17.26	0.19	0
39	SLU 49	1	366	2193	-16.76	1.18	0
39	SLU 50	0	377	2201	-17.26	0.19	0
39	SLU 51	1	366	2193	-16.76	1.18	0
39	SLU 52	1	391	2459	-18.09	1.91	0
39	SLU 53	0	410	2473	-18.93	0.25	0
39	SLU 54	1	399	2464	-18.43	1.25	0
39	SLU 55	1	391	2459	-18.09	1.91	0
39	SLU 56	0	410	2473	-18.93	0.25	0
39	SLU 57	1	399	2464	-18.43	1.25	0
39	SLU 58	0	410	2473	-18.93	0.25	0
39	SLU 59	1	399	2464	-18.43	1.25	0
39	SLU 60	0	424	2589	-19.64	0.28	0
39	SLU 61	1	413	2581	-19.14	1.28	0
39	SLU 62	0	424	2589	-19.64	0.28	0
39	SLU 63	1	413	2581	-19.14	1.28	0
39	SLU 64	0	404	2370	-18.56	0.22	0
39	SLU 65	1	386	2356	-17.72	1.88	0
39	SLU 66	0	404	2370	-18.56	0.22	0
39	SLU 67	1	393	2362	-18.06	1.21	0
39	SLU 68	1	386	2356	-17.72	1.88	0
39	SLU 69	0	404	2370	-18.56	0.22	0
39	SLU 70	1	393	2362	-18.06	1.21	0
39	SLU 71	0	404	2370	-18.56	0.22	0
39	SLU 72	1	393	2362	-18.06	1.21	0
39	SLU 73	2	418	2627	-19.39	1.94	0
39	SLU 74	0	437	2642	-20.22	0.28	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
39	SLU 75	1	426	2633	-19.72	1.28	0
39	SLU 76	2	418	2627	-19.34	1.94	0
39	SLU 77	0	437	2642	-20.22	0.28	0
39	SLU 78	1	426	2633	-19.72	1.28	0
39	SLU 79	0	437	2642	-20.22	0.28	0
39	SLU 80	1	426	2633	-19.72	1.28	0
39	SLU 81	0	451	2758	-20.94	0.31	0
39	SLU 82	1	440	2749	-20.44	1.31	0
39	SLU 83	0	451	2758	-20.94	0.31	0
39	SLU 84	1	440	2749	-20.44	1.31	0
39	SLE RA 1	0	305	1786	-13.99	0.16	0
39	SLE RA 2	1	293	1777	-13.43	1.27	0
39	SLE RA 3	0	305	1786	-13.99	0.16	0
39	SLE RA 4	1	298	1780	-13.66	0.83	0
39	SLE RA 5	1	293	1777	-13.43	1.27	0
39	SLE RA 6	0	305	1786	-13.99	0.16	0
39	SLE RA 7	1	298	1780	-13.66	0.83	0
39	SLE RA 8	0	305	1786	-13.99	0.16	0
39	SLE RA 9	1	298	1780	-13.66	0.83	0
39	SLE RA 10	1	314	1958	-14.54	1.31	0
39	SLE RA 11	0	327	1967	-15.1	0.2	0
39	SLE RA 12	1	319	1961	-14.77	0.87	0
39	SLE RA 13	1	314	1958	-14.54	1.31	0
39	SLE RA 14	0	327	1967	-15.1	0.2	0
39	SLE RA 15	1	319	1961	-14.77	0.87	0
39	SLE RA 16	0	327	1967	-15.1	0.2	0
39	SLE RA 17	1	319	1961	-14.77	0.87	0
39	SLE RA 18	0	336	2045	-15.58	0.22	0
39	SLE RA 19	1	329	2039	-15.24	0.89	0
39	SLE RA 20	0	336	2045	-15.58	0.22	0
39	SLE RA 21	1	329	2039	-15.24	0.89	0
39	SLE FR 1	0	305	1786	-13.99	0.16	0
39	SLE FR 2	0	303	1784	-13.88	0.38	0
39	SLE FR 3	0	305	1786	-13.99	0.16	0
39	SLE FR 4	0	312	1862	-14.35	0.4	0
39	SLE FR 5	0	314	1864	-14.46	0.18	0
39	SLE FR 6	0	321	1915	-14.78	0.19	0
39	SLE QP 1	0	305	1786	-13.99	0.16	0
39	SLE QP 2	0	314	1864	-14.46	0.18	0
39	SLD 1	36	436	1974	-19.99	32.39	0.02
39	SLD 2	36	436	1974	-19.99	32.39	0.02
39	SLD 3	48	279	1955	-12.96	43.34	0.02
39	SLD 4	48	279	1955	-12.96	43.34	0.02
39	SLD 5	-7	589	1927	-26.78	-6.78	0
39	SLD 6	-7	589	1927	-26.78	-6.78	0
39	SLD 7	32	65	1861	-3.35	29.75	0.02
39	SLD 8	32	65	1861	-3.35	29.75	0.02
39	SLD 9	-32	563	1866	-25.58	-29.39	-0.02
39	SLD 10	-32	563	1866	-25.58	-29.39	-0.02
39	SLD 11	7	40	1801	-2.15	7.14	0
39	SLD 12	7	40	1801	-2.15	7.14	0
39	SLD 13	-48	350	1772	-15.97	-42.99	-0.02
39	SLD 14	-48	350	1772	-15.97	-42.99	-0.02
39	SLD 15	-36	193	1753	-8.94	-32.03	-0.02
39	SLD 16	-36	193	1753	-8.94	-32.03	-0.02
39	SLV 1	93	608	2141	-27.8	82.34	0.04
39	SLV 2	93	608	2141	-27.8	82.34	0.04
39	SLV 3	122	237	2092	-11.21	110.9	0.06
39	SLV 4	122	237	2092	-11.21	110.9	0.06
39	SLV 5	-18	965	2021	-43.63	-18.5	-0.01
39	SLV 6	-18	965	2021	-43.63	-18.5	-0.01
39	SLV 7	82	-272	1858	11.68	76.72	0.04
39	SLV 8	82	-272	1858	11.68	76.72	0.04
39	SLV 9	-82	900	1869	-40.61	-76.36	-0.04
39	SLV 10	-82	900	1869	-40.61	-76.36	-0.04
39	SLV 11	18	-336	1706	14.7	18.85	0.01
39	SLV 12	18	-336	1706	14.7	18.85	0.01
39	SLV 13	-122	392	1635	-17.72	-110.54	-0.06
39	SLV 14	-122	392	1635	-17.72	-110.54	-0.06
39	SLV 15	-92	21	1586	-1.13	-81.98	-0.04
39	SLV 16	-92	21	1586	-1.13	-81.98	-0.04
40	SLU 1	0	295	1626	-12.7	-0.11	0
40	SLU 2	-1	275	1617	-11.86	-1.62	0
40	SLU 3	0	295	1626	-12.7	-0.11	0
40	SLU 4	-1	283	1621	-12.19	-1.02	0
40	SLU 5	-1	275	1617	-11.86	-1.62	0
40	SLU 6	0	295	1626	-12.7	-0.11	0
40	SLU 7	-1	283	1621	-12.19	-1.02	0
40	SLU 8	0	295	1626	-12.7	-0.11	0
40	SLU 9	-1	283	1621	-12.19	-1.02	0
40	SLU 10	-1	331	1846	-14.26	-1.66	0
40	SLU 11	0	351	1854	-15.1	-0.15	0
40	SLU 12	-1	339	1849	-14.6	-1.05	0
40	SLU 13	-1	331	1846	-14.26	-1.66	0
40	SLU 14	0	351	1854	-15.1	-0.15	0
40	SLU 15	-1	339	1849	-14.6	-1.05	0
40	SLU 16	0	351	1854	-15.1	-0.15	0
40	SLU 17	-1	339	1849	-14.6	-1.05	0
40	SLU 18	0	375	1952	-16.14	-0.16	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
40	SLU 19	-1	363	1947	-15.63	-1.07	0
40	SLU 20	0	375	1952	-16.14	-0.16	0
40	SLU 21	-1	363	1947	-15.63	-1.07	0
40	SLU 22	0	327	1757	-14.07	-0.12	0
40	SLU 23	-1	307	1748	-13.23	-1.64	0
40	SLU 24	0	327	1757	-14.07	-0.12	0
40	SLU 25	-1	315	1751	-13.57	-1.03	0
40	SLU 26	-1	307	1748	-13.23	-1.64	0
40	SLU 27	0	327	1757	-14.07	-0.12	0
40	SLU 28	-1	315	1751	-13.57	-1.03	0
40	SLU 29	0	327	1757	-14.07	-0.12	0
40	SLU 30	-1	315	1751	-13.57	-1.03	0
40	SLU 31	-1	363	1976	-15.64	-1.67	0
40	SLU 32	0	383	1985	-16.48	-0.16	0
40	SLU 33	-1	371	1980	-15.98	-1.07	0
40	SLU 34	-1	363	1976	-15.64	-1.67	0
40	SLU 35	0	383	1985	-16.48	-0.16	0
40	SLU 36	-1	371	1980	-15.98	-1.07	0
40	SLU 37	0	383	1985	-16.48	-0.16	0
40	SLU 38	-1	371	1980	-15.98	-1.07	0
40	SLU 39	0	407	2083	-17.51	-0.18	0
40	SLU 40	-1	395	2078	-17.01	-1.08	0
40	SLU 41	0	407	2083	-17.51	-0.18	0
40	SLU 42	-1	395	2078	-17.01	-1.08	0
40	SLU 43	0	373	2069	-16.03	-0.14	0
40	SLU 44	-1	353	2060	-15.19	-1.65	0
40	SLU 45	0	373	2069	-16.03	-0.14	0
40	SLU 46	-1	361	2064	-15.53	-1.04	0
40	SLU 47	-1	353	2060	-15.19	-1.65	0
40	SLU 48	0	373	2069	-16.03	-0.14	0
40	SLU 49	-1	361	2064	-15.53	-1.04	0
40	SLU 50	0	373	2069	-16.03	-0.14	0
40	SLU 51	-1	361	2064	-15.53	-1.04	0
40	SLU 52	-1	409	2289	-17.6	-1.69	0
40	SLU 53	0	429	2297	-18.44	-0.17	0
40	SLU 54	-1	417	2292	-17.94	-1.08	0
40	SLU 55	-1	409	2289	-17.6	-1.69	0
40	SLU 56	0	429	2297	-18.44	-0.17	0
40	SLU 57	-1	417	2292	-17.94	-1.08	0
40	SLU 58	0	429	2297	-18.44	-0.17	0
40	SLU 59	-1	417	2292	-17.94	-1.08	0
40	SLU 60	0	452	2395	-19.47	-0.19	0
40	SLU 61	-1	440	2390	-18.97	-1.1	0
40	SLU 62	0	452	2395	-19.47	-0.19	0
40	SLU 63	-1	440	2390	-18.97	-1.1	0
40	SLU 64	0	405	2200	-17.41	-0.15	0
40	SLU 65	-1	385	2191	-16.57	-1.66	0
40	SLU 66	0	405	2200	-17.41	-0.15	0
40	SLU 67	-1	393	2195	-16.91	-1.06	0
40	SLU 68	-1	385	2191	-16.57	-1.66	0
40	SLU 69	0	405	2200	-17.41	-0.15	0
40	SLU 70	-1	393	2195	-16.91	-1.06	0
40	SLU 71	0	405	2200	-17.41	-0.15	0
40	SLU 72	-1	393	2195	-16.91	-1.06	0
40	SLU 73	-1	441	2419	-18.98	-1.7	0
40	SLU 74	0	460	2428	-19.82	-0.19	0
40	SLU 75	-1	448	2423	-19.31	-1.1	0
40	SLU 76	-1	441	2419	-18.98	-1.7	0
40	SLU 77	0	460	2428	-19.82	-0.19	0
40	SLU 78	-1	448	2423	-19.31	-1.1	0
40	SLU 79	0	460	2428	-19.82	-0.19	0
40	SLU 80	-1	448	2423	-19.31	-1.1	0
40	SLU 81	0	484	2526	-20.85	-0.2	0
40	SLU 82	-1	472	2521	-20.34	-1.11	0
40	SLU 83	0	484	2526	-20.85	-0.2	0
40	SLU 84	-1	472	2521	-20.34	-1.11	0
40	SLE RA 1	0	304	1663	-13.09	-0.11	0
40	SLE RA 2	-1	291	1658	-12.53	-1.12	0
40	SLE RA 3	0	304	1663	-13.09	-0.11	0
40	SLE RA 4	-1	296	1660	-12.75	-0.72	0
40	SLE RA 5	-1	291	1658	-12.53	-1.12	0
40	SLE RA 6	0	304	1663	-13.09	-0.11	0
40	SLE RA 7	-1	296	1660	-12.75	-0.72	0
40	SLE RA 8	0	304	1663	-13.09	-0.11	0
40	SLE RA 9	-1	296	1660	-12.75	-0.72	0
40	SLE RA 10	-1	328	1810	-14.13	-1.15	0
40	SLE RA 11	0	342	1816	-14.7	-0.14	0
40	SLE RA 12	-1	334	1812	-14.36	-0.74	0
40	SLE RA 13	-1	328	1810	-14.13	-1.15	0
40	SLE RA 14	0	342	1816	-14.7	-0.14	0
40	SLE RA 15	-1	334	1812	-14.36	-0.74	0
40	SLE RA 16	0	342	1816	-14.7	-0.14	0
40	SLE RA 17	-1	334	1812	-14.36	-0.74	0
40	SLE RA 18	0	357	1881	-15.38	-0.15	0
40	SLE RA 19	-1	349	1877	-15.05	-0.75	0
40	SLE RA 20	0	357	1881	-15.38	-0.15	0
40	SLE RA 21	-1	349	1877	-15.05	-0.75	0
40	SLE FR 1	0	304	1663	-13.09	-0.11	0
40	SLE FR 2	0	302	1662	-12.98	-0.31	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
40	SLE FR 3	0	304	1663	-13.09	-0.11	0
40	SLE FR 4	0	318	1727	-13.67	-0.33	0
40	SLE FR 5	0	320	1729	-13.78	-0.12	0
40	SLE FR 6	0	331	1772	-14.24	-0.13	0
40	SLE QP 1	0	304	1663	-13.09	-0.11	0
40	SLE QP 2	0	320	1729	-13.78	-0.12	0
40	SLD 1	47	357	1626	-15.35	42.26	0
40	SLD 2	47	357	1626	-15.35	42.26	0
40	SLD 3	40	204	1609	-8.87	35.79	0.01
40	SLD 4	40	204	1609	-8.87	35.79	0.01
40	SLD 5	25	563	1724	-24.07	22.39	0
40	SLD 6	25	563	1724	-24.07	22.39	0
40	SLD 7	1	53	1667	-2.48	0.85	0.01
40	SLD 8	1	53	1667	-2.48	0.85	0.01
40	SLD 9	-2	587	1791	-25.07	-1.1	-0.01
40	SLD 10	-2	587	1791	-25.07	-1.1	-0.01
40	SLD 11	-25	78	1733	-3.49	-22.64	0
40	SLD 12	-25	78	1733	-3.49	-22.64	0
40	SLD 13	-40	437	1848	-18.68	-36.04	-0.01
40	SLD 14	-40	437	1848	-18.68	-36.04	-0.01
40	SLD 15	-47	284	1831	-12.21	-42.5	0
40	SLD 16	-47	284	1831	-12.21	-42.5	0
40	SLV 1	118	406	1488	-17.49	106.75	0.01
40	SLV 2	118	406	1488	-17.49	106.75	0.01
40	SLV 3	101	45	1447	-2.2	90.35	0.01
40	SLV 4	101	45	1447	-2.2	90.35	0.01
40	SLV 5	62	894	1719	-38.08	56.81	-0.01
40	SLV 6	62	894	1719	-38.08	56.81	-0.01
40	SLV 7	4	-310	1582	12.88	2.15	0.02
40	SLV 8	4	-310	1582	12.88	2.15	0.02
40	SLV 9	-4	951	1875	-40.44	-2.4	-0.02
40	SLV 10	-4	951	1875	-40.44	-2.4	-0.02
40	SLV 11	-62	-253	1738	10.52	-57.05	0.01
40	SLV 12	-62	-253	1738	10.52	-57.05	0.01
40	SLV 13	-101	596	2010	-25.36	-90.6	-0.01
40	SLV 14	-101	596	2010	-25.36	-90.6	-0.01
40	SLV 15	-118	235	1969	-10.07	-107	-0.01
40	SLV 16	-118	235	1969	-10.07	-107	-0.01
41	SLU 1	0	229	1820	-9.15	0.13	0
41	SLU 2	2	212	1806	-8.39	2.05	0
41	SLU 3	0	229	1820	-9.15	0.13	0
41	SLU 4	1	219	1812	-8.69	1.28	0
41	SLU 5	2	212	1806	-8.39	2.05	0
41	SLU 6	0	229	1820	-9.15	0.13	0
41	SLU 7	1	219	1812	-8.69	1.28	0
41	SLU 8	0	229	1820	-9.15	0.13	0
41	SLU 9	1	219	1812	-8.69	1.28	0
41	SLU 10	2	232	2085	-9.05	2.11	0
41	SLU 11	0	249	2099	-9.8	0.19	0
41	SLU 12	1	239	2091	-9.35	1.34	0
41	SLU 13	2	232	2085	-9.05	2.11	0
41	SLU 14	0	249	2099	-9.8	0.19	0
41	SLU 15	1	239	2091	-9.35	1.34	0
41	SLU 16	0	249	2099	-9.8	0.19	0
41	SLU 17	1	239	2091	-9.35	1.34	0
41	SLU 18	0	258	2219	-10.08	0.22	0
41	SLU 19	1	248	2210	-9.63	1.37	0
41	SLU 20	0	258	2219	-10.08	0.22	0
41	SLU 21	1	248	2210	-9.63	1.37	0
41	SLU 22	0	247	1996	-9.8	0.15	0
41	SLU 23	2	230	1982	-9.05	2.07	0
41	SLU 24	0	247	1996	-9.8	0.15	0
41	SLU 25	1	237	1988	-9.35	1.31	0
41	SLU 26	2	230	1982	-9.05	2.07	0
41	SLU 27	0	247	1996	-9.8	0.15	0
41	SLU 28	1	237	1988	-9.35	1.31	0
41	SLU 29	0	247	1996	-9.8	0.15	0
41	SLU 30	1	237	1988	-9.35	1.31	0
41	SLU 31	2	250	2261	-9.7	2.14	0
41	SLU 32	0	267	2275	-10.46	0.22	0
41	SLU 33	1	257	2267	-10	1.37	0
41	SLU 34	2	250	2261	-9.7	2.14	0
41	SLU 35	0	267	2275	-10.46	0.22	0
41	SLU 36	1	257	2267	-10	1.37	0
41	SLU 37	0	267	2275	-10.46	0.22	0
41	SLU 38	1	257	2267	-10	1.37	0
41	SLU 39	0	276	2395	-10.74	0.25	0
41	SLU 40	1	266	2386	-10.29	1.4	0
41	SLU 41	0	276	2395	-10.74	0.25	0
41	SLU 42	1	266	2386	-10.29	1.4	0
41	SLU 43	0	292	2306	-11.66	0.16	0
41	SLU 44	2	275	2292	-10.91	2.08	0
41	SLU 45	0	292	2306	-11.66	0.16	0
41	SLU 46	1	281	2298	-11.21	1.31	0
41	SLU 47	2	275	2292	-10.91	2.08	0
41	SLU 48	0	292	2306	-11.66	0.16	0
41	SLU 49	1	281	2298	-11.21	1.31	0
41	SLU 50	0	292	2306	-11.66	0.16	0
41	SLU 51	1	281	2298	-11.21	1.31	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
41	SLU 52	2	295	2571	-11.57	2.14	0
41	SLU 53	0	312	2585	-12.32	0.22	0
41	SLU 54	1	302	2577	-11.87	1.37	0
41	SLU 55	2	295	2571	-11.57	2.14	0
41	SLU 56	0	312	2585	-12.32	0.22	0
41	SLU 57	1	302	2577	-11.87	1.37	0
41	SLU 58	0	312	2585	-12.32	0.22	0
41	SLU 59	1	302	2577	-11.87	1.37	0
41	SLU 60	0	320	2704	-12.6	0.25	0
41	SLU 61	1	310	2696	-12.15	1.4	0
41	SLU 62	0	320	2704	-12.6	0.25	0
41	SLU 63	1	310	2696	-12.15	1.4	0
41	SLU 64	0	310	2482	-12.32	0.18	0
41	SLU 65	2	293	2468	-11.57	2.1	0
41	SLU 66	0	310	2482	-12.32	0.18	0
41	SLU 67	1	299	2474	-11.87	1.33	0
41	SLU 68	2	293	2468	-11.57	2.1	0
41	SLU 69	0	310	2482	-12.32	0.18	0
41	SLU 70	1	299	2474	-11.87	1.33	0
41	SLU 71	0	310	2482	-12.32	0.18	0
41	SLU 72	1	299	2474	-11.87	1.33	0
41	SLU 73	2	313	2747	-12.22	2.17	0
41	SLU 74	0	330	2761	-12.98	0.25	0
41	SLU 75	1	320	2753	-12.52	1.4	0
41	SLU 76	2	313	2747	-12.22	2.17	0
41	SLU 77	0	330	2761	-12.98	0.25	0
41	SLU 78	1	320	2753	-12.52	1.4	0
41	SLU 79	0	330	2761	-12.98	0.25	0
41	SLU 80	1	320	2753	-12.52	1.4	0
41	SLU 81	0	338	2880	-13.26	0.27	0
41	SLU 82	1	328	2872	-12.81	1.43	0
41	SLU 83	0	338	2880	-13.26	0.27	0
41	SLU 84	1	328	2872	-12.81	1.43	0
41	SLE RA 1	0	234	1870	-9.33	0.13	0
41	SLE RA 2	1	223	1861	-8.83	1.41	0
41	SLE RA 3	0	234	1870	-9.33	0.13	0
41	SLE RA 4	1	227	1865	-9.03	0.9	0
41	SLE RA 5	1	223	1861	-8.83	1.41	0
41	SLE RA 6	0	234	1870	-9.33	0.13	0
41	SLE RA 7	1	227	1865	-9.03	0.9	0
41	SLE RA 8	0	234	1870	-9.33	0.13	0
41	SLE RA 9	1	227	1865	-9.03	0.9	0
41	SLE RA 10	1	236	2047	-9.27	1.46	0
41	SLE RA 11	0	248	2056	-9.77	0.18	0
41	SLE RA 12	1	241	2051	-9.47	0.95	0
41	SLE RA 13	1	236	2047	-9.27	1.46	0
41	SLE RA 14	0	248	2056	-9.77	0.18	0
41	SLE RA 15	1	241	2051	-9.47	0.95	0
41	SLE RA 16	0	248	2056	-9.77	0.18	0
41	SLE RA 17	1	241	2051	-9.47	0.95	0
41	SLE RA 18	0	253	2136	-9.96	0.2	0
41	SLE RA 19	1	247	2131	-9.66	0.96	0
41	SLE RA 20	0	253	2136	-9.96	0.2	0
41	SLE RA 21	1	247	2131	-9.66	0.96	0
41	SLE FR 1	0	234	1870	-9.33	0.13	0
41	SLE FR 2	0	232	1869	-9.23	0.39	0
41	SLE FR 3	0	234	1870	-9.33	0.13	0
41	SLE FR 4	0	238	1948	-9.42	0.41	0
41	SLE FR 5	0	240	1950	-9.52	0.15	0
41	SLE FR 6	0	244	2003	-9.65	0.17	0
41	SLE QP 1	0	234	1870	-9.33	0.13	0
41	SLE QP 2	0	240	1950	-9.52	0.15	0
41	SLD 1	33	348	2050	-14.36	30.19	0.02
41	SLD 2	33	348	2050	-14.36	30.19	0.02
41	SLD 3	44	190	2034	-7.29	40.76	0.03
41	SLD 4	44	190	2034	-7.29	40.76	0.03
41	SLD 5	-7	512	2004	-21.7	-6.87	0
41	SLD 6	-7	512	2004	-21.7	-6.87	0
41	SLD 7	30	-14	1951	1.88	28.37	0.02
41	SLD 8	30	-14	1951	1.88	28.37	0.02
41	SLD 9	-30	494	1949	-20.92	-28.06	-0.02
41	SLD 10	-30	494	1949	-20.92	-28.06	-0.02
41	SLD 11	7	-32	1896	2.66	7.18	0
41	SLD 12	7	-32	1896	2.66	7.18	0
41	SLD 13	-43	290	1866	-11.75	-40.46	-0.03
41	SLD 14	-43	290	1866	-11.75	-40.46	-0.03
41	SLD 15	-33	132	1850	-4.68	-29.89	-0.02
41	SLD 16	-33	132	1850	-4.68	-29.89	-0.02
41	SLV 1	83	498	2201	-21.05	76.79	0.06
41	SLV 2	83	498	2201	-21.05	76.79	0.06
41	SLV 3	111	125	2160	-4.35	104.29	0.07
41	SLV 4	111	125	2160	-4.35	104.29	0.07
41	SLV 5	-18	882	2087	-38.3	-18.55	-0.01
41	SLV 6	-18	882	2087	-38.3	-18.55	-0.01
41	SLV 7	76	-360	1951	17.35	73.09	0.05
41	SLV 8	76	-360	1951	17.35	73.09	0.05
41	SLV 9	-76	840	1949	-36.39	-72.78	-0.05
41	SLV 10	-76	840	1949	-36.39	-72.78	-0.05
41	SLV 11	18	-402	1813	19.26	18.86	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
41	SLV 12	18	-402	1813	19.26	18.86	0.01
41	SLV 13	-111	355	1740	-14.69	-103.98	-0.07
41	SLV 14	-111	355	1740	-14.69	-103.98	-0.07
41	SLV 15	-83	-18	1699	2.01	-76.49	-0.06
41	SLV 16	-83	-18	1699	2.01	-76.49	-0.06
42	SLU 1	0	238	1713	-9.02	-0.09	0
42	SLU 2	-2	217	1703	-8.17	-1.86	0
42	SLU 3	0	238	1713	-9.02	-0.09	0
42	SLU 4	-1	226	1707	-8.51	-1.15	0
42	SLU 5	-2	217	1703	-8.17	-1.86	0
42	SLU 6	0	238	1713	-9.02	-0.09	0
42	SLU 7	-1	226	1707	-8.51	-1.15	0
42	SLU 8	0	238	1713	-9.02	-0.09	0
42	SLU 9	-1	226	1707	-8.51	-1.15	0
42	SLU 10	-2	265	1950	-9.95	-1.89	0
42	SLU 11	0	285	1959	-10.8	-0.12	0
42	SLU 12	-1	273	1954	-10.29	-1.18	0
42	SLU 13	-2	265	1950	-9.95	-1.89	0
42	SLU 14	0	285	1959	-10.8	-0.12	0
42	SLU 15	-1	273	1954	-10.29	-1.18	0
42	SLU 16	0	285	1959	-10.8	-0.12	0
42	SLU 17	-1	273	1954	-10.29	-1.18	0
42	SLU 18	0	306	2065	-11.56	-0.13	0
42	SLU 19	-1	294	2059	-11.05	-1.2	0
42	SLU 20	0	306	2065	-11.56	-0.13	0
42	SLU 21	-1	294	2059	-11.05	-1.2	0
42	SLU 22	0	264	1854	-10.01	-0.1	0
42	SLU 23	-2	244	1845	-9.16	-1.87	0
42	SLU 24	0	264	1854	-10.01	-0.1	0
42	SLU 25	-1	252	1848	-9.5	-1.16	0
42	SLU 26	-2	244	1845	-9.16	-1.87	0
42	SLU 27	0	264	1854	-10.01	-0.1	0
42	SLU 28	-1	252	1848	-9.5	-1.16	0
42	SLU 29	0	264	1854	-10.01	-0.1	0
42	SLU 30	-1	252	1848	-9.5	-1.16	0
42	SLU 31	-2	292	2091	-10.94	-1.9	0
42	SLU 32	0	312	2101	-11.79	-0.13	0
42	SLU 33	-1	300	2095	-11.28	-1.19	0
42	SLU 34	-2	292	2091	-10.94	-1.9	0
42	SLU 35	0	312	2101	-11.79	-0.13	0
42	SLU 36	-1	300	2095	-11.28	-1.19	0
42	SLU 37	0	312	2101	-11.79	-0.13	0
42	SLU 38	-1	300	2095	-11.28	-1.19	0
42	SLU 39	0	332	2206	-12.55	-0.14	0
42	SLU 40	-1	320	2201	-12.04	-1.21	0
42	SLU 41	0	332	2206	-12.55	-0.14	0
42	SLU 42	-1	320	2201	-12.04	-1.21	0
42	SLU 43	0	300	2178	-11.38	-0.11	0
42	SLU 44	-2	280	2169	-10.53	-1.89	0
42	SLU 45	0	300	2178	-11.38	-0.11	0
42	SLU 46	-1	288	2173	-10.87	-1.18	0
42	SLU 47	-2	280	2169	-10.53	-1.89	0
42	SLU 48	0	300	2178	-11.38	-0.11	0
42	SLU 49	-1	288	2173	-10.87	-1.18	0
42	SLU 50	0	300	2178	-11.38	-0.11	0
42	SLU 51	-1	288	2173	-10.87	-1.18	0
42	SLU 52	-2	327	2415	-12.31	-1.92	0
42	SLU 53	0	348	2425	-13.16	-0.14	0
42	SLU 54	-1	336	2419	-12.65	-1.21	0
42	SLU 55	-2	327	2415	-12.31	-1.92	0
42	SLU 56	0	348	2425	-13.16	-0.14	0
42	SLU 57	-1	336	2419	-12.65	-1.21	0
42	SLU 58	0	348	2425	-13.16	-0.14	0
42	SLU 59	-1	336	2419	-12.65	-1.21	0
42	SLU 60	0	368	2531	-13.93	-0.16	0
42	SLU 61	-1	356	2525	-13.42	-1.22	0
42	SLU 62	0	368	2531	-13.93	-0.16	0
42	SLU 63	-1	356	2525	-13.42	-1.22	0
42	SLU 64	0	327	2319	-12.37	-0.12	0
42	SLU 65	-2	306	2310	-11.52	-1.9	0
42	SLU 66	0	327	2319	-12.37	-0.12	0
42	SLU 67	-1	314	2314	-11.86	-1.19	0
42	SLU 68	-2	306	2310	-11.52	-1.9	0
42	SLU 69	0	327	2319	-12.37	-0.12	0
42	SLU 70	-1	314	2314	-11.86	-1.19	0
42	SLU 71	0	327	2319	-12.37	-0.12	0
42	SLU 72	-1	314	2314	-11.86	-1.19	0
42	SLU 73	-2	354	2557	-13.3	-1.93	0
42	SLU 74	0	374	2566	-14.15	-0.15	0
42	SLU 75	-1	362	2560	-13.64	-1.22	0
42	SLU 76	-2	354	2557	-13.3	-1.93	0
42	SLU 77	0	374	2566	-14.15	-0.15	0
42	SLU 78	-1	362	2560	-13.64	-1.22	0
42	SLU 79	0	374	2566	-14.15	-0.15	0
42	SLU 80	-1	362	2560	-13.64	-1.22	0
42	SLU 81	0	395	2672	-14.92	-0.17	0
42	SLU 82	-1	382	2666	-14.41	-1.23	0
42	SLU 83	0	395	2672	-14.92	-0.17	0
42	SLU 84	-1	382	2666	-14.41	-1.23	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
42	SLE RA 1	0	245	1753	-9.3	-0.09	0
42	SLE RA 2	-1	232	1747	-8.73	-1.27	0
42	SLE RA 3	0	245	1753	-9.3	-0.09	0
42	SLE RA 4	-1	237	1749	-8.96	-0.8	0
42	SLE RA 5	-1	232	1747	-8.73	-1.27	0
42	SLE RA 6	0	245	1753	-9.3	-0.09	0
42	SLE RA 7	-1	237	1749	-8.96	-0.8	0
42	SLE RA 8	0	245	1753	-9.3	-0.09	0
42	SLE RA 9	-1	237	1749	-8.96	-0.8	0
42	SLE RA 10	-1	264	1911	-9.92	-1.3	0
42	SLE RA 11	0	277	1918	-10.49	-0.11	0
42	SLE RA 12	-1	269	1914	-10.15	-0.82	0
42	SLE RA 13	-1	264	1911	-9.92	-1.3	0
42	SLE RA 14	0	277	1918	-10.49	-0.11	0
42	SLE RA 15	-1	269	1914	-10.15	-0.82	0
42	SLE RA 16	0	277	1918	-10.49	-0.11	0
42	SLE RA 17	-1	269	1914	-10.15	-0.82	0
42	SLE RA 18	0	291	1988	-11	-0.12	0
42	SLE RA 19	-1	283	1984	-10.66	-0.83	0
42	SLE RA 20	0	291	1988	-11	-0.12	0
42	SLE RA 21	-1	283	1984	-10.66	-0.83	0
42	SLE FR 1	0	245	1753	-9.3	-0.09	0
42	SLE FR 2	0	243	1752	-9.19	-0.33	0
42	SLE FR 3	0	245	1753	-9.3	-0.09	0
42	SLE FR 4	0	256	1822	-9.7	-0.34	0
42	SLE FR 5	0	259	1824	-9.81	-0.1	0
42	SLE FR 6	0	268	1871	-10.15	-0.11	0
42	SLE QP 1	0	245	1753	-9.3	-0.09	0
42	SLE QP 2	0	259	1824	-9.81	-0.1	0
42	SLD 1	43	296	1705	-11.53	39.94	0.01
42	SLD 2	43	296	1705	-11.53	39.94	0.01
42	SLD 3	37	142	1692	-5.04	33.74	0.01
42	SLD 4	37	142	1692	-5.04	33.74	0.01
42	SLD 5	23	504	1809	-20.17	21.31	0
42	SLD 6	23	504	1809	-20.17	21.31	0
42	SLD 7	1	-10	1764	1.47	0.65	0.01
42	SLD 8	1	-10	1764	1.47	0.65	0.01
42	SLD 9	-1	528	1884	-21.08	-0.85	-0.01
42	SLD 10	-1	528	1884	-21.08	-0.85	-0.01
42	SLD 11	-23	14	1839	0.55	-21.51	0
42	SLD 12	-23	14	1839	0.55	-21.51	0
42	SLD 13	-37	376	1955	-14.58	-33.94	-0.01
42	SLD 14	-37	376	1955	-14.58	-33.94	-0.01
42	SLD 15	-43	222	1942	-8.09	-40.14	-0.01
42	SLD 16	-43	222	1942	-8.09	-40.14	-0.01
42	SLV 1	108	347	1546	-13.87	100.79	0.02
42	SLV 2	108	347	1546	-13.87	100.79	0.02
42	SLV 3	92	-18	1513	1.46	85.06	0.03
42	SLV 4	92	-18	1513	1.46	85.06	0.03
42	SLV 5	57	838	1789	-34.27	54.03	-0.01
42	SLV 6	57	838	1789	-34.27	54.03	-0.01
42	SLV 7	3	-377	1682	16.81	1.58	0.02
42	SLV 8	3	-377	1682	16.81	1.58	0.02
42	SLV 9	-3	895	1966	-36.43	-1.79	-0.02
42	SLV 10	-3	895	1966	-36.43	-1.79	-0.02
42	SLV 11	-57	-320	1858	14.65	-54.23	0.01
42	SLV 12	-57	-320	1858	14.65	-54.23	0.01
42	SLV 13	-92	536	2134	-21.07	-85.26	-0.03
42	SLV 14	-92	536	2134	-21.07	-85.26	-0.03
42	SLV 15	-108	171	2102	-5.75	-101	-0.02
42	SLV 16	-108	171	2102	-5.75	-101	-0.02
43	SLU 1	0	189	1881	-8.86	0.11	0
43	SLU 2	2	174	1869	-8.15	2.17	0
43	SLU 3	0	189	1881	-8.86	0.11	0
43	SLU 4	1	180	1874	-8.43	1.35	0
43	SLU 5	2	174	1869	-8.15	2.17	0
43	SLU 6	0	189	1881	-8.86	0.11	0
43	SLU 7	1	180	1874	-8.43	1.35	0
43	SLU 8	0	189	1881	-8.86	0.11	0
43	SLU 9	1	180	1874	-8.43	1.35	0
43	SLU 10	2	190	2152	-9.03	2.24	0
43	SLU 11	0	205	2164	-9.73	0.18	0
43	SLU 12	1	196	2157	-9.31	1.42	0
43	SLU 13	2	190	2152	-9.03	2.24	0
43	SLU 14	0	205	2164	-9.73	0.18	0
43	SLU 15	1	196	2157	-9.31	1.42	0
43	SLU 16	0	205	2164	-9.73	0.18	0
43	SLU 17	1	196	2157	-9.31	1.42	0
43	SLU 18	0	212	2285	-10.11	0.21	0
43	SLU 19	1	203	2278	-9.69	1.45	0
43	SLU 20	0	212	2285	-10.11	0.21	0
43	SLU 21	1	203	2278	-9.69	1.45	0
43	SLU 22	0	203	2061	-9.56	0.14	0
43	SLU 23	2	188	2049	-8.86	2.2	0
43	SLU 24	0	203	2061	-9.56	0.14	0
43	SLU 25	1	194	2054	-9.14	1.37	0
43	SLU 26	2	188	2049	-8.86	2.2	0
43	SLU 27	0	203	2061	-9.56	0.14	0
43	SLU 28	1	194	2054	-9.14	1.37	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
43	SLU 29	0	203	2061	-9.56	0.14	0
43	SLU 30	1	194	2054	-9.14	1.37	0
43	SLU 31	2	204	2332	-9.74	2.27	0
43	SLU 32	0	219	2344	-10.44	0.21	0
43	SLU 33	1	210	2337	-10.02	1.44	0
43	SLU 34	2	204	2332	-9.74	2.27	0
43	SLU 35	0	219	2344	-10.44	0.21	0
43	SLU 36	1	210	2337	-10.02	1.44	0
43	SLU 37	0	219	2344	-10.44	0.21	0
43	SLU 38	1	210	2337	-10.02	1.44	0
43	SLU 39	0	226	2465	-10.82	0.23	0
43	SLU 40	1	217	2458	-10.4	1.47	0
43	SLU 41	0	226	2465	-10.82	0.23	0
43	SLU 42	1	217	2458	-10.4	1.47	0
43	SLU 43	0	241	2383	-11.27	0.14	0
43	SLU 44	2	226	2372	-10.57	2.2	0
43	SLU 45	0	241	2383	-11.27	0.14	0
43	SLU 46	1	232	2376	-10.85	1.37	0
43	SLU 47	2	226	2372	-10.57	2.2	0
43	SLU 48	0	241	2383	-11.27	0.14	0
43	SLU 49	1	232	2376	-10.85	1.37	0
43	SLU 50	0	241	2383	-11.27	0.14	0
43	SLU 51	1	232	2376	-10.85	1.37	0
43	SLU 52	2	242	2655	-11.44	2.27	0
43	SLU 53	0	257	2666	-12.15	0.21	0
43	SLU 54	1	248	2659	-11.73	1.44	0
43	SLU 55	2	242	2655	-11.44	2.27	0
43	SLU 56	0	257	2666	-12.15	0.21	0
43	SLU 57	1	248	2659	-11.73	1.44	0
43	SLU 58	0	257	2666	-12.15	0.21	0
43	SLU 59	1	248	2659	-11.73	1.44	0
43	SLU 60	0	264	2788	-12.52	0.24	0
43	SLU 61	1	255	2781	-12.1	1.47	0
43	SLU 62	0	264	2788	-12.52	0.24	0
43	SLU 63	1	255	2781	-12.1	1.47	0
43	SLU 64	0	255	2563	-11.98	0.16	0
43	SLU 65	2	240	2552	-11.28	2.22	0
43	SLU 66	0	255	2563	-11.98	0.16	0
43	SLU 67	1	246	2556	-11.56	1.4	0
43	SLU 68	2	240	2552	-11.28	2.22	0
43	SLU 69	0	255	2563	-11.98	0.16	0
43	SLU 70	1	246	2556	-11.56	1.4	0
43	SLU 71	0	255	2563	-11.98	0.16	0
43	SLU 72	1	246	2556	-11.56	1.4	0
43	SLU 73	2	256	2835	-12.15	2.29	0
43	SLU 74	0	271	2846	-12.86	0.23	0
43	SLU 75	1	262	2839	-12.43	1.47	0
43	SLU 76	2	256	2835	-12.15	2.29	0
43	SLU 77	0	271	2846	-12.86	0.23	0
43	SLU 78	1	262	2839	-12.43	1.47	0
43	SLU 79	0	271	2846	-12.86	0.23	0
43	SLU 80	1	262	2839	-12.43	1.47	0
43	SLU 81	0	278	2968	-13.23	0.26	0
43	SLU 82	1	269	2961	-12.81	1.5	0
43	SLU 83	0	278	2968	-13.23	0.26	0
43	SLU 84	1	269	2961	-12.81	1.5	0
43	SLE RA 1	0	193	1932	-9.06	0.12	0
43	SLE RA 2	1	183	1925	-8.59	1.49	0
43	SLE RA 3	0	193	1932	-9.06	0.12	0
43	SLE RA 4	1	187	1928	-8.78	0.94	0
43	SLE RA 5	1	183	1925	-8.59	1.49	0
43	SLE RA 6	0	193	1932	-9.06	0.12	0
43	SLE RA 7	1	187	1928	-8.78	0.94	0
43	SLE RA 8	0	193	1932	-9.06	0.12	0
43	SLE RA 9	1	187	1928	-8.78	0.94	0
43	SLE RA 10	2	194	2113	-9.17	1.54	0
43	SLE RA 11	0	204	2121	-9.64	0.17	0
43	SLE RA 12	1	198	2116	-9.36	0.99	0
43	SLE RA 13	2	194	2113	-9.17	1.54	0
43	SLE RA 14	0	204	2121	-9.64	0.17	0
43	SLE RA 15	1	198	2116	-9.36	0.99	0
43	SLE RA 16	0	204	2121	-9.64	0.17	0
43	SLE RA 17	1	198	2116	-9.36	0.99	0
43	SLE RA 18	0	208	2202	-9.89	0.18	0
43	SLE RA 19	1	202	2197	-9.61	1.01	0
43	SLE RA 20	0	208	2202	-9.89	0.18	0
43	SLE RA 21	1	202	2197	-9.61	1.01	0
43	SLE FR 1	0	193	1932	-9.06	0.12	0
43	SLE FR 2	0	191	1931	-8.97	0.39	0
43	SLE FR 3	0	193	1932	-9.06	0.12	0
43	SLE FR 4	0	196	2012	-9.22	0.41	0
43	SLE FR 5	0	198	2013	-9.31	0.14	0
43	SLE FR 6	0	201	2067	-9.48	0.15	0
43	SLE QP 1	0	193	1932	-9.06	0.12	0
43	SLE QP 2	0	198	2013	-9.31	0.14	0
43	SLD 1	23	254	2090	-11.73	24.2	0.03
43	SLD 2	23	254	2090	-11.73	24.2	0.03
43	SLD 3	32	95	2079	-4.54	33.53	0.03
43	SLD 4	32	95	2079	-4.54	33.53	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
43	SLD 5	-7	455	2053	-20.95	-6.79	0
43	SLD 6	-7	455	2053	-20.95	-6.79	0
43	SLD 7	24	-74	2016	3.04	24.3	0.02
43	SLD 8	24	-74	2016	3.04	24.3	0.02
43	SLD 9	-24	469	2011	-21.66	-24.02	-0.02
43	SLD 10	-24	469	2011	-21.66	-24.02	-0.02
43	SLD 11	7	-60	1973	2.33	7.06	0
43	SLD 12	7	-60	1973	2.33	7.06	0
43	SLD 13	-32	300	1947	-14.08	-33.25	-0.03
43	SLD 14	-32	300	1947	-14.08	-33.25	-0.03
43	SLD 15	-23	141	1936	-6.88	-23.93	-0.03
43	SLD 16	-23	141	1936	-6.88	-23.93	-0.03
43	SLV 1	58	329	2206	-14.98	61.56	0.06
43	SLV 2	58	329	2206	-14.98	61.56	0.06
43	SLV 3	82	-46	2176	2.01	85.72	0.08
43	SLV 4	82	-46	2176	2.01	85.72	0.08
43	SLV 5	-19	805	2115	-36.79	-18.09	-0.01
43	SLV 6	-19	805	2115	-36.79	-18.09	-0.01
43	SLV 7	61	-444	2017	19.86	62.46	0.05
43	SLV 8	61	-444	2017	19.86	62.46	0.05
43	SLV 9	-61	839	2009	-38.48	-62.19	-0.05
43	SLV 10	-61	839	2009	-38.48	-62.19	-0.05
43	SLV 11	19	-410	1911	18.17	18.36	0.01
43	SLV 12	19	-410	1911	18.17	18.36	0.01
43	SLV 13	-82	441	1850	-20.63	-85.44	-0.08
43	SLV 14	-82	441	1850	-20.63	-85.44	-0.08
43	SLV 15	-58	66	1821	-3.64	-61.28	-0.06
43	SLV 16	-58	66	1821	-3.64	-61.28	-0.06
44	SLU 1	0	206	1784	-8.76	-0.1	0
44	SLU 2	-2	185	1774	-7.89	-2.01	0
44	SLU 3	0	206	1784	-8.76	-0.1	0
44	SLU 4	-1	193	1778	-8.24	-1.25	0
44	SLU 5	-2	185	1774	-7.89	-2.01	0
44	SLU 6	0	206	1784	-8.76	-0.1	0
44	SLU 7	-1	193	1778	-8.24	-1.25	0
44	SLU 8	0	206	1784	-8.76	-0.1	0
44	SLU 9	-1	193	1778	-8.24	-1.25	0
44	SLU 10	-2	230	2038	-9.79	-2.05	0
44	SLU 11	0	251	2048	-10.66	-0.13	0
44	SLU 12	-1	238	2042	-10.14	-1.28	0
44	SLU 13	-2	230	2038	-9.79	-2.05	0
44	SLU 14	0	251	2048	-10.66	-0.13	0
44	SLU 15	-1	238	2042	-10.14	-1.28	0
44	SLU 16	0	251	2048	-10.66	-0.13	0
44	SLU 17	-1	238	2042	-10.14	-1.28	0
44	SLU 18	0	270	2162	-11.48	-0.15	0
44	SLU 19	-1	257	2155	-10.95	-1.3	0
44	SLU 20	0	270	2162	-11.48	-0.15	0
44	SLU 21	-1	257	2155	-10.95	-1.3	0
44	SLU 22	0	230	1935	-9.8	-0.11	0
44	SLU 23	-2	209	1924	-8.93	-2.02	0
44	SLU 24	0	230	1935	-9.8	-0.11	0
44	SLU 25	-1	218	1928	-9.28	-1.26	0
44	SLU 26	-2	209	1924	-8.93	-2.02	0
44	SLU 27	0	230	1935	-9.8	-0.11	0
44	SLU 28	-1	218	1928	-9.28	-1.26	0
44	SLU 29	0	230	1935	-9.8	-0.11	0
44	SLU 30	-1	218	1928	-9.28	-1.26	0
44	SLU 31	-2	254	2189	-10.82	-2.06	0
44	SLU 32	0	275	2199	-11.7	-0.14	0
44	SLU 33	-1	263	2193	-11.17	-1.29	0
44	SLU 34	-2	254	2189	-10.82	-2.06	0
44	SLU 35	0	275	2199	-11.7	-0.14	0
44	SLU 36	-1	263	2193	-11.17	-1.29	0
44	SLU 37	0	275	2199	-11.7	-0.14	0
44	SLU 38	-1	263	2193	-11.17	-1.29	0
44	SLU 39	0	294	2312	-12.51	-0.16	0
44	SLU 40	-1	282	2306	-11.99	-1.31	0
44	SLU 41	0	294	2312	-12.51	-0.16	0
44	SLU 42	-1	282	2306	-11.99	-1.31	0
44	SLU 43	0	259	2268	-11.04	-0.12	0
44	SLU 44	-2	238	2257	-10.16	-2.04	0
44	SLU 45	0	259	2268	-11.04	-0.12	0
44	SLU 46	-1	246	2261	-10.51	-1.27	0
44	SLU 47	-2	238	2257	-10.16	-2.04	0
44	SLU 48	0	259	2268	-11.04	-0.12	0
44	SLU 49	-1	246	2261	-10.51	-1.27	0
44	SLU 50	0	259	2268	-11.04	-0.12	0
44	SLU 51	-1	246	2261	-10.51	-1.27	0
44	SLU 52	-2	283	2522	-12.06	-2.07	0
44	SLU 53	0	304	2532	-12.94	-0.16	0
44	SLU 54	-1	291	2526	-12.41	-1.31	0
44	SLU 55	-2	283	2522	-12.06	-2.07	0
44	SLU 56	0	304	2532	-12.94	-0.16	0
44	SLU 57	-1	291	2526	-12.41	-1.31	0
44	SLU 58	0	304	2532	-12.94	-0.16	0
44	SLU 59	-1	291	2526	-12.41	-1.31	0
44	SLU 60	0	323	2645	-13.75	-0.17	0
44	SLU 61	-1	311	2639	-13.22	-1.32	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
44	SLU 62	0	323	2645	-13.75	-0.17	0
44	SLU 63	-1	311	2639	-13.32	-1.32	0
44	SLU 64	0	283	2418	-12.08	-0.13	0
44	SLU 65	-2	263	2408	-11.2	-2.05	0
44	SLU 66	0	283	2418	-12.08	-0.13	0
44	SLU 67	-1	271	2412	-11.55	-1.28	0
44	SLU 68	-2	263	2408	-11.2	-2.05	0
44	SLU 69	0	283	2418	-12.08	-0.13	0
44	SLU 70	-1	271	2412	-11.55	-1.28	0
44	SLU 71	0	283	2418	-12.08	-0.13	0
44	SLU 72	-1	271	2412	-11.55	-1.28	0
44	SLU 73	-2	308	2672	-13.1	-2.08	0
44	SLU 74	0	328	2682	-13.97	-0.17	0
44	SLU 75	-1	316	2676	-13.45	-1.32	0
44	SLU 76	-2	308	2672	-13.1	-2.08	0
44	SLU 77	0	328	2682	-13.97	-0.17	0
44	SLU 78	-1	316	2676	-13.45	-1.32	0
44	SLU 79	0	328	2682	-13.97	-0.17	0
44	SLU 80	-1	316	2676	-13.45	-1.32	0
44	SLU 81	0	348	2796	-14.79	-0.18	0
44	SLU 82	-1	335	2790	-14.26	-1.33	0
44	SLU 83	0	348	2796	-14.79	-0.18	0
44	SLU 84	-1	335	2790	-14.26	-1.33	0
44	SLE RA 1	0	213	1827	-9.06	-0.1	0
44	SLE RA 2	-1	199	1820	-8.48	-1.38	0
44	SLE RA 3	0	213	1827	-9.06	-0.1	0
44	SLE RA 4	-1	204	1823	-8.71	-0.87	0
44	SLE RA 5	-1	199	1820	-8.48	-1.38	0
44	SLE RA 6	0	213	1827	-9.06	-0.1	0
44	SLE RA 7	-1	204	1823	-8.71	-0.87	0
44	SLE RA 8	0	213	1827	-9.06	-0.1	0
44	SLE RA 9	-1	204	1823	-8.71	-0.87	0
44	SLE RA 10	-1	229	1996	-9.74	-1.4	0
44	SLE RA 11	0	243	2003	-10.33	-0.12	0
44	SLE RA 12	-1	234	1999	-9.98	-0.89	0
44	SLE RA 13	-1	229	1996	-9.74	-1.4	0
44	SLE RA 14	0	243	2003	-10.33	-0.12	0
44	SLE RA 15	-1	234	1999	-9.98	-0.89	0
44	SLE RA 16	0	243	2003	-10.33	-0.12	0
44	SLE RA 17	-1	234	1999	-9.98	-0.89	0
44	SLE RA 18	0	255	2079	-10.87	-0.13	0
44	SLE RA 19	-1	247	2075	-10.52	-0.9	0
44	SLE RA 20	0	255	2079	-10.87	-0.13	0
44	SLE RA 21	-1	247	2075	-10.52	-0.9	0
44	SLE FR 1	0	213	1827	-9.06	-0.1	0
44	SLE FR 2	0	210	1826	-8.94	-0.36	0
44	SLE FR 3	0	213	1827	-9.06	-0.1	0
44	SLE FR 4	0	223	1901	-9.49	-0.37	0
44	SLE FR 5	0	226	1903	-9.6	-0.11	0
44	SLE FR 6	0	234	1953	-9.97	-0.12	0
44	SLE QP 1	0	213	1827	-9.06	-0.1	0
44	SLE QP 2	0	226	1903	-9.6	-0.11	0
44	SLD 1	33	258	1764	-11.08	33.06	0.02
44	SLD 2	33	258	1764	-11.08	33.06	0.02
44	SLD 3	26	102	1752	-4.5	27.33	0.02
44	SLD 4	26	102	1752	-4.5	27.33	0.02
44	SLD 5	20	472	1878	-20.02	18.53	0
44	SLD 6	20	472	1878	-20.02	18.53	0
44	SLD 7	-2	-48	1840	1.9	-0.57	0.01
44	SLD 8	-2	-48	1840	1.9	-0.57	0.01
44	SLD 9	2	499	1965	-21.11	0.35	-0.01
44	SLD 10	2	499	1965	-21.11	0.35	-0.01
44	SLD 11	-20	-21	1927	0.81	-18.75	0
44	SLD 12	-20	-21	1927	0.81	-18.75	0
44	SLD 13	-26	349	2053	-14.71	-27.55	-0.02
44	SLD 14	-26	349	2053	-14.71	-27.55	-0.02
44	SLD 15	-33	193	2041	-8.13	-33.28	-0.02
44	SLD 16	-33	193	2041	-8.13	-33.28	-0.02
44	SLV 1	81	303	1577	-13.08	83.34	0.04
44	SLV 2	81	303	1577	-13.08	83.34	0.04
44	SLV 3	65	-65	1549	2.45	68.93	0.05
44	SLV 4	65	-65	1549	2.45	68.93	0.05
44	SLV 5	49	807	1847	-34.2	46.79	0
44	SLV 6	49	807	1847	-34.2	46.79	0
44	SLV 7	-5	-420	1755	17.56	-1.26	0.03
44	SLV 8	-5	-420	1755	17.56	-1.26	0.03
44	SLV 9	5	871	2050	-36.77	1.04	-0.03
44	SLV 10	5	871	2050	-36.77	1.04	-0.03
44	SLV 11	-49	-356	1958	14.99	-47.01	0
44	SLV 12	-49	-356	1958	14.99	-47.01	0
44	SLV 13	-65	516	2256	-21.65	-69.15	-0.05
44	SLV 14	-65	516	2256	-21.65	-69.15	-0.05
44	SLV 15	-81	148	2229	-6.13	-83.56	-0.04
44	SLV 16	-81	148	2229	-6.13	-83.56	-0.04
45	SLU 1	0	131	1928	-5.31	0.11	0
45	SLU 2	3	118	1921	-4.72	2.14	0
45	SLU 3	0	131	1928	-5.31	0.11	0
45	SLU 4	2	123	1923	-4.96	1.33	0
45	SLU 5	3	118	1921	-4.72	2.14	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
45	SLU 6	0	131	1928	-5.31	0.11	0
45	SLU 7	2	123	1923	-4.96	1.33	0
45	SLU 8	0	131	1928	-5.31	0.11	0
45	SLU 9	2	123	1923	-4.96	1.33	0
45	SLU 10	3	126	2207	-4.92	2.21	0
45	SLU 11	0	138	2214	-5.51	0.18	0
45	SLU 12	2	131	2210	-5.15	1.4	0
45	SLU 13	3	126	2207	-4.92	2.21	0
45	SLU 14	0	138	2214	-5.51	0.18	0
45	SLU 15	2	131	2210	-5.15	1.4	0
45	SLU 16	0	138	2214	-5.51	0.18	0
45	SLU 17	2	131	2210	-5.15	1.4	0
45	SLU 18	0	142	2337	-5.59	0.22	0
45	SLU 19	2	134	2332	-5.24	1.43	0
45	SLU 20	0	142	2337	-5.59	0.22	0
45	SLU 21	2	134	2332	-5.24	1.43	0
45	SLU 22	0	138	2111	-5.55	0.13	0
45	SLU 23	3	126	2103	-4.96	2.16	0
45	SLU 24	0	138	2111	-5.55	0.13	0
45	SLU 25	2	131	2106	-5.19	1.35	0
45	SLU 26	3	126	2103	-4.96	2.16	0
45	SLU 27	0	138	2111	-5.55	0.13	0
45	SLU 28	2	131	2106	-5.19	1.35	0
45	SLU 29	0	138	2111	-5.55	0.13	0
45	SLU 30	2	131	2106	-5.19	1.35	0
45	SLU 31	3	133	2389	-5.15	2.24	0
45	SLU 32	0	145	2397	-5.74	0.21	0
45	SLU 33	2	138	2392	-5.39	1.43	0
45	SLU 34	3	133	2389	-5.15	2.24	0
45	SLU 35	0	145	2397	-5.74	0.21	0
45	SLU 36	2	138	2392	-5.39	1.43	0
45	SLU 37	0	145	2397	-5.74	0.21	0
45	SLU 38	2	138	2392	-5.39	1.43	0
45	SLU 39	0	149	2519	-5.83	0.24	0
45	SLU 40	2	141	2515	-5.47	1.46	0
45	SLU 41	0	149	2519	-5.83	0.24	0
45	SLU 42	2	141	2515	-5.47	1.46	0
45	SLU 43	0	168	2444	-6.83	0.13	0
45	SLU 44	3	155	2436	-6.24	2.16	0
45	SLU 45	0	168	2444	-6.83	0.13	0
45	SLU 46	2	160	2439	-6.47	1.35	0
45	SLU 47	3	155	2436	-6.24	2.16	0
45	SLU 48	0	168	2444	-6.83	0.13	0
45	SLU 49	2	160	2439	-6.47	1.35	0
45	SLU 50	0	168	2444	-6.83	0.13	0
45	SLU 51	2	160	2439	-6.47	1.35	0
45	SLU 52	3	163	2722	-6.43	2.24	0
45	SLU 53	0	175	2730	-7.02	0.21	0
45	SLU 54	2	168	2725	-6.67	1.43	0
45	SLU 55	3	163	2722	-6.43	2.24	0
45	SLU 56	0	175	2730	-7.02	0.21	0
45	SLU 57	2	168	2725	-6.67	1.43	0
45	SLU 58	0	175	2730	-7.02	0.21	0
45	SLU 59	2	168	2725	-6.67	1.43	0
45	SLU 60	0	178	2852	-7.1	0.24	0
45	SLU 61	2	171	2848	-6.75	1.46	0
45	SLU 62	0	178	2852	-7.1	0.24	0
45	SLU 63	2	171	2848	-6.75	1.46	0
45	SLU 64	0	175	2626	-7.06	0.16	0
45	SLU 65	3	162	2619	-6.47	2.19	0
45	SLU 66	0	175	2626	-7.06	0.16	0
45	SLU 67	2	167	2622	-6.71	1.38	0
45	SLU 68	3	162	2619	-6.47	2.19	0
45	SLU 69	0	175	2626	-7.06	0.16	0
45	SLU 70	2	167	2622	-6.71	1.38	0
45	SLU 71	0	175	2626	-7.06	0.16	0
45	SLU 72	2	167	2622	-6.71	1.38	0
45	SLU 73	3	170	2905	-6.67	2.26	0
45	SLU 74	0	182	2913	-7.26	0.23	0
45	SLU 75	2	175	2908	-6.9	1.45	0
45	SLU 76	3	170	2905	-6.67	2.26	0
45	SLU 77	0	182	2913	-7.26	0.23	0
45	SLU 78	2	175	2908	-6.9	1.45	0
45	SLU 79	0	182	2913	-7.26	0.23	0
45	SLU 80	2	175	2908	-6.9	1.45	0
45	SLU 81	0	185	3035	-7.34	0.26	0
45	SLU 82	2	178	3031	-6.99	1.48	0
45	SLU 83	0	185	3035	-7.34	0.26	0
45	SLU 84	2	178	3031	-6.99	1.48	0
45	SLE RA 1	0	133	1980	-5.38	0.12	0
45	SLE RA 2	2	125	1975	-4.99	1.47	0
45	SLE RA 3	0	133	1980	-5.38	0.12	0
45	SLE RA 4	1	128	1977	-5.14	0.93	0
45	SLE RA 5	2	125	1975	-4.99	1.47	0
45	SLE RA 6	0	133	1980	-5.38	0.12	0
45	SLE RA 7	1	128	1977	-5.14	0.93	0
45	SLE RA 8	0	133	1980	-5.38	0.12	0
45	SLE RA 9	1	128	1977	-5.14	0.93	0
45	SLE RA 10	2	130	2166	-5.12	1.52	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
45	SLE RA 11	0	138	2171	-5.51	0.17	0
45	SLE RA 12	1	133	2168	-5.27	0.98	0
45	SLE RA 13	2	130	2166	-5.12	1.52	0
45	SLE RA 14	0	138	2171	-5.51	0.17	0
45	SLE RA 15	1	133	2168	-5.27	0.98	0
45	SLE RA 16	0	138	2171	-5.51	0.17	0
45	SLE RA 17	1	133	2168	-5.27	0.98	0
45	SLE RA 18	0	140	2253	-5.56	0.19	0
45	SLE RA 19	1	135	2250	-5.33	1	0
45	SLE RA 20	0	140	2253	-5.56	0.19	0
45	SLE RA 21	1	135	2250	-5.33	1	0
45	SLE FR 1	0	133	1980	-5.38	0.12	0
45	SLE FR 2	0	131	1979	-5.3	0.39	0
45	SLE FR 3	0	133	1980	-5.38	0.12	0
45	SLE FR 4	0	133	2061	-5.36	0.41	0
45	SLE FR 5	0	135	2062	-5.44	0.14	0
45	SLE FR 6	0	137	2116	-5.47	0.15	0
45	SLE QP 1	0	133	1980	-5.38	0.12	0
45	SLE QP 2	0	135	2062	-5.44	0.14	0
45	SLD 1	9	175	2111	-7.45	15.86	0.03
45	SLD 2	9	175	2111	-7.45	15.86	0.03
45	SLD 3	17	17	2106	-0.19	23.29	0.03
45	SLD 4	17	17	2106	-0.19	23.29	0.03
45	SLD 5	-9	387	2086	-17.04	-6.42	0
45	SLD 6	-9	387	2086	-17.04	-6.42	0
45	SLD 7	16	-140	2066	7.14	18.36	0.02
45	SLD 8	16	-140	2066	7.14	18.36	0.02
45	SLD 9	-16	411	2058	-18.01	-18.08	-0.02
45	SLD 10	-16	411	2058	-18.01	-18.08	-0.02
45	SLD 11	9	-117	2038	6.17	6.7	0
45	SLD 12	9	-117	2038	6.17	6.7	0
45	SLD 13	-17	253	2018	-10.68	-23.02	-0.03
45	SLD 14	-17	253	2018	-10.68	-23.02	-0.03
45	SLD 15	-9	95	2012	-3.42	-15.58	-0.03
45	SLD 16	-9	95	2012	-3.42	-15.58	-0.03
45	SLV 1	23	224	2181	-9.96	40.28	0.07
45	SLV 2	23	224	2181	-9.96	40.28	0.07
45	SLV 3	42	-150	2166	7.17	59.44	0.09
45	SLV 4	42	-150	2166	7.17	59.44	0.09
45	SLV 5	-21	729	2121	-32.78	-16.87	-0.01
45	SLV 6	-21	729	2121	-32.78	-16.87	-0.01
45	SLV 7	41	-518	2070	24.33	46.98	0.06
45	SLV 8	41	-518	2070	24.33	46.98	0.06
45	SLV 9	-41	788	2054	-35.2	-46.7	-0.05
45	SLV 10	-41	788	2054	-35.2	-46.7	-0.05
45	SLV 11	21	-459	2003	21.91	17.14	0.01
45	SLV 12	21	-459	2003	21.91	17.14	0.01
45	SLV 13	-42	420	1958	-18.04	-59.16	-0.09
45	SLV 14	-42	420	1958	-18.04	-59.16	-0.09
45	SLV 15	-23	46	1943	-0.91	-40.01	-0.07
45	SLV 16	-23	46	1943	-0.91	-40.01	-0.07
46	SLU 1	0	158	1849	-6.01	-0.15	0
46	SLU 2	-2	137	1838	-5.13	-2.03	0
46	SLU 3	0	158	1849	-6.01	-0.15	0
46	SLU 4	-1	146	1842	-5.48	-1.28	0
46	SLU 5	-2	137	1838	-5.13	-2.03	0
46	SLU 6	0	158	1849	-6.01	-0.15	0
46	SLU 7	-1	146	1842	-5.48	-1.28	0
46	SLU 8	0	158	1849	-6.01	-0.15	0
46	SLU 9	-1	146	1842	-5.48	-1.28	0
46	SLU 10	-2	176	2121	-6.57	-2.08	0
46	SLU 11	0	197	2133	-7.46	-0.21	0
46	SLU 12	-1	184	2126	-6.93	-1.33	0
46	SLU 13	-2	176	2121	-6.57	-2.08	0
46	SLU 14	0	197	2133	-7.46	-0.21	0
46	SLU 15	-1	184	2126	-6.93	-1.33	0
46	SLU 16	0	197	2133	-7.46	-0.21	0
46	SLU 17	-1	184	2126	-6.93	-1.33	0
46	SLU 18	0	213	2254	-8.08	-0.23	0
46	SLU 19	-1	201	2248	-7.55	-1.36	0
46	SLU 20	0	213	2254	-8.08	-0.23	0
46	SLU 21	-1	201	2248	-7.55	-1.36	0
46	SLU 22	0	178	2009	-6.77	-0.17	0
46	SLU 23	-2	157	1998	-5.88	-2.05	0
46	SLU 24	0	178	2009	-6.77	-0.17	0
46	SLU 25	-1	166	2002	-6.24	-1.3	0
46	SLU 26	-2	157	1998	-5.88	-2.05	0
46	SLU 27	0	178	2009	-6.77	-0.17	0
46	SLU 28	-1	166	2002	-6.24	-1.3	0
46	SLU 29	0	178	2009	-6.77	-0.17	0
46	SLU 30	-1	166	2002	-6.24	-1.3	0
46	SLU 31	-2	196	2282	-7.33	-2.1	0
46	SLU 32	0	217	2293	-8.21	-0.23	0
46	SLU 33	-1	204	2286	-7.68	-1.35	0
46	SLU 34	-2	196	2282	-7.33	-2.1	0
46	SLU 35	0	217	2293	-8.21	-0.23	0
46	SLU 36	-1	204	2286	-7.68	-1.35	0
46	SLU 37	0	217	2293	-8.21	-0.23	0
46	SLU 38	-1	204	2286	-7.68	-1.35	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
46	SLU 39	0	233	2414	-8.83	-0.25	0
46	SLU 40	-1	221	2408	-8.3	-1.37	0
46	SLU 41	0	233	2414	-8.83	-0.25	0
46	SLU 42	-1	221	2408	-8.3	-1.37	0
46	SLU 43	0	199	2349	-7.56	-0.19	0
46	SLU 44	-2	178	2337	-6.67	-2.07	0
46	SLU 45	0	199	2349	-7.56	-0.19	0
46	SLU 46	-1	186	2342	-7.03	-1.32	0
46	SLU 47	-2	178	2337	-6.67	-2.07	0
46	SLU 48	0	199	2349	-7.56	-0.19	0
46	SLU 49	-1	186	2342	-7.03	-1.32	0
46	SLU 50	0	199	2349	-7.56	-0.19	0
46	SLU 51	-1	186	2342	-7.03	-1.32	0
46	SLU 52	-2	216	2621	-8.12	-2.12	0
46	SLU 53	0	237	2632	-9	-0.25	0
46	SLU 54	-1	225	2626	-8.47	-1.37	0
46	SLU 55	-2	216	2621	-8.12	-2.12	0
46	SLU 56	0	237	2632	-9	-0.25	0
46	SLU 57	-1	225	2626	-8.47	-1.37	0
46	SLU 58	0	237	2632	-9	-0.25	0
46	SLU 59	-1	225	2626	-8.47	-1.37	0
46	SLU 60	0	254	2754	-9.62	-0.27	0
46	SLU 61	-1	241	2747	-9.09	-1.4	0
46	SLU 62	0	254	2754	-9.62	-0.27	0
46	SLU 63	-1	241	2747	-9.09	-1.4	0
46	SLU 64	0	219	2509	-8.31	-0.21	0
46	SLU 65	-2	198	2497	-7.43	-2.09	0
46	SLU 66	0	219	2509	-8.31	-0.21	0
46	SLU 67	-1	206	2502	-7.78	-1.34	0
46	SLU 68	-2	198	2497	-7.43	-2.09	0
46	SLU 69	0	219	2509	-8.31	-0.21	0
46	SLU 70	-1	206	2502	-7.78	-1.34	0
46	SLU 71	0	219	2509	-8.31	-0.21	0
46	SLU 72	-1	206	2502	-7.78	-1.34	0
46	SLU 73	-2	236	2781	-8.87	-2.14	0
46	SLU 74	0	258	2793	-9.76	-0.27	0
46	SLU 75	-1	245	2786	-9.23	-1.39	0
46	SLU 76	-2	236	2781	-8.87	-2.14	0
46	SLU 77	0	258	2793	-9.76	-0.27	0
46	SLU 78	-1	245	2786	-9.23	-1.39	0
46	SLU 79	0	258	2793	-9.76	-0.27	0
46	SLU 80	-1	245	2786	-9.23	-1.39	0
46	SLU 81	0	274	2914	-10.38	-0.29	0
46	SLU 82	-1	261	2907	-9.85	-1.41	0
46	SLU 83	0	274	2914	-10.38	-0.29	0
46	SLU 84	-1	261	2907	-9.85	-1.41	0
46	SLE RA 1	0	164	1895	-6.23	-0.16	0
46	SLE RA 2	-2	150	1887	-5.64	-1.41	0
46	SLE RA 3	0	164	1895	-6.23	-0.16	0
46	SLE RA 4	-1	156	1890	-5.87	-0.91	0
46	SLE RA 5	-2	150	1887	-5.64	-1.41	0
46	SLE RA 6	0	164	1895	-6.23	-0.16	0
46	SLE RA 7	-1	156	1890	-5.87	-0.91	0
46	SLE RA 8	0	164	1895	-6.23	-0.16	0
46	SLE RA 9	-1	156	1890	-5.87	-0.91	0
46	SLE RA 10	-2	176	2076	-6.6	-1.45	0
46	SLE RA 11	0	190	2084	-7.19	-0.2	0
46	SLE RA 12	-1	181	2079	-6.84	-0.95	0
46	SLE RA 13	-2	176	2076	-6.6	-1.45	0
46	SLE RA 14	0	190	2084	-7.19	-0.2	0
46	SLE RA 15	-1	181	2079	-6.84	-0.95	0
46	SLE RA 16	0	190	2084	-7.19	-0.2	0
46	SLE RA 17	-1	181	2079	-6.84	-0.95	0
46	SLE RA 18	0	201	2165	-7.61	-0.21	0
46	SLE RA 19	-1	192	2160	-7.25	-0.96	0
46	SLE RA 20	0	201	2165	-7.61	-0.21	0
46	SLE RA 21	-1	192	2160	-7.25	-0.96	0
46	SLE FR 1	0	164	1895	-6.23	-0.16	0
46	SLE FR 2	0	161	1893	-6.11	-0.41	0
46	SLE FR 3	0	164	1895	-6.23	-0.16	0
46	SLE FR 4	0	172	1974	-6.52	-0.43	0
46	SLE FR 5	0	175	1976	-6.64	-0.17	0
46	SLE FR 6	0	182	2030	-6.92	-0.19	0
46	SLE QP 1	0	164	1895	-6.23	-0.16	0
46	SLE QP 2	0	175	1976	-6.64	-0.17	0
46	SLD 1	-12	209	1812	-8.05	23.19	0.02
46	SLD 2	-12	209	1812	-8.05	23.19	0.02
46	SLD 3	-19	53	1801	-1.49	18.16	0.03
46	SLD 4	-19	53	1801	-1.49	18.16	0.03
46	SLD 5	7	423	1943	-17.02	14.46	0
46	SLD 6	7	423	1943	-17.02	14.46	0
46	SLD 7	-16	-99	1907	4.86	-2.3	0.01
46	SLD 8	-16	-99	1907	4.86	-2.3	0.01
46	SLD 9	16	449	2045	-18.14	1.95	-0.01
46	SLD 10	16	449	2045	-18.14	1.95	-0.01
46	SLD 11	-7	-73	2008	3.74	-14.81	0
46	SLD 12	-7	-73	2008	3.74	-14.81	0
46	SLD 13	19	297	2150	-11.8	-18.51	-0.03
46	SLD 14	19	297	2150	-11.8	-18.51	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
46	SLD 15	12	141	2139	-5.23	-23.54	-0.02
46	SLD 16	12	141	2139	-5.23	-23.54	-0.02
46	SLV 1	-30	256	1591	-9.98	58.45	0.06
46	SLV 2	-30	256	1591	-9.98	58.45	0.06
46	SLV 3	-46	-114	1565	5.52	45.99	0.07
46	SLV 4	-46	-114	1565	5.52	45.99	0.07
46	SLV 5	15	760	1900	-31.15	36.31	0
46	SLV 6	15	760	1900	-31.15	36.31	0
46	SLV 7	-38	-472	1812	20.52	-5.22	0.03
46	SLV 8	-38	-472	1812	20.52	-5.22	0.03
46	SLV 9	38	822	2139	-33.8	4.87	-0.03
46	SLV 10	38	822	2139	-33.8	4.87	-0.03
46	SLV 11	-15	-410	2051	17.87	-36.66	0
46	SLV 12	-15	-410	2051	17.87	-36.66	0
46	SLV 13	46	464	2387	-18.81	-46.34	-0.07
46	SLV 14	46	464	2387	-18.81	-46.34	-0.07
46	SLV 15	30	94	2360	-3.31	-58.8	-0.06
46	SLV 16	30	94	2360	-3.31	-58.8	-0.06
47	SLU 1	0	93	1959	-4.54	0.14	0
47	SLU 2	3	83	1959	-3.99	1.9	0
47	SLU 3	0	93	1959	-4.54	0.14	0
47	SLU 4	2	87	1959	-4.21	1.2	0
47	SLU 5	3	83	1959	-3.99	1.9	0
47	SLU 6	0	93	1959	-4.54	0.14	0
47	SLU 7	2	87	1959	-4.21	1.2	0
47	SLU 8	0	93	1959	-4.54	0.14	0
47	SLU 9	2	87	1959	-4.21	1.2	0
47	SLU 10	3	87	2247	-4.29	1.99	0
47	SLU 11	0	98	2247	-4.84	0.23	0
47	SLU 12	2	92	2247	-4.51	1.28	0
47	SLU 13	3	87	2247	-4.29	1.99	0
47	SLU 14	0	98	2247	-4.84	0.23	0
47	SLU 15	2	92	2247	-4.51	1.28	0
47	SLU 16	0	98	2247	-4.84	0.23	0
47	SLU 17	2	92	2247	-4.51	1.28	0
47	SLU 18	0	100	2370	-4.97	0.26	0
47	SLU 19	2	94	2370	-4.64	1.32	0
47	SLU 20	0	100	2370	-4.97	0.26	0
47	SLU 21	2	94	2370	-4.64	1.32	0
47	SLU 22	0	97	2142	-4.77	0.16	0
47	SLU 23	3	87	2142	-4.22	1.93	0
47	SLU 24	0	97	2142	-4.77	0.16	0
47	SLU 25	2	91	2142	-4.44	1.22	0
47	SLU 26	3	87	2142	-4.22	1.93	0
47	SLU 27	0	97	2142	-4.77	0.16	0
47	SLU 28	2	91	2142	-4.44	1.22	0
47	SLU 29	0	97	2142	-4.77	0.16	0
47	SLU 30	2	91	2142	-4.44	1.22	0
47	SLU 31	3	91	2430	-4.52	2.01	0
47	SLU 32	0	101	2430	-5.07	0.25	0
47	SLU 33	2	95	2430	-4.74	1.31	0
47	SLU 34	3	91	2430	-4.52	2.01	0
47	SLU 35	0	101	2430	-5.07	0.25	0
47	SLU 36	2	95	2430	-4.74	1.31	0
47	SLU 37	0	101	2430	-5.07	0.25	0
47	SLU 38	2	95	2430	-4.74	1.31	0
47	SLU 39	0	103	2553	-5.2	0.29	0
47	SLU 40	2	97	2553	-4.87	1.34	0
47	SLU 41	0	103	2553	-5.2	0.29	0
47	SLU 42	2	97	2553	-4.87	1.34	0
47	SLU 43	0	120	2484	-5.82	0.17	0
47	SLU 44	3	110	2484	-5.27	1.94	0
47	SLU 45	0	120	2484	-5.82	0.17	0
47	SLU 46	2	114	2484	-5.49	1.23	0
47	SLU 47	3	110	2484	-5.27	1.94	0
47	SLU 48	0	120	2484	-5.82	0.17	0
47	SLU 49	2	114	2484	-5.49	1.23	0
47	SLU 50	0	120	2484	-5.82	0.17	0
47	SLU 51	2	114	2484	-5.49	1.23	0
47	SLU 52	3	114	2772	-5.57	2.02	0
47	SLU 53	0	124	2772	-6.12	0.26	0
47	SLU 54	2	118	2772	-5.79	1.32	0
47	SLU 55	3	114	2772	-5.57	2.02	0
47	SLU 56	0	124	2772	-6.12	0.26	0
47	SLU 57	2	118	2772	-5.79	1.32	0
47	SLU 58	0	124	2772	-6.12	0.26	0
47	SLU 59	2	118	2772	-5.79	1.32	0
47	SLU 60	0	126	2895	-6.25	0.3	0
47	SLU 61	2	120	2895	-5.92	1.35	0
47	SLU 62	0	126	2895	-6.25	0.3	0
47	SLU 63	2	120	2895	-5.92	1.35	0
47	SLU 64	0	123	2667	-6.05	0.2	0
47	SLU 65	3	113	2667	-5.5	1.96	0
47	SLU 66	0	123	2667	-6.05	0.2	0
47	SLU 67	2	117	2667	-5.72	1.26	0
47	SLU 68	3	113	2667	-5.5	1.96	0
47	SLU 69	0	123	2667	-6.05	0.2	0
47	SLU 70	2	117	2667	-5.72	1.26	0
47	SLU 71	0	123	2667	-6.05	0.2	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
47	SLU 72	2	117	2667	-5.72	1.26	0
47	SLU 73	3	118	2955	-5.8	2.05	0
47	SLU 74	0	128	2955	-6.36	0.28	0
47	SLU 75	2	122	2955	-6.02	1.34	0
47	SLU 76	3	118	2955	-5.8	2.05	0
47	SLU 77	0	128	2955	-6.36	0.28	0
47	SLU 78	2	122	2955	-6.02	1.34	0
47	SLU 79	0	128	2955	-6.36	0.28	0
47	SLU 80	2	122	2955	-6.02	1.34	0
47	SLU 81	0	130	3078	-6.49	0.32	0
47	SLU 82	2	124	3078	-6.15	1.38	0
47	SLU 83	0	130	3078	-6.49	0.32	0
47	SLU 84	2	124	3078	-6.15	1.38	0
47	SLE RA 1	0	94	2011	-4.61	0.15	0
47	SLE RA 2	2	87	2011	-4.24	1.32	0
47	SLE RA 3	0	94	2011	-4.61	0.15	0
47	SLE RA 4	1	90	2011	-4.38	0.85	0
47	SLE RA 5	2	87	2011	-4.24	1.32	0
47	SLE RA 6	0	94	2011	-4.61	0.15	0
47	SLE RA 7	1	90	2011	-4.38	0.85	0
47	SLE RA 8	0	94	2011	-4.61	0.15	0
47	SLE RA 9	1	90	2011	-4.38	0.85	0
47	SLE RA 10	2	90	2203	-4.44	1.38	0
47	SLE RA 11	0	97	2203	-4.81	0.2	0
47	SLE RA 12	1	93	2203	-4.59	0.91	0
47	SLE RA 13	2	90	2203	-4.44	1.38	0
47	SLE RA 14	0	97	2203	-4.81	0.2	0
47	SLE RA 15	1	93	2203	-4.59	0.91	0
47	SLE RA 16	0	97	2203	-4.81	0.2	0
47	SLE RA 17	1	93	2203	-4.59	0.91	0
47	SLE RA 18	0	99	2286	-4.89	0.23	0
47	SLE RA 19	1	94	2286	-4.67	0.93	0
47	SLE RA 20	0	99	2286	-4.89	0.23	0
47	SLE RA 21	1	94	2286	-4.67	0.93	0
47	SLE FR 1	0	94	2011	-4.61	0.15	0
47	SLE FR 2	0	93	2011	-4.53	0.38	0
47	SLE FR 3	0	94	2011	-4.61	0.15	0
47	SLE FR 4	0	94	2094	-4.62	0.41	0
47	SLE FR 5	0	95	2094	-4.69	0.17	0
47	SLE FR 6	0	96	2148	-4.75	0.19	0
47	SLE QP 1	0	94	2011	-4.61	0.15	0
47	SLE QP 2	0	95	2094	-4.69	0.17	0
47	SLD 1	-12	115	2006	-6.2	7.66	0.03
47	SLD 2	-12	115	2006	-6.2	7.66	0.03
47	SLD 3	-6	-44	2020	1.15	12.86	0.03
47	SLD 4	-6	-44	2020	1.15	12.86	0.03
47	SLD 5	-13	342	2046	-16.29	-5.47	0
47	SLD 6	-13	342	2046	-16.29	-5.47	0
47	SLD 7	7	-187	2093	8.21	11.87	0.02
47	SLD 8	7	-187	2093	8.21	11.87	0.02
47	SLD 9	-7	377	2095	-17.59	-11.53	-0.02
47	SLD 10	-7	377	2095	-17.59	-11.53	-0.02
47	SLD 11	13	-151	2141	6.91	5.81	0
47	SLD 12	13	-151	2141	6.91	5.81	0
47	SLD 13	6	235	2167	-10.54	-12.52	-0.03
47	SLD 14	6	235	2167	-10.54	-12.52	-0.03
47	SLD 15	12	76	2181	-3.19	-7.32	-0.02
47	SLD 16	12	76	2181	-3.19	-7.32	-0.02
47	SLV 1	-30	131	1876	-7.95	19.34	0.07
47	SLV 2	-30	131	1876	-7.95	19.34	0.07
47	SLV 3	-15	-243	1911	9.41	32.63	0.08
47	SLV 4	-15	-243	1911	9.41	32.63	0.08
47	SLV 5	-31	674	1975	-32	-14.24	0
47	SLV 6	-31	674	1975	-32	-14.24	0
47	SLV 7	18	-574	2092	25.87	30.07	0.05
47	SLV 8	18	-574	2092	25.87	30.07	0.05
47	SLV 9	-18	765	2095	-35.25	-29.73	-0.05
47	SLV 10	-18	765	2095	-35.25	-29.73	-0.05
47	SLV 11	32	-483	2212	22.61	14.58	0.01
47	SLV 12	32	-483	2212	22.61	14.58	0.01
47	SLV 13	16	434	2276	-18.79	-32.29	-0.08
47	SLV 14	16	434	2276	-18.79	-32.29	-0.08
47	SLV 15	30	60	2311	-1.43	-19	-0.06
47	SLV 16	30	60	2311	-1.43	-19	-0.06
48	SLU 1	0	130	1908	-5.36	-0.35	0
48	SLU 2	-3	108	1895	-4.45	-1.91	0
48	SLU 3	0	130	1908	-5.36	-0.35	0
48	SLU 4	-2	117	1900	-4.81	-1.29	0
48	SLU 5	-3	108	1895	-4.45	-1.91	0
48	SLU 6	0	130	1908	-5.36	-0.35	0
48	SLU 7	-2	117	1900	-4.81	-1.29	0
48	SLU 8	0	130	1908	-5.36	-0.35	0
48	SLU 9	-2	117	1900	-4.81	-1.29	0
48	SLU 10	-3	144	2201	-5.86	-2.03	-0.01
48	SLU 11	0	166	2213	-6.77	-0.46	-0.01
48	SLU 12	-2	153	2206	-6.22	-1.4	-0.01
48	SLU 13	-3	144	2201	-5.86	-2.03	-0.01
48	SLU 14	0	166	2213	-6.77	-0.46	-0.01
48	SLU 15	-2	153	2206	-6.22	-1.4	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
48	SLU 16	0	166	2213	-6.77	-0.46	-0.01
48	SLU 17	-2	153	2206	-6.22	-1.4	-0.01
48	SLU 18	0	181	2345	-7.37	-0.51	-0.01
48	SLU 19	-2	168	2337	-6.83	-1.45	-0.01
48	SLU 20	0	181	2345	-7.37	-0.51	-0.01
48	SLU 21	-2	168	2337	-6.83	-1.45	-0.01
48	SLU 22	0	148	2078	-6.1	-0.39	-0.01
48	SLU 23	-3	127	2065	-5.19	-1.96	0
48	SLU 24	0	148	2078	-6.1	-0.39	-0.01
48	SLU 25	-2	135	2070	-5.56	-1.33	0
48	SLU 26	-3	127	2065	-5.19	-1.96	0
48	SLU 27	0	148	2078	-6.1	-0.39	-0.01
48	SLU 28	-2	135	2070	-5.56	-1.33	0
48	SLU 29	0	148	2078	-6.1	-0.39	-0.01
48	SLU 30	-2	135	2070	-5.56	-1.33	0
48	SLU 31	-3	163	2371	-6.61	-2.07	-0.01
48	SLU 32	0	184	2384	-7.52	-0.51	-0.01
48	SLU 33	-2	171	2376	-6.97	-1.45	-0.01
48	SLU 34	-3	163	2371	-6.61	-2.07	-0.01
48	SLU 35	0	184	2384	-7.52	-0.51	-0.01
48	SLU 36	-2	171	2376	-6.97	-1.45	-0.01
48	SLU 37	0	184	2384	-7.52	-0.51	-0.01
48	SLU 38	-2	171	2376	-6.97	-1.45	-0.01
48	SLU 39	0	200	2515	-8.12	-0.56	-0.01
48	SLU 40	-2	187	2507	-7.58	-1.5	-0.01
48	SLU 41	0	200	2515	-8.12	-0.56	-0.01
48	SLU 42	-2	187	2507	-7.58	-1.5	-0.01
48	SLU 43	0	163	2422	-6.71	-0.44	-0.01
48	SLU 44	-3	141	2409	-5.8	-2	-0.01
48	SLU 45	0	163	2422	-6.71	-0.44	-0.01
48	SLU 46	-2	150	2414	-6.16	-1.38	-0.01
48	SLU 47	-3	141	2409	-5.8	-2	-0.01
48	SLU 48	0	163	2422	-6.71	-0.44	-0.01
48	SLU 49	-2	150	2414	-6.16	-1.38	-0.01
48	SLU 50	0	163	2422	-6.71	-0.44	-0.01
48	SLU 51	-2	150	2414	-6.16	-1.38	-0.01
48	SLU 52	-3	177	2715	-7.21	-2.12	-0.01
48	SLU 53	0	198	2727	-8.12	-0.55	-0.01
48	SLU 54	-2	185	2720	-7.57	-1.49	-0.01
48	SLU 55	-3	177	2715	-7.21	-2.12	-0.01
48	SLU 56	0	198	2727	-8.12	-0.55	-0.01
48	SLU 57	-2	185	2720	-7.57	-1.49	-0.01
48	SLU 58	0	198	2727	-8.12	-0.55	-0.01
48	SLU 59	-2	185	2720	-7.57	-1.49	-0.01
48	SLU 60	0	214	2859	-8.72	-0.6	-0.01
48	SLU 61	-2	201	2851	-8.18	-1.54	-0.01
48	SLU 62	0	214	2859	-8.72	-0.6	-0.01
48	SLU 63	-2	201	2851	-8.18	-1.54	-0.01
48	SLU 64	0	181	2592	-7.45	-0.48	-0.01
48	SLU 65	-3	159	2579	-6.54	-2.05	-0.01
48	SLU 66	0	181	2592	-7.45	-0.48	-0.01
48	SLU 67	-2	168	2584	-6.91	-1.42	-0.01
48	SLU 68	-3	159	2579	-6.54	-2.05	-0.01
48	SLU 69	0	181	2592	-7.45	-0.48	-0.01
48	SLU 70	-2	168	2584	-6.91	-1.42	-0.01
48	SLU 71	0	181	2592	-7.45	-0.48	-0.01
48	SLU 72	-2	168	2584	-6.91	-1.42	-0.01
48	SLU 73	-3	195	2885	-7.96	-2.16	-0.01
48	SLU 74	0	217	2898	-8.87	-0.6	-0.01
48	SLU 75	-2	204	2890	-8.32	-1.54	-0.01
48	SLU 76	-3	195	2885	-7.96	-2.16	-0.01
48	SLU 77	0	217	2898	-8.87	-0.6	-0.01
48	SLU 78	-2	204	2890	-8.32	-1.54	-0.01
48	SLU 79	0	217	2898	-8.87	-0.6	-0.01
48	SLU 80	-2	204	2890	-8.32	-1.54	-0.01
48	SLU 81	0	232	3029	-9.47	-0.65	-0.01
48	SLU 82	-2	219	3021	-8.93	-1.59	-0.01
48	SLU 83	0	232	3029	-9.47	-0.65	-0.01
48	SLU 84	-2	219	3021	-8.93	-1.59	-0.01
48	SLE RA 1	0	135	1956	-5.57	-0.36	0
48	SLE RA 2	-2	121	1948	-4.96	-1.4	0
48	SLE RA 3	0	135	1956	-5.57	-0.36	0
48	SLE RA 4	-1	127	1951	-5.2	-0.99	0
48	SLE RA 5	-2	121	1948	-4.96	-1.4	0
48	SLE RA 6	0	135	1956	-5.57	-0.36	0
48	SLE RA 7	-1	127	1951	-5.2	-0.99	0
48	SLE RA 8	0	135	1956	-5.57	-0.36	0
48	SLE RA 9	-1	127	1951	-5.2	-0.99	0
48	SLE RA 10	-2	145	2152	-5.9	-1.48	-0.01
48	SLE RA 11	0	159	2160	-6.51	-0.44	-0.01
48	SLE RA 12	-1	150	2155	-6.15	-1.06	-0.01
48	SLE RA 13	-2	145	2152	-5.9	-1.48	-0.01
48	SLE RA 14	0	159	2160	-6.51	-0.44	-0.01
48	SLE RA 15	-1	150	2155	-6.15	-1.06	-0.01
48	SLE RA 16	0	159	2160	-6.51	-0.44	-0.01
48	SLE RA 17	-1	150	2155	-6.15	-1.06	-0.01
48	SLE RA 18	0	169	2248	-6.91	-0.47	-0.01
48	SLE RA 19	-1	161	2243	-6.55	-1.1	-0.01
48	SLE RA 20	0	169	2248	-6.91	-0.47	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
48	SLE RA 21	-1	161	2243	-6.55	-1.1	-0.01
48	SLE FR 1	0	135	1956	-5.57	-0.36	0
48	SLE FR 2	-1	132	1955	-5.45	-0.57	0
48	SLE FR 3	0	135	1956	-5.57	-0.36	0
48	SLE FR 4	-1	143	2042	-5.85	-0.6	-0.01
48	SLE FR 5	0	146	2044	-5.97	-0.39	-0.01
48	SLE FR 6	0	152	2102	-6.24	-0.42	-0.01
48	SLE QP 1	0	135	1956	-5.57	-0.36	0
48	SLE QP 2	0	146	2044	-5.97	-0.39	-0.01
48	SLD 1	-8	173	1846	-7.33	12.85	0.03
48	SLD 2	-8	173	1846	-7.33	12.85	0.03
48	SLD 3	-15	16	1834	-0.71	8.9	0.02
48	SLD 4	-15	16	1834	-0.71	8.9	0.02
48	SLD 5	7	392	2002	-16.41	9.57	0.01
48	SLD 6	7	392	2002	-16.41	9.57	0.01
48	SLD 7	-15	-132	1963	5.63	-3.6	0
48	SLD 8	-15	-132	1963	5.63	-3.6	0
48	SLD 9	14	423	2124	-17.58	2.81	-0.01
48	SLD 10	14	423	2124	-17.58	2.81	-0.01
48	SLD 11	-8	-101	2085	4.46	-10.36	-0.02
48	SLD 12	-8	-101	2085	4.46	-10.36	-0.02
48	SLD 13	14	275	2253	-11.23	-9.69	-0.03
48	SLD 14	14	275	2253	-11.23	-9.69	-0.03
48	SLD 15	8	118	2242	-4.62	-13.64	-0.04
48	SLD 16	8	118	2242	-4.62	-13.64	-0.04
48	SLV 1	-21	210	1577	-9.17	32.73	0.08
48	SLV 2	-21	210	1577	-9.17	32.73	0.08
48	SLV 3	-37	-161	1549	6.44	23.08	0.07
48	SLV 4	-37	-161	1549	6.44	23.08	0.07
48	SLV 5	17	727	1947	-30.61	24.18	0.04
48	SLV 6	17	727	1947	-30.61	24.18	0.04
48	SLV 7	-35	-509	1852	21.43	-7.99	0
48	SLV 8	-35	-509	1852	21.43	-7.99	0
48	SLV 9	35	800	2235	-33.37	7.2	-0.01
48	SLV 10	35	800	2235	-33.37	7.2	-0.01
48	SLV 11	-18	-436	2141	18.66	-24.97	-0.05
48	SLV 12	-18	-436	2141	18.66	-24.97	-0.05
48	SLV 13	36	452	2539	-18.39	-23.87	-0.08
48	SLV 14	36	452	2539	-18.39	-23.87	-0.08
48	SLV 15	21	81	2510	-2.78	-33.52	-0.09
48	SLV 16	21	81	2510	-2.78	-33.52	-0.09
49	SLU 1	0	-102	145	9.17	0.28	0.02
49	SLU 2	0	-101	152	9.12	0.35	0
49	SLU 3	0	-102	145	9.17	0.28	0.02
49	SLU 4	0	-101	149	9.14	0.32	0.01
49	SLU 5	0	-101	152	9.12	0.35	0
49	SLU 6	0	-102	145	9.17	0.28	0.02
49	SLU 7	0	-101	149	9.14	0.32	0.01
49	SLU 8	0	-102	145	9.17	0.28	0.02
49	SLU 9	0	-101	149	9.14	0.32	0.01
49	SLU 10	0	-143	179	12.52	0.44	0.01
49	SLU 11	-1	-144	172	12.56	0.37	0.03
49	SLU 12	0	-144	176	12.54	0.41	0.02
49	SLU 13	0	-143	179	12.52	0.44	0.01
49	SLU 14	-1	-144	172	12.56	0.37	0.03
49	SLU 15	0	-144	176	12.54	0.41	0.02
49	SLU 16	-1	-144	172	12.56	0.37	0.03
49	SLU 17	0	-144	176	12.54	0.41	0.02
49	SLU 18	-1	-162	183	14.02	0.41	0.03
49	SLU 19	-1	-162	187	13.99	0.45	0.02
49	SLU 20	-1	-162	183	14.02	0.41	0.03
49	SLU 21	-1	-162	187	13.99	0.45	0.02
49	SLU 22	-1	-142	115	11.68	0.33	0.03
49	SLU 23	0	-141	122	11.64	0.4	0.01
49	SLU 24	-1	-142	115	11.68	0.33	0.03
49	SLU 25	0	-142	120	11.65	0.37	0.02
49	SLU 26	0	-141	122	11.64	0.4	0.01
49	SLU 27	-1	-142	115	11.68	0.33	0.03
49	SLU 28	0	-142	120	11.65	0.37	0.02
49	SLU 29	-1	-142	115	11.68	0.33	0.03
49	SLU 30	0	-142	120	11.65	0.37	0.02
49	SLU 31	-1	-183	149	15.03	0.49	0.02
49	SLU 32	-1	-185	142	15.07	0.42	0.03
49	SLU 33	-1	-184	146	15.05	0.46	0.02
49	SLU 34	-1	-183	149	15.03	0.49	0.02
49	SLU 35	-1	-185	142	15.07	0.42	0.03
49	SLU 36	-1	-184	146	15.05	0.46	0.02
49	SLU 37	-1	-185	142	15.07	0.42	0.03
49	SLU 38	-1	-184	146	15.05	0.46	0.02
49	SLU 39	-1	-203	153	16.53	0.46	0.04
49	SLU 40	-1	-202	157	16.5	0.5	0.03
49	SLU 41	-1	-203	153	16.53	0.46	0.04
49	SLU 42	-1	-202	157	16.5	0.5	0.03
49	SLU 43	-1	-119	199	11.06	0.34	0.02
49	SLU 44	0	-118	206	11.01	0.41	0.01
49	SLU 45	-1	-119	199	11.06	0.34	0.02
49	SLU 46	0	-118	203	11.03	0.39	0.01
49	SLU 47	0	-118	206	11.01	0.41	0.01
49	SLU 48	-1	-119	199	11.06	0.34	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
49	SLU 49	0	-118	203	11.03	0.39	0.01
49	SLU 50	-1	-119	199	11.06	0.34	0.02
49	SLU 51	0	-118	203	11.03	0.39	0.01
49	SLU 52	0	-160	232	14.41	0.51	0.01
49	SLU 53	-1	-161	226	14.45	0.44	0.03
49	SLU 54	-1	-160	230	14.43	0.48	0.02
49	SLU 55	0	-160	232	14.41	0.51	0.01
49	SLU 56	-1	-161	226	14.45	0.44	0.03
49	SLU 57	-1	-160	230	14.43	0.48	0.02
49	SLU 58	-1	-161	226	14.45	0.44	0.03
49	SLU 59	-1	-160	230	14.43	0.48	0.02
49	SLU 60	-1	-179	237	15.91	0.48	0.03
49	SLU 61	-1	-178	241	15.88	0.52	0.02
49	SLU 62	-1	-179	237	15.91	0.48	0.03
49	SLU 63	-1	-178	241	15.88	0.52	0.02
49	SLU 64	-1	-159	169	13.57	0.39	0.03
49	SLU 65	0	-158	176	13.52	0.46	0.01
49	SLU 66	-1	-159	169	13.57	0.39	0.03
49	SLU 67	-1	-159	173	13.54	0.44	0.02
49	SLU 68	0	-158	176	13.52	0.46	0.01
49	SLU 69	-1	-159	169	13.57	0.39	0.03
49	SLU 70	-1	-159	173	13.54	0.44	0.02
49	SLU 71	-1	-159	169	13.57	0.39	0.03
49	SLU 72	-1	-159	173	13.54	0.44	0.02
49	SLU 73	-1	-200	203	16.92	0.56	0.02
49	SLU 74	-1	-201	196	16.96	0.49	0.04
49	SLU 75	-1	-201	200	16.94	0.53	0.03
49	SLU 76	-1	-200	203	16.92	0.56	0.02
49	SLU 77	-1	-201	196	16.96	0.49	0.04
49	SLU 78	-1	-201	200	16.94	0.53	0.03
49	SLU 79	-1	-201	196	16.96	0.49	0.04
49	SLU 80	-1	-201	200	16.94	0.53	0.03
49	SLU 81	-1	-219	207	18.42	0.53	0.04
49	SLU 82	-1	-219	211	18.39	0.57	0.03
49	SLU 83	-1	-219	207	18.42	0.53	0.04
49	SLU 84	-1	-219	211	18.39	0.57	0.03
49	SLE RA 1	-1	-114	137	9.88	0.29	0.02
49	SLE RA 2	0	-113	141	9.86	0.34	0.01
49	SLE RA 3	-1	-114	137	9.88	0.29	0.02
49	SLE RA 4	0	-113	139	9.87	0.32	0.01
49	SLE RA 5	0	-113	141	9.86	0.34	0.01
49	SLE RA 6	-1	-114	137	9.88	0.29	0.02
49	SLE RA 7	0	-113	139	9.87	0.32	0.01
49	SLE RA 8	-1	-114	137	9.88	0.29	0.02
49	SLE RA 9	0	-113	139	9.87	0.32	0.01
49	SLE RA 10	0	-141	159	12.12	0.4	0.02
49	SLE RA 11	-1	-142	154	12.15	0.35	0.02
49	SLE RA 12	-1	-141	157	12.13	0.38	0.02
49	SLE RA 13	0	-141	159	12.12	0.4	0.02
49	SLE RA 14	-1	-142	154	12.15	0.35	0.02
49	SLE RA 15	-1	-141	157	12.13	0.38	0.02
49	SLE RA 16	-1	-142	154	12.15	0.35	0.02
49	SLE RA 17	-1	-141	157	12.13	0.38	0.02
49	SLE RA 18	-1	-154	162	13.12	0.38	0.03
49	SLE RA 19	-1	-153	165	13.1	0.41	0.02
49	SLE RA 20	-1	-154	162	13.12	0.38	0.03
49	SLE RA 21	-1	-153	165	13.1	0.41	0.02
49	SLE FR 1	-1	-114	137	9.88	0.29	0.02
49	SLE FR 2	0	-113	138	9.88	0.3	0.02
49	SLE FR 3	-1	-114	137	9.88	0.29	0.02
49	SLE FR 4	-1	-126	145	10.85	0.33	0.02
49	SLE FR 5	-1	-126	144	10.85	0.32	0.02
49	SLE FR 6	-1	-134	149	11.5	0.34	0.02
49	SLE QP 1	-1	-114	137	9.88	0.29	0.02
49	SLE QP 2	-1	-126	144	10.85	0.32	0.02
49	SLD 1	13	-120	529	10.72	3.59	-0.67
49	SLD 2	13	-120	529	10.72	3.59	-0.67
49	SLD 3	10	-259	53	15.83	2.81	-0.51
49	SLD 4	10	-259	53	15.83	2.81	-0.51
49	SLD 5	8	88	982	3.06	2.49	-0.44
49	SLD 6	8	88	982	3.06	2.49	-0.44
49	SLD 7	-2	-378	-605	20.1	-0.12	0.11
49	SLD 8	-2	-378	-605	20.1	-0.12	0.11
49	SLD 9	1	126	894	1.61	0.76	-0.07
49	SLD 10	1	126	894	1.61	0.76	-0.07
49	SLD 11	-10	-339	-693	18.65	-1.85	0.48
49	SLD 12	-10	-339	-693	18.65	-1.85	0.48
49	SLD 13	-11	8	236	5.88	-2.17	0.55
49	SLD 14	-11	8	236	5.88	-2.17	0.55
49	SLD 15	-14	-132	-240	10.99	-2.95	0.72
49	SLD 16	-14	-132	-240	10.99	-2.95	0.72
49	SLV 1	34	-123	1055	10.95	8.63	-1.75
49	SLV 2	34	-123	1055	10.95	8.63	-1.75
49	SLV 3	26	-450	-56	22.88	6.76	-1.35
49	SLV 4	26	-450	-56	22.88	6.76	-1.35
49	SLV 5	22	370	2102	-7.22	5.64	-1.11
49	SLV 6	22	370	2102	-7.22	5.64	-1.11
49	SLV 7	-5	-717	-1600	32.57	-0.58	0.21
49	SLV 8	-5	-717	-1600	32.57	-0.58	0.21



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
49	SLV 9	3	466	1889	-10.86	1.22	-0.16
49	SLV 10	3	466	1889	-10.86	1.22	-0.16
49	SLV 11	-23	-621	-1813	28.93	-5.01	1.15
49	SLV 12	-23	-621	-1813	28.93	-5.01	1.15
49	SLV 13	-27	198	344	-1.17	-6.12	1.4
49	SLV 14	-27	198	344	-1.17	-6.12	1.4
49	SLV 15	-35	-128	-766	10.76	-7.99	1.79
49	SLV 16	-35	-128	-766	10.76	-7.99	1.79
50	SLU 1	1	45	1983	-1.7	0.27	0
50	SLU 2	3	38	2000	-1.26	1.42	0
50	SLU 3	1	45	1983	-1.7	0.27	0
50	SLU 4	2	41	1993	-1.44	0.96	0
50	SLU 5	3	38	2000	-1.26	1.42	0
50	SLU 6	1	45	1983	-1.7	0.27	0
50	SLU 7	2	41	1993	-1.44	0.96	0
50	SLU 8	1	45	1983	-1.7	0.27	0
50	SLU 9	2	41	1993	-1.44	0.96	0
50	SLU 10	3	38	2292	-1.11	1.53	0
50	SLU 11	1	45	2275	-1.55	0.38	0
50	SLU 12	2	41	2285	-1.29	1.07	0
50	SLU 13	3	38	2292	-1.11	1.53	0
50	SLU 14	1	45	2275	-1.55	0.38	0
50	SLU 15	2	41	2285	-1.29	1.07	0
50	SLU 16	1	45	2275	-1.55	0.38	0
50	SLU 17	2	41	2285	-1.29	1.07	0
50	SLU 18	1	45	2400	-1.49	0.42	0
50	SLU 19	3	40	2410	-1.22	1.12	0
50	SLU 20	1	45	2400	-1.49	0.42	0
50	SLU 21	3	40	2410	-1.22	1.12	0
50	SLU 22	1	44	2165	-1.59	0.3	0
50	SLU 23	3	37	2182	-1.15	1.46	0
50	SLU 24	1	44	2165	-1.59	0.3	0
50	SLU 25	2	40	2176	-1.33	0.99	0
50	SLU 26	3	37	2182	-1.15	1.46	0
50	SLU 27	1	44	2165	-1.59	0.3	0
50	SLU 28	2	40	2176	-1.33	0.99	0
50	SLU 29	1	44	2165	-1.59	0.3	0
50	SLU 30	2	40	2176	-1.33	0.99	0
50	SLU 31	3	36	2474	-1	1.57	0
50	SLU 32	1	44	2458	-1.44	0.41	0
50	SLU 33	2	39	2468	-1.18	1.1	0
50	SLU 34	3	36	2474	-1	1.57	0
50	SLU 35	1	44	2458	-1.44	0.41	0
50	SLU 36	2	39	2468	-1.18	1.1	0
50	SLU 37	1	44	2458	-1.44	0.41	0
50	SLU 38	2	39	2468	-1.18	1.1	0
50	SLU 39	1	43	2583	-1.38	0.45	0
50	SLU 40	3	39	2593	-1.11	1.15	0
50	SLU 41	1	43	2583	-1.38	0.45	0
50	SLU 42	3	39	2593	-1.11	1.15	0
50	SLU 43	1	60	2515	-2.25	0.33	0
50	SLU 44	3	52	2532	-1.81	1.49	0
50	SLU 45	1	60	2515	-2.25	0.33	0
50	SLU 46	2	55	2525	-1.98	1.03	0
50	SLU 47	3	52	2532	-1.81	1.49	0
50	SLU 48	1	60	2515	-2.25	0.33	0
50	SLU 49	2	55	2525	-1.98	1.03	0
50	SLU 50	1	60	2515	-2.25	0.33	0
50	SLU 51	2	55	2525	-1.98	1.03	0
50	SLU 52	4	52	2824	-1.66	1.6	-0.01
50	SLU 53	1	59	2807	-2.1	0.44	0
50	SLU 54	3	55	2818	-1.83	1.14	-0.01
50	SLU 55	4	52	2824	-1.66	1.6	-0.01
50	SLU 56	1	59	2807	-2.1	0.44	0
50	SLU 57	3	55	2818	-1.83	1.14	-0.01
50	SLU 58	1	59	2807	-2.1	0.44	0
50	SLU 59	3	55	2818	-1.83	1.14	-0.01
50	SLU 60	1	59	2933	-2.04	0.49	-0.01
50	SLU 61	3	54	2943	-1.77	1.19	-0.01
50	SLU 62	1	59	2933	-2.04	0.49	-0.01
50	SLU 63	3	54	2943	-1.77	1.19	-0.01
50	SLU 64	1	58	2698	-2.14	0.37	0
50	SLU 65	3	51	2715	-1.7	1.53	-0.01
50	SLU 66	1	58	2698	-2.14	0.37	0
50	SLU 67	2	54	2708	-1.87	1.06	0
50	SLU 68	3	51	2715	-1.7	1.53	-0.01
50	SLU 69	1	58	2698	-2.14	0.37	0
50	SLU 70	2	54	2708	-1.87	1.06	0
50	SLU 71	1	58	2698	-2.14	0.37	0
50	SLU 72	2	54	2708	-1.87	1.06	0
50	SLU 73	4	50	3007	-1.55	1.64	-0.01
50	SLU 74	1	58	2990	-1.99	0.48	-0.01
50	SLU 75	3	53	3000	-1.72	1.17	-0.01
50	SLU 76	4	50	3007	-1.55	1.64	-0.01
50	SLU 77	1	58	2990	-1.99	0.48	-0.01
50	SLU 78	3	53	3000	-1.72	1.17	-0.01
50	SLU 79	1	58	2990	-1.99	0.48	-0.01
50	SLU 80	3	53	3000	-1.72	1.17	-0.01
50	SLU 81	1	57	3115	-1.93	0.52	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
50	SLU 82	3	53	3125	-1.66	1.22	-0.01
50	SLU 83	1	57	3115	-1.93	0.52	-0.01
50	SLU 84	3	53	3125	-1.66	1.22	-0.01
50	SLE RA 1	1	45	2035	-1.67	0.27	0
50	SLE RA 2	2	40	2046	-1.37	1.05	0
50	SLE RA 3	1	45	2035	-1.67	0.27	0
50	SLE RA 4	2	42	2042	-1.49	0.74	0
50	SLE RA 5	2	40	2046	-1.37	1.05	0
50	SLE RA 6	1	45	2035	-1.67	0.27	0
50	SLE RA 7	2	42	2042	-1.49	0.74	0
50	SLE RA 8	1	45	2035	-1.67	0.27	0
50	SLE RA 9	2	42	2042	-1.49	0.74	0
50	SLE RA 10	3	40	2241	-1.27	1.12	0
50	SLE RA 11	1	45	2230	-1.57	0.35	0
50	SLE RA 12	2	42	2237	-1.39	0.81	0
50	SLE RA 13	3	40	2241	-1.27	1.12	0
50	SLE RA 14	1	45	2230	-1.57	0.35	0
50	SLE RA 15	2	42	2237	-1.39	0.81	0
50	SLE RA 16	1	45	2230	-1.57	0.35	0
50	SLE RA 17	2	42	2237	-1.39	0.81	0
50	SLE RA 18	1	44	2313	-1.53	0.38	0
50	SLE RA 19	2	42	2320	-1.35	0.84	0
50	SLE RA 20	1	44	2313	-1.53	0.38	0
50	SLE RA 21	2	42	2320	-1.35	0.84	0
50	SLE FR 1	1	45	2035	-1.67	0.27	0
50	SLE FR 2	1	44	2037	-1.61	0.43	0
50	SLE FR 3	1	45	2035	-1.67	0.27	0
50	SLE FR 4	1	44	2121	-1.57	0.46	0
50	SLE FR 5	1	45	2118	-1.63	0.31	0
50	SLE FR 6	1	45	2174	-1.6	0.33	0
50	SLE QP 1	1	45	2035	-1.67	0.27	0
50	SLE QP 2	1	45	2118	-1.63	0.31	0
50	SLD 1	-15	34	1863	-2.19	-4.79	-0.02
50	SLD 2	-15	34	1863	-2.19	-4.79	-0.02
50	SLD 3	-10	-124	1904	5.21	-2	-0.03
50	SLD 4	-10	-124	1904	5.21	-2	-0.03
50	SLD 5	-11	282	1979	-13.03	-5.46	0
50	SLD 6	-11	282	1979	-13.03	-5.46	0
50	SLD 7	5	-246	2117	11.65	3.85	-0.02
50	SLD 8	5	-246	2117	11.65	3.85	-0.02
50	SLD 9	-3	335	2120	-14.91	-3.24	0.01
50	SLD 10	-3	335	2120	-14.91	-3.24	0.01
50	SLD 11	13	-192	2258	9.77	6.07	-0.01
50	SLD 12	13	-192	2258	9.77	6.07	-0.01
50	SLD 13	12	214	2333	-8.47	2.61	0.02
50	SLD 14	12	214	2333	-8.47	2.61	0.02
50	SLD 15	17	55	2374	-1.07	5.4	0.02
50	SLD 16	17	55	2374	-1.07	5.4	0.02
50	SLV 1	-39	5	1471	-2.43	-12.69	-0.06
50	SLV 2	-39	5	1471	-2.43	-12.69	-0.06
50	SLV 3	-27	-369	1577	15.07	-5.61	-0.07
50	SLV 4	-27	-369	1577	15.07	-5.61	-0.07
50	SLV 5	-29	600	1762	-28.41	-14.32	0.01
50	SLV 6	-29	600	1762	-28.41	-14.32	0.01
50	SLV 7	10	-647	2118	29.92	9.26	-0.05
50	SLV 8	10	-647	2118	29.92	9.26	-0.05
50	SLV 9	-9	736	2119	-33.18	-8.65	0.04
50	SLV 10	-9	736	2119	-33.18	-8.65	0.04
50	SLV 11	31	-510	2475	25.15	14.93	-0.01
50	SLV 12	31	-510	2475	25.15	14.93	-0.01
50	SLV 13	29	459	2660	-18.33	6.22	0.07
50	SLV 14	29	459	2660	-18.33	6.22	0.07
50	SLV 15	41	85	2766	-0.83	13.3	0.05
50	SLV 16	41	85	2766	-0.83	13.3	0.05
51	SLU 1	-3	107	2008	-3.59	-0.92	0.01
51	SLU 2	-4	85	1994	-2.66	-1.84	0.01
51	SLU 3	-3	107	2008	-3.59	-0.92	0.01
51	SLU 4	-4	94	1999	-3.03	-1.47	0.01
51	SLU 5	-4	85	1994	-2.66	-1.84	0.01
51	SLU 6	-3	107	2008	-3.59	-0.92	0.01
51	SLU 7	-4	94	1999	-3.03	-1.47	0.01
51	SLU 8	-3	107	2008	-3.59	-0.92	0.01
51	SLU 9	-4	94	1999	-3.03	-1.47	0.01
51	SLU 10	-5	119	2340	-3.78	-2.12	0.01
51	SLU 11	-4	141	2354	-4.7	-1.21	0.02
51	SLU 12	-5	128	2345	-4.15	-1.76	0.02
51	SLU 13	-5	119	2340	-3.78	-2.12	0.01
51	SLU 14	-4	141	2354	-4.7	-1.21	0.02
51	SLU 15	-5	128	2345	-4.15	-1.76	0.02
51	SLU 16	-4	141	2354	-4.7	-1.21	0.02
51	SLU 17	-5	128	2345	-4.15	-1.76	0.02
51	SLU 18	-4	155	2502	-5.18	-1.33	0.02
51	SLU 19	-5	142	2494	-4.63	-1.88	0.02
51	SLU 20	-4	155	2502	-5.18	-1.33	0.02
51	SLU 21	-5	142	2494	-4.63	-1.88	0.02
51	SLU 22	-3	124	2195	-4.16	-1.05	0.01
51	SLU 23	-5	102	2181	-3.23	-1.96	0.01
51	SLU 24	-3	124	2195	-4.16	-1.05	0.01
51	SLU 25	-4	111	2187	-3.6	-1.6	0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
51	SLU 26	-5	102	2181	-3.23	-1.96	0.01
51	SLU 27	-3	124	2195	-4.16	-1.05	0.01
51	SLU 28	-4	111	2187	-3.6	-1.6	0.01
51	SLU 29	-3	124	2195	-4.16	-1.05	0.01
51	SLU 30	-4	111	2187	-3.6	-1.6	0.01
51	SLU 31	-6	136	2527	-4.35	-2.24	0.02
51	SLU 32	-4	158	2541	-5.27	-1.33	0.02
51	SLU 33	-5	145	2533	-4.72	-1.88	0.02
51	SLU 34	-6	136	2527	-4.35	-2.24	0.02
51	SLU 35	-4	158	2541	-5.27	-1.33	0.02
51	SLU 36	-5	145	2533	-4.72	-1.88	0.02
51	SLU 37	-4	158	2541	-5.27	-1.33	0.02
51	SLU 38	-5	145	2533	-4.72	-1.88	0.02
51	SLU 39	-5	172	2689	-5.75	-1.46	0.02
51	SLU 40	-6	159	2681	-5.19	-2	0.02
51	SLU 41	-5	172	2689	-5.75	-1.46	0.02
51	SLU 42	-6	159	2681	-5.19	-2	0.02
51	SLU 43	-4	133	2546	-4.47	-1.16	0.02
51	SLU 44	-5	111	2532	-3.55	-2.07	0.01
51	SLU 45	-4	133	2546	-4.47	-1.16	0.02
51	SLU 46	-5	120	2537	-3.92	-1.71	0.01
51	SLU 47	-5	111	2532	-3.55	-2.07	0.01
51	SLU 48	-4	133	2546	-4.47	-1.16	0.02
51	SLU 49	-5	120	2537	-3.92	-1.71	0.01
51	SLU 50	-4	133	2546	-4.47	-1.16	0.02
51	SLU 51	-5	120	2537	-3.92	-1.71	0.01
51	SLU 52	-6	145	2878	-4.66	-2.35	0.02
51	SLU 53	-5	167	2892	-5.58	-1.44	0.02
51	SLU 54	-6	154	2883	-5.03	-1.99	0.02
51	SLU 55	-6	145	2878	-4.66	-2.35	0.02
51	SLU 56	-5	167	2892	-5.58	-1.44	0.02
51	SLU 57	-6	154	2883	-5.03	-1.99	0.02
51	SLU 58	-5	167	2892	-5.58	-1.44	0.02
51	SLU 59	-6	154	2883	-5.03	-1.99	0.02
51	SLU 60	-5	182	3040	-6.06	-1.57	0.02
51	SLU 61	-6	168	3032	-5.51	-2.11	0.02
51	SLU 62	-5	182	3040	-6.06	-1.57	0.02
51	SLU 63	-6	168	3032	-5.51	-2.11	0.02
51	SLU 64	-4	150	2733	-5.04	-1.28	0.02
51	SLU 65	-6	128	2719	-4.11	-2.19	0.02
51	SLU 66	-4	150	2733	-5.04	-1.28	0.02
51	SLU 67	-5	137	2725	-4.48	-1.83	0.02
51	SLU 68	-6	128	2719	-4.11	-2.19	0.02
51	SLU 69	-4	150	2733	-5.04	-1.28	0.02
51	SLU 70	-5	137	2725	-4.48	-1.83	0.02
51	SLU 71	-4	150	2733	-5.04	-1.28	0.02
51	SLU 72	-5	137	2725	-4.48	-1.83	0.02
51	SLU 73	-7	162	3065	-5.23	-2.48	0.02
51	SLU 74	-5	184	3079	-6.15	-1.57	0.02
51	SLU 75	-6	171	3071	-5.6	-2.11	0.02
51	SLU 76	-7	162	3065	-5.23	-2.48	0.02
51	SLU 77	-5	184	3079	-6.15	-1.57	0.02
51	SLU 78	-6	171	3071	-5.6	-2.11	0.02
51	SLU 79	-5	184	3079	-6.15	-1.57	0.02
51	SLU 80	-6	171	3071	-5.6	-2.11	0.02
51	SLU 81	-5	199	3227	-6.63	-1.69	0.02
51	SLU 82	-6	185	3219	-6.08	-2.24	0.02
51	SLU 83	-5	199	3227	-6.63	-1.69	0.02
51	SLU 84	-6	185	3219	-6.08	-2.24	0.02
51	SLE RA 1	-3	112	2061	-3.75	-0.96	0.01
51	SLE RA 2	-4	97	2052	-3.13	-1.57	0.01
51	SLE RA 3	-3	112	2061	-3.75	-0.96	0.01
51	SLE RA 4	-4	103	2056	-3.38	-1.32	0.01
51	SLE RA 5	-4	97	2052	-3.13	-1.57	0.01
51	SLE RA 6	-3	112	2061	-3.75	-0.96	0.01
51	SLE RA 7	-4	103	2056	-3.38	-1.32	0.01
51	SLE RA 8	-3	112	2061	-3.75	-0.96	0.01
51	SLE RA 9	-4	103	2056	-3.38	-1.32	0.01
51	SLE RA 10	-5	120	2283	-3.88	-1.76	0.01
51	SLE RA 11	-4	134	2292	-4.49	-1.15	0.02
51	SLE RA 12	-4	126	2286	-4.12	-1.51	0.01
51	SLE RA 13	-5	120	2283	-3.88	-1.76	0.01
51	SLE RA 14	-4	134	2292	-4.49	-1.15	0.02
51	SLE RA 15	-4	126	2286	-4.12	-1.51	0.01
51	SLE RA 16	-4	134	2292	-4.49	-1.15	0.02
51	SLE RA 17	-4	126	2286	-4.12	-1.51	0.01
51	SLE RA 18	-4	144	2391	-4.81	-1.23	0.02
51	SLE RA 19	-5	135	2385	-4.44	-1.6	0.02
51	SLE RA 20	-4	144	2391	-4.81	-1.23	0.02
51	SLE RA 21	-5	135	2385	-4.44	-1.6	0.02
51	SLE FR 1	-3	112	2061	-3.75	-0.96	0.01
51	SLE FR 2	-3	109	2059	-3.63	-1.08	0.01
51	SLE FR 3	-3	112	2061	-3.75	-0.96	0.01
51	SLE FR 4	-4	118	2158	-3.95	-1.16	0.01
51	SLE FR 5	-3	121	2160	-4.07	-1.04	0.01
51	SLE FR 6	-4	128	2226	-4.28	-1.1	0.02
51	SLE QP 1	-3	112	2061	-3.75	-0.96	0.01
51	SLE QP 2	-3	121	2160	-4.07	-1.04	0.01
51	SLD 1	-14	153	1897	-5.37	-4.3	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
51	SLD 2	-14	153	1897	-5.37	-4.3	-0.01
51	SLD 3	-19	-5	1881	1.23	-6.59	-0.01
51	SLD 4	-19	-5	1881	1.23	-6.59	-0.01
51	SLD 5	1	370	2105	-14.48	1.44	0.02
51	SLD 6	1	370	2105	-14.48	1.44	0.02
51	SLD 7	-15	-156	2053	7.55	-6.17	0
51	SLD 8	-15	-156	2053	7.55	-6.17	0
51	SLD 9	9	399	2268	-15.68	4.09	0.03
51	SLD 10	9	399	2268	-15.68	4.09	0.03
51	SLD 11	-7	-127	2215	6.35	-3.53	0.01
51	SLD 12	-7	-127	2215	6.35	-3.53	0.01
51	SLD 13	13	248	2439	-9.37	4.51	0.04
51	SLD 14	13	248	2439	-9.37	4.51	0.04
51	SLD 15	8	90	2423	-2.76	2.22	0.04
51	SLD 16	8	90	2423	-2.76	2.22	0.04
51	SLV 1	-32	195	1539	-7.17	-9.36	-0.04
51	SLV 2	-32	195	1539	-7.17	-9.36	-0.04
51	SLV 3	-43	-178	1500	8.44	-14.88	-0.05
51	SLV 4	-43	-178	1500	8.44	-14.88	-0.05
51	SLV 5	5	708	2032	-28.66	4.83	0.02
51	SLV 6	5	708	2032	-28.66	4.83	0.02
51	SLV 7	-33	-533	1904	23.35	-13.56	-0.03
51	SLV 8	-33	-533	1904	23.35	-13.56	-0.03
51	SLV 9	26	776	2416	-31.49	11.48	0.05
51	SLV 10	26	776	2416	-31.49	11.48	0.05
51	SLV 11	-12	-466	2288	20.53	-6.91	0.01
51	SLV 12	-12	-466	2288	20.53	-6.91	0.01
51	SLV 13	37	420	2820	-16.57	12.8	0.08
51	SLV 14	37	420	2820	-16.57	12.8	0.08
51	SLV 15	25	48	2781	-0.97	7.28	0.07
51	SLV 16	25	48	2781	-0.97	7.28	0.07
52	SLU 1	15	-435	1067	23.61	0.97	0.17
52	SLU 2	15	-434	1070	23.55	1.04	0.17
52	SLU 3	15	-435	1067	23.61	0.97	0.17
52	SLU 4	15	-434	1069	23.57	1.01	0.17
52	SLU 5	15	-434	1070	23.55	1.04	0.17
52	SLU 6	15	-435	1067	23.61	0.97	0.17
52	SLU 7	15	-434	1069	23.57	1.01	0.17
52	SLU 8	15	-435	1067	23.61	0.97	0.17
52	SLU 9	15	-434	1069	23.57	1.01	0.17
52	SLU 10	21	-594	1412	32.25	1.47	0.21
52	SLU 11	21	-595	1409	32.31	1.4	0.21
52	SLU 12	21	-595	1411	32.28	1.44	0.21
52	SLU 13	21	-594	1412	32.25	1.47	0.21
52	SLU 14	21	-595	1409	32.31	1.4	0.21
52	SLU 15	21	-595	1411	32.28	1.44	0.21
52	SLU 16	21	-595	1409	32.31	1.4	0.21
52	SLU 17	21	-595	1411	32.28	1.44	0.21
52	SLU 18	23	-664	1555	36.04	1.58	0.23
52	SLU 19	23	-663	1557	36.01	1.63	0.23
52	SLU 20	23	-664	1555	36.04	1.58	0.23
52	SLU 21	23	-663	1557	36.01	1.63	0.23
52	SLU 22	20	-550	1218	29.86	1.39	0.15
52	SLU 23	20	-549	1222	29.8	1.47	0.15
52	SLU 24	20	-550	1218	29.86	1.39	0.15
52	SLU 25	20	-550	1220	29.83	1.44	0.15
52	SLU 26	20	-549	1222	29.8	1.47	0.15
52	SLU 27	20	-550	1218	29.86	1.39	0.15
52	SLU 28	20	-550	1220	29.83	1.44	0.15
52	SLU 29	20	-550	1218	29.86	1.39	0.15
52	SLU 30	20	-550	1220	29.83	1.44	0.15
52	SLU 31	26	-710	1564	38.51	1.9	0.2
52	SLU 32	25	-710	1560	38.57	1.83	0.2
52	SLU 33	25	-710	1562	38.53	1.87	0.2
52	SLU 34	26	-710	1564	38.51	1.9	0.2
52	SLU 35	25	-710	1560	38.57	1.83	0.2
52	SLU 36	25	-710	1562	38.53	1.87	0.2
52	SLU 37	25	-710	1560	38.57	1.83	0.2
52	SLU 38	25	-710	1562	38.53	1.87	0.2
52	SLU 39	28	-779	1707	42.3	2.01	0.21
52	SLU 40	28	-779	1709	42.26	2.06	0.21
52	SLU 41	28	-779	1707	42.3	2.01	0.21
52	SLU 42	28	-779	1709	42.26	2.06	0.21
52	SLU 43	18	-526	1335	28.55	1.11	0.22
52	SLU 44	18	-525	1338	28.49	1.18	0.22
52	SLU 45	18	-526	1335	28.55	1.11	0.22
52	SLU 46	18	-525	1337	28.51	1.15	0.22
52	SLU 47	18	-525	1338	28.49	1.18	0.22
52	SLU 48	18	-526	1335	28.55	1.11	0.22
52	SLU 49	18	-525	1337	28.51	1.15	0.22
52	SLU 50	18	-526	1335	28.55	1.11	0.22
52	SLU 51	18	-525	1337	28.51	1.15	0.22
52	SLU 52	24	-685	1680	37.19	1.62	0.27
52	SLU 53	24	-686	1677	37.25	1.54	0.27
52	SLU 54	24	-685	1679	37.21	1.59	0.27
52	SLU 55	24	-685	1680	37.19	1.62	0.27
52	SLU 56	24	-686	1677	37.25	1.54	0.27
52	SLU 57	24	-685	1679	37.21	1.59	0.27
52	SLU 58	24	-686	1677	37.25	1.54	0.27



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
52	SLU 59	24	-685	1679	37.21	1.59	0.27
52	SLU 60	26	-755	1823	40.98	1.73	0.28
52	SLU 61	26	-754	1825	40.94	1.77	0.28
52	SLU 62	26	-755	1823	40.98	1.73	0.28
52	SLU 63	26	-754	1825	40.94	1.77	0.28
52	SLU 64	22	-641	1486	34.8	1.54	0.21
52	SLU 65	22	-640	1490	34.74	1.61	0.21
52	SLU 66	22	-641	1486	34.8	1.54	0.21
52	SLU 67	22	-640	1488	34.77	1.58	0.21
52	SLU 68	22	-640	1490	34.74	1.61	0.21
52	SLU 69	22	-641	1486	34.8	1.54	0.21
52	SLU 70	22	-640	1488	34.77	1.58	0.21
52	SLU 71	22	-641	1486	34.8	1.54	0.21
52	SLU 72	22	-640	1488	34.77	1.58	0.21
52	SLU 73	28	-801	1832	43.44	2.04	0.25
52	SLU 74	28	-801	1828	43.51	1.97	0.25
52	SLU 75	28	-801	1830	43.47	2.01	0.25
52	SLU 76	28	-801	1832	43.44	2.04	0.25
52	SLU 77	28	-801	1828	43.51	1.97	0.25
52	SLU 78	28	-801	1830	43.47	2.01	0.25
52	SLU 79	28	-801	1828	43.51	1.97	0.25
52	SLU 80	28	-801	1830	43.47	2.01	0.25
52	SLU 81	31	-870	1975	47.24	2.15	0.27
52	SLU 82	31	-870	1977	47.2	2.2	0.27
52	SLU 83	31	-870	1975	47.24	2.15	0.27
52	SLU 84	31	-870	1977	47.2	2.2	0.27
52	SLE RA 1	16	-468	1110	25.4	1.09	0.16
52	SLE RA 2	16	-467	1112	25.36	1.14	0.16
52	SLE RA 3	16	-468	1110	25.4	1.09	0.16
52	SLE RA 4	16	-467	1111	25.37	1.12	0.16
52	SLE RA 5	16	-467	1112	25.36	1.14	0.16
52	SLE RA 6	16	-468	1110	25.4	1.09	0.16
52	SLE RA 7	16	-467	1111	25.37	1.12	0.16
52	SLE RA 8	16	-468	1110	25.4	1.09	0.16
52	SLE RA 9	16	-467	1111	25.37	1.12	0.16
52	SLE RA 10	20	-574	1340	31.16	1.43	0.19
52	SLE RA 11	20	-575	1338	31.2	1.38	0.19
52	SLE RA 12	20	-574	1339	31.17	1.41	0.19
52	SLE RA 13	20	-574	1340	31.16	1.43	0.19
52	SLE RA 14	20	-575	1338	31.2	1.38	0.19
52	SLE RA 15	20	-574	1339	31.17	1.41	0.19
52	SLE RA 16	20	-575	1338	31.2	1.38	0.19
52	SLE RA 17	20	-574	1339	31.17	1.41	0.19
52	SLE RA 18	22	-620	1436	33.69	1.5	0.2
52	SLE RA 19	22	-620	1437	33.66	1.53	0.2
52	SLE RA 20	22	-620	1436	33.69	1.5	0.2
52	SLE RA 21	22	-620	1437	33.66	1.53	0.2
52	SLE FR 1	16	-468	1110	25.4	1.09	0.16
52	SLE FR 2	16	-468	1110	25.39	1.1	0.16
52	SLE FR 3	16	-468	1110	25.4	1.09	0.16
52	SLE FR 4	18	-513	1208	27.88	1.22	0.18
52	SLE FR 5	18	-513	1208	27.88	1.21	0.18
52	SLE FR 6	19	-544	1273	29.54	1.29	0.18
52	SLE QP 1	16	-468	1110	25.4	1.09	0.16
52	SLE QP 2	18	-513	1208	27.88	1.21	0.18
52	SLD 1	19	-490	1613	26.28	4.01	0.08
52	SLD 2	19	-490	1613	26.28	4.01	0.08
52	SLD 3	29	-635	1274	36.42	5.49	-0.1
52	SLD 4	29	-635	1274	36.42	5.49	-0.1
52	SLD 5	4	-287	1845	12.02	-0.2	0.42
52	SLD 6	4	-287	1845	12.02	-0.2	0.42
52	SLD 7	36	-769	712	45.83	4.75	-0.18
52	SLD 8	36	-769	712	45.83	4.75	-0.18
52	SLD 9	0	-258	1703	9.94	-2.33	0.53
52	SLD 10	0	-258	1703	9.94	-2.33	0.53
52	SLD 11	32	-740	571	43.75	2.63	-0.07
52	SLD 12	32	-740	571	43.75	2.63	-0.07
52	SLD 13	7	-392	1142	19.35	-3.07	0.46
52	SLD 14	7	-392	1142	19.35	-3.07	0.46
52	SLD 15	16	-537	802	29.49	-1.58	0.28
52	SLD 16	16	-537	802	29.49	-1.58	0.28
52	SLV 1	23	-467	2189	24.73	8.52	-0.1
52	SLV 2	23	-467	2189	24.73	8.52	-0.1
52	SLV 3	45	-805	1398	48.44	12	-0.52
52	SLV 4	45	-805	1398	48.44	12	-0.52
52	SLV 5	-14	13	2702	-9.02	-1.88	0.73
52	SLV 6	-14	13	2702	-9.02	-1.88	0.73
52	SLV 7	60	-1114	65	70.01	9.73	-0.67
52	SLV 8	60	-1114	65	70.01	9.73	-0.67
52	SLV 9	-24	87	2350	-14.24	-7.3	1.02
52	SLV 10	-24	87	2350	-14.24	-7.3	1.02
52	SLV 11	50	-1040	-286	64.79	4.3	-0.38
52	SLV 12	50	-1040	-286	64.79	4.3	-0.38
52	SLV 13	-9	-222	1017	7.33	-9.57	0.87
52	SLV 14	-9	-222	1017	7.33	-9.57	0.87
52	SLV 15	13	-560	226	31.04	-6.09	0.45
52	SLV 16	13	-560	226	31.04	-6.09	0.45
53	SLU 1	153	4	2885	-0.52	1.33	0
53	SLU 2	167	-15	2921	0.08	2.5	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
53	SLU 3	153	4	2885	-0.52	1.33	0
53	SLU 4	161	-7	2906	-0.16	2.03	0
53	SLU 5	167	-15	2921	0.08	2.5	0
53	SLU 6	153	4	2885	-0.52	1.33	0
53	SLU 7	161	-7	2906	-0.16	2.03	0
53	SLU 8	153	4	2885	-0.52	1.33	0
53	SLU 9	161	-7	2906	-0.16	2.03	0
53	SLU 10	191	-22	3331	0.31	3.14	0
53	SLU 11	177	-3	3295	-0.29	1.97	0
53	SLU 12	185	-14	3317	0.07	2.67	0
53	SLU 13	191	-22	3331	0.31	3.14	0
53	SLU 14	177	-3	3295	-0.29	1.97	0
53	SLU 15	185	-14	3317	0.07	2.67	0
53	SLU 16	177	-3	3295	-0.29	1.97	0
53	SLU 17	185	-14	3317	0.07	2.67	0
53	SLU 18	187	-6	3471	-0.19	2.24	0
53	SLU 19	196	-17	3493	0.17	2.94	0
53	SLU 20	187	-6	3471	-0.19	2.24	0
53	SLU 21	196	-17	3493	0.17	2.94	0
53	SLU 22	166	0	3143	-0.39	1.46	0
53	SLU 23	180	-19	3179	0.21	2.63	0
53	SLU 24	166	0	3143	-0.39	1.46	0
53	SLU 25	175	-11	3164	-0.03	2.16	0
53	SLU 26	180	-19	3179	0.21	2.63	0
53	SLU 27	166	0	3143	-0.39	1.46	0
53	SLU 28	175	-11	3164	-0.03	2.16	0
53	SLU 29	166	0	3143	-0.39	1.46	0
53	SLU 30	175	-11	3164	-0.03	2.16	0
53	SLU 31	204	-26	3589	0.44	3.27	0
53	SLU 32	190	-7	3553	-0.16	2.1	0
53	SLU 33	198	-19	3575	0.2	2.8	0
53	SLU 34	204	-26	3589	0.44	3.27	0
53	SLU 35	190	-7	3553	-0.16	2.1	0
53	SLU 36	198	-19	3575	0.2	2.8	0
53	SLU 37	190	-7	3553	-0.16	2.1	0
53	SLU 38	198	-19	3575	0.2	2.8	0
53	SLU 39	200	-10	3729	-0.06	2.37	0
53	SLU 40	209	-22	3751	0.3	3.07	0
53	SLU 41	200	-10	3729	-0.06	2.37	0
53	SLU 42	209	-22	3751	0.3	3.07	0
53	SLU 43	194	7	3662	-0.72	1.68	0
53	SLU 44	209	-12	3698	-0.12	2.85	0
53	SLU 45	194	7	3662	-0.72	1.68	0
53	SLU 46	203	-4	3684	-0.36	2.38	0
53	SLU 47	209	-12	3698	-0.12	2.85	0
53	SLU 48	194	7	3662	-0.72	1.68	0
53	SLU 49	203	-4	3684	-0.36	2.38	0
53	SLU 50	194	7	3662	-0.72	1.68	0
53	SLU 51	203	-4	3684	-0.36	2.38	0
53	SLU 52	232	-19	4108	0.11	3.49	0
53	SLU 53	218	0	4072	-0.49	2.32	0
53	SLU 54	227	-12	4094	-0.13	3.02	0
53	SLU 55	232	-19	4108	0.11	3.49	0
53	SLU 56	218	0	4072	-0.49	2.32	0
53	SLU 57	227	-12	4094	-0.13	3.02	0
53	SLU 58	218	0	4072	-0.49	2.32	0
53	SLU 59	227	-12	4094	-0.13	3.02	0
53	SLU 60	228	-3	4248	-0.39	2.59	0
53	SLU 61	237	-15	4270	-0.03	3.29	0
53	SLU 62	228	-3	4248	-0.39	2.59	0
53	SLU 63	237	-15	4270	-0.03	3.29	0
53	SLU 64	207	3	3920	-0.59	1.81	0
53	SLU 65	222	-16	3956	0.01	2.98	0
53	SLU 66	207	3	3920	-0.59	1.81	0
53	SLU 67	216	-9	3941	-0.23	2.51	0
53	SLU 68	222	-16	3956	0.01	2.98	0
53	SLU 69	207	3	3920	-0.59	1.81	0
53	SLU 70	216	-9	3941	-0.23	2.51	0
53	SLU 71	207	3	3920	-0.59	1.81	0
53	SLU 72	216	-9	3941	-0.23	2.51	0
53	SLU 73	246	-24	4366	0.24	3.62	0
53	SLU 74	231	-5	4330	-0.36	2.45	0
53	SLU 75	240	-16	4352	0	3.15	0
53	SLU 76	246	-24	4366	0.24	3.62	0
53	SLU 77	231	-5	4330	-0.36	2.45	0
53	SLU 78	240	-16	4352	0	3.15	0
53	SLU 79	231	-5	4330	-0.36	2.45	0
53	SLU 80	240	-16	4352	0	3.15	0
53	SLU 81	241	-8	4506	-0.26	2.72	0
53	SLU 82	250	-19	4528	0.1	3.43	0
53	SLU 83	241	-8	4506	-0.26	2.72	0
53	SLU 84	250	-19	4528	0.1	3.43	0
53	SLE RA 1	156	3	2959	-0.48	1.36	0
53	SLE RA 2	166	-10	2982	-0.08	2.14	0
53	SLE RA 3	156	3	2959	-0.48	1.36	0
53	SLE RA 4	162	-5	2973	-0.24	1.83	0
53	SLE RA 5	166	-10	2982	-0.08	2.14	0
53	SLE RA 6	156	3	2959	-0.48	1.36	0
53	SLE RA 7	162	-5	2973	-0.24	1.83	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
53	SLE RA 8	156	3	2959	-0.48	1.36	0
53	SLE RA 9	162	-5	2973	-0.24	1.83	0
53	SLE RA 10	182	-14	3256	0.07	2.57	0
53	SLE RA 11	172	-2	3232	-0.33	1.79	0
53	SLE RA 12	178	-9	3247	-0.09	2.26	0
53	SLE RA 13	182	-14	3256	0.07	2.57	0
53	SLE RA 14	172	-2	3232	-0.33	1.79	0
53	SLE RA 15	178	-9	3247	-0.09	2.26	0
53	SLE RA 16	172	-2	3232	-0.33	1.79	0
53	SLE RA 17	178	-9	3247	-0.09	2.26	0
53	SLE RA 18	179	-4	3349	-0.26	1.97	0
53	SLE RA 19	185	-11	3364	-0.02	2.44	0
53	SLE RA 20	179	-4	3349	-0.26	1.97	0
53	SLE RA 21	185	-11	3364	-0.02	2.44	0
53	SLE FR 1	156	3	2959	-0.48	1.36	0
53	SLE FR 2	158	0	2963	-0.4	1.52	0
53	SLE FR 3	156	3	2959	-0.48	1.36	0
53	SLE FR 4	165	-2	3081	-0.34	1.7	0
53	SLE FR 5	163	1	3076	-0.42	1.55	0
53	SLE FR 6	168	0	3154	-0.37	1.67	0
53	SLE QP 1	156	3	2959	-0.48	1.36	0
53	SLE QP 2	163	1	3076	-0.42	1.55	0
53	SLD 1	14	101	2591	-5.59	-9.76	0.04
53	SLD 2	14	101	2591	-5.59	-9.76	0.04
53	SLD 3	36	-57	2666	2.02	-7.97	0
53	SLD 4	36	-57	2666	2.02	-7.97	0
53	SLD 5	85	270	2816	-13.5	-4.56	0.07
53	SLD 6	85	270	2816	-13.5	-4.56	0.07
53	SLD 7	159	-256	3067	11.85	1.41	-0.05
53	SLD 8	159	-256	3067	11.85	1.41	-0.05
53	SLD 9	168	258	3084	-12.68	1.68	0.05
53	SLD 10	168	258	3084	-12.68	1.68	0.05
53	SLD 11	242	-268	3336	12.67	7.65	-0.07
53	SLD 12	242	-268	3336	12.67	7.65	-0.07
53	SLD 13	291	59	3485	-2.85	11.06	0
53	SLD 14	291	59	3485	-2.85	11.06	0
53	SLD 15	313	-99	3561	4.75	12.85	-0.04
53	SLD 16	313	-99	3561	4.75	12.85	-0.04
53	SLV 1	-218	237	1842	-12.75	-27.17	0.09
53	SLV 2	-218	237	1842	-12.75	-27.17	0.09
53	SLV 3	-160	-135	2037	5.2	-22.51	0
53	SLV 4	-160	-135	2037	5.2	-22.51	0
53	SLV 5	-39	637	2411	-31.35	-14.13	0.16
53	SLV 6	-39	637	2411	-31.35	-14.13	0.16
53	SLV 7	154	-605	3059	28.5	1.39	-0.13
53	SLV 8	154	-605	3059	28.5	1.39	-0.13
53	SLV 9	172	607	3092	-29.34	1.7	0.13
53	SLV 10	172	607	3092	-29.34	1.7	0.13
53	SLV 11	366	-635	3741	30.52	17.22	-0.16
53	SLV 12	366	-635	3741	30.52	17.22	-0.16
53	SLV 13	487	137	4115	-6.04	25.6	0
53	SLV 14	487	137	4115	-6.04	25.6	0
53	SLV 15	545	-236	4309	11.92	30.26	-0.09
53	SLV 16	545	-236	4309	11.92	30.26	-0.09
54	SLU 1	-137	0	873	-0.01	0.1	0
54	SLU 2	-116	4	830	-0.59	1.25	-0.13
54	SLU 3	-137	0	873	-0.01	0.1	0
54	SLU 4	-124	2	847	-0.35	0.79	-0.08
54	SLU 5	-116	4	830	-0.59	1.25	-0.13
54	SLU 6	-137	0	873	-0.01	0.1	0
54	SLU 7	-124	2	847	-0.35	0.79	-0.08
54	SLU 8	-137	0	873	-0.01	0.1	0
54	SLU 9	-124	2	847	-0.35	0.79	-0.08
54	SLU 10	-126	4	918	-0.58	1.74	-0.13
54	SLU 11	-147	0	961	0	0.6	0
54	SLU 12	-134	2	935	-0.35	1.28	-0.08
54	SLU 13	-126	4	918	-0.58	1.74	-0.13
54	SLU 14	-147	0	961	0	0.6	0
54	SLU 15	-134	2	935	-0.35	1.28	-0.08
54	SLU 16	-147	0	961	0	0.6	0
54	SLU 17	-134	2	935	-0.35	1.28	-0.08
54	SLU 18	-152	0	999	0	0.81	0
54	SLU 19	-139	2	973	-0.35	1.5	-0.08
54	SLU 20	-152	0	999	0	0.81	0
54	SLU 21	-139	2	973	-0.35	1.5	-0.08
54	SLU 22	-149	0	946	0	0.13	0
54	SLU 23	-128	4	903	-0.58	1.28	-0.13
54	SLU 24	-149	0	946	0	0.13	0
54	SLU 25	-136	2	920	-0.35	0.82	-0.08
54	SLU 26	-128	4	903	-0.58	1.28	-0.13
54	SLU 27	-149	0	946	0	0.13	0
54	SLU 28	-136	2	920	-0.35	0.82	-0.08
54	SLU 29	-149	0	946	0	0.13	0
54	SLU 30	-136	2	920	-0.35	0.82	-0.08
54	SLU 31	-138	4	991	-0.58	1.77	-0.13
54	SLU 32	-159	0	1034	0	0.62	0
54	SLU 33	-146	2	1008	-0.35	1.31	-0.08
54	SLU 34	-138	4	991	-0.58	1.77	-0.13
54	SLU 35	-159	0	1034	0	0.62	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
54	SLU 36	-146	2	1008	-0.35	1.31	-0.08
54	SLU 37	-159	0	1034	0	0.62	0
54	SLU 38	-146	2	1008	-0.35	1.31	-0.08
54	SLU 39	-164	0	1072	0	0.83	0
54	SLU 40	-151	2	1046	-0.34	1.52	-0.08
54	SLU 41	-164	0	1072	0	0.83	0
54	SLU 42	-151	2	1046	-0.34	1.52	-0.08
54	SLU 43	-174	0	1109	-0.01	0.13	0
54	SLU 44	-153	4	1066	-0.59	1.27	-0.13
54	SLU 45	-174	0	1109	-0.01	0.13	0
54	SLU 46	-161	2	1083	-0.36	0.81	-0.08
54	SLU 47	-153	4	1066	-0.59	1.27	-0.13
54	SLU 48	-174	0	1109	-0.01	0.13	0
54	SLU 49	-161	2	1083	-0.36	0.81	-0.08
54	SLU 50	-174	0	1109	-0.01	0.13	0
54	SLU 51	-161	2	1083	-0.36	0.81	-0.08
54	SLU 52	-163	4	1155	-0.58	1.77	-0.13
54	SLU 53	-184	0	1198	0	0.62	0
54	SLU 54	-171	2	1172	-0.35	1.31	-0.08
54	SLU 55	-163	4	1155	-0.58	1.77	-0.13
54	SLU 56	-184	0	1198	0	0.62	0
54	SLU 57	-171	2	1172	-0.35	1.31	-0.08
54	SLU 58	-184	0	1198	0	0.62	0
54	SLU 59	-171	2	1172	-0.35	1.31	-0.08
54	SLU 60	-189	0	1235	0	0.83	0
54	SLU 61	-176	2	1210	-0.35	1.52	-0.08
54	SLU 62	-189	0	1235	0	0.83	0
54	SLU 63	-176	2	1210	-0.35	1.52	-0.08
54	SLU 64	-187	0	1182	-0.01	0.15	0
54	SLU 65	-165	4	1140	-0.59	1.3	-0.13
54	SLU 66	-187	0	1182	-0.01	0.15	0
54	SLU 67	-173	2	1157	-0.35	0.84	-0.08
54	SLU 68	-165	4	1140	-0.59	1.3	-0.13
54	SLU 69	-187	0	1182	-0.01	0.15	0
54	SLU 70	-173	2	1157	-0.35	0.84	-0.08
54	SLU 71	-187	0	1182	-0.01	0.15	0
54	SLU 72	-173	2	1157	-0.35	0.84	-0.08
54	SLU 73	-175	4	1228	-0.58	1.79	-0.13
54	SLU 74	-196	0	1271	0	0.64	0
54	SLU 75	-183	2	1245	-0.35	1.33	-0.08
54	SLU 76	-175	4	1228	-0.58	1.79	-0.13
54	SLU 77	-196	0	1271	0	0.64	0
54	SLU 78	-183	2	1245	-0.35	1.33	-0.08
54	SLU 79	-196	0	1271	0	0.64	0
54	SLU 80	-183	2	1245	-0.35	1.33	-0.08
54	SLU 81	-201	0	1309	0	0.86	0
54	SLU 82	-188	2	1283	-0.35	1.54	-0.08
54	SLU 83	-201	0	1309	0	0.86	0
54	SLU 84	-188	2	1283	-0.35	1.54	-0.08
54	SLE RA 1	-141	0	894	-0.01	0.11	0
54	SLE RA 2	-126	3	865	-0.39	0.88	-0.09
54	SLE RA 3	-141	0	894	-0.01	0.11	0
54	SLE RA 4	-132	2	876	-0.24	0.57	-0.05
54	SLE RA 5	-126	3	865	-0.39	0.88	-0.09
54	SLE RA 6	-141	0	894	-0.01	0.11	0
54	SLE RA 7	-132	2	876	-0.24	0.57	-0.05
54	SLE RA 8	-141	0	894	-0.01	0.11	0
54	SLE RA 9	-132	2	876	-0.24	0.57	-0.05
54	SLE RA 10	-133	3	924	-0.39	1.2	-0.09
54	SLE RA 11	-147	0	952	0	0.44	0
54	SLE RA 12	-139	2	935	-0.23	0.9	-0.05
54	SLE RA 13	-133	3	924	-0.39	1.2	-0.09
54	SLE RA 14	-147	0	952	0	0.44	0
54	SLE RA 15	-139	2	935	-0.23	0.9	-0.05
54	SLE RA 16	-147	0	952	0	0.44	0
54	SLE RA 17	-139	2	935	-0.23	0.9	-0.05
54	SLE RA 18	-150	0	978	0	0.58	0
54	SLE RA 19	-142	2	960	-0.23	1.04	-0.05
54	SLE RA 20	-150	0	978	0	0.58	0
54	SLE RA 21	-142	2	960	-0.23	1.04	-0.05
54	SLE FR 1	-141	0	894	-0.01	0.11	0
54	SLE FR 2	-138	1	888	-0.08	0.26	-0.02
54	SLE FR 3	-141	0	894	-0.01	0.11	0
54	SLE FR 4	-141	1	913	-0.08	0.41	-0.02
54	SLE FR 5	-144	0	919	0	0.25	0
54	SLE FR 6	-146	0	936	0	0.35	0
54	SLE QP 1	-141	0	894	-0.01	0.11	0
54	SLE QP 2	-144	0	919	0	0.25	0
54	SLD 1	-351	6	1327	-0.94	-11.02	-0.21
54	SLD 2	-351	6	1327	-0.94	-11.02	-0.21
54	SLD 3	-318	16	1259	-2.46	-9.24	-0.55
54	SLD 4	-318	16	1259	-2.46	-9.24	-0.55
54	SLD 5	-255	-13	1144	2.01	-5.82	0.45
54	SLD 6	-255	-13	1144	2.01	-5.82	0.45
54	SLD 7	-146	20	918	-3.03	0.09	-0.67
54	SLD 8	-146	20	918	-3.03	0.09	-0.67
54	SLD 9	-141	-20	919	3.03	0.41	0.67
54	SLD 10	-141	-20	919	3.03	0.41	0.67
54	SLD 11	-32	13	694	-2.02	6.32	-0.45



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
54	SLD 12	-32	13	694	-2.02	6.32	-0.45
54	SLD 13	31	-16	578	2.45	9.75	0.54
54	SLD 14	31	-16	578	2.45	9.75	0.54
54	SLD 15	63	-6	510	0.94	11.52	0.21
54	SLD 16	63	-6	510	0.94	11.52	0.21
54	SLV 1	-669	16	1945	-2.42	-28.38	-0.54
54	SLV 2	-669	16	1945	-2.42	-28.38	-0.54
54	SLV 3	-584	42	1770	-6.25	-23.77	-1.39
54	SLV 4	-584	42	1770	-6.25	-23.77	-1.39
54	SLV 5	-430	-34	1492	5.07	-15.33	1.12
54	SLV 6	-430	-34	1492	5.07	-15.33	1.12
54	SLV 7	-147	51	909	-7.68	0.03	-1.7
54	SLV 8	-147	51	909	-7.68	0.03	-1.7
54	SLV 9	-141	-51	929	7.67	0.47	1.7
54	SLV 10	-141	-51	929	7.67	0.47	1.7
54	SLV 11	143	34	345	-5.08	15.83	-1.13
54	SLV 12	143	34	345	-5.08	15.83	-1.13
54	SLV 13	297	-41	67	6.24	24.27	1.38
54	SLV 14	297	-41	67	6.24	24.27	1.38
54	SLV 15	382	-16	-108	2.42	28.88	0.54
54	SLV 16	382	-16	-108	2.42	28.88	0.54
55	SLU 1	298	0	933	-0.01	9.42	0
55	SLU 2	295	1	933	-0.78	9.17	0.14
55	SLU 3	298	0	933	-0.01	9.42	0
55	SLU 4	296	0	933	-0.47	9.27	0.08
55	SLU 5	295	1	933	-0.78	9.17	0.14
55	SLU 6	298	0	933	-0.01	9.42	0
55	SLU 7	296	0	933	-0.47	9.27	0.08
55	SLU 8	298	0	933	-0.01	9.42	0
55	SLU 9	296	0	933	-0.47	9.27	0.08
55	SLU 10	406	0	1210	-0.78	13.31	0.14
55	SLU 11	410	-1	1210	-0.01	13.56	0
55	SLU 12	408	0	1210	-0.47	13.41	0.08
55	SLU 13	406	0	1210	-0.78	13.31	0.14
55	SLU 14	410	-1	1210	-0.01	13.56	0
55	SLU 15	408	0	1210	-0.47	13.41	0.08
55	SLU 16	410	-1	1210	-0.01	13.56	0
55	SLU 17	408	0	1210	-0.47	13.41	0.08
55	SLU 18	458	-1	1329	-0.01	15.33	0
55	SLU 19	456	0	1329	-0.47	15.18	0.08
55	SLU 20	458	-1	1329	-0.01	15.33	0
55	SLU 21	456	0	1329	-0.47	15.18	0.08
55	SLU 22	346	-1	1052	-0.01	11.2	0
55	SLU 23	343	0	1052	-0.78	10.95	0.14
55	SLU 24	346	-1	1052	-0.01	11.2	0
55	SLU 25	344	0	1052	-0.47	11.05	0.08
55	SLU 26	343	0	1052	-0.78	10.95	0.14
55	SLU 27	346	-1	1052	-0.01	11.2	0
55	SLU 28	344	0	1052	-0.47	11.05	0.08
55	SLU 29	346	-1	1052	-0.01	11.2	0
55	SLU 30	344	0	1052	-0.47	11.05	0.08
55	SLU 31	454	0	1329	-0.78	15.08	0.14
55	SLU 32	458	-1	1330	-0.01	15.33	0
55	SLU 33	456	0	1329	-0.47	15.18	0.08
55	SLU 34	454	0	1329	-0.78	15.08	0.14
55	SLU 35	458	-1	1330	-0.01	15.33	0
55	SLU 36	456	0	1329	-0.47	15.18	0.08
55	SLU 37	458	-1	1330	-0.01	15.33	0
55	SLU 38	456	0	1329	-0.47	15.18	0.08
55	SLU 39	506	-1	1448	-0.01	17.11	0
55	SLU 40	504	0	1448	-0.47	16.96	0.08
55	SLU 41	506	-1	1448	-0.01	17.11	0
55	SLU 42	504	0	1448	-0.47	16.96	0.08
55	SLU 43	372	-1	1172	-0.01	11.64	0
55	SLU 44	368	1	1172	-0.78	11.39	0.14
55	SLU 45	372	-1	1172	-0.01	11.64	0
55	SLU 46	369	0	1172	-0.47	11.49	0.08
55	SLU 47	368	1	1172	-0.78	11.39	0.14
55	SLU 48	372	-1	1172	-0.01	11.64	0
55	SLU 49	369	0	1172	-0.47	11.49	0.08
55	SLU 50	372	-1	1172	-0.01	11.64	0
55	SLU 51	369	0	1172	-0.47	11.49	0.08
55	SLU 52	479	0	1449	-0.78	15.52	0.14
55	SLU 53	483	-1	1449	-0.01	15.77	0
55	SLU 54	481	0	1449	-0.47	15.62	0.08
55	SLU 55	479	0	1449	-0.78	15.52	0.14
55	SLU 56	483	-1	1449	-0.01	15.77	0
55	SLU 57	481	0	1449	-0.47	15.62	0.08
55	SLU 58	483	-1	1449	-0.01	15.77	0
55	SLU 59	481	0	1449	-0.47	15.62	0.08
55	SLU 60	531	-1	1568	-0.01	17.55	0
55	SLU 61	529	0	1568	-0.47	17.4	0.08
55	SLU 62	531	-1	1568	-0.01	17.55	0
55	SLU 63	529	0	1568	-0.47	17.4	0.08
55	SLU 64	420	-1	1292	-0.01	13.42	0
55	SLU 65	416	0	1291	-0.78	13.16	0.14
55	SLU 66	420	-1	1292	-0.01	13.42	0
55	SLU 67	417	0	1291	-0.47	13.27	0.08
55	SLU 68	416	0	1291	-0.78	13.16	0.14



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
55	SLU 69	420	-1	1292	-0.01	13.42	0
55	SLU 70	417	0	1291	-0.47	13.27	0.08
55	SLU 71	420	-1	1292	-0.01	13.42	0
55	SLU 72	417	0	1291	-0.47	13.27	0.08
55	SLU 73	528	0	1568	-0.78	17.3	0.14
55	SLU 74	531	-1	1569	-0.01	17.55	0
55	SLU 75	529	0	1568	-0.47	17.4	0.08
55	SLU 76	528	0	1568	-0.78	17.3	0.14
55	SLU 77	531	-1	1569	-0.01	17.55	0
55	SLU 78	529	0	1568	-0.47	17.4	0.08
55	SLU 79	531	-1	1569	-0.01	17.55	0
55	SLU 80	529	0	1568	-0.47	17.4	0.08
55	SLU 81	579	-1	1688	-0.01	19.32	-0.01
55	SLU 82	577	0	1687	-0.47	19.17	0.08
55	SLU 83	579	-1	1688	-0.01	19.32	-0.01
55	SLU 84	577	0	1687	-0.47	19.17	0.08
55	SLE RA 1	312	-1	967	-0.01	9.93	0
55	SLE RA 2	310	0	967	-0.52	9.76	0.09
55	SLE RA 3	312	-1	967	-0.01	9.93	0
55	SLE RA 4	311	0	967	-0.31	9.83	0.06
55	SLE RA 5	310	0	967	-0.52	9.76	0.09
55	SLE RA 6	312	-1	967	-0.01	9.93	0
55	SLE RA 7	311	0	967	-0.31	9.83	0.06
55	SLE RA 8	312	-1	967	-0.01	9.93	0
55	SLE RA 9	311	0	967	-0.31	9.83	0.06
55	SLE RA 10	384	0	1152	-0.52	12.52	0.09
55	SLE RA 11	387	-1	1152	-0.01	12.69	0
55	SLE RA 12	385	0	1152	-0.32	12.59	0.05
55	SLE RA 13	384	0	1152	-0.52	12.52	0.09
55	SLE RA 14	387	-1	1152	-0.01	12.69	0
55	SLE RA 15	385	0	1152	-0.32	12.59	0.05
55	SLE RA 16	387	-1	1152	-0.01	12.69	0
55	SLE RA 17	385	0	1152	-0.32	12.59	0.05
55	SLE RA 18	419	-1	1231	-0.01	13.87	0
55	SLE RA 19	417	0	1231	-0.32	13.77	0.05
55	SLE RA 20	419	-1	1231	-0.01	13.87	0
55	SLE RA 21	417	0	1231	-0.32	13.77	0.05
55	SLE FR 1	312	-1	967	-0.01	9.93	0
55	SLE FR 2	312	0	967	-0.11	9.9	0.02
55	SLE FR 3	312	-1	967	-0.01	9.93	0
55	SLE FR 4	344	0	1046	-0.11	11.08	0.02
55	SLE FR 5	344	-1	1046	-0.01	11.11	0
55	SLE FR 6	365	-1	1099	-0.01	11.9	0
55	SLE QP 1	312	-1	967	-0.01	9.93	0
55	SLE QP 2	344	-1	1046	-0.01	11.11	0
55	SLD 1	493	-19	1421	-2.73	17.43	-1.42
55	SLD 2	493	-19	1421	-2.73	17.43	-1.42
55	SLD 3	508	-11	1458	-8.47	18.1	-0.46
55	SLD 4	508	-11	1458	-8.47	18.1	-0.46
55	SLD 5	366	-17	1102	7.88	11.99	-1.9
55	SLD 6	366	-17	1102	7.88	11.99	-1.9
55	SLD 7	416	7	1227	-11.25	14.22	1.33
55	SLD 8	416	7	1227	-11.25	14.22	1.33
55	SLD 9	273	-8	866	11.24	8	-1.33
55	SLD 10	273	-8	866	11.24	8	-1.33
55	SLD 11	322	16	991	-7.89	10.23	1.89
55	SLD 12	322	16	991	-7.89	10.23	1.89
55	SLD 13	180	10	635	8.46	4.12	0.45
55	SLD 14	180	10	635	8.46	4.12	0.45
55	SLD 15	195	18	672	2.72	4.79	1.42
55	SLD 16	195	18	672	2.72	4.79	1.42
55	SLV 1	705	-46	1942	-6.56	26.54	-3.38
55	SLV 2	705	-46	1942	-6.56	26.54	-3.38
55	SLV 3	742	-28	2035	-20.13	28.24	-1.09
55	SLV 4	742	-28	2035	-20.13	28.24	-1.09
55	SLV 5	396	-40	1175	18.6	13.15	-4.49
55	SLV 6	396	-40	1175	18.6	13.15	-4.49
55	SLV 7	519	17	1483	-26.61	18.84	3.14
55	SLV 8	519	17	1483	-26.61	18.84	3.14
55	SLV 9	169	-19	610	26.6	3.38	-3.15
55	SLV 10	169	-19	610	26.6	3.38	-3.15
55	SLV 11	292	39	918	-18.61	9.07	4.48
55	SLV 12	292	39	918	-18.61	9.07	4.48
55	SLV 13	-53	27	58	20.12	-6.02	1.09
55	SLV 14	-53	27	58	20.12	-6.02	1.09
55	SLV 15	-16	45	151	6.55	-4.31	3.38
55	SLV 16	-16	45	151	6.55	-4.31	3.38
56	SLU 1	289	0	1406	-0.12	17.06	0
56	SLU 2	281	2	1419	-1.53	16.62	0.05
56	SLU 3	289	0	1406	-0.12	17.06	0
56	SLU 4	284	1	1414	-0.97	16.79	0.03
56	SLU 5	281	2	1419	-1.53	16.62	0.05
56	SLU 6	289	0	1406	-0.12	17.06	0
56	SLU 7	284	1	1414	-0.97	16.79	0.03
56	SLU 8	289	0	1406	-0.12	17.06	0
56	SLU 9	284	1	1414	-0.97	16.79	0.03
56	SLU 10	422	2	1755	-1.58	25.06	0.04
56	SLU 11	430	0	1742	-0.17	25.5	0
56	SLU 12	425	1	1750	-1.01	25.24	0.03





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
56	SLU 13	422	2	1755	-1.58	25.06	0.04
56	SLU 14	430	0	1742	-0.17	25.5	0
56	SLU 15	425	1	1750	-1.01	25.24	0.03
56	SLU 16	430	0	1742	-0.17	25.5	0
56	SLU 17	425	1	1750	-1.01	25.24	0.03
56	SLU 18	490	0	1886	-0.19	29.12	0
56	SLU 19	486	1	1894	-1.03	28.85	0.03
56	SLU 20	490	0	1886	-0.19	29.12	0
56	SLU 21	486	1	1894	-1.03	28.85	0.03
56	SLU 22	350	0	1551	-0.16	20.69	0
56	SLU 23	342	2	1564	-1.56	20.25	0.05
56	SLU 24	350	0	1551	-0.16	20.69	0
56	SLU 25	345	1	1558	-1	20.43	0.03
56	SLU 26	342	2	1564	-1.56	20.25	0.05
56	SLU 27	350	0	1551	-0.16	20.69	0
56	SLU 28	345	1	1558	-1	20.43	0.03
56	SLU 29	350	0	1551	-0.16	20.69	0
56	SLU 30	345	1	1558	-1	20.43	0.03
56	SLU 31	483	2	1900	-1.61	28.69	0.04
56	SLU 32	491	0	1887	-0.21	29.13	0
56	SLU 33	486	1	1895	-1.05	28.87	0.03
56	SLU 34	483	2	1900	-1.61	28.69	0.04
56	SLU 35	491	0	1887	-0.21	29.13	0
56	SLU 36	486	1	1895	-1.05	28.87	0.03
56	SLU 37	491	0	1887	-0.21	29.13	0
56	SLU 38	486	1	1895	-1.05	28.87	0.03
56	SLU 39	551	0	2031	-0.23	32.75	0
56	SLU 40	546	1	2039	-1.07	32.48	0.03
56	SLU 41	551	0	2031	-0.23	32.75	0
56	SLU 42	546	1	2039	-1.07	32.48	0.03
56	SLU 43	355	0	1778	-0.15	20.93	0
56	SLU 44	347	2	1791	-1.55	20.49	0.05
56	SLU 45	355	0	1778	-0.15	20.93	0
56	SLU 46	350	1	1786	-0.99	20.67	0.03
56	SLU 47	347	2	1791	-1.55	20.49	0.05
56	SLU 48	355	0	1778	-0.15	20.93	0
56	SLU 49	350	1	1786	-0.99	20.67	0.03
56	SLU 50	355	0	1778	-0.15	20.93	0
56	SLU 51	350	1	1786	-0.99	20.67	0.03
56	SLU 52	488	2	2127	-1.6	28.93	0.04
56	SLU 53	496	0	2115	-0.2	29.37	0
56	SLU 54	491	1	2122	-1.04	29.11	0.03
56	SLU 55	488	2	2127	-1.6	28.93	0.04
56	SLU 56	496	0	2115	-0.2	29.37	0
56	SLU 57	491	1	2122	-1.04	29.11	0.03
56	SLU 58	496	0	2115	-0.2	29.37	0
56	SLU 59	491	1	2122	-1.04	29.11	0.03
56	SLU 60	556	0	2259	-0.22	32.99	0
56	SLU 61	552	1	2266	-1.06	32.73	0.03
56	SLU 62	556	0	2259	-0.22	32.99	0
56	SLU 63	552	1	2266	-1.06	32.73	0.03
56	SLU 64	416	0	1923	-0.19	24.56	0
56	SLU 65	408	2	1936	-1.59	24.12	0.05
56	SLU 66	416	0	1923	-0.19	24.56	0
56	SLU 67	411	1	1931	-1.03	24.3	0.03
56	SLU 68	408	2	1936	-1.59	24.12	0.05
56	SLU 69	416	0	1923	-0.19	24.56	0
56	SLU 70	411	1	1931	-1.03	24.3	0.03
56	SLU 71	416	0	1923	-0.19	24.56	0
56	SLU 72	411	1	1931	-1.03	24.3	0.03
56	SLU 73	549	2	2272	-1.64	32.56	0.04
56	SLU 74	557	0	2259	-0.23	33	0
56	SLU 75	552	1	2267	-1.08	32.74	0.03
56	SLU 76	549	2	2272	-1.64	32.56	0.04
56	SLU 77	557	0	2259	-0.23	33	0
56	SLU 78	552	1	2267	-1.08	32.74	0.03
56	SLU 79	557	0	2259	-0.23	33	0
56	SLU 80	552	1	2267	-1.08	32.74	0.03
56	SLU 81	617	0	2403	-0.25	36.62	0
56	SLU 82	612	1	2411	-1.1	36.36	0.03
56	SLU 83	617	0	2403	-0.25	36.62	0
56	SLU 84	612	1	2411	-1.1	36.36	0.03
56	SLE RA 1	306	0	1447	-0.13	18.1	0
56	SLE RA 2	301	1	1456	-1.07	17.8	0.03
56	SLE RA 3	306	0	1447	-0.13	18.1	0
56	SLE RA 4	303	1	1453	-0.7	17.92	0.02
56	SLE RA 5	301	1	1456	-1.07	17.8	0.03
56	SLE RA 6	306	0	1447	-0.13	18.1	0
56	SLE RA 7	303	1	1453	-0.7	17.92	0.02
56	SLE RA 8	306	0	1447	-0.13	18.1	0
56	SLE RA 9	303	1	1453	-0.7	17.92	0.02
56	SLE RA 10	395	1	1680	-1.1	23.43	0.03
56	SLE RA 11	400	0	1671	-0.17	23.72	0
56	SLE RA 12	397	1	1677	-0.73	23.55	0.02
56	SLE RA 13	395	1	1680	-1.1	23.43	0.03
56	SLE RA 14	400	0	1671	-0.17	23.72	0
56	SLE RA 15	397	1	1677	-0.73	23.55	0.02
56	SLE RA 16	400	0	1671	-0.17	23.72	0
56	SLE RA 17	397	1	1677	-0.73	23.55	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
56	SLE RA 18	441	0	1768	-0.18	26.14	0
56	SLE RA 19	437	1	1773	-0.74	25.96	0.02
56	SLE RA 20	441	0	1768	-0.18	26.14	0
56	SLE RA 21	437	1	1773	-0.74	25.96	0.02
56	SLE FR 1	306	0	1447	-0.13	18.1	0
56	SLE FR 2	305	0	1449	-0.32	18.04	0.01
56	SLE FR 3	306	0	1447	-0.13	18.1	0
56	SLE FR 4	346	0	1545	-0.34	20.45	0.01
56	SLE FR 5	347	0	1543	-0.15	20.51	0
56	SLE FR 6	373	0	1607	-0.16	22.12	0
56	SLE QP 1	306	0	1447	-0.13	18.1	0
56	SLE QP 2	347	0	1543	-0.15	20.51	0
56	SLD 1	530	9	1928	-7.31	32.06	0.2
56	SLD 2	530	9	1928	-7.31	32.06	0.2
56	SLD 3	550	27	1972	-21.07	33.27	0.61
56	SLD 4	550	27	1972	-21.07	33.27	0.61
56	SLD 5	372	-25	1592	18.58	22.13	-0.57
56	SLD 6	372	-25	1592	18.58	22.13	-0.57
56	SLD 7	438	35	1739	-27.3	26.18	0.81
56	SLD 8	438	35	1739	-27.3	26.18	0.81
56	SLD 9	256	-35	1348	27	14.84	-0.81
56	SLD 10	256	-35	1348	27	14.84	-0.81
56	SLD 11	322	25	1495	-18.87	18.89	0.57
56	SLD 12	322	25	1495	-18.87	18.89	0.57
56	SLD 13	143	-27	1115	20.77	7.75	-0.61
56	SLD 14	143	-27	1115	20.77	7.75	-0.61
56	SLD 15	163	-9	1159	7.01	8.96	-0.2
56	SLD 16	163	-9	1159	7.01	8.96	-0.2
56	SLV 1	795	21	2453	-17.55	48.66	0.47
56	SLV 2	795	21	2453	-17.55	48.66	0.47
56	SLV 3	846	63	2563	-49.98	51.74	1.44
56	SLV 4	846	63	2563	-49.98	51.74	1.44
56	SLV 5	404	-58	1650	43.81	24.27	-1.33
56	SLV 6	404	-58	1650	43.81	24.27	-1.33
56	SLV 7	573	83	2015	-64.28	34.56	1.91
56	SLV 8	573	83	2015	-64.28	34.56	1.91
56	SLV 9	120	-83	1072	63.98	6.46	-1.91
56	SLV 10	120	-83	1072	63.98	6.46	-1.91
56	SLV 11	289	58	1436	-44.11	16.74	1.33
56	SLV 12	289	58	1436	-44.11	16.74	1.33
56	SLV 13	-152	-63	524	49.69	-10.72	-1.44
56	SLV 14	-152	-63	524	49.69	-10.72	-1.44
56	SLV 15	-102	-21	634	17.26	-7.64	-0.47
56	SLV 16	-102	-21	634	17.26	-7.64	-0.47
57	SLU 1	294	0	1247	-0.24	11.42	0
57	SLU 2	281	1	1270	-1.32	10.84	0.05
57	SLU 3	294	0	1247	-0.24	11.42	0
57	SLU 4	286	1	1261	-0.89	11.07	0.03
57	SLU 5	281	1	1270	-1.32	10.84	0.05
57	SLU 6	294	0	1247	-0.24	11.42	0
57	SLU 7	286	1	1261	-0.89	11.07	0.03
57	SLU 8	294	0	1247	-0.24	11.42	0
57	SLU 9	286	1	1261	-0.89	11.07	0.03
57	SLU 10	448	1	1522	-1.42	17.61	0.05
57	SLU 11	461	0	1500	-0.34	18.18	0
57	SLU 12	453	1	1513	-0.99	17.84	0.03
57	SLU 13	448	1	1522	-1.42	17.61	0.05
57	SLU 14	461	0	1500	-0.34	18.18	0
57	SLU 15	453	1	1513	-0.99	17.84	0.03
57	SLU 16	461	0	1500	-0.34	18.18	0
57	SLU 17	453	1	1513	-0.99	17.84	0.03
57	SLU 18	533	0	1608	-0.38	21.08	0
57	SLU 19	525	1	1621	-1.03	20.74	0.03
57	SLU 20	533	0	1608	-0.38	21.08	0
57	SLU 21	525	1	1621	-1.03	20.74	0.03
57	SLU 22	366	0	1356	-0.32	14.33	0
57	SLU 23	353	1	1378	-1.4	13.75	0.05
57	SLU 24	366	0	1356	-0.32	14.33	0
57	SLU 25	358	1	1369	-0.97	13.98	0.03
57	SLU 26	353	1	1378	-1.4	13.75	0.05
57	SLU 27	366	0	1356	-0.32	14.33	0
57	SLU 28	358	1	1369	-0.97	13.98	0.03
57	SLU 29	366	0	1356	-0.32	14.33	0
57	SLU 30	358	1	1369	-0.97	13.98	0.03
57	SLU 31	520	1	1631	-1.5	20.52	0.05
57	SLU 32	533	0	1608	-0.41	21.09	0
57	SLU 33	525	1	1622	-1.06	20.75	0.03
57	SLU 34	520	1	1631	-1.5	20.52	0.05
57	SLU 35	533	0	1608	-0.41	21.09	0
57	SLU 36	525	1	1622	-1.06	20.75	0.03
57	SLU 37	533	0	1608	-0.41	21.09	0
57	SLU 38	525	1	1622	-1.06	20.75	0.03
57	SLU 39	605	0	1716	-0.46	23.99	0
57	SLU 40	597	1	1730	-1.11	23.65	0.03
57	SLU 41	605	0	1716	-0.46	23.99	0
57	SLU 42	597	1	1730	-1.11	23.65	0.03
57	SLU 43	357	0	1584	-0.29	13.84	0
57	SLU 44	344	1	1607	-1.37	13.27	0.05
57	SLU 45	357	0	1584	-0.29	13.84	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
57	SLU 46	349	1	1598	-0.93	13.5	0.03
57	SLU 47	344	1	1607	-1.27	13.27	0.05
57	SLU 48	357	0	1584	-0.29	13.84	0
57	SLU 49	349	1	1598	-0.93	13.5	0.03
57	SLU 50	357	0	1584	-0.29	13.84	0
57	SLU 51	349	1	1598	-0.93	13.5	0.03
57	SLU 52	512	1	1859	-1.47	20.03	0.05
57	SLU 53	525	0	1836	-0.38	20.61	0
57	SLU 54	517	1	1850	-1.03	20.26	0.03
57	SLU 55	512	1	1859	-1.47	20.03	0.05
57	SLU 56	525	0	1836	-0.38	20.61	0
57	SLU 57	517	1	1850	-1.03	20.26	0.03
57	SLU 58	525	0	1836	-0.38	20.61	0
57	SLU 59	517	1	1850	-1.03	20.26	0.03
57	SLU 60	596	0	1945	-0.43	23.51	0
57	SLU 61	588	1	1958	-1.07	23.16	0.03
57	SLU 62	596	0	1945	-0.43	23.51	0
57	SLU 63	588	1	1958	-1.07	23.16	0.03
57	SLU 64	429	0	1693	-0.36	16.75	0
57	SLU 65	416	1	1715	-1.44	16.18	0.05
57	SLU 66	429	0	1693	-0.36	16.75	0
57	SLU 67	421	1	1706	-1.01	16.41	0.03
57	SLU 68	416	1	1715	-1.44	16.18	0.05
57	SLU 69	429	0	1693	-0.36	16.75	0
57	SLU 70	421	1	1706	-1.01	16.41	0.03
57	SLU 71	429	0	1693	-0.36	16.75	0
57	SLU 72	421	1	1706	-1.01	16.41	0.03
57	SLU 73	584	1	1968	-1.54	22.94	0.05
57	SLU 74	596	0	1945	-0.46	23.52	0
57	SLU 75	589	1	1959	-1.11	23.17	0.03
57	SLU 76	584	1	1968	-1.54	22.94	0.05
57	SLU 77	596	0	1945	-0.46	23.52	0
57	SLU 78	589	1	1959	-1.11	23.17	0.03
57	SLU 79	596	0	1945	-0.46	23.52	0
57	SLU 80	589	1	1959	-1.11	23.17	0.03
57	SLU 81	668	0	2053	-0.5	26.42	0
57	SLU 82	660	1	2067	-1.15	26.07	0.03
57	SLU 83	668	0	2053	-0.5	26.42	0
57	SLU 84	660	1	2067	-1.15	26.07	0.03
57	SLE RA 1	314	0	1278	-0.26	12.25	0
57	SLE RA 2	306	1	1293	-0.98	11.86	0.03
57	SLE RA 3	314	0	1278	-0.26	12.25	0
57	SLE RA 4	309	0	1287	-0.69	12.02	0.02
57	SLE RA 5	306	1	1293	-0.98	11.86	0.03
57	SLE RA 6	314	0	1278	-0.26	12.25	0
57	SLE RA 7	309	0	1287	-0.69	12.02	0.02
57	SLE RA 8	314	0	1278	-0.26	12.25	0
57	SLE RA 9	309	0	1287	-0.69	12.02	0.02
57	SLE RA 10	417	1	1462	-1.05	16.37	0.03
57	SLE RA 11	426	0	1446	-0.33	16.76	0
57	SLE RA 12	421	0	1456	-0.76	16.53	0.02
57	SLE RA 13	417	1	1462	-1.05	16.37	0.03
57	SLE RA 14	426	0	1446	-0.33	16.76	0
57	SLE RA 15	421	0	1456	-0.76	16.53	0.02
57	SLE RA 16	426	0	1446	-0.33	16.76	0
57	SLE RA 17	421	0	1456	-0.76	16.53	0.02
57	SLE RA 18	474	0	1519	-0.35	18.69	0
57	SLE RA 19	468	0	1528	-0.79	18.46	0.02
57	SLE RA 20	474	0	1519	-0.35	18.69	0
57	SLE RA 21	468	0	1528	-0.79	18.46	0.02
57	SLE FR 1	314	0	1278	-0.26	12.25	0
57	SLE FR 2	313	0	1281	-0.41	12.17	0.01
57	SLE FR 3	314	0	1278	-0.26	12.25	0
57	SLE FR 4	360	0	1353	-0.43	14.1	0.01
57	SLE FR 5	362	0	1350	-0.29	14.18	0
57	SLE FR 6	394	0	1398	-0.31	15.47	0
57	SLE QP 1	314	0	1278	-0.26	12.25	0
57	SLE QP 2	362	0	1350	-0.29	14.18	0
57	SLD 1	612	21	1077	-23.36	25.49	1.08
57	SLD 2	612	21	1077	-23.36	25.49	1.08
57	SLD 3	640	7	1116	-8.83	26.79	0.36
57	SLD 4	640	7	1116	-8.83	26.79	0.36
57	SLD 5	393	26	1209	-29.25	15.6	1.42
57	SLD 6	393	26	1209	-29.25	15.6	1.42
57	SLD 7	489	-18	1339	19.19	19.94	-0.99
57	SLD 8	489	-18	1339	19.19	19.94	-0.99
57	SLD 9	235	18	1361	-19.77	8.42	0.99
57	SLD 10	235	18	1361	-19.77	8.42	0.99
57	SLD 11	331	-26	1491	28.67	12.76	-1.42
57	SLD 12	331	-26	1491	28.67	12.76	-1.42
57	SLD 13	84	-7	1584	8.25	1.57	-0.36
57	SLD 14	84	-7	1584	8.25	1.57	-0.36
57	SLD 15	113	-20	1624	22.78	2.87	-1.08
57	SLD 16	113	-20	1624	22.78	2.87	-1.08
57	SLV 1	976	49	682	-55.5	42.01	2.56
57	SLV 2	976	49	682	-55.5	42.01	2.56
57	SLV 3	1049	18	781	-21.32	45.34	0.86
57	SLV 4	1049	18	781	-21.32	45.34	0.86
57	SLV 5	435	62	999	-68.7	17.48	3.35



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
57	SLV 6	435	62	999	-68.7	17.48	3.35
57	SLV 7	680	-42	1331	45.25	28.58	-2.32
57	SLV 8	680	-42	1331	45.25	28.58	-2.32
57	SLV 9	44	42	1370	-45.82	-0.22	2.32
57	SLV 10	44	42	1370	-45.82	-0.22	2.32
57	SLV 11	290	-62	1702	68.12	10.88	-3.35
57	SLV 12	290	-62	1702	68.12	10.88	-3.35
57	SLV 13	-325	-18	1919	20.74	-16.98	-0.86
57	SLV 14	-325	-18	1919	20.74	-16.98	-0.86
57	SLV 15	-252	-49	2019	54.92	-13.65	-2.56
57	SLV 16	-252	-49	2019	54.92	-13.65	-2.56
58	SLU 1	178	0	1212	-0.43	8.49	-0.03
58	SLU 2	161	1	1238	-1.02	7.79	-0.04
58	SLU 3	178	0	1212	-0.43	8.49	-0.03
58	SLU 4	168	1	1227	-0.79	8.07	-0.03
58	SLU 5	161	1	1238	-1.02	7.79	-0.04
58	SLU 6	178	0	1212	-0.43	8.49	-0.03
58	SLU 7	168	1	1227	-0.79	8.07	-0.03
58	SLU 8	178	0	1212	-0.43	8.49	-0.03
58	SLU 9	168	1	1227	-0.79	8.07	-0.03
58	SLU 10	305	1	1478	-1.2	13.91	-0.05
58	SLU 11	322	0	1452	-0.6	14.6	-0.04
58	SLU 12	312	1	1467	-0.96	14.19	-0.05
58	SLU 13	305	1	1478	-1.2	13.91	-0.05
58	SLU 14	322	0	1452	-0.6	14.6	-0.04
58	SLU 15	312	1	1467	-0.96	14.19	-0.05
58	SLU 16	322	0	1452	-0.6	14.6	-0.04
58	SLU 17	312	1	1467	-0.96	14.19	-0.05
58	SLU 18	384	0	1555	-0.67	17.22	-0.05
58	SLU 19	374	1	1570	-1.03	16.8	-0.05
58	SLU 20	384	0	1555	-0.67	17.22	-0.05
58	SLU 21	374	1	1570	-1.03	16.8	-0.05
58	SLU 22	240	0	1315	-0.57	11.12	-0.04
58	SLU 23	223	1	1341	-1.17	10.42	-0.05
58	SLU 24	240	0	1315	-0.57	11.12	-0.04
58	SLU 25	230	1	1331	-0.93	10.7	-0.04
58	SLU 26	223	1	1341	-1.17	10.42	-0.05
58	SLU 27	240	0	1315	-0.57	11.12	-0.04
58	SLU 28	230	1	1331	-0.93	10.7	-0.04
58	SLU 29	240	0	1315	-0.57	11.12	-0.04
58	SLU 30	230	1	1331	-0.93	10.7	-0.04
58	SLU 31	367	1	1581	-1.34	16.53	-0.06
58	SLU 32	384	0	1555	-0.74	17.23	-0.05
58	SLU 33	374	1	1571	-1.1	16.81	-0.06
58	SLU 34	367	1	1581	-1.34	16.53	-0.06
58	SLU 35	384	0	1555	-0.74	17.23	-0.05
58	SLU 36	374	1	1571	-1.1	16.81	-0.06
58	SLU 37	384	0	1555	-0.74	17.23	-0.05
58	SLU 38	374	1	1571	-1.1	16.81	-0.06
58	SLU 39	446	1	1658	-0.82	19.85	-0.05
58	SLU 40	436	1	1673	-1.17	19.43	-0.06
58	SLU 41	446	1	1658	-0.82	19.85	-0.05
58	SLU 42	436	1	1673	-1.17	19.43	-0.06
58	SLU 43	210	0	1540	-0.51	10.14	-0.03
58	SLU 44	193	1	1566	-1.1	9.44	-0.04
58	SLU 45	210	0	1540	-0.51	10.14	-0.03
58	SLU 46	200	1	1556	-0.86	9.72	-0.04
58	SLU 47	193	1	1566	-1.1	9.44	-0.04
58	SLU 48	210	0	1540	-0.51	10.14	-0.03
58	SLU 49	200	1	1556	-0.86	9.72	-0.04
58	SLU 50	210	0	1540	-0.51	10.14	-0.03
58	SLU 51	200	1	1556	-0.86	9.72	-0.04
58	SLU 52	337	1	1806	-1.28	15.55	-0.06
58	SLU 53	354	0	1780	-0.68	16.25	-0.05
58	SLU 54	344	1	1796	-1.04	15.83	-0.05
58	SLU 55	337	1	1806	-1.28	15.55	-0.06
58	SLU 56	354	0	1780	-0.68	16.25	-0.05
58	SLU 57	344	1	1796	-1.04	15.83	-0.05
58	SLU 58	354	0	1780	-0.68	16.25	-0.05
58	SLU 59	344	1	1796	-1.04	15.83	-0.05
58	SLU 60	416	1	1883	-0.75	18.87	-0.05
58	SLU 61	406	1	1899	-1.11	18.45	-0.06
58	SLU 62	416	1	1883	-0.75	18.87	-0.05
58	SLU 63	406	1	1899	-1.11	18.45	-0.06
58	SLU 64	272	0	1644	-0.65	12.77	-0.04
58	SLU 65	255	1	1669	-1.25	12.07	-0.05
58	SLU 66	272	0	1644	-0.65	12.77	-0.04
58	SLU 67	262	1	1659	-1.01	12.35	-0.05
58	SLU 68	255	1	1669	-1.25	12.07	-0.05
58	SLU 69	272	0	1644	-0.65	12.77	-0.04
58	SLU 70	262	1	1659	-1.01	12.35	-0.05
58	SLU 71	272	0	1644	-0.65	12.77	-0.04
58	SLU 72	262	1	1659	-1.01	12.35	-0.05
58	SLU 73	399	1	1909	-1.42	18.18	-0.07
58	SLU 74	416	1	1884	-0.82	18.88	-0.06
58	SLU 75	406	1	1899	-1.18	18.46	-0.06
58	SLU 76	399	1	1909	-1.42	18.18	-0.07
58	SLU 77	416	1	1884	-0.82	18.88	-0.06
58	SLU 78	406	1	1899	-1.18	18.46	-0.06



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
58	SLU 79	416	1	1884	-0.82	18.88	-0.06
58	SLU 80	406	1	1899	-1.18	18.46	-0.06
58	SLU 81	478	1	1986	-0.9	21.5	-0.06
58	SLU 82	468	1	2002	-1.25	21.08	-0.07
58	SLU 83	478	1	1986	-0.9	21.5	-0.06
58	SLU 84	468	1	2002	-1.25	21.08	-0.07
58	SLE RA 1	195	0	1242	-0.47	9.24	-0.03
58	SLE RA 2	184	1	1259	-0.87	8.78	-0.04
58	SLE RA 3	195	0	1242	-0.47	9.24	-0.03
58	SLE RA 4	189	0	1252	-0.71	8.96	-0.04
58	SLE RA 5	184	1	1259	-0.87	8.78	-0.04
58	SLE RA 6	195	0	1242	-0.47	9.24	-0.03
58	SLE RA 7	189	0	1252	-0.71	8.96	-0.04
58	SLE RA 8	195	0	1242	-0.47	9.24	-0.03
58	SLE RA 9	189	0	1252	-0.71	8.96	-0.04
58	SLE RA 10	280	1	1419	-0.98	12.85	-0.05
58	SLE RA 11	292	0	1402	-0.58	13.32	-0.04
58	SLE RA 12	285	1	1412	-0.82	13.04	-0.04
58	SLE RA 13	280	1	1419	-0.98	12.85	-0.05
58	SLE RA 14	292	0	1402	-0.58	13.32	-0.04
58	SLE RA 15	285	1	1412	-0.82	13.04	-0.04
58	SLE RA 16	292	0	1402	-0.58	13.32	-0.04
58	SLE RA 17	285	1	1412	-0.82	13.04	-0.04
58	SLE RA 18	333	0	1470	-0.63	15.06	-0.04
58	SLE RA 19	326	1	1480	-0.87	14.78	-0.05
58	SLE RA 20	333	0	1470	-0.63	15.06	-0.04
58	SLE RA 21	326	1	1480	-0.87	14.78	-0.05
58	SLE FR 1	195	0	1242	-0.47	9.24	-0.03
58	SLE FR 2	193	0	1245	-0.55	9.15	-0.03
58	SLE FR 3	195	0	1242	-0.47	9.24	-0.03
58	SLE FR 4	234	0	1314	-0.6	10.9	-0.04
58	SLE FR 5	237	0	1310	-0.52	10.99	-0.03
58	SLE FR 6	264	0	1356	-0.55	12.15	-0.04
58	SLE QP 1	195	0	1242	-0.47	9.24	-0.03
58	SLE QP 2	237	0	1310	-0.52	10.99	-0.03
58	SLD 1	512	21	1021	-24.18	23.15	-1.5
58	SLD 2	512	21	1021	-24.18	23.15	-1.5
58	SLD 3	546	9	1064	-10.42	24.62	-0.65
58	SLD 4	546	9	1064	-10.42	24.62	-0.65
58	SLD 5	267	26	1158	-28.48	12.41	-1.76
58	SLD 6	267	26	1158	-28.48	12.41	-1.76
58	SLD 7	381	-16	1302	17.37	17.31	1.07
58	SLD 8	381	-16	1302	17.37	17.31	1.07
58	SLD 9	92	17	1319	-18.41	4.67	-1.14
58	SLD 10	92	17	1319	-18.41	4.67	-1.14
58	SLD 11	206	-25	1462	27.44	9.57	1.69
58	SLD 12	206	-25	1462	27.44	9.57	1.69
58	SLD 13	-73	-8	1557	9.39	-2.64	0.59
58	SLD 14	-73	-8	1557	9.39	-2.64	0.59
58	SLD 15	-38	-20	1600	23.14	-1.17	1.43
58	SLD 16	-38	-20	1600	23.14	-1.17	1.43
58	SLV 1	919	50	578	-57.61	41.06	-3.57
58	SLV 2	919	50	578	-57.61	41.06	-3.57
58	SLV 3	1007	21	688	-25.27	44.84	-1.58
58	SLV 4	1007	21	688	-25.27	44.84	-1.58
58	SLV 5	307	60	924	-66.69	14.29	-4.12
58	SLV 6	307	60	924	-66.69	14.29	-4.12
58	SLV 7	602	-38	1290	41.11	26.87	2.53
58	SLV 8	602	-38	1290	41.11	26.87	2.53
58	SLV 9	-128	39	1330	-42.14	-4.89	-2.59
58	SLV 10	-128	39	1330	-42.14	-4.89	-2.59
58	SLV 11	166	-59	1696	65.66	7.69	4.05
58	SLV 12	166	-59	1696	65.66	7.69	4.05
58	SLV 13	-533	-20	1933	24.24	-22.86	1.51
58	SLV 14	-533	-20	1933	24.24	-22.86	1.51
58	SLV 15	-445	-49	2042	56.58	-19.08	3.5
58	SLV 16	-445	-49	2042	56.58	-19.08	3.5
59	SLU 1	14	1	1077	-0.58	4.43	-0.03
59	SLU 2	1	1	1112	-0.82	3.28	-0.01
59	SLU 3	14	1	1077	-0.58	4.43	-0.03
59	SLU 4	6	1	1098	-0.73	3.74	-0.02
59	SLU 5	1	1	1112	-0.82	3.28	-0.01
59	SLU 6	14	1	1077	-0.58	4.43	-0.03
59	SLU 7	6	1	1098	-0.73	3.74	-0.02
59	SLU 8	14	1	1077	-0.58	4.43	-0.03
59	SLU 9	6	1	1098	-0.73	3.74	-0.02
59	SLU 10	70	1	1254	-1.06	9.8	-0.03
59	SLU 11	82	1	1219	-0.82	10.95	-0.05
59	SLU 12	75	1	1240	-0.96	10.26	-0.03
59	SLU 13	70	1	1254	-1.06	9.8	-0.03
59	SLU 14	82	1	1219	-0.82	10.95	-0.05
59	SLU 15	75	1	1240	-0.96	10.26	-0.03
59	SLU 16	82	1	1219	-0.82	10.95	-0.05
59	SLU 17	75	1	1240	-0.96	10.26	-0.03
59	SLU 18	112	1	1280	-0.92	13.75	-0.05
59	SLU 19	104	1	1301	-1.07	13.05	-0.04
59	SLU 20	112	1	1280	-0.92	13.75	-0.05
59	SLU 21	104	1	1301	-1.07	13.05	-0.04
59	SLU 22	43	1	1138	-0.78	7.23	-0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
59	SLU 23	31	1	1173	-1.02	6.08	-0.02
59	SLU 24	43	1	1138	-0.78	7.23	-0.04
59	SLU 25	36	1	1159	-0.92	6.54	-0.03
59	SLU 26	31	1	1173	-1.02	6.08	-0.02
59	SLU 27	43	1	1138	-0.78	7.23	-0.04
59	SLU 28	36	1	1159	-0.92	6.54	-0.03
59	SLU 29	43	1	1138	-0.78	7.23	-0.04
59	SLU 30	36	1	1159	-0.92	6.54	-0.03
59	SLU 31	99	1	1315	-1.26	12.6	-0.04
59	SLU 32	112	2	1280	-1.02	13.75	-0.06
59	SLU 33	104	1	1301	-1.16	13.06	-0.04
59	SLU 34	99	1	1315	-1.26	12.6	-0.04
59	SLU 35	112	2	1280	-1.02	13.75	-0.06
59	SLU 36	104	1	1301	-1.16	13.06	-0.04
59	SLU 37	112	2	1280	-1.02	13.75	-0.06
59	SLU 38	104	1	1301	-1.16	13.06	-0.04
59	SLU 39	141	2	1341	-1.12	16.55	-0.06
59	SLU 40	134	2	1362	-1.26	15.85	-0.05
59	SLU 41	141	2	1341	-1.12	16.55	-0.06
59	SLU 42	134	2	1362	-1.26	15.85	-0.05
59	SLU 43	8	1	1379	-0.69	4.8	-0.04
59	SLU 44	-5	1	1414	-0.93	3.64	-0.02
59	SLU 45	8	1	1379	-0.69	4.8	-0.04
59	SLU 46	1	1	1400	-0.83	4.11	-0.03
59	SLU 47	-5	1	1414	-0.93	3.64	-0.02
59	SLU 48	8	1	1379	-0.69	4.8	-0.04
59	SLU 49	1	1	1400	-0.83	4.11	-0.03
59	SLU 50	8	1	1379	-0.69	4.8	-0.04
59	SLU 51	1	1	1400	-0.83	4.11	-0.03
59	SLU 52	64	1	1556	-1.17	10.16	-0.03
59	SLU 53	77	1	1521	-0.93	11.32	-0.05
59	SLU 54	69	1	1542	-1.07	10.63	-0.04
59	SLU 55	64	1	1556	-1.17	10.16	-0.03
59	SLU 56	77	1	1521	-0.93	11.32	-0.05
59	SLU 57	69	1	1542	-1.07	10.63	-0.04
59	SLU 58	77	1	1521	-0.93	11.32	-0.05
59	SLU 59	69	1	1542	-1.07	10.63	-0.04
59	SLU 60	106	2	1582	-1.03	14.11	-0.06
59	SLU 61	98	2	1603	-1.17	13.42	-0.05
59	SLU 62	106	2	1582	-1.03	14.11	-0.06
59	SLU 63	98	2	1603	-1.17	13.42	-0.05
59	SLU 64	38	1	1440	-0.89	7.6	-0.05
59	SLU 65	25	1	1475	-1.13	6.45	-0.03
59	SLU 66	38	1	1440	-0.89	7.6	-0.05
59	SLU 67	30	1	1461	-1.03	6.91	-0.04
59	SLU 68	25	1	1475	-1.13	6.45	-0.03
59	SLU 69	38	1	1440	-0.89	7.6	-0.05
59	SLU 70	30	1	1461	-1.03	6.91	-0.04
59	SLU 71	38	1	1440	-0.89	7.6	-0.05
59	SLU 72	30	1	1461	-1.03	6.91	-0.04
59	SLU 73	93	2	1617	-1.36	12.97	-0.04
59	SLU 74	106	2	1582	-1.13	14.12	-0.06
59	SLU 75	98	2	1603	-1.27	13.43	-0.05
59	SLU 76	93	2	1617	-1.36	12.97	-0.04
59	SLU 77	106	2	1582	-1.13	14.12	-0.06
59	SLU 78	98	2	1603	-1.27	13.43	-0.05
59	SLU 79	106	2	1582	-1.13	14.12	-0.06
59	SLU 80	98	2	1603	-1.27	13.43	-0.05
59	SLU 81	135	2	1643	-1.23	16.92	-0.07
59	SLU 82	128	2	1664	-1.37	16.22	-0.06
59	SLU 83	135	2	1643	-1.23	16.92	-0.07
59	SLU 84	128	2	1664	-1.37	16.22	-0.06
59	SLE RA 1	22	1	1094	-0.64	5.23	-0.04
59	SLE RA 2	14	1	1117	-0.8	4.46	-0.02
59	SLE RA 3	22	1	1094	-0.64	5.23	-0.04
59	SLE RA 4	17	1	1108	-0.74	4.77	-0.03
59	SLE RA 5	14	1	1117	-0.8	4.46	-0.02
59	SLE RA 6	22	1	1094	-0.64	5.23	-0.04
59	SLE RA 7	17	1	1108	-0.74	4.77	-0.03
59	SLE RA 8	22	1	1094	-0.64	5.23	-0.04
59	SLE RA 9	17	1	1108	-0.74	4.77	-0.03
59	SLE RA 10	60	1	1212	-0.96	8.81	-0.03
59	SLE RA 11	68	1	1189	-0.8	9.58	-0.04
59	SLE RA 12	63	1	1203	-0.89	9.12	-0.04
59	SLE RA 13	60	1	1212	-0.96	8.81	-0.03
59	SLE RA 14	68	1	1189	-0.8	9.58	-0.04
59	SLE RA 15	63	1	1203	-0.89	9.12	-0.04
59	SLE RA 16	68	1	1189	-0.8	9.58	-0.04
59	SLE RA 17	63	1	1203	-0.89	9.12	-0.04
59	SLE RA 18	88	1	1230	-0.87	11.44	-0.05
59	SLE RA 19	83	1	1244	-0.96	10.98	-0.04
59	SLE RA 20	88	1	1230	-0.87	11.44	-0.05
59	SLE RA 21	83	1	1244	-0.96	10.98	-0.04
59	SLE FR 1	22	1	1094	-0.64	5.23	-0.04
59	SLE FR 2	21	1	1099	-0.67	5.08	-0.03
59	SLE FR 3	22	1	1094	-0.64	5.23	-0.04
59	SLE FR 4	40	1	1139	-0.74	6.94	-0.04
59	SLE FR 5	42	1	1135	-0.71	7.1	-0.04
59	SLE FR 6	55	1	1162	-0.75	8.34	-0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
59	SLE QP 1	22	1	1094	-0.64	5.23	-0.04
59	SLE QP 2	42	1	1135	-0.71	7.1	-0.04
59	SLD 1	218	32	599	-23.87	25.3	-0.93
59	SLD 2	218	32	599	-23.87	25.3	-0.93
59	SLD 3	242	16	668	-11.46	27.62	-0.52
59	SLD 4	242	16	668	-11.46	27.62	-0.52
59	SLD 5	59	35	870	-26.48	9.04	-0.93
59	SLD 6	59	35	870	-26.48	9.04	-0.93
59	SLD 7	138	-19	1099	14.89	16.77	0.44
59	SLD 8	138	-19	1099	14.89	16.77	0.44
59	SLD 9	-54	22	1170	-16.3	-2.57	-0.52
59	SLD 10	-54	22	1170	-16.3	-2.57	-0.52
59	SLD 11	25	-33	1400	25.06	5.15	0.86
59	SLD 12	25	-33	1400	25.06	5.15	0.86
59	SLD 13	-158	-14	1601	10.05	-13.42	0.44
59	SLD 14	-158	-14	1601	10.05	-13.42	0.44
59	SLD 15	-134	-30	1670	22.46	-11.11	0.86
59	SLD 16	-134	-30	1670	22.46	-11.11	0.86
59	SLV 1	481	77	-212	-57.02	52.34	-2.24
59	SLV 2	481	77	-212	-57.02	52.34	-2.24
59	SLV 3	543	39	-36	-27.83	58.3	-1.26
59	SLV 4	543	39	-36	-27.83	58.3	-1.26
59	SLV 5	80	83	465	-61.86	11.64	-2.18
59	SLV 6	80	83	465	-61.86	11.64	-2.18
59	SLV 7	286	-46	1049	35.42	31.49	1.07
59	SLV 8	286	-46	1049	35.42	31.49	1.07
59	SLV 9	-202	49	1220	-36.84	-17.3	-1.15
59	SLV 10	-202	49	1220	-36.84	-17.3	-1.15
59	SLV 11	4	-81	1804	60.45	2.56	2.1
59	SLV 12	4	-81	1804	60.45	2.56	2.1
59	SLV 13	-459	-36	2306	26.41	-44.11	1.18
59	SLV 14	-459	-36	2306	26.41	-44.11	1.18
59	SLV 15	-397	-75	2481	55.6	-38.15	2.16
59	SLV 16	-397	-75	2481	55.6	-38.15	2.16
60	SLU 1	-54	1	501	-0.34	0.65	-0.05
60	SLU 2	-65	-1	528	-0.27	0.18	-0.03
60	SLU 3	-54	1	501	-0.34	0.65	-0.05
60	SLU 4	-61	0	517	-0.3	0.37	-0.04
60	SLU 5	-65	-1	528	-0.27	0.18	-0.03
60	SLU 6	-54	1	501	-0.34	0.65	-0.05
60	SLU 7	-61	0	517	-0.3	0.37	-0.04
60	SLU 8	-54	1	501	-0.34	0.65	-0.05
60	SLU 9	-61	0	517	-0.3	0.37	-0.04
60	SLU 10	-22	-1	542	-0.41	2.99	-0.06
60	SLU 11	-11	1	515	-0.48	3.46	-0.08
60	SLU 12	-18	0	531	-0.43	3.18	-0.06
60	SLU 13	-22	-1	542	-0.41	2.99	-0.06
60	SLU 14	-11	1	515	-0.48	3.46	-0.08
60	SLU 15	-18	0	531	-0.43	3.18	-0.06
60	SLU 16	-11	1	515	-0.48	3.46	-0.08
60	SLU 17	-18	0	531	-0.43	3.18	-0.06
60	SLU 18	8	1	521	-0.53	4.66	-0.09
60	SLU 19	1	0	537	-0.49	4.38	-0.07
60	SLU 20	8	1	521	-0.53	4.66	-0.09
60	SLU 21	1	0	537	-0.49	4.38	-0.07
60	SLU 22	-35	1	507	-0.45	1.86	-0.07
60	SLU 23	-47	-1	534	-0.39	1.39	-0.05
60	SLU 24	-35	1	507	-0.45	1.86	-0.07
60	SLU 25	-42	0	523	-0.41	1.58	-0.06
60	SLU 26	-47	-1	534	-0.39	1.39	-0.05
60	SLU 27	-35	1	507	-0.45	1.86	-0.07
60	SLU 28	-42	0	523	-0.41	1.58	-0.06
60	SLU 29	-35	1	507	-0.45	1.86	-0.07
60	SLU 30	-42	0	523	-0.41	1.58	-0.06
60	SLU 31	-4	-1	548	-0.52	4.2	-0.07
60	SLU 32	8	1	521	-0.59	4.67	-0.09
60	SLU 33	1	0	537	-0.55	4.38	-0.08
60	SLU 34	-4	-1	548	-0.52	4.2	-0.07
60	SLU 35	8	1	521	-0.59	4.67	-0.09
60	SLU 36	1	0	537	-0.55	4.38	-0.08
60	SLU 37	8	1	521	-0.59	4.67	-0.09
60	SLU 38	1	0	537	-0.55	4.38	-0.08
60	SLU 39	26	1	527	-0.65	5.87	-0.1
60	SLU 40	19	0	543	-0.61	5.59	-0.09
60	SLU 41	26	1	527	-0.65	5.87	-0.1
60	SLU 42	19	0	543	-0.61	5.59	-0.09
60	SLU 43	-76	1	649	-0.4	0.44	-0.06
60	SLU 44	-88	-1	676	-0.33	-0.04	-0.04
60	SLU 45	-76	1	649	-0.4	0.44	-0.06
60	SLU 46	-83	0	665	-0.36	0.15	-0.05
60	SLU 47	-88	-1	676	-0.33	-0.04	-0.04
60	SLU 48	-76	1	649	-0.4	0.44	-0.06
60	SLU 49	-83	0	665	-0.36	0.15	-0.05
60	SLU 50	-76	1	649	-0.4	0.44	-0.06
60	SLU 51	-83	0	665	-0.36	0.15	-0.05
60	SLU 52	-45	-1	690	-0.47	2.77	-0.06
60	SLU 53	-33	1	663	-0.54	3.24	-0.09
60	SLU 54	-40	0	679	-0.5	2.96	-0.07
60	SLU 55	-45	-1	690	-0.47	2.77	-0.06



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
60	SLU 56	-33	1	663	-0.54	3.24	-0.09
60	SLU 57	-40	0	679	-0.5	2.96	-0.07
60	SLU 58	-33	1	663	-0.54	3.24	-0.09
60	SLU 59	-40	0	679	-0.5	2.96	-0.07
60	SLU 60	-15	1	669	-0.6	4.44	-0.1
60	SLU 61	-22	0	685	-0.56	4.16	-0.08
60	SLU 62	-15	1	669	-0.6	4.44	-0.1
60	SLU 63	-22	0	685	-0.56	4.16	-0.08
60	SLU 64	-58	1	655	-0.52	1.64	-0.08
60	SLU 65	-69	-1	682	-0.45	1.17	-0.06
60	SLU 66	-58	1	655	-0.52	1.64	-0.08
60	SLU 67	-65	0	671	-0.47	1.36	-0.07
60	SLU 68	-69	-1	682	-0.45	1.17	-0.06
60	SLU 69	-58	1	655	-0.52	1.64	-0.08
60	SLU 70	-65	0	671	-0.47	1.36	-0.07
60	SLU 71	-58	1	655	-0.52	1.64	-0.08
60	SLU 72	-65	0	671	-0.47	1.36	-0.07
60	SLU 73	-26	0	696	-0.58	3.98	-0.08
60	SLU 74	-15	1	669	-0.65	4.45	-0.1
60	SLU 75	-22	0	685	-0.61	4.17	-0.09
60	SLU 76	-26	0	696	-0.58	3.98	-0.08
60	SLU 77	-15	1	669	-0.65	4.45	-0.1
60	SLU 78	-22	0	685	-0.61	4.17	-0.09
60	SLU 79	-15	1	669	-0.65	4.45	-0.1
60	SLU 80	-22	0	685	-0.61	4.17	-0.09
60	SLU 81	4	1	675	-0.71	5.65	-0.11
60	SLU 82	-3	0	691	-0.67	5.37	-0.1
60	SLU 83	4	1	675	-0.71	5.65	-0.11
60	SLU 84	-3	0	691	-0.67	5.37	-0.1
60	SLE RA 1	-48	1	502	-0.37	1	-0.06
60	SLE RA 2	-56	0	521	-0.33	0.69	-0.05
60	SLE RA 3	-48	1	502	-0.37	1	-0.06
60	SLE RA 4	-53	0	513	-0.34	0.81	-0.05
60	SLE RA 5	-56	0	521	-0.33	0.69	-0.05
60	SLE RA 6	-48	1	502	-0.37	1	-0.06
60	SLE RA 7	-53	0	513	-0.34	0.81	-0.05
60	SLE RA 8	-48	1	502	-0.37	1	-0.06
60	SLE RA 9	-53	0	513	-0.34	0.81	-0.05
60	SLE RA 10	-27	0	530	-0.42	2.55	-0.06
60	SLE RA 11	-20	1	512	-0.46	2.87	-0.07
60	SLE RA 12	-24	0	523	-0.44	2.68	-0.07
60	SLE RA 13	-27	0	530	-0.42	2.55	-0.06
60	SLE RA 14	-20	1	512	-0.46	2.87	-0.07
60	SLE RA 15	-24	0	523	-0.44	2.68	-0.07
60	SLE RA 16	-20	1	512	-0.46	2.87	-0.07
60	SLE RA 17	-24	0	523	-0.44	2.68	-0.07
60	SLE RA 18	-7	1	516	-0.5	3.67	-0.08
60	SLE RA 19	-12	0	527	-0.47	3.48	-0.07
60	SLE RA 20	-7	1	516	-0.5	3.67	-0.08
60	SLE RA 21	-12	0	527	-0.47	3.48	-0.07
60	SLE FR 1	-48	1	502	-0.37	1	-0.06
60	SLE FR 2	-50	1	506	-0.36	0.94	-0.06
60	SLE FR 3	-48	1	502	-0.37	1	-0.06
60	SLE FR 4	-38	1	510	-0.4	1.74	-0.06
60	SLE FR 5	-36	1	506	-0.41	1.8	-0.07
60	SLE FR 6	-28	1	509	-0.44	2.34	-0.07
60	SLE QP 1	-48	1	502	-0.37	1	-0.06
60	SLE QP 2	-36	1	506	-0.41	1.8	-0.07
60	SLD 1	147	16	34	-10.4	9.51	-1.52
60	SLD 2	147	16	34	-10.4	9.51	-1.52
60	SLD 3	171	6	91	-5.64	10.48	-0.87
60	SLD 4	171	6	91	-5.64	10.48	-0.87
60	SLD 5	-17	20	279	-10.63	2.64	-1.48
60	SLD 6	-17	20	279	-10.63	2.64	-1.48
60	SLD 7	62	-13	468	5.25	5.87	0.67
60	SLD 8	62	-13	468	5.25	5.87	0.67
60	SLD 9	-134	14	545	-6.07	-2.27	-0.81
60	SLD 10	-134	14	545	-6.07	-2.27	-0.81
60	SLD 11	-55	-19	734	9.81	0.96	1.35
60	SLD 12	-55	-19	734	9.81	0.96	1.35
60	SLD 13	-243	-4	922	4.82	-6.87	0.74
60	SLD 14	-243	-4	922	4.82	-6.87	0.74
60	SLD 15	-219	-14	979	9.58	-5.9	1.39
60	SLD 16	-219	-14	979	9.58	-5.9	1.39
60	SLV 1	420	37	-675	-24.91	20.92	-3.64
60	SLV 2	420	37	-675	-24.91	20.92	-3.64
60	SLV 3	481	13	-531	-13.7	23.41	-2.11
60	SLV 4	481	13	-531	-13.7	23.41	-2.11
60	SLV 5	8	47	-67	-24.77	3.76	-3.45
60	SLV 6	8	47	-67	-24.77	3.76	-3.45
60	SLV 7	212	-31	414	12.61	12.06	1.63
60	SLV 8	212	-31	414	12.61	12.06	1.63
60	SLV 9	-284	33	599	-13.43	-8.46	-1.77
60	SLV 10	-284	33	599	-13.43	-8.46	-1.77
60	SLV 11	-81	-46	1080	23.95	-0.16	3.32
60	SLV 12	-81	-46	1080	23.95	-0.16	3.32
60	SLV 13	-553	-11	1544	12.88	-19.81	1.98
60	SLV 14	-553	-11	1544	12.88	-19.81	1.98
60	SLV 15	-492	-35	1688	24.09	-17.32	3.51





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
60	SLV 16	-492	-35	1688	24.09	-17.32	3.51
61	SLU 1	404	3	1442	-1.05	11.44	0.19
61	SLU 2	406	3	1446	-0.92	11.51	0.17
61	SLU 3	404	3	1442	-1.05	11.44	0.19
61	SLU 4	405	3	1445	-0.97	11.48	0.18
61	SLU 5	406	3	1446	-0.92	11.51	0.17
61	SLU 6	404	3	1442	-1.05	11.44	0.19
61	SLU 7	405	3	1445	-0.97	11.48	0.18
61	SLU 8	404	3	1442	-1.05	11.44	0.19
61	SLU 9	405	3	1445	-0.97	11.48	0.18
61	SLU 10	556	4	1993	-1.35	15.68	0.25
61	SLU 11	554	4	1989	-1.48	15.6	0.27
61	SLU 12	555	4	1991	-1.41	15.65	0.26
61	SLU 13	556	4	1993	-1.35	15.68	0.25
61	SLU 14	554	4	1989	-1.48	15.6	0.27
61	SLU 15	555	4	1991	-1.41	15.65	0.26
61	SLU 16	554	4	1989	-1.48	15.6	0.27
61	SLU 17	555	4	1991	-1.41	15.65	0.26
61	SLU 18	618	5	2223	-1.67	17.39	0.3
61	SLU 19	619	5	2226	-1.59	17.43	0.29
61	SLU 20	618	5	2223	-1.67	17.39	0.3
61	SLU 21	619	5	2226	-1.59	17.43	0.29
61	SLU 22	474	4	1692	-1.41	13.4	0.26
61	SLU 23	476	4	1696	-1.28	13.47	0.24
61	SLU 24	474	4	1692	-1.41	13.4	0.26
61	SLU 25	475	4	1694	-1.33	13.44	0.24
61	SLU 26	476	4	1696	-1.28	13.47	0.24
61	SLU 27	474	4	1692	-1.41	13.4	0.26
61	SLU 28	475	4	1694	-1.33	13.44	0.24
61	SLU 29	474	4	1692	-1.41	13.4	0.26
61	SLU 30	475	4	1694	-1.33	13.44	0.24
61	SLU 31	625	5	2243	-1.71	17.63	0.31
61	SLU 32	623	5	2239	-1.84	17.56	0.33
61	SLU 33	624	5	2241	-1.76	17.6	0.32
61	SLU 34	625	5	2243	-1.71	17.63	0.31
61	SLU 35	623	5	2239	-1.84	17.56	0.33
61	SLU 36	624	5	2241	-1.76	17.6	0.32
61	SLU 37	623	5	2239	-1.84	17.56	0.33
61	SLU 38	624	5	2241	-1.76	17.6	0.32
61	SLU 39	687	6	2473	-2.03	19.35	0.37
61	SLU 40	688	6	2475	-1.95	19.39	0.35
61	SLU 41	687	6	2473	-2.03	19.35	0.37
61	SLU 42	688	6	2475	-1.95	19.39	0.35
61	SLU 43	502	4	1789	-1.24	14.2	0.23
61	SLU 44	504	4	1793	-1.12	14.27	0.2
61	SLU 45	502	4	1789	-1.24	14.2	0.23
61	SLU 46	503	4	1792	-1.17	14.24	0.21
61	SLU 47	504	4	1793	-1.12	14.27	0.2
61	SLU 48	502	4	1789	-1.24	14.2	0.23
61	SLU 49	503	4	1792	-1.17	14.24	0.21
61	SLU 50	502	4	1789	-1.24	14.2	0.23
61	SLU 51	503	4	1792	-1.17	14.24	0.21
61	SLU 52	653	5	2340	-1.55	18.44	0.28
61	SLU 53	651	5	2336	-1.67	18.37	0.3
61	SLU 54	652	5	2339	-1.6	18.41	0.29
61	SLU 55	653	5	2340	-1.55	18.44	0.28
61	SLU 56	651	5	2336	-1.67	18.37	0.3
61	SLU 57	652	5	2339	-1.6	18.41	0.29
61	SLU 58	651	5	2336	-1.67	18.37	0.3
61	SLU 59	652	5	2339	-1.6	18.41	0.29
61	SLU 60	715	5	2571	-1.86	20.15	0.34
61	SLU 61	716	5	2573	-1.78	20.19	0.32
61	SLU 62	715	5	2571	-1.86	20.15	0.34
61	SLU 63	716	5	2573	-1.78	20.19	0.32
61	SLU 64	571	5	2039	-1.6	16.16	0.29
61	SLU 65	573	5	2043	-1.47	16.23	0.27
61	SLU 66	571	5	2039	-1.6	16.16	0.29
61	SLU 67	572	5	2041	-1.53	16.2	0.28
61	SLU 68	573	5	2043	-1.47	16.23	0.27
61	SLU 69	571	5	2039	-1.6	16.16	0.29
61	SLU 70	572	5	2041	-1.53	16.2	0.28
61	SLU 71	571	5	2039	-1.6	16.16	0.29
61	SLU 72	572	5	2041	-1.53	16.2	0.28
61	SLU 73	723	6	2590	-1.91	20.39	0.35
61	SLU 74	721	6	2586	-2.03	20.32	0.37
61	SLU 75	722	6	2588	-1.96	20.37	0.36
61	SLU 76	723	6	2590	-1.91	20.39	0.35
61	SLU 77	721	6	2586	-2.03	20.32	0.37
61	SLU 78	722	6	2588	-1.96	20.37	0.36
61	SLU 79	721	6	2586	-2.03	20.32	0.37
61	SLU 80	722	6	2588	-1.96	20.37	0.36
61	SLU 81	785	6	2820	-2.22	22.11	0.4
61	SLU 82	786	6	2822	-2.14	22.15	0.39
61	SLU 83	785	6	2820	-2.22	22.11	0.4
61	SLU 84	786	6	2822	-2.14	22.15	0.39
61	SLE RA 1	424	3	1514	-1.15	12	0.21
61	SLE RA 2	425	3	1516	-1.07	12.05	0.2
61	SLE RA 3	424	3	1514	-1.15	12	0.21
61	SLE RA 4	425	3	1515	-1.1	12.03	0.2



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
61	SLE RA 5	425	3	1516	-1.07	12.05	0.2
61	SLE RA 6	424	3	1514	-1.15	12	0.21
61	SLE RA 7	425	3	1515	-1.1	12.03	0.2
61	SLE RA 8	424	3	1514	-1.15	12	0.21
61	SLE RA 9	425	3	1515	-1.1	12.03	0.2
61	SLE RA 10	525	4	1881	-1.36	14.82	0.25
61	SLE RA 11	524	4	1878	-1.44	14.78	0.26
61	SLE RA 12	524	4	1880	-1.39	14.8	0.25
61	SLE RA 13	525	4	1881	-1.36	14.82	0.25
61	SLE RA 14	524	4	1878	-1.44	14.78	0.26
61	SLE RA 15	524	4	1880	-1.39	14.8	0.25
61	SLE RA 16	524	4	1878	-1.44	14.78	0.26
61	SLE RA 17	524	4	1880	-1.39	14.8	0.25
61	SLE RA 18	566	4	2034	-1.56	15.97	0.28
61	SLE RA 19	567	4	2036	-1.51	15.99	0.28
61	SLE RA 20	566	4	2034	-1.56	15.97	0.28
61	SLE RA 21	567	4	2036	-1.51	15.99	0.28
61	SLE FR 1	424	3	1514	-1.15	12	0.21
61	SLE FR 2	424	3	1514	-1.14	12.01	0.21
61	SLE FR 3	424	3	1514	-1.15	12	0.21
61	SLE FR 4	467	4	1670	-1.26	13.2	0.23
61	SLE FR 5	467	4	1670	-1.28	13.19	0.23
61	SLE FR 6	495	4	1774	-1.36	13.98	0.25
61	SLE QP 1	424	3	1514	-1.15	12	0.21
61	SLE QP 2	467	4	1670	-1.28	13.19	0.23
61	SLD 1	610	25	2068	-2.78	18.42	0.64
61	SLD 2	610	25	2068	-2.78	18.42	0.64
61	SLD 3	633	20	2123	-1.93	19.22	0.48
61	SLD 4	633	20	2123	-1.93	19.22	0.48
61	SLD 5	475	19	1706	-3.02	13.54	0.6
61	SLD 6	475	19	1706	-3.02	13.54	0.6
61	SLD 7	551	0	1889	-0.18	16.22	0.06
61	SLD 8	551	0	1889	-0.18	16.22	0.06
61	SLD 9	382	8	1450	-2.37	10.16	0.4
61	SLD 10	382	8	1450	-2.37	10.16	0.4
61	SLD 11	458	-12	1634	0.47	12.84	-0.14
61	SLD 12	458	-12	1634	0.47	12.84	-0.14
61	SLD 13	301	-12	1216	-0.62	7.16	-0.02
61	SLD 14	301	-12	1216	-0.62	7.16	-0.02
61	SLD 15	324	-18	1271	0.23	7.96	-0.18
61	SLD 16	324	-18	1271	0.23	7.96	-0.18
61	SLV 1	807	59	2616	-5.02	25.64	1.27
61	SLV 2	807	59	2616	-5.02	25.64	1.27
61	SLV 3	862	45	2747	-3.03	27.55	0.89
61	SLV 4	862	45	2747	-3.03	27.55	0.89
61	SLV 5	487	41	1754	-5.41	14.02	1.12
61	SLV 6	487	41	1754	-5.41	14.02	1.12
61	SLV 7	667	-5	2192	1.21	20.4	-0.15
61	SLV 8	667	-5	2192	1.21	20.4	-0.15
61	SLV 9	266	12	1147	-3.76	5.98	0.61
61	SLV 10	266	12	1147	-3.76	5.98	0.61
61	SLV 11	447	-34	1585	2.86	12.36	-0.66
61	SLV 12	447	-34	1585	2.86	12.36	-0.66
61	SLV 13	72	-38	592	0.48	-1.17	-0.42
61	SLV 14	72	-38	592	0.48	-1.17	-0.42
61	SLV 15	126	-52	724	2.46	0.74	-0.8
61	SLV 16	126	-52	724	2.46	0.74	-0.8
62	SLU 1	285	3	2438	-1.62	18.81	0.06
62	SLU 2	288	3	2443	-1.33	19.02	0.05
62	SLU 3	285	3	2438	-1.62	18.81	0.06
62	SLU 4	287	3	2441	-1.44	18.94	0.06
62	SLU 5	288	3	2443	-1.33	19.02	0.05
62	SLU 6	285	3	2438	-1.62	18.81	0.06
62	SLU 7	287	3	2441	-1.44	18.94	0.06
62	SLU 8	285	3	2438	-1.62	18.81	0.06
62	SLU 9	287	3	2441	-1.44	18.94	0.06
62	SLU 10	378	4	3358	-2	25.23	0.08
62	SLU 11	375	4	3353	-2.29	25.02	0.09
62	SLU 12	377	4	3356	-2.11	25.15	0.08
62	SLU 13	378	4	3358	-2	25.23	0.08
62	SLU 14	375	4	3353	-2.29	25.02	0.09
62	SLU 15	377	4	3356	-2.11	25.15	0.08
62	SLU 16	375	4	3353	-2.29	25.02	0.09
62	SLU 17	377	4	3356	-2.11	25.15	0.08
62	SLU 18	414	5	3745	-2.57	27.69	0.1
62	SLU 19	415	5	3748	-2.4	27.81	0.09
62	SLU 20	414	5	3745	-2.57	27.69	0.1
62	SLU 21	415	5	3748	-2.4	27.81	0.09
62	SLU 22	330	4	2856	-2.18	21.87	0.08
62	SLU 23	333	4	2861	-1.89	22.07	0.07
62	SLU 24	330	4	2856	-2.18	21.87	0.08
62	SLU 25	332	4	2859	-2.01	21.99	0.08
62	SLU 26	333	4	2861	-1.89	22.07	0.07
62	SLU 27	330	4	2856	-2.18	21.87	0.08
62	SLU 28	332	4	2859	-2.01	21.99	0.08
62	SLU 29	330	4	2856	-2.18	21.87	0.08
62	SLU 30	332	4	2859	-2.01	21.99	0.08
62	SLU 31	423	5	3776	-2.56	28.29	0.1
62	SLU 32	420	5	3771	-2.85	28.08	0.11



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
62	SLU 33	422	5	3774	-2.68	28.2	0.1
62	SLU 34	423	5	3776	-2.56	28.29	0.1
62	SLU 35	420	5	3771	-2.85	28.08	0.11
62	SLU 36	422	5	3774	-2.68	28.2	0.1
62	SLU 37	420	5	3771	-2.85	28.08	0.11
62	SLU 38	422	5	3774	-2.68	28.2	0.1
62	SLU 39	459	6	4163	-3.14	30.74	0.12
62	SLU 40	461	6	4166	-2.97	30.87	0.11
62	SLU 41	459	6	4163	-3.14	30.74	0.12
62	SLU 42	461	6	4166	-2.97	30.87	0.11
62	SLU 43	355	4	3026	-1.91	23.41	0.08
62	SLU 44	358	3	3031	-1.62	23.61	0.06
62	SLU 45	355	4	3026	-1.91	23.41	0.08
62	SLU 46	357	3	3029	-1.73	23.53	0.07
62	SLU 47	358	3	3031	-1.62	23.61	0.06
62	SLU 48	355	4	3026	-1.91	23.41	0.08
62	SLU 49	357	3	3029	-1.73	23.53	0.07
62	SLU 50	355	4	3026	-1.91	23.41	0.08
62	SLU 51	357	3	3029	-1.73	23.53	0.07
62	SLU 52	448	4	3946	-2.29	29.83	0.09
62	SLU 53	445	5	3941	-2.58	29.62	0.1
62	SLU 54	447	5	3944	-2.4	29.74	0.09
62	SLU 55	448	4	3946	-2.29	29.83	0.09
62	SLU 56	445	5	3941	-2.58	29.62	0.1
62	SLU 57	447	5	3944	-2.4	29.74	0.09
62	SLU 58	445	5	3941	-2.58	29.62	0.1
62	SLU 59	447	5	3944	-2.4	29.74	0.09
62	SLU 60	484	5	4333	-2.86	32.28	0.11
62	SLU 61	485	5	4336	-2.69	32.41	0.1
62	SLU 62	484	5	4333	-2.86	32.28	0.11
62	SLU 63	485	5	4336	-2.69	32.41	0.1
62	SLU 64	400	5	3445	-2.47	26.46	0.1
62	SLU 65	403	4	3449	-2.18	26.67	0.08
62	SLU 66	400	5	3445	-2.47	26.46	0.1
62	SLU 67	402	4	3447	-2.3	26.59	0.09
62	SLU 68	403	4	3449	-2.18	26.67	0.08
62	SLU 69	400	5	3445	-2.47	26.46	0.1
62	SLU 70	402	4	3447	-2.3	26.59	0.09
62	SLU 71	400	5	3445	-2.47	26.46	0.1
62	SLU 72	402	4	3447	-2.3	26.59	0.09
62	SLU 73	493	5	4364	-2.85	32.88	0.11
62	SLU 74	490	6	4359	-3.14	32.68	0.12
62	SLU 75	492	6	4362	-2.97	32.8	0.11
62	SLU 76	493	5	4364	-2.85	32.88	0.11
62	SLU 77	490	6	4359	-3.14	32.68	0.12
62	SLU 78	492	6	4362	-2.97	32.8	0.11
62	SLU 79	490	6	4359	-3.14	32.68	0.12
62	SLU 80	492	6	4362	-2.97	32.8	0.11
62	SLU 81	529	7	4751	-3.43	35.34	0.13
62	SLU 82	531	6	4754	-3.26	35.46	0.13
62	SLU 83	529	7	4751	-3.43	35.34	0.13
62	SLU 84	531	6	4754	-3.26	35.46	0.13
62	SLE RA 1	298	3	2558	-1.78	19.69	0.07
62	SLE RA 2	300	3	2561	-1.59	19.82	0.06
62	SLE RA 3	298	3	2558	-1.78	19.69	0.07
62	SLE RA 4	299	3	2560	-1.66	19.77	0.06
62	SLE RA 5	300	3	2561	-1.59	19.82	0.06
62	SLE RA 6	298	3	2558	-1.78	19.69	0.07
62	SLE RA 7	299	3	2560	-1.66	19.77	0.06
62	SLE RA 8	298	3	2558	-1.78	19.69	0.07
62	SLE RA 9	299	3	2560	-1.66	19.77	0.06
62	SLE RA 10	360	4	3171	-2.03	23.96	0.08
62	SLE RA 11	358	4	3168	-2.22	23.83	0.09
62	SLE RA 12	359	4	3169	-2.11	23.91	0.08
62	SLE RA 13	360	4	3171	-2.03	23.96	0.08
62	SLE RA 14	358	4	3168	-2.22	23.83	0.09
62	SLE RA 15	359	4	3169	-2.11	23.91	0.08
62	SLE RA 16	358	4	3168	-2.22	23.83	0.09
62	SLE RA 17	359	4	3169	-2.11	23.91	0.08
62	SLE RA 18	384	5	3429	-2.42	25.6	0.09
62	SLE RA 19	385	4	3431	-2.3	25.68	0.09
62	SLE RA 20	384	5	3429	-2.42	25.6	0.09
62	SLE RA 21	385	4	3431	-2.3	25.68	0.09
62	SLE FR 1	298	3	2558	-1.78	19.69	0.07
62	SLE FR 2	298	3	2558	-1.74	19.71	0.07
62	SLE FR 3	298	3	2558	-1.78	19.69	0.07
62	SLE FR 4	324	4	2820	-1.93	21.49	0.07
62	SLE FR 5	324	4	2819	-1.97	21.46	0.08
62	SLE FR 6	341	4	2993	-2.1	22.64	0.08
62	SLE QP 1	298	3	2558	-1.78	19.69	0.07
62	SLE QP 2	324	4	2819	-1.97	21.46	0.08
62	SLD 1	463	-9	3320	2.32	31.76	-0.33
62	SLD 2	463	-9	3320	2.32	31.76	-0.33
62	SLD 3	494	-4	3403	0.06	33.64	-0.18
62	SLD 4	494	-4	3403	0.06	33.64	-0.18
62	SLD 5	319	-8	2843	2.75	21.7	-0.27
62	SLD 6	319	-8	2843	2.75	21.7	-0.27
62	SLD 7	422	10	3121	-4.8	27.97	0.23
62	SLD 8	422	10	3121	-4.8	27.97	0.23



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
62	SLD 9	225	-2	2518	0.86	14.95	-0.07
62	SLD 10	225	-2	2518	0.86	14.95	-0.07
62	SLD 11	329	16	2795	-6.69	21.22	0.43
62	SLD 12	329	16	2795	-6.69	21.22	0.43
62	SLD 13	153	11	2235	-4	9.28	0.33
62	SLD 14	153	11	2235	-4	9.28	0.33
62	SLD 15	184	17	2319	-6.26	11.16	0.48
62	SLD 16	184	17	2319	-6.26	11.16	0.48
62	SLV 1	656	-29	4006	8.73	45.97	-0.95
62	SLV 2	656	-29	4006	8.73	45.97	-0.95
62	SLV 3	730	-16	4204	3.45	50.42	-0.59
62	SLV 4	730	-16	4204	3.45	50.42	-0.59
62	SLV 5	312	-25	2875	9.26	22.07	-0.77
62	SLV 6	312	-25	2875	9.26	22.07	-0.77
62	SLV 7	557	17	3534	-8.37	36.89	0.41
62	SLV 8	557	17	3534	-8.37	36.89	0.41
62	SLV 9	91	-9	2104	4.43	6.03	-0.26
62	SLV 10	91	-9	2104	4.43	6.03	-0.26
62	SLV 11	335	33	2763	-13.2	20.85	0.92
62	SLV 12	335	33	2763	-13.2	20.85	0.92
62	SLV 13	-82	24	1434	-7.38	-7.5	0.74
62	SLV 14	-82	24	1434	-7.38	-7.5	0.74
62	SLV 15	-9	36	1632	-12.67	-3.05	1.1
62	SLV 16	-9	36	1632	-12.67	-3.05	1.1
63	SLU 1	225	1	2317	-0.9	8.98	0.11
63	SLU 2	228	1	2321	-0.61	9.12	0.09
63	SLU 3	225	1	2317	-0.9	8.98	0.11
63	SLU 4	227	1	2319	-0.72	9.06	0.1
63	SLU 5	228	1	2321	-0.61	9.12	0.09
63	SLU 6	225	1	2317	-0.9	8.98	0.11
63	SLU 7	227	1	2319	-0.72	9.06	0.1
63	SLU 8	225	1	2317	-0.9	8.98	0.11
63	SLU 9	227	1	2319	-0.72	9.06	0.1
63	SLU 10	291	1	3175	-0.99	11.88	0.13
63	SLU 11	288	2	3171	-1.28	11.74	0.16
63	SLU 12	290	1	3173	-1.1	11.83	0.14
63	SLU 13	291	1	3175	-0.99	11.88	0.13
63	SLU 14	288	2	3171	-1.28	11.74	0.16
63	SLU 15	290	1	3173	-1.1	11.83	0.14
63	SLU 16	288	2	3171	-1.28	11.74	0.16
63	SLU 17	290	1	3173	-1.1	11.83	0.14
63	SLU 18	315	2	3537	-1.44	12.93	0.17
63	SLU 19	317	2	3540	-1.27	13.01	0.16
63	SLU 20	315	2	3537	-1.44	12.93	0.17
63	SLU 21	317	2	3540	-1.27	13.01	0.16
63	SLU 22	258	2	2711	-1.23	10.41	0.15
63	SLU 23	262	1	2715	-0.95	10.55	0.12
63	SLU 24	258	2	2711	-1.23	10.41	0.15
63	SLU 25	260	1	2713	-1.06	10.5	0.13
63	SLU 26	262	1	2715	-0.95	10.55	0.12
63	SLU 27	258	2	2711	-1.23	10.41	0.15
63	SLU 28	260	1	2713	-1.06	10.5	0.13
63	SLU 29	258	2	2711	-1.23	10.41	0.15
63	SLU 30	260	1	2713	-1.06	10.5	0.13
63	SLU 31	325	2	3569	-1.33	13.32	0.16
63	SLU 32	322	2	3565	-1.61	13.18	0.19
63	SLU 33	324	2	3568	-1.44	13.26	0.17
63	SLU 34	325	2	3569	-1.33	13.32	0.16
63	SLU 35	322	2	3565	-1.61	13.18	0.19
63	SLU 36	324	2	3568	-1.44	13.26	0.17
63	SLU 37	322	2	3565	-1.61	13.18	0.19
63	SLU 38	324	2	3568	-1.44	13.26	0.17
63	SLU 39	349	2	3931	-1.78	14.36	0.21
63	SLU 40	351	2	3934	-1.6	14.45	0.19
63	SLU 41	349	2	3931	-1.78	14.36	0.21
63	SLU 42	351	2	3934	-1.6	14.45	0.19
63	SLU 43	281	1	2877	-1.05	11.18	0.13
63	SLU 44	284	1	2881	-0.76	11.32	0.11
63	SLU 45	281	1	2877	-1.05	11.18	0.13
63	SLU 46	283	1	2879	-0.88	11.27	0.12
63	SLU 47	284	1	2881	-0.76	11.32	0.11
63	SLU 48	281	1	2877	-1.05	11.18	0.13
63	SLU 49	283	1	2879	-0.88	11.27	0.12
63	SLU 50	281	1	2877	-1.05	11.18	0.13
63	SLU 51	283	1	2879	-0.88	11.27	0.12
63	SLU 52	347	1	3735	-1.14	14.09	0.15
63	SLU 53	344	2	3731	-1.43	13.95	0.18
63	SLU 54	346	2	3734	-1.26	14.03	0.16
63	SLU 55	347	1	3735	-1.14	14.09	0.15
63	SLU 56	344	2	3731	-1.43	13.95	0.18
63	SLU 57	346	2	3734	-1.26	14.03	0.16
63	SLU 58	344	2	3731	-1.43	13.95	0.18
63	SLU 59	346	2	3734	-1.26	14.03	0.16
63	SLU 60	371	2	4098	-1.59	15.13	0.2
63	SLU 61	373	2	4100	-1.42	15.22	0.18
63	SLU 62	371	2	4098	-1.59	15.13	0.2
63	SLU 63	373	2	4100	-1.42	15.22	0.18
63	SLU 64	314	2	3271	-1.39	12.61	0.17
63	SLU 65	318	1	3275	-1.1	12.75	0.14



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
63	SLU 66	314	2	3271	-1.39	12.61	0.17
63	SLU 67	316	2	3274	-1.21	12.7	0.15
63	SLU 68	318	1	3275	-1.1	12.75	0.14
63	SLU 69	314	2	3271	-1.39	12.61	0.17
63	SLU 70	316	2	3274	-1.21	12.7	0.15
63	SLU 71	314	2	3271	-1.39	12.61	0.17
63	SLU 72	316	2	3274	-1.21	12.7	0.15
63	SLU 73	381	2	4129	-1.48	15.52	0.19
63	SLU 74	378	2	4126	-1.77	15.38	0.21
63	SLU 75	380	2	4128	-1.59	15.46	0.2
63	SLU 76	381	2	4129	-1.48	15.52	0.19
63	SLU 77	378	2	4126	-1.77	15.38	0.21
63	SLU 78	380	2	4128	-1.59	15.46	0.2
63	SLU 79	378	2	4126	-1.77	15.38	0.21
63	SLU 80	380	2	4128	-1.59	15.46	0.2
63	SLU 81	405	2	4492	-1.93	16.56	0.23
63	SLU 82	407	2	4494	-1.76	16.65	0.21
63	SLU 83	405	2	4492	-1.93	16.56	0.23
63	SLU 84	407	2	4494	-1.76	16.65	0.21
63	SLE RA 1	235	1	2430	-0.99	9.39	0.12
63	SLE RA 2	237	1	2432	-0.8	9.48	0.1
63	SLE RA 3	235	1	2430	-0.99	9.39	0.12
63	SLE RA 4	236	1	2431	-0.88	9.44	0.11
63	SLE RA 5	237	1	2432	-0.8	9.48	0.1
63	SLE RA 6	235	1	2430	-0.99	9.39	0.12
63	SLE RA 7	236	1	2431	-0.88	9.44	0.11
63	SLE RA 8	235	1	2430	-0.99	9.39	0.12
63	SLE RA 9	236	1	2431	-0.88	9.44	0.11
63	SLE RA 10	279	1	3002	-1.05	11.33	0.13
63	SLE RA 11	277	2	2999	-1.25	11.23	0.15
63	SLE RA 12	278	1	3001	-1.13	11.29	0.14
63	SLE RA 13	279	1	3002	-1.05	11.33	0.13
63	SLE RA 14	277	2	2999	-1.25	11.23	0.15
63	SLE RA 15	278	1	3001	-1.13	11.29	0.14
63	SLE RA 16	277	2	2999	-1.25	11.23	0.15
63	SLE RA 17	278	1	3001	-1.13	11.29	0.14
63	SLE RA 18	295	2	3243	-1.35	12.02	0.16
63	SLE RA 19	296	2	3245	-1.24	12.08	0.15
63	SLE RA 20	295	2	3243	-1.35	12.02	0.16
63	SLE RA 21	296	2	3245	-1.24	12.08	0.15
63	SLE FR 1	235	1	2430	-0.99	9.39	0.12
63	SLE FR 2	235	1	2430	-0.95	9.41	0.12
63	SLE FR 3	235	1	2430	-0.99	9.39	0.12
63	SLE FR 4	253	1	2674	-1.06	10.2	0.13
63	SLE FR 5	253	1	2674	-1.1	10.18	0.13
63	SLE FR 6	265	1	2837	-1.17	10.71	0.14
63	SLE QP 1	235	1	2430	-0.99	9.39	0.12
63	SLE QP 2	253	1	2674	-1.1	10.18	0.13
63	SLD 1	415	-17	3003	7.37	19.39	-1.16
63	SLD 2	415	-17	3003	7.37	19.39	-1.16
63	SLD 3	449	-11	3087	4.33	20.89	-0.75
63	SLD 4	449	-11	3087	4.33	20.89	-0.75
63	SLD 5	250	-13	2644	6.06	10.68	-0.88
63	SLD 6	250	-13	2644	6.06	10.68	-0.88
63	SLD 7	362	7	2926	-4.09	15.65	0.5
63	SLD 8	362	7	2926	-4.09	15.65	0.5
63	SLD 9	143	-4	2421	1.89	4.7	-0.23
63	SLD 10	143	-4	2421	1.89	4.7	-0.23
63	SLD 11	255	16	2704	-8.26	9.68	1.15
63	SLD 12	255	16	2704	-8.26	9.68	1.15
63	SLD 13	56	14	2260	-6.53	-0.53	1.01
63	SLD 14	56	14	2260	-6.53	-0.53	1.01
63	SLD 15	90	20	2345	-9.57	0.96	1.43
63	SLD 16	90	20	2345	-9.57	0.96	1.43
63	SLV 1	641	-46	3452	20.22	32.14	-3.12
63	SLV 2	641	-46	3452	20.22	32.14	-3.12
63	SLV 3	720	-32	3651	13.04	35.7	-2.15
63	SLV 4	720	-32	3651	13.04	35.7	-2.15
63	SLV 5	249	-34	2605	16.18	11.38	-2.33
63	SLV 6	249	-34	2605	16.18	11.38	-2.33
63	SLV 7	513	13	3270	-7.74	23.22	0.93
63	SLV 8	513	13	3270	-7.74	23.22	0.93
63	SLV 9	-8	-10	2078	5.54	-2.87	-0.66
63	SLV 10	-8	-10	2078	5.54	-2.87	-0.66
63	SLV 11	257	37	2743	-18.38	8.98	2.59
63	SLV 12	257	37	2743	-18.38	8.98	2.59
63	SLV 13	-215	35	1696	-15.25	-15.34	2.42
63	SLV 14	-215	35	1696	-15.25	-15.34	2.42
63	SLV 15	-135	49	1896	-22.42	-11.79	3.39
63	SLV 16	-135	49	1896	-22.42	-11.79	3.39
64	SLU 1	123	1	2348	0.46	4.79	0.04
64	SLU 2	126	0	2351	0.71	4.93	0.06
64	SLU 3	123	1	2348	0.46	4.79	0.04
64	SLU 4	125	0	2350	0.61	4.87	0.05
64	SLU 5	126	0	2351	0.71	4.93	0.06
64	SLU 6	123	1	2348	0.46	4.79	0.04
64	SLU 7	125	0	2350	0.61	4.87	0.05
64	SLU 8	123	1	2348	0.46	4.79	0.04
64	SLU 9	125	0	2350	0.61	4.87	0.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
64	SLU 10	147	0	3179	0.85	5.9	0.07
64	SLU 11	143	1	3175	0.61	5.76	0.05
64	SLU 12	145	0	3178	0.75	5.84	0.06
64	SLU 13	147	0	3179	0.85	5.9	0.07
64	SLU 14	143	1	3175	0.61	5.76	0.05
64	SLU 15	145	0	3178	0.75	5.84	0.06
64	SLU 16	143	1	3175	0.61	5.76	0.05
64	SLU 17	145	0	3178	0.75	5.84	0.06
64	SLU 18	152	1	3530	0.67	6.18	0.06
64	SLU 19	154	1	3532	0.82	6.26	0.07
64	SLU 20	152	1	3530	0.67	6.18	0.06
64	SLU 21	154	1	3532	0.82	6.26	0.07
64	SLU 22	142	1	2743	0.52	5.38	0.05
64	SLU 23	145	0	2747	0.76	5.52	0.07
64	SLU 24	142	1	2743	0.52	5.38	0.05
64	SLU 25	144	0	2745	0.67	5.47	0.06
64	SLU 26	145	0	2747	0.76	5.52	0.07
64	SLU 27	142	1	2743	0.52	5.38	0.05
64	SLU 28	144	0	2745	0.67	5.47	0.06
64	SLU 29	142	1	2743	0.52	5.38	0.05
64	SLU 30	144	0	2745	0.67	5.47	0.06
64	SLU 31	166	0	3575	0.91	6.5	0.08
64	SLU 32	162	1	3571	0.66	6.36	0.06
64	SLU 33	164	1	3573	0.81	6.44	0.07
64	SLU 34	166	0	3575	0.91	6.5	0.08
64	SLU 35	162	1	3571	0.66	6.36	0.06
64	SLU 36	164	1	3573	0.81	6.44	0.07
64	SLU 37	162	1	3571	0.66	6.36	0.06
64	SLU 38	164	1	3573	0.81	6.44	0.07
64	SLU 39	171	1	3926	0.72	6.77	0.07
64	SLU 40	173	1	3928	0.87	6.86	0.08
64	SLU 41	171	1	3926	0.72	6.77	0.07
64	SLU 42	173	1	3928	0.87	6.86	0.08
64	SLU 43	153	1	2917	0.59	6.02	0.05
64	SLU 44	156	0	2920	0.83	6.16	0.07
64	SLU 45	153	1	2917	0.59	6.02	0.05
64	SLU 46	155	0	2919	0.73	6.1	0.06
64	SLU 47	156	0	2920	0.83	6.16	0.07
64	SLU 48	153	1	2917	0.59	6.02	0.05
64	SLU 49	155	0	2919	0.73	6.1	0.06
64	SLU 50	153	1	2917	0.59	6.02	0.05
64	SLU 51	155	0	2919	0.73	6.1	0.06
64	SLU 52	177	0	3748	0.97	7.13	0.08
64	SLU 53	174	1	3744	0.73	6.99	0.06
64	SLU 54	176	1	3746	0.87	7.07	0.07
64	SLU 55	177	0	3748	0.97	7.13	0.08
64	SLU 56	174	1	3744	0.73	6.99	0.06
64	SLU 57	176	1	3746	0.87	7.07	0.07
64	SLU 58	174	1	3744	0.73	6.99	0.06
64	SLU 59	176	1	3746	0.87	7.07	0.07
64	SLU 60	183	1	4099	0.79	7.41	0.07
64	SLU 61	185	1	4101	0.94	7.49	0.08
64	SLU 62	183	1	4099	0.79	7.41	0.07
64	SLU 63	185	1	4101	0.94	7.49	0.08
64	SLU 64	172	1	3312	0.64	6.62	0.05
64	SLU 65	175	0	3316	0.88	6.75	0.08
64	SLU 66	172	1	3312	0.64	6.62	0.05
64	SLU 67	174	1	3314	0.79	6.7	0.07
64	SLU 68	175	0	3316	0.88	6.75	0.08
64	SLU 69	172	1	3312	0.64	6.62	0.05
64	SLU 70	174	1	3314	0.79	6.7	0.07
64	SLU 71	172	1	3312	0.64	6.62	0.05
64	SLU 72	174	1	3314	0.79	6.7	0.07
64	SLU 73	196	1	4143	1.03	7.73	0.09
64	SLU 74	193	1	4140	0.78	7.59	0.07
64	SLU 75	195	1	4142	0.93	7.67	0.08
64	SLU 76	196	1	4143	1.03	7.73	0.09
64	SLU 77	193	1	4140	0.78	7.59	0.07
64	SLU 78	195	1	4142	0.93	7.67	0.08
64	SLU 79	193	1	4140	0.78	7.59	0.07
64	SLU 80	195	1	4142	0.93	7.67	0.08
64	SLU 81	202	1	4494	0.84	8.01	0.07
64	SLU 82	204	1	4497	0.99	8.09	0.09
64	SLU 83	202	1	4494	0.84	8.01	0.07
64	SLU 84	204	1	4497	0.99	8.09	0.09
64	SLE RA 1	128	1	2461	0.48	4.96	0.04
64	SLE RA 2	130	0	2463	0.64	5.05	0.05
64	SLE RA 3	128	1	2461	0.48	4.96	0.04
64	SLE RA 4	129	0	2462	0.58	5.01	0.05
64	SLE RA 5	130	0	2463	0.64	5.05	0.05
64	SLE RA 6	128	1	2461	0.48	4.96	0.04
64	SLE RA 7	129	0	2462	0.58	5.01	0.05
64	SLE RA 8	128	1	2461	0.48	4.96	0.04
64	SLE RA 9	129	0	2462	0.58	5.01	0.05
64	SLE RA 10	144	0	3015	0.74	5.7	0.06
64	SLE RA 11	142	1	3013	0.58	5.61	0.05
64	SLE RA 12	143	1	3014	0.67	5.66	0.06
64	SLE RA 13	144	0	3015	0.74	5.7	0.06
64	SLE RA 14	142	1	3013	0.58	5.61	0.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
64	SLE RA 15	143	1	3014	0.67	5.66	0.06
64	SLE RA 16	142	1	3013	0.58	5.61	0.05
64	SLE RA 17	143	1	3014	0.67	5.66	0.06
64	SLE RA 18	148	1	3249	0.62	5.88	0.05
64	SLE RA 19	149	1	3251	0.71	5.94	0.06
64	SLE RA 20	148	1	3249	0.62	5.88	0.05
64	SLE RA 21	149	1	3251	0.71	5.94	0.06
64	SLE FR 1	128	1	2461	0.48	4.96	0.04
64	SLE FR 2	129	1	2461	0.51	4.98	0.04
64	SLE FR 3	128	1	2461	0.48	4.96	0.04
64	SLE FR 4	134	1	2698	0.55	5.25	0.05
64	SLE FR 5	134	1	2697	0.52	5.24	0.04
64	SLE FR 6	138	1	2855	0.55	5.42	0.05
64	SLE QP 1	128	1	2461	0.48	4.96	0.04
64	SLE QP 2	134	1	2697	0.52	5.24	0.04
64	SLD 1	317	-19	2894	9.97	14.11	1.34
64	SLD 2	317	-19	2894	9.97	14.11	1.34
64	SLD 3	366	-13	3027	6.86	15.42	0.94
64	SLD 4	366	-13	3027	6.86	15.42	0.94
64	SLD 5	115	-15	2554	8.07	5.93	1.03
64	SLD 6	115	-15	2554	8.07	5.93	1.03
64	SLD 7	277	6	2999	-2.29	10.26	-0.29
64	SLD 8	277	6	2999	-2.29	10.26	-0.29
64	SLD 9	-9	-5	2396	3.34	0.21	0.38
64	SLD 10	-9	-5	2396	3.34	0.21	0.38
64	SLD 11	153	16	2841	-7.03	4.55	-0.95
64	SLD 12	153	16	2841	-7.03	4.55	-0.95
64	SLD 13	-98	14	2367	-5.81	-4.94	-0.85
64	SLD 14	-98	14	2367	-5.81	-4.94	-0.85
64	SLD 15	-49	21	2501	-8.92	-3.64	-1.25
64	SLD 16	-49	21	2501	-8.92	-3.64	-1.25
64	SLV 1	573	-50	3162	24.34	26.41	3.3
64	SLV 2	573	-50	3162	24.34	26.41	3.3
64	SLV 3	687	-34	3475	16.99	29.52	2.36
64	SLV 4	687	-34	3475	16.99	29.52	2.36
64	SLV 5	92	-38	2362	18.81	6.87	2.45
64	SLV 6	92	-38	2362	18.81	6.87	2.45
64	SLV 7	474	13	3405	-5.68	17.24	-0.69
64	SLV 8	474	13	3405	-5.68	17.24	-0.69
64	SLV 9	-206	-12	1990	6.73	-6.77	0.78
64	SLV 10	-206	-12	1990	6.73	-6.77	0.78
64	SLV 11	177	39	3032	-17.77	3.6	-2.36
64	SLV 12	177	39	3032	-17.77	3.6	-2.36
64	SLV 13	-419	36	1920	-15.95	-19.05	-2.27
64	SLV 14	-419	36	1920	-15.95	-19.05	-2.27
64	SLV 15	-304	51	2232	-23.3	-15.94	-3.22
64	SLV 16	-304	51	2232	-23.3	-15.94	-3.22
65	SLU 1	144	-13	2515	2.33	4.44	0.05
65	SLU 2	148	-13	2519	2.5	4.61	0.06
65	SLU 3	144	-13	2515	2.33	4.44	0.05
65	SLU 4	146	-13	2517	2.43	4.54	0.05
65	SLU 5	148	-13	2519	2.5	4.61	0.06
65	SLU 6	144	-13	2515	2.33	4.44	0.05
65	SLU 7	146	-13	2517	2.43	4.54	0.05
65	SLU 8	144	-13	2515	2.33	4.44	0.05
65	SLU 9	146	-13	2517	2.43	4.54	0.05
65	SLU 10	174	-18	3383	3.34	5.15	0.08
65	SLU 11	171	-17	3379	3.17	4.98	0.07
65	SLU 12	173	-18	3381	3.27	5.08	0.07
65	SLU 13	174	-18	3383	3.34	5.15	0.08
65	SLU 14	171	-17	3379	3.17	4.98	0.07
65	SLU 15	173	-18	3381	3.27	5.08	0.07
65	SLU 16	171	-17	3379	3.17	4.98	0.07
65	SLU 17	173	-18	3381	3.27	5.08	0.07
65	SLU 18	182	-19	3749	3.53	5.21	0.07
65	SLU 19	184	-20	3751	3.63	5.31	0.08
65	SLU 20	182	-19	3749	3.53	5.21	0.07
65	SLU 21	184	-20	3751	3.63	5.31	0.08
65	SLU 22	167	-16	2947	2.88	4.94	0.06
65	SLU 23	171	-16	2951	3.04	5.11	0.07
65	SLU 24	167	-16	2947	2.88	4.94	0.06
65	SLU 25	169	-16	2949	2.98	5.04	0.06
65	SLU 26	171	-16	2951	3.04	5.11	0.07
65	SLU 27	167	-16	2947	2.88	4.94	0.06
65	SLU 28	169	-16	2949	2.98	5.04	0.06
65	SLU 29	167	-16	2947	2.88	4.94	0.06
65	SLU 30	169	-16	2949	2.98	5.04	0.06
65	SLU 31	197	-21	3815	3.88	5.64	0.09
65	SLU 32	194	-21	3811	3.71	5.48	0.08
65	SLU 33	196	-21	3813	3.81	5.58	0.08
65	SLU 34	197	-21	3815	3.88	5.64	0.09
65	SLU 35	194	-21	3811	3.71	5.48	0.08
65	SLU 36	196	-21	3813	3.81	5.58	0.08
65	SLU 37	194	-21	3811	3.71	5.48	0.08
65	SLU 38	196	-21	3813	3.81	5.58	0.08
65	SLU 39	205	-23	4181	4.07	5.71	0.08
65	SLU 40	207	-23	4183	4.17	5.81	0.09
65	SLU 41	205	-23	4181	4.07	5.71	0.08
65	SLU 42	207	-23	4183	4.17	5.81	0.09



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
65	SLU 43	180	-16	3122	2.85	5.6	0.06
65	SLU 44	183	-16	3125	3.01	5.77	0.07
65	SLU 45	180	-16	3122	2.85	5.6	0.06
65	SLU 46	182	-16	3124	2.95	5.7	0.07
65	SLU 47	183	-16	3125	3.01	5.77	0.07
65	SLU 48	180	-16	3122	2.85	5.6	0.06
65	SLU 49	182	-16	3124	2.95	5.7	0.07
65	SLU 50	180	-16	3122	2.85	5.6	0.06
65	SLU 51	182	-16	3124	2.95	5.7	0.07
65	SLU 52	209	-21	3989	3.85	6.31	0.09
65	SLU 53	206	-20	3985	3.69	6.14	0.08
65	SLU 54	208	-21	3988	3.78	6.24	0.08
65	SLU 55	209	-21	3989	3.85	6.31	0.09
65	SLU 56	206	-20	3985	3.69	6.14	0.08
65	SLU 57	208	-21	3988	3.78	6.24	0.08
65	SLU 58	206	-20	3985	3.69	6.14	0.08
65	SLU 59	208	-21	3988	3.78	6.24	0.08
65	SLU 60	217	-22	4356	4.04	6.37	0.08
65	SLU 61	219	-23	4358	4.14	6.47	0.09
65	SLU 62	217	-22	4356	4.04	6.37	0.08
65	SLU 63	219	-23	4358	4.14	6.47	0.09
65	SLU 64	203	-19	3553	3.39	6.1	0.07
65	SLU 65	206	-19	3557	3.56	6.27	0.08
65	SLU 66	203	-19	3553	3.39	6.1	0.07
65	SLU 67	205	-19	3556	3.49	6.2	0.08
65	SLU 68	206	-19	3557	3.56	6.27	0.08
65	SLU 69	203	-19	3553	3.39	6.1	0.07
65	SLU 70	205	-19	3556	3.49	6.2	0.08
65	SLU 71	203	-19	3553	3.39	6.1	0.07
65	SLU 72	205	-19	3556	3.49	6.2	0.08
65	SLU 73	232	-24	4421	4.39	6.8	0.1
65	SLU 74	229	-23	4417	4.23	6.64	0.09
65	SLU 75	231	-24	4420	4.33	6.74	0.09
65	SLU 76	232	-24	4421	4.39	6.8	0.1
65	SLU 77	229	-23	4417	4.23	6.64	0.09
65	SLU 78	231	-24	4420	4.33	6.74	0.09
65	SLU 79	229	-23	4417	4.23	6.64	0.09
65	SLU 80	231	-24	4420	4.33	6.74	0.09
65	SLU 81	240	-25	4788	4.59	6.87	0.09
65	SLU 82	242	-26	4790	4.69	6.97	0.1
65	SLU 83	240	-25	4788	4.59	6.87	0.09
65	SLU 84	242	-26	4790	4.69	6.97	0.1
65	SLE RA 1	151	-14	2638	2.49	4.58	0.05
65	SLE RA 2	153	-14	2641	2.6	4.7	0.06
65	SLE RA 3	151	-14	2638	2.49	4.58	0.05
65	SLE RA 4	152	-14	2640	2.56	4.65	0.06
65	SLE RA 5	153	-14	2641	2.6	4.7	0.06
65	SLE RA 6	151	-14	2638	2.49	4.58	0.05
65	SLE RA 7	152	-14	2640	2.56	4.65	0.06
65	SLE RA 8	151	-14	2638	2.49	4.58	0.05
65	SLE RA 9	152	-14	2640	2.56	4.65	0.06
65	SLE RA 10	171	-17	3217	3.16	5.05	0.07
65	SLE RA 11	168	-17	3214	3.05	4.94	0.06
65	SLE RA 12	170	-17	3216	3.11	5.01	0.07
65	SLE RA 13	171	-17	3217	3.16	5.05	0.07
65	SLE RA 14	168	-17	3214	3.05	4.94	0.06
65	SLE RA 15	170	-17	3216	3.11	5.01	0.07
65	SLE RA 16	168	-17	3214	3.05	4.94	0.06
65	SLE RA 17	170	-17	3216	3.11	5.01	0.07
65	SLE RA 18	176	-18	3461	3.29	5.09	0.07
65	SLE RA 19	177	-18	3463	3.35	5.16	0.07
65	SLE RA 20	176	-18	3461	3.29	5.09	0.07
65	SLE RA 21	177	-18	3463	3.35	5.16	0.07
65	SLE FR 1	151	-14	2638	2.49	4.58	0.05
65	SLE FR 2	151	-14	2639	2.51	4.61	0.05
65	SLE FR 3	151	-14	2638	2.49	4.58	0.05
65	SLE FR 4	159	-15	2886	2.75	4.76	0.06
65	SLE FR 5	158	-15	2885	2.73	4.74	0.06
65	SLE FR 6	163	-16	3050	2.89	4.84	0.06
65	SLE QP 1	151	-14	2638	2.49	4.58	0.05
65	SLE QP 2	158	-15	2885	2.73	4.74	0.06
65	SLD 1	343	-29	3018	7.18	14.42	0.45
65	SLD 2	343	-29	3018	7.18	14.42	0.45
65	SLD 3	397	-36	3231	9.46	15.98	0.31
65	SLD 4	397	-36	3231	9.46	15.98	0.31
65	SLD 5	131	-8	2602	0.6	5.28	0.38
65	SLD 6	131	-8	2602	0.6	5.28	0.38
65	SLD 7	312	-32	3312	8.21	10.47	-0.07
65	SLD 8	312	-32	3312	8.21	10.47	-0.07
65	SLD 9	5	2	2459	-2.75	-0.99	0.18
65	SLD 10	5	2	2459	-2.75	-0.99	0.18
65	SLD 11	185	-22	3168	4.85	4.19	-0.27
65	SLD 12	185	-22	3168	4.85	4.19	-0.27
65	SLD 13	-80	5	2540	-4	-6.51	-0.2
65	SLD 14	-80	5	2540	-4	-6.51	-0.2
65	SLD 15	-26	-2	2753	-1.72	-4.95	-0.33
65	SLD 16	-26	-2	2753	-1.72	-4.95	-0.33
65	SLV 1	600	-50	3204	14.32	27.88	1.04
65	SLV 2	600	-50	3204	14.32	27.88	1.04





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
65	SLV 3	728	-67	3702	19.69	31.59	0.72
65	SLV 4	728	-67	3702	19.69	31.59	0.72
65	SLV 5	97	0	2225	-1.94	6.05	0.84
65	SLV 6	97	0	2225	-1.94	6.05	0.84
65	SLV 7	523	-56	3886	15.97	18.42	-0.23
65	SLV 8	523	-56	3886	15.97	18.42	-0.23
65	SLV 9	-206	26	1885	-10.51	-8.95	0.34
65	SLV 10	-206	26	1885	-10.51	-8.95	0.34
65	SLV 11	220	-30	3545	7.4	3.42	-0.72
65	SLV 12	220	-30	3545	7.4	3.42	-0.72
65	SLV 13	-411	37	2069	-14.23	-22.12	-0.61
65	SLV 14	-411	37	2069	-14.23	-22.12	-0.61
65	SLV 15	-283	20	2567	-8.86	-18.4	-0.93
65	SLV 16	-283	20	2567	-8.86	-18.4	-0.93
66	SLU 1	-29	-458	3740	19.68	4.22	2.01
66	SLU 2	-26	-457	3744	19.6	4.36	2
66	SLU 3	-29	-458	3740	19.68	4.22	2.01
66	SLU 4	-27	-457	3742	19.63	4.3	2
66	SLU 5	-26	-457	3744	19.6	4.36	2
66	SLU 6	-29	-458	3740	19.68	4.22	2.01
66	SLU 7	-27	-457	3742	19.63	4.3	2
66	SLU 8	-29	-458	3740	19.68	4.22	2.01
66	SLU 9	-27	-457	3742	19.63	4.3	2
66	SLU 10	-65	-621	5002	26.78	4.75	2.71
66	SLU 11	-68	-622	4999	26.85	4.61	2.72
66	SLU 12	-66	-621	5001	26.81	4.7	2.71
66	SLU 13	-65	-621	5002	26.78	4.75	2.71
66	SLU 14	-68	-622	4999	26.85	4.61	2.72
66	SLU 15	-66	-621	5001	26.81	4.7	2.71
66	SLU 16	-68	-622	4999	26.85	4.61	2.72
66	SLU 17	-66	-621	5001	26.81	4.7	2.71
66	SLU 18	-85	-692	5538	29.93	4.78	3.02
66	SLU 19	-83	-692	5541	29.88	4.86	3.02
66	SLU 20	-85	-692	5538	29.93	4.78	3.02
66	SLU 21	-83	-692	5541	29.88	4.86	3.02
66	SLU 22	-48	-565	4405	24.59	4.75	2.46
66	SLU 23	-45	-564	4409	24.52	4.89	2.45
66	SLU 24	-48	-565	4405	24.59	4.75	2.46
66	SLU 25	-46	-564	4407	24.55	4.84	2.45
66	SLU 26	-45	-564	4409	24.52	4.89	2.45
66	SLU 27	-48	-565	4405	24.59	4.75	2.46
66	SLU 28	-46	-564	4407	24.55	4.84	2.45
66	SLU 29	-48	-565	4405	24.59	4.75	2.46
66	SLU 30	-46	-564	4407	24.55	4.84	2.45
66	SLU 31	-83	-728	5667	31.69	5.29	3.16
66	SLU 32	-87	-729	5664	31.77	5.14	3.17
66	SLU 33	-85	-729	5666	31.72	5.23	3.16
66	SLU 34	-83	-728	5667	31.69	5.29	3.16
66	SLU 35	-87	-729	5664	31.77	5.14	3.17
66	SLU 36	-85	-729	5666	31.72	5.23	3.16
66	SLU 37	-87	-729	5664	31.77	5.14	3.17
66	SLU 38	-85	-729	5666	31.72	5.23	3.16
66	SLU 39	-103	-800	6203	34.84	5.31	3.47
66	SLU 40	-101	-799	6205	34.8	5.4	3.47
66	SLU 41	-103	-800	6203	34.84	5.31	3.47
66	SLU 42	-101	-799	6205	34.8	5.4	3.47
66	SLU 43	-32	-558	4634	23.9	5.3	2.45
66	SLU 44	-28	-557	4638	23.82	5.44	2.45
66	SLU 45	-32	-558	4634	23.9	5.3	2.45
66	SLU 46	-30	-558	4636	23.85	5.39	2.45
66	SLU 47	-28	-557	4638	23.82	5.44	2.45
66	SLU 48	-32	-558	4634	23.9	5.3	2.45
66	SLU 49	-30	-558	4636	23.85	5.39	2.45
66	SLU 50	-32	-558	4634	23.9	5.3	2.45
66	SLU 51	-30	-558	4636	23.85	5.39	2.45
66	SLU 52	-67	-721	5897	30.99	5.84	3.16
66	SLU 53	-71	-722	5893	31.07	5.69	3.16
66	SLU 54	-69	-722	5895	31.03	5.78	3.16
66	SLU 55	-67	-721	5897	30.99	5.84	3.16
66	SLU 56	-71	-722	5893	31.07	5.69	3.16
66	SLU 57	-69	-722	5895	31.03	5.78	3.16
66	SLU 58	-71	-722	5893	31.07	5.69	3.16
66	SLU 59	-69	-722	5895	31.03	5.78	3.16
66	SLU 60	-87	-793	6433	34.15	5.86	3.47
66	SLU 61	-85	-792	6435	34.1	5.95	3.46
66	SLU 62	-87	-793	6433	34.15	5.86	3.47
66	SLU 63	-85	-792	6435	34.1	5.95	3.46
66	SLU 64	-50	-665	5299	28.81	5.84	2.9
66	SLU 65	-47	-664	5303	28.74	5.98	2.9
66	SLU 66	-50	-665	5299	28.81	5.84	2.9
66	SLU 67	-48	-665	5301	28.77	5.92	2.9
66	SLU 68	-47	-664	5303	28.74	5.98	2.9
66	SLU 69	-50	-665	5299	28.81	5.84	2.9
66	SLU 70	-48	-665	5301	28.77	5.92	2.9
66	SLU 71	-50	-665	5299	28.81	5.84	2.9
66	SLU 72	-48	-665	5301	28.77	5.92	2.9
66	SLU 73	-86	-829	6561	35.91	6.37	3.61
66	SLU 74	-89	-830	6558	35.99	6.23	3.61
66	SLU 75	-87	-829	6560	35.94	6.31	3.61



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
66	SLU 76	-86	-829	6561	35.91	6.37	3.61
66	SLU 77	-89	-830	6558	35.99	6.23	3.61
66	SLU 78	-87	-829	6560	35.94	6.31	3.61
66	SLU 79	-89	-830	6558	35.99	6.23	3.61
66	SLU 80	-87	-829	6560	35.94	6.31	3.61
66	SLU 81	-106	-900	7097	39.06	6.4	3.92
66	SLU 82	-104	-899	7099	39.01	6.48	3.91
66	SLU 83	-106	-900	7097	39.06	6.4	3.92
66	SLU 84	-104	-899	7099	39.01	6.48	3.91
66	SLE RA 1	-35	-488	3930	21.08	4.37	2.14
66	SLE RA 2	-32	-488	3932	21.03	4.47	2.13
66	SLE RA 3	-35	-488	3930	21.08	4.37	2.14
66	SLE RA 4	-33	-488	3932	21.05	4.43	2.13
66	SLE RA 5	-32	-488	3932	21.03	4.47	2.13
66	SLE RA 6	-35	-488	3930	21.08	4.37	2.14
66	SLE RA 7	-33	-488	3932	21.05	4.43	2.13
66	SLE RA 8	-35	-488	3930	21.08	4.37	2.14
66	SLE RA 9	-33	-488	3932	21.05	4.43	2.13
66	SLE RA 10	-58	-597	4772	25.81	4.73	2.6
66	SLE RA 11	-60	-598	4769	25.87	4.63	2.61
66	SLE RA 12	-59	-597	4771	25.84	4.69	2.61
66	SLE RA 13	-58	-597	4772	25.81	4.73	2.6
66	SLE RA 14	-60	-598	4769	25.87	4.63	2.61
66	SLE RA 15	-59	-597	4771	25.84	4.69	2.61
66	SLE RA 16	-60	-598	4769	25.87	4.63	2.61
66	SLE RA 17	-59	-597	4771	25.84	4.69	2.61
66	SLE RA 18	-72	-645	5129	27.92	4.74	2.81
66	SLE RA 19	-70	-644	5130	27.88	4.8	2.81
66	SLE RA 20	-72	-645	5129	27.92	4.74	2.81
66	SLE RA 21	-70	-644	5130	27.88	4.8	2.81
66	SLE FR 1	-35	-488	3930	21.08	4.37	2.14
66	SLE FR 2	-34	-488	3931	21.07	4.39	2.13
66	SLE FR 3	-35	-488	3930	21.08	4.37	2.14
66	SLE FR 4	-45	-535	4290	23.12	4.5	2.34
66	SLE FR 5	-46	-535	4290	23.13	4.48	2.34
66	SLE FR 6	-53	-567	4530	24.5	4.56	2.47
66	SLE QP 1	-35	-488	3930	21.08	4.37	2.14
66	SLE QP 2	-46	-535	4290	23.13	4.48	2.34
66	SLD 1	169	-439	4363	17.78	13.48	1.85
66	SLD 2	169	-439	4363	17.78	13.48	1.85
66	SLD 3	190	-558	4751	24.91	15.31	2.3
66	SLD 4	190	-558	4751	24.91	15.31	2.3
66	SLD 5	-13	-326	3723	10.71	4.4	1.51
66	SLD 6	-13	-326	3723	10.71	4.4	1.51
66	SLD 7	56	-723	5017	34.48	10.51	3.01
66	SLD 8	56	-723	5017	34.48	10.51	3.01
66	SLD 9	-148	-348	3563	11.79	-1.54	1.67
66	SLD 10	-148	-348	3563	11.79	-1.54	1.67
66	SLD 11	-79	-745	4856	35.55	4.56	3.17
66	SLD 12	-79	-745	4856	35.55	4.56	3.17
66	SLD 13	-282	-512	3829	21.36	-6.34	2.38
66	SLD 14	-282	-512	3829	21.36	-6.34	2.38
66	SLD 15	-261	-631	4217	28.49	-4.51	2.83
66	SLD 16	-261	-631	4217	28.49	-4.51	2.83
66	SLV 1	468	-303	4470	10.31	25.97	1.13
66	SLV 2	468	-303	4470	10.31	25.97	1.13
66	SLV 3	518	-582	5379	26.99	30.31	2.19
66	SLV 4	518	-582	5379	26.99	30.31	2.19
66	SLV 5	32	-43	2966	-6	4.34	0.37
66	SLV 6	32	-43	2966	-6	4.34	0.37
66	SLV 7	200	-972	5995	49.58	18.82	3.9
66	SLV 8	200	-972	5995	49.58	18.82	3.9
66	SLV 9	-291	-98	2585	-3.32	-9.85	0.78
66	SLV 10	-291	-98	2585	-3.32	-9.85	0.78
66	SLV 11	-123	-1028	5614	52.27	4.62	4.31
66	SLV 12	-123	-1028	5614	52.27	4.62	4.31
66	SLV 13	-609	-488	3201	19.28	-21.35	2.49
66	SLV 14	-609	-488	3201	19.28	-21.35	2.49
66	SLV 15	-559	-767	4109	35.95	-17	3.55
66	SLV 16	-559	-767	4109	35.95	-17	3.55
67	SLU 1	-150	-3	2613	2.63	-4.82	-0.02
67	SLU 2	-146	-3	2617	2.37	-4.65	-0.03
67	SLU 3	-150	-3	2613	2.63	-4.82	-0.02
67	SLU 4	-147	-3	2615	2.48	-4.72	-0.02
67	SLU 5	-146	-3	2617	2.37	-4.65	-0.03
67	SLU 6	-150	-3	2613	2.63	-4.82	-0.02
67	SLU 7	-147	-3	2615	2.48	-4.72	-0.02
67	SLU 8	-150	-3	2613	2.63	-4.82	-0.02
67	SLU 9	-147	-3	2615	2.48	-4.72	-0.02
67	SLU 10	-232	-4	3454	3.34	-7.61	-0.03
67	SLU 11	-236	-4	3449	3.61	-7.78	-0.03
67	SLU 12	-234	-4	3452	3.45	-7.68	-0.03
67	SLU 13	-232	-4	3454	3.34	-7.61	-0.03
67	SLU 14	-236	-4	3449	3.61	-7.78	-0.03
67	SLU 15	-234	-4	3452	3.45	-7.68	-0.03
67	SLU 16	-236	-4	3449	3.61	-7.78	-0.03
67	SLU 17	-234	-4	3452	3.45	-7.68	-0.03
67	SLU 18	-273	-4	3808	4.03	-9.05	-0.04
67	SLU 19	-271	-4	3810	3.87	-8.95	-0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
67	SLU 20	-273	-4	3808	4.03	-9.05	-0.04
67	SLU 21	-271	-4	3810		-8.95	-0.04
67	SLU 22	-201	-4	3031	3.31	-6.59	-0.03
67	SLU 23	-197	-4	3035	3.04	-6.42	-0.03
67	SLU 24	-201	-4	3031	3.31	-6.59	-0.03
67	SLU 25	-199	-4	3034	3.15	-6.49	-0.03
67	SLU 26	-197	-4	3035	3.04	-6.42	-0.03
67	SLU 27	-201	-4	3031	3.31	-6.59	-0.03
67	SLU 28	-199	-4	3034	3.15	-6.49	-0.03
67	SLU 29	-201	-4	3031	3.31	-6.59	-0.03
67	SLU 30	-199	-4	3034	3.15	-6.49	-0.03
67	SLU 31	-284	-5	3872	4.02	-9.38	-0.04
67	SLU 32	-288	-5	3868	4.28	-9.54	-0.04
67	SLU 33	-285	-5	3871	4.12	-9.44	-0.04
67	SLU 34	-284	-5	3872	4.02	-9.38	-0.04
67	SLU 35	-288	-5	3868	4.28	-9.54	-0.04
67	SLU 36	-285	-5	3871	4.12	-9.44	-0.04
67	SLU 37	-288	-5	3868	4.28	-9.54	-0.04
67	SLU 38	-285	-5	3871	4.12	-9.44	-0.04
67	SLU 39	-325	-5	4227	4.7	-10.81	-0.05
67	SLU 40	-322	-5	4229	4.54	-10.71	-0.05
67	SLU 41	-325	-5	4227	4.7	-10.81	-0.05
67	SLU 42	-322	-5	4229	4.54	-10.71	-0.05
67	SLU 43	-177	-3	3253	3.19	-5.66	-0.03
67	SLU 44	-173	-4	3257	2.93	-5.5	-0.03
67	SLU 45	-177	-3	3253	3.19	-5.66	-0.03
67	SLU 46	-174	-4	3256	3.04	-5.56	-0.03
67	SLU 47	-173	-4	3257	2.93	-5.5	-0.03
67	SLU 48	-177	-3	3253	3.19	-5.66	-0.03
67	SLU 49	-174	-4	3256	3.04	-5.56	-0.03
67	SLU 50	-177	-3	3253	3.19	-5.66	-0.03
67	SLU 51	-174	-4	3256	3.04	-5.56	-0.03
67	SLU 52	-259	-5	4094	3.9	-8.45	-0.04
67	SLU 53	-263	-5	4090	4.17	-8.62	-0.04
67	SLU 54	-261	-5	4092	4.01	-8.52	-0.04
67	SLU 55	-259	-5	4094	3.9	-8.45	-0.04
67	SLU 56	-263	-5	4090	4.17	-8.62	-0.04
67	SLU 57	-261	-5	4092	4.01	-8.52	-0.04
67	SLU 58	-263	-5	4090	4.17	-8.62	-0.04
67	SLU 59	-261	-5	4092	4.01	-8.52	-0.04
67	SLU 60	-300	-5	4448	4.59	-9.89	-0.04
67	SLU 61	-298	-5	4451	4.43	-9.79	-0.04
67	SLU 62	-300	-5	4448	4.59	-9.89	-0.04
67	SLU 63	-298	-5	4451	4.43	-9.79	-0.04
67	SLU 64	-228	-4	3672	3.87	-7.43	-0.04
67	SLU 65	-224	-4	3676	3.6	-7.26	-0.04
67	SLU 66	-228	-4	3672	3.87	-7.43	-0.04
67	SLU 67	-226	-4	3674	3.71	-7.33	-0.04
67	SLU 68	-224	-4	3676	3.6	-7.26	-0.04
67	SLU 69	-228	-4	3672	3.87	-7.43	-0.04
67	SLU 70	-226	-4	3674	3.71	-7.33	-0.04
67	SLU 71	-228	-4	3672	3.87	-7.43	-0.04
67	SLU 72	-226	-4	3674	3.71	-7.33	-0.04
67	SLU 73	-311	-5	4512	4.58	-10.22	-0.05
67	SLU 74	-315	-5	4508	4.84	-10.39	-0.05
67	SLU 75	-312	-5	4511	4.68	-10.28	-0.05
67	SLU 76	-311	-5	4512	4.58	-10.22	-0.05
67	SLU 77	-315	-5	4508	4.84	-10.39	-0.05
67	SLU 78	-312	-5	4511	4.68	-10.28	-0.05
67	SLU 79	-315	-5	4508	4.84	-10.39	-0.05
67	SLU 80	-312	-5	4511	4.68	-10.28	-0.05
67	SLU 81	-352	-6	4867	5.26	-11.65	-0.05
67	SLU 82	-350	-6	4869	5.1	-11.55	-0.05
67	SLU 83	-352	-6	4867	5.26	-11.65	-0.05
67	SLU 84	-350	-6	4869	5.1	-11.55	-0.05
67	SLE RA 1	-164	-3	2732	2.83	-5.33	-0.03
67	SLE RA 2	-162	-3	2735	2.65	-5.21	-0.03
67	SLE RA 3	-164	-3	2732	2.83	-5.33	-0.03
67	SLE RA 4	-163	-3	2734	2.72	-5.26	-0.03
67	SLE RA 5	-162	-3	2735	2.65	-5.21	-0.03
67	SLE RA 6	-164	-3	2732	2.83	-5.33	-0.03
67	SLE RA 7	-163	-3	2734	2.72	-5.26	-0.03
67	SLE RA 8	-164	-3	2732	2.83	-5.33	-0.03
67	SLE RA 9	-163	-3	2734	2.72	-5.26	-0.03
67	SLE RA 10	-219	-4	3293	3.3	-7.19	-0.03
67	SLE RA 11	-222	-4	3290	3.48	-7.3	-0.03
67	SLE RA 12	-220	-4	3292	3.37	-7.23	-0.03
67	SLE RA 13	-219	-4	3293	3.3	-7.19	-0.03
67	SLE RA 14	-222	-4	3290	3.48	-7.3	-0.03
67	SLE RA 15	-220	-4	3292	3.37	-7.23	-0.03
67	SLE RA 16	-222	-4	3290	3.48	-7.3	-0.03
67	SLE RA 17	-220	-4	3292	3.37	-7.23	-0.03
67	SLE RA 18	-247	-4	3529	3.75	-8.14	-0.04
67	SLE RA 19	-245	-4	3531	3.65	-8.08	-0.04
67	SLE RA 20	-247	-4	3529	3.75	-8.14	-0.04
67	SLE RA 21	-245	-4	3531	3.65	-8.08	-0.04
67	SLE FR 1	-164	-3	2732	2.83	-5.33	-0.03
67	SLE FR 2	-164	-3	2733	2.79	-5.3	-0.03
67	SLE FR 3	-164	-3	2732	2.83	-5.33	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
67	SLE FR 4	-188	-3	2972	3.07	-6.15	-0.03
67	SLE FR 5	-189	-3	2971	3.11	-6.17	-0.03
67	SLE FR 6	-205	-4	3131	3.29	-6.73	-0.03
67	SLE QP 1	-164	-3	2732	2.83	-5.33	-0.03
67	SLE QP 2	-189	-3	2971	3.11	-6.17	-0.03
67	SLD 1	82	12	3053	-4.63	5.3	-0.09
67	SLD 2	82	12	3053	-4.63	5.3	-0.09
67	SLD 3	26	9	3261	-1.07	3.26	-0.11
67	SLD 4	26	9	3261	-1.07	3.26	-0.11
67	SLD 5	-22	5	2680	-4.61	0.37	-0.01
67	SLD 6	-22	5	2680	-4.61	0.37	-0.01
67	SLD 7	-210	-3	3374	7.24	-6.44	-0.09
67	SLD 8	-210	-3	3374	7.24	-6.44	-0.09
67	SLD 9	-168	-3	2569	-1.03	-5.91	0.03
67	SLD 10	-168	-3	2569	-1.03	-5.91	0.03
67	SLD 11	-356	-12	3263	10.82	-12.71	-0.05
67	SLD 12	-356	-12	3263	10.82	-12.71	-0.05
67	SLD 13	-404	-16	2682	7.28	-15.6	0.05
67	SLD 14	-404	-16	2682	7.28	-15.6	0.05
67	SLD 15	-460	-18	2890	10.84	-17.64	0.03
67	SLD 16	-460	-18	2890	10.84	-17.64	0.03
67	SLV 1	458	35	3169	-16.29	21.19	-0.18
67	SLV 2	458	35	3169	-16.29	21.19	-0.18
67	SLV 3	326	29	3656	-7.9	16.39	-0.24
67	SLV 4	326	29	3656	-7.9	16.39	-0.24
67	SLV 5	205	17	2292	-15.42	9.31	0.02
67	SLV 6	205	17	2292	-15.42	9.31	0.02
67	SLV 7	-234	-3	3916	12.51	-6.68	-0.19
67	SLV 8	-234	-3	3916	12.51	-6.68	-0.19
67	SLV 9	-144	-4	2027	-6.3	-5.66	0.13
67	SLV 10	-144	-4	2027	-6.3	-5.66	0.13
67	SLV 11	-583	-24	3651	21.64	-21.66	-0.08
67	SLV 12	-583	-24	3651	21.64	-21.66	-0.08
67	SLV 13	-704	-35	2287	14.12	-28.73	0.18
67	SLV 14	-704	-35	2287	14.12	-28.73	0.18
67	SLV 15	-836	-41	2774	22.5	-33.53	0.12
67	SLV 16	-836	-41	2774	22.5	-33.53	0.12
68	SLU 1	-130	-3	2377	2.07	-4.46	0.02
68	SLU 2	-126	-3	2381	1.47	-4.31	0.02
68	SLU 3	-130	-3	2377	2.07	-4.46	0.02
68	SLU 4	-128	-3	2379	1.71	-4.37	0.02
68	SLU 5	-126	-3	2381	1.47	-4.31	0.02
68	SLU 6	-130	-3	2377	2.07	-4.46	0.02
68	SLU 7	-128	-3	2379	1.71	-4.37	0.02
68	SLU 8	-130	-3	2377	2.07	-4.46	0.02
68	SLU 9	-128	-3	2379	1.71	-4.37	0.02
68	SLU 10	-208	-5	3101	2.24	-7.21	0.02
68	SLU 11	-212	-5	3097	2.85	-7.36	0.02
68	SLU 12	-209	-5	3100	2.48	-7.27	0.02
68	SLU 13	-208	-5	3101	2.24	-7.21	0.02
68	SLU 14	-212	-5	3097	2.85	-7.36	0.02
68	SLU 15	-209	-5	3100	2.48	-7.27	0.02
68	SLU 16	-212	-5	3097	2.85	-7.36	0.02
68	SLU 17	-209	-5	3100	2.48	-7.27	0.02
68	SLU 18	-247	-5	3406	3.18	-8.61	0.03
68	SLU 19	-244	-5	3408	2.82	-8.52	0.03
68	SLU 20	-247	-5	3406	3.18	-8.61	0.03
68	SLU 21	-244	-5	3408	2.82	-8.52	0.03
68	SLU 22	-174	-4	2723	2.62	-5.97	0.02
68	SLU 23	-170	-4	2727	2.02	-5.82	0.02
68	SLU 24	-174	-4	2723	2.62	-5.97	0.02
68	SLU 25	-171	-4	2725	2.26	-5.88	0.02
68	SLU 26	-170	-4	2727	2.02	-5.82	0.02
68	SLU 27	-174	-4	2723	2.62	-5.97	0.02
68	SLU 28	-171	-4	2725	2.26	-5.88	0.02
68	SLU 29	-174	-4	2723	2.62	-5.97	0.02
68	SLU 30	-171	-4	2725	2.26	-5.88	0.02
68	SLU 31	-252	-6	3447	2.8	-8.73	0.03
68	SLU 32	-255	-6	3443	3.4	-8.88	0.03
68	SLU 33	-253	-6	3446	3.04	-8.79	0.03
68	SLU 34	-252	-6	3447	2.8	-8.73	0.03
68	SLU 35	-255	-6	3443	3.4	-8.88	0.03
68	SLU 36	-253	-6	3446	3.04	-8.79	0.03
68	SLU 37	-255	-6	3443	3.4	-8.88	0.03
68	SLU 38	-253	-6	3446	3.04	-8.79	0.03
68	SLU 39	-291	-6	3752	3.73	-10.12	0.03
68	SLU 40	-288	-6	3754	3.37	-10.03	0.03
68	SLU 41	-291	-6	3752	3.73	-10.12	0.03
68	SLU 42	-288	-6	3754	3.37	-10.03	0.03
68	SLU 43	-154	-4	2972	2.5	-5.28	0.02
68	SLU 44	-150	-4	2976	1.9	-5.13	0.02
68	SLU 45	-154	-4	2972	2.5	-5.28	0.02
68	SLU 46	-151	-4	2974	2.14	-5.19	0.02
68	SLU 47	-150	-4	2976	1.9	-5.13	0.02
68	SLU 48	-154	-4	2972	2.5	-5.28	0.02
68	SLU 49	-151	-4	2974	2.14	-5.19	0.02
68	SLU 50	-154	-4	2972	2.5	-5.28	0.02
68	SLU 51	-151	-4	2974	2.14	-5.19	0.02
68	SLU 52	-232	-5	3696	2.67	-8.03	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
68	SLU 53	-235	-5	3692	3.28	-8.18	0.03
68	SLU 54	-233	-5	3694	2.91	-8.09	0.03
68	SLU 55	-232	-5	3696	2.67	-8.03	0.03
68	SLU 56	-235	-5	3692	3.28	-8.18	0.03
68	SLU 57	-233	-5	3694	2.91	-8.09	0.03
68	SLU 58	-235	-5	3692	3.28	-8.18	0.03
68	SLU 59	-233	-5	3694	2.91	-8.09	0.03
68	SLU 60	-270	-6	4001	3.61	-9.42	0.03
68	SLU 61	-268	-6	4003	3.25	-9.33	0.03
68	SLU 62	-270	-6	4001	3.61	-9.42	0.03
68	SLU 63	-268	-6	4003	3.25	-9.33	0.03
68	SLU 64	-198	-5	3318	3.05	-6.79	0.03
68	SLU 65	-194	-5	3321	2.45	-6.64	0.03
68	SLU 66	-198	-5	3318	3.05	-6.79	0.03
68	SLU 67	-195	-5	3320	2.69	-6.7	0.03
68	SLU 68	-194	-5	3321	2.45	-6.64	0.03
68	SLU 69	-198	-5	3318	3.05	-6.79	0.03
68	SLU 70	-195	-5	3320	2.69	-6.7	0.03
68	SLU 71	-198	-5	3318	3.05	-6.79	0.03
68	SLU 72	-195	-5	3320	2.69	-6.7	0.03
68	SLU 73	-276	-6	4042	3.23	-9.55	0.03
68	SLU 74	-279	-6	4038	3.83	-9.7	0.03
68	SLU 75	-277	-6	4040	3.47	-9.61	0.03
68	SLU 76	-276	-6	4042	3.23	-9.55	0.03
68	SLU 77	-279	-6	4038	3.83	-9.7	0.03
68	SLU 78	-277	-6	4040	3.47	-9.61	0.03
68	SLU 79	-279	-6	4038	3.83	-9.7	0.03
68	SLU 80	-277	-6	4040	3.47	-9.61	0.03
68	SLU 81	-314	-7	4347	4.16	-10.94	0.04
68	SLU 82	-312	-7	4349	3.8	-10.85	0.03
68	SLU 83	-314	-7	4347	4.16	-10.94	0.04
68	SLU 84	-312	-7	4349	3.8	-10.85	0.03
68	SLE RA 1	-142	-4	2476	2.23	-4.89	0.02
68	SLE RA 2	-140	-4	2479	1.83	-4.79	0.02
68	SLE RA 3	-142	-4	2476	2.23	-4.89	0.02
68	SLE RA 4	-141	-4	2478	1.99	-4.83	0.02
68	SLE RA 5	-140	-4	2479	1.83	-4.79	0.02
68	SLE RA 6	-142	-4	2476	2.23	-4.89	0.02
68	SLE RA 7	-141	-4	2478	1.99	-4.83	0.02
68	SLE RA 8	-142	-4	2476	2.23	-4.89	0.02
68	SLE RA 9	-141	-4	2478	1.99	-4.83	0.02
68	SLE RA 10	-194	-4	2959	2.34	-6.73	0.02
68	SLE RA 11	-197	-5	2956	2.74	-6.83	0.02
68	SLE RA 12	-195	-5	2958	2.5	-6.77	0.02
68	SLE RA 13	-194	-4	2959	2.34	-6.73	0.02
68	SLE RA 14	-197	-5	2956	2.74	-6.83	0.02
68	SLE RA 15	-195	-5	2958	2.5	-6.77	0.02
68	SLE RA 16	-197	-5	2956	2.74	-6.83	0.02
68	SLE RA 17	-195	-5	2958	2.5	-6.77	0.02
68	SLE RA 18	-220	-5	3162	2.97	-7.66	0.02
68	SLE RA 19	-219	-5	3163	2.73	-7.6	0.02
68	SLE RA 20	-220	-5	3162	2.97	-7.66	0.02
68	SLE RA 21	-219	-5	3163	2.73	-7.6	0.02
68	SLE FR 1	-142	-4	2476	2.23	-4.89	0.02
68	SLE FR 2	-142	-4	2477	2.15	-4.87	0.02
68	SLE FR 3	-142	-4	2476	2.23	-4.89	0.02
68	SLE FR 4	-165	-4	2682	2.37	-5.7	0.02
68	SLE FR 5	-166	-4	2682	2.45	-5.72	0.02
68	SLE FR 6	-181	-4	2819	2.6	-6.27	0.02
68	SLE QP 1	-142	-4	2476	2.23	-4.89	0.02
68	SLE QP 2	-166	-4	2682	2.45	-5.72	0.02
68	SLD 1	97	15	2765	-10.42	5.14	-0.06
68	SLD 2	97	15	2765	-10.42	5.14	-0.06
68	SLD 3	56	9	2885	-3.58	3.78	-0.04
68	SLD 4	56	9	2885	-3.58	3.78	-0.04
68	SLD 5	-25	12	2525	-11.78	-0.4	-0.04
68	SLD 6	-25	12	2525	-11.78	-0.4	-0.04
68	SLD 7	-161	-10	2924	11.01	-4.93	0.03
68	SLD 8	-161	-10	2924	11.01	-4.93	0.03
68	SLD 9	-170	2	2439	-6.11	-6.51	0.01
68	SLD 10	-170	2	2439	-6.11	-6.51	0.01
68	SLD 11	-306	-20	2838	16.68	-11.04	0.08
68	SLD 12	-306	-20	2838	16.68	-11.04	0.08
68	SLD 13	-387	-17	2479	8.48	-15.22	0.08
68	SLD 14	-387	-17	2479	8.48	-15.22	0.08
68	SLD 15	-428	-24	2599	15.31	-16.58	0.1
68	SLD 16	-428	-24	2599	15.31	-16.58	0.1
68	SLV 1	461	45	2880	-29.68	20.19	-0.19
68	SLV 2	461	45	2880	-29.68	20.19	-0.19
68	SLV 3	364	30	3161	-13.59	16.96	-0.14
68	SLV 4	364	30	3161	-13.59	16.96	-0.14
68	SLV 5	168	34	2316	-31.59	6.95	-0.12
68	SLV 6	168	34	2316	-31.59	6.95	-0.12
68	SLV 7	-153	-18	3251	22.03	-3.82	0.05
68	SLV 8	-153	-18	3251	22.03	-3.82	0.05
68	SLV 9	-179	9	2112	-17.14	-7.63	-0.01
68	SLV 10	-179	9	2112	-17.14	-7.63	-0.01
68	SLV 11	-499	-43	3048	36.48	-18.4	0.16
68	SLV 12	-499	-43	3048	36.48	-18.4	0.16



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
68	SLV 13	-696	-38	2202	18.49	-28.4	0.18
68	SLV 14	-696	-38	2202	18.49	-28.4	0.18
68	SLV 15	-792	-54	2483	34.57	-31.64	0.23
68	SLV 16	-792	-54	2483	34.57	-31.64	0.23
69	SLU 1	-149	-2	2270	1.54	-5.97	0.01
69	SLU 2	-145	-1	2273	0.53	-5.8	0.01
69	SLU 3	-149	-2	2270	1.54	-5.97	0.01
69	SLU 4	-147	-2	2272	0.94	-5.87	0.01
69	SLU 5	-145	-1	2273	0.53	-5.8	0.01
69	SLU 6	-149	-2	2270	1.54	-5.97	0.01
69	SLU 7	-147	-2	2272	0.94	-5.87	0.01
69	SLU 8	-149	-2	2270	1.54	-5.97	0.01
69	SLU 9	-147	-2	2272	0.94	-5.87	0.01
69	SLU 10	-237	-2	2922	1.12	-9.4	0.01
69	SLU 11	-240	-3	2920	2.12	-9.56	0.01
69	SLU 12	-238	-2	2921	1.52	-9.46	0.01
69	SLU 13	-237	-2	2922	1.12	-9.4	0.01
69	SLU 14	-240	-3	2920	2.12	-9.56	0.01
69	SLU 15	-238	-2	2921	1.52	-9.46	0.01
69	SLU 16	-240	-3	2920	2.12	-9.56	0.01
69	SLU 17	-238	-2	2921	1.52	-9.46	0.01
69	SLU 18	-280	-3	3198	2.37	-11.1	0.02
69	SLU 19	-278	-3	3200	1.77	-11	0.01
69	SLU 20	-280	-3	3198	2.37	-11.1	0.02
69	SLU 21	-278	-3	3200	1.77	-11	0.01
69	SLU 22	-194	-3	2577	1.96	-7.76	0.01
69	SLU 23	-191	-2	2580	0.95	-7.6	0.01
69	SLU 24	-194	-3	2577	1.96	-7.76	0.01
69	SLU 25	-192	-2	2579	1.35	-7.66	0.01
69	SLU 26	-191	-2	2580	0.95	-7.6	0.01
69	SLU 27	-194	-3	2577	1.96	-7.76	0.01
69	SLU 28	-192	-2	2579	1.35	-7.66	0.01
69	SLU 29	-194	-3	2577	1.96	-7.76	0.01
69	SLU 30	-192	-2	2579	1.35	-7.66	0.01
69	SLU 31	-282	-3	3229	1.53	-11.19	0.01
69	SLU 32	-286	-3	3227	2.54	-11.35	0.02
69	SLU 33	-284	-3	3228	1.93	-11.26	0.02
69	SLU 34	-282	-3	3229	1.53	-11.19	0.01
69	SLU 35	-286	-3	3227	2.54	-11.35	0.02
69	SLU 36	-284	-3	3228	1.93	-11.26	0.02
69	SLU 37	-286	-3	3227	2.54	-11.35	0.02
69	SLU 38	-284	-3	3228	1.93	-11.26	0.02
69	SLU 39	-325	-4	3505	2.79	-12.89	0.02
69	SLU 40	-323	-3	3507	2.18	-12.8	0.02
69	SLU 41	-325	-4	3505	2.79	-12.89	0.02
69	SLU 42	-323	-3	3507	2.18	-12.8	0.02
69	SLU 43	-178	-2	2846	1.86	-7.14	0.01
69	SLU 44	-174	-2	2848	0.85	-6.98	0.01
69	SLU 45	-178	-2	2846	1.86	-7.14	0.01
69	SLU 46	-175	-2	2847	1.25	-7.04	0.01
69	SLU 47	-174	-2	2848	0.85	-6.98	0.01
69	SLU 48	-178	-2	2846	1.86	-7.14	0.01
69	SLU 49	-175	-2	2847	1.25	-7.04	0.01
69	SLU 50	-178	-2	2846	1.86	-7.14	0.01
69	SLU 51	-175	-2	2847	1.25	-7.04	0.01
69	SLU 52	-266	-3	3498	1.43	-10.57	0.01
69	SLU 53	-269	-3	3495	2.44	-10.74	0.02
69	SLU 54	-267	-3	3497	1.84	-10.64	0.01
69	SLU 55	-266	-3	3498	1.43	-10.57	0.01
69	SLU 56	-269	-3	3495	2.44	-10.74	0.02
69	SLU 57	-267	-3	3497	1.84	-10.64	0.01
69	SLU 58	-269	-3	3495	2.44	-10.74	0.02
69	SLU 59	-267	-3	3497	1.84	-10.64	0.01
69	SLU 60	-309	-4	3774	2.69	-12.28	0.02
69	SLU 61	-307	-3	3775	2.09	-12.18	0.02
69	SLU 62	-309	-4	3774	2.69	-12.28	0.02
69	SLU 63	-307	-3	3775	2.09	-12.18	0.02
69	SLU 64	-223	-3	3153	2.27	-8.94	0.02
69	SLU 65	-220	-2	3155	1.27	-8.77	0.01
69	SLU 66	-223	-3	3153	2.27	-8.94	0.02
69	SLU 67	-221	-3	3154	1.67	-8.84	0.01
69	SLU 68	-220	-2	3155	1.27	-8.77	0.01
69	SLU 69	-223	-3	3153	2.27	-8.94	0.02
69	SLU 70	-221	-3	3154	1.67	-8.84	0.01
69	SLU 71	-223	-3	3153	2.27	-8.94	0.02
69	SLU 72	-221	-3	3154	1.67	-8.84	0.01
69	SLU 73	-311	-3	3805	1.85	-12.37	0.02
69	SLU 74	-315	-4	3802	2.86	-12.53	0.02
69	SLU 75	-313	-3	3804	2.25	-12.43	0.02
69	SLU 76	-311	-3	3805	1.85	-12.37	0.02
69	SLU 77	-315	-4	3802	2.86	-12.53	0.02
69	SLU 78	-313	-3	3804	2.25	-12.43	0.02
69	SLU 79	-315	-4	3802	2.86	-12.53	0.02
69	SLU 80	-313	-3	3804	2.25	-12.43	0.02
69	SLU 81	-354	-4	4081	3.11	-14.07	0.02
69	SLU 82	-352	-4	4082	2.5	-13.97	0.02
69	SLU 83	-354	-4	4081	3.11	-14.07	0.02
69	SLU 84	-352	-4	4082	2.5	-13.97	0.02
69	SLE RA 1	-162	-2	2358	1.66	-6.48	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
69	SLE RA 2	-159	-2	2360	0.99	-6.37	0.01
69	SLE RA 3	-162	-2	2358		-6.48	0.01
69	SLE RA 4	-160	-2	2359	1.26	-6.41	0.01
69	SLE RA 5	-159	-2	2360	0.99	-6.37	0.01
69	SLE RA 6	-162	-2	2358	1.66	-6.48	0.01
69	SLE RA 7	-160	-2	2359	1.26	-6.41	0.01
69	SLE RA 8	-162	-2	2358	1.66	-6.48	0.01
69	SLE RA 9	-160	-2	2359	1.26	-6.41	0.01
69	SLE RA 10	-220	-2	2793	1.38	-8.77	0.01
69	SLE RA 11	-223	-3	2791	2.05	-8.88	0.01
69	SLE RA 12	-221	-2	2792	1.64	-8.81	0.01
69	SLE RA 13	-220	-2	2793	1.38	-8.77	0.01
69	SLE RA 14	-223	-3	2791	2.05	-8.88	0.01
69	SLE RA 15	-221	-2	2792	1.64	-8.81	0.01
69	SLE RA 16	-223	-3	2791	2.05	-8.88	0.01
69	SLE RA 17	-221	-2	2792	1.64	-8.81	0.01
69	SLE RA 18	-249	-3	2976	2.21	-9.9	0.01
69	SLE RA 19	-248	-3	2978	1.81	-9.84	0.01
69	SLE RA 20	-249	-3	2976	2.21	-9.9	0.01
69	SLE RA 21	-248	-3	2978	1.81	-9.84	0.01
69	SLE FR 1	-162	-2	2358	1.66	-6.48	0.01
69	SLE FR 2	-161	-2	2358	1.52	-6.46	0.01
69	SLE FR 3	-162	-2	2358	1.66	-6.48	0.01
69	SLE FR 4	-187	-2	2544	1.69	-7.48	0.01
69	SLE FR 5	-188	-2	2543	1.82	-7.51	0.01
69	SLE FR 6	-205	-3	2667	1.94	-8.19	0.01
69	SLE QP 1	-162	-2	2358	1.66	-6.48	0.01
69	SLE QP 2	-188	-2	2543	1.82	-7.51	0.01
69	SLD 1	73	18	2604	-13.74	3.58	-0.07
69	SLD 2	73	18	2604	-13.74	3.58	-0.07
69	SLD 3	36	7	2686	-3.98	2.09	-0.03
69	SLD 4	36	7	2686	-3.98	2.09	-0.03
69	SLD 5	-54	21	2437	-17.64	-1.9	-0.06
69	SLD 6	-54	21	2437	-17.64	-1.9	-0.06
69	SLD 7	-176	-17	2711	14.88	-6.9	0.05
69	SLD 8	-176	-17	2711	14.88	-6.9	0.05
69	SLD 9	-200	12	2376	-11.23	-8.11	-0.03
69	SLD 10	-200	12	2376	-11.23	-8.11	-0.03
69	SLD 11	-321	-26	2650	21.29	-13.11	0.09
69	SLD 12	-321	-26	2650	21.29	-13.11	0.09
69	SLD 13	-412	-12	2401	7.63	-17.1	0.05
69	SLD 14	-412	-12	2401	7.63	-17.1	0.05
69	SLD 15	-449	-23	2483	17.39	-18.6	0.09
69	SLD 16	-449	-23	2483	17.39	-18.6	0.09
69	SLV 1	435	49	2688	-36.84	19.01	-0.18
69	SLV 2	435	49	2688	-36.84	19.01	-0.18
69	SLV 3	348	23	2881	-13.92	15.45	-0.1
69	SLV 4	348	23	2881	-13.92	15.45	-0.1
69	SLV 5	130	53	2294	-44.54	5.86	-0.17
69	SLV 6	130	53	2294	-44.54	5.86	-0.17
69	SLV 7	-159	-35	2937	31.87	-6.03	0.1
69	SLV 8	-159	-35	2937	31.87	-6.03	0.1
69	SLV 9	-217	30	2150	-28.22	-8.98	-0.08
69	SLV 10	-217	30	2150	-28.22	-8.98	-0.08
69	SLV 11	-506	-58	2793	48.19	-20.87	0.19
69	SLV 12	-506	-58	2793	48.19	-20.87	0.19
69	SLV 13	-724	-27	2206	17.57	-30.46	0.12
69	SLV 14	-724	-27	2206	17.57	-30.46	0.12
69	SLV 15	-811	-54	2399	40.49	-34.02	0.21
69	SLV 16	-811	-54	2399	40.49	-34.02	0.21
70	SLU 1	-168	-1	2194	1.01	-6.61	0
70	SLU 2	-165	0	2196	-0.39	-6.46	0
70	SLU 3	-168	-1	2194	1.01	-6.61	0
70	SLU 4	-166	0	2195	0.17	-6.52	0
70	SLU 5	-165	0	2196	-0.39	-6.46	0
70	SLU 6	-168	-1	2194	1.01	-6.61	0
70	SLU 7	-166	0	2195	0.17	-6.52	0
70	SLU 8	-168	-1	2194	1.01	-6.61	0
70	SLU 9	-166	0	2195	0.17	-6.52	0
70	SLU 10	-265	0	2785	0	-10.31	0
70	SLU 11	-269	-1	2784	1.4	-10.46	0
70	SLU 12	-267	-1	2784	0.56	-10.37	0
70	SLU 13	-265	0	2785	0	-10.31	0
70	SLU 14	-269	-1	2784	1.4	-10.46	0
70	SLU 15	-267	-1	2784	0.56	-10.37	0
70	SLU 16	-269	-1	2784	1.4	-10.46	0
70	SLU 17	-267	-1	2784	0.56	-10.37	0
70	SLU 18	-312	-1	3036	1.56	-12.11	0.01
70	SLU 19	-310	-1	3037	0.72	-12.02	0
70	SLU 20	-312	-1	3036	1.56	-12.11	0.01
70	SLU 21	-310	-1	3037	0.72	-12.02	0
70	SLU 22	-215	-1	2471	1.29	-8.37	0
70	SLU 23	-211	0	2473	-0.11	-8.23	0
70	SLU 24	-215	-1	2471	1.29	-8.37	0
70	SLU 25	-213	0	2472	0.45	-8.29	0
70	SLU 26	-211	0	2473	-0.11	-8.23	0
70	SLU 27	-215	-1	2471	1.29	-8.37	0
70	SLU 28	-213	0	2472	0.45	-8.29	0
70	SLU 29	-215	-1	2471	1.29	-8.37	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
70	SLU 30	-213	0	2472	0.45	-8.29	0
70	SLU 31	-312	0	3062	0.27	-12.08	0
70	SLU 32	-315	-2	3061	1.67	-12.22	0.01
70	SLU 33	-313	-1	3061	0.83	-12.14	0
70	SLU 34	-312	0	3062	0.27	-12.08	0
70	SLU 35	-315	-2	3061	1.67	-12.22	0.01
70	SLU 36	-313	-1	3061	0.83	-12.14	0
70	SLU 37	-315	-2	3061	1.67	-12.22	0.01
70	SLU 38	-313	-1	3061	0.83	-12.14	0
70	SLU 39	-358	-2	3313	1.84	-13.88	0.01
70	SLU 40	-356	-1	3314	1	-13.79	0
70	SLU 41	-358	-2	3313	1.84	-13.88	0.01
70	SLU 42	-356	-1	3314	1	-13.79	0
70	SLU 43	-203	-1	2758	1.22	-7.98	0
70	SLU 44	-200	0	2759	-0.18	-7.84	0
70	SLU 45	-203	-1	2758	1.22	-7.98	0
70	SLU 46	-201	0	2759	0.38	-7.9	0
70	SLU 47	-200	0	2759	-0.18	-7.84	0
70	SLU 48	-203	-1	2758	1.22	-7.98	0
70	SLU 49	-201	0	2759	0.38	-7.9	0
70	SLU 50	-203	-1	2758	1.22	-7.98	0
70	SLU 51	-201	0	2759	0.38	-7.9	0
70	SLU 52	-300	0	3348	0.21	-11.69	0
70	SLU 53	-303	-2	3347	1.61	-11.83	0.01
70	SLU 54	-301	-1	3348	0.77	-11.75	0
70	SLU 55	-300	0	3348	0.21	-11.69	0
70	SLU 56	-303	-2	3347	1.61	-11.83	0.01
70	SLU 57	-301	-1	3348	0.77	-11.75	0
70	SLU 58	-303	-2	3347	1.61	-11.83	0.01
70	SLU 59	-301	-1	3348	0.77	-11.75	0
70	SLU 60	-346	-2	3600	1.77	-13.48	0.01
70	SLU 61	-344	-1	3600	0.93	-13.4	0
70	SLU 62	-346	-2	3600	1.77	-13.48	0.01
70	SLU 63	-344	-1	3600	0.93	-13.4	0
70	SLU 64	-249	-1	3035	1.5	-9.75	0
70	SLU 65	-246	0	3036	0.09	-9.61	0
70	SLU 66	-249	-1	3035	1.5	-9.75	0
70	SLU 67	-247	-1	3036	0.66	-9.66	0
70	SLU 68	-246	0	3036	0.09	-9.61	0
70	SLU 69	-249	-1	3035	1.5	-9.75	0
70	SLU 70	-247	-1	3036	0.66	-9.66	0
70	SLU 71	-249	-1	3035	1.5	-9.75	0
70	SLU 72	-247	-1	3036	0.66	-9.66	0
70	SLU 73	-346	0	3625	0.48	-13.46	0
70	SLU 74	-350	-2	3624	1.88	-13.6	0.01
70	SLU 75	-348	-1	3625	1.04	-13.52	0
70	SLU 76	-346	0	3625	0.48	-13.46	0
70	SLU 77	-350	-2	3624	1.88	-13.6	0.01
70	SLU 78	-348	-1	3625	1.04	-13.52	0
70	SLU 79	-350	-2	3624	1.88	-13.6	0.01
70	SLU 80	-348	-1	3625	1.04	-13.52	0
70	SLU 81	-393	-2	3877	2.05	-15.25	0.01
70	SLU 82	-390	-1	3877	1.21	-15.17	0
70	SLU 83	-393	-2	3877	2.05	-15.25	0.01
70	SLU 84	-390	-1	3877	1.21	-15.17	0
70	SLE RA 1	-182	-1	2274	1.09	-7.11	0
70	SLE RA 2	-179	0	2274	0.16	-7.02	0
70	SLE RA 3	-182	-1	2274	1.09	-7.11	0
70	SLE RA 4	-180	0	2274	0.53	-7.05	0
70	SLE RA 5	-179	0	2274	0.16	-7.02	0
70	SLE RA 6	-182	-1	2274	1.09	-7.11	0
70	SLE RA 7	-180	0	2274	0.53	-7.05	0
70	SLE RA 8	-182	-1	2274	1.09	-7.11	0
70	SLE RA 9	-180	0	2274	0.53	-7.05	0
70	SLE RA 10	-246	0	2667	0.41	-9.58	0
70	SLE RA 11	-248	-1	2666	1.35	-9.68	0
70	SLE RA 12	-247	-1	2667	0.79	-9.62	0
70	SLE RA 13	-246	0	2667	0.41	-9.58	0
70	SLE RA 14	-248	-1	2666	1.35	-9.68	0
70	SLE RA 15	-247	-1	2667	0.79	-9.62	0
70	SLE RA 16	-248	-1	2666	1.35	-9.68	0
70	SLE RA 17	-247	-1	2667	0.79	-9.62	0
70	SLE RA 18	-277	-1	2835	1.46	-10.78	0
70	SLE RA 19	-276	-1	2835	0.9	-10.72	0
70	SLE RA 20	-277	-1	2835	1.46	-10.78	0
70	SLE RA 21	-276	-1	2835	0.9	-10.72	0
70	SLE FR 1	-182	-1	2274	1.09	-7.11	0
70	SLE FR 2	-181	-1	2274	0.9	-7.09	0
70	SLE FR 3	-182	-1	2274	1.09	-7.11	0
70	SLE FR 4	-210	-1	2442	1.01	-8.19	0
70	SLE FR 5	-210	-1	2442	1.2	-8.21	0
70	SLE FR 6	-229	-1	2554	1.27	-8.94	0
70	SLE QP 1	-182	-1	2274	1.09	-7.11	0
70	SLE QP 2	-210	-1	2442	1.2	-8.21	0
70	SLD 1	45	19	2469	-15.1	2.51	-0.06
70	SLD 2	45	19	2469	-15.1	2.51	-0.06
70	SLD 3	14	5	2527	-3.71	1.32	-0.02
70	SLD 4	14	5	2527	-3.71	1.32	-0.02
70	SLD 5	-86	26	2363	-20.96	-3.2	-0.07





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
70	SLD 6	-86	26	2363	-20.96	-3.2	-0.07
70	SLD 7	-190	-21	2555	16.99	-7.15	0.06
70	SLD 8	-190	-21	2555	16.99	-7.15	0.06
70	SLD 9	-230	18	2329	-14.59	-9.27	-0.05
70	SLD 10	-230	18	2329	-14.59	-9.27	-0.05
70	SLD 11	-334	-28	2521	23.36	-13.23	0.08
70	SLD 12	-334	-28	2521	23.36	-13.23	0.08
70	SLD 13	-434	-7	2357	6.11	-17.74	0.03
70	SLD 14	-434	-7	2357	6.11	-17.74	0.03
70	SLD 15	-466	-21	2414	17.5	-18.93	0.07
70	SLD 16	-466	-21	2414	17.5	-18.93	0.07
70	SLV 1	400	48	2510	-39.15	17.36	-0.15
70	SLV 2	400	48	2510	-39.15	17.36	-0.15
70	SLV 3	325	15	2646	-12.4	14.52	-0.06
70	SLV 4	325	15	2646	-12.4	14.52	-0.06
70	SLV 5	86	64	2256	-51.47	3.78	-0.18
70	SLV 6	86	64	2256	-51.47	3.78	-0.18
70	SLV 7	-162	-46	2709	37.69	-5.71	0.12
70	SLV 8	-162	-46	2709	37.69	-5.71	0.12
70	SLV 9	-258	44	2174	-35.29	-10.71	-0.12
70	SLV 10	-258	44	2174	-35.29	-10.71	-0.12
70	SLV 11	-506	-66	2628	53.87	-20.2	0.19
70	SLV 12	-506	-66	2628	53.87	-20.2	0.19
70	SLV 13	-746	-17	2238	14.8	-30.94	0.07
70	SLV 14	-746	-17	2238	14.8	-30.94	0.07
70	SLV 15	-820	-50	2374	41.55	-33.79	0.16
70	SLV 16	-820	-50	2374	41.55	-33.79	0.16
71	SLU 1	-204	0	2137	0.62	-8.29	0
71	SLU 2	-201	2	2137	-1.08	-8.13	0
71	SLU 3	-204	0	2137	0.62	-8.29	0
71	SLU 4	-202	1	2137	-0.4	-8.19	0
71	SLU 5	-201	2	2137	-1.08	-8.13	0
71	SLU 6	-204	0	2137	0.62	-8.29	0
71	SLU 7	-202	1	2137	-0.4	-8.19	0
71	SLU 8	-204	0	2137	0.62	-8.29	0
71	SLU 9	-202	1	2137	-0.4	-8.19	0
71	SLU 10	-313	1	2671	-0.84	-12.6	0
71	SLU 11	-317	-1	2672	0.86	-12.76	0
71	SLU 12	-315	1	2671	-0.16	-12.67	0
71	SLU 13	-313	1	2671	-0.84	-12.6	0
71	SLU 14	-317	-1	2672	0.86	-12.76	0
71	SLU 15	-315	1	2671	-0.16	-12.67	0
71	SLU 16	-317	-1	2672	0.86	-12.76	0
71	SLU 17	-315	1	2671	-0.16	-12.67	0
71	SLU 18	-365	-1	2901	0.96	-14.68	0
71	SLU 19	-363	1	2900	-0.06	-14.58	0
71	SLU 20	-365	-1	2901	0.96	-14.68	0
71	SLU 21	-363	1	2900	-0.06	-14.58	0
71	SLU 22	-253	-1	2390	0.79	-10.26	0
71	SLU 23	-250	1	2389	-0.91	-10.1	0
71	SLU 24	-253	-1	2390	0.79	-10.26	0
71	SLU 25	-251	1	2390	-0.23	-10.16	0
71	SLU 26	-250	1	2389	-0.91	-10.1	0
71	SLU 27	-253	-1	2390	0.79	-10.26	0
71	SLU 28	-251	1	2390	-0.23	-10.16	0
71	SLU 29	-253	-1	2390	0.79	-10.26	0
71	SLU 30	-251	1	2390	-0.23	-10.16	0
71	SLU 31	-363	1	2924	-0.67	-14.57	0
71	SLU 32	-366	-1	2924	1.03	-14.73	0
71	SLU 33	-364	1	2924	0.01	-14.63	0
71	SLU 34	-363	1	2924	-0.67	-14.57	0
71	SLU 35	-366	-1	2924	1.03	-14.73	0
71	SLU 36	-364	1	2924	0.01	-14.63	0
71	SLU 37	-366	-1	2924	1.03	-14.73	0
71	SLU 38	-364	1	2924	0.01	-14.63	0
71	SLU 39	-414	-1	3153	1.13	-16.65	0
71	SLU 40	-412	0	3153	0.11	-16.55	0
71	SLU 41	-414	-1	3153	1.13	-16.65	0
71	SLU 42	-412	0	3153	0.11	-16.55	0
71	SLU 43	-248	0	2692	0.75	-10.1	0
71	SLU 44	-245	1	2691	-0.95	-9.94	0
71	SLU 45	-248	0	2692	0.75	-10.1	0
71	SLU 46	-246	1	2691	-0.27	-10.01	0
71	SLU 47	-245	1	2691	-0.95	-9.94	0
71	SLU 48	-248	0	2692	0.75	-10.1	0
71	SLU 49	-246	1	2691	-0.27	-10.01	0
71	SLU 50	-248	0	2692	0.75	-10.1	0
71	SLU 51	-246	1	2691	-0.27	-10.01	0
71	SLU 52	-357	1	3226	-0.71	-14.41	0
71	SLU 53	-361	-1	3226	0.99	-14.57	0
71	SLU 54	-359	1	3226	-0.03	-14.48	0
71	SLU 55	-357	1	3226	-0.71	-14.41	0
71	SLU 56	-361	-1	3226	0.99	-14.57	0
71	SLU 57	-359	1	3226	-0.03	-14.48	0
71	SLU 58	-361	-1	3226	0.99	-14.57	0
71	SLU 59	-359	1	3226	-0.03	-14.48	0
71	SLU 60	-409	-1	3455	1.09	-16.49	0
71	SLU 61	-407	0	3455	0.07	-16.39	0
71	SLU 62	-409	-1	3455	1.09	-16.49	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
71	SLU 63	-407	0	3455	0.07	-16.39	0
71	SLU 64	-297	-1	2944	0.92	-12.07	0
71	SLU 65	-294	1	2944	-0.78	-11.91	0
71	SLU 66	-297	-1	2944	0.92	-12.07	0
71	SLU 67	-296	1	2944	-0.1	-11.97	0
71	SLU 68	-294	1	2944	-0.78	-11.91	0
71	SLU 69	-297	-1	2944	0.92	-12.07	0
71	SLU 70	-296	1	2944	-0.1	-11.97	0
71	SLU 71	-297	-1	2944	0.92	-12.07	0
71	SLU 72	-296	1	2944	-0.1	-11.97	0
71	SLU 73	-407	1	3478	-0.54	-16.38	0
71	SLU 74	-410	-1	3479	1.16	-16.54	0
71	SLU 75	-408	0	3479	0.14	-16.45	0
71	SLU 76	-407	1	3478	-0.54	-16.38	0
71	SLU 77	-410	-1	3479	1.16	-16.54	0
71	SLU 78	-408	0	3479	0.14	-16.45	0
71	SLU 79	-410	-1	3479	1.16	-16.54	0
71	SLU 80	-408	0	3479	0.14	-16.45	0
71	SLU 81	-459	-1	3708	1.26	-18.46	0
71	SLU 82	-457	0	3708	0.24	-18.36	0
71	SLU 83	-459	-1	3708	1.26	-18.46	0
71	SLU 84	-457	0	3708	0.24	-18.36	0
71	SLE RA 1	-218	0	2209	0.67	-8.85	0
71	SLE RA 2	-216	1	2209	-0.46	-8.75	0
71	SLE RA 3	-218	0	2209	0.67	-8.85	0
71	SLE RA 4	-217	0	2209	-0.01	-8.79	0
71	SLE RA 5	-216	1	2209	-0.46	-8.75	0
71	SLE RA 6	-218	0	2209	0.67	-8.85	0
71	SLE RA 7	-217	0	2209	-0.01	-8.79	0
71	SLE RA 8	-218	0	2209	0.67	-8.85	0
71	SLE RA 9	-217	0	2209	-0.01	-8.79	0
71	SLE RA 10	-291	1	2565	-0.3	-11.73	0
71	SLE RA 11	-293	-1	2566	0.83	-11.83	0
71	SLE RA 12	-292	0	2566	0.15	-11.77	0
71	SLE RA 13	-291	1	2565	-0.3	-11.73	0
71	SLE RA 14	-293	-1	2566	0.83	-11.83	0
71	SLE RA 15	-292	0	2566	0.15	-11.77	0
71	SLE RA 16	-293	-1	2566	0.83	-11.83	0
71	SLE RA 17	-292	0	2566	0.15	-11.77	0
71	SLE RA 18	-325	-1	2718	0.9	-13.11	0
71	SLE RA 19	-324	0	2718	0.22	-13.05	0
71	SLE RA 20	-325	-1	2718	0.9	-13.11	0
71	SLE RA 21	-324	0	2718	0.22	-13.05	0
71	SLE FR 1	-218	0	2209	0.67	-8.85	0
71	SLE FR 2	-218	0	2209	0.44	-8.83	0
71	SLE FR 3	-218	0	2209	0.67	-8.85	0
71	SLE FR 4	-250	0	2362	0.51	-10.11	0
71	SLE FR 5	-250	0	2362	0.74	-10.13	0
71	SLE FR 6	-272	-1	2464	0.78	-10.98	0
71	SLE QP 1	-218	0	2209	0.67	-8.85	0
71	SLE QP 2	-250	0	2362	0.74	-10.13	0
71	SLD 1	5	18	2314	-14.68	0.96	-0.05
71	SLD 2	5	18	2314	-14.68	0.96	-0.05
71	SLD 3	-24	4	2356	-3.48	-0.24	-0.01
71	SLD 4	-24	4	2356	-3.48	-0.24	-0.01
71	SLD 5	-130	26	2285	-20.88	-4.99	-0.07
71	SLD 6	-130	26	2285	-20.88	-4.99	-0.07
71	SLD 7	-226	-20	2423	16.46	-8.97	0.05
71	SLD 8	-226	-20	2423	16.46	-8.97	0.05
71	SLD 9	-274	19	2301	-14.99	-11.29	-0.05
71	SLD 10	-274	19	2301	-14.99	-11.29	-0.05
71	SLD 11	-371	-27	2440	22.35	-15.27	0.07
71	SLD 12	-371	-27	2440	22.35	-15.27	0.07
71	SLD 13	-476	-5	2369	4.96	-20.02	0.01
71	SLD 14	-476	-5	2369	4.96	-20.02	0.01
71	SLD 15	-505	-19	2410	16.16	-21.22	0.05
71	SLD 16	-505	-19	2410	16.16	-21.22	0.05
71	SLV 1	359	44	2244	-37.41	16.37	-0.11
71	SLV 2	359	44	2244	-37.41	16.37	-0.11
71	SLV 3	290	12	2343	-11.07	13.5	-0.03
71	SLV 4	290	12	2343	-11.07	13.5	-0.03
71	SLV 5	38	62	2178	-50.66	2.18	-0.16
71	SLV 6	38	62	2178	-50.66	2.18	-0.16
71	SLV 7	-194	-46	2506	37.15	-7.4	0.11
71	SLV 8	-194	-46	2506	37.15	-7.4	0.11
71	SLV 9	-307	45	2219	-35.68	-12.86	-0.11
71	SLV 10	-307	45	2219	-35.68	-12.86	-0.11
71	SLV 11	-538	-63	2547	52.14	-22.44	0.16
71	SLV 12	-538	-63	2547	52.14	-22.44	0.16
71	SLV 13	-790	-13	2382	12.54	-33.75	0.03
71	SLV 14	-790	-13	2382	12.54	-33.75	0.03
71	SLV 15	-860	-45	2480	38.89	-36.63	0.12
71	SLV 16	-860	-45	2480	38.89	-36.63	0.12
72	SLU 1	-249	0	2087	0.34	-10.16	0
72	SLU 2	-246	2	2084	-1.45	-10.04	0
72	SLU 3	-249	0	2087	0.34	-10.16	0
72	SLU 4	-248	1	2085	-0.73	-10.09	0
72	SLU 5	-246	2	2084	-1.45	-10.04	0
72	SLU 6	-249	0	2087	0.34	-10.16	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
72	SLU 7	-248	1	2085	-0.73	-10.09	0
72	SLU 8	-249	0	2087	0.34	-10.16	0
72	SLU 9	-248	1	2085	-0.73	-10.09	0
72	SLU 10	-371	2	2566	-1.32	-14.97	0
72	SLU 11	-374	0	2569	0.48	-15.08	0
72	SLU 12	-372	1	2567	-0.6	-15.01	0
72	SLU 13	-371	2	2566	-1.32	-14.97	0
72	SLU 14	-374	0	2569	0.48	-15.08	0
72	SLU 15	-372	1	2567	-0.6	-15.01	0
72	SLU 16	-374	0	2569	0.48	-15.08	0
72	SLU 17	-372	1	2567	-0.6	-15.01	0
72	SLU 18	-427	0	2776	0.53	-17.19	0
72	SLU 19	-425	1	2774	-0.54	-17.12	0
72	SLU 20	-427	0	2776	0.53	-17.19	0
72	SLU 21	-425	1	2774	-0.54	-17.12	0
72	SLU 22	-302	0	2318	0.44	-12.27	0
72	SLU 23	-299	2	2315	-1.35	-12.15	0
72	SLU 24	-302	0	2318	0.44	-12.27	0
72	SLU 25	-301	1	2316	-0.64	-12.2	0
72	SLU 26	-299	2	2315	-1.35	-12.15	0
72	SLU 27	-302	0	2318	0.44	-12.27	0
72	SLU 28	-301	1	2316	-0.64	-12.2	0
72	SLU 29	-302	0	2318	0.44	-12.27	0
72	SLU 30	-301	1	2316	-0.64	-12.2	0
72	SLU 31	-424	2	2797	-1.22	-17.07	0
72	SLU 32	-427	0	2801	0.57	-17.19	0
72	SLU 33	-425	1	2799	-0.51	-17.12	0
72	SLU 34	-424	2	2797	-1.22	-17.07	0
72	SLU 35	-427	0	2801	0.57	-17.19	0
72	SLU 36	-425	1	2799	-0.51	-17.12	0
72	SLU 37	-427	0	2801	0.57	-17.19	0
72	SLU 38	-425	1	2799	-0.51	-17.12	0
72	SLU 39	-480	0	3007	0.63	-19.3	0
72	SLU 40	-478	1	3005	-0.45	-19.23	0
72	SLU 41	-480	0	3007	0.63	-19.3	0
72	SLU 42	-478	1	3005	-0.45	-19.23	0
72	SLU 43	-306	0	2634	0.41	-12.49	0
72	SLU 44	-303	2	2630	-1.38	-12.37	0
72	SLU 45	-306	0	2634	0.41	-12.49	0
72	SLU 46	-304	1	2632	-0.66	-12.42	0
72	SLU 47	-303	2	2630	-1.38	-12.37	0
72	SLU 48	-306	0	2634	0.41	-12.49	0
72	SLU 49	-304	1	2632	-0.66	-12.42	0
72	SLU 50	-306	0	2634	0.41	-12.49	0
72	SLU 51	-304	1	2632	-0.66	-12.42	0
72	SLU 52	-427	2	3113	-1.25	-17.29	0
72	SLU 53	-430	0	3116	0.55	-17.41	0
72	SLU 54	-429	1	3114	-0.53	-17.34	0
72	SLU 55	-427	2	3113	-1.25	-17.29	0
72	SLU 56	-430	0	3116	0.55	-17.41	0
72	SLU 57	-429	1	3114	-0.53	-17.34	0
72	SLU 58	-430	0	3116	0.55	-17.41	0
72	SLU 59	-429	1	3114	-0.53	-17.34	0
72	SLU 60	-484	0	3322	0.6	-19.52	0
72	SLU 61	-482	1	3321	-0.47	-19.45	0
72	SLU 62	-484	0	3322	0.6	-19.52	0
72	SLU 63	-482	1	3321	-0.47	-19.45	0
72	SLU 64	-359	0	2865	0.51	-14.6	0
72	SLU 65	-356	2	2862	-1.28	-14.48	0
72	SLU 66	-359	0	2865	0.51	-14.6	0
72	SLU 67	-357	1	2863	-0.57	-14.52	0
72	SLU 68	-356	2	2862	-1.28	-14.48	0
72	SLU 69	-359	0	2865	0.51	-14.6	0
72	SLU 70	-357	1	2863	-0.57	-14.52	0
72	SLU 71	-359	0	2865	0.51	-14.6	0
72	SLU 72	-357	1	2863	-0.57	-14.52	0
72	SLU 73	-480	2	3344	-1.15	-19.4	0
72	SLU 74	-483	0	3347	0.64	-19.52	0
72	SLU 75	-482	1	3345	-0.43	-19.45	0
72	SLU 76	-480	2	3344	-1.15	-19.4	0
72	SLU 77	-483	0	3347	0.64	-19.52	0
72	SLU 78	-482	1	3345	-0.43	-19.45	0
72	SLU 79	-483	0	3347	0.64	-19.52	0
72	SLU 80	-482	1	3345	-0.43	-19.45	0
72	SLU 81	-536	0	3554	0.7	-21.63	0
72	SLU 82	-535	1	3552	-0.38	-21.55	0
72	SLU 83	-536	0	3554	0.7	-21.63	0
72	SLU 84	-535	1	3552	-0.38	-21.55	0
72	SLE RA 1	-264	0	2153	0.37	-10.76	0
72	SLE RA 2	-263	2	2151	-0.82	-10.69	0
72	SLE RA 3	-264	0	2153	0.37	-10.76	0
72	SLE RA 4	-263	1	2152	-0.35	-10.72	0
72	SLE RA 5	-263	2	2151	-0.82	-10.69	0
72	SLE RA 6	-264	0	2153	0.37	-10.76	0
72	SLE RA 7	-263	1	2152	-0.35	-10.72	0
72	SLE RA 8	-264	0	2153	0.37	-10.76	0
72	SLE RA 9	-263	1	2152	-0.35	-10.72	0
72	SLE RA 10	-345	2	2472	-0.74	-13.97	0
72	SLE RA 11	-347	0	2474	0.46	-14.05	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
72	SLE RA 12	-346	1	2473	-0.26	-14	0
72	SLE RA 13	-345	2	2472	-0.74	-13.97	0
72	SLE RA 14	-347	0	2474	0.46	-14.05	0
72	SLE RA 15	-346	1	2473	-0.26	-14	0
72	SLE RA 16	-347	0	2474	0.46	-14.05	0
72	SLE RA 17	-346	1	2473	-0.26	-14	0
72	SLE RA 18	-383	0	2612	0.5	-15.45	0
72	SLE RA 19	-382	1	2611	-0.22	-15.4	0
72	SLE RA 20	-383	0	2612	0.5	-15.45	0
72	SLE RA 21	-382	1	2611	-0.22	-15.4	0
72	SLE FR 1	-264	0	2153	0.37	-10.76	0
72	SLE FR 2	-264	0	2153	0.13	-10.75	0
72	SLE FR 3	-264	0	2153	0.37	-10.76	0
72	SLE FR 4	-300	0	2290	0.17	-12.15	0
72	SLE FR 5	-300	0	2291	0.41	-12.17	0
72	SLE FR 6	-324	0	2383	0.43	-13.11	0
72	SLE QP 1	-264	0	2153	0.37	-10.76	0
72	SLE QP 2	-300	0	2291	0.41	-12.17	0
72	SLD 1	-52	5	2207	-12.77	-1.61	-0.04
72	SLD 2	-52	5	2207	-12.77	-1.61	-0.04
72	SLD 3	-78	16	2236	-3.52	-2.66	-0.01
72	SLD 4	-78	16	2236	-3.52	-2.66	-0.01
72	SLD 5	-185	-14	2221	-17.57	-7.41	-0.05
72	SLD 6	-185	-14	2221	-17.57	-7.41	-0.05
72	SLD 7	-273	20	2319	13.26	-10.91	0.03
72	SLD 8	-273	20	2319	13.26	-10.91	0.03
72	SLD 9	-326	-21	2263	-12.44	-13.43	-0.03
72	SLD 10	-326	-21	2263	-12.44	-13.43	-0.03
72	SLD 11	-414	14	2360	18.39	-16.93	0.05
72	SLD 12	-414	14	2360	18.39	-16.93	0.05
72	SLD 13	-522	-16	2345	4.34	-21.68	0.01
72	SLD 14	-522	-16	2345	4.34	-21.68	0.01
72	SLD 15	-548	-5	2374	13.58	-22.73	0.04
72	SLD 16	-548	-5	2374	13.58	-22.73	0.04
72	SLV 1	292	14	2094	-32.26	12.97	-0.09
72	SLV 2	292	14	2094	-32.26	12.97	-0.09
72	SLV 3	228	39	2163	-10.45	10.44	-0.04
72	SLV 4	228	39	2163	-10.45	10.44	-0.04
72	SLV 5	-26	-33	2127	-42.46	-0.79	-0.12
72	SLV 6	-26	-33	2127	-42.46	-0.79	-0.12
72	SLV 7	-238	49	2357	30.22	-9.22	0.08
72	SLV 8	-238	49	2357	30.22	-9.22	0.08
72	SLV 9	-362	-49	2224	-29.41	-15.12	-0.08
72	SLV 10	-362	-49	2224	-29.41	-15.12	-0.08
72	SLV 11	-574	33	2455	43.28	-23.55	0.12
72	SLV 12	-574	33	2455	43.28	-23.55	0.12
72	SLV 13	-828	-39	2419	11.27	-34.78	0.04
72	SLV 14	-828	-39	2419	11.27	-34.78	0.04
72	SLV 15	-892	-14	2488	33.07	-37.31	0.09
72	SLV 16	-892	-14	2488	33.07	-37.31	0.09
73	SLU 1	-317	0	2040	0.15	-12.89	0
73	SLU 2	-314	3	2034	-1.42	-12.75	0
73	SLU 3	-317	0	2040	0.15	-12.89	0
73	SLU 4	-315	2	2036	-0.79	-12.81	0
73	SLU 5	-314	3	2034	-1.42	-12.75	0
73	SLU 6	-317	0	2040	0.15	-12.89	0
73	SLU 7	-315	2	2036	-0.79	-12.81	0
73	SLU 8	-317	0	2040	0.15	-12.89	0
73	SLU 9	-315	2	2036	-0.79	-12.81	0
73	SLU 10	-452	3	2468	-1.36	-18.3	0
73	SLU 11	-455	0	2474	0.21	-18.43	0
73	SLU 12	-453	2	2470	-0.73	-18.35	0
73	SLU 13	-452	3	2468	-1.36	-18.3	0
73	SLU 14	-455	0	2474	0.21	-18.43	0
73	SLU 15	-453	2	2470	-0.73	-18.35	0
73	SLU 16	-455	0	2474	0.21	-18.43	0
73	SLU 17	-453	2	2470	-0.73	-18.35	0
73	SLU 18	-514	0	2660	0.24	-20.81	0
73	SLU 19	-513	2	2656	-0.71	-20.73	0
73	SLU 20	-514	0	2660	0.24	-20.81	0
73	SLU 21	-513	2	2656	-0.71	-20.73	0
73	SLU 22	-375	0	2254	0.19	-15.24	0
73	SLU 23	-372	3	2247	-1.38	-15.1	0
73	SLU 24	-375	0	2254	0.19	-15.24	0
73	SLU 25	-373	2	2250	-0.75	-15.16	0
73	SLU 26	-372	3	2247	-1.38	-15.1	0
73	SLU 27	-375	0	2254	0.19	-15.24	0
73	SLU 28	-373	2	2250	-0.75	-15.16	0
73	SLU 29	-375	0	2254	0.19	-15.24	0
73	SLU 30	-373	2	2250	-0.75	-15.16	0
73	SLU 31	-511	3	2681	-1.32	-20.65	0
73	SLU 32	-513	0	2688	0.25	-20.78	0
73	SLU 33	-512	2	2684	-0.69	-20.7	0
73	SLU 34	-511	3	2681	-1.32	-20.65	0
73	SLU 35	-513	0	2688	0.25	-20.78	0
73	SLU 36	-512	2	2684	-0.69	-20.7	0
73	SLU 37	-513	0	2688	0.25	-20.78	0
73	SLU 38	-512	2	2684	-0.69	-20.7	0
73	SLU 39	-573	0	2874	0.28	-23.16	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
73	SLU 40	-571	2	2870	-0.66	-23.08	0
73	SLU 41	-573	0	2874	0.28	-23.16	0
73	SLU 42	-571	2	2870	-0.66	-23.08	0
73	SLU 43	-392	0	2579	0.18	-15.95	0
73	SLU 44	-389	3	2573	-1.39	-15.81	0
73	SLU 45	-392	0	2579	0.18	-15.95	0
73	SLU 46	-390	2	2575	-0.76	-15.87	0
73	SLU 47	-389	3	2573	-1.39	-15.81	0
73	SLU 48	-392	0	2579	0.18	-15.95	0
73	SLU 49	-390	2	2575	-0.76	-15.87	0
73	SLU 50	-392	0	2579	0.18	-15.95	0
73	SLU 51	-390	2	2575	-0.76	-15.87	0
73	SLU 52	-527	3	3007	-1.33	-21.36	0
73	SLU 53	-530	0	3013	0.24	-21.49	0
73	SLU 54	-528	2	3009	-0.7	-21.41	0
73	SLU 55	-527	3	3007	-1.33	-21.36	0
73	SLU 56	-530	0	3013	0.24	-21.49	0
73	SLU 57	-528	2	3009	-0.7	-21.41	0
73	SLU 58	-530	0	3013	0.24	-21.49	0
73	SLU 59	-528	2	3009	-0.7	-21.41	0
73	SLU 60	-589	0	3199	0.27	-23.87	0
73	SLU 61	-588	2	3195	-0.68	-23.79	0
73	SLU 62	-589	0	3199	0.27	-23.87	0
73	SLU 63	-588	2	3195	-0.68	-23.79	0
73	SLU 64	-450	0	2793	0.22	-18.3	0
73	SLU 65	-447	3	2786	-1.35	-18.16	0
73	SLU 66	-450	0	2793	0.22	-18.3	0
73	SLU 67	-448	2	2789	-0.72	-18.22	0
73	SLU 68	-447	3	2786	-1.35	-18.16	0
73	SLU 69	-450	0	2793	0.22	-18.3	0
73	SLU 70	-448	2	2789	-0.72	-18.22	0
73	SLU 71	-450	0	2793	0.22	-18.3	0
73	SLU 72	-448	2	2789	-0.72	-18.22	0
73	SLU 73	-586	3	3220	-1.29	-23.71	0
73	SLU 74	-588	0	3226	0.28	-23.85	0
73	SLU 75	-587	2	3223	-0.66	-23.76	0
73	SLU 76	-586	3	3220	-1.29	-23.71	0
73	SLU 77	-588	0	3226	0.28	-23.85	0
73	SLU 78	-587	2	3223	-0.66	-23.76	0
73	SLU 79	-588	0	3226	0.28	-23.85	0
73	SLU 80	-587	2	3223	-0.66	-23.76	0
73	SLU 81	-648	0	3412	0.31	-26.22	0
73	SLU 82	-646	2	3409	-0.63	-26.14	0
73	SLU 83	-648	0	3412	0.31	-26.22	0
73	SLU 84	-646	2	3409	-0.63	-26.14	0
73	SLE RA 1	-333	0	2101	0.16	-13.56	0
73	SLE RA 2	-332	2	2097	-0.88	-13.47	0
73	SLE RA 3	-333	0	2101	0.16	-13.56	0
73	SLE RA 4	-332	1	2099	-0.47	-13.51	0
73	SLE RA 5	-332	2	2097	-0.88	-13.47	0
73	SLE RA 6	-333	0	2101	0.16	-13.56	0
73	SLE RA 7	-332	1	2099	-0.47	-13.51	0
73	SLE RA 8	-333	0	2101	0.16	-13.56	0
73	SLE RA 9	-332	1	2099	-0.47	-13.51	0
73	SLE RA 10	-424	2	2386	-0.84	-17.17	0
73	SLE RA 11	-426	0	2390	0.2	-17.26	0
73	SLE RA 12	-424	1	2388	-0.43	-17.2	0
73	SLE RA 13	-424	2	2386	-0.84	-17.17	0
73	SLE RA 14	-426	0	2390	0.2	-17.26	0
73	SLE RA 15	-424	1	2388	-0.43	-17.2	0
73	SLE RA 16	-426	0	2390	0.2	-17.26	0
73	SLE RA 17	-424	1	2388	-0.43	-17.2	0
73	SLE RA 18	-465	0	2514	0.22	-18.84	0
73	SLE RA 19	-464	1	2512	-0.41	-18.79	0
73	SLE RA 20	-465	0	2514	0.22	-18.84	0
73	SLE RA 21	-464	1	2512	-0.41	-18.79	0
73	SLE FR 1	-333	0	2101	0.16	-13.56	0
73	SLE FR 2	-333	0	2100	-0.05	-13.54	0
73	SLE FR 3	-333	0	2101	0.16	-13.56	0
73	SLE FR 4	-372	0	2224	-0.03	-15.13	0
73	SLE FR 5	-373	0	2225	0.18	-15.15	0
73	SLE FR 6	-399	0	2308	0.19	-16.2	0
73	SLE QP 1	-333	0	2101	0.16	-13.56	0
73	SLE QP 2	-373	0	2225	0.18	-15.15	0
73	SLD 1	-126	7	2079	-3.42	-4.35	-0.02
73	SLD 2	-126	7	2079	-3.42	-4.35	-0.02
73	SLD 3	-151	13	2099	-9.57	-5.4	0
73	SLD 4	-151	13	2099	-9.57	-5.4	0
73	SLD 5	-261	-6	2151	8.42	-10.31	-0.03
73	SLD 6	-261	-6	2151	8.42	-10.31	-0.03
73	SLD 7	-344	12	2218	-12.07	-13.82	0.02
73	SLD 8	-344	12	2218	-12.07	-13.82	0.02
73	SLD 9	-402	-12	2233	12.43	-16.47	-0.02
73	SLD 10	-402	-12	2233	12.43	-16.47	-0.02
73	SLD 11	-485	6	2299	-8.06	-19.98	0.03
73	SLD 12	-485	6	2299	-8.06	-19.98	0.03
73	SLD 13	-595	-13	2351	9.93	-24.89	0
73	SLD 14	-595	-13	2351	9.93	-24.89	0
73	SLD 15	-620	-7	2371	3.78	-25.94	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
73	SLD 16	-620	-7	2371	3.78	-25.94	0.02
73	SLV 1	216	18	1881	-9.53	10.61	-0.05
73	SLV 2	216	18	1881	-9.53	10.61	-0.05
73	SLV 3	155	32	1929	-24.09	8.07	-0.01
73	SLV 4	155	32	1929	-24.09	8.07	-0.01
73	SLV 5	-105	-15	2049	19.36	-3.57	-0.07
73	SLV 6	-105	-15	2049	19.36	-3.57	-0.07
73	SLV 7	-306	30	2209	-29.19	-12.04	0.05
73	SLV 8	-306	30	2209	-29.19	-12.04	0.05
73	SLV 9	-440	-30	2242	29.55	-18.26	-0.05
73	SLV 10	-440	-30	2242	29.55	-18.26	-0.05
73	SLV 11	-640	15	2401	-19	-26.72	0.07
73	SLV 12	-640	15	2401	-19	-26.72	0.07
73	SLV 13	-901	-32	2522	24.45	-38.36	0.01
73	SLV 14	-901	-32	2522	24.45	-38.36	0.01
73	SLV 15	-961	-18	2570	9.89	-40.9	0.05
73	SLV 16	-961	-18	2570	9.89	-40.9	0.05
74	SLU 1	-421	0	2030	0.01	-18.08	0
74	SLU 2	-419	2	2019	-0.91	-17.99	0
74	SLU 3	-421	0	2030	0.01	-18.08	0
74	SLU 4	-420	1	2023	-0.54	-18.02	0
74	SLU 5	-419	2	2019	-0.91	-17.99	0
74	SLU 6	-421	0	2030	0.01	-18.08	0
74	SLU 7	-420	1	2023	-0.54	-18.02	0
74	SLU 8	-421	0	2030	0.01	-18.08	0
74	SLU 9	-420	1	2023	-0.54	-18.02	0
74	SLU 10	-573	2	2422	-0.9	-24.42	0
74	SLU 11	-575	0	2432	0.02	-24.51	0
74	SLU 12	-574	1	2426	-0.53	-24.45	0
74	SLU 13	-573	2	2422	-0.9	-24.42	0
74	SLU 14	-575	0	2432	0.02	-24.51	0
74	SLU 15	-574	1	2426	-0.53	-24.45	0
74	SLU 16	-575	0	2432	0.02	-24.51	0
74	SLU 17	-574	1	2426	-0.53	-24.45	0
74	SLU 18	-641	0	2605	0.03	-27.26	0
74	SLU 19	-639	1	2598	-0.53	-27.21	0
74	SLU 20	-641	0	2605	0.03	-27.26	0
74	SLU 21	-639	1	2598	-0.53	-27.21	0
74	SLU 22	-487	0	2234	0.02	-20.88	0
74	SLU 23	-485	2	2223	-0.9	-20.79	0
74	SLU 24	-487	0	2234	0.02	-20.88	0
74	SLU 25	-486	1	2228	-0.53	-20.82	0
74	SLU 26	-485	2	2223	-0.9	-20.79	0
74	SLU 27	-487	0	2234	0.02	-20.88	0
74	SLU 28	-486	1	2228	-0.53	-20.82	0
74	SLU 29	-487	0	2234	0.02	-20.88	0
74	SLU 30	-486	1	2228	-0.53	-20.82	0
74	SLU 31	-639	2	2626	-0.89	-27.22	0
74	SLU 32	-641	0	2636	0.03	-27.31	0
74	SLU 33	-640	1	2630	-0.52	-27.25	0
74	SLU 34	-639	2	2626	-0.89	-27.22	0
74	SLU 35	-641	0	2636	0.03	-27.31	0
74	SLU 36	-640	1	2630	-0.52	-27.25	0
74	SLU 37	-641	0	2636	0.03	-27.31	0
74	SLU 38	-640	1	2630	-0.52	-27.25	0
74	SLU 39	-707	0	2809	0.03	-30.06	0
74	SLU 40	-706	1	2803	-0.52	-30.01	0
74	SLU 41	-707	0	2809	0.03	-30.06	0
74	SLU 42	-706	1	2803	-0.52	-30.01	0
74	SLU 43	-524	0	2568	0.02	-22.54	0
74	SLU 44	-522	2	2558	-0.91	-22.45	0
74	SLU 45	-524	0	2568	0.02	-22.54	0
74	SLU 46	-523	1	2562	-0.54	-22.49	0
74	SLU 47	-522	2	2558	-0.91	-22.45	0
74	SLU 48	-524	0	2568	0.02	-22.54	0
74	SLU 49	-523	1	2562	-0.54	-22.49	0
74	SLU 50	-524	0	2568	0.02	-22.54	0
74	SLU 51	-523	1	2562	-0.54	-22.49	0
74	SLU 52	-676	2	2960	-0.9	-28.88	0
74	SLU 53	-678	0	2971	0.03	-28.97	0
74	SLU 54	-677	1	2965	-0.53	-28.92	0
74	SLU 55	-676	2	2960	-0.9	-28.88	0
74	SLU 56	-678	0	2971	0.03	-28.97	0
74	SLU 57	-677	1	2965	-0.53	-28.92	0
74	SLU 58	-678	0	2971	0.03	-28.97	0
74	SLU 59	-677	1	2965	-0.53	-28.92	0
74	SLU 60	-744	0	3143	0.03	-31.73	0
74	SLU 61	-743	1	3137	-0.52	-31.67	0
74	SLU 62	-744	0	3143	0.03	-31.73	0
74	SLU 63	-743	1	3137	-0.52	-31.67	0
74	SLU 64	-591	0	2773	0.02	-25.34	0
74	SLU 65	-589	2	2762	-0.9	-25.25	0
74	SLU 66	-591	0	2773	0.02	-25.34	0
74	SLU 67	-589	1	2766	-0.53	-25.29	0
74	SLU 68	-589	2	2762	-0.9	-25.25	0
74	SLU 69	-591	0	2773	0.02	-25.34	0
74	SLU 70	-589	1	2766	-0.53	-25.29	0
74	SLU 71	-591	0	2773	0.02	-25.34	0
74	SLU 72	-589	1	2766	-0.53	-25.29	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
74	SLU 73	-743	2	3165	-0.89	-31.68	0
74	SLU 74	-744	0	3175	0.03	-31.77	0
74	SLU 75	-743	1	3169	-0.52	-31.72	0
74	SLU 76	-743	2	3165	-0.89	-31.68	0
74	SLU 77	-744	0	3175	0.03	-31.77	0
74	SLU 78	-743	1	3169	-0.52	-31.72	0
74	SLU 79	-744	0	3175	0.03	-31.77	0
74	SLU 80	-743	1	3169	-0.52	-31.72	0
74	SLU 81	-810	0	3348	0.04	-34.53	0
74	SLU 82	-809	1	3341	-0.52	-34.47	0
74	SLU 83	-810	0	3348	0.04	-34.53	0
74	SLU 84	-809	1	3341	-0.52	-34.47	0
74	SLE RA 1	-440	0	2088	0.02	-18.88	0
74	SLE RA 2	-438	1	2081	-0.6	-18.82	0
74	SLE RA 3	-440	0	2088	0.02	-18.88	0
74	SLE RA 4	-439	1	2084	-0.35	-18.84	0
74	SLE RA 5	-438	1	2081	-0.6	-18.82	0
74	SLE RA 6	-440	0	2088	0.02	-18.88	0
74	SLE RA 7	-439	1	2084	-0.35	-18.84	0
74	SLE RA 8	-440	0	2088	0.02	-18.88	0
74	SLE RA 9	-439	1	2084	-0.35	-18.84	0
74	SLE RA 10	-541	1	2349	-0.59	-23.11	0
74	SLE RA 11	-542	0	2356	0.02	-23.16	0
74	SLE RA 12	-542	1	2352	-0.35	-23.13	0
74	SLE RA 13	-541	1	2349	-0.59	-23.11	0
74	SLE RA 14	-542	0	2356	0.02	-23.16	0
74	SLE RA 15	-542	1	2352	-0.35	-23.13	0
74	SLE RA 16	-542	0	2356	0.02	-23.16	0
74	SLE RA 17	-542	1	2352	-0.35	-23.13	0
74	SLE RA 18	-586	0	2471	0.03	-25	0
74	SLE RA 19	-586	1	2467	-0.34	-24.97	0
74	SLE RA 20	-586	0	2471	0.03	-25	0
74	SLE RA 21	-586	1	2467	-0.34	-24.97	0
74	SLE FR 1	-440	0	2088	0.02	-18.88	0
74	SLE FR 2	-440	0	2087	-0.11	-18.86	0
74	SLE FR 3	-440	0	2088	0.02	-18.88	0
74	SLE FR 4	-483	0	2202	-0.1	-20.7	0
74	SLE FR 5	-484	0	2203	0.02	-20.71	0
74	SLE FR 6	-513	0	2280	0.02	-21.94	0
74	SLE QP 1	-440	0	2088	0.02	-18.88	0
74	SLE QP 2	-484	0	2203	0.02	-20.71	0
74	SLD 1	-247	6	1956	-2.37	-10.21	-0.01
74	SLD 2	-247	6	1956	-2.37	-10.21	-0.01
74	SLD 3	-269	9	1974	-5.25	-11.16	-0.02
74	SLD 4	-269	9	1974	-5.25	-11.16	-0.02
74	SLD 5	-379	-2	2103	3.67	-16.13	0.01
74	SLD 6	-379	-2	2103	3.67	-16.13	0.01
74	SLD 7	-453	7	2161	-5.93	-19.28	-0.02
74	SLD 8	-453	7	2161	-5.93	-19.28	-0.02
74	SLD 9	-514	-6	2245	5.97	-22.15	0.02
74	SLD 10	-514	-6	2245	5.97	-22.15	0.02
74	SLD 11	-588	3	2303	-3.64	-25.3	-0.01
74	SLD 12	-588	3	2303	-3.64	-25.3	-0.01
74	SLD 13	-698	-8	2432	5.29	-30.27	0.02
74	SLD 14	-698	-8	2432	5.29	-30.27	0.02
74	SLD 15	-720	-5	2449	2.41	-31.21	0.01
74	SLD 16	-720	-5	2449	2.41	-31.21	0.01
74	SLV 1	78	15	1620	-6.28	4.17	-0.03
74	SLV 2	78	15	1620	-6.28	4.17	-0.03
74	SLV 3	24	21	1662	-13.16	1.89	-0.05
74	SLV 4	24	21	1662	-13.16	1.89	-0.05
74	SLV 5	-234	-6	1964	8.57	-9.8	0.01
74	SLV 6	-234	-6	1964	8.57	-9.8	0.01
74	SLV 7	-413	17	2105	-14.38	-17.39	-0.04
74	SLV 8	-413	17	2105	-14.38	-17.39	-0.04
74	SLV 9	-555	-16	2301	14.41	-24.04	0.04
74	SLV 10	-555	-16	2301	14.41	-24.04	0.04
74	SLV 11	-734	6	2442	-8.54	-31.63	-0.01
74	SLV 12	-734	6	2442	-8.54	-31.63	-0.01
74	SLV 13	-992	-21	2744	13.2	-43.32	0.05
74	SLV 14	-992	-21	2744	13.2	-43.32	0.05
74	SLV 15	-1045	-14	2786	6.31	-45.59	0.03
74	SLV 16	-1045	-14	2786	6.31	-45.59	0.03
75	SLU 1	-409	33	3294	-1.55	-12.99	-0.01
75	SLU 2	-407	10	3272	-0.73	-12.93	0
75	SLU 3	-409	33	3294	-1.55	-12.99	-0.01
75	SLU 4	-408	19	3281	-1.06	-12.95	0
75	SLU 5	-407	10	3272	-0.73	-12.93	0
75	SLU 6	-409	33	3294	-1.55	-12.99	-0.01
75	SLU 7	-408	19	3281	-1.06	-12.95	0
75	SLU 8	-409	33	3294	-1.55	-12.99	-0.01
75	SLU 9	-408	19	3281	-1.06	-12.95	0
75	SLU 10	-522	19	3904	-1.14	-17.02	0
75	SLU 11	-524	42	3927	-1.96	-17.07	-0.01
75	SLU 12	-523	28	3913	-1.47	-17.04	0
75	SLU 13	-522	19	3904	-1.14	-17.02	0
75	SLU 14	-524	42	3927	-1.96	-17.07	-0.01
75	SLU 15	-523	28	3913	-1.47	-17.04	0
75	SLU 16	-524	42	3927	-1.96	-17.07	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
75	SLU 17	-523	28	3913	-1.47	-17.04	0
75	SLU 18	-573	46	4198	-2.13	-18.82	-0.01
75	SLU 19	-572	32	4184	-1.65	-18.79	-0.01
75	SLU 20	-573	46	4198	-2.13	-18.82	-0.01
75	SLU 21	-572	32	4184	-1.65	-18.79	-0.01
75	SLU 22	-462	40	3624	-1.85	-14.81	-0.01
75	SLU 23	-460	17	3602	-1.04	-14.76	0
75	SLU 24	-462	40	3624	-1.85	-14.81	-0.01
75	SLU 25	-460	26	3610	-1.36	-14.78	0
75	SLU 26	-460	17	3602	-1.04	-14.76	0
75	SLU 27	-462	40	3624	-1.85	-14.81	-0.01
75	SLU 28	-460	26	3610	-1.36	-14.78	0
75	SLU 29	-462	40	3624	-1.85	-14.81	-0.01
75	SLU 30	-460	26	3610	-1.36	-14.78	0
75	SLU 31	-575	26	4234	-1.45	-18.84	0
75	SLU 32	-577	49	4256	-2.26	-18.9	-0.01
75	SLU 33	-575	35	4243	-1.77	-18.86	-0.01
75	SLU 34	-575	26	4234	-1.45	-18.84	0
75	SLU 35	-577	49	4256	-2.26	-18.9	-0.01
75	SLU 36	-575	35	4243	-1.77	-18.86	-0.01
75	SLU 37	-577	49	4256	-2.26	-18.9	-0.01
75	SLU 38	-575	35	4243	-1.77	-18.86	-0.01
75	SLU 39	-626	53	4527	-2.43	-20.65	-0.01
75	SLU 40	-625	39	4514	-1.95	-20.61	-0.01
75	SLU 41	-626	53	4527	-2.43	-20.65	-0.01
75	SLU 42	-625	39	4514	-1.95	-20.61	-0.01
75	SLU 43	-513	41	4169	-1.91	-16.26	-0.01
75	SLU 44	-511	17	4147	-1.09	-16.2	0
75	SLU 45	-513	41	4169	-1.91	-16.26	-0.01
75	SLU 46	-512	27	4156	-1.42	-16.23	0
75	SLU 47	-511	17	4147	-1.09	-16.2	0
75	SLU 48	-513	41	4169	-1.91	-16.26	-0.01
75	SLU 49	-512	27	4156	-1.42	-16.23	0
75	SLU 50	-513	41	4169	-1.91	-16.26	-0.01
75	SLU 51	-512	27	4156	-1.42	-16.23	0
75	SLU 52	-626	27	4780	-1.5	-20.29	0
75	SLU 53	-628	50	4802	-2.32	-20.34	-0.01
75	SLU 54	-627	36	4788	-1.83	-20.31	-0.01
75	SLU 55	-626	27	4780	-1.5	-20.29	0
75	SLU 56	-628	50	4802	-2.32	-20.34	-0.01
75	SLU 57	-627	36	4788	-1.83	-20.31	-0.01
75	SLU 58	-628	50	4802	-2.32	-20.34	-0.01
75	SLU 59	-627	36	4788	-1.83	-20.31	-0.01
75	SLU 60	-678	54	5073	-2.49	-22.09	-0.01
75	SLU 61	-676	40	5060	-2	-22.06	-0.01
75	SLU 62	-678	54	5073	-2.49	-22.09	-0.01
75	SLU 63	-676	40	5060	-2	-22.06	-0.01
75	SLU 64	-566	47	4499	-2.21	-18.09	-0.01
75	SLU 65	-564	24	4477	-1.4	-18.03	0
75	SLU 66	-566	47	4499	-2.21	-18.09	-0.01
75	SLU 67	-565	34	4486	-1.72	-18.05	-0.01
75	SLU 68	-564	24	4477	-1.4	-18.03	0
75	SLU 69	-566	47	4499	-2.21	-18.09	-0.01
75	SLU 70	-565	34	4486	-1.72	-18.05	-0.01
75	SLU 71	-566	47	4499	-2.21	-18.09	-0.01
75	SLU 72	-565	34	4486	-1.72	-18.05	-0.01
75	SLU 73	-679	33	5109	-1.81	-22.11	-0.01
75	SLU 74	-681	57	5131	-2.62	-22.17	-0.01
75	SLU 75	-680	43	5118	-2.13	-22.13	-0.01
75	SLU 76	-679	33	5109	-1.81	-22.11	-0.01
75	SLU 77	-681	57	5131	-2.62	-22.17	-0.01
75	SLU 78	-680	43	5118	-2.13	-22.13	-0.01
75	SLU 79	-681	57	5131	-2.62	-22.17	-0.01
75	SLU 80	-680	43	5118	-2.13	-22.13	-0.01
75	SLU 81	-730	60	5402	-2.79	-23.92	-0.01
75	SLU 82	-729	47	5389	-2.31	-23.88	-0.01
75	SLU 83	-730	60	5402	-2.79	-23.92	-0.01
75	SLU 84	-729	47	5389	-2.31	-23.88	-0.01
75	SLE RA 1	-424	35	3388	-1.63	-13.51	-0.01
75	SLE RA 2	-423	20	3374	-1.09	-13.47	0
75	SLE RA 3	-424	35	3388	-1.63	-13.51	-0.01
75	SLE RA 4	-423	26	3379	-1.31	-13.49	0
75	SLE RA 5	-423	20	3374	-1.09	-13.47	0
75	SLE RA 6	-424	35	3388	-1.63	-13.51	-0.01
75	SLE RA 7	-423	26	3379	-1.31	-13.49	0
75	SLE RA 8	-424	35	3388	-1.63	-13.51	-0.01
75	SLE RA 9	-423	26	3379	-1.31	-13.49	0
75	SLE RA 10	-499	26	3795	-1.36	-16.19	0
75	SLE RA 11	-501	41	3810	-1.91	-16.23	-0.01
75	SLE RA 12	-500	32	3801	-1.58	-16.21	-0.01
75	SLE RA 13	-499	26	3795	-1.36	-16.19	0
75	SLE RA 14	-501	41	3810	-1.91	-16.23	-0.01
75	SLE RA 15	-500	32	3801	-1.58	-16.21	-0.01
75	SLE RA 16	-501	41	3810	-1.91	-16.23	-0.01
75	SLE RA 17	-500	32	3801	-1.58	-16.21	-0.01
75	SLE RA 18	-533	44	3991	-2.02	-17.4	-0.01
75	SLE RA 19	-533	34	3982	-1.7	-17.38	-0.01
75	SLE RA 20	-533	44	3991	-2.02	-17.4	-0.01
75	SLE RA 21	-533	34	3982	-1.7	-17.38	-0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
75	SLE FR 1	-424	35	3388	-1.63	-13.51	-0.01
75	SLE FR 2	-424	32	3385	-1.52	-13.5	-0.01
75	SLE FR 3	-424	35	3388	-1.63	-13.51	-0.01
75	SLE FR 4	-456	35	3566	-1.64	-14.67	-0.01
75	SLE FR 5	-457	38	3569	-1.75	-14.68	-0.01
75	SLE FR 6	-479	39	3689	-1.83	-15.46	-0.01
75	SLE QP 1	-424	35	3388	-1.63	-13.51	-0.01
75	SLE QP 2	-457	38	3569	-1.75	-14.68	-0.01
75	SLD 1	-306	93	2987	-6.12	-8.36	-0.03
75	SLD 2	-306	93	2987	-6.12	-8.36	-0.03
75	SLD 3	-319	-64	3023	0.66	-8.91	0
75	SLD 4	-319	-64	3023	0.66	-8.91	0
75	SLD 5	-392	292	3340	-13.34	-11.96	-0.06
75	SLD 6	-392	292	3340	-13.34	-11.96	-0.06
75	SLD 7	-434	-230	3460	9.25	-13.78	0.04
75	SLD 8	-434	-230	3460	9.25	-13.78	0.04
75	SLD 9	-479	306	3678	-12.75	-15.58	-0.06
75	SLD 10	-479	306	3678	-12.75	-15.58	-0.06
75	SLD 11	-521	-217	3798	9.84	-17.4	0.05
75	SLD 12	-521	-217	3798	9.84	-17.4	0.05
75	SLD 13	-595	139	4115	-4.16	-20.45	-0.01
75	SLD 14	-595	139	4115	-4.16	-20.45	-0.01
75	SLD 15	-607	-18	4151	2.62	-20.99	0.02
75	SLD 16	-607	-18	4151	2.62	-20.99	0.02
75	SLV 1	-100	168	2190	-12.13	0.32	-0.07
75	SLV 2	-100	168	2190	-12.13	0.32	-0.07
75	SLV 3	-130	-202	2278	3.88	-1	0.01
75	SLV 4	-130	-202	2278	3.88	-1	0.01
75	SLV 5	-304	638	3022	-29.14	-8.18	-0.14
75	SLV 6	-304	638	3022	-29.14	-8.18	-0.14
75	SLV 7	-405	-596	3316	24.21	-12.58	0.11
75	SLV 8	-405	-596	3316	24.21	-12.58	0.11
75	SLV 9	-509	671	3822	-27.71	-16.78	-0.12
75	SLV 10	-509	671	3822	-27.71	-16.78	-0.12
75	SLV 11	-610	-563	4116	25.64	-21.18	0.12
75	SLV 12	-610	-563	4116	25.64	-21.18	0.12
75	SLV 13	-783	277	4859	-7.38	-28.35	-0.02
75	SLV 14	-783	277	4859	-7.38	-28.35	-0.02
75	SLV 15	-814	-93	4948	8.63	-29.67	0.05
75	SLV 16	-814	-93	4948	8.63	-29.67	0.05
76	SLU 1	1	-44	1951	2.2	0.25	0
76	SLU 2	1	-70	1968	3.32	-0.63	0
76	SLU 3	1	-44	1951	2.2	0.25	0
76	SLU 4	1	-60	1961	2.87	-0.27	0
76	SLU 5	1	-70	1968	3.32	-0.63	0
76	SLU 6	1	-44	1951	2.2	0.25	0
76	SLU 7	1	-60	1961	2.87	-0.27	0
76	SLU 8	1	-44	1951	2.2	0.25	0
76	SLU 9	1	-60	1961	2.87	-0.27	0
76	SLU 10	1	-86	2248	4.05	-0.52	0
76	SLU 11	1	-59	2231	2.94	0.35	0
76	SLU 12	1	-75	2241	3.61	-0.17	0
76	SLU 13	1	-86	2248	4.05	-0.52	0
76	SLU 14	1	-59	2231	2.94	0.35	0
76	SLU 15	1	-75	2241	3.61	-0.17	0
76	SLU 16	1	-59	2231	2.94	0.35	0
76	SLU 17	1	-75	2241	3.61	-0.17	0
76	SLU 18	1	-66	2351	3.25	0.4	0
76	SLU 19	1	-82	2361	3.92	-0.13	0
76	SLU 20	1	-66	2351	3.25	0.4	0
76	SLU 21	1	-82	2361	3.92	-0.13	0
76	SLU 22	1	-52	2126	2.61	0.28	0
76	SLU 23	1	-78	2142	3.73	-0.6	0
76	SLU 24	1	-52	2126	2.61	0.28	0
76	SLU 25	1	-68	2136	3.28	-0.25	0
76	SLU 26	1	-78	2142	3.73	-0.6	0
76	SLU 27	1	-52	2126	2.61	0.28	0
76	SLU 28	1	-68	2136	3.28	-0.25	0
76	SLU 29	1	-52	2126	2.61	0.28	0
76	SLU 30	1	-68	2136	3.28	-0.25	0
76	SLU 31	1	-94	2422	4.46	-0.5	0
76	SLU 32	1	-68	2405	3.34	0.38	0
76	SLU 33	1	-83	2415	4.01	-0.14	0
76	SLU 34	1	-94	2422	4.46	-0.5	0
76	SLU 35	1	-68	2405	3.34	0.38	0
76	SLU 36	1	-83	2415	4.01	-0.14	0
76	SLU 37	1	-68	2405	3.34	0.38	0
76	SLU 38	1	-83	2415	4.01	-0.14	0
76	SLU 39	1	-74	2525	3.66	0.43	0
76	SLU 40	1	-90	2535	4.33	-0.1	0
76	SLU 41	1	-74	2525	3.66	0.43	0
76	SLU 42	1	-90	2535	4.33	-0.1	0
76	SLU 43	1	-54	2477	2.72	0.32	0
76	SLU 44	1	-81	2494	3.84	-0.56	0
76	SLU 45	1	-54	2477	2.72	0.32	0
76	SLU 46	1	-70	2487	3.39	-0.21	0
76	SLU 47	1	-81	2494	3.84	-0.56	0
76	SLU 48	1	-54	2477	2.72	0.32	0
76	SLU 49	1	-70	2487	3.39	-0.21	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
76	SLU 50	1	-54	2477	2.72	0.32	0
76	SLU 51	1	-70	2487	3.39	-0.21	0
76	SLU 52	1	-96	2773	4.57	-0.46	0
76	SLU 53	1	-70	2757	3.46	0.42	0
76	SLU 54	1	-86	2767	4.13	-0.11	0
76	SLU 55	1	-96	2773	4.57	-0.46	0
76	SLU 56	1	-70	2757	3.46	0.42	0
76	SLU 57	1	-86	2767	4.13	-0.11	0
76	SLU 58	1	-70	2757	3.46	0.42	0
76	SLU 59	1	-86	2767	4.13	-0.11	0
76	SLU 60	1	-76	2877	3.77	0.46	0
76	SLU 61	1	-92	2887	4.44	-0.06	0
76	SLU 62	1	-76	2877	3.77	0.46	0
76	SLU 63	1	-92	2887	4.44	-0.06	0
76	SLU 64	1	-63	2651	3.13	0.35	0
76	SLU 65	1	-89	2668	4.25	-0.53	0
76	SLU 66	1	-63	2651	3.13	0.35	0
76	SLU 67	1	-78	2661	3.8	-0.18	0
76	SLU 68	1	-89	2668	4.25	-0.53	0
76	SLU 69	1	-63	2651	3.13	0.35	0
76	SLU 70	1	-78	2661	3.8	-0.18	0
76	SLU 71	1	-63	2651	3.13	0.35	0
76	SLU 72	1	-78	2661	3.8	-0.18	0
76	SLU 73	1	-104	2948	4.98	-0.43	0
76	SLU 74	1	-78	2931	3.87	0.45	0.01
76	SLU 75	1	-94	2941	4.54	-0.08	0
76	SLU 76	1	-104	2948	4.98	-0.43	0
76	SLU 77	1	-78	2931	3.87	0.45	0.01
76	SLU 78	1	-94	2941	4.54	-0.08	0
76	SLU 79	1	-78	2931	3.87	0.45	0.01
76	SLU 80	1	-94	2941	4.54	-0.08	0
76	SLU 81	1	-85	3051	4.18	0.49	0.01
76	SLU 82	1	-100	3061	4.85	-0.03	0
76	SLU 83	1	-85	3051	4.18	0.49	0.01
76	SLU 84	1	-100	3061	4.85	-0.03	0
76	SLE RA 1	1	-46	2001	2.32	0.26	0
76	SLE RA 2	1	-64	2012	3.06	-0.33	0
76	SLE RA 3	1	-46	2001	2.32	0.26	0
76	SLE RA 4	1	-57	2008	2.77	-0.09	0
76	SLE RA 5	1	-64	2012	3.06	-0.33	0
76	SLE RA 6	1	-46	2001	2.32	0.26	0
76	SLE RA 7	1	-57	2008	2.77	-0.09	0
76	SLE RA 8	1	-46	2001	2.32	0.26	0
76	SLE RA 9	1	-57	2008	2.77	-0.09	0
76	SLE RA 10	1	-74	2199	3.55	-0.26	0
76	SLE RA 11	1	-57	2188	2.81	0.33	0
76	SLE RA 12	1	-67	2194	3.25	-0.02	0
76	SLE RA 13	1	-74	2199	3.55	-0.26	0
76	SLE RA 14	1	-57	2188	2.81	0.33	0
76	SLE RA 15	1	-67	2194	3.25	-0.02	0
76	SLE RA 16	1	-57	2188	2.81	0.33	0
76	SLE RA 17	1	-67	2194	3.25	-0.02	0
76	SLE RA 18	1	-61	2268	3.02	0.36	0
76	SLE RA 19	1	-72	2274	3.46	0.01	0
76	SLE RA 20	1	-61	2268	3.02	0.36	0
76	SLE RA 21	1	-72	2274	3.46	0.01	0
76	SLE FR 1	1	-46	2001	2.32	0.26	0
76	SLE FR 2	1	-50	2003	2.47	0.14	0
76	SLE FR 3	1	-46	2001	2.32	0.26	0
76	SLE FR 4	1	-54	2083	2.68	0.17	0
76	SLE FR 5	1	-51	2081	2.53	0.29	0
76	SLE FR 6	1	-54	2134	2.67	0.31	0
76	SLE QP 1	1	-46	2001	2.32	0.26	0
76	SLE QP 2	1	-51	2081	2.53	0.29	0
76	SLD 1	-14	125	1825	-4.65	-1.71	0.03
76	SLD 2	-14	125	1825	-4.65	-1.71	0.03
76	SLD 3	-19	-33	1867	2.75	-4.36	0.02
76	SLD 4	-19	-33	1867	2.75	-4.36	0.02
76	SLD 5	4	241	1941	-10.84	3.71	0.02
76	SLD 6	4	241	1941	-10.84	3.71	0.02
76	SLD 7	-13	-285	2080	13.82	-5.13	0
76	SLD 8	-13	-285	2080	13.82	-5.13	0
76	SLD 9	15	184	2082	-8.76	5.71	0.01
76	SLD 10	15	184	2082	-8.76	5.71	0.01
76	SLD 11	-3	-343	2221	15.9	-3.13	-0.01
76	SLD 12	-3	-343	2221	15.9	-3.13	-0.01
76	SLD 13	21	-68	2295	2.31	4.94	-0.02
76	SLD 14	21	-68	2295	2.31	4.94	-0.02
76	SLD 15	15	-226	2337	9.71	2.29	-0.02
76	SLD 16	15	-226	2337	9.71	2.29	-0.02
76	SLV 1	-37	380	1434	-14.99	-4.8	0.07
76	SLV 2	-37	380	1434	-14.99	-4.8	0.07
76	SLV 3	-50	7	1541	2.48	-11.5	0.06
76	SLV 4	-50	7	1541	2.48	-11.5	0.06
76	SLV 5	10	644	1725	-29.23	8.92	0.04
76	SLV 6	10	644	1725	-29.23	8.92	0.04
76	SLV 7	-35	-599	2081	29.01	-13.4	0
76	SLV 8	-35	-599	2081	29.01	-13.4	0
76	SLV 9	36	498	2081	-23.96	13.98	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
76	SLV 10	36	498	2081	-23.96	13.98	0.01
76	SLV 11	-8	-746	2437	34.28	-8.34	-0.04
76	SLV 12	-8	-746	2437	34.28	-8.34	-0.04
76	SLV 13	52	-108	2621	2.58	12.08	-0.05
76	SLV 14	52	-108	2621	2.58	12.08	-0.05
76	SLV 15	38	-482	2728	20.05	5.38	-0.06
76	SLV 16	38	-482	2728	20.05	5.38	-0.06
77	SLU 1	-3	-51	2013	1.9	-1	-0.01
77	SLU 2	-4	-72	2000	2.8	-0.06	-0.01
77	SLU 3	-3	-51	2013	1.9	-1	-0.01
77	SLU 4	-4	-64	2005	2.44	-0.44	-0.01
77	SLU 5	-4	-72	2000	2.8	-0.06	-0.01
77	SLU 6	-3	-51	2013	1.9	-1	-0.01
77	SLU 7	-4	-64	2005	2.44	-0.44	-0.01
77	SLU 8	-3	-51	2013	1.9	-1	-0.01
77	SLU 9	-4	-64	2005	2.44	-0.44	-0.01
77	SLU 10	-5	-91	2352	3.44	-0.37	-0.01
77	SLU 11	-4	-69	2366	2.54	-1.31	-0.02
77	SLU 12	-5	-82	2357	3.08	-0.75	-0.01
77	SLU 13	-5	-91	2352	3.44	-0.37	-0.01
77	SLU 14	-4	-69	2366	2.54	-1.31	-0.02
77	SLU 15	-5	-82	2357	3.08	-0.75	-0.01
77	SLU 16	-4	-69	2366	2.54	-1.31	-0.02
77	SLU 17	-5	-82	2357	3.08	-0.75	-0.01
77	SLU 18	-5	-77	2517	2.82	-1.44	-0.02
77	SLU 19	-5	-90	2508	3.36	-0.88	-0.02
77	SLU 20	-5	-77	2517	2.82	-1.44	-0.02
77	SLU 21	-5	-90	2508	3.36	-0.88	-0.02
77	SLU 22	-4	-56	2206	2.09	-1.14	-0.01
77	SLU 23	-5	-77	2193	2.98	-0.21	-0.01
77	SLU 24	-4	-56	2206	2.09	-1.14	-0.01
77	SLU 25	-4	-69	2198	2.62	-0.58	-0.01
77	SLU 26	-5	-77	2193	2.98	-0.21	-0.01
77	SLU 27	-4	-56	2206	2.09	-1.14	-0.01
77	SLU 28	-4	-69	2198	2.62	-0.58	-0.01
77	SLU 29	-4	-56	2206	2.09	-1.14	-0.01
77	SLU 30	-4	-69	2198	2.62	-0.58	-0.01
77	SLU 31	-6	-96	2545	3.63	-0.52	-0.01
77	SLU 32	-5	-75	2559	2.73	-1.45	-0.02
77	SLU 33	-5	-87	2550	3.27	-0.89	-0.02
77	SLU 34	-6	-96	2545	3.63	-0.52	-0.01
77	SLU 35	-5	-75	2559	2.73	-1.45	-0.02
77	SLU 36	-5	-87	2550	3.27	-0.89	-0.02
77	SLU 37	-5	-75	2559	2.73	-1.45	-0.02
77	SLU 38	-5	-87	2550	3.27	-0.89	-0.02
77	SLU 39	-5	-83	2710	3.01	-1.59	-0.02
77	SLU 40	-6	-95	2701	3.55	-1.03	-0.02
77	SLU 41	-5	-83	2710	3.01	-1.59	-0.02
77	SLU 42	-6	-95	2701	3.55	-1.03	-0.02
77	SLU 43	-4	-64	2551	2.4	-1.25	-0.02
77	SLU 44	-5	-86	2538	3.3	-0.31	-0.01
77	SLU 45	-4	-64	2551	2.4	-1.25	-0.02
77	SLU 46	-5	-77	2543	2.94	-0.69	-0.01
77	SLU 47	-5	-86	2538	3.3	-0.31	-0.01
77	SLU 48	-4	-64	2551	2.4	-1.25	-0.02
77	SLU 49	-5	-77	2543	2.94	-0.69	-0.01
77	SLU 50	-4	-64	2551	2.4	-1.25	-0.02
77	SLU 51	-5	-77	2543	2.94	-0.69	-0.01
77	SLU 52	-6	-104	2890	3.95	-0.62	-0.02
77	SLU 53	-5	-83	2904	3.05	-1.56	-0.02
77	SLU 54	-6	-96	2895	3.59	-1	-0.02
77	SLU 55	-6	-104	2890	3.95	-0.62	-0.02
77	SLU 56	-5	-83	2904	3.05	-1.56	-0.02
77	SLU 57	-6	-96	2895	3.59	-1	-0.02
77	SLU 58	-5	-83	2904	3.05	-1.56	-0.02
77	SLU 59	-6	-96	2895	3.59	-1	-0.02
77	SLU 60	-5	-91	3055	3.32	-1.69	-0.02
77	SLU 61	-6	-104	3046	3.86	-1.13	-0.02
77	SLU 62	-5	-91	3055	3.32	-1.69	-0.02
77	SLU 63	-6	-104	3046	3.86	-1.13	-0.02
77	SLU 64	-4	-70	2744	2.59	-1.39	-0.02
77	SLU 65	-6	-91	2731	3.49	-0.46	-0.01
77	SLU 66	-4	-70	2744	2.59	-1.39	-0.02
77	SLU 67	-5	-82	2736	3.13	-0.83	-0.02
77	SLU 68	-6	-91	2731	3.49	-0.46	-0.01
77	SLU 69	-4	-70	2744	2.59	-1.39	-0.02
77	SLU 70	-5	-82	2736	3.13	-0.83	-0.02
77	SLU 71	-4	-70	2744	2.59	-1.39	-0.02
77	SLU 72	-5	-82	2736	3.13	-0.83	-0.02
77	SLU 73	-7	-109	3083	4.13	-0.77	-0.02
77	SLU 74	-5	-88	3097	3.24	-1.7	-0.02
77	SLU 75	-6	-101	3088	3.77	-1.14	-0.02
77	SLU 76	-7	-109	3083	4.13	-0.77	-0.02
77	SLU 77	-5	-88	3097	3.24	-1.7	-0.02
77	SLU 78	-6	-101	3088	3.77	-1.14	-0.02
77	SLU 79	-5	-88	3097	3.24	-1.7	-0.02
77	SLU 80	-6	-101	3088	3.77	-1.14	-0.02
77	SLU 81	-6	-96	3248	3.51	-1.84	-0.02
77	SLU 82	-7	-109	3239	4.05	-1.28	-0.02



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
77	SLU 83	-6	-96	3248	3.51	-1.84	-0.02
77	SLU 84	-7	-109	3239	4.05	-1.28	-0.02
77	SLE RA 1	-3	-52	2069	1.95	-1.04	-0.01
77	SLE RA 2	-4	-67	2059	2.55	-0.42	-0.01
77	SLE RA 3	-3	-52	2069	1.95	-1.04	-0.01
77	SLE RA 4	-4	-61	2063	2.31	-0.67	-0.01
77	SLE RA 5	-4	-67	2059	2.55	-0.42	-0.01
77	SLE RA 6	-3	-52	2069	1.95	-1.04	-0.01
77	SLE RA 7	-4	-61	2063	2.31	-0.67	-0.01
77	SLE RA 8	-3	-52	2069	1.95	-1.04	-0.01
77	SLE RA 9	-4	-61	2063	2.31	-0.67	-0.01
77	SLE RA 10	-5	-79	2294	2.98	-0.62	-0.01
77	SLE RA 11	-4	-65	2303	2.38	-1.25	-0.02
77	SLE RA 12	-4	-73	2298	2.74	-0.87	-0.01
77	SLE RA 13	-5	-79	2294	2.98	-0.62	-0.01
77	SLE RA 14	-4	-65	2303	2.38	-1.25	-0.02
77	SLE RA 15	-4	-73	2298	2.74	-0.87	-0.01
77	SLE RA 16	-4	-65	2303	2.38	-1.25	-0.02
77	SLE RA 17	-4	-73	2298	2.74	-0.87	-0.01
77	SLE RA 18	-4	-70	2404	2.57	-1.34	-0.02
77	SLE RA 19	-5	-79	2399	2.92	-0.96	-0.01
77	SLE RA 20	-4	-70	2404	2.57	-1.34	-0.02
77	SLE RA 21	-5	-79	2399	2.92	-0.96	-0.01
77	SLE FR 1	-3	-52	2069	1.95	-1.04	-0.01
77	SLE FR 2	-4	-55	2067	2.07	-0.91	-0.01
77	SLE FR 3	-3	-52	2069	1.95	-1.04	-0.01
77	SLE FR 4	-4	-61	2167	2.26	-1	-0.01
77	SLE FR 5	-4	-58	2169	2.14	-1.13	-0.01
77	SLE FR 6	-4	-61	2236	2.26	-1.19	-0.01
77	SLE QP 1	-3	-52	2069	1.95	-1.04	-0.01
77	SLE QP 2	-4	-58	2169	2.14	-1.13	-0.01
77	SLD 1	-16	72	1907	-3.01	1.64	0.01
77	SLD 2	-16	72	1907	-3.01	1.64	0.01
77	SLD 3	-21	-83	1892	3.55	3.9	0.01
77	SLD 4	-21	-83	1892	3.55	3.9	0.01
77	SLD 5	0	216	2112	-9.34	-3.73	-0.02
77	SLD 6	0	216	2112	-9.34	-3.73	-0.02
77	SLD 7	-16	-300	2064	12.5	3.81	0
77	SLD 8	-16	-300	2064	12.5	3.81	0
77	SLD 9	9	185	2274	-8.22	-6.07	-0.03
77	SLD 10	9	185	2274	-8.22	-6.07	-0.03
77	SLD 11	-7	-331	2226	13.62	1.47	-0.01
77	SLD 12	-7	-331	2226	13.62	1.47	-0.01
77	SLD 13	14	-32	2446	0.73	-6.16	-0.04
77	SLD 14	14	-32	2446	0.73	-6.16	-0.04
77	SLD 15	9	-187	2432	7.28	-3.9	-0.04
77	SLD 16	9	-187	2432	7.28	-3.9	-0.04
77	SLV 1	-36	249	1550	-10.05	6.06	0.04
77	SLV 2	-36	249	1550	-10.05	6.06	0.04
77	SLV 3	-47	-116	1515	5.43	11.55	0.05
77	SLV 4	-47	-116	1515	5.43	11.55	0.05
77	SLV 5	4	589	2037	-24.99	-7.3	-0.02
77	SLV 6	4	589	2037	-24.99	-7.3	-0.02
77	SLV 7	-34	-630	1919	26.59	11	0.03
77	SLV 8	-34	-630	1919	26.59	11	0.03
77	SLV 9	27	514	2419	-22.32	-13.26	-0.05
77	SLV 10	27	514	2419	-22.32	-13.26	-0.05
77	SLV 11	-11	-704	2301	29.26	5.04	-0.01
77	SLV 12	-11	-704	2301	29.26	5.04	-0.01
77	SLV 13	40	1	2824	-1.15	-13.81	-0.08
77	SLV 14	40	1	2824	-1.15	-13.81	-0.08
77	SLV 15	29	-365	2788	14.32	-8.32	-0.07
77	SLV 16	29	-365	2788	14.32	-8.32	-0.07
78	SLU 1	0	-76	1922	3.03	0.12	0
78	SLU 2	0	-98	1922	4	-1.89	0
78	SLU 3	0	-76	1922	3.03	0.12	0
78	SLU 4	0	-89	1922	3.61	-1.09	0
78	SLU 5	0	-98	1922	4	-1.89	0
78	SLU 6	0	-76	1922	3.03	0.12	0
78	SLU 7	0	-89	1922	3.61	-1.09	0
78	SLU 8	0	-76	1922	3.03	0.12	0
78	SLU 9	0	-89	1922	3.61	-1.09	0
78	SLU 10	0	-114	2189	4.56	-1.82	0
78	SLU 11	0	-91	2190	3.59	0.19	0
78	SLU 12	0	-105	2190	4.17	-1.01	0
78	SLU 13	0	-114	2189	4.56	-1.82	0
78	SLU 14	0	-91	2190	3.59	0.19	0
78	SLU 15	0	-105	2190	4.17	-1.01	0
78	SLU 16	0	-91	2190	3.59	0.19	0
78	SLU 17	0	-105	2190	4.17	-1.01	0
78	SLU 18	0	-98	2304	3.83	0.23	0
78	SLU 19	0	-111	2304	4.41	-0.98	0
78	SLU 20	0	-98	2304	3.83	0.23	0
78	SLU 21	0	-111	2304	4.41	-0.98	0
78	SLU 22	0	-86	2092	3.4	0.14	0
78	SLU 23	0	-108	2091	4.37	-1.87	0
78	SLU 24	0	-86	2092	3.4	0.14	0
78	SLU 25	0	-99	2091	3.98	-1.07	0
78	SLU 26	0	-108	2091	4.37	-1.87	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
78	SLU 27	0	-86	2092	3.4	0.14	0
78	SLU 28	0	-99	2091	3.98	-1.07	0
78	SLU 29	0	-86	2092	3.4	0.14	0
78	SLU 30	0	-99	2091	3.98	-1.07	0
78	SLU 31	0	-124	2359	4.93	-1.8	0
78	SLU 32	0	-101	2359	3.96	0.21	0
78	SLU 33	0	-115	2359	4.54	-0.99	0
78	SLU 34	0	-124	2359	4.93	-1.8	0
78	SLU 35	0	-101	2359	3.96	0.21	0
78	SLU 36	0	-115	2359	4.54	-0.99	0
78	SLU 37	0	-101	2359	3.96	0.21	0
78	SLU 38	0	-115	2359	4.54	-0.99	0
78	SLU 39	0	-108	2474	4.2	0.25	0
78	SLU 40	0	-121	2474	4.79	-0.96	0
78	SLU 41	0	-108	2474	4.2	0.25	0
78	SLU 42	0	-121	2474	4.79	-0.96	0
78	SLU 43	0	-95	2441	3.81	0.15	0
78	SLU 44	0	-118	2440	4.78	-1.86	0
78	SLU 45	0	-95	2441	3.81	0.15	0
78	SLU 46	0	-109	2441	4.39	-1.06	0
78	SLU 47	0	-118	2440	4.78	-1.86	0
78	SLU 48	0	-95	2441	3.81	0.15	0
78	SLU 49	0	-109	2441	4.39	-1.06	0
78	SLU 50	0	-95	2441	3.81	0.15	0
78	SLU 51	0	-109	2441	4.39	-1.06	0
78	SLU 52	0	-133	2708	5.34	-1.79	0
78	SLU 53	0	-111	2708	4.37	0.22	0
78	SLU 54	0	-124	2708	4.95	-0.98	0
78	SLU 55	0	-133	2708	5.34	-1.79	0
78	SLU 56	0	-111	2708	4.37	0.22	0
78	SLU 57	0	-124	2708	4.95	-0.98	0
78	SLU 58	0	-111	2708	4.37	0.22	0
78	SLU 59	0	-124	2708	4.95	-0.98	0
78	SLU 60	0	-117	2823	4.61	0.26	0
78	SLU 61	0	-131	2823	5.19	-0.95	0
78	SLU 62	0	-117	2823	4.61	0.26	0
78	SLU 63	0	-131	2823	5.19	-0.95	0
78	SLU 64	0	-105	2610	4.18	0.17	0
78	SLU 65	0	-128	2610	5.15	-1.84	0
78	SLU 66	0	-105	2610	4.18	0.17	0
78	SLU 67	0	-118	2610	4.77	-1.04	0
78	SLU 68	0	-128	2610	5.15	-1.84	0
78	SLU 69	0	-105	2610	4.18	0.17	0
78	SLU 70	0	-118	2610	4.77	-1.04	0
78	SLU 71	0	-105	2610	4.18	0.17	0
78	SLU 72	0	-118	2610	4.77	-1.04	0
78	SLU 73	0	-143	2877	5.71	-1.77	0
78	SLU 74	0	-120	2878	4.74	0.24	0
78	SLU 75	0	-134	2878	5.33	-0.96	0
78	SLU 76	0	-143	2877	5.71	-1.77	0
78	SLU 77	0	-120	2878	4.74	0.24	0
78	SLU 78	0	-134	2878	5.33	-0.96	0
78	SLU 79	0	-120	2878	4.74	0.24	0
78	SLU 80	0	-134	2878	5.33	-0.96	0
78	SLU 81	0	-127	2992	4.98	0.28	0
78	SLU 82	0	-140	2992	5.57	-0.93	0
78	SLU 83	0	-127	2992	4.98	0.28	0
78	SLU 84	0	-140	2992	5.57	-0.93	0
78	SLE RA 1	0	-79	1971	3.14	0.12	0
78	SLE RA 2	0	-94	1970	3.78	-1.22	0
78	SLE RA 3	0	-79	1971	3.14	0.12	0
78	SLE RA 4	0	-88	1970	3.52	-0.68	0
78	SLE RA 5	0	-94	1970	3.78	-1.22	0
78	SLE RA 6	0	-79	1971	3.14	0.12	0
78	SLE RA 7	0	-88	1970	3.52	-0.68	0
78	SLE RA 8	0	-79	1971	3.14	0.12	0
78	SLE RA 9	0	-88	1970	3.52	-0.68	0
78	SLE RA 10	0	-104	2149	4.16	-1.17	0
78	SLE RA 11	0	-89	2149	3.51	0.17	0
78	SLE RA 12	0	-98	2149	3.9	-0.63	0
78	SLE RA 13	0	-104	2149	4.16	-1.17	0
78	SLE RA 14	0	-89	2149	3.51	0.17	0
78	SLE RA 15	0	-98	2149	3.9	-0.63	0
78	SLE RA 16	0	-89	2149	3.51	0.17	0
78	SLE RA 17	0	-98	2149	3.9	-0.63	0
78	SLE RA 18	0	-93	2225	3.67	0.2	0
78	SLE RA 19	0	-102	2225	4.06	-0.61	0
78	SLE RA 20	0	-93	2225	3.67	0.2	0
78	SLE RA 21	0	-102	2225	4.06	-0.61	0
78	SLE FR 1	0	-79	1971	3.14	0.12	0
78	SLE FR 2	0	-82	1971	3.27	-0.14	0
78	SLE FR 3	0	-79	1971	3.14	0.12	0
78	SLE FR 4	0	-86	2047	3.43	-0.12	0
78	SLE FR 5	0	-83	2047	3.3	0.15	0
78	SLE FR 6	0	-86	2098	3.4	0.16	0
78	SLE QP 1	0	-79	1971	3.14	0.12	0
78	SLE QP 2	0	-83	2047	3.3	0.15	0
78	SLD 1	-11	65	1961	-2.8	9.49	-0.03
78	SLD 2	-11	65	1961	-2.8	9.49	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
78	SLD 3	-17	-92	1976	4.47	4.82	-0.02
78	SLD 4	-17	-92	1976	4.47	4.82	-0.02
78	SLD 5	6	199	1998	-9.57	10.03	-0.02
78	SLD 6	6	199	1998	-9.57	10.03	-0.02
78	SLD 7	-15	-324	2048	14.68	-5.53	0
78	SLD 8	-15	-324	2048	14.68	-5.53	0
78	SLD 9	15	158	2046	-8.09	5.83	0
78	SLD 10	15	158	2046	-8.09	5.83	0
78	SLD 11	-6	-365	2096	16.16	-9.74	0.01
78	SLD 12	-6	-365	2096	16.16	-9.74	0.01
78	SLD 13	17	-73	2119	2.12	-4.53	0.02
78	SLD 14	17	-73	2119	2.12	-4.53	0.02
78	SLD 15	11	-230	2134	9.39	-9.2	0.02
78	SLD 16	11	-230	2134	9.39	-9.2	0.02
78	SLV 1	-28	276	1832	-11.49	23.8	-0.07
78	SLV 2	-28	276	1832	-11.49	23.8	-0.07
78	SLV 3	-44	-94	1869	5.69	12.02	-0.05
78	SLV 4	-44	-94	1869	5.69	12.02	-0.05
78	SLV 5	16	587	1925	-27.19	25.1	-0.04
78	SLV 6	16	587	1925	-27.19	25.1	-0.04
78	SLV 7	-37	-648	2051	30.07	-14.15	0
78	SLV 8	-37	-648	2051	30.07	-14.15	0
78	SLV 9	38	483	2043	-23.48	14.45	0
78	SLV 10	38	483	2043	-23.48	14.45	0
78	SLV 11	-16	-753	2169	33.79	-24.81	0.04
78	SLV 12	-16	-753	2169	33.79	-24.81	0.04
78	SLV 13	44	-72	2225	0.9	-11.73	0.05
78	SLV 14	44	-72	2225	0.9	-11.73	0.05
78	SLV 15	28	-442	2263	18.08	-23.5	0.06
78	SLV 16	28	-442	2263	18.08	-23.5	0.06
79	SLU 1	0	-65	1943	2.19	-0.46	0
79	SLU 2	-2	-86	1930	3.08	1.86	0
79	SLU 3	0	-65	1943	2.19	-0.46	0
79	SLU 4	-1	-78	1935	2.72	0.93	0
79	SLU 5	-2	-86	1930	3.08	1.86	0
79	SLU 6	0	-65	1943	2.19	-0.46	0
79	SLU 7	-1	-78	1935	2.72	0.93	0
79	SLU 8	0	-65	1943	2.19	-0.46	0
79	SLU 9	-1	-78	1935	2.72	0.93	0
79	SLU 10	-2	-105	2252	3.7	1.71	0
79	SLU 11	-1	-84	2265	2.8	-0.62	0.01
79	SLU 12	-1	-97	2257	3.34	0.78	0
79	SLU 13	-2	-105	2252	3.7	1.71	0
79	SLU 14	-1	-84	2265	2.8	-0.62	0.01
79	SLU 15	-1	-97	2257	3.34	0.78	0
79	SLU 16	-1	-84	2265	2.8	-0.62	0.01
79	SLU 17	-1	-97	2257	3.34	0.78	0
79	SLU 18	-1	-93	2403	3.07	-0.69	0.01
79	SLU 19	-1	-105	2396	3.61	0.71	0
79	SLU 20	-1	-93	2403	3.07	-0.69	0.01
79	SLU 21	-1	-105	2396	3.61	0.71	0
79	SLU 22	-1	-71	2126	2.36	-0.54	0
79	SLU 23	-2	-92	2113	3.25	1.79	0
79	SLU 24	-1	-71	2126	2.36	-0.54	0
79	SLU 25	-1	-84	2118	2.9	0.86	0
79	SLU 26	-2	-92	2113	3.25	1.79	0
79	SLU 27	-1	-71	2126	2.36	-0.54	0
79	SLU 28	-1	-84	2118	2.9	0.86	0
79	SLU 29	-1	-71	2126	2.36	-0.54	0
79	SLU 30	-1	-84	2118	2.9	0.86	0
79	SLU 31	-2	-112	2435	3.87	1.63	0
79	SLU 32	-1	-91	2448	2.98	-0.69	0.01
79	SLU 33	-1	-103	2440	3.52	0.7	0
79	SLU 34	-2	-112	2435	3.87	1.63	0
79	SLU 35	-1	-91	2448	2.98	-0.69	0.01
79	SLU 36	-1	-103	2440	3.52	0.7	0
79	SLU 37	-1	-91	2448	2.98	-0.69	0.01
79	SLU 38	-1	-103	2440	3.52	0.7	0
79	SLU 39	-1	-99	2586	3.25	-0.76	0.01
79	SLU 40	-1	-111	2578	3.78	0.63	0.01
79	SLU 41	-1	-99	2586	3.25	-0.76	0.01
79	SLU 42	-1	-111	2578	3.78	0.63	0.01
79	SLU 43	-1	-83	2463	2.78	-0.58	0.01
79	SLU 44	-2	-104	2450	3.67	1.75	0
79	SLU 45	-1	-83	2463	2.78	-0.58	0.01
79	SLU 46	-1	-95	2455	3.32	0.82	0
79	SLU 47	-2	-104	2450	3.67	1.75	0
79	SLU 48	-1	-83	2463	2.78	-0.58	0.01
79	SLU 49	-1	-95	2455	3.32	0.82	0
79	SLU 50	-1	-83	2463	2.78	-0.58	0.01
79	SLU 51	-1	-95	2455	3.32	0.82	0
79	SLU 52	-2	-123	2772	4.29	1.59	0
79	SLU 53	-1	-102	2785	3.4	-0.73	0.01
79	SLU 54	-1	-115	2778	3.93	0.66	0.01
79	SLU 55	-2	-123	2772	4.29	1.59	0
79	SLU 56	-1	-102	2785	3.4	-0.73	0.01
79	SLU 57	-1	-115	2778	3.93	0.66	0.01
79	SLU 58	-1	-102	2785	3.4	-0.73	0.01
79	SLU 59	-1	-115	2778	3.93	0.66	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
79	SLU 60	-1	-110	2923	3.67	-0.8	0.01
79	SLU 61	-1	-123	2916	4.2	0.6	0.01
79	SLU 62	-1	-110	2923	3.67	-0.8	0.01
79	SLU 63	-1	-123	2916	4.2	0.6	0.01
79	SLU 64	-1	-89	2646	2.96	-0.65	0.01
79	SLU 65	-2	-110	2633	3.85	1.67	0
79	SLU 66	-1	-89	2646	2.96	-0.65	0.01
79	SLU 67	-1	-102	2638	3.49	0.74	0
79	SLU 68	-2	-110	2633	3.85	1.67	0
79	SLU 69	-1	-89	2646	2.96	-0.65	0.01
79	SLU 70	-1	-102	2638	3.49	0.74	0
79	SLU 71	-1	-89	2646	2.96	-0.65	0.01
79	SLU 72	-1	-102	2638	3.49	0.74	0
79	SLU 73	-2	-129	2955	4.47	1.52	0.01
79	SLU 74	-1	-108	2968	3.58	-0.81	0.01
79	SLU 75	-1	-121	2960	4.11	0.59	0.01
79	SLU 76	-2	-129	2955	4.47	1.52	0.01
79	SLU 77	-1	-108	2968	3.58	-0.81	0.01
79	SLU 78	-1	-121	2960	4.11	0.59	0.01
79	SLU 79	-1	-108	2968	3.58	-0.81	0.01
79	SLU 80	-1	-121	2960	4.11	0.59	0.01
79	SLU 81	-1	-116	3106	3.84	-0.87	0.01
79	SLU 82	-2	-129	3099	4.38	0.52	0.01
79	SLU 83	-1	-116	3106	3.84	-0.87	0.01
79	SLU 84	-2	-129	3099	4.38	0.52	0.01
79	SLE RA 1	0	-67	1995	2.24	-0.48	0
79	SLE RA 2	-1	-81	1986	2.83	1.06	0
79	SLE RA 3	0	-67	1995	2.24	-0.48	0
79	SLE RA 4	-1	-75	1990	2.59	0.44	0
79	SLE RA 5	-1	-81	1986	2.83	1.06	0
79	SLE RA 6	0	-67	1995	2.24	-0.48	0
79	SLE RA 7	-1	-75	1990	2.59	0.44	0
79	SLE RA 8	0	-67	1995	2.24	-0.48	0
79	SLE RA 9	-1	-75	1990	2.59	0.44	0
79	SLE RA 10	-1	-94	2201	3.24	0.96	0
79	SLE RA 11	-1	-80	2210	2.65	-0.59	0.01
79	SLE RA 12	-1	-88	2205	3.01	0.34	0
79	SLE RA 13	-1	-94	2201	3.24	0.96	0
79	SLE RA 14	-1	-80	2210	2.65	-0.59	0.01
79	SLE RA 15	-1	-88	2205	3.01	0.34	0
79	SLE RA 16	-1	-80	2210	2.65	-0.59	0.01
79	SLE RA 17	-1	-88	2205	3.01	0.34	0
79	SLE RA 18	-1	-85	2302	2.83	-0.63	0.01
79	SLE RA 19	-1	-94	2297	3.18	0.3	0
79	SLE RA 20	-1	-85	2302	2.83	-0.63	0.01
79	SLE RA 21	-1	-94	2297	3.18	0.3	0
79	SLE FR 1	0	-67	1995	2.24	-0.48	0
79	SLE FR 2	-1	-70	1993	2.35	-0.17	0
79	SLE FR 3	0	-67	1995	2.24	-0.48	0
79	SLE FR 4	-1	-75	2085	2.53	-0.22	0
79	SLE FR 5	0	-72	2087	2.41	-0.53	0
79	SLE FR 6	-1	-76	2149	2.53	-0.56	0.01
79	SLE QP 1	0	-67	1995	2.24	-0.48	0
79	SLE QP 2	0	-72	2087	2.41	-0.53	0
79	SLD 1	-10	53	1889	-2.7	7.27	-0.02
79	SLD 2	-10	53	1889	-2.7	7.27	-0.02
79	SLD 3	-16	-103	1880	3.88	11.28	-0.03
79	SLD 4	-16	-103	1880	3.88	11.28	-0.03
79	SLD 5	6	201	2043	-9.1	-4.29	0
79	SLD 6	6	201	2043	-9.1	-4.29	0
79	SLD 7	-15	-318	2010	12.83	9.11	-0.01
79	SLD 8	-15	-318	2010	12.83	9.11	-0.01
79	SLD 9	14	173	2164	-8.01	-10.17	0.02
79	SLD 10	14	173	2164	-8.01	-10.17	0.02
79	SLD 11	-7	-346	2132	13.93	3.23	0
79	SLD 12	-7	-346	2132	13.93	3.23	0
79	SLD 13	15	-42	2295	0.95	-12.34	0.04
79	SLD 14	15	-42	2295	0.95	-12.34	0.04
79	SLD 15	9	-198	2285	7.53	-8.32	0.03
79	SLD 16	9	-198	2285	7.53	-8.32	0.03
79	SLV 1	-24	225	1622	-9.69	19.59	-0.06
79	SLV 2	-24	225	1622	-9.69	19.59	-0.06
79	SLV 3	-39	-143	1597	5.84	29.5	-0.07
79	SLV 4	-39	-143	1597	5.84	29.5	-0.07
79	SLV 5	15	574	1984	-24.78	-9.52	0
79	SLV 6	15	574	1984	-24.78	-9.52	0
79	SLV 7	-35	-651	1904	27.01	23.51	-0.04
79	SLV 8	-35	-651	1904	27.01	23.51	-0.04
79	SLV 9	34	506	2271	-22.18	-24.57	0.05
79	SLV 10	34	506	2271	-22.18	-24.57	0.05
79	SLV 11	-16	-719	2190	29.61	8.46	0.01
79	SLV 12	-16	-719	2190	29.61	8.46	0.01
79	SLV 13	39	-2	2577	-1.02	-30.56	0.08
79	SLV 14	39	-2	2577	-1.02	-30.56	0.08
79	SLV 15	23	-370	2553	14.52	-20.65	0.07
79	SLV 16	23	-370	2553	14.52	-20.65	0.07
80	SLU 1	0	-118	1887	5.57	0.08	0
80	SLU 2	-1	-138	1879	6.47	-3.28	0
80	SLU 3	0	-118	1887	5.57	0.08	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
80	SLU 4	-1	-130	1883	6.11	-1.94	0
80	SLU 5	-1	-138	1879	6.47	-3.28	0
80	SLU 6	0	-118	1887	5.57	0.08	0
80	SLU 7	-1	-130	1883	6.11	-1.94	0
80	SLU 8	0	-118	1887	5.57	0.08	0
80	SLU 9	-1	-130	1883	6.11	-1.94	0
80	SLU 10	-1	-156	2138	7.38	-3.22	0
80	SLU 11	0	-136	2146	6.48	0.14	0
80	SLU 12	-1	-148	2141	7.02	-1.88	0
80	SLU 13	-1	-156	2138	7.38	-3.22	0
80	SLU 14	0	-136	2146	6.48	0.14	0
80	SLU 15	-1	-148	2141	7.02	-1.88	0
80	SLU 16	0	-136	2146	6.48	0.14	0
80	SLU 17	-1	-148	2141	7.02	-1.88	0
80	SLU 18	0	-143	2257	6.86	0.17	0
80	SLU 19	-1	-155	2252	7.41	-1.85	0
80	SLU 20	0	-143	2257	6.86	0.17	0
80	SLU 21	-1	-155	2252	7.41	-1.85	0
80	SLU 22	0	-130	2052	6.2	0.1	0
80	SLU 23	-1	-150	2044	7.1	-3.27	0
80	SLU 24	0	-130	2052	6.2	0.1	0
80	SLU 25	-1	-142	2047	6.74	-1.92	0
80	SLU 26	-1	-150	2044	7.1	-3.27	0
80	SLU 27	0	-130	2052	6.2	0.1	0
80	SLU 28	-1	-142	2047	6.74	-1.92	0
80	SLU 29	0	-130	2052	6.2	0.1	0
80	SLU 30	-1	-142	2047	6.74	-1.92	0
80	SLU 31	-1	-169	2303	8	-3.2	0
80	SLU 32	0	-149	2311	7.1	0.16	0
80	SLU 33	-1	-161	2306	7.64	-1.86	0
80	SLU 34	-1	-169	2303	8	-3.2	0
80	SLU 35	0	-149	2311	7.1	0.16	0
80	SLU 36	-1	-161	2306	7.64	-1.86	0
80	SLU 37	0	-149	2311	7.1	0.16	0
80	SLU 38	-1	-161	2306	7.64	-1.86	0
80	SLU 39	0	-156	2422	7.49	0.19	0
80	SLU 40	-1	-168	2417	8.03	-1.83	0
80	SLU 41	0	-156	2422	7.49	0.19	0
80	SLU 42	-1	-168	2417	8.03	-1.83	0
80	SLU 43	0	-148	2397	7.03	0.1	0
80	SLU 44	-1	-168	2389	7.93	-3.27	0
80	SLU 45	0	-148	2397	7.03	0.1	0
80	SLU 46	-1	-160	2392	7.57	-1.92	0
80	SLU 47	-1	-168	2389	7.93	-3.27	0
80	SLU 48	0	-148	2397	7.03	0.1	0
80	SLU 49	-1	-160	2392	7.57	-1.92	0
80	SLU 50	0	-148	2397	7.03	0.1	0
80	SLU 51	-1	-160	2392	7.57	-1.92	0
80	SLU 52	-1	-187	2648	8.83	-3.2	0
80	SLU 53	0	-167	2656	7.93	0.16	0
80	SLU 54	-1	-179	2651	8.47	-1.86	0
80	SLU 55	-1	-187	2648	8.83	-3.2	0
80	SLU 56	0	-167	2656	7.93	0.16	0
80	SLU 57	-1	-179	2651	8.47	-1.86	0
80	SLU 58	0	-167	2656	7.93	0.16	0
80	SLU 59	-1	-179	2651	8.47	-1.86	0
80	SLU 60	0	-174	2767	8.32	0.19	0
80	SLU 61	-1	-186	2762	8.86	-1.83	0
80	SLU 62	0	-174	2767	8.32	0.19	0
80	SLU 63	-1	-186	2762	8.86	-1.83	0
80	SLU 64	0	-161	2562	7.65	0.12	0
80	SLU 65	-1	-181	2554	8.55	-3.25	0
80	SLU 66	0	-161	2562	7.65	0.12	0
80	SLU 67	-1	-173	2557	8.19	-1.9	0
80	SLU 68	-1	-181	2554	8.55	-3.25	0
80	SLU 69	0	-161	2562	7.65	0.12	0
80	SLU 70	-1	-173	2557	8.19	-1.9	0
80	SLU 71	0	-161	2562	7.65	0.12	0
80	SLU 72	-1	-173	2557	8.19	-1.9	0
80	SLU 73	-1	-199	2813	9.46	-3.19	0
80	SLU 74	0	-179	2821	8.56	0.18	0
80	SLU 75	-1	-191	2816	9.1	-1.84	0
80	SLU 76	-1	-199	2813	9.46	-3.19	0
80	SLU 77	0	-179	2821	8.56	0.18	0
80	SLU 78	-1	-191	2816	9.1	-1.84	0
80	SLU 79	0	-179	2821	8.56	0.18	0
80	SLU 80	-1	-191	2816	9.1	-1.84	0
80	SLU 81	0	-187	2932	8.95	0.21	0
80	SLU 82	-1	-199	2927	9.49	-1.81	0
80	SLU 83	0	-187	2932	8.95	0.21	0
80	SLU 84	-1	-199	2927	9.49	-1.81	0
80	SLE RA 1	0	-121	1934	5.75	0.09	0
80	SLE RA 2	-1	-135	1929	6.35	-2.16	0
80	SLE RA 3	0	-121	1934	5.75	0.09	0
80	SLE RA 4	0	-129	1931	6.11	-1.26	0
80	SLE RA 5	-1	-135	1929	6.35	-2.16	0
80	SLE RA 6	0	-121	1934	5.75	0.09	0
80	SLE RA 7	0	-129	1931	6.11	-1.26	0
80	SLE RA 8	0	-121	1934	5.75	0.09	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
80	SLE RA 9	0	-129	1931	6.11	-1.26	0
80	SLE RA 10	-1	-147	2102	6.95	-2.12	0
80	SLE RA 11	0	-133	2107	6.35	0.13	0
80	SLE RA 12	0	-141	2104	6.71	-1.22	0
80	SLE RA 13	-1	-147	2102	6.95	-2.12	0
80	SLE RA 14	0	-133	2107	6.35	0.13	0
80	SLE RA 15	0	-141	2104	6.71	-1.22	0
80	SLE RA 16	0	-133	2107	6.35	0.13	0
80	SLE RA 17	0	-141	2104	6.71	-1.22	0
80	SLE RA 18	0	-138	2181	6.61	0.15	0
80	SLE RA 19	0	-146	2178	6.97	-1.2	0
80	SLE RA 20	0	-138	2181	6.61	0.15	0
80	SLE RA 21	0	-146	2178	6.97	-1.2	0
80	SLE FR 1	0	-121	1934	5.75	0.09	0
80	SLE FR 2	0	-124	1933	5.87	-0.36	0
80	SLE FR 3	0	-121	1934	5.75	0.09	0
80	SLE FR 4	0	-129	2007	6.13	-0.34	0
80	SLE FR 5	0	-126	2008	6.01	0.1	0
80	SLE FR 6	0	-130	2058	6.18	0.12	0
80	SLE QP 1	0	-121	1934	5.75	0.09	0
80	SLE QP 2	0	-126	2008	6.01	0.1	0
80	SLD 1	-6	-1	2043	0.44	17.67	-0.03
80	SLD 2	-6	-1	2043	0.44	17.67	-0.03
80	SLD 3	-13	-158	2051	7.64	11.41	-0.03
80	SLD 4	-13	-158	2051	7.64	11.41	-0.03
80	SLD 5	9	149	2007	-6.6	14.86	-0.02
80	SLD 6	9	149	2007	-6.6	14.86	-0.02
80	SLD 7	-14	-373	2033	17.43	-6	0
80	SLD 8	-14	-373	2033	17.43	-6	0
80	SLD 9	14	121	1984	-5.42	6.2	0
80	SLD 10	14	121	1984	-5.42	6.2	0
80	SLD 11	-9	-402	2010	18.61	-14.66	0.02
80	SLD 12	-9	-402	2010	18.61	-14.66	0.02
80	SLD 13	13	-95	1966	4.37	-11.2	0.03
80	SLD 14	13	-95	1966	4.37	-11.2	0.03
80	SLD 15	6	-252	1974	11.58	-17.46	0.03
80	SLD 16	6	-252	1974	11.58	-17.46	0.03
80	SLV 1	-15	177	2091	-7.42	44.69	-0.08
80	SLV 2	-15	177	2091	-7.42	44.69	-0.08
80	SLV 3	-32	-193	2111	9.6	28.87	-0.07
80	SLV 4	-32	-193	2111	9.6	28.87	-0.07
80	SLV 5	22	525	2003	-23.83	37.46	-0.05
80	SLV 6	22	525	2003	-23.83	37.46	-0.05
80	SLV 7	-36	-707	2069	32.9	-15.25	0
80	SLV 8	-36	-707	2069	32.9	-15.25	0
80	SLV 9	36	455	1948	-20.88	15.46	0
80	SLV 10	36	455	1948	-20.88	15.46	0
80	SLV 11	-22	-778	2013	35.85	-37.26	0.05
80	SLV 12	-22	-778	2013	35.85	-37.26	0.05
80	SLV 13	32	-60	1906	2.42	-28.67	0.07
80	SLV 14	32	-60	1906	2.42	-28.67	0.07
80	SLV 15	15	-429	1925	19.44	-44.48	0.08
80	SLV 16	15	-429	1925	19.44	-44.48	0.08
81	SLU 1	0	-108	1909	4.77	-0.27	0
81	SLU 2	0	-129	1896	5.66	3.98	0
81	SLU 3	0	-108	1909	4.77	-0.27	0
81	SLU 4	0	-121	1901	5.31	2.28	0
81	SLU 5	0	-129	1896	5.66	3.98	0
81	SLU 6	0	-108	1909	4.77	-0.27	0
81	SLU 7	0	-121	1901	5.31	2.28	0
81	SLU 8	0	-108	1909	4.77	-0.27	0
81	SLU 9	0	-121	1901	5.31	2.28	0
81	SLU 10	0	-156	2205	6.83	3.88	0
81	SLU 11	0	-135	2217	5.94	-0.36	0
81	SLU 12	0	-148	2210	6.47	2.18	0
81	SLU 13	0	-156	2205	6.83	3.88	0
81	SLU 14	0	-135	2217	5.94	-0.36	0
81	SLU 15	0	-148	2210	6.47	2.18	0
81	SLU 16	0	-135	2217	5.94	-0.36	0
81	SLU 17	0	-148	2210	6.47	2.18	0
81	SLU 18	0	-146	2350	6.44	-0.4	0
81	SLU 19	0	-159	2342	6.97	2.14	0
81	SLU 20	0	-146	2350	6.44	-0.4	0
81	SLU 21	0	-159	2342	6.97	2.14	0
81	SLU 22	0	-119	2088	5.29	-0.32	0
81	SLU 23	0	-140	2075	6.17	3.93	0
81	SLU 24	0	-119	2088	5.29	-0.32	0
81	SLU 25	0	-132	2080	5.82	2.23	0
81	SLU 26	0	-140	2075	6.17	3.93	0
81	SLU 27	0	-119	2088	5.29	-0.32	0
81	SLU 28	0	-132	2080	5.82	2.23	0
81	SLU 29	0	-119	2088	5.29	-0.32	0
81	SLU 30	0	-132	2080	5.82	2.23	0
81	SLU 31	0	-167	2384	7.34	3.83	0
81	SLU 32	0	-146	2396	6.45	-0.41	0
81	SLU 33	0	-159	2389	6.98	2.14	0
81	SLU 34	0	-167	2384	7.34	3.83	0
81	SLU 35	0	-146	2396	6.45	-0.41	0
81	SLU 36	0	-159	2389	6.98	2.14	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
81	SLU 37	0	-146	2396	6.45	-0.41	0
81	SLU 38	0	-159	2389	6.98	2.14	0
81	SLU 39	0	-158	2528	6.95	-0.45	0
81	SLU 40	0	-170	2521	7.48	2.09	0
81	SLU 41	0	-158	2528	6.95	-0.45	0
81	SLU 42	0	-170	2521	7.48	2.09	0
81	SLU 43	0	-137	2420	6.03	-0.33	0
81	SLU 44	0	-158	2408	6.92	3.91	0
81	SLU 45	0	-137	2420	6.03	-0.33	0
81	SLU 46	0	-149	2413	6.56	2.21	0
81	SLU 47	0	-158	2408	6.92	3.91	0
81	SLU 48	0	-137	2420	6.03	-0.33	0
81	SLU 49	0	-149	2413	6.56	2.21	0
81	SLU 50	0	-137	2420	6.03	-0.33	0
81	SLU 51	0	-149	2413	6.56	2.21	0
81	SLU 52	0	-185	2716	8.08	3.82	0
81	SLU 53	0	-164	2729	7.19	-0.43	0
81	SLU 54	0	-176	2721	7.73	2.12	0
81	SLU 55	0	-185	2716	8.08	3.82	0
81	SLU 56	0	-164	2729	7.19	-0.43	0
81	SLU 57	0	-176	2721	7.73	2.12	0
81	SLU 58	0	-164	2729	7.19	-0.43	0
81	SLU 59	0	-176	2721	7.73	2.12	0
81	SLU 60	0	-175	2861	7.69	-0.47	0
81	SLU 61	0	-188	2853	8.23	2.08	0
81	SLU 62	0	-175	2861	7.69	-0.47	0
81	SLU 63	0	-188	2853	8.23	2.08	0
81	SLU 64	0	-148	2599	6.54	-0.38	0
81	SLU 65	0	-169	2586	7.43	3.86	0
81	SLU 66	0	-148	2599	6.54	-0.38	0
81	SLU 67	0	-161	2591	7.08	2.17	0
81	SLU 68	0	-169	2586	7.43	3.86	0
81	SLU 69	0	-148	2599	6.54	-0.38	0
81	SLU 70	0	-161	2591	7.08	2.17	0
81	SLU 71	0	-148	2599	6.54	-0.38	0
81	SLU 72	0	-161	2591	7.08	2.17	0
81	SLU 73	0	-196	2895	8.59	3.77	0
81	SLU 74	0	-175	2907	7.71	-0.48	0
81	SLU 75	0	-187	2900	8.24	2.07	0
81	SLU 76	0	-196	2895	8.59	3.77	0
81	SLU 77	0	-175	2907	7.71	-0.48	0
81	SLU 78	0	-187	2900	8.24	2.07	0
81	SLU 79	0	-175	2907	7.71	-0.48	0
81	SLU 80	0	-187	2900	8.24	2.07	0
81	SLU 81	0	-186	3040	8.2	-0.52	0
81	SLU 82	0	-199	3032	8.74	2.03	0
81	SLU 83	0	-186	3040	8.2	-0.52	0
81	SLU 84	0	-199	3032	8.74	2.03	0
81	SLE RA 1	0	-111	1960	4.92	-0.28	0
81	SLE RA 2	0	-125	1952	5.51	2.55	0
81	SLE RA 3	0	-111	1960	4.92	-0.28	0
81	SLE RA 4	0	-120	1955	5.28	1.42	0
81	SLE RA 5	0	-125	1952	5.51	2.55	0
81	SLE RA 6	0	-111	1960	4.92	-0.28	0
81	SLE RA 7	0	-120	1955	5.28	1.42	0
81	SLE RA 8	0	-111	1960	4.92	-0.28	0
81	SLE RA 9	0	-120	1955	5.28	1.42	0
81	SLE RA 10	0	-143	2157	6.29	2.48	0
81	SLE RA 11	0	-129	2166	5.7	-0.35	0
81	SLE RA 12	0	-138	2161	6.05	1.35	0
81	SLE RA 13	0	-143	2157	6.29	2.48	0
81	SLE RA 14	0	-129	2166	5.7	-0.35	0
81	SLE RA 15	0	-138	2161	6.05	1.35	0
81	SLE RA 16	0	-129	2166	5.7	-0.35	0
81	SLE RA 17	0	-138	2161	6.05	1.35	0
81	SLE RA 18	0	-137	2254	6.03	-0.37	0
81	SLE RA 19	0	-145	2249	6.38	1.33	0
81	SLE RA 20	0	-137	2254	6.03	-0.37	0
81	SLE RA 21	0	-145	2249	6.38	1.33	0
81	SLE FR 1	0	-111	1960	4.92	-0.28	0
81	SLE FR 2	0	-114	1958	5.04	0.28	0
81	SLE FR 3	0	-111	1960	4.92	-0.28	0
81	SLE FR 4	0	-122	2046	5.37	0.26	0
81	SLE FR 5	0	-119	2048	5.25	-0.31	0
81	SLE FR 6	0	-124	2107	5.47	-0.33	0
81	SLE QP 1	0	-111	1960	4.92	-0.28	0
81	SLE QP 2	0	-119	2048	5.25	-0.31	0
81	SLD 1	14	5	1884	0.01	16.09	-0.02
81	SLD 2	14	5	1884	0.01	16.09	-0.02
81	SLD 3	7	-151	1876	6.63	21.48	-0.03
81	SLD 4	7	-151	1876	6.63	21.48	-0.03
81	SLD 5	14	156	2012	-6.35	-3.56	0
81	SLD 6	14	156	2012	-6.35	-3.56	0
81	SLD 7	-8	-366	1984	15.7	14.39	-0.01
81	SLD 8	-8	-366	1984	15.7	14.39	-0.01
81	SLD 9	8	128	2112	-5.2	-15.01	0.01
81	SLD 10	8	128	2112	-5.2	-15.01	0.01
81	SLD 11	-14	-394	2084	16.86	2.93	0
81	SLD 12	-14	-394	2084	16.86	2.93	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
81	SLD 13	-8	-87	2220	3.87	-22.1	0.03
81	SLD 14	-8	-87	2220	3.87	-22.1	0.03
81	SLD 15	-14	-243	2212	10.49	-16.71	0.02
81	SLD 16	-14	-243	2212	10.49	-16.71	0.02
81	SLV 1	35	176	1663	-7.16	41.74	-0.05
81	SLV 2	35	176	1663	-7.16	41.74	-0.05
81	SLV 3	19	-194	1643	8.47	55.26	-0.06
81	SLV 4	19	-194	1643	8.47	55.26	-0.06
81	SLV 5	35	530	1964	-22.17	-8.2	0
81	SLV 6	35	530	1964	-22.17	-8.2	0
81	SLV 7	-19	-702	1895	29.92	36.87	-0.03
81	SLV 8	-19	-702	1895	29.92	36.87	-0.03
81	SLV 9	19	464	2201	-19.41	-37.49	0.04
81	SLV 10	19	464	2201	-19.41	-37.49	0.04
81	SLV 11	-35	-768	2132	32.67	7.58	0
81	SLV 12	-35	-768	2132	32.67	7.58	0
81	SLV 13	-19	-44	2453	2.04	-55.89	0.07
81	SLV 14	-19	-44	2453	2.04	-55.89	0.07
81	SLV 15	-35	-414	2433	17.66	-42.36	0.06
81	SLV 16	-35	-414	2433	17.66	-42.36	0.06
82	SLU 1	0	302	1219	-8.28	0.04	-0.01
82	SLU 2	2	233	1035	-5.72	0.06	-0.03
82	SLU 3	0	302	1219	-8.28	0.04	-0.01
82	SLU 4	1	261	1109	-6.75	0.05	-0.02
82	SLU 5	2	233	1035	-5.72	0.06	-0.03
82	SLU 6	0	302	1219	-8.28	0.04	-0.01
82	SLU 7	1	261	1109	-6.75	0.05	-0.02
82	SLU 8	0	302	1219	-8.28	0.04	-0.01
82	SLU 9	1	261	1109	-6.75	0.05	-0.02
82	SLU 10	2	336	1453	-8.54	0.08	-0.03
82	SLU 11	0	405	1637	-11.09	0.06	-0.01
82	SLU 12	1	363	1527	-9.56	0.07	-0.02
82	SLU 13	2	336	1453	-8.54	0.08	-0.03
82	SLU 14	0	405	1637	-11.09	0.06	-0.01
82	SLU 15	1	363	1527	-9.56	0.07	-0.02
82	SLU 16	0	405	1637	-11.09	0.06	-0.01
82	SLU 17	1	363	1527	-9.56	0.07	-0.02
82	SLU 18	0	449	1816	-12.3	0.07	-0.01
82	SLU 19	2	407	1706	-10.77	0.08	-0.02
82	SLU 20	0	449	1816	-12.3	0.07	-0.01
82	SLU 21	2	407	1706	-10.77	0.08	-0.02
82	SLU 22	0	380	1534	-10.44	0.05	-0.01
82	SLU 23	2	311	1351	-7.89	0.07	-0.03
82	SLU 24	0	380	1534	-10.44	0.05	-0.01
82	SLU 25	1	339	1424	-8.91	0.07	-0.02
82	SLU 26	2	311	1351	-7.89	0.07	-0.03
82	SLU 27	0	380	1534	-10.44	0.05	-0.01
82	SLU 28	1	339	1424	-8.91	0.07	-0.02
82	SLU 29	0	380	1534	-10.44	0.05	-0.01
82	SLU 30	1	339	1424	-8.91	0.07	-0.02
82	SLU 31	2	414	1769	-10.7	0.09	-0.03
82	SLU 32	0	483	1952	-13.26	0.07	-0.01
82	SLU 33	2	441	1842	-11.73	0.08	-0.02
82	SLU 34	2	414	1769	-10.7	0.09	-0.03
82	SLU 35	0	483	1952	-13.26	0.07	-0.01
82	SLU 36	2	441	1842	-11.73	0.08	-0.02
82	SLU 37	0	483	1952	-13.26	0.07	-0.01
82	SLU 38	2	441	1842	-11.73	0.08	-0.02
82	SLU 39	0	527	2131	-14.46	0.08	-0.01
82	SLU 40	2	485	2021	-12.93	0.09	-0.02
82	SLU 41	0	527	2131	-14.46	0.08	-0.01
82	SLU 42	2	485	2021	-12.93	0.09	-0.02
82	SLU 43	0	366	1476	-10.02	0.05	-0.01
82	SLU 44	2	297	1293	-7.47	0.07	-0.03
82	SLU 45	0	366	1476	-10.02	0.05	-0.01
82	SLU 46	1	324	1366	-8.49	0.06	-0.02
82	SLU 47	2	297	1293	-7.47	0.07	-0.03
82	SLU 48	0	366	1476	-10.02	0.05	-0.01
82	SLU 49	1	324	1366	-8.49	0.06	-0.02
82	SLU 50	0	366	1476	-10.02	0.05	-0.01
82	SLU 51	1	324	1366	-8.49	0.06	-0.02
82	SLU 52	2	400	1711	-10.28	0.09	-0.03
82	SLU 53	0	468	1894	-12.84	0.07	-0.01
82	SLU 54	2	427	1784	-11.3	0.08	-0.02
82	SLU 55	2	400	1711	-10.28	0.09	-0.03
82	SLU 56	0	468	1894	-12.84	0.07	-0.01
82	SLU 57	2	427	1784	-11.3	0.08	-0.02
82	SLU 58	0	468	1894	-12.84	0.07	-0.01
82	SLU 59	2	427	1784	-11.3	0.08	-0.02
82	SLU 60	0	512	2073	-14.04	0.07	-0.01
82	SLU 61	2	471	1963	-12.51	0.09	-0.02
82	SLU 62	0	512	2073	-14.04	0.07	-0.01
82	SLU 63	2	471	1963	-12.51	0.09	-0.02
82	SLU 64	0	444	1791	-12.18	0.06	-0.01
82	SLU 65	2	375	1608	-9.63	0.08	-0.03
82	SLU 66	0	444	1791	-12.18	0.06	-0.01
82	SLU 67	2	402	1681	-10.65	0.07	-0.02
82	SLU 68	2	375	1608	-9.63	0.08	-0.03
82	SLU 69	0	444	1791	-12.18	0.06	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
82	SLU 70	2	402	1681	-10.65	0.07	-0.02
82	SLU 71	0	444	1791	-12.18	0.06	-0.01
82	SLU 72	2	402	1681	-10.65	0.07	-0.02
82	SLU 73	2	478	2026	-12.45	0.1	-0.03
82	SLU 74	0	546	2210	-15	0.08	-0.01
82	SLU 75	2	505	2100	-13.47	0.09	-0.02
82	SLU 76	2	478	2026	-12.45	0.1	-0.03
82	SLU 77	0	546	2210	-15	0.08	-0.01
82	SLU 78	2	505	2100	-13.47	0.09	-0.02
82	SLU 79	0	546	2210	-15	0.08	-0.01
82	SLU 80	2	505	2100	-13.47	0.09	-0.02
82	SLU 81	0	590	2389	-16.21	0.09	-0.01
82	SLU 82	2	549	2279	-14.67	0.1	-0.03
82	SLU 83	0	590	2389	-16.21	0.09	-0.01
82	SLU 84	2	549	2279	-14.67	0.1	-0.03
82	SLE RA 1	0	324	1309	-8.9	0.04	-0.01
82	SLE RA 2	2	278	1186	-7.19	0.06	-0.02
82	SLE RA 3	0	324	1309	-8.9	0.04	-0.01
82	SLE RA 4	1	297	1235	-7.87	0.05	-0.02
82	SLE RA 5	2	278	1186	-7.19	0.06	-0.02
82	SLE RA 6	0	324	1309	-8.9	0.04	-0.01
82	SLE RA 7	1	297	1235	-7.87	0.05	-0.02
82	SLE RA 8	0	324	1309	-8.9	0.04	-0.01
82	SLE RA 9	1	297	1235	-7.87	0.05	-0.02
82	SLE RA 10	2	347	1465	-9.07	0.07	-0.02
82	SLE RA 11	0	393	1587	-10.77	0.06	-0.01
82	SLE RA 12	1	365	1514	-9.75	0.06	-0.02
82	SLE RA 13	2	347	1465	-9.07	0.07	-0.02
82	SLE RA 14	0	393	1587	-10.77	0.06	-0.01
82	SLE RA 15	1	365	1514	-9.75	0.06	-0.02
82	SLE RA 16	0	393	1587	-10.77	0.06	-0.01
82	SLE RA 17	1	365	1514	-9.75	0.06	-0.02
82	SLE RA 18	0	422	1707	-11.58	0.06	-0.01
82	SLE RA 19	1	394	1634	-10.56	0.07	-0.02
82	SLE RA 20	0	422	1707	-11.58	0.06	-0.01
82	SLE RA 21	1	394	1634	-10.56	0.07	-0.02
82	SLE FR 1	0	324	1309	-8.9	0.04	-0.01
82	SLE FR 2	0	315	1284	-8.56	0.05	-0.01
82	SLE FR 3	0	324	1309	-8.9	0.04	-0.01
82	SLE FR 4	0	344	1404	-9.36	0.05	-0.01
82	SLE FR 5	0	353	1428	-9.7	0.05	-0.01
82	SLE FR 6	0	373	1508	-10.24	0.05	-0.01
82	SLE QP 1	0	324	1309	-8.9	0.04	-0.01
82	SLE QP 2	0	353	1428	-9.7	0.05	-0.01
82	SLD 1	-36	370	1480	-10.28	9.3	-1.26
82	SLD 2	-36	370	1480	-10.28	9.3	-1.26
82	SLD 3	-32	282	1221	-7.06	7.75	-1
82	SLD 4	-32	282	1221	-7.06	7.75	-1
82	SLD 5	-17	492	1836	-14.76	5.18	-0.78
82	SLD 6	-17	492	1836	-14.76	5.18	-0.78
82	SLD 7	-3	198	973	-4.02	0	0.09
82	SLD 8	-3	198	973	-4.02	0	0.09
82	SLD 9	4	508	1883	-15.38	0.09	-0.11
82	SLD 10	4	508	1883	-15.38	0.09	-0.11
82	SLD 11	17	215	1020	-4.64	-5.08	0.77
82	SLD 12	17	215	1020	-4.64	-5.08	0.77
82	SLD 13	32	425	1636	-12.34	-7.65	0.98
82	SLD 14	32	425	1636	-12.34	-7.65	0.98
82	SLD 15	36	337	1377	-9.12	-9.2	1.25
82	SLD 16	36	337	1377	-9.12	-9.2	1.25
82	SLV 1	-93	388	1539	-10.92	23.62	-3.2
82	SLV 2	-93	388	1539	-10.92	23.62	-3.2
82	SLV 3	-82	181	930	-3.32	19.69	-2.53
82	SLV 4	-82	181	930	-3.32	19.69	-2.53
82	SLV 5	-43	679	2386	-21.59	13.09	-1.98
82	SLV 6	-43	679	2386	-21.59	13.09	-1.98
82	SLV 7	-9	-13	355	3.74	-0.02	0.25
82	SLV 8	-9	-13	355	3.74	-0.02	0.25
82	SLV 9	9	720	2502	-23.14	0.12	-0.27
82	SLV 10	9	720	2502	-23.14	0.12	-0.27
82	SLV 11	43	28	471	2.19	-12.99	1.97
82	SLV 12	43	28	471	2.19	-12.99	1.97
82	SLV 13	83	526	1926	-16.08	-19.59	2.52
82	SLV 14	83	526	1926	-16.08	-19.59	2.52
82	SLV 15	93	319	1317	-8.48	-23.53	3.19
82	SLV 16	93	319	1317	-8.48	-23.53	3.19
83	SLU 1	0	-149	1846	6.08	0.08	0
83	SLU 2	-3	-166	1834	6.83	-4.74	0
83	SLU 3	0	-149	1846	6.08	0.08	0
83	SLU 4	-2	-159	1839	6.53	-2.81	0
83	SLU 5	-3	-166	1834	6.83	-4.74	0
83	SLU 6	0	-149	1846	6.08	0.08	0
83	SLU 7	-2	-159	1839	6.53	-2.81	0
83	SLU 8	0	-149	1846	6.08	0.08	0
83	SLU 9	-2	-159	1839	6.53	-2.81	0
83	SLU 10	-2	-184	2086	7.46	-4.69	0
83	SLU 11	0	-167	2099	6.7	0.13	0
83	SLU 12	-1	-177	2091	7.15	-2.76	0
83	SLU 13	-2	-184	2086	7.46	-4.69	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
83	SLU 14	0	-167	2099	6.7	0.13	0
83	SLU 15	-1	-177	2091	7.15	-2.76	0
83	SLU 16	0	-167	2099	6.7	0.13	0
83	SLU 17	-1	-177	2091	7.15	-2.76	0
83	SLU 18	0	-174	2207	6.97	0.16	0
83	SLU 19	-1	-184	2199	7.42	-2.74	0
83	SLU 20	0	-174	2207	6.97	0.16	0
83	SLU 21	-1	-184	2199	7.42	-2.74	0
83	SLU 22	0	-163	2006	6.6	0.1	0
83	SLU 23	-3	-180	1994	7.36	-4.73	0
83	SLU 24	0	-163	2006	6.6	0.1	0
83	SLU 25	-2	-173	1999	7.06	-2.8	0
83	SLU 26	-3	-180	1994	7.36	-4.73	0
83	SLU 27	0	-163	2006	6.6	0.1	0
83	SLU 28	-2	-173	1999	7.06	-2.8	0
83	SLU 29	0	-163	2006	6.6	0.1	0
83	SLU 30	-2	-173	1999	7.06	-2.8	0
83	SLU 31	-2	-198	2246	7.98	-4.67	0
83	SLU 32	0	-180	2258	7.23	0.15	0
83	SLU 33	-1	-191	2251	7.68	-2.74	0
83	SLU 34	-2	-198	2246	7.98	-4.67	0
83	SLU 35	0	-180	2258	7.23	0.15	0
83	SLU 36	-1	-191	2251	7.68	-2.74	0
83	SLU 37	0	-180	2258	7.23	0.15	0
83	SLU 38	-1	-191	2251	7.68	-2.74	0
83	SLU 39	0	-188	2367	7.49	0.18	0
83	SLU 40	-1	-198	2359	7.95	-2.72	0
83	SLU 41	0	-188	2367	7.49	0.18	0
83	SLU 42	-1	-198	2359	7.95	-2.72	0
83	SLU 43	0	-189	2345	7.72	0.1	0
83	SLU 44	-3	-206	2333	8.48	-4.73	0
83	SLU 45	0	-189	2345	7.72	0.1	0
83	SLU 46	-2	-199	2338	8.17	-2.8	0
83	SLU 47	-3	-206	2333	8.48	-4.73	0
83	SLU 48	0	-189	2345	7.72	0.1	0
83	SLU 49	-2	-199	2338	8.17	-2.8	0
83	SLU 50	0	-189	2345	7.72	0.1	0
83	SLU 51	-2	-199	2338	8.17	-2.8	0
83	SLU 52	-2	-224	2585	9.1	-4.67	0
83	SLU 53	0	-207	2598	8.34	0.15	0
83	SLU 54	-1	-217	2590	8.8	-2.74	0
83	SLU 55	-2	-224	2585	9.1	-4.67	0
83	SLU 56	0	-207	2598	8.34	0.15	0
83	SLU 57	-1	-217	2590	8.8	-2.74	0
83	SLU 58	0	-207	2598	8.34	0.15	0
83	SLU 59	-1	-217	2590	8.8	-2.74	0
83	SLU 60	0	-214	2706	8.61	0.17	0
83	SLU 61	-1	-224	2698	9.06	-2.72	0
83	SLU 62	0	-214	2706	8.61	0.17	0
83	SLU 63	-1	-224	2698	9.06	-2.72	0
83	SLU 64	0	-203	2505	8.25	0.11	0
83	SLU 65	-3	-220	2493	9	-4.71	0
83	SLU 66	0	-203	2505	8.25	0.11	0
83	SLU 67	-2	-213	2498	8.7	-2.78	0
83	SLU 68	-3	-220	2493	9	-4.71	0
83	SLU 69	0	-203	2505	8.25	0.11	0
83	SLU 70	-2	-213	2498	8.7	-2.78	0
83	SLU 71	0	-203	2505	8.25	0.11	0
83	SLU 72	-2	-213	2498	8.7	-2.78	0
83	SLU 73	-2	-237	2745	9.63	-4.65	0
83	SLU 74	0	-220	2757	8.87	0.17	0
83	SLU 75	-1	-231	2750	9.32	-2.72	0
83	SLU 76	-2	-237	2745	9.63	-4.65	0
83	SLU 77	0	-220	2757	8.87	0.17	0
83	SLU 78	-1	-231	2750	9.32	-2.72	0
83	SLU 79	0	-220	2757	8.87	0.17	0
83	SLU 80	-1	-231	2750	9.32	-2.72	0
83	SLU 81	0	-228	2866	9.14	0.19	0
83	SLU 82	-1	-238	2858	9.59	-2.7	0
83	SLU 83	0	-228	2866	9.14	0.19	0
83	SLU 84	-1	-238	2858	9.59	-2.7	0
83	SLE RA 1	0	-153	1892	6.23	0.08	0
83	SLE RA 2	-2	-164	1884	6.73	-3.13	0
83	SLE RA 3	0	-153	1892	6.23	0.08	0
83	SLE RA 4	-1	-160	1887	6.53	-1.85	0
83	SLE RA 5	-2	-164	1884	6.73	-3.13	0
83	SLE RA 6	0	-153	1892	6.23	0.08	0
83	SLE RA 7	-1	-160	1887	6.53	-1.85	0
83	SLE RA 8	0	-153	1892	6.23	0.08	0
83	SLE RA 9	-1	-160	1887	6.53	-1.85	0
83	SLE RA 10	-2	-176	2052	7.15	-3.09	0
83	SLE RA 11	0	-165	2060	6.64	0.12	0
83	SLE RA 12	-1	-172	2055	6.95	-1.81	0
83	SLE RA 13	-2	-176	2052	7.15	-3.09	0
83	SLE RA 14	0	-165	2060	6.64	0.12	0
83	SLE RA 15	-1	-172	2055	6.95	-1.81	0
83	SLE RA 16	0	-165	2060	6.64	0.12	0
83	SLE RA 17	-1	-172	2055	6.95	-1.81	0
83	SLE RA 18	0	-170	2132	6.82	0.14	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
83	SLE RA 19	-1	-177	2127	7.12	-1.79	0
83	SLE RA 20	0	-170	2132	6.82	0.14	0
83	SLE RA 21	-1	-177	2127	7.12	-1.79	0
83	SLE FR 1	0	-153	1892	6.23	0.08	0
83	SLE FR 2	0	-155	1890	6.33	-0.56	0
83	SLE FR 3	0	-153	1892	6.23	0.08	0
83	SLE FR 4	0	-160	1962	6.51	-0.54	0
83	SLE FR 5	0	-158	1964	6.41	0.1	0
83	SLE FR 6	0	-161	2012	6.52	0.11	0
83	SLE QP 1	0	-153	1892	6.23	0.08	0
83	SLE QP 2	0	-158	1964	6.41	0.1	0
83	SLD 1	24	-51	2026	1.65	26.85	-0.03
83	SLD 2	24	-51	2026	1.65	26.85	-0.03
83	SLD 3	16	-207	2038	8.74	19.38	-0.02
83	SLD 4	16	-207	2038	8.74	19.38	-0.02
83	SLD 5	19	110	1964	-5.77	19.45	-0.02
83	SLD 6	19	110	1964	-5.77	19.45	-0.02
83	SLD 7	-7	-409	2005	17.86	-5.44	0
83	SLD 8	-7	-409	2005	17.86	-5.44	0
83	SLD 9	7	93	1923	-5.04	5.64	0
83	SLD 10	7	93	1923	-5.04	5.64	0
83	SLD 11	-19	-426	1964	18.58	-19.25	0.02
83	SLD 12	-19	-426	1964	18.58	-19.25	0.02
83	SLD 13	-16	-109	1890	4.07	-19.19	0.02
83	SLD 14	-16	-109	1890	4.07	-19.19	0.02
83	SLD 15	-24	-265	1902	11.16	-26.65	0.03
83	SLD 16	-24	-265	1902	11.16	-26.65	0.03
83	SLV 1	60	97	2119	-4.91	68.18	-0.07
83	SLV 2	60	97	2119	-4.91	68.18	-0.07
83	SLV 3	41	-271	2151	11.83	49.23	-0.06
83	SLV 4	41	-271	2151	11.83	49.23	-0.06
83	SLV 5	47	476	1963	-22.37	49.26	-0.04
83	SLV 6	47	476	1963	-22.37	49.26	-0.04
83	SLV 7	-17	-750	2067	33.42	-13.9	0
83	SLV 8	-17	-750	2067	33.42	-13.9	0
83	SLV 9	17	434	1860	-20.6	14.1	0
83	SLV 10	17	434	1860	-20.6	14.1	0
83	SLV 11	-47	-792	1965	35.18	-49.07	0.04
83	SLV 12	-47	-792	1965	35.18	-49.07	0.04
83	SLV 13	-41	-45	1777	0.98	-49.03	0.06
83	SLV 14	-41	-45	1777	0.98	-49.03	0.06
83	SLV 15	-60	-413	1808	17.72	-67.98	0.07
83	SLV 16	-60	-413	1808	17.72	-67.98	0.07
84	SLU 1	0	-143	1871	5.35	-0.19	0
84	SLU 2	3	-163	1859	6.23	6.27	0
84	SLU 3	0	-143	1871	5.35	-0.19	0
84	SLU 4	2	-155	1864	5.87	3.68	0
84	SLU 5	3	-163	1859	6.23	6.27	0
84	SLU 6	0	-143	1871	5.35	-0.19	0
84	SLU 7	2	-155	1864	5.87	3.68	0
84	SLU 8	0	-143	1871	5.35	-0.19	0
84	SLU 9	2	-155	1864	5.87	3.68	0
84	SLU 10	3	-195	2156	7.39	6.2	0
84	SLU 11	0	-174	2168	6.51	-0.26	0
84	SLU 12	2	-187	2161	7.04	3.61	0
84	SLU 13	3	-195	2156	7.39	6.2	0
84	SLU 14	0	-174	2168	6.51	-0.26	0
84	SLU 15	2	-187	2161	7.04	3.61	0
84	SLU 16	0	-174	2168	6.51	-0.26	0
84	SLU 17	2	-187	2161	7.04	3.61	0
84	SLU 18	0	-188	2295	7	-0.29	0
84	SLU 19	2	-200	2288	7.53	3.58	0
84	SLU 20	0	-188	2295	7	-0.29	0
84	SLU 21	2	-200	2288	7.53	3.58	0
84	SLU 22	0	-158	2046	5.89	-0.23	0
84	SLU 23	3	-178	2034	6.77	6.23	0
84	SLU 24	0	-158	2046	5.89	-0.23	0
84	SLU 25	2	-170	2039	6.41	3.65	0
84	SLU 26	3	-178	2034	6.77	6.23	0
84	SLU 27	0	-158	2046	5.89	-0.23	0
84	SLU 28	2	-170	2039	6.41	3.65	0
84	SLU 29	0	-158	2046	5.89	-0.23	0
84	SLU 30	2	-170	2039	6.41	3.65	0
84	SLU 31	3	-210	2331	7.93	6.16	0
84	SLU 32	0	-189	2343	7.05	-0.3	0
84	SLU 33	2	-202	2336	7.58	3.58	0
84	SLU 34	3	-210	2331	7.93	6.16	0
84	SLU 35	0	-189	2343	7.05	-0.3	0
84	SLU 36	2	-202	2336	7.58	3.58	0
84	SLU 37	0	-189	2343	7.05	-0.3	0
84	SLU 38	2	-202	2336	7.58	3.58	0
84	SLU 39	0	-203	2470	7.54	-0.33	0
84	SLU 40	2	-215	2463	8.07	3.55	0
84	SLU 41	0	-203	2470	7.54	-0.33	0
84	SLU 42	2	-215	2463	8.07	3.55	0
84	SLU 43	0	-180	2372	6.76	-0.24	0
84	SLU 44	3	-201	2361	7.65	6.22	0
84	SLU 45	0	-180	2372	6.76	-0.24	0
84	SLU 46	2	-193	2365	7.29	3.64	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
84	SLU 47	3	-201	2361	7.65	6.22	0
84	SLU 48	0	-180	2372	6.76	-0.24	0
84	SLU 49	2	-193	2365	7.29	3.64	0
84	SLU 50	0	-180	2372	6.76	-0.24	0
84	SLU 51	2	-193	2365	7.29	3.64	0
84	SLU 52	3	-233	2657	8.81	6.15	0
84	SLU 53	0	-212	2669	7.93	-0.31	0
84	SLU 54	2	-224	2662	8.45	3.57	0
84	SLU 55	3	-233	2657	8.81	6.15	0
84	SLU 56	0	-212	2669	7.93	-0.31	0
84	SLU 57	2	-224	2662	8.45	3.57	0
84	SLU 58	0	-212	2669	7.93	-0.31	0
84	SLU 59	2	-224	2662	8.45	3.57	0
84	SLU 60	0	-225	2796	8.42	-0.34	0
84	SLU 61	2	-238	2789	8.95	3.54	0
84	SLU 62	0	-225	2796	8.42	-0.34	0
84	SLU 63	2	-238	2789	8.95	3.54	0
84	SLU 64	0	-195	2547	7.3	-0.28	0
84	SLU 65	3	-216	2535	8.19	6.18	0
84	SLU 66	0	-195	2547	7.3	-0.28	0
84	SLU 67	2	-208	2540	7.83	3.6	0
84	SLU 68	3	-216	2535	8.19	6.18	0
84	SLU 69	0	-195	2547	7.3	-0.28	0
84	SLU 70	2	-208	2540	7.83	3.6	0
84	SLU 71	0	-195	2547	7.3	-0.28	0
84	SLU 72	2	-208	2540	7.83	3.6	0
84	SLU 73	3	-248	2832	9.35	6.12	0
84	SLU 74	0	-227	2844	8.47	-0.35	0
84	SLU 75	2	-239	2837	8.99	3.53	0
84	SLU 76	3	-248	2832	9.35	6.12	0
84	SLU 77	0	-227	2844	8.47	-0.35	0
84	SLU 78	2	-239	2837	8.99	3.53	0
84	SLU 79	0	-227	2844	8.47	-0.35	0
84	SLU 80	2	-239	2837	8.99	3.53	0
84	SLU 81	0	-240	2971	8.96	-0.38	0
84	SLU 82	2	-253	2964	9.49	3.5	0
84	SLU 83	0	-240	2971	8.96	-0.38	0
84	SLU 84	2	-253	2964	9.49	3.5	0
84	SLE RA 1	0	-147	1921	5.5	-0.2	0
84	SLE RA 2	2	-161	1913	6.09	4.1	0
84	SLE RA 3	0	-147	1921	5.5	-0.2	0
84	SLE RA 4	1	-155	1916	5.85	2.38	0
84	SLE RA 5	2	-161	1913	6.09	4.1	0
84	SLE RA 6	0	-147	1921	5.5	-0.2	0
84	SLE RA 7	1	-155	1916	5.85	2.38	0
84	SLE RA 8	0	-147	1921	5.5	-0.2	0
84	SLE RA 9	1	-155	1916	5.85	2.38	0
84	SLE RA 10	2	-182	2111	6.86	4.06	0
84	SLE RA 11	0	-168	2119	6.27	-0.25	0
84	SLE RA 12	1	-176	2114	6.63	2.33	0
84	SLE RA 13	2	-182	2111	6.86	4.06	0
84	SLE RA 14	0	-168	2119	6.27	-0.25	0
84	SLE RA 15	1	-176	2114	6.63	2.33	0
84	SLE RA 16	0	-168	2119	6.27	-0.25	0
84	SLE RA 17	1	-176	2114	6.63	2.33	0
84	SLE RA 18	0	-177	2204	6.61	-0.27	0
84	SLE RA 19	1	-185	2199	6.96	2.31	0
84	SLE RA 20	0	-177	2204	6.61	-0.27	0
84	SLE RA 21	1	-185	2199	6.96	2.31	0
84	SLE FR 1	0	-147	1921	5.5	-0.2	0
84	SLE FR 2	0	-150	1919	5.62	0.66	0
84	SLE FR 3	0	-147	1921	5.5	-0.2	0
84	SLE FR 4	0	-159	2004	5.95	0.64	0
84	SLE FR 5	0	-156	2006	5.83	-0.22	0
84	SLE FR 6	0	-162	2062	6.05	-0.24	0
84	SLE QP 1	0	-147	1921	5.5	-0.2	0
84	SLE QP 2	0	-156	2006	5.83	-0.22	0
84	SLD 1	21	-34	1868	0.88	25.7	-0.02
84	SLD 2	21	-34	1868	0.88	25.7	-0.02
84	SLD 3	28	-190	1860	7.48	32.19	-0.02
84	SLD 4	28	-190	1860	7.48	32.19	-0.02
84	SLD 5	-4	118	1977	-5.68	-2.29	0
84	SLD 6	-4	118	1977	-5.68	-2.29	0
84	SLD 7	19	-404	1949	16.35	19.35	-0.01
84	SLD 8	19	-404	1949	16.35	19.35	-0.01
84	SLD 9	-19	92	2062	-4.69	-19.8	0.01
84	SLD 10	-19	92	2062	-4.69	-19.8	0.01
84	SLD 11	4	-430	2034	17.34	1.84	0
84	SLD 12	4	-430	2034	17.34	1.84	0
84	SLD 13	-28	-122	2152	4.18	-32.64	0.02
84	SLD 14	-28	-122	2152	4.18	-32.64	0.02
84	SLD 15	-21	-278	2143	10.79	-26.15	0.02
84	SLD 16	-21	-278	2143	10.79	-26.15	0.02
84	SLV 1	54	134	1682	-5.9	66.05	-0.05
84	SLV 2	54	134	1682	-5.9	66.05	-0.05
84	SLV 3	72	-236	1662	9.7	82.58	-0.06
84	SLV 4	72	-236	1662	9.7	82.58	-0.06
84	SLV 5	-10	492	1940	-21.35	-5.42	0
84	SLV 6	-10	492	1940	-21.35	-5.42	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
84	SLV 7	48	-741	1872	30.66	49.7	-0.03
84	SLV 8	48	-741	1872	30.66	49.7	-0.03
84	SLV 9	-48	429	2140	-18.99	-50.14	0.03
84	SLV 10	-48	429	2140	-18.99	-50.14	0.03
84	SLV 11	10	-804	2072	33.02	4.97	0
84	SLV 12	10	-804	2072	33.02	4.97	0
84	SLV 13	-72	-76	2349	1.96	-83.03	0.06
84	SLV 14	-72	-76	2349	1.96	-83.03	0.06
84	SLV 15	-55	-446	2329	17.57	-66.5	0.05
84	SLV 16	-55	-446	2329	17.57	-66.5	0.05
85	SLU 1	0	157	2025	-9.39	0.07	0
85	SLU 2	0	80	1804	-4.61	-0.52	-0.01
85	SLU 3	0	157	2025	-9.39	0.07	0
85	SLU 4	0	110	1892	-6.53	-0.28	-0.01
85	SLU 5	0	80	1804	-4.61	-0.52	-0.01
85	SLU 6	0	157	2025	-9.39	0.07	0
85	SLU 7	0	110	1892	-6.53	-0.28	-0.01
85	SLU 8	0	157	2025	-9.39	0.07	0
85	SLU 9	0	110	1892	-6.53	-0.28	-0.01
85	SLU 10	0	126	2488	-7.63	-0.49	-0.01
85	SLU 11	0	203	2709	-12.41	0.1	0
85	SLU 12	0	157	2577	-9.55	-0.25	-0.01
85	SLU 13	0	126	2488	-7.63	-0.49	-0.01
85	SLU 14	0	203	2709	-12.41	0.1	0
85	SLU 15	0	157	2577	-9.55	-0.25	-0.01
85	SLU 16	0	203	2709	-12.41	0.1	0
85	SLU 17	0	157	2577	-9.55	-0.25	-0.01
85	SLU 18	0	223	3003	-13.71	0.12	0
85	SLU 19	0	177	2870	-10.84	-0.24	-0.01
85	SLU 20	0	223	3003	-13.71	0.12	0
85	SLU 21	0	177	2870	-10.84	-0.24	-0.01
85	SLU 22	0	193	2535	-11.83	0.09	0
85	SLU 23	0	116	2314	-7.06	-0.5	-0.01
85	SLU 24	0	193	2535	-11.83	0.09	0
85	SLU 25	0	147	2403	-8.97	-0.26	-0.01
85	SLU 26	0	116	2314	-7.06	-0.5	-0.01
85	SLU 27	0	193	2535	-11.83	0.09	0
85	SLU 28	0	147	2403	-8.97	-0.26	-0.01
85	SLU 29	0	193	2535	-11.83	0.09	0
85	SLU 30	0	147	2403	-8.97	-0.26	-0.01
85	SLU 31	0	162	2998	-10.08	-0.47	-0.01
85	SLU 32	0	240	3220	-14.85	0.13	0
85	SLU 33	0	193	3087	-11.99	-0.23	-0.01
85	SLU 34	0	162	2998	-10.08	-0.47	-0.01
85	SLU 35	0	240	3220	-14.85	0.13	0
85	SLU 36	0	193	3087	-11.99	-0.23	-0.01
85	SLU 37	0	240	3220	-14.85	0.13	0
85	SLU 38	0	193	3087	-11.99	-0.23	-0.01
85	SLU 39	0	259	3513	-16.15	0.14	0
85	SLU 40	0	213	3380	-13.28	-0.22	-0.01
85	SLU 41	0	259	3513	-16.15	0.14	0
85	SLU 42	0	213	3380	-13.28	-0.22	-0.01
85	SLU 43	0	191	2458	-11.37	0.09	0
85	SLU 44	0	114	2236	-6.59	-0.51	-0.01
85	SLU 45	0	191	2458	-11.37	0.09	0
85	SLU 46	0	145	2325	-8.51	-0.27	-0.01
85	SLU 47	0	114	2236	-6.59	-0.51	-0.01
85	SLU 48	0	191	2458	-11.37	0.09	0
85	SLU 49	0	145	2325	-8.51	-0.27	-0.01
85	SLU 50	0	191	2458	-11.37	0.09	0
85	SLU 51	0	145	2325	-8.51	-0.27	-0.01
85	SLU 52	0	161	2921	-9.61	-0.48	-0.01
85	SLU 53	0	238	3142	-14.39	0.12	0
85	SLU 54	0	191	3009	-11.53	-0.24	-0.01
85	SLU 55	0	161	2921	-9.61	-0.48	-0.01
85	SLU 56	0	238	3142	-14.39	0.12	0
85	SLU 57	0	191	3009	-11.53	-0.24	-0.01
85	SLU 58	0	238	3142	-14.39	0.12	0
85	SLU 59	0	191	3009	-11.53	-0.24	-0.01
85	SLU 60	0	258	3435	-15.69	0.13	0
85	SLU 61	0	211	3303	-12.82	-0.22	-0.01
85	SLU 62	0	258	3435	-15.69	0.13	0
85	SLU 63	0	211	3303	-12.82	-0.22	-0.01
85	SLU 64	0	228	2968	-13.81	0.11	0
85	SLU 65	0	150	2747	-9.04	-0.49	-0.01
85	SLU 66	0	228	2968	-13.81	0.11	0
85	SLU 67	0	181	2835	-10.95	-0.25	-0.01
85	SLU 68	0	150	2747	-9.04	-0.49	-0.01
85	SLU 69	0	228	2968	-13.81	0.11	0
85	SLU 70	0	181	2835	-10.95	-0.25	-0.01
85	SLU 71	0	228	2968	-13.81	0.11	0
85	SLU 72	0	181	2835	-10.95	-0.25	-0.01
85	SLU 73	0	197	3431	-12.06	-0.46	-0.01
85	SLU 74	0	274	3652	-16.83	0.14	0
85	SLU 75	0	228	3520	-13.97	-0.22	-0.01
85	SLU 76	0	197	3431	-12.06	-0.46	-0.01
85	SLU 77	0	274	3652	-16.83	0.14	0
85	SLU 78	0	228	3520	-13.97	-0.22	-0.01
85	SLU 79	0	274	3652	-16.83	0.14	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
85	SLU 80	0	228	3520	-13.97	-0.22	-0.01
85	SLU 81	0	294	3946	-18.13	0.15	0
85	SLU 82	0	248	3813	-15.26	-0.2	-0.01
85	SLU 83	0	294	3946	-18.13	0.15	0
85	SLU 84	0	248	3813	-15.26	-0.2	-0.01
85	SLE RA 1	0	167	2171	-10.09	0.08	0
85	SLE RA 2	0	116	2023	-6.9	-0.32	-0.01
85	SLE RA 3	0	167	2171	-10.09	0.08	0
85	SLE RA 4	0	136	2082	-8.18	-0.16	0
85	SLE RA 5	0	116	2023	-6.9	-0.32	-0.01
85	SLE RA 6	0	167	2171	-10.09	0.08	0
85	SLE RA 7	0	136	2082	-8.18	-0.16	0
85	SLE RA 8	0	167	2171	-10.09	0.08	0
85	SLE RA 9	0	136	2082	-8.18	-0.16	0
85	SLE RA 10	0	147	2480	-8.92	-0.3	-0.01
85	SLE RA 11	0	198	2627	-12.1	0.1	0
85	SLE RA 12	0	167	2539	-10.19	-0.14	0
85	SLE RA 13	0	147	2480	-8.92	-0.3	-0.01
85	SLE RA 14	0	198	2627	-12.1	0.1	0
85	SLE RA 15	0	167	2539	-10.19	-0.14	0
85	SLE RA 16	0	198	2627	-12.1	0.1	0
85	SLE RA 17	0	167	2539	-10.19	-0.14	0
85	SLE RA 18	0	211	2823	-12.97	0.11	0
85	SLE RA 19	0	180	2734	-11.05	-0.13	0
85	SLE RA 20	0	211	2823	-12.97	0.11	0
85	SLE RA 21	0	180	2734	-11.05	-0.13	0
85	SLE FR 1	0	167	2171	-10.09	0.08	0
85	SLE FR 2	0	157	2141	-9.45	0	0
85	SLE FR 3	0	167	2171	-10.09	0.08	0
85	SLE FR 4	0	170	2337	-10.32	0.01	0
85	SLE FR 5	0	180	2367	-10.95	0.09	0
85	SLE FR 6	0	189	2497	-11.53	0.09	0
85	SLE QP 1	0	167	2171	-10.09	0.08	0
85	SLE QP 2	0	180	2367	-10.95	0.09	0
85	SLD 1	30	191	2615	-11.97	27.68	-0.25
85	SLD 2	30	191	2615	-11.97	27.68	-0.25
85	SLD 3	27	107	2307	-6.2	25.25	-0.2
85	SLD 4	27	107	2307	-6.2	25.25	-0.2
85	SLD 5	14	311	2909	-20	12.06	-0.15
85	SLD 6	14	311	2909	-20	12.06	-0.15
85	SLD 7	3	31	1881	-0.78	3.94	0.02
85	SLD 8	3	31	1881	-0.78	3.94	0.02
85	SLD 9	-3	330	2852	-21.12	-3.77	-0.02
85	SLD 10	-3	330	2852	-21.12	-3.77	-0.02
85	SLD 11	-14	49	1824	-1.9	-11.88	0.15
85	SLD 12	-14	49	1824	-1.9	-11.88	0.15
85	SLD 13	-26	253	2426	-15.7	-25.07	0.2
85	SLD 14	-26	253	2426	-15.7	-25.07	0.2
85	SLD 15	-30	169	2118	-9.94	-27.51	0.25
85	SLD 16	-30	169	2118	-9.94	-27.51	0.25
85	SLV 1	77	202	2964	-13.06	70.65	-0.63
85	SLV 2	77	202	2964	-13.06	70.65	-0.63
85	SLV 3	68	3	2238	0.55	64.54	-0.5
85	SLV 4	68	3	2238	0.55	64.54	-0.5
85	SLV 5	36	489	3646	-32.23	30.53	-0.38
85	SLV 6	36	489	3646	-32.23	30.53	-0.38
85	SLV 7	7	-175	1228	13.14	10.15	0.04
85	SLV 8	7	-175	1228	13.14	10.15	0.04
85	SLV 9	-7	535	3505	-35.05	-9.98	-0.04
85	SLV 10	-7	535	3505	-35.05	-9.98	-0.04
85	SLV 11	-36	-128	1087	10.32	-30.35	0.38
85	SLV 12	-36	-128	1087	10.32	-30.35	0.38
85	SLV 13	-68	358	2495	-22.45	-64.36	0.5
85	SLV 14	-68	358	2495	-22.45	-64.36	0.5
85	SLV 15	-76	159	1769	-8.84	-70.47	0.63
85	SLV 16	-76	159	1769	-8.84	-70.47	0.63
86	SLU 1	0	-199	1792	9.24	0.09	0
86	SLU 2	-4	-213	1778	9.9	-6.08	0
86	SLU 3	0	-199	1792	9.24	0.09	0
86	SLU 4	-2	-208	1784	9.64	-3.62	0
86	SLU 5	-4	-213	1778	9.9	-6.08	0
86	SLU 6	0	-199	1792	9.24	0.09	0
86	SLU 7	-2	-208	1784	9.64	-3.62	0
86	SLU 8	0	-199	1792	9.24	0.09	0
86	SLU 9	-2	-208	1784	9.64	-3.62	0
86	SLU 10	-4	-236	2025	11.04	-6.03	0
86	SLU 11	0	-221	2038	10.38	0.14	0
86	SLU 12	-2	-230	2030	10.78	-3.56	0
86	SLU 13	-4	-236	2025	11.04	-6.03	0
86	SLU 14	0	-221	2038	10.38	0.14	0
86	SLU 15	-2	-230	2030	10.78	-3.56	0
86	SLU 16	0	-221	2038	10.38	0.14	0
86	SLU 17	-2	-230	2030	10.78	-3.56	0
86	SLU 18	0	-231	2144	10.87	0.16	0
86	SLU 19	-2	-239	2136	11.27	-3.54	0
86	SLU 20	0	-231	2144	10.87	0.16	0
86	SLU 21	-2	-239	2136	11.27	-3.54	0
86	SLU 22	0	-217	1947	10.11	0.11	0
86	SLU 23	-4	-231	1933	10.77	-6.06	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
86	SLU 24	0	-217	1947	10.11	0.11	0
86	SLU 25	-2	-225	1938	10.5	-3.6	0
86	SLU 26	-4	-231	1933	10.77	-6.06	0
86	SLU 27	0	-217	1947	10.11	0.11	0
86	SLU 28	-2	-225	1938	10.5	-3.6	0
86	SLU 29	0	-217	1947	10.11	0.11	0
86	SLU 30	-2	-225	1938	10.5	-3.6	0
86	SLU 31	-4	-253	2179	11.91	-6.01	0
86	SLU 32	0	-239	2193	11.25	0.16	0
86	SLU 33	-2	-248	2185	11.65	-3.54	0
86	SLU 34	-4	-253	2179	11.91	-6.01	0
86	SLU 35	0	-239	2193	11.25	0.16	0
86	SLU 36	-2	-248	2185	11.65	-3.54	0
86	SLU 37	0	-239	2193	11.25	0.16	0
86	SLU 38	-2	-248	2185	11.65	-3.54	0
86	SLU 39	0	-248	2299	11.74	0.18	0
86	SLU 40	-2	-257	2290	12.14	-3.52	0
86	SLU 41	0	-248	2299	11.74	0.18	0
86	SLU 42	-2	-257	2290	12.14	-3.52	0
86	SLU 43	0	-253	2277	11.71	0.11	0
86	SLU 44	-4	-267	2263	12.37	-6.06	0
86	SLU 45	0	-253	2277	11.71	0.11	0
86	SLU 46	-2	-261	2268	12.11	-3.6	0
86	SLU 47	-4	-267	2263	12.37	-6.06	0
86	SLU 48	0	-253	2277	11.71	0.11	0
86	SLU 49	-2	-261	2268	12.11	-3.6	0
86	SLU 50	0	-253	2277	11.71	0.11	0
86	SLU 51	-2	-261	2268	12.11	-3.6	0
86	SLU 52	-4	-289	2509	13.52	-6.01	0
86	SLU 53	0	-275	2523	12.86	0.16	0
86	SLU 54	-2	-283	2515	13.25	-3.54	0
86	SLU 55	-4	-289	2509	13.52	-6.01	0
86	SLU 56	0	-275	2523	12.86	0.16	0
86	SLU 57	-2	-283	2515	13.25	-3.54	0
86	SLU 58	0	-275	2523	12.86	0.16	0
86	SLU 59	-2	-283	2515	13.25	-3.54	0
86	SLU 60	0	-284	2629	13.34	0.18	0
86	SLU 61	-2	-293	2620	13.74	-3.52	0
86	SLU 62	0	-284	2629	13.34	0.18	0
86	SLU 63	-2	-293	2620	13.74	-3.52	0
86	SLU 64	0	-270	2431	12.58	0.13	0
86	SLU 65	-4	-285	2417	13.24	-6.04	0
86	SLU 66	0	-270	2431	12.58	0.13	0
86	SLU 67	-2	-279	2423	12.98	-3.58	0
86	SLU 68	-4	-285	2417	13.24	-6.04	0
86	SLU 69	0	-270	2431	12.58	0.13	0
86	SLU 70	-2	-279	2423	12.98	-3.58	0
86	SLU 71	0	-270	2431	12.58	0.13	0
86	SLU 72	-2	-279	2423	12.98	-3.58	0
86	SLU 73	-4	-307	2664	14.38	-5.99	0
86	SLU 74	0	-292	2678	13.72	0.18	0
86	SLU 75	-2	-301	2669	14.12	-3.52	0
86	SLU 76	-4	-307	2664	14.38	-5.99	0
86	SLU 77	0	-292	2678	13.72	0.18	0
86	SLU 78	-2	-301	2669	14.12	-3.52	0
86	SLU 79	0	-292	2678	13.72	0.18	0
86	SLU 80	-2	-301	2669	14.12	-3.52	0
86	SLU 81	0	-302	2783	14.21	0.2	0
86	SLU 82	-2	-311	2775	14.61	-3.5	0
86	SLU 83	0	-302	2783	14.21	0.2	0
86	SLU 84	-2	-311	2775	14.61	-3.5	0
86	SLE RA 1	0	-204	1836	9.49	0.09	0
86	SLE RA 2	-3	-214	1827	9.93	-4.02	0
86	SLE RA 3	0	-204	1836	9.49	0.09	0
86	SLE RA 4	-2	-210	1831	9.75	-2.38	0
86	SLE RA 5	-3	-214	1827	9.93	-4.02	0
86	SLE RA 6	0	-204	1836	9.49	0.09	0
86	SLE RA 7	-2	-210	1831	9.75	-2.38	0
86	SLE RA 8	0	-204	1836	9.49	0.09	0
86	SLE RA 9	-2	-210	1831	9.75	-2.38	0
86	SLE RA 10	-3	-228	1991	10.69	-3.99	0
86	SLE RA 11	0	-219	2000	10.25	0.13	0
86	SLE RA 12	-2	-225	1995	10.51	-2.34	0
86	SLE RA 13	-3	-228	1991	10.69	-3.99	0
86	SLE RA 14	0	-219	2000	10.25	0.13	0
86	SLE RA 15	-2	-225	1995	10.51	-2.34	0
86	SLE RA 16	0	-219	2000	10.25	0.13	0
86	SLE RA 17	-2	-225	1995	10.51	-2.34	0
86	SLE RA 18	0	-225	2071	10.57	0.14	0
86	SLE RA 19	-2	-231	2065	10.84	-2.33	0
86	SLE RA 20	0	-225	2071	10.57	0.14	0
86	SLE RA 21	-2	-231	2065	10.84	-2.33	0
86	SLE FR 1	0	-204	1836	9.49	0.09	0
86	SLE FR 2	-1	-206	1834	9.58	-0.73	0
86	SLE FR 3	0	-204	1836	9.49	0.09	0
86	SLE FR 4	-1	-212	1905	9.9	-0.72	0
86	SLE FR 5	0	-210	1907	9.81	0.11	0
86	SLE FR 6	0	-215	1953	10.03	0.12	0
86	SLE QP 1	0	-204	1836	9.49	0.09	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
86	SLE QP 2	0	-210	1907	9.81	0.11	0
86	SLD 1	35	-158	1988	7.45	34.36	-0.03
86	SLD 2	35	-158	1988	7.45	34.36	-0.03
86	SLD 3	27	-313	2004	14.49	26.14	-0.02
86	SLD 4	27	-313	2004	14.49	26.14	-0.02
86	SLD 5	23	41	1906	-1.57	22.85	-0.02
86	SLD 6	23	41	1906	-1.57	22.85	-0.02
86	SLD 7	-4	-477	1960	21.89	-4.55	0
86	SLD 8	-4	-477	1960	21.89	-4.55	0
86	SLD 9	4	56	1853	-2.27	4.76	0
86	SLD 10	4	56	1853	-2.27	4.76	0
86	SLD 11	-23	-462	1907	21.2	-22.63	0.02
86	SLD 12	-23	-462	1907	21.2	-22.63	0.02
86	SLD 13	-27	-107	1809	5.14	-25.92	0.02
86	SLD 14	-27	-107	1809	5.14	-25.92	0.02
86	SLD 15	-35	-263	1825	12.18	-34.14	0.03
86	SLD 16	-35	-263	1825	12.18	-34.14	0.03
86	SLV 1	88	-88	2112	4.3	87.43	-0.07
86	SLV 2	88	-88	2112	4.3	87.43	-0.07
86	SLV 3	68	-455	2153	20.92	66.46	-0.05
86	SLV 4	68	-455	2153	20.92	66.46	-0.05
86	SLV 5	58	383	1905	-17.05	58.1	-0.04
86	SLV 6	58	383	1905	-17.05	58.1	-0.04
86	SLV 7	-11	-840	2044	38.36	-11.78	0
86	SLV 8	-11	-840	2044	38.36	-11.78	0
86	SLV 9	11	419	1769	-18.73	12	0
86	SLV 10	11	419	1769	-18.73	12	0
86	SLV 11	-57	-804	1908	36.68	-57.89	0.04
86	SLV 12	-57	-804	1908	36.68	-57.89	0.04
86	SLV 13	-68	34	1660	-1.29	-66.25	0.05
86	SLV 14	-68	34	1660	-1.29	-66.25	0.05
86	SLV 15	-88	-333	1701	15.33	-87.21	0.07
86	SLV 16	-88	-333	1701	15.33	-87.21	0.07
87	SLU 1	0	-198	1820	8.62	-0.16	0
87	SLU 2	6	-219	1809	9.49	8.52	0
87	SLU 3	0	-198	1820	8.62	-0.16	0
87	SLU 4	3	-211	1813	9.15	5.05	0
87	SLU 5	6	-219	1809	9.49	8.52	0
87	SLU 6	0	-198	1820	8.62	-0.16	0
87	SLU 7	3	-211	1813	9.15	5.05	0
87	SLU 8	0	-198	1820	8.62	-0.16	0
87	SLU 9	3	-211	1813	9.15	5.05	0
87	SLU 10	6	-260	2093	11.31	8.46	0
87	SLU 11	0	-240	2104	10.44	-0.22	0
87	SLU 12	3	-252	2098	10.96	4.99	0
87	SLU 13	6	-260	2093	11.31	8.46	0
87	SLU 14	0	-240	2104	10.44	-0.22	0
87	SLU 15	3	-252	2098	10.96	4.99	0
87	SLU 16	0	-240	2104	10.44	-0.22	0
87	SLU 17	3	-252	2098	10.96	4.99	0
87	SLU 18	0	-257	2226	11.21	-0.24	0
87	SLU 19	3	-270	2219	11.73	4.96	0
87	SLU 20	0	-257	2226	11.21	-0.24	0
87	SLU 21	3	-270	2219	11.73	4.96	0
87	SLU 22	0	-220	1989	9.59	-0.19	0
87	SLU 23	6	-240	1978	10.46	8.49	0
87	SLU 24	0	-220	1989	9.59	-0.19	0
87	SLU 25	3	-232	1983	10.11	5.02	0
87	SLU 26	6	-240	1978	10.46	8.49	0
87	SLU 27	0	-220	1989	9.59	-0.19	0
87	SLU 28	3	-232	1983	10.11	5.02	0
87	SLU 29	0	-220	1989	9.59	-0.19	0
87	SLU 30	3	-232	1983	10.11	5.02	0
87	SLU 31	6	-282	2262	12.27	8.43	0
87	SLU 32	0	-261	2273	11.4	-0.25	0
87	SLU 33	3	-274	2267	11.92	4.96	0
87	SLU 34	6	-282	2262	12.27	8.43	0
87	SLU 35	0	-261	2273	11.4	-0.25	0
87	SLU 36	3	-274	2267	11.92	4.96	0
87	SLU 37	0	-261	2273	11.4	-0.25	0
87	SLU 38	3	-274	2267	11.92	4.96	0
87	SLU 39	0	-279	2395	12.18	-0.27	0
87	SLU 40	3	-291	2388	12.7	4.93	0
87	SLU 41	0	-279	2395	12.18	-0.27	0
87	SLU 42	3	-291	2388	12.7	4.93	0
87	SLU 43	0	-250	2308	10.88	-0.2	0
87	SLU 44	6	-271	2297	11.75	8.48	0
87	SLU 45	0	-250	2308	10.88	-0.2	0
87	SLU 46	3	-263	2301	11.4	5.01	0
87	SLU 47	6	-271	2297	11.75	8.48	0
87	SLU 48	0	-250	2308	10.88	-0.2	0
87	SLU 49	3	-263	2301	11.4	5.01	0
87	SLU 50	0	-250	2308	10.88	-0.2	0
87	SLU 51	3	-263	2301	11.4	5.01	0
87	SLU 52	6	-312	2581	13.56	8.42	0
87	SLU 53	0	-292	2592	12.69	-0.26	0
87	SLU 54	3	-304	2585	13.21	4.95	0
87	SLU 55	6	-312	2581	13.56	8.42	0
87	SLU 56	0	-292	2592	12.69	-0.26	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
87	SLU 57	3	-304	2585	13.21	4.95	0
87	SLU 58	0	-292	2592	12.69	-0.26	0
87	SLU 59	3	-304	2585	13.21	4.95	0
87	SLU 60	0	-309	2714	13.47	-0.28	0
87	SLU 61	3	-322	2707	13.99	4.93	0
87	SLU 62	0	-309	2714	13.47	-0.28	0
87	SLU 63	3	-322	2707	13.99	4.93	0
87	SLU 64	0	-272	2477	11.84	-0.23	0
87	SLU 65	6	-292	2466	12.71	8.45	0
87	SLU 66	0	-272	2477	11.84	-0.23	0
87	SLU 67	3	-284	2470	12.37	4.98	0
87	SLU 68	6	-292	2466	12.71	8.45	0
87	SLU 69	0	-272	2477	11.84	-0.23	0
87	SLU 70	3	-284	2470	12.37	4.98	0
87	SLU 71	0	-272	2477	11.84	-0.23	0
87	SLU 72	3	-284	2470	12.37	4.98	0
87	SLU 73	6	-334	2750	14.53	8.39	0
87	SLU 74	0	-313	2761	13.66	-0.29	0
87	SLU 75	3	-326	2755	14.18	4.92	0
87	SLU 76	6	-334	2750	14.53	8.39	0
87	SLU 77	0	-313	2761	13.66	-0.29	0
87	SLU 78	3	-326	2755	14.18	4.92	0
87	SLU 79	0	-313	2761	13.66	-0.29	0
87	SLU 80	3	-326	2755	14.18	4.92	0
87	SLU 81	0	-331	2883	14.43	-0.31	0
87	SLU 82	3	-343	2876	14.96	4.9	0
87	SLU 83	0	-331	2883	14.43	-0.31	0
87	SLU 84	3	-343	2876	14.96	4.9	0
87	SLE RA 1	0	-204	1868	8.9	-0.17	0
87	SLE RA 2	4	-218	1861	9.48	5.62	0
87	SLE RA 3	0	-204	1868	8.9	-0.17	0
87	SLE RA 4	2	-213	1864	9.25	3.3	0
87	SLE RA 5	4	-218	1861	9.48	5.62	0
87	SLE RA 6	0	-204	1868	8.9	-0.17	0
87	SLE RA 7	2	-213	1864	9.25	3.3	0
87	SLE RA 8	0	-204	1868	8.9	-0.17	0
87	SLE RA 9	2	-213	1864	9.25	3.3	0
87	SLE RA 10	4	-246	2050	10.69	5.58	0
87	SLE RA 11	0	-232	2057	10.11	-0.21	0
87	SLE RA 12	2	-240	2053	10.46	3.26	0
87	SLE RA 13	4	-246	2050	10.69	5.58	0
87	SLE RA 14	0	-232	2057	10.11	-0.21	0
87	SLE RA 15	2	-240	2053	10.46	3.26	0
87	SLE RA 16	0	-232	2057	10.11	-0.21	0
87	SLE RA 17	2	-240	2053	10.46	3.26	0
87	SLE RA 18	0	-244	2139	10.63	-0.22	0
87	SLE RA 19	2	-252	2134	10.97	3.25	0
87	SLE RA 20	0	-244	2139	10.63	-0.22	0
87	SLE RA 21	2	-252	2134	10.97	3.25	0
87	SLE FR 1	0	-204	1868	8.9	-0.17	0
87	SLE FR 2	1	-207	1867	9.01	0.99	0
87	SLE FR 3	0	-204	1868	8.9	-0.17	0
87	SLE FR 4	1	-219	1948	9.53	0.97	0
87	SLE FR 5	0	-216	1949	9.42	-0.19	0
87	SLE FR 6	0	-224	2003	9.76	-0.2	0
87	SLE QP 1	0	-204	1868	8.9	-0.17	0
87	SLE QP 2	0	-216	1949	9.42	-0.19	0
87	SLD 1	33	-97	1820	4.31	33.44	-0.02
87	SLD 2	33	-97	1820	4.31	33.44	-0.02
87	SLD 3	41	-254	1829	10.95	40.79	-0.02
87	SLD 4	41	-254	1829	10.95	40.79	-0.02
87	SLD 5	-2	57	1897	-2.2	-1.25	0
87	SLD 6	-2	57	1897	-2.2	-1.25	0
87	SLD 7	24	-465	1927	19.96	23.26	-0.01
87	SLD 8	24	-465	1927	19.96	23.26	-0.01
87	SLD 9	-24	33	1971	-1.13	-23.63	0.01
87	SLD 10	-24	33	1971	-1.13	-23.63	0.01
87	SLD 11	1	-490	2002	21.03	0.88	0
87	SLD 12	1	-490	2002	21.03	0.88	0
87	SLD 13	-41	-179	2069	7.88	-41.16	0.02
87	SLD 14	-41	-179	2069	7.88	-41.16	0.02
87	SLD 15	-34	-336	2078	14.53	-33.81	0.02
87	SLD 16	-34	-336	2078	14.53	-33.81	0.02
87	SLV 1	85	67	1646	-2.69	85.69	-0.04
87	SLV 2	85	67	1646	-2.69	85.69	-0.04
87	SLV 3	105	-303	1668	13.01	104.53	-0.04
87	SLV 4	105	-303	1668	13.01	104.53	-0.04
87	SLV 5	-4	430	1824	-18.02	-3.01	0
87	SLV 6	-4	430	1824	-18.02	-3.01	0
87	SLV 7	61	-804	1899	34.3	59.82	-0.03
87	SLV 8	61	-804	1899	34.3	59.82	-0.03
87	SLV 9	-61	372	2000	-15.47	-60.19	0.03
87	SLV 10	-61	372	2000	-15.47	-60.19	0.03
87	SLV 11	4	-863	2074	36.86	2.64	0
87	SLV 12	4	-863	2074	36.86	2.64	0
87	SLV 13	-105	-129	2230	5.82	-104.9	0.04
87	SLV 14	-105	-129	2230	5.82	-104.9	0.04
87	SLV 15	-85	-499	2253	21.52	-86.06	0.04
87	SLV 16	-85	-499	2253	21.52	-86.06	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
88	SLU 1	0	61	1809	-2.45	0.06	0
88	SLU 2	-1	-35	1666	-1.18	-1.18	0.02
88	SLU 3	0	61	1809	-2.45	0.06	0
88	SLU 4	-1	3	1723	-0.33	-0.69	0.01
88	SLU 5	-1	-35	1666	1.09	-1.18	0.02
88	SLU 6	0	61	1809	-2.45	0.06	0
88	SLU 7	-1	3	1723	-0.33	-0.69	0.01
88	SLU 8	0	61	1809	-2.45	0.06	0
88	SLU 9	-1	3	1723	-0.33	-0.69	0.01
88	SLU 10	-1	-21	2259	0.41	-1.16	0.02
88	SLU 11	0	75	2401	-3.13	0.08	0
88	SLU 12	-1	17	2316	-1	-0.66	0.01
88	SLU 13	-1	-21	2259	0.41	-1.16	0.02
88	SLU 14	0	75	2401	-3.13	0.08	0
88	SLU 15	-1	17	2316	-1	-0.66	0.01
88	SLU 16	0	75	2401	-3.13	0.08	0
88	SLU 17	-1	17	2316	-1	-0.66	0.01
88	SLU 18	0	80	2655	-3.42	0.09	0
88	SLU 19	-1	23	2570	-1.29	-0.65	0.01
88	SLU 20	0	80	2655	-3.42	0.09	0
88	SLU 21	-1	23	2570	-1.29	-0.65	0.01
88	SLU 22	0	74	2244	-3.05	0.07	0
88	SLU 23	-1	-22	2102	0.49	-1.17	0.02
88	SLU 24	0	74	2244	-3.05	0.07	0
88	SLU 25	-1	16	2159	-0.93	-0.67	0.01
88	SLU 26	-1	-22	2102	0.49	-1.17	0.02
88	SLU 27	0	74	2244	-3.05	0.07	0
88	SLU 28	-1	16	2159	-0.93	-0.67	0.01
88	SLU 29	0	74	2244	-3.05	0.07	0
88	SLU 30	-1	16	2159	-0.93	-0.67	0.01
88	SLU 31	-1	-9	2694	-0.19	-1.14	0.02
88	SLU 32	0	87	2837	-3.73	0.1	0
88	SLU 33	-1	30	2751	-1.6	-0.65	0.01
88	SLU 34	-1	-9	2694	-0.19	-1.14	0.02
88	SLU 35	0	87	2837	-3.73	0.1	0
88	SLU 36	-1	30	2751	-1.6	-0.65	0.01
88	SLU 37	0	87	2837	-3.73	0.1	0
88	SLU 38	-1	30	2751	-1.6	-0.65	0.01
88	SLU 39	0	93	3091	-4.02	0.11	0
88	SLU 40	-1	35	3005	-1.89	-0.64	0.01
88	SLU 41	0	93	3091	-4.02	0.11	0
88	SLU 42	-1	35	3005	-1.89	-0.64	0.01
88	SLU 43	0	75	2202	-2.98	0.07	0
88	SLU 44	-1	-21	2060	0.56	-1.17	0.02
88	SLU 45	0	75	2202	-2.98	0.07	0
88	SLU 46	-1	17	2117	-0.86	-0.68	0.01
88	SLU 47	-1	-21	2060	0.56	-1.17	0.02
88	SLU 48	0	75	2202	-2.98	0.07	0
88	SLU 49	-1	17	2117	-0.86	-0.68	0.01
88	SLU 50	0	75	2202	-2.98	0.07	0
88	SLU 51	-1	17	2117	-0.86	-0.68	0.01
88	SLU 52	-1	-7	2652	-0.12	-1.15	0.02
88	SLU 53	0	89	2795	-3.66	0.09	0
88	SLU 54	-1	31	2709	-1.53	-0.65	0.01
88	SLU 55	-1	-7	2652	-0.12	-1.15	0.02
88	SLU 56	0	89	2795	-3.66	0.09	0
88	SLU 57	-1	31	2709	-1.53	-0.65	0.01
88	SLU 58	0	89	2795	-3.66	0.09	0
88	SLU 59	-1	31	2709	-1.53	-0.65	0.01
88	SLU 60	0	94	3049	-3.95	0.1	0
88	SLU 61	-1	37	2963	-1.82	-0.64	0.01
88	SLU 62	0	94	3049	-3.95	0.1	0
88	SLU 63	-1	37	2963	-1.82	-0.64	0.01
88	SLU 64	0	88	2637	-3.58	0.08	0
88	SLU 65	-1	-8	2495	-0.04	-1.16	0.02
88	SLU 66	0	88	2637	-3.58	0.08	0
88	SLU 67	-1	30	2552	-1.46	-0.66	0.01
88	SLU 68	-1	-8	2495	-0.04	-1.16	0.02
88	SLU 69	0	88	2637	-3.58	0.08	0
88	SLU 70	-1	30	2552	-1.46	-0.66	0.01
88	SLU 71	0	88	2637	-3.58	0.08	0
88	SLU 72	-1	30	2552	-1.46	-0.66	0.01
88	SLU 73	-1	5	3088	-0.72	-1.13	0.02
88	SLU 74	0	101	3230	-4.26	0.11	0
88	SLU 75	-1	44	3145	-2.13	-0.64	0.01
88	SLU 76	-1	5	3088	-0.72	-1.13	0.02
88	SLU 77	0	101	3230	-4.26	0.11	0
88	SLU 78	-1	44	3145	-2.13	-0.64	0.01
88	SLU 79	0	101	3230	-4.26	0.11	0
88	SLU 80	-1	44	3145	-2.13	-0.64	0.01
88	SLU 81	0	107	3484	-4.55	0.12	0
88	SLU 82	-1	49	3398	-2.42	-0.63	0.01
88	SLU 83	0	107	3484	-4.55	0.12	0
88	SLU 84	-1	49	3398	-2.42	-0.63	0.01
88	SLE RA 1	0	65	1933	-2.62	0.06	0
88	SLE RA 2	-1	1	1838	-0.26	-0.77	0.01
88	SLE RA 3	0	65	1933	-2.62	0.06	0
88	SLE RA 4	0	26	1876	-1.21	-0.44	0.01
88	SLE RA 5	-1	1	1838	-0.26	-0.77	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
88	SLE RA 6	0	65	1933	-2.62	0.06	0
88	SLE RA 7	0	26	1876	-1.21	-0.44	0.01
88	SLE RA 8	0	65	1933	-2.62	0.06	0
88	SLE RA 9	0	26	1876	-1.21	-0.44	0.01
88	SLE RA 10	-1	10	2233	-0.71	-0.75	0.01
88	SLE RA 11	0	74	2328	-3.07	0.08	0
88	SLE RA 12	0	35	2271	-1.66	-0.42	0.01
88	SLE RA 13	-1	10	2233	-0.71	-0.75	0.01
88	SLE RA 14	0	74	2328	-3.07	0.08	0
88	SLE RA 15	0	35	2271	-1.66	-0.42	0.01
88	SLE RA 16	0	74	2328	-3.07	0.08	0
88	SLE RA 17	0	35	2271	-1.66	-0.42	0.01
88	SLE RA 18	0	78	2497	-3.27	0.08	0
88	SLE RA 19	0	39	2440	-1.85	-0.41	0.01
88	SLE RA 20	0	78	2497	-3.27	0.08	0
88	SLE RA 21	0	39	2440	-1.85	-0.41	0.01
88	SLE FR 1	0	65	1933	-2.62	0.06	0
88	SLE FR 2	0	52	1914	-2.15	-0.1	0
88	SLE FR 3	0	65	1933	-2.62	0.06	0
88	SLE FR 4	0	56	2083	-2.34	-0.1	0
88	SLE FR 5	0	68	2102	-2.82	0.07	0
88	SLE FR 6	0	71	2215	-2.95	0.07	0
88	SLE QP 1	0	65	1933	-2.62	0.06	0
88	SLE QP 2	0	68	2102	-2.82	0.07	0
88	SLD 1	37	86	2242	-3.48	33.62	-0.6
88	SLD 2	37	86	2242	-3.48	33.62	-0.6
88	SLD 3	34	-26	2079	0.76	31.98	-0.55
88	SLD 4	34	-26	2079	0.76	31.98	-0.55
88	SLD 5	14	243	2390	-9.46	12.61	-0.25
88	SLD 6	14	243	2390	-9.46	12.61	-0.25
88	SLD 7	7	-129	1850	4.7	7.16	-0.1
88	SLD 8	7	-129	1850	4.7	7.16	-0.1
88	SLD 9	-7	266	2355	-10.34	-7.03	0.1
88	SLD 10	-7	266	2355	-10.34	-7.03	0.1
88	SLD 11	-14	-106	1815	3.83	-12.48	0.25
88	SLD 12	-14	-106	1815	3.83	-12.48	0.25
88	SLD 13	-34	163	2125	-6.4	-31.85	0.55
88	SLD 14	-34	163	2125	-6.4	-31.85	0.55
88	SLD 15	-37	51	1963	-2.15	-33.48	0.6
88	SLD 16	-37	51	1963	-2.15	-33.48	0.6
88	SLV 1	93	103	2438	-4.19	85.91	-1.52
88	SLV 2	93	103	2438	-4.19	85.91	-1.52
88	SLV 3	88	-160	2056	5.85	81.91	-1.41
88	SLV 4	88	-160	2056	5.85	81.91	-1.41
88	SLV 5	36	479	2783	-18.45	31.88	-0.62
88	SLV 6	36	479	2783	-18.45	31.88	-0.62
88	SLV 7	19	-400	1508	15.01	18.56	-0.26
88	SLV 8	19	-400	1508	15.01	18.56	-0.26
88	SLV 9	-19	537	2697	-20.64	-18.43	0.26
88	SLV 10	-19	537	2697	-20.64	-18.43	0.26
88	SLV 11	-36	-342	1421	12.82	-31.74	0.62
88	SLV 12	-36	-342	1421	12.82	-31.74	0.62
88	SLV 13	-88	297	2149	-11.49	-81.78	1.41
88	SLV 14	-88	297	2149	-11.49	-81.78	1.41
88	SLV 15	-93	34	1767	-1.45	-85.77	1.52
88	SLV 16	-93	34	1767	-1.45	-85.77	1.52
89	SLU 1	0	-231	1729	9.22	0.1	0
89	SLU 2	-6	-243	1715	9.75	-7.1	0
89	SLU 3	0	-231	1729	9.22	0.1	0
89	SLU 4	-3	-238	1720	9.54	-4.22	0
89	SLU 5	-6	-243	1715	9.75	-7.1	0
89	SLU 6	0	-231	1729	9.22	0.1	0
89	SLU 7	-3	-238	1720	9.54	-4.22	0
89	SLU 8	0	-231	1729	9.22	0.1	0
89	SLU 9	-3	-238	1720	9.54	-4.22	0
89	SLU 10	-5	-264	1957	10.48	-7.05	0
89	SLU 11	0	-252	1970	9.94	0.15	0
89	SLU 12	-3	-260	1962	10.26	-4.17	0
89	SLU 13	-5	-264	1957	10.48	-7.05	0
89	SLU 14	0	-252	1970	9.94	0.15	0
89	SLU 15	-3	-260	1962	10.26	-4.17	0
89	SLU 16	0	-252	1970	9.94	0.15	0
89	SLU 17	-3	-260	1962	10.26	-4.17	0
89	SLU 18	0	-262	2074	10.25	0.18	0
89	SLU 19	-3	-269	2066	10.57	-4.14	0
89	SLU 20	0	-262	2074	10.25	0.18	0
89	SLU 21	-3	-269	2066	10.57	-4.14	0
89	SLU 22	0	-250	1878	9.92	0.12	0
89	SLU 23	-6	-262	1864	10.45	-7.08	0
89	SLU 24	0	-250	1878	9.92	0.12	0
89	SLU 25	-3	-257	1870	10.24	-4.2	0
89	SLU 26	-6	-262	1864	10.45	-7.08	0
89	SLU 27	0	-250	1878	9.92	0.12	0
89	SLU 28	-3	-257	1870	10.24	-4.2	0
89	SLU 29	0	-250	1878	9.92	0.12	0
89	SLU 30	-3	-257	1870	10.24	-4.2	0
89	SLU 31	-5	-283	2106	11.18	-7.03	0
89	SLU 32	0	-271	2120	10.64	0.18	0
89	SLU 33	-3	-278	2112	10.96	-4.14	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
89	SLU 34	-5	-283	2106	11.18	-7.03	0
89	SLU 35	0	-271	2120	10.64	0.18	0
89	SLU 36	-3	-278	2112	10.96	-4.14	0
89	SLU 37	0	-271	2120	10.64	0.18	0
89	SLU 38	-3	-278	2112	10.96	-4.14	0
89	SLU 39	0	-280	2223	10.95	0.2	0
89	SLU 40	-3	-288	2215	11.27	-4.12	0
89	SLU 41	0	-280	2223	10.95	0.2	0
89	SLU 42	-3	-288	2215	11.27	-4.12	0
89	SLU 43	0	-294	2196	11.74	0.13	0
89	SLU 44	-6	-306	2183	12.28	-7.08	0
89	SLU 45	0	-294	2196	11.74	0.13	0
89	SLU 46	-3	-301	2188	12.07	-4.2	0
89	SLU 47	-6	-306	2183	12.28	-7.08	0
89	SLU 48	0	-294	2196	11.74	0.13	0
89	SLU 49	-3	-301	2188	12.07	-4.2	0
89	SLU 50	0	-294	2196	11.74	0.13	0
89	SLU 51	-3	-301	2188	12.07	-4.2	0
89	SLU 52	-5	-327	2424	13	-7.02	0
89	SLU 53	0	-315	2438	12.47	0.18	0
89	SLU 54	-3	-322	2430	12.79	-4.14	0
89	SLU 55	-5	-327	2424	13	-7.02	0
89	SLU 56	0	-315	2438	12.47	0.18	0
89	SLU 57	-3	-322	2430	12.79	-4.14	0
89	SLU 58	0	-315	2438	12.47	0.18	0
89	SLU 59	-3	-322	2430	12.79	-4.14	0
89	SLU 60	0	-324	2542	12.77	0.2	0
89	SLU 61	-3	-331	2534	13.1	-4.12	0
89	SLU 62	0	-324	2542	12.77	0.2	0
89	SLU 63	-3	-331	2534	13.1	-4.12	0
89	SLU 64	0	-312	2345	12.44	0.15	0
89	SLU 65	-6	-324	2332	12.98	-7.05	0
89	SLU 66	0	-312	2345	12.44	0.15	0
89	SLU 67	-3	-320	2337	12.76	-4.17	0
89	SLU 68	-6	-324	2332	12.98	-7.05	0
89	SLU 69	0	-312	2345	12.44	0.15	0
89	SLU 70	-3	-320	2337	12.76	-4.17	0
89	SLU 71	0	-312	2345	12.44	0.15	0
89	SLU 72	-3	-320	2337	12.76	-4.17	0
89	SLU 73	-5	-346	2574	13.7	-7	0
89	SLU 74	0	-334	2587	13.16	0.2	0
89	SLU 75	-3	-341	2579	13.49	-4.12	0
89	SLU 76	-5	-346	2574	13.7	-7	0
89	SLU 77	0	-334	2587	13.16	0.2	0
89	SLU 78	-3	-341	2579	13.49	-4.12	0
89	SLU 79	0	-334	2587	13.16	0.2	0
89	SLU 80	-3	-341	2579	13.49	-4.12	0
89	SLU 81	0	-343	2691	13.47	0.22	0
89	SLU 82	-3	-350	2683	13.8	-4.1	0
89	SLU 83	0	-343	2691	13.47	0.22	0
89	SLU 84	-3	-350	2683	13.8	-4.1	0
89	SLE RA 1	0	-236	1771	9.42	0.11	0
89	SLE RA 2	-4	-244	1762	9.78	-4.69	0
89	SLE RA 3	0	-236	1771	9.42	0.11	0
89	SLE RA 4	-2	-241	1766	9.63	-2.77	0
89	SLE RA 5	-4	-244	1762	9.78	-4.69	0
89	SLE RA 6	0	-236	1771	9.42	0.11	0
89	SLE RA 7	-2	-241	1766	9.63	-2.77	0
89	SLE RA 8	0	-236	1771	9.42	0.11	0
89	SLE RA 9	-2	-241	1766	9.63	-2.77	0
89	SLE RA 10	-4	-259	1924	10.26	-4.66	0
89	SLE RA 11	0	-251	1932	9.9	0.14	0
89	SLE RA 12	-2	-255	1927	10.11	-2.74	0
89	SLE RA 13	-4	-259	1924	10.26	-4.66	0
89	SLE RA 14	0	-251	1932	9.9	0.14	0
89	SLE RA 15	-2	-255	1927	10.11	-2.74	0
89	SLE RA 16	0	-251	1932	9.9	0.14	0
89	SLE RA 17	-2	-255	1927	10.11	-2.74	0
89	SLE RA 18	0	-257	2002	10.1	0.16	0
89	SLE RA 19	-2	-261	1996	10.32	-2.72	0
89	SLE RA 20	0	-257	2002	10.1	0.16	0
89	SLE RA 21	-2	-261	1996	10.32	-2.72	0
89	SLE FR 1	0	-236	1771	9.42	0.11	0
89	SLE FR 2	-1	-238	1769	9.49	-0.85	0
89	SLE FR 3	0	-236	1771	9.42	0.11	0
89	SLE FR 4	-1	-244	1839	9.7	-0.84	0
89	SLE FR 5	0	-242	1840	9.62	0.12	0
89	SLE FR 6	0	-246	1886	9.76	0.13	0
89	SLE QP 1	0	-236	1771	9.42	0.11	0
89	SLE QP 2	0	-242	1840	9.62	0.12	0
89	SLD 1	41	-200	1929	7.78	38.55	-0.02
89	SLD 2	41	-200	1929	7.78	38.55	-0.02
89	SLD 3	33	-355	1948	14.65	30.07	-0.02
89	SLD 4	33	-355	1948	14.65	30.07	-0.02
89	SLD 5	25	4	1838	-1.36	24.51	-0.01
89	SLD 6	25	4	1838	-1.36	24.51	-0.01
89	SLD 7	-3	-510	1901	21.57	-3.75	0
89	SLD 8	-3	-510	1901	21.57	-3.75	0
89	SLD 9	3	25	1779	-2.32	4	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
89	SLD 10	3	25	1779	-2.32	4	0
89	SLD 11	-25	-489	1842	20.61	-24.26	0.01
89	SLD 12	-25	-489	1842	20.61	-24.26	0.01
89	SLD 13	-33	-130	1732	4.59	-29.82	0.02
89	SLD 14	-33	-130	1732	4.59	-29.82	0.02
89	SLD 15	-41	-284	1751	11.47	-38.3	0.02
89	SLD 16	-41	-284	1751	11.47	-38.3	0.02
89	SLV 1	104	-147	2065	5.45	98.19	-0.05
89	SLV 2	104	-147	2065	5.45	98.19	-0.05
89	SLV 3	83	-511	2113	21.69	76.49	-0.04
89	SLV 4	83	-511	2113	21.69	76.49	-0.04
89	SLV 5	63	338	1835	-16.27	62.46	-0.03
89	SLV 6	63	338	1835	-16.27	62.46	-0.03
89	SLV 7	-7	-875	1995	37.88	-9.88	0.01
89	SLV 8	-7	-875	1995	37.88	-9.88	0.01
89	SLV 9	7	390	1686	-18.64	10.13	-0.01
89	SLV 10	7	390	1686	-18.64	10.13	-0.01
89	SLV 11	-63	-823	1846	35.52	-62.21	0.03
89	SLV 12	-63	-823	1846	35.52	-62.21	0.03
89	SLV 13	-83	27	1568	-2.44	-76.25	0.04
89	SLV 14	-83	27	1568	-2.44	-76.25	0.04
89	SLV 15	-104	-337	1616	13.8	-97.95	0.05
89	SLV 16	-104	-337	1616	13.8	-97.95	0.05
90	SLU 1	0	-235	1757	8.87	-0.15	0
90	SLU 2	8	-255	1748	9.71	10.46	0
90	SLU 3	0	-235	1757	8.87	-0.15	0
90	SLU 4	5	-247	1752	9.37	6.22	0
90	SLU 5	8	-255	1748	9.71	10.46	0
90	SLU 6	0	-235	1757	8.87	-0.15	0
90	SLU 7	5	-247	1752	9.37	6.22	0
90	SLU 8	0	-235	1757	8.87	-0.15	0
90	SLU 9	5	-247	1752	9.37	6.22	0
90	SLU 10	8	-301	2019	11.41	10.41	0
90	SLU 11	0	-281	2028	10.57	-0.2	0
90	SLU 12	5	-293	2023	11.08	6.17	0
90	SLU 13	8	-301	2019	11.41	10.41	0
90	SLU 14	0	-281	2028	10.57	-0.2	0
90	SLU 15	5	-293	2023	11.08	6.17	0
90	SLU 16	0	-281	2028	10.57	-0.2	0
90	SLU 17	5	-293	2023	11.08	6.17	0
90	SLU 18	0	-301	2144	11.3	-0.23	0
90	SLU 19	5	-313	2139	11.81	6.14	0
90	SLU 20	0	-301	2144	11.3	-0.23	0
90	SLU 21	5	-313	2139	11.81	6.14	0
90	SLU 22	0	-261	1919	9.82	-0.18	0
90	SLU 23	8	-281	1910	10.66	10.44	0
90	SLU 24	0	-261	1919	9.82	-0.18	0
90	SLU 25	5	-273	1914	10.32	6.19	0
90	SLU 26	8	-281	1910	10.66	10.44	0
90	SLU 27	0	-261	1919	9.82	-0.18	0
90	SLU 28	5	-273	1914	10.32	6.19	0
90	SLU 29	0	-261	1919	9.82	-0.18	0
90	SLU 30	5	-273	1914	10.32	6.19	0
90	SLU 31	8	-327	2181	12.36	10.38	0
90	SLU 32	0	-307	2190	11.52	-0.23	0
90	SLU 33	5	-319	2185	12.02	6.14	0
90	SLU 34	8	-327	2181	12.36	10.38	0
90	SLU 35	0	-307	2190	11.52	-0.23	0
90	SLU 36	5	-319	2185	12.02	6.14	0
90	SLU 37	0	-307	2190	11.52	-0.23	0
90	SLU 38	5	-319	2185	12.02	6.14	0
90	SLU 39	0	-327	2306	12.25	-0.25	0
90	SLU 40	5	-339	2301	12.75	6.11	0
90	SLU 41	0	-327	2306	12.25	-0.25	0
90	SLU 42	5	-339	2301	12.75	6.11	0
90	SLU 43	0	-297	2229	11.21	-0.19	0
90	SLU 44	8	-317	2220	12.04	10.43	0
90	SLU 45	0	-297	2229	11.21	-0.19	0
90	SLU 46	5	-309	2223	11.71	6.18	0
90	SLU 47	8	-317	2220	12.04	10.43	0
90	SLU 48	0	-297	2229	11.21	-0.19	0
90	SLU 49	5	-309	2223	11.71	6.18	0
90	SLU 50	0	-297	2229	11.21	-0.19	0
90	SLU 51	5	-309	2223	11.71	6.18	0
90	SLU 52	8	-363	2491	13.75	10.38	0
90	SLU 53	0	-343	2500	12.91	-0.24	0
90	SLU 54	5	-355	2494	13.41	6.13	0
90	SLU 55	8	-363	2491	13.75	10.38	0
90	SLU 56	0	-343	2500	12.91	-0.24	0
90	SLU 57	5	-355	2494	13.41	6.13	0
90	SLU 58	0	-343	2500	12.91	-0.24	0
90	SLU 59	5	-355	2494	13.41	6.13	0
90	SLU 60	0	-363	2616	13.64	-0.26	0
90	SLU 61	5	-374	2610	14.14	6.11	0
90	SLU 62	0	-363	2616	13.64	-0.26	0
90	SLU 63	5	-374	2610	14.14	6.11	0
90	SLU 64	0	-323	2391	12.15	-0.21	0
90	SLU 65	8	-342	2382	12.99	10.4	0
90	SLU 66	0	-323	2391	12.15	-0.21	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
90	SLU 67	5	-334	2385	12.66	6.15	0
90	SLU 68	8	-342	2382	12.99	10.4	0
90	SLU 69	0	-323	2391	12.15	-0.21	0
90	SLU 70	5	-334	2385	12.66	6.15	0
90	SLU 71	0	-323	2391	12.15	-0.21	0
90	SLU 72	5	-334	2385	12.66	6.15	0
90	SLU 73	8	-388	2653	14.69	10.35	0
90	SLU 74	0	-369	2662	13.86	-0.27	0
90	SLU 75	5	-380	2656	14.36	6.1	0
90	SLU 76	8	-388	2653	14.69	10.35	0
90	SLU 77	0	-369	2662	13.86	-0.27	0
90	SLU 78	5	-380	2656	14.36	6.1	0
90	SLU 79	0	-369	2662	13.86	-0.27	0
90	SLU 80	5	-380	2656	14.36	6.1	0
90	SLU 81	0	-388	2778	14.59	-0.29	0
90	SLU 82	5	-400	2772	15.09	6.08	0
90	SLU 83	0	-388	2778	14.59	-0.29	0
90	SLU 84	5	-400	2772	15.09	6.08	0
90	SLE RA 1	0	-243	1803	9.14	-0.16	0
90	SLE RA 2	6	-256	1797	9.7	6.92	0
90	SLE RA 3	0	-243	1803	9.14	-0.16	0
90	SLE RA 4	3	-250	1800	9.48	4.09	0
90	SLE RA 5	6	-256	1797	9.7	6.92	0
90	SLE RA 6	0	-243	1803	9.14	-0.16	0
90	SLE RA 7	3	-250	1800	9.48	4.09	0
90	SLE RA 8	0	-243	1803	9.14	-0.16	0
90	SLE RA 9	3	-250	1800	9.48	4.09	0
90	SLE RA 10	6	-286	1978	10.83	6.88	0
90	SLE RA 11	0	-273	1984	10.28	-0.19	0
90	SLE RA 12	3	-281	1980	10.61	4.05	0
90	SLE RA 13	6	-286	1978	10.83	6.88	0
90	SLE RA 14	0	-273	1984	10.28	-0.19	0
90	SLE RA 15	3	-281	1980	10.61	4.05	0
90	SLE RA 16	0	-273	1984	10.28	-0.19	0
90	SLE RA 17	3	-281	1980	10.61	4.05	0
90	SLE RA 18	0	-286	2061	10.76	-0.21	0
90	SLE RA 19	3	-294	2058	11.1	4.04	0
90	SLE RA 20	0	-286	2061	10.76	-0.21	0
90	SLE RA 21	3	-294	2058	11.1	4.04	0
90	SLE FR 1	0	-243	1803	9.14	-0.16	0
90	SLE FR 2	1	-245	1802	9.25	1.26	0
90	SLE FR 3	0	-243	1803	9.14	-0.16	0
90	SLE FR 4	1	-258	1880	9.74	1.24	0
90	SLE FR 5	0	-256	1881	9.63	-0.17	0
90	SLE FR 6	0	-264	1932	9.95	-0.18	0
90	SLE QP 1	0	-243	1803	9.14	-0.16	0
90	SLE QP 2	0	-256	1881	9.63	-0.17	0
90	SLD 1	40	-137	1764	4.84	37.56	0
90	SLD 2	40	-137	1764	4.84	37.56	0
90	SLD 3	48	-293	1776	11.42	45.49	-0.01
90	SLD 4	48	-293	1776	11.42	45.49	-0.01
90	SLD 5	-1	17	1829	-1.79	-0.88	0
90	SLD 6	-1	17	1829	-1.79	-0.88	0
90	SLD 7	27	-504	1866	20.14	25.56	-0.01
90	SLD 8	27	-504	1866	20.14	25.56	-0.01
90	SLD 9	-27	-7	1895	-0.89	-25.9	0.01
90	SLD 10	-27	-7	1895	-0.89	-25.9	0.01
90	SLD 11	1	-528	1933	21.04	0.54	0
90	SLD 12	1	-528	1933	21.04	0.54	0
90	SLD 13	-48	-218	1986	7.84	-45.84	0.01
90	SLD 14	-48	-218	1986	7.84	-45.84	0.01
90	SLD 15	-40	-374	1997	14.42	-37.91	0
90	SLD 16	-40	-374	1997	14.42	-37.91	0
90	SLV 1	102	25	1607	-1.72	96.21	-0.01
90	SLV 2	102	25	1607	-1.72	96.21	-0.01
90	SLV 3	123	-344	1634	13.82	116.5	-0.02
90	SLV 4	123	-344	1634	13.82	116.5	-0.02
90	SLV 5	-2	388	1758	-17.35	-2.04	0.01
90	SLV 6	-2	388	1758	-17.35	-2.04	0.01
90	SLV 7	69	-842	1848	34.45	65.61	-0.02
90	SLV 8	69	-842	1848	34.45	65.61	-0.02
90	SLV 9	-69	331	1914	-15.2	-65.96	0.02
90	SLV 10	-69	331	1914	-15.2	-65.96	0.02
90	SLV 11	2	-900	2004	36.6	1.69	-0.01
90	SLV 12	2	-900	2004	36.6	1.69	-0.01
90	SLV 13	-123	-168	2127	5.43	-116.85	0.02
90	SLV 14	-123	-168	2127	5.43	-116.85	0.02
90	SLV 15	-102	-537	2155	20.97	-96.55	0.01
90	SLV 16	-102	-537	2155	20.97	-96.55	0.01
91	SLU 1	0	-3	1653	-0.2	0.04	0
91	SLU 2	-2	-100	1537	2.82	-1.69	0.02
91	SLU 3	0	-3	1653	-0.2	0.04	0
91	SLU 4	-1	-62	1583	1.61	-1	0.01
91	SLU 5	-2	-100	1537	2.82	-1.69	0.02
91	SLU 6	0	-3	1653	-0.2	0.04	0
91	SLU 7	-1	-62	1583	1.61	-1	0.01
91	SLU 8	0	-3	1653	-0.2	0.04	0
91	SLU 9	-1	-62	1583	1.61	-1	0.01
91	SLU 10	-2	-108	2058	2.92	-1.67	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
91	SLU 11	0	-11	2174	-0.11	0.06	0
91	SLU 12	-1	-69	2105	1.71	-0.98	0.01
91	SLU 13	-2	-108	2058	2.92	-1.67	0.02
91	SLU 14	0	-11	2174	-0.11	0.06	0
91	SLU 15	-1	-69	2105	1.71	-0.98	0.01
91	SLU 16	0	-11	2174	-0.11	0.06	0
91	SLU 17	-1	-69	2105	1.71	-0.98	0.01
91	SLU 18	0	-14	2398	-0.06	0.06	0
91	SLU 19	-1	-73	2328	1.75	-0.97	0.01
91	SLU 20	0	-14	2398	-0.06	0.06	0
91	SLU 21	-1	-73	2328	1.75	-0.97	0.01
91	SLU 22	0	-8	2030	-0.2	0.05	0
91	SLU 23	-2	-105	1914	2.82	-1.68	0.02
91	SLU 24	0	-8	2030	-0.2	0.05	0
91	SLU 25	-1	-66	1961	1.61	-0.99	0.01
91	SLU 26	-2	-105	1914	2.82	-1.68	0.02
91	SLU 27	0	-8	2030	-0.2	0.05	0
91	SLU 28	-1	-66	1961	1.61	-0.99	0.01
91	SLU 29	0	-8	2030	-0.2	0.05	0
91	SLU 30	-1	-66	1961	1.61	-0.99	0.01
91	SLU 31	-2	-112	2436	2.92	-1.66	0.02
91	SLU 32	0	-15	2552	-0.1	0.07	0
91	SLU 33	-1	-73	2482	1.71	-0.97	0.01
91	SLU 34	-2	-112	2436	2.92	-1.66	0.02
91	SLU 35	0	-15	2552	-0.1	0.07	0
91	SLU 36	-1	-73	2482	1.71	-0.97	0.01
91	SLU 37	0	-15	2552	-0.1	0.07	0
91	SLU 38	-1	-73	2482	1.71	-0.97	0.01
91	SLU 39	0	-19	2775	-0.06	0.08	0
91	SLU 40	-1	-77	2706	1.75	-0.96	0.01
91	SLU 41	0	-19	2775	-0.06	0.08	0
91	SLU 42	-1	-77	2706	1.75	-0.96	0.01
91	SLU 43	0	-3	2019	-0.26	0.05	0
91	SLU 44	-2	-100	1904	2.76	-1.68	0.02
91	SLU 45	0	-3	2019	-0.26	0.05	0
91	SLU 46	-1	-61	1950	1.55	-0.99	0.01
91	SLU 47	-2	-100	1904	2.76	-1.68	0.02
91	SLU 48	0	-3	2019	-0.26	0.05	0
91	SLU 49	-1	-61	1950	1.55	-0.99	0.01
91	SLU 50	0	-3	2019	-0.26	0.05	0
91	SLU 51	-1	-61	1950	1.55	-0.99	0.01
91	SLU 52	-2	-108	2425	2.86	-1.66	0.02
91	SLU 53	0	-11	2541	-0.17	0.07	0
91	SLU 54	-1	-69	2471	1.65	-0.97	0.01
91	SLU 55	-2	-108	2425	2.86	-1.66	0.02
91	SLU 56	0	-11	2541	-0.17	0.07	0
91	SLU 57	-1	-69	2471	1.65	-0.97	0.01
91	SLU 58	0	-11	2541	-0.17	0.07	0
91	SLU 59	-1	-69	2471	1.65	-0.97	0.01
91	SLU 60	0	-14	2764	-0.12	0.07	0
91	SLU 61	-1	-72	2695	1.69	-0.96	0.01
91	SLU 62	0	-14	2764	-0.12	0.07	0
91	SLU 63	-1	-72	2695	1.69	-0.96	0.01
91	SLU 64	0	-7	2397	-0.26	0.06	0
91	SLU 65	-2	-104	2281	2.76	-1.67	0.02
91	SLU 66	0	-7	2397	-0.26	0.06	0
91	SLU 67	-1	-65	2327	1.55	-0.98	0.01
91	SLU 68	-2	-104	2281	2.76	-1.67	0.02
91	SLU 69	0	-7	2397	-0.26	0.06	0
91	SLU 70	-1	-65	2327	1.55	-0.98	0.01
91	SLU 71	0	-7	2397	-0.26	0.06	0
91	SLU 72	-1	-65	2327	1.55	-0.98	0.01
91	SLU 73	-2	-112	2802	2.86	-1.65	0.02
91	SLU 74	0	-15	2918	-0.16	0.08	0
91	SLU 75	-1	-73	2849	1.65	-0.96	0.01
91	SLU 76	-2	-112	2802	2.86	-1.65	0.02
91	SLU 77	0	-15	2918	-0.16	0.08	0
91	SLU 78	-1	-73	2849	1.65	-0.96	0.01
91	SLU 79	0	-15	2918	-0.16	0.08	0
91	SLU 80	-1	-73	2849	1.65	-0.96	0.01
91	SLU 81	0	-18	3142	-0.12	0.08	0
91	SLU 82	-1	-76	3072	1.69	-0.95	0.01
91	SLU 83	0	-18	3142	-0.12	0.08	0
91	SLU 84	-1	-76	3072	1.69	-0.95	0.01
91	SLE RA 1	0	-5	1761	-0.2	0.04	0
91	SLE RA 2	-1	-69	1684	1.81	-1.11	0.01
91	SLE RA 3	0	-5	1761	-0.2	0.04	0
91	SLE RA 4	-1	-43	1714	1.01	-0.65	0.01
91	SLE RA 5	-1	-69	1684	1.81	-1.11	0.01
91	SLE RA 6	0	-5	1761	-0.2	0.04	0
91	SLE RA 7	-1	-43	1714	1.01	-0.65	0.01
91	SLE RA 8	0	-5	1761	-0.2	0.04	0
91	SLE RA 9	-1	-43	1714	1.01	-0.65	0.01
91	SLE RA 10	-1	-74	2031	1.88	-1.1	0.01
91	SLE RA 11	0	-10	2108	-0.14	0.05	0
91	SLE RA 12	-1	-49	2062	1.07	-0.64	0.01
91	SLE RA 13	-1	-74	2031	1.88	-1.1	0.01
91	SLE RA 14	0	-10	2108	-0.14	0.05	0
91	SLE RA 15	-1	-49	2062	1.07	-0.64	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
91	SLE RA 16	0	-10	2108	-0.14	0.05	0
91	SLE RA 17	-1	-49	2062	-0.64	-0.64	0.01
91	SLE RA 18	0	-12	2257	-0.11	0.06	0
91	SLE RA 19	-1	-51	2211	1.1	-0.63	0.01
91	SLE RA 20	0	-12	2257	-0.11	0.06	0
91	SLE RA 21	-1	-51	2211	1.1	-0.63	0.01
91	SLE FR 1	0	-5	1761	-0.2	0.04	0
91	SLE FR 2	0	-18	1745	0.2	-0.19	0
91	SLE FR 3	0	-5	1761	-0.2	0.04	0
91	SLE FR 4	0	-20	1894	0.23	-0.18	0
91	SLE FR 5	0	-7	1910	-0.17	0.05	0
91	SLE FR 6	0	-8	2009	-0.16	0.05	0
91	SLE QP 1	0	-5	1761	-0.2	0.04	0
91	SLE QP 2	0	-7	1910	-0.17	0.05	0
91	SLD 1	34	11	1996	-0.74	33.52	-0.34
91	SLD 2	34	11	1996	-0.74	33.52	-0.34
91	SLD 3	32	-109	1908	3.04	32.17	-0.32
91	SLD 4	32	-109	1908	3.04	32.17	-0.32
91	SLD 5	14	181	2068	-6.08	12.13	-0.14
91	SLD 6	14	181	2068	-6.08	12.13	-0.14
91	SLD 7	6	-220	1777	6.52	7.65	-0.06
91	SLD 8	6	-220	1777	6.52	7.65	-0.06
91	SLD 9	-6	206	2043	-6.87	-7.55	0.06
91	SLD 10	-6	206	2043	-6.87	-7.55	0.06
91	SLD 11	-14	-194	1751	5.73	-12.03	0.13
91	SLD 12	-14	-194	1751	5.73	-12.03	0.13
91	SLD 13	-32	95	1911	-3.39	-32.08	0.32
91	SLD 14	-32	95	1911	-3.39	-32.08	0.32
91	SLD 15	-34	-25	1824	0.39	-33.42	0.34
91	SLD 16	-34	-25	1824	0.39	-33.42	0.34
91	SLV 1	87	31	2121	-1.34	85.69	-0.86
91	SLV 2	87	31	2121	-1.34	85.69	-0.86
91	SLV 3	81	-253	1912	7.58	82.45	-0.81
91	SLV 4	81	-253	1912	7.58	82.45	-0.81
91	SLV 5	34	435	2290	-14.06	30.65	-0.34
91	SLV 6	34	435	2290	-14.06	30.65	-0.34
91	SLV 7	16	-511	1593	15.68	19.86	-0.16
91	SLV 8	16	-511	1593	15.68	19.86	-0.16
91	SLV 9	-16	497	2226	-16.03	-19.77	0.16
91	SLV 10	-16	497	2226	-16.03	-19.77	0.16
91	SLV 11	-34	-448	1529	13.71	-30.55	0.34
91	SLV 12	-34	-448	1529	13.71	-30.55	0.34
91	SLV 13	-81	239	1907	-7.92	-82.36	0.81
91	SLV 14	-81	239	1907	-7.92	-82.36	0.81
91	SLV 15	-87	-44	1698	1	-85.6	0.86
91	SLV 16	-87	-44	1698	1	-85.6	0.86
92	SLU 1	0	-290	1648	13.27	0.13	0
92	SLU 2	-7	-299	1637	13.72	-7.6	0
92	SLU 3	0	-290	1648	13.27	0.13	0
92	SLU 4	-4	-296	1642	13.54	-4.51	0
92	SLU 5	-7	-299	1637	13.72	-7.6	0
92	SLU 6	0	-290	1648	13.27	0.13	0
92	SLU 7	-4	-296	1642	13.54	-4.51	0
92	SLU 8	0	-290	1648	13.27	0.13	0
92	SLU 9	-4	-296	1642	13.54	-4.51	0
92	SLU 10	-7	-329	1874	15.26	-7.55	0
92	SLU 11	0	-319	1885	14.81	0.19	0
92	SLU 12	-4	-325	1878	15.08	-4.45	0
92	SLU 13	-7	-329	1874	15.26	-7.55	0
92	SLU 14	0	-319	1885	14.81	0.19	0
92	SLU 15	-4	-325	1878	15.08	-4.45	0
92	SLU 16	0	-319	1885	14.81	0.19	0
92	SLU 17	-4	-325	1878	15.08	-4.45	0
92	SLU 18	0	-332	1987	15.47	0.21	0
92	SLU 19	-4	-338	1980	15.74	-4.43	0
92	SLU 20	0	-332	1987	15.47	0.21	0
92	SLU 21	-4	-338	1980	15.74	-4.43	0
92	SLU 22	0	-314	1791	14.46	0.16	0
92	SLU 23	-7	-324	1780	14.91	-7.58	0
92	SLU 24	0	-314	1791	14.46	0.16	0
92	SLU 25	-4	-320	1784	14.73	-4.48	0
92	SLU 26	-7	-324	1780	14.91	-7.58	0
92	SLU 27	0	-314	1791	14.46	0.16	0
92	SLU 28	-4	-320	1784	14.73	-4.48	0
92	SLU 29	0	-314	1791	14.46	0.16	0
92	SLU 30	-4	-320	1784	14.73	-4.48	0
92	SLU 31	-6	-353	2017	16.45	-7.52	0
92	SLU 32	0	-344	2028	16	0.21	0
92	SLU 33	-4	-350	2021	16.27	-4.43	0
92	SLU 34	-6	-353	2017	16.45	-7.52	0
92	SLU 35	0	-344	2028	16	0.21	0
92	SLU 36	-4	-350	2021	16.27	-4.43	0
92	SLU 37	0	-344	2028	16	0.21	0
92	SLU 38	-4	-350	2021	16.27	-4.43	0
92	SLU 39	0	-356	2130	16.66	0.24	0
92	SLU 40	-4	-362	2123	16.93	-4.4	0
92	SLU 41	0	-356	2130	16.66	0.24	0
92	SLU 42	-4	-362	2123	16.93	-4.4	0
92	SLU 43	0	-368	2094	16.84	0.16	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
92	SLU 44	-7	-378	2083	17.29	-7.57	0
92	SLU 45	0	-368	2094	16.84	0.16	0
92	SLU 46	-4	-374	2087	17.11	-4.48	0
92	SLU 47	-7	-378	2083	17.29	-7.57	0
92	SLU 48	0	-368	2094	16.84	0.16	0
92	SLU 49	-4	-374	2087	17.11	-4.48	0
92	SLU 50	0	-368	2094	16.84	0.16	0
92	SLU 51	-4	-374	2087	17.11	-4.48	0
92	SLU 52	-6	-407	2319	18.83	-7.52	0
92	SLU 53	0	-398	2331	18.38	0.22	0
92	SLU 54	-4	-403	2324	18.65	-4.42	0
92	SLU 55	-6	-407	2319	18.83	-7.52	0
92	SLU 56	0	-398	2331	18.38	0.22	0
92	SLU 57	-4	-403	2324	18.65	-4.42	0
92	SLU 58	0	-398	2331	18.38	0.22	0
92	SLU 59	-4	-403	2324	18.65	-4.42	0
92	SLU 60	0	-410	2432	19.04	0.24	0
92	SLU 61	-4	-416	2425	19.31	-4.4	0
92	SLU 62	0	-410	2432	19.04	0.24	0
92	SLU 63	-4	-416	2425	19.31	-4.4	0
92	SLU 64	0	-393	2237	18.04	0.19	0
92	SLU 65	-7	-403	2225	18.48	-7.55	0
92	SLU 66	0	-393	2237	18.04	0.19	0
92	SLU 67	-4	-399	2230	18.3	-4.45	0
92	SLU 68	-7	-403	2225	18.48	-7.55	0
92	SLU 69	0	-393	2237	18.04	0.19	0
92	SLU 70	-4	-399	2230	18.3	-4.45	0
92	SLU 71	0	-393	2237	18.04	0.19	0
92	SLU 72	-4	-399	2230	18.3	-4.45	0
92	SLU 73	-6	-432	2462	20.02	-7.49	0
92	SLU 74	0	-422	2474	19.57	0.24	0
92	SLU 75	-4	-428	2467	19.84	-4.4	0
92	SLU 76	-6	-432	2462	20.02	-7.49	0
92	SLU 77	0	-422	2474	19.57	0.24	0
92	SLU 78	-4	-428	2467	19.84	-4.4	0
92	SLU 79	0	-422	2474	19.57	0.24	0
92	SLU 80	-4	-428	2467	19.84	-4.4	0
92	SLU 81	0	-435	2575	20.23	0.27	0
92	SLU 82	-4	-441	2568	20.5	-4.37	0
92	SLU 83	0	-435	2575	20.23	0.27	0
92	SLU 84	-4	-441	2568	20.5	-4.37	0
92	SLE RA 1	0	-297	1689	13.61	0.14	0
92	SLE RA 2	-4	-303	1682	13.91	-5.02	0
92	SLE RA 3	0	-297	1689	13.61	0.14	0
92	SLE RA 4	-3	-301	1685	13.79	-2.96	0
92	SLE RA 5	-4	-303	1682	13.91	-5.02	0
92	SLE RA 6	0	-297	1689	13.61	0.14	0
92	SLE RA 7	-3	-301	1685	13.79	-2.96	0
92	SLE RA 8	0	-297	1689	13.61	0.14	0
92	SLE RA 9	-3	-301	1685	13.79	-2.96	0
92	SLE RA 10	-4	-323	1840	14.94	-4.98	0
92	SLE RA 11	0	-316	1847	14.64	0.18	0
92	SLE RA 12	-3	-320	1843	14.82	-2.92	0
92	SLE RA 13	-4	-323	1840	14.94	-4.98	0
92	SLE RA 14	0	-316	1847	14.64	0.18	0
92	SLE RA 15	-3	-320	1843	14.82	-2.92	0
92	SLE RA 16	0	-316	1847	14.64	0.18	0
92	SLE RA 17	-3	-320	1843	14.82	-2.92	0
92	SLE RA 18	0	-325	1915	15.08	0.19	0
92	SLE RA 19	-3	-329	1910	15.26	-2.9	0
92	SLE RA 20	0	-325	1915	15.08	0.19	0
92	SLE RA 21	-3	-329	1910	15.26	-2.9	0
92	SLE FR 1	0	-297	1689	13.61	0.14	0
92	SLE FR 2	-1	-298	1688	13.67	-0.89	0
92	SLE FR 3	0	-297	1689	13.61	0.14	0
92	SLE FR 4	-1	-306	1755	14.11	-0.88	0
92	SLE FR 5	0	-305	1757	14.05	0.15	0
92	SLE FR 6	0	-311	1802	14.34	0.16	0
92	SLE QP 1	0	-297	1689	13.61	0.14	0
92	SLE QP 2	0	-305	1757	14.05	0.15	0
92	SLD 1	41	-274	1845	12.64	38.68	-0.02
92	SLD 2	41	-274	1845	12.64	38.68	-0.02
92	SLD 3	33	-427	1866	19.46	30.43	-0.02
92	SLD 4	33	-427	1866	19.46	30.43	-0.02
92	SLD 5	25	-64	1751	3.28	24.21	-0.01
92	SLD 6	25	-64	1751	3.28	24.21	-0.01
92	SLD 7	-2	-574	1823	26.02	-3.26	0
92	SLD 8	-2	-574	1823	26.02	-3.26	0
92	SLD 9	3	-37	1691	2.09	3.57	0
92	SLD 10	3	-37	1691	2.09	3.57	0
92	SLD 11	-25	-546	1763	24.82	-23.9	0.01
92	SLD 12	-25	-546	1763	24.82	-23.9	0.01
92	SLD 13	-33	-183	1647	8.64	-30.13	0.02
92	SLD 14	-33	-183	1647	8.64	-30.13	0.02
92	SLD 15	-41	-336	1669	15.46	-38.37	0.02
92	SLD 16	-41	-336	1669	15.46	-38.37	0.02
92	SLV 1	105	-239	1978	11.02	98.54	-0.05
92	SLV 2	105	-239	1978	11.02	98.54	-0.05
92	SLV 3	84	-600	2032	27.12	77.43	-0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
92	SLV 4	84	-600	2032	27.12	77.43	-0.04
92	SLV 5	63	262	1742	-11.29	61.7	-0.03
92	SLV 6	63	262	1742	-11.29	61.7	-0.03
92	SLV 7	-6	-941	1921	42.4	-8.69	0
92	SLV 8	-6	-941	1921	42.4	-8.69	0
92	SLV 9	6	331	1593	-14.3	9	0
92	SLV 10	6	331	1593	-14.3	9	0
92	SLV 11	-63	-872	1772	39.39	-61.39	0.03
92	SLV 12	-63	-872	1772	39.39	-61.39	0.03
92	SLV 13	-84	-10	1481	0.98	-77.12	0.04
92	SLV 14	-84	-10	1481	0.98	-77.12	0.04
92	SLV 15	-105	-371	1535	17.09	-98.24	0.05
92	SLV 16	-105	-371	1535	17.09	-98.24	0.05
93	SLU 1	0	-300	1675	13.05	-0.16	0
93	SLU 2	11	-318	1668	13.84	11.83	0
93	SLU 3	0	-300	1675	13.05	-0.16	0
93	SLU 4	7	-311	1671	13.52	7.03	0
93	SLU 5	11	-318	1668	13.84	11.83	0
93	SLU 6	0	-300	1675	13.05	-0.16	0
93	SLU 7	7	-311	1671	13.52	7.03	0
93	SLU 8	0	-300	1675	13.05	-0.16	0
93	SLU 9	7	-311	1671	13.52	7.03	0
93	SLU 10	11	-375	1924	16.37	11.77	0
93	SLU 11	0	-357	1930	15.59	-0.22	0
93	SLU 12	6	-368	1926	16.06	6.98	0
93	SLU 13	11	-375	1924	16.37	11.77	0
93	SLU 14	0	-357	1930	15.59	-0.22	0
93	SLU 15	6	-368	1926	16.06	6.98	0
93	SLU 16	0	-357	1930	15.59	-0.22	0
93	SLU 17	6	-368	1926	16.06	6.98	0
93	SLU 18	0	-382	2040	16.67	-0.24	0
93	SLU 19	6	-393	2036	17.15	6.95	0
93	SLU 20	0	-382	2040	16.67	-0.24	0
93	SLU 21	6	-393	2036	17.15	6.95	0
93	SLU 22	0	-334	1828	14.54	-0.19	0
93	SLU 23	11	-352	1821	15.33	11.8	0
93	SLU 24	0	-334	1828	14.54	-0.19	0
93	SLU 25	6	-345	1824	15.01	7.01	0
93	SLU 26	11	-352	1821	15.33	11.8	0
93	SLU 27	0	-334	1828	14.54	-0.19	0
93	SLU 28	6	-345	1824	15.01	7.01	0
93	SLU 29	0	-334	1828	14.54	-0.19	0
93	SLU 30	6	-345	1824	15.01	7.01	0
93	SLU 31	11	-409	2076	17.86	11.75	0
93	SLU 32	0	-391	2083	17.07	-0.24	0
93	SLU 33	6	-402	2079	17.55	6.95	0
93	SLU 34	11	-409	2076	17.86	11.75	0
93	SLU 35	0	-391	2083	17.07	-0.24	0
93	SLU 36	6	-402	2079	17.55	6.95	0
93	SLU 37	0	-391	2083	17.07	-0.24	0
93	SLU 38	6	-402	2079	17.55	6.95	0
93	SLU 39	0	-415	2192	18.16	-0.27	0
93	SLU 40	6	-426	2189	18.63	6.93	0
93	SLU 41	0	-415	2192	18.16	-0.27	0
93	SLU 42	6	-426	2189	18.63	6.93	0
93	SLU 43	0	-378	2125	16.45	-0.2	0
93	SLU 44	11	-397	2119	17.24	11.79	0
93	SLU 45	0	-378	2125	16.45	-0.2	0
93	SLU 46	6	-389	2121	16.93	7	0
93	SLU 47	11	-397	2119	17.24	11.79	0
93	SLU 48	0	-378	2125	16.45	-0.2	0
93	SLU 49	6	-389	2121	16.93	7	0
93	SLU 50	0	-378	2125	16.45	-0.2	0
93	SLU 51	6	-389	2121	16.93	7	0
93	SLU 52	11	-454	2374	19.78	11.74	0
93	SLU 53	0	-436	2381	18.99	-0.25	0
93	SLU 54	6	-447	2377	19.46	6.94	0
93	SLU 55	11	-454	2374	19.78	11.74	0
93	SLU 56	0	-436	2381	18.99	-0.25	0
93	SLU 57	6	-447	2377	19.46	6.94	0
93	SLU 58	0	-436	2381	18.99	-0.25	0
93	SLU 59	6	-447	2377	19.46	6.94	0
93	SLU 60	0	-460	2490	20.08	-0.28	0
93	SLU 61	6	-471	2486	20.55	6.92	0
93	SLU 62	0	-460	2490	20.08	-0.28	0
93	SLU 63	6	-471	2486	20.55	6.92	0
93	SLU 64	0	-412	2278	17.94	-0.23	0
93	SLU 65	11	-430	2271	18.73	11.76	0
93	SLU 66	0	-412	2278	17.94	-0.23	0
93	SLU 67	6	-423	2274	18.41	6.97	0
93	SLU 68	11	-430	2271	18.73	11.76	0
93	SLU 69	0	-412	2278	17.94	-0.23	0
93	SLU 70	6	-423	2274	18.41	6.97	0
93	SLU 71	0	-412	2278	17.94	-0.23	0
93	SLU 72	6	-423	2274	18.41	6.97	0
93	SLU 73	11	-488	2527	21.27	11.71	0
93	SLU 74	0	-469	2533	20.48	-0.28	0
93	SLU 75	6	-480	2529	20.95	6.91	0
93	SLU 76	11	-488	2527	21.27	11.71	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
93	SLU 77	0	-469	2533	20.48	-0.28	0
93	SLU 78	6	-480	2529	20.95	6.91	0
93	SLU 79	0	-469	2533	20.48	-0.28	0
93	SLU 80	6	-480	2529	20.95	6.91	0
93	SLU 81	0	-494	2643	21.57	-0.31	0
93	SLU 82	6	-505	2639	22.04	6.89	0
93	SLU 83	0	-494	2643	21.57	-0.31	0
93	SLU 84	6	-505	2639	22.04	6.89	0
93	SLE RA 1	0	-310	1719	13.47	-0.17	0
93	SLE RA 2	7	-322	1714	14	7.83	0
93	SLE RA 3	0	-310	1719	13.47	-0.17	0
93	SLE RA 4	4	-317	1716	13.79	4.63	0
93	SLE RA 5	7	-322	1714	14	7.83	0
93	SLE RA 6	0	-310	1719	13.47	-0.17	0
93	SLE RA 7	4	-317	1716	13.79	4.63	0
93	SLE RA 8	0	-310	1719	13.47	-0.17	0
93	SLE RA 9	4	-317	1716	13.79	4.63	0
93	SLE RA 10	7	-360	1884	15.69	7.79	0
93	SLE RA 11	0	-348	1889	15.16	-0.2	0
93	SLE RA 12	4	-355	1886	15.48	4.59	0
93	SLE RA 13	7	-360	1884	15.69	7.79	0
93	SLE RA 14	0	-348	1889	15.16	-0.2	0
93	SLE RA 15	4	-355	1886	15.48	4.59	0
93	SLE RA 16	0	-348	1889	15.16	-0.2	0
93	SLE RA 17	4	-355	1886	15.48	4.59	0
93	SLE RA 18	0	-364	1962	15.89	-0.22	0
93	SLE RA 19	4	-371	1959	16.21	4.58	0
93	SLE RA 20	0	-364	1962	15.89	-0.22	0
93	SLE RA 21	4	-371	1959	16.21	4.58	0
93	SLE FR 1	0	-310	1719	13.47	-0.17	0
93	SLE FR 2	1	-312	1718	13.58	1.43	0
93	SLE FR 3	0	-310	1719	13.47	-0.17	0
93	SLE FR 4	1	-328	1791	14.3	1.41	0
93	SLE FR 5	0	-326	1792	14.2	-0.18	0
93	SLE FR 6	0	-337	1840	14.68	-0.19	0
93	SLE QP 1	0	-310	1719	13.47	-0.17	0
93	SLE QP 2	0	-326	1792	14.2	-0.18	0
93	SLD 1	39	-211	1683	9.19	37.29	0.02
93	SLD 2	39	-211	1683	9.19	37.29	0.02
93	SLD 3	48	-366	1698	15.79	45.43	0.02
93	SLD 4	48	-366	1698	15.79	45.43	0.02
93	SLD 5	-2	-56	1736	2.69	-1.28	0.01
93	SLD 6	-2	-56	1736	2.69	-1.28	0.01
93	SLD 7	28	-573	1786	24.69	25.84	0
93	SLD 8	28	-573	1786	24.69	25.84	0
93	SLD 9	-28	-78	1797	3.71	-26.21	0
93	SLD 10	-28	-78	1797	3.71	-26.21	0
93	SLD 11	2	-596	1847	25.71	0.91	-0.01
93	SLD 12	2	-596	1847	25.71	0.91	-0.01
93	SLD 13	-49	-286	1885	12.6	-45.79	-0.02
93	SLD 14	-49	-286	1885	12.6	-45.79	-0.02
93	SLD 15	-40	-441	1900	19.2	-37.66	-0.02
93	SLD 16	-40	-441	1900	19.2	-37.66	-0.02
93	SLV 1	101	-54	1536	2.35	95.6	0.05
93	SLV 2	101	-54	1536	2.35	95.6	0.05
93	SLV 3	124	-420	1572	17.93	116.27	0.04
93	SLV 4	124	-420	1572	17.93	116.27	0.04
93	SLV 5	-4	312	1661	-13	-2.81	0.03
93	SLV 6	-4	312	1661	-13	-2.81	0.03
93	SLV 7	71	-910	1780	38.96	66.11	0
93	SLV 8	71	-910	1780	38.96	66.11	0
93	SLV 9	-72	258	1803	-10.56	-66.48	0
93	SLV 10	-72	258	1803	-10.56	-66.48	0
93	SLV 11	4	-963	1922	41.39	2.44	-0.03
93	SLV 12	4	-963	1922	41.39	2.44	-0.03
93	SLV 13	-124	-232	2011	10.46	-116.64	-0.04
93	SLV 14	-124	-232	2011	10.46	-116.64	-0.04
93	SLV 15	-101	-598	2047	26.05	-95.97	-0.05
93	SLV 16	-101	-598	2047	26.05	-95.97	-0.05
94	SLU 1	0	-29	1516	0.4	0.03	0
94	SLU 2	-2	-120	1419	3.06	-2.03	0.01
94	SLU 3	0	-29	1516	0.4	0.03	0
94	SLU 4	-1	-84	1458	2	-1.21	0.01
94	SLU 5	-2	-120	1419	3.06	-2.03	0.01
94	SLU 6	0	-29	1516	0.4	0.03	0
94	SLU 7	-1	-84	1458	2	-1.21	0.01
94	SLU 8	0	-29	1516	0.4	0.03	0
94	SLU 9	-1	-84	1458	2	-1.21	0.01
94	SLU 10	-2	-133	1879	3.22	-2.02	0.01
94	SLU 11	0	-42	1976	0.56	0.04	0
94	SLU 12	-1	-97	1918	2.16	-1.19	0.01
94	SLU 13	-2	-133	1879	3.22	-2.02	0.01
94	SLU 14	0	-42	1976	0.56	0.04	0
94	SLU 15	-1	-97	1918	2.16	-1.19	0.01
94	SLU 16	0	-42	1976	0.56	0.04	0
94	SLU 17	-1	-97	1918	2.16	-1.19	0.01
94	SLU 18	0	-48	2173	0.63	0.05	0
94	SLU 19	-1	-102	2115	2.22	-1.19	0.01
94	SLU 20	0	-48	2173	0.63	0.05	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
94	SLU 21	-1	-102	2115	2.22	-1.19	0.01
94	SLU 22	0	-40	1842	0.52	0.04	0
94	SLU 23	-2	-131	1745	3.19	-2.02	0.01
94	SLU 24	0	-40	1842	0.52	0.04	0
94	SLU 25	-1	-94	1784	2.12	-1.2	0.01
94	SLU 26	-2	-131	1745	3.19	-2.02	0.01
94	SLU 27	0	-40	1842	0.52	0.04	0
94	SLU 28	-1	-94	1784	2.12	-1.2	0.01
94	SLU 29	0	-40	1842	0.52	0.04	0
94	SLU 30	-1	-94	1784	2.12	-1.2	0.01
94	SLU 31	-2	-144	2205	3.34	-2.01	0.01
94	SLU 32	0	-53	2302	0.68	0.05	0
94	SLU 33	-1	-107	2244	2.28	-1.19	0.01
94	SLU 34	-2	-144	2205	3.34	-2.01	0.01
94	SLU 35	0	-53	2302	0.68	0.05	0
94	SLU 36	-1	-107	2244	2.28	-1.19	0.01
94	SLU 37	0	-53	2302	0.68	0.05	0
94	SLU 38	-1	-107	2244	2.28	-1.19	0.01
94	SLU 39	0	-58	2499	0.75	0.05	0
94	SLU 40	-1	-113	2441	2.35	-1.18	0.01
94	SLU 41	0	-58	2499	0.75	0.05	0
94	SLU 42	-1	-113	2441	2.35	-1.18	0.01
94	SLU 43	0	-34	1859	0.48	0.03	0
94	SLU 44	-2	-125	1762	3.14	-2.02	0.01
94	SLU 45	0	-34	1859	0.48	0.03	0
94	SLU 46	-1	-89	1801	2.08	-1.2	0.01
94	SLU 47	-2	-125	1762	3.14	-2.02	0.01
94	SLU 48	0	-34	1859	0.48	0.03	0
94	SLU 49	-1	-89	1801	2.08	-1.2	0.01
94	SLU 50	0	-34	1859	0.48	0.03	0
94	SLU 51	-1	-89	1801	2.08	-1.2	0.01
94	SLU 52	-2	-138	2222	3.3	-2.01	0.01
94	SLU 53	0	-47	2319	0.64	0.05	0
94	SLU 54	-1	-102	2261	2.23	-1.19	0.01
94	SLU 55	-2	-138	2222	3.3	-2.01	0.01
94	SLU 56	0	-47	2319	0.64	0.05	0
94	SLU 57	-1	-102	2261	2.23	-1.19	0.01
94	SLU 58	0	-47	2319	0.64	0.05	0
94	SLU 59	-1	-102	2261	2.23	-1.19	0.01
94	SLU 60	0	-53	2516	0.7	0.05	0
94	SLU 61	-1	-107	2458	2.3	-1.18	0.01
94	SLU 62	0	-53	2516	0.7	0.05	0
94	SLU 63	-1	-107	2458	2.3	-1.18	0.01
94	SLU 64	0	-45	2185	0.6	0.04	0
94	SLU 65	-2	-136	2088	3.26	-2.02	0.01
94	SLU 66	0	-45	2185	0.6	0.04	0
94	SLU 67	-1	-99	2127	2.2	-1.19	0.01
94	SLU 68	-2	-136	2088	3.26	-2.02	0.01
94	SLU 69	0	-45	2185	0.6	0.04	0
94	SLU 70	-1	-99	2127	2.2	-1.19	0.01
94	SLU 71	0	-45	2185	0.6	0.04	0
94	SLU 72	-1	-99	2127	2.2	-1.19	0.01
94	SLU 73	-2	-149	2548	3.42	-2	0.01
94	SLU 74	0	-58	2645	0.76	0.05	0
94	SLU 75	-1	-112	2587	2.36	-1.18	0.01
94	SLU 76	-2	-149	2548	3.42	-2	0.01
94	SLU 77	0	-58	2645	0.76	0.05	0
94	SLU 78	-1	-112	2587	2.36	-1.18	0.01
94	SLU 79	0	-58	2645	0.76	0.05	0
94	SLU 80	-1	-112	2587	2.36	-1.18	0.01
94	SLU 81	0	-63	2842	0.83	0.06	0
94	SLU 82	-1	-118	2784	2.42	-1.18	0.01
94	SLU 83	0	-63	2842	0.83	0.06	0
94	SLU 84	-1	-118	2784	2.42	-1.18	0.01
94	SLE RA 1	0	-32	1609	0.44	0.03	0
94	SLE RA 2	-1	-93	1544	2.21	-1.34	0.01
94	SLE RA 3	0	-32	1609	0.44	0.03	0
94	SLE RA 4	-1	-69	1570	1.5	-0.79	0
94	SLE RA 5	-1	-93	1544	2.21	-1.34	0.01
94	SLE RA 6	0	-32	1609	0.44	0.03	0
94	SLE RA 7	-1	-69	1570	1.5	-0.79	0
94	SLE RA 8	0	-32	1609	0.44	0.03	0
94	SLE RA 9	-1	-69	1570	1.5	-0.79	0
94	SLE RA 10	-1	-101	1851	2.32	-1.33	0.01
94	SLE RA 11	0	-41	1916	0.54	0.04	0
94	SLE RA 12	-1	-77	1877	1.61	-0.78	0
94	SLE RA 13	-1	-101	1851	2.32	-1.33	0.01
94	SLE RA 14	0	-41	1916	0.54	0.04	0
94	SLE RA 15	-1	-77	1877	1.61	-0.78	0
94	SLE RA 16	0	-41	1916	0.54	0.04	0
94	SLE RA 17	-1	-77	1877	1.61	-0.78	0
94	SLE RA 18	0	-44	2047	0.59	0.04	0
94	SLE RA 19	-1	-81	2008	1.65	-0.78	0
94	SLE RA 20	0	-44	2047	0.59	0.04	0
94	SLE RA 21	-1	-81	2008	1.65	-0.78	0
94	SLE FR 1	0	-32	1609	0.44	0.03	0
94	SLE FR 2	0	-44	1596	0.79	-0.24	0
94	SLE FR 3	0	-32	1609	0.44	0.03	0
94	SLE FR 4	0	-48	1727	0.84	-0.24	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
94	SLE FR 5	0	-36	1740	0.48	0.03	0
94	SLE FR 6	0	-38	1828	0.51	0.04	0
94	SLE QP 1	0	-32	1609	0.44	0.03	0
94	SLE QP 2	0	-36	1740	0.48	0.03	0
94	SLD 1	26	-14	1794	-0.17	28.59	-0.08
94	SLD 2	26	-14	1794	-0.17	28.59	-0.08
94	SLD 3	23	-144	1754	3.76	27.1	-0.07
94	SLD 4	23	-144	1754	3.76	27.1	-0.07
94	SLD 5	12	168	1817	-5.68	10.86	-0.04
94	SLD 6	12	168	1817	-5.68	10.86	-0.04
94	SLD 7	3	-265	1683	7.43	5.89	-0.01
94	SLD 8	3	-265	1683	7.43	5.89	-0.01
94	SLD 9	-3	194	1797	-6.47	-5.83	0.01
94	SLD 10	-3	194	1797	-6.47	-5.83	0.01
94	SLD 11	-11	-239	1663	6.64	-10.79	0.04
94	SLD 12	-11	-239	1663	6.64	-10.79	0.04
94	SLD 13	-23	72	1727	-2.8	-27.03	0.07
94	SLD 14	-23	72	1727	-2.8	-27.03	0.07
94	SLD 15	-26	-58	1687	1.13	-28.52	0.08
94	SLD 16	-26	-58	1687	1.13	-28.52	0.08
94	SLV 1	66	11	1876	-0.92	73.13	-0.21
94	SLV 2	66	11	1876	-0.92	73.13	-0.21
94	SLV 3	60	-295	1775	8.34	69.44	-0.19
94	SLV 4	60	-295	1775	8.34	69.44	-0.19
94	SLV 5	29	442	1933	-13.98	27.55	-0.1
94	SLV 6	29	442	1933	-13.98	27.55	-0.1
94	SLV 7	9	-578	1599	16.88	15.26	-0.02
94	SLV 8	9	-578	1599	16.88	15.26	-0.02
94	SLV 9	-9	506	1882	-15.92	-15.2	0.02
94	SLV 10	-9	506	1882	-15.92	-15.2	0.02
94	SLV 11	-29	-514	1548	14.94	-27.49	0.1
94	SLV 12	-29	-514	1548	14.94	-27.49	0.1
94	SLV 13	-60	224	1705	-7.38	-69.37	0.19
94	SLV 14	-60	224	1705	-7.38	-69.37	0.19
94	SLV 15	-66	-83	1605	1.88	-73.06	0.21
94	SLV 16	-66	-83	1605	1.88	-73.06	0.21
95	SLU 1	0	-312	1563	12.18	0.17	0
95	SLU 2	-7	-319	1555	12.53	-7.43	0
95	SLU 3	0	-312	1563	12.18	0.17	0
95	SLU 4	-4	-316	1558	12.39	-4.39	0
95	SLU 5	-7	-319	1555	12.53	-7.43	0
95	SLU 6	0	-312	1563	12.18	0.17	0
95	SLU 7	-4	-316	1558	12.39	-4.39	0
95	SLU 8	0	-312	1563	12.18	0.17	0
95	SLU 9	-4	-316	1558	12.39	-4.39	0
95	SLU 10	-7	-346	1789	13.39	-7.36	0
95	SLU 11	0	-339	1797	13.04	0.24	0
95	SLU 12	-4	-343	1793	13.25	-4.32	0
95	SLU 13	-7	-346	1789	13.39	-7.36	0
95	SLU 14	0	-339	1797	13.04	0.24	0
95	SLU 15	-4	-343	1793	13.25	-4.32	0
95	SLU 16	0	-339	1797	13.04	0.24	0
95	SLU 17	-4	-343	1793	13.25	-4.32	0
95	SLU 18	0	-350	1898	13.41	0.27	0
95	SLU 19	-4	-355	1893	13.62	-4.29	0
95	SLU 20	0	-350	1898	13.41	0.27	0
95	SLU 21	-4	-355	1893	13.62	-4.29	0
95	SLU 22	0	-337	1700	13.07	0.21	0
95	SLU 23	-7	-344	1692	13.42	-7.39	0
95	SLU 24	0	-337	1700	13.07	0.21	0
95	SLU 25	-4	-341	1695	13.28	-4.35	0
95	SLU 26	-7	-344	1692	13.42	-7.39	0
95	SLU 27	0	-337	1700	13.07	0.21	0
95	SLU 28	-4	-341	1695	13.28	-4.35	0
95	SLU 29	0	-337	1700	13.07	0.21	0
95	SLU 30	-4	-341	1695	13.28	-4.35	0
95	SLU 31	-7	-371	1926	14.28	-7.32	0
95	SLU 32	0	-363	1934	13.93	0.28	0
95	SLU 33	-4	-368	1929	14.14	-4.28	0
95	SLU 34	-7	-371	1926	14.28	-7.32	0
95	SLU 35	0	-363	1934	13.93	0.28	0
95	SLU 36	-4	-368	1929	14.14	-4.28	0
95	SLU 37	0	-363	1934	13.93	0.28	0
95	SLU 38	-4	-368	1929	14.14	-4.28	0
95	SLU 39	0	-375	2034	14.29	0.31	0
95	SLU 40	-4	-379	2030	14.51	-4.25	0
95	SLU 41	0	-375	2034	14.29	0.31	0
95	SLU 42	-4	-379	2030	14.51	-4.25	0
95	SLU 43	0	-397	1985	15.53	0.21	0
95	SLU 44	-7	-405	1977	15.88	-7.39	0
95	SLU 45	0	-397	1985	15.53	0.21	0
95	SLU 46	-4	-402	1980	15.74	-4.35	0
95	SLU 47	-7	-405	1977	15.88	-7.39	0
95	SLU 48	0	-397	1985	15.53	0.21	0
95	SLU 49	-4	-402	1980	15.74	-4.35	0
95	SLU 50	0	-397	1985	15.53	0.21	0
95	SLU 51	-4	-402	1980	15.74	-4.35	0
95	SLU 52	-7	-431	2211	16.74	-7.32	0
95	SLU 53	0	-424	2219	16.39	0.28	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
95	SLU 54	-4	-428	2215	16.6	-4.28	0
95	SLU 55	-7	-431	2211	16.74	-7.32	0
95	SLU 56	0	-424	2219	16.39	0.28	0
95	SLU 57	-4	-428	2215	16.6	-4.28	0
95	SLU 58	0	-424	2219	16.39	0.28	0
95	SLU 59	-4	-428	2215	16.6	-4.28	0
95	SLU 60	0	-435	2320	16.76	0.31	0
95	SLU 61	-4	-440	2315	16.97	-4.25	0
95	SLU 62	0	-435	2320	16.76	0.31	0
95	SLU 63	-4	-440	2315	16.97	-4.25	0
95	SLU 64	0	-422	2122	16.42	0.25	0
95	SLU 65	-7	-429	2114	16.77	-7.35	0
95	SLU 66	0	-422	2122	16.42	0.25	0
95	SLU 67	-4	-426	2117	16.63	-4.31	0
95	SLU 68	-7	-429	2114	16.77	-7.35	0
95	SLU 69	0	-422	2122	16.42	0.25	0
95	SLU 70	-4	-426	2117	16.63	-4.31	0
95	SLU 71	0	-422	2122	16.42	0.25	0
95	SLU 72	-4	-426	2117	16.63	-4.31	0
95	SLU 73	-7	-456	2348	17.63	-7.28	0
95	SLU 74	0	-449	2356	17.28	0.32	0
95	SLU 75	-4	-453	2351	17.49	-4.24	0
95	SLU 76	-7	-456	2348	17.63	-7.28	0
95	SLU 77	0	-449	2356	17.28	0.32	0
95	SLU 78	-4	-453	2351	17.49	-4.24	0
95	SLU 79	0	-449	2356	17.28	0.32	0
95	SLU 80	-4	-453	2351	17.49	-4.24	0
95	SLU 81	0	-460	2456	17.64	0.35	0
95	SLU 82	-4	-465	2452	17.85	-4.21	0
95	SLU 83	0	-460	2456	17.64	0.35	0
95	SLU 84	-4	-465	2452	17.85	-4.21	0
95	SLE RA 1	0	-319	1602	12.43	0.18	0
95	SLE RA 2	-5	-324	1597	12.67	-4.88	0
95	SLE RA 3	0	-319	1602	12.43	0.18	0
95	SLE RA 4	-3	-322	1599	12.57	-2.86	0
95	SLE RA 5	-5	-324	1597	12.67	-4.88	0
95	SLE RA 6	0	-319	1602	12.43	0.18	0
95	SLE RA 7	-3	-322	1599	12.57	-2.86	0
95	SLE RA 8	0	-319	1602	12.43	0.18	0
95	SLE RA 9	-3	-322	1599	12.57	-2.86	0
95	SLE RA 10	-5	-342	1753	13.24	-4.84	0
95	SLE RA 11	0	-337	1758	13.01	0.23	0
95	SLE RA 12	-3	-340	1755	13.15	-2.81	0
95	SLE RA 13	-5	-342	1753	13.24	-4.84	0
95	SLE RA 14	0	-337	1758	13.01	0.23	0
95	SLE RA 15	-3	-340	1755	13.15	-2.81	0
95	SLE RA 16	0	-337	1758	13.01	0.23	0
95	SLE RA 17	-3	-340	1755	13.15	-2.81	0
95	SLE RA 18	0	-345	1825	13.25	0.25	0
95	SLE RA 19	-3	-348	1822	13.39	-2.79	0
95	SLE RA 20	0	-345	1825	13.25	0.25	0
95	SLE RA 21	-3	-348	1822	13.39	-2.79	0
95	SLE FR 1	0	-319	1602	12.43	0.18	0
95	SLE FR 2	-1	-320	1601	12.48	-0.83	0
95	SLE FR 3	0	-319	1602	12.43	0.18	0
95	SLE FR 4	-1	-328	1668	12.73	-0.81	0
95	SLE FR 5	0	-327	1669	12.68	0.2	0
95	SLE FR 6	0	-332	1714	12.84	0.22	0
95	SLE QP 1	0	-319	1602	12.43	0.18	0
95	SLE QP 2	0	-327	1669	12.68	0.2	0
95	SLD 1	36	-306	1751	11.74	34.79	-0.02
95	SLD 2	36	-306	1751	11.74	34.79	-0.02
95	SLD 3	28	-455	1778	18.31	27.25	-0.02
95	SLD 4	28	-455	1778	18.31	27.25	-0.02
95	SLD 5	23	-94	1653	2.42	22.02	-0.01
95	SLD 6	23	-94	1653	2.42	22.02	-0.01
95	SLD 7	-4	-591	1743	24.34	-3.12	0
95	SLD 8	-4	-591	1743	24.34	-3.12	0
95	SLD 9	4	-62	1595	1.01	3.52	0
95	SLD 10	4	-62	1595	1.01	3.52	0
95	SLD 11	-23	-559	1685	22.94	-21.61	0.01
95	SLD 12	-23	-559	1685	22.94	-21.61	0.01
95	SLD 13	-28	-198	1560	7.04	-26.85	0.02
95	SLD 14	-28	-198	1560	7.04	-26.85	0.02
95	SLD 15	-36	-348	1587	13.62	-34.39	0.02
95	SLD 16	-36	-348	1587	13.62	-34.39	0.02
95	SLV 1	92	-286	1876	10.8	88.57	-0.05
95	SLV 2	92	-286	1876	10.8	88.57	-0.05
95	SLV 3	72	-638	1942	26.33	69.31	-0.04
95	SLV 4	72	-638	1942	26.33	69.31	-0.04
95	SLV 5	58	220	1631	-11.45	55.93	-0.03
95	SLV 6	58	220	1631	-11.45	55.93	-0.03
95	SLV 7	-9	-955	1851	40.34	-8.29	0.01
95	SLV 8	-9	-955	1851	40.34	-8.29	0.01
95	SLV 9	9	301	1487	-14.98	8.69	-0.01
95	SLV 10	9	301	1487	-14.98	8.69	-0.01
95	SLV 11	-58	-874	1707	36.8	-55.53	0.03
95	SLV 12	-58	-874	1707	36.8	-55.53	0.03
95	SLV 13	-72	-15	1396	-0.97	-68.9	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
95	SLV 14	-72	-15	1396	-0.97	-68.9	0.04
95	SLV 15	-92	-368	1462	14.56	-88.17	0.06
95	SLV 16	-92	-368	1462	14.56	-88.17	0.06
96	SLU 1	0	-327	1585	12.29	-0.19	0
96	SLU 2	13	-343	1582	13	12.3	0
96	SLU 3	0	-327	1585	12.29	-0.19	0
96	SLU 4	8	-336	1584	12.72	7.3	0
96	SLU 5	13	-343	1582	13	12.3	0
96	SLU 6	0	-327	1585	12.29	-0.19	0
96	SLU 7	8	-336	1584	12.72	7.3	0
96	SLU 8	0	-327	1585	12.29	-0.19	0
96	SLU 9	8	-336	1584	12.72	7.3	0
96	SLU 10	13	-402	1823	15.17	12.23	0
96	SLU 11	0	-385	1826	14.46	-0.26	0
96	SLU 12	8	-395	1824	14.89	7.24	0
96	SLU 13	13	-402	1823	15.17	12.23	0
96	SLU 14	0	-385	1826	14.46	-0.26	0
96	SLU 15	8	-395	1824	14.89	7.24	0
96	SLU 16	0	-385	1826	14.46	-0.26	0
96	SLU 17	8	-395	1824	14.89	7.24	0
96	SLU 18	0	-411	1929	15.39	-0.28	0
96	SLU 19	8	-420	1927	15.82	7.21	0
96	SLU 20	0	-411	1929	15.39	-0.28	0
96	SLU 21	8	-420	1927	15.82	7.21	0
96	SLU 22	0	-363	1728	13.63	-0.22	0
96	SLU 23	13	-379	1725	14.34	12.26	0
96	SLU 24	0	-363	1728	13.63	-0.22	0
96	SLU 25	8	-373	1726	14.05	7.27	0
96	SLU 26	13	-379	1725	14.34	12.26	0
96	SLU 27	0	-363	1728	13.63	-0.22	0
96	SLU 28	8	-373	1726	14.05	7.27	0
96	SLU 29	0	-363	1728	13.63	-0.22	0
96	SLU 30	8	-373	1726	14.05	7.27	0
96	SLU 31	13	-438	1965	16.51	12.2	0
96	SLU 32	0	-422	1968	15.8	-0.29	0
96	SLU 33	8	-431	1966	16.22	7.2	0
96	SLU 34	13	-438	1965	16.51	12.2	0
96	SLU 35	0	-422	1968	15.8	-0.29	0
96	SLU 36	8	-431	1966	16.22	7.2	0
96	SLU 37	0	-422	1968	15.8	-0.29	0
96	SLU 38	8	-431	1966	16.22	7.2	0
96	SLU 39	0	-447	2071	16.73	-0.32	0
96	SLU 40	8	-457	2069	17.15	7.18	0
96	SLU 41	0	-447	2071	16.73	-0.32	0
96	SLU 42	8	-457	2069	17.15	7.18	0
96	SLU 43	0	-412	2012	15.53	-0.24	0
96	SLU 44	13	-428	2009	16.23	12.25	0
96	SLU 45	0	-412	2012	15.53	-0.24	0
96	SLU 46	8	-422	2010	15.95	7.25	0
96	SLU 47	13	-428	2009	16.23	12.25	0
96	SLU 48	0	-412	2012	15.53	-0.24	0
96	SLU 49	8	-422	2010	15.95	7.25	0
96	SLU 50	0	-412	2012	15.53	-0.24	0
96	SLU 51	8	-422	2010	15.95	7.25	0
96	SLU 52	13	-487	2250	18.4	12.19	0
96	SLU 53	0	-471	2252	17.69	-0.3	0
96	SLU 54	8	-481	2251	18.12	7.19	0
96	SLU 55	13	-487	2250	18.4	12.19	0
96	SLU 56	0	-471	2252	17.69	-0.3	0
96	SLU 57	8	-481	2251	18.12	7.19	0
96	SLU 58	0	-471	2252	17.69	-0.3	0
96	SLU 59	8	-481	2251	18.12	7.19	0
96	SLU 60	0	-496	2355	18.62	-0.33	0
96	SLU 61	8	-506	2354	19.05	7.16	0
96	SLU 62	0	-496	2355	18.62	-0.33	0
96	SLU 63	8	-506	2354	19.05	7.16	0
96	SLU 64	0	-448	2154	16.86	-0.27	0
96	SLU 65	13	-465	2151	17.57	12.22	0
96	SLU 66	0	-448	2154	16.86	-0.27	0
96	SLU 67	8	-458	2153	17.28	7.22	0
96	SLU 68	13	-465	2151	17.57	12.22	0
96	SLU 69	0	-448	2154	16.86	-0.27	0
96	SLU 70	8	-458	2153	17.28	7.22	0
96	SLU 71	0	-448	2154	16.86	-0.27	0
96	SLU 72	8	-458	2153	17.28	7.22	0
96	SLU 73	13	-523	2392	19.74	12.15	0
96	SLU 74	0	-507	2395	19.03	-0.34	0
96	SLU 75	8	-517	2393	19.45	7.16	0
96	SLU 76	13	-523	2392	19.74	12.15	0
96	SLU 77	0	-507	2395	19.03	-0.34	0
96	SLU 78	8	-517	2393	19.45	7.16	0
96	SLU 79	0	-507	2395	19.03	-0.34	0
96	SLU 80	8	-517	2393	19.45	7.16	0
96	SLU 81	0	-533	2498	19.96	-0.36	0
96	SLU 82	8	-542	2496	20.38	7.13	0
96	SLU 83	0	-533	2498	19.96	-0.36	0
96	SLU 84	8	-542	2496	20.38	7.13	0
96	SLE RA 1	0	-337	1626	12.68	-0.2	0
96	SLE RA 2	9	-348	1624	13.15	8.12	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
96	SLE RA 3	0	-337	1626	12.68	-0.2	0
96	SLE RA 4	5	-343	1625	12.96	4.79	0
96	SLE RA 5	9	-348	1624	13.15	8.12	0
96	SLE RA 6	0	-337	1626	12.68	-0.2	0
96	SLE RA 7	5	-343	1625	12.96	4.79	0
96	SLE RA 8	0	-337	1626	12.68	-0.2	0
96	SLE RA 9	5	-343	1625	12.96	4.79	0
96	SLE RA 10	8	-387	1784	14.59	8.08	0
96	SLE RA 11	0	-376	1786	14.12	-0.24	0
96	SLE RA 12	5	-383	1785	14.4	4.75	0
96	SLE RA 13	8	-387	1784	14.59	8.08	0
96	SLE RA 14	0	-376	1786	14.12	-0.24	0
96	SLE RA 15	5	-383	1785	14.4	4.75	0
96	SLE RA 16	0	-376	1786	14.12	-0.24	0
96	SLE RA 17	5	-383	1785	14.4	4.75	0
96	SLE RA 18	0	-393	1855	14.74	-0.26	0
96	SLE RA 19	5	-400	1854	15.02	4.73	0
96	SLE RA 20	0	-393	1855	14.74	-0.26	0
96	SLE RA 21	5	-400	1854	15.02	4.73	0
96	SLE FR 1	0	-337	1626	12.68	-0.2	0
96	SLE FR 2	2	-339	1626	12.77	1.46	0
96	SLE FR 3	0	-337	1626	12.68	-0.2	0
96	SLE FR 4	2	-356	1694	13.39	1.45	0
96	SLE FR 5	0	-354	1695	13.3	-0.22	0
96	SLE FR 6	0	-365	1740	13.71	-0.23	0
96	SLE QP 1	0	-337	1626	12.68	-0.2	0
96	SLE QP 2	0	-354	1695	13.3	-0.22	0
96	SLD 1	33	-244	1584	8.76	32.77	0.01
96	SLD 2	33	-244	1584	8.76	32.77	0.01
96	SLD 3	42	-396	1606	15.2	40.61	0.01
96	SLD 4	42	-396	1606	15.2	40.61	0.01
96	SLD 5	-4	-90	1628	2.17	-2.22	0.01
96	SLD 6	-4	-90	1628	2.17	-2.22	0.01
96	SLD 7	27	-597	1701	23.63	23.93	0
96	SLD 8	27	-597	1701	23.63	23.93	0
96	SLD 9	-27	-110	1688	2.96	-24.37	0
96	SLD 10	-27	-110	1688	2.96	-24.37	0
96	SLD 11	4	-618	1761	24.43	1.78	-0.01
96	SLD 12	4	-618	1761	24.43	1.78	-0.01
96	SLD 13	-42	-312	1783	11.39	-41.05	-0.01
96	SLD 14	-42	-312	1783	11.39	-41.05	-0.01
96	SLD 15	-33	-464	1805	17.83	-33.21	-0.01
96	SLD 16	-33	-464	1805	17.83	-33.21	-0.01
96	SLV 1	84	-93	1435	2.55	84.18	0.03
96	SLV 2	84	-93	1435	2.55	84.18	0.03
96	SLV 3	107	-453	1487	17.76	103.94	0.03
96	SLV 4	107	-453	1487	17.76	103.94	0.03
96	SLV 5	-10	270	1538	-12.99	-4.87	0.02
96	SLV 6	-10	270	1538	-12.99	-4.87	0.02
96	SLV 7	67	-929	1711	37.7	61	0
96	SLV 8	67	-929	1711	37.7	61	0
96	SLV 9	-67	221	1678	-11.11	-61.44	0
96	SLV 10	-67	221	1678	-11.11	-61.44	0
96	SLV 11	10	-977	1851	39.59	4.43	-0.02
96	SLV 12	10	-977	1851	39.59	4.43	-0.02
96	SLV 13	-107	-255	1902	8.83	-104.38	-0.03
96	SLV 14	-107	-255	1902	8.83	-104.38	-0.03
96	SLV 15	-84	-614	1954	24.04	-84.62	-0.03
96	SLV 16	-84	-614	1954	24.04	-84.62	-0.03
97	SLU 1	0	-51	1404	1.15	0.02	0
97	SLU 2	-3	-133	1331	3.64	-2.16	-0.01
97	SLU 3	0	-51	1404	1.15	0.02	0
97	SLU 4	-2	-100	1360	2.65	-1.29	0
97	SLU 5	-3	-133	1331	3.64	-2.16	-0.01
97	SLU 6	0	-51	1404	1.15	0.02	0
97	SLU 7	-2	-100	1360	2.65	-1.29	0
97	SLU 8	0	-51	1404	1.15	0.02	0
97	SLU 9	-2	-100	1360	2.65	-1.29	0
97	SLU 10	-3	-150	1742	4.05	-2.15	-0.01
97	SLU 11	0	-69	1816	1.56	0.03	0
97	SLU 12	-2	-118	1772	3.06	-1.28	0
97	SLU 13	-3	-150	1742	4.05	-2.15	-0.01
97	SLU 14	0	-69	1816	1.56	0.03	0
97	SLU 15	-2	-118	1772	3.06	-1.28	0
97	SLU 16	0	-69	1816	1.56	0.03	0
97	SLU 17	-2	-118	1772	3.06	-1.28	0
97	SLU 18	0	-77	1992	1.74	0.03	0
97	SLU 19	-2	-125	1948	3.23	-1.27	0
97	SLU 20	0	-77	1992	1.74	0.03	0
97	SLU 21	-2	-125	1948	3.23	-1.27	0
97	SLU 22	0	-67	1685	1.51	0.03	0
97	SLU 23	-3	-149	1612	4.01	-2.15	-0.01
97	SLU 24	0	-67	1685	1.51	0.03	0
97	SLU 25	-2	-116	1641	3.01	-1.28	0
97	SLU 26	-3	-149	1612	4.01	-2.15	-0.01
97	SLU 27	0	-67	1685	1.51	0.03	0
97	SLU 28	-2	-116	1641	3.01	-1.28	0
97	SLU 29	0	-67	1685	1.51	0.03	0
97	SLU 30	-2	-116	1641	3.01	-1.28	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
97	SLU 31	-3	-167	2024	4.42	-2.14	-0.01
97	SLU 32	0	-85	2097	1.92	0.03	0
97	SLU 33	-2	-134	2053	3.42	-1.27	0
97	SLU 34	-3	-167	2024	4.42	-2.14	-0.01
97	SLU 35	0	-85	2097	1.92	0.03	0
97	SLU 36	-2	-134	2053	3.42	-1.27	0
97	SLU 37	0	-85	2097	1.92	0.03	0
97	SLU 38	-2	-134	2053	3.42	-1.27	0
97	SLU 39	0	-93	2273	2.1	0.04	0
97	SLU 40	-2	-142	2229	3.59	-1.27	0
97	SLU 41	0	-93	2273	2.1	0.04	0
97	SLU 42	-2	-142	2229	3.59	-1.27	0
97	SLU 43	0	-61	1729	1.37	0.03	0
97	SLU 44	-3	-142	1656	3.86	-2.15	-0.01
97	SLU 45	0	-61	1729	1.37	0.03	0
97	SLU 46	-2	-110	1685	2.87	-1.28	0
97	SLU 47	-3	-142	1656	3.86	-2.15	-0.01
97	SLU 48	0	-61	1729	1.37	0.03	0
97	SLU 49	-2	-110	1685	2.87	-1.28	0
97	SLU 50	0	-61	1729	1.37	0.03	0
97	SLU 51	-2	-110	1685	2.87	-1.28	0
97	SLU 52	-3	-160	2067	4.27	-2.14	-0.01
97	SLU 53	0	-79	2141	1.78	0.03	0
97	SLU 54	-2	-128	2097	3.28	-1.27	0
97	SLU 55	-3	-160	2067	4.27	-2.14	-0.01
97	SLU 56	0	-79	2141	1.78	0.03	0
97	SLU 57	-2	-128	2097	3.28	-1.27	0
97	SLU 58	0	-79	2141	1.78	0.03	0
97	SLU 59	-2	-128	2097	3.28	-1.27	0
97	SLU 60	0	-86	2317	1.96	0.04	0
97	SLU 61	-2	-135	2273	3.45	-1.27	0
97	SLU 62	0	-86	2317	1.96	0.04	0
97	SLU 63	-2	-135	2273	3.45	-1.27	0
97	SLU 64	0	-77	2010	1.73	0.03	0
97	SLU 65	-3	-159	1937	4.23	-2.15	-0.01
97	SLU 66	0	-77	2010	1.73	0.03	0
97	SLU 67	-2	-126	1966	3.23	-1.28	0
97	SLU 68	-3	-159	1937	4.23	-2.15	-0.01
97	SLU 69	0	-77	2010	1.73	0.03	0
97	SLU 70	-2	-126	1966	3.23	-1.28	0
97	SLU 71	0	-77	2010	1.73	0.03	0
97	SLU 72	-2	-126	1966	3.23	-1.28	0
97	SLU 73	-3	-176	2348	4.64	-2.14	-0.01
97	SLU 74	0	-95	2422	2.14	0.04	0
97	SLU 75	-2	-144	2378	3.64	-1.27	0
97	SLU 76	-3	-176	2348	4.64	-2.14	-0.01
97	SLU 77	0	-95	2422	2.14	0.04	0
97	SLU 78	-2	-144	2378	3.64	-1.27	0
97	SLU 79	0	-95	2422	2.14	0.04	0
97	SLU 80	-2	-144	2378	3.64	-1.27	0
97	SLU 81	0	-103	2598	2.32	0.04	0
97	SLU 82	-2	-151	2554	3.82	-1.26	0
97	SLU 83	0	-103	2598	2.32	0.04	0
97	SLU 84	-2	-151	2554	3.82	-1.26	0
97	SLE RA 1	0	-56	1485	1.25	0.02	0
97	SLE RA 2	-2	-110	1436	2.92	-1.43	-0.01
97	SLE RA 3	0	-56	1485	1.25	0.02	0
97	SLE RA 4	-1	-88	1455	2.25	-0.85	0
97	SLE RA 5	-2	-110	1436	2.92	-1.43	-0.01
97	SLE RA 6	0	-56	1485	1.25	0.02	0
97	SLE RA 7	-1	-88	1455	2.25	-0.85	0
97	SLE RA 8	0	-56	1485	1.25	0.02	0
97	SLE RA 9	-1	-88	1455	2.25	-0.85	0
97	SLE RA 10	-2	-122	1710	3.19	-1.42	-0.01
97	SLE RA 11	0	-68	1759	1.53	0.03	0
97	SLE RA 12	-1	-100	1730	2.52	-0.84	0
97	SLE RA 13	-2	-122	1710	3.19	-1.42	-0.01
97	SLE RA 14	0	-68	1759	1.53	0.03	0
97	SLE RA 15	-1	-100	1730	2.52	-0.84	0
97	SLE RA 16	0	-68	1759	1.53	0.03	0
97	SLE RA 17	-1	-100	1730	2.52	-0.84	0
97	SLE RA 18	0	-73	1876	1.64	0.03	0
97	SLE RA 19	-1	-105	1847	2.64	-0.84	0
97	SLE RA 20	0	-73	1876	1.64	0.03	0
97	SLE RA 21	-1	-105	1847	2.64	-0.84	0
97	SLE FR 1	0	-56	1485	1.25	0.02	0
97	SLE FR 2	0	-67	1475	1.59	-0.27	0
97	SLE FR 3	0	-56	1485	1.25	0.02	0
97	SLE FR 4	0	-72	1592	1.7	-0.27	0
97	SLE FR 5	0	-61	1602	1.37	0.02	0
97	SLE FR 6	0	-64	1680	1.45	0.03	0
97	SLE QP 1	0	-56	1485	1.25	0.02	0
97	SLE QP 2	0	-61	1602	1.37	0.02	0
97	SLD 1	14	48	1642	0.73	20.33	0.06
97	SLD 2	14	48	1642	0.73	20.33	0.06
97	SLD 3	11	-87	1614	4.74	18.75	0.05
97	SLD 4	11	-87	1614	4.74	18.75	0.05
97	SLD 5	8	177	1657	-4.9	8.52	0.03
97	SLD 6	8	177	1657	-4.9	8.52	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
97	SLD 7	-1	-274	1562	8.47	3.24	0
97	SLD 8	-1	-274	1562	8.47	3.24	0
97	SLD 9	1	152	1642	-5.72	-3.19	0
97	SLD 10	1	152	1642	-5.72	-3.19	0
97	SLD 11	-8	-299	1547	7.65	-8.47	-0.03
97	SLD 12	-8	-299	1547	7.65	-8.47	-0.03
97	SLD 13	-11	-34	1591	-2	-18.7	-0.05
97	SLD 14	-11	-34	1591	-2	-18.7	-0.05
97	SLD 15	-14	-170	1562	2.01	-20.28	-0.06
97	SLD 16	-14	-170	1562	2.01	-20.28	-0.06
97	SLV 1	35	200	1703	-0.02	52.01	0.15
97	SLV 2	35	200	1703	-0.02	52.01	0.15
97	SLV 3	28	-119	1632	9.42	48.03	0.13
97	SLV 4	28	-119	1632	9.42	48.03	0.13
97	SLV 5	20	500	1740	-13.36	21.67	0.08
97	SLV 6	20	500	1740	-13.36	21.67	0.08
97	SLV 7	-1	-561	1503	18.1	8.38	0.01
97	SLV 8	-1	-561	1503	18.1	8.38	0.01
97	SLV 9	1	439	1701	-15.35	-8.33	-0.01
97	SLV 10	1	439	1701	-15.35	-8.33	-0.01
97	SLV 11	-20	-622	1464	16.1	-21.62	-0.08
97	SLV 12	-20	-622	1464	16.1	-21.62	-0.08
97	SLV 13	-28	-3	1573	-6.67	-47.98	-0.13
97	SLV 14	-28	-3	1573	-6.67	-47.98	-0.13
97	SLV 15	-35	-321	1501	2.76	-51.96	-0.15
97	SLV 16	-35	-321	1501	2.76	-51.96	-0.15
98	SLU 1	0	-366	1477	16.72	0.25	0
98	SLU 2	-6	-371	1475	16.97	-6.44	0
98	SLU 3	0	-366	1477	16.72	0.25	0
98	SLU 4	-4	-369	1476	16.87	-3.76	0
98	SLU 5	-6	-371	1475	16.97	-6.44	0
98	SLU 6	0	-366	1477	16.72	0.25	0
98	SLU 7	-4	-369	1476	16.87	-3.76	0
98	SLU 8	0	-366	1477	16.72	0.25	0
98	SLU 9	-4	-369	1476	16.87	-3.76	0
98	SLU 10	-6	-405	1710	18.85	-6.34	0
98	SLU 11	0	-400	1713	18.6	0.34	0
98	SLU 12	-4	-403	1711	18.75	-3.67	0
98	SLU 13	-6	-405	1710	18.85	-6.34	0
98	SLU 14	0	-400	1713	18.6	0.34	0
98	SLU 15	-4	-403	1711	18.75	-3.67	0
98	SLU 16	0	-400	1713	18.6	0.34	0
98	SLU 17	-4	-403	1711	18.75	-3.67	0
98	SLU 18	0	-415	1814	19.41	0.38	0
98	SLU 19	-4	-418	1812	19.55	-3.63	0
98	SLU 20	0	-415	1814	19.41	0.38	0
98	SLU 21	-4	-418	1812	19.55	-3.63	0
98	SLU 22	0	-396	1609	18.2	0.29	0
98	SLU 23	-6	-401	1606	18.45	-6.39	0
98	SLU 24	0	-396	1609	18.2	0.29	0
98	SLU 25	-4	-399	1607	18.35	-3.72	0
98	SLU 26	-6	-401	1606	18.45	-6.39	0
98	SLU 27	0	-396	1609	18.2	0.29	0
98	SLU 28	-4	-399	1607	18.35	-3.72	0
98	SLU 29	0	-396	1609	18.2	0.29	0
98	SLU 30	-4	-399	1607	18.35	-3.72	0
98	SLU 31	-6	-436	1842	20.33	-6.3	0
98	SLU 32	0	-430	1845	20.08	0.38	0
98	SLU 33	-4	-434	1843	20.23	-3.63	0
98	SLU 34	-6	-436	1842	20.33	-6.3	0
98	SLU 35	0	-430	1845	20.08	0.38	0
98	SLU 36	-4	-434	1843	20.23	-3.63	0
98	SLU 37	0	-430	1845	20.08	0.38	0
98	SLU 38	-4	-434	1843	20.23	-3.63	0
98	SLU 39	0	-445	1946	20.89	0.42	0
98	SLU 40	-4	-448	1944	21.04	-3.59	0
98	SLU 41	0	-445	1946	20.89	0.42	0
98	SLU 42	-4	-448	1944	21.04	-3.59	0
98	SLU 43	0	-465	1876	21.23	0.31	0
98	SLU 44	-6	-471	1873	21.47	-6.38	0
98	SLU 45	0	-465	1876	21.23	0.31	0
98	SLU 46	-4	-468	1874	21.37	-3.7	0
98	SLU 47	-6	-471	1873	21.47	-6.38	0
98	SLU 48	0	-465	1876	21.23	0.31	0
98	SLU 49	-4	-468	1874	21.37	-3.7	0
98	SLU 50	0	-465	1876	21.23	0.31	0
98	SLU 51	-4	-468	1874	21.37	-3.7	0
98	SLU 52	-6	-505	2108	23.36	-6.28	0
98	SLU 53	0	-500	2111	23.11	0.4	0
98	SLU 54	-4	-503	2110	23.26	-3.61	0
98	SLU 55	-6	-505	2108	23.36	-6.28	0
98	SLU 56	0	-500	2111	23.11	0.4	0
98	SLU 57	-4	-503	2110	23.26	-3.61	0
98	SLU 58	0	-500	2111	23.11	0.4	0
98	SLU 59	-4	-503	2110	23.26	-3.61	0
98	SLU 60	0	-514	2212	23.91	0.44	0
98	SLU 61	-4	-517	2211	24.06	-3.57	0
98	SLU 62	0	-514	2212	23.91	0.44	0
98	SLU 63	-4	-517	2211	24.06	-3.57	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
98	SLU 64	0	-496	2007	22.71	0.35	0
98	SLU 65	-6	-501	2004	22.96	-6.33	0
98	SLU 66	0	-496	2007	22.71	0.35	0
98	SLU 67	-4	-499	2005	22.86	-3.66	0
98	SLU 68	-6	-501	2004	22.96	-6.33	0
98	SLU 69	0	-496	2007	22.71	0.35	0
98	SLU 70	-4	-499	2005	22.86	-3.66	0
98	SLU 71	0	-496	2007	22.71	0.35	0
98	SLU 72	-4	-499	2005	22.86	-3.66	0
98	SLU 73	-6	-535	2240	24.84	-6.24	0
98	SLU 74	0	-530	2243	24.59	0.44	0
98	SLU 75	-4	-533	2241	24.74	-3.57	0
98	SLU 76	-6	-535	2240	24.84	-6.24	0
98	SLU 77	0	-530	2243	24.59	0.44	0
98	SLU 78	-4	-533	2241	24.74	-3.57	0
98	SLU 79	0	-530	2243	24.59	0.44	0
98	SLU 80	-4	-533	2241	24.74	-3.57	0
98	SLU 81	0	-545	2344	25.39	0.48	0
98	SLU 82	-4	-548	2342	25.54	-3.53	0
98	SLU 83	0	-545	2344	25.39	0.48	0
98	SLU 84	-4	-548	2342	25.54	-3.53	0
98	SLE RA 1	0	-375	1515	17.14	0.26	0
98	SLE RA 2	-4	-378	1513	17.31	-4.2	0
98	SLE RA 3	0	-375	1515	17.14	0.26	0
98	SLE RA 4	-2	-377	1514	17.24	-2.41	0
98	SLE RA 5	-4	-378	1513	17.31	-4.2	0
98	SLE RA 6	0	-375	1515	17.14	0.26	0
98	SLE RA 7	-2	-377	1514	17.24	-2.41	0
98	SLE RA 8	0	-375	1515	17.14	0.26	0
98	SLE RA 9	-2	-377	1514	17.24	-2.41	0
98	SLE RA 10	-4	-401	1670	18.56	-4.13	0
98	SLE RA 11	0	-397	1672	18.4	0.32	0
98	SLE RA 12	-2	-400	1671	18.49	-2.35	0
98	SLE RA 13	-4	-401	1670	18.56	-4.13	0
98	SLE RA 14	0	-397	1672	18.4	0.32	0
98	SLE RA 15	-2	-400	1671	18.49	-2.35	0
98	SLE RA 16	0	-397	1672	18.4	0.32	0
98	SLE RA 17	-2	-400	1671	18.49	-2.35	0
98	SLE RA 18	0	-407	1740	18.93	0.35	0
98	SLE RA 19	-2	-409	1738	19.03	-2.32	0
98	SLE RA 20	0	-407	1740	18.93	0.35	0
98	SLE RA 21	-2	-409	1738	19.03	-2.32	0
98	SLE FR 1	0	-375	1515	17.14	0.26	0
98	SLE FR 2	-1	-375	1515	17.17	-0.63	0
98	SLE FR 3	0	-375	1515	17.14	0.26	0
98	SLE FR 4	-1	-385	1582	17.71	-0.6	0
98	SLE FR 5	0	-384	1582	17.68	0.29	0
98	SLE FR 6	0	-391	1627	18.04	0.3	0
98	SLE QP 1	0	-375	1515	17.14	0.26	0
98	SLE QP 2	0	-384	1582	17.68	0.29	0
98	SLD 1	27	-371	1655	17.04	27.68	0.01
98	SLD 2	27	-371	1655	17.04	27.68	0.01
98	SLD 3	19	-515	1694	23.44	21.27	0.01
98	SLD 4	19	-515	1694	23.44	21.27	0.01
98	SLD 5	20	-161	1545	7.77	18.22	-0.01
98	SLD 6	20	-161	1545	7.77	18.22	-0.01
98	SLD 7	-6	-642	1676	29.12	-3.13	0.01
98	SLD 8	-6	-642	1676	29.12	-3.13	0.01
98	SLD 9	6	-126	1489	6.24	3.71	-0.01
98	SLD 10	6	-126	1489	6.24	3.71	-0.01
98	SLD 11	-19	-607	1620	27.58	-17.65	0.01
98	SLD 12	-19	-607	1620	27.58	-17.65	0.01
98	SLD 13	-19	-254	1470	11.91	-20.7	-0.01
98	SLD 14	-19	-254	1470	11.91	-20.7	-0.01
98	SLD 15	-27	-398	1510	18.32	-27.11	-0.01
98	SLD 16	-27	-398	1510	18.32	-27.11	-0.01
98	SLV 1	68	-361	1765	16.58	70.24	0.02
98	SLV 2	68	-361	1765	16.58	70.24	0.02
98	SLV 3	49	-702	1859	31.71	53.99	0.03
98	SLV 4	49	-702	1859	31.71	53.99	0.03
98	SLV 5	49	139	1494	-5.6	45.92	-0.01
98	SLV 6	49	139	1494	-5.6	45.92	-0.01
98	SLV 7	-14	-997	1808	44.84	-8.25	0.03
98	SLV 8	-14	-997	1808	44.84	-8.25	0.03
98	SLV 9	14	228	1357	-9.48	8.83	-0.03
98	SLV 10	14	228	1357	-9.48	8.83	-0.03
98	SLV 11	-49	-908	1670	40.96	-45.35	0.02
98	SLV 12	-49	-908	1670	40.96	-45.35	0.02
98	SLV 13	-49	-67	1306	3.65	-53.42	-0.03
98	SLV 14	-49	-67	1306	3.65	-53.42	-0.03
98	SLV 15	-68	-407	1400	18.78	-69.67	-0.01
98	SLV 16	-68	-407	1400	18.78	-69.67	-0.01
99	SLU 1	0	-385	1493	16.98	-0.26	0
99	SLU 2	14	-397	1496	17.55	11.49	0
99	SLU 3	0	-385	1493	16.98	-0.26	0
99	SLU 4	8	-392	1495	17.32	6.79	0
99	SLU 5	14	-397	1496	17.55	11.49	0
99	SLU 6	0	-385	1493	16.98	-0.26	0
99	SLU 7	8	-392	1495	17.32	6.79	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
99	SLU 8	0	-385	1493	16.98	-0.26	0
99	SLU 9	8	-392	1495	17.32	6.79	0
99	SLU 10	14	-465	1723	20.64	11.4	0
99	SLU 11	0	-453	1720	20.07	-0.34	0
99	SLU 12	8	-460	1722	20.41	6.7	0
99	SLU 13	14	-465	1723	20.64	11.4	0
99	SLU 14	0	-453	1720	20.07	-0.34	0
99	SLU 15	8	-460	1722	20.41	6.7	0
99	SLU 16	0	-453	1720	20.07	-0.34	0
99	SLU 17	8	-460	1722	20.41	6.7	0
99	SLU 18	0	-482	1818	21.4	-0.38	0
99	SLU 19	8	-489	1820	21.74	6.67	0
99	SLU 20	0	-482	1818	21.4	-0.38	0
99	SLU 21	8	-489	1820	21.74	6.67	0
99	SLU 22	0	-428	1624	18.91	-0.3	0
99	SLU 23	14	-441	1628	19.48	11.45	0
99	SLU 24	0	-428	1624	18.91	-0.3	0
99	SLU 25	8	-436	1626	19.25	6.75	0
99	SLU 26	14	-441	1628	19.48	11.45	0
99	SLU 27	0	-428	1624	18.91	-0.3	0
99	SLU 28	8	-436	1626	19.25	6.75	0
99	SLU 29	0	-428	1624	18.91	-0.3	0
99	SLU 30	8	-436	1626	19.25	6.75	0
99	SLU 31	14	-508	1855	22.57	11.36	0
99	SLU 32	0	-496	1852	22.01	-0.38	0
99	SLU 33	8	-503	1854	22.35	6.66	0
99	SLU 34	14	-508	1855	22.57	11.36	0
99	SLU 35	0	-496	1852	22.01	-0.38	0
99	SLU 36	8	-503	1854	22.35	6.66	0
99	SLU 37	0	-496	1852	22.01	-0.38	0
99	SLU 38	8	-503	1854	22.35	6.66	0
99	SLU 39	0	-525	1949	23.33	-0.42	0
99	SLU 40	8	-532	1951	23.67	6.63	0
99	SLU 41	0	-525	1949	23.33	-0.42	0
99	SLU 42	8	-532	1951	23.67	6.63	0
99	SLU 43	0	-485	1895	21.41	-0.32	0
99	SLU 44	14	-498	1899	21.98	11.42	0
99	SLU 45	0	-485	1895	21.41	-0.32	0
99	SLU 46	8	-493	1897	21.75	6.72	0
99	SLU 47	14	-498	1899	21.98	11.42	0
99	SLU 48	0	-485	1895	21.41	-0.32	0
99	SLU 49	8	-493	1897	21.75	6.72	0
99	SLU 50	0	-485	1895	21.41	-0.32	0
99	SLU 51	8	-493	1897	21.75	6.72	0
99	SLU 52	14	-566	2126	25.07	11.34	0
99	SLU 53	0	-553	2123	24.5	-0.41	0
99	SLU 54	8	-561	2125	24.84	6.64	0
99	SLU 55	14	-566	2126	25.07	11.34	0
99	SLU 56	0	-553	2123	24.5	-0.41	0
99	SLU 57	8	-561	2125	24.84	6.64	0
99	SLU 58	0	-553	2123	24.5	-0.41	0
99	SLU 59	8	-561	2125	24.84	6.64	0
99	SLU 60	0	-582	2221	25.83	-0.45	0
99	SLU 61	8	-590	2222	26.17	6.6	0
99	SLU 62	0	-582	2221	25.83	-0.45	0
99	SLU 63	8	-590	2222	26.17	6.6	0
99	SLU 64	0	-529	2027	23.34	-0.36	0
99	SLU 65	14	-541	2030	23.91	11.38	0
99	SLU 66	0	-529	2027	23.34	-0.36	0
99	SLU 67	8	-536	2029	23.68	6.68	0
99	SLU 68	14	-541	2030	23.91	11.38	0
99	SLU 69	0	-529	2027	23.34	-0.36	0
99	SLU 70	8	-536	2029	23.68	6.68	0
99	SLU 71	0	-529	2027	23.34	-0.36	0
99	SLU 72	8	-536	2029	23.68	6.68	0
99	SLU 73	14	-609	2258	27	11.3	0
99	SLU 74	0	-596	2255	26.44	-0.45	0
99	SLU 75	8	-604	2257	26.78	6.6	0
99	SLU 76	14	-609	2258	27	11.3	0
99	SLU 77	0	-596	2255	26.44	-0.45	0
99	SLU 78	8	-604	2257	26.78	6.6	0
99	SLU 79	0	-596	2255	26.44	-0.45	0
99	SLU 80	8	-604	2257	26.78	6.6	0
99	SLU 81	0	-625	2352	27.76	-0.49	0
99	SLU 82	8	-633	2354	28.1	6.56	0
99	SLU 83	0	-625	2352	27.76	-0.49	0
99	SLU 84	8	-633	2354	28.1	6.56	0
99	SLE RA 1	0	-397	1530	17.53	-0.27	0
99	SLE RA 2	9	-406	1532	17.91	7.56	0
99	SLE RA 3	0	-397	1530	17.53	-0.27	0
99	SLE RA 4	5	-402	1532	17.76	4.43	0
99	SLE RA 5	9	-406	1532	17.91	7.56	0
99	SLE RA 6	0	-397	1530	17.53	-0.27	0
99	SLE RA 7	5	-402	1532	17.76	4.43	0
99	SLE RA 8	0	-397	1530	17.53	-0.27	0
99	SLE RA 9	5	-402	1532	17.76	4.43	0
99	SLE RA 10	9	-451	1684	19.97	7.5	0
99	SLE RA 11	0	-442	1682	19.59	-0.33	0
99	SLE RA 12	5	-447	1683	19.82	4.37	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
99	SLE RA 13	9	-451	1684	19.97	7.5	0
99	SLE RA 14	0	-442	1682	19.59	-0.33	0
99	SLE RA 15	5	-447	1683	19.82	4.37	0
99	SLE RA 16	0	-442	1682	19.59	-0.33	0
99	SLE RA 17	5	-447	1683	19.82	4.37	0
99	SLE RA 18	0	-462	1747	20.48	-0.35	0
99	SLE RA 19	5	-467	1748	20.7	4.35	0
99	SLE RA 20	0	-462	1747	20.48	-0.35	0
99	SLE RA 21	5	-467	1748	20.7	4.35	0
99	SLE FR 1	0	-397	1530	17.53	-0.27	0
99	SLE FR 2	2	-399	1531	17.61	1.29	0
99	SLE FR 3	0	-397	1530	17.53	-0.27	0
99	SLE FR 4	2	-418	1596	18.49	1.27	0
99	SLE FR 5	0	-416	1595	18.42	-0.3	0
99	SLE FR 6	0	-429	1639	19	-0.31	0
99	SLE QP 1	0	-397	1530	17.53	-0.27	0
99	SLE QP 2	0	-416	1595	18.42	-0.3	0
99	SLD 1	22	-311	1475	13.75	24.97	0.02
99	SLD 2	22	-311	1475	13.75	24.97	0.02
99	SLD 3	31	-459	1509	20.11	31.92	0.02
99	SLD 4	31	-459	1509	20.11	31.92	0.02
99	SLD 5	-8	-160	1507	7.38	-3.26	0.01
99	SLD 6	-8	-160	1507	7.38	-3.26	0.01
99	SLD 7	23	-654	1622	28.56	19.91	0
99	SLD 8	23	-654	1622	28.56	19.91	0
99	SLD 9	-23	-179	1569	8.27	-20.5	0
99	SLD 10	-23	-179	1569	8.27	-20.5	0
99	SLD 11	7	-673	1684	29.45	2.67	-0.01
99	SLD 12	7	-673	1684	29.45	2.67	-0.01
99	SLD 13	-31	-374	1682	16.72	-32.51	-0.02
99	SLD 14	-31	-374	1682	16.72	-32.51	-0.02
99	SLD 15	-22	-522	1716	23.08	-25.56	-0.02
99	SLD 16	-22	-522	1716	23.08	-25.56	-0.02
99	SLV 1	56	-166	1312	7.37	64.43	0.05
99	SLV 2	56	-166	1312	7.37	64.43	0.05
99	SLV 3	78	-516	1393	22.38	81.8	0.04
99	SLV 4	78	-516	1393	22.38	81.8	0.04
99	SLV 5	-18	189	1387	-7.66	-7.23	0.03
99	SLV 6	-18	189	1387	-7.66	-7.23	0.03
99	SLV 7	57	-976	1658	42.37	50.68	0
99	SLV 8	57	-976	1658	42.37	50.68	0
99	SLV 9	-58	143	1532	-5.54	-51.27	0
99	SLV 10	-58	143	1532	-5.54	-51.27	0
99	SLV 11	17	-1022	1804	44.49	6.63	-0.03
99	SLV 12	17	-1022	1804	44.49	6.63	-0.03
99	SLV 13	-78	-317	1797	14.45	-82.39	-0.04
99	SLV 14	-78	-317	1797	14.45	-82.39	-0.04
99	SLV 15	-56	-667	1879	29.46	-65.02	-0.05
99	SLV 16	-56	-667	1879	29.46	-65.02	-0.05
100	SLU 1	0	-85	1305	2.66	0.02	0
100	SLU 2	-2	-152	1266	5.16	-1.88	-0.03
100	SLU 3	0	-85	1305	2.66	0.02	0
100	SLU 4	-1	-125	1282	4.16	-1.12	-0.02
100	SLU 5	-2	-152	1266	5.16	-1.88	-0.03
100	SLU 6	0	-85	1305	2.66	0.02	0
100	SLU 7	-1	-125	1282	4.16	-1.12	-0.02
100	SLU 8	0	-85	1305	2.66	0.02	0
100	SLU 9	-1	-125	1282	4.16	-1.12	-0.02
100	SLU 10	-2	-177	1637	5.91	-1.88	-0.03
100	SLU 11	0	-110	1675	3.41	0.03	0
100	SLU 12	-1	-150	1652	4.91	-1.11	-0.02
100	SLU 13	-2	-177	1637	5.91	-1.88	-0.03
100	SLU 14	0	-110	1675	3.41	0.03	0
100	SLU 15	-1	-150	1652	4.91	-1.11	-0.02
100	SLU 16	0	-110	1675	3.41	0.03	0
100	SLU 17	-1	-150	1652	4.91	-1.11	-0.02
100	SLU 18	0	-120	1834	3.73	0.03	0
100	SLU 19	-1	-161	1811	5.23	-1.11	-0.02
100	SLU 20	0	-120	1834	3.73	0.03	0
100	SLU 21	-1	-161	1811	5.23	-1.11	-0.02
100	SLU 22	0	-108	1544	3.35	0.02	0
100	SLU 23	-2	-175	1505	5.85	-1.88	-0.03
100	SLU 24	0	-108	1544	3.35	0.02	0
100	SLU 25	-1	-148	1521	4.85	-1.12	-0.02
100	SLU 26	-2	-175	1505	5.85	-1.88	-0.03
100	SLU 27	0	-108	1544	3.35	0.02	0
100	SLU 28	-1	-148	1521	4.85	-1.12	-0.02
100	SLU 29	0	-108	1544	3.35	0.02	0
100	SLU 30	-1	-148	1521	4.85	-1.12	-0.02
100	SLU 31	-2	-200	1875	6.6	-1.87	-0.03
100	SLU 32	0	-133	1914	4.1	0.03	0
100	SLU 33	-1	-173	1891	5.6	-1.11	-0.02
100	SLU 34	-2	-200	1875	6.6	-1.87	-0.03
100	SLU 35	0	-133	1914	4.1	0.03	0
100	SLU 36	-1	-173	1891	5.6	-1.11	-0.02
100	SLU 37	0	-133	1914	4.1	0.03	0
100	SLU 38	-1	-173	1891	5.6	-1.11	-0.02
100	SLU 39	0	-143	2073	4.42	0.03	0
100	SLU 40	-1	-184	2050	5.92	-1.11	-0.02





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
100	SLU 41	0	-143	2073	4.42	0.03	0
100	SLU 42	-1	-184	2050	5.92	-1.11	-0.02
100	SLU 43	0	-103	1615	3.23	0.02	0
100	SLU 44	-2	-170	1576	5.72	-1.88	-0.03
100	SLU 45	0	-103	1615	3.23	0.02	0
100	SLU 46	-1	-143	1591	4.72	-1.12	-0.02
100	SLU 47	-2	-170	1576	5.72	-1.88	-0.03
100	SLU 48	0	-103	1615	3.23	0.02	0
100	SLU 49	-1	-143	1591	4.72	-1.12	-0.02
100	SLU 50	0	-103	1615	3.23	0.02	0
100	SLU 51	-1	-143	1591	4.72	-1.12	-0.02
100	SLU 52	-2	-195	1946	6.47	-1.87	-0.03
100	SLU 53	0	-127	1985	3.97	0.03	0
100	SLU 54	-1	-168	1962	5.47	-1.11	-0.02
100	SLU 55	-2	-195	1946	6.47	-1.87	-0.03
100	SLU 56	0	-127	1985	3.97	0.03	0
100	SLU 57	-1	-168	1962	5.47	-1.11	-0.02
100	SLU 58	0	-127	1985	3.97	0.03	0
100	SLU 59	-1	-168	1962	5.47	-1.11	-0.02
100	SLU 60	0	-138	2144	4.29	0.03	0
100	SLU 61	-1	-178	2120	5.79	-1.11	-0.02
100	SLU 62	0	-138	2144	4.29	0.03	0
100	SLU 63	-1	-178	2120	5.79	-1.11	-0.02
100	SLU 64	0	-125	1854	3.91	0.03	0
100	SLU 65	-2	-193	1815	6.41	-1.87	-0.03
100	SLU 66	0	-125	1854	3.91	0.03	0
100	SLU 67	-1	-166	1830	5.41	-1.11	-0.02
100	SLU 68	-2	-193	1815	6.41	-1.87	-0.03
100	SLU 69	0	-125	1854	3.91	0.03	0
100	SLU 70	-1	-166	1830	5.41	-1.11	-0.02
100	SLU 71	0	-125	1854	3.91	0.03	0
100	SLU 72	-1	-166	1830	5.41	-1.11	-0.02
100	SLU 73	-2	-218	2185	7.16	-1.87	-0.03
100	SLU 74	0	-150	2224	4.66	0.04	0
100	SLU 75	-1	-191	2201	6.16	-1.11	-0.02
100	SLU 76	-2	-218	2185	7.16	-1.87	-0.03
100	SLU 77	0	-150	2224	4.66	0.04	0
100	SLU 78	-1	-191	2201	6.16	-1.11	-0.02
100	SLU 79	0	-150	2224	4.66	0.04	0
100	SLU 80	-1	-191	2201	6.16	-1.11	-0.02
100	SLU 81	0	-161	2383	4.98	0.04	0
100	SLU 82	-1	-201	2359	6.48	-1.1	-0.02
100	SLU 83	0	-161	2383	4.98	0.04	0
100	SLU 84	-1	-201	2359	6.48	-1.1	-0.02
100	SLE RA 1	0	-91	1373	2.86	0.02	0
100	SLE RA 2	-2	-137	1347	4.52	-1.25	-0.02
100	SLE RA 3	0	-91	1373	2.86	0.02	0
100	SLE RA 4	-1	-118	1358	3.86	-0.74	-0.01
100	SLE RA 5	-2	-137	1347	4.52	-1.25	-0.02
100	SLE RA 6	0	-91	1373	2.86	0.02	0
100	SLE RA 7	-1	-118	1358	3.86	-0.74	-0.01
100	SLE RA 8	0	-91	1373	2.86	0.02	0
100	SLE RA 9	-1	-118	1358	3.86	-0.74	-0.01
100	SLE RA 10	-2	-153	1594	5.02	-1.24	-0.02
100	SLE RA 11	0	-108	1620	3.36	0.03	0
100	SLE RA 12	-1	-135	1605	4.36	-0.74	-0.01
100	SLE RA 13	-2	-153	1594	5.02	-1.24	-0.02
100	SLE RA 14	0	-108	1620	3.36	0.03	0
100	SLE RA 15	-1	-135	1605	4.36	-0.74	-0.01
100	SLE RA 16	0	-108	1620	3.36	0.03	0
100	SLE RA 17	-1	-135	1605	4.36	-0.74	-0.01
100	SLE RA 18	0	-115	1726	3.57	0.03	0
100	SLE RA 19	-1	-142	1710	4.57	-0.73	-0.01
100	SLE RA 20	0	-115	1726	3.57	0.03	0
100	SLE RA 21	-1	-142	1710	4.57	-0.73	-0.01
100	SLE FR 1	0	-91	1373	2.86	0.02	0
100	SLE FR 2	0	-100	1368	3.19	-0.23	0
100	SLE FR 3	0	-91	1373	2.86	0.02	0
100	SLE FR 4	0	-108	1474	3.41	-0.23	0
100	SLE FR 5	0	-99	1479	3.07	0.02	0
100	SLE FR 6	0	-103	1550	3.22	0.02	0
100	SLE QP 1	0	-91	1373	2.86	0.02	0
100	SLE QP 2	0	-99	1479	3.07	0.02	0
100	SLD 1	-6	15	1528	-1.12	10.95	-0.05
100	SLD 2	-6	15	1528	-1.12	10.95	-0.05
100	SLD 3	-9	-127	1471	4.14	9.55	-0.08
100	SLD 4	-9	-127	1471	4.14	9.55	-0.08
100	SLD 5	2	151	1579	-6.16	5.42	0.03
100	SLD 6	2	151	1579	-6.16	5.42	0.03
100	SLD 7	-6	-322	1391	11.37	0.75	-0.07
100	SLD 8	-6	-322	1391	11.37	0.75	-0.07
100	SLD 9	6	125	1567	-5.22	-0.71	0.07
100	SLD 10	6	125	1567	-5.22	-0.71	0.07
100	SLD 11	-2	-348	1379	12.31	-5.38	-0.03
100	SLD 12	-2	-348	1379	12.31	-5.38	-0.03
100	SLD 13	9	-70	1487	2.01	-9.5	0.08
100	SLD 14	9	-70	1487	2.01	-9.5	0.08
100	SLD 15	6	-212	1430	7.27	-10.9	0.05
100	SLD 16	6	-212	1430	7.27	-10.9	0.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
100	SLV 1	-16	171	1595	-6.9	27.98	-0.13
100	SLV 2	-16	171	1595	-6.9	27.98	-0.13
100	SLV 3	-22	-162	1462	5.45	24.42	-0.21
100	SLV 4	-22	-162	1462	5.45	24.42	-0.21
100	SLV 5	4	487	1715	-18.65	13.8	0.08
100	SLV 6	4	487	1715	-18.65	13.8	0.08
100	SLV 7	-16	-623	1273	22.51	1.96	-0.18
100	SLV 8	-16	-623	1273	22.51	1.96	-0.18
100	SLV 9	16	426	1686	-16.37	-1.91	0.18
100	SLV 10	16	426	1686	-16.37	-1.91	0.18
100	SLV 11	-4	-684	1243	24.79	-13.75	-0.08
100	SLV 12	-4	-684	1243	24.79	-13.75	-0.08
100	SLV 13	22	-35	1496	0.7	-24.38	0.21
100	SLV 14	22	-35	1496	0.7	-24.38	0.21
100	SLV 15	16	-368	1363	13.05	-27.93	0.13
100	SLV 16	16	-368	1363	13.05	-27.93	0.13
101	SLU 1	0	-363	1424	14.18	0.42	0
101	SLU 2	-5	-366	1428	14.35	-4.55	0
101	SLU 3	0	-363	1424	14.18	0.42	0
101	SLU 4	-3	-364	1426	14.28	-2.56	0
101	SLU 5	-5	-366	1428	14.35	-4.55	0
101	SLU 6	0	-363	1424	14.18	0.42	0
101	SLU 7	-3	-364	1426	14.28	-2.56	0
101	SLU 8	0	-363	1424	14.18	0.42	0
101	SLU 9	-3	-364	1426	14.28	-2.56	0
101	SLU 10	-4	-391	1678	15.21	-4.4	0
101	SLU 11	1	-388	1675	15.03	0.57	0
101	SLU 12	-2	-390	1677	15.14	-2.41	0
101	SLU 13	-4	-391	1678	15.21	-4.4	0
101	SLU 14	1	-388	1675	15.03	0.57	0
101	SLU 15	-2	-390	1677	15.14	-2.41	0
101	SLU 16	1	-388	1675	15.03	0.57	0
101	SLU 17	-2	-390	1677	15.14	-2.41	0
101	SLU 18	1	-399	1782	15.4	0.63	0
101	SLU 19	-2	-401	1784	15.51	-2.35	0
101	SLU 20	1	-399	1782	15.4	0.63	0
101	SLU 21	-2	-401	1784	15.51	-2.35	0
101	SLU 22	0	-390	1556	15.16	0.48	0
101	SLU 23	-4	-392	1560	15.34	-4.48	0
101	SLU 24	0	-390	1556	15.16	0.48	0
101	SLU 25	-3	-391	1558	15.27	-2.49	0
101	SLU 26	-4	-392	1560	15.34	-4.48	0
101	SLU 27	0	-390	1556	15.16	0.48	0
101	SLU 28	-3	-391	1558	15.27	-2.49	0
101	SLU 29	0	-390	1556	15.16	0.48	0
101	SLU 30	-3	-391	1558	15.27	-2.49	0
101	SLU 31	-4	-418	1810	16.19	-4.33	0
101	SLU 32	1	-415	1807	16.02	0.63	0
101	SLU 33	-2	-417	1809	16.12	-2.35	0
101	SLU 34	-4	-418	1810	16.19	-4.33	0
101	SLU 35	1	-415	1807	16.02	0.63	0
101	SLU 36	-2	-417	1809	16.12	-2.35	0
101	SLU 37	1	-415	1807	16.02	0.63	0
101	SLU 38	-2	-417	1809	16.12	-2.35	0
101	SLU 39	1	-426	1914	16.39	0.69	0
101	SLU 40	-2	-428	1916	16.49	-2.28	0
101	SLU 41	1	-426	1914	16.39	0.69	0
101	SLU 42	-2	-428	1916	16.49	-2.28	0
101	SLU 43	1	-462	1806	18.09	0.52	0
101	SLU 44	-4	-465	1810	18.27	-4.44	0
101	SLU 45	1	-462	1806	18.09	0.52	0
101	SLU 46	-2	-464	1808	18.2	-2.46	0
101	SLU 47	-4	-465	1810	18.27	-4.44	0
101	SLU 48	1	-462	1806	18.09	0.52	0
101	SLU 49	-2	-464	1808	18.2	-2.46	0
101	SLU 50	1	-462	1806	18.09	0.52	0
101	SLU 51	-2	-464	1808	18.2	-2.46	0
101	SLU 52	-4	-491	2060	19.12	-4.3	0
101	SLU 53	1	-488	2057	18.95	0.67	0
101	SLU 54	-2	-490	2059	19.05	-2.31	0
101	SLU 55	-4	-491	2060	19.12	-4.3	0
101	SLU 56	1	-488	2057	18.95	0.67	0
101	SLU 57	-2	-490	2059	19.05	-2.31	0
101	SLU 58	1	-488	2057	18.95	0.67	0
101	SLU 59	-2	-490	2059	19.05	-2.31	0
101	SLU 60	1	-499	2164	19.32	0.73	0
101	SLU 61	-2	-501	2166	19.42	-2.25	0
101	SLU 62	1	-499	2164	19.32	0.73	0
101	SLU 63	-2	-501	2166	19.42	-2.25	0
101	SLU 64	1	-489	1938	19.08	0.59	0
101	SLU 65	-4	-492	1942	19.25	-4.38	0
101	SLU 66	1	-489	1938	19.08	0.59	0
101	SLU 67	-2	-491	1940	19.18	-2.39	0
101	SLU 68	-4	-492	1942	19.25	-4.38	0
101	SLU 69	1	-489	1938	19.08	0.59	0
101	SLU 70	-2	-491	1940	19.18	-2.39	0
101	SLU 71	1	-489	1938	19.08	0.59	0
101	SLU 72	-2	-491	1940	19.18	-2.39	0
101	SLU 73	-4	-518	2192	20.11	-4.23	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
101	SLU 74	1	-515	2189	19.94	0.73	0
101	SLU 75	-2	-517	2191	20.04	-2.24	0
101	SLU 76	-4	-518	2192	20.11	-4.23	0
101	SLU 77	1	-515	2189	19.94	0.73	0
101	SLU 78	-2	-517	2191	20.04	-2.24	0
101	SLU 79	1	-515	2189	19.94	0.73	0
101	SLU 80	-2	-517	2191	20.04	-2.24	0
101	SLU 81	1	-526	2296	20.3	0.8	0.01
101	SLU 82	-2	-528	2298	20.41	-2.18	0.01
101	SLU 83	1	-526	2296	20.3	0.8	0.01
101	SLU 84	-2	-528	2298	20.41	-2.18	0.01
101	SLE RA 1	0	-370	1462	14.46	0.44	0
101	SLE RA 2	-3	-372	1464	14.58	-2.87	0
101	SLE RA 3	0	-370	1462	14.46	0.44	0
101	SLE RA 4	-2	-371	1463	14.53	-1.55	0
101	SLE RA 5	-3	-372	1464	14.58	-2.87	0
101	SLE RA 6	0	-370	1462	14.46	0.44	0
101	SLE RA 7	-2	-371	1463	14.53	-1.55	0
101	SLE RA 8	0	-370	1462	14.46	0.44	0
101	SLE RA 9	-2	-371	1463	14.53	-1.55	0
101	SLE RA 10	-3	-389	1631	15.15	-2.77	0
101	SLE RA 11	0	-387	1629	15.03	0.54	0
101	SLE RA 12	-1	-389	1630	15.1	-1.45	0
101	SLE RA 13	-3	-389	1631	15.15	-2.77	0
101	SLE RA 14	0	-387	1629	15.03	0.54	0
101	SLE RA 15	-1	-389	1630	15.1	-1.45	0
101	SLE RA 16	0	-387	1629	15.03	0.54	0
101	SLE RA 17	-1	-389	1630	15.1	-1.45	0
101	SLE RA 18	1	-395	1701	15.27	0.58	0
101	SLE RA 19	-1	-396	1702	15.34	-1.41	0
101	SLE RA 20	1	-395	1701	15.27	0.58	0
101	SLE RA 21	-1	-396	1702	15.34	-1.41	0
101	SLE FR 1	0	-370	1462	14.46	0.44	0
101	SLE FR 2	0	-371	1462	14.48	-0.22	0
101	SLE FR 3	0	-370	1462	14.46	0.44	0
101	SLE FR 4	0	-378	1534	14.73	-0.18	0
101	SLE FR 5	0	-378	1533	14.7	0.48	0
101	SLE FR 6	0	-383	1581	14.87	0.51	0
101	SLE QP 1	0	-370	1462	14.46	0.44	0
101	SLE QP 2	0	-378	1533	14.7	0.48	0
101	SLD 1	17	-371	1599	14.28	18.79	0.02
101	SLD 2	17	-371	1599	14.28	18.79	0.02
101	SLD 3	9	-507	1664	20.28	13.95	0.01
101	SLD 4	9	-507	1664	20.28	13.95	0.01
101	SLD 5	16	-169	1455	5.47	13.31	0.02
101	SLD 6	16	-169	1455	5.47	13.31	0.02
101	SLD 7	-8	-623	1670	25.49	-2.82	0
101	SLD 8	-8	-623	1670	25.49	-2.82	0
101	SLD 9	9	-132	1396	3.92	3.78	0.01
101	SLD 10	9	-132	1396	3.92	3.78	0.01
101	SLD 11	-15	-586	1612	23.94	-12.35	-0.01
101	SLD 12	-15	-586	1612	23.94	-12.35	-0.01
101	SLD 13	-9	-248	1403	9.12	-12.99	-0.01
101	SLD 14	-9	-248	1403	9.12	-12.99	-0.01
101	SLD 15	-16	-384	1468	15.13	-17.83	-0.01
101	SLD 16	-16	-384	1468	15.13	-17.83	-0.01
101	SLV 1	41	-372	1698	14.09	47.18	0.04
101	SLV 2	41	-372	1698	14.09	47.18	0.04
101	SLV 3	24	-694	1851	28.28	35.04	0.03
101	SLV 4	24	-694	1851	28.28	35.04	0.03
101	SLV 5	39	111	1351	-7	32.9	0.04
101	SLV 6	39	111	1351	-7	32.9	0.04
101	SLV 7	-19	-960	1861	40.3	-7.56	-0.01
101	SLV 8	-19	-960	1861	40.3	-7.56	-0.01
101	SLV 9	20	204	1206	-10.89	8.52	0.02
101	SLV 10	20	204	1206	-10.89	8.52	0.02
101	SLV 11	-38	-867	1716	36.41	-31.94	-0.03
101	SLV 12	-38	-867	1716	36.41	-31.94	-0.03
101	SLV 13	-23	-62	1216	1.13	-34.08	-0.02
101	SLV 14	-23	-62	1216	1.13	-34.08	-0.02
101	SLV 15	-40	-383	1369	15.32	-46.22	-0.04
101	SLV 16	-40	-383	1369	15.32	-46.22	-0.04
102	SLU 1	0	-383	1432	14.72	-0.43	0
102	SLU 2	12	-392	1444	15.14	8.97	0
102	SLU 3	0	-383	1432	14.72	-0.43	0
102	SLU 4	7	-388	1439	14.97	5.21	0
102	SLU 5	12	-392	1444	15.14	8.97	0
102	SLU 6	0	-383	1432	14.72	-0.43	0
102	SLU 7	7	-388	1439	14.97	5.21	0
102	SLU 8	0	-383	1432	14.72	-0.43	0
102	SLU 9	7	-388	1439	14.97	5.21	0
102	SLU 10	12	-453	1670	17.47	8.84	0
102	SLU 11	-1	-445	1658	17.06	-0.56	0
102	SLU 12	7	-450	1665	17.31	5.08	0
102	SLU 13	12	-453	1670	17.47	8.84	0
102	SLU 14	-1	-445	1658	17.06	-0.56	0
102	SLU 15	7	-450	1665	17.31	5.08	0
102	SLU 16	-1	-445	1658	17.06	-0.56	0
102	SLU 17	7	-450	1665	17.31	5.08	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
102	SLU 18	-1	-472	1754	18.06	-0.62	0
102	SLU 19	7	-476	1762	18.31	5.02	0
102	SLU 20	-1	-472	1754	18.06	-0.62	0
102	SLU 21	7	-476	1762	18.31	5.02	0
102	SLU 22	0	-425	1557	16.28	-0.49	0
102	SLU 23	12	-433	1569	16.69	8.91	0
102	SLU 24	0	-425	1557	16.28	-0.49	0
102	SLU 25	7	-430	1564	16.53	5.15	0
102	SLU 26	12	-433	1569	16.69	8.91	0
102	SLU 27	0	-425	1557	16.28	-0.49	0
102	SLU 28	7	-430	1564	16.53	5.15	0
102	SLU 29	0	-425	1557	16.28	-0.49	0
102	SLU 30	7	-430	1564	16.53	5.15	0
102	SLU 31	12	-495	1795	19.03	8.78	-0.01
102	SLU 32	-1	-486	1783	18.61	-0.62	0
102	SLU 33	7	-491	1790	18.86	5.02	0
102	SLU 34	12	-495	1795	19.03	8.78	-0.01
102	SLU 35	-1	-486	1783	18.61	-0.62	0
102	SLU 36	7	-491	1790	18.86	5.02	0
102	SLU 37	-1	-486	1783	18.61	-0.62	0
102	SLU 38	7	-491	1790	18.86	5.02	0
102	SLU 39	-1	-513	1880	19.62	-0.67	0
102	SLU 40	7	-518	1887	19.86	4.96	-0.01
102	SLU 41	-1	-513	1880	19.62	-0.67	0
102	SLU 42	7	-518	1887	19.86	4.96	-0.01
102	SLU 43	-1	-484	1818	18.61	-0.54	0
102	SLU 44	12	-492	1830	19.02	8.86	0
102	SLU 45	-1	-484	1818	18.61	-0.54	0
102	SLU 46	7	-489	1826	18.85	5.1	0
102	SLU 47	12	-492	1830	19.02	8.86	0
102	SLU 48	-1	-484	1818	18.61	-0.54	0
102	SLU 49	7	-489	1826	18.85	5.1	0
102	SLU 50	-1	-484	1818	18.61	-0.54	0
102	SLU 51	7	-489	1826	18.85	5.1	0
102	SLU 52	12	-554	2056	21.36	8.73	-0.01
102	SLU 53	-1	-546	2044	20.94	-0.67	-0.01
102	SLU 54	7	-551	2051	21.19	4.97	-0.01
102	SLU 55	12	-554	2056	21.36	8.73	-0.01
102	SLU 56	-1	-546	2044	20.94	-0.67	-0.01
102	SLU 57	7	-551	2051	21.19	4.97	-0.01
102	SLU 58	-1	-546	2044	20.94	-0.67	-0.01
102	SLU 59	7	-551	2051	21.19	4.97	-0.01
102	SLU 60	-1	-572	2141	21.94	-0.72	-0.01
102	SLU 61	7	-577	2148	22.19	4.91	-0.01
102	SLU 62	-1	-572	2141	21.94	-0.72	-0.01
102	SLU 63	7	-577	2148	22.19	4.91	-0.01
102	SLU 64	-1	-526	1943	20.16	-0.6	0
102	SLU 65	12	-534	1956	20.58	8.8	-0.01
102	SLU 66	-1	-526	1943	20.16	-0.6	0
102	SLU 67	7	-531	1951	20.41	5.04	0
102	SLU 68	12	-534	1956	20.58	8.8	-0.01
102	SLU 69	-1	-526	1943	20.16	-0.6	0
102	SLU 70	7	-531	1951	20.41	5.04	0
102	SLU 71	-1	-526	1943	20.16	-0.6	0
102	SLU 72	7	-531	1951	20.41	5.04	0
102	SLU 73	12	-595	2182	22.91	8.67	-0.01
102	SLU 74	-1	-587	2169	22.5	-0.73	-0.01
102	SLU 75	7	-592	2177	22.75	4.91	-0.01
102	SLU 76	12	-595	2182	22.91	8.67	-0.01
102	SLU 77	-1	-587	2169	22.5	-0.73	-0.01
102	SLU 78	7	-592	2177	22.75	4.91	-0.01
102	SLU 79	-1	-587	2169	22.5	-0.73	-0.01
102	SLU 80	7	-592	2177	22.75	4.91	-0.01
102	SLU 81	-1	-614	2266	23.5	-0.78	-0.01
102	SLU 82	7	-619	2274	23.75	4.85	-0.01
102	SLU 83	-1	-614	2266	23.5	-0.78	-0.01
102	SLU 84	7	-619	2274	23.75	4.85	-0.01
102	SLE RA 1	0	-395	1467	15.17	-0.45	0
102	SLE RA 2	8	-401	1476	15.44	5.82	0
102	SLE RA 3	0	-395	1467	15.17	-0.45	0
102	SLE RA 4	5	-399	1472	15.33	3.31	0
102	SLE RA 5	8	-401	1476	15.44	5.82	0
102	SLE RA 6	0	-395	1467	15.17	-0.45	0
102	SLE RA 7	5	-399	1472	15.33	3.31	0
102	SLE RA 8	0	-395	1467	15.17	-0.45	0
102	SLE RA 9	5	-399	1472	15.33	3.31	0
102	SLE RA 10	8	-442	1626	17	5.73	0
102	SLE RA 11	0	-436	1618	16.72	-0.53	0
102	SLE RA 12	5	-440	1623	16.89	3.22	0
102	SLE RA 13	8	-442	1626	17	5.73	0
102	SLE RA 14	0	-436	1618	16.72	-0.53	0
102	SLE RA 15	5	-440	1623	16.89	3.22	0
102	SLE RA 16	0	-436	1618	16.72	-0.53	0
102	SLE RA 17	5	-440	1623	16.89	3.22	0
102	SLE RA 18	-1	-454	1683	17.39	-0.57	0
102	SLE RA 19	4	-457	1687	17.56	3.19	0
102	SLE RA 20	-1	-454	1683	17.39	-0.57	0
102	SLE RA 21	4	-457	1687	17.56	3.19	0
102	SLE FR 1	0	-395	1467	15.17	-0.45	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
102	SLE FR 2	1	-396	1469	15.22	0.81	0
102	SLE FR 3	0	-395	1467	15.17	-0.45	0
102	SLE FR 4	1	-414	1534	15.89	0.77	0
102	SLE FR 5	0	-413	1532	15.83	-0.48	0
102	SLE FR 6	0	-425	1575	16.28	-0.51	0
102	SLE QP 1	0	-395	1467	15.17	-0.45	0
102	SLE QP 2	0	-413	1532	15.83	-0.48	0
102	SLD 1	9	-316	1381	11.71	15.55	0.02
102	SLD 2	9	-316	1381	11.71	15.55	0.02
102	SLD 3	18	-457	1439	17.78	20.93	0.02
102	SLD 4	18	-457	1439	17.78	20.93	0.02
102	SLD 5	-10	-171	1399	5.4	-3.82	-0.01
102	SLD 6	-10	-171	1399	5.4	-3.82	-0.01
102	SLD 7	18	-639	1592	25.62	14.09	0.01
102	SLD 8	18	-639	1592	25.62	14.09	0.01
102	SLD 9	-19	-186	1472	6.05	-15.06	-0.02
102	SLD 10	-19	-186	1472	6.05	-15.06	-0.02
102	SLD 11	9	-655	1665	26.27	2.86	0
102	SLD 12	9	-655	1665	26.27	2.86	0
102	SLD 13	-19	-369	1625	13.89	-21.9	-0.03
102	SLD 14	-19	-369	1625	13.89	-21.9	-0.03
102	SLD 15	-10	-509	1683	19.96	-16.52	-0.02
102	SLD 16	-10	-509	1683	19.96	-16.52	-0.02
102	SLV 1	25	-185	1175	6.08	40.67	0.05
102	SLV 2	25	-185	1175	6.08	40.67	0.05
102	SLV 3	46	-517	1313	20.4	54.02	0.06
102	SLV 4	46	-517	1313	20.4	54.02	0.06
102	SLV 5	-24	159	1216	-8.82	-8.39	-0.01
102	SLV 6	-24	159	1216	-8.82	-8.39	-0.01
102	SLV 7	44	-948	1675	38.93	36.12	0.04
102	SLV 8	44	-948	1675	38.93	36.12	0.04
102	SLV 9	-45	122	1389	-7.26	-37.09	-0.04
102	SLV 10	-45	122	1389	-7.26	-37.09	-0.04
102	SLV 11	23	-985	1848	40.49	7.42	0
102	SLV 12	23	-985	1848	40.49	7.42	0
102	SLV 13	-47	-309	1751	11.27	-54.99	-0.07
102	SLV 14	-47	-309	1751	11.27	-54.99	-0.07
102	SLV 15	-26	-641	1889	25.59	-41.64	-0.05
102	SLV 16	-26	-641	1889	25.59	-41.64	-0.05
103	SLU 1	0	-153	1243	4.42	0.03	0
103	SLU 2	-2	-202	1265	6.61	-1.33	-0.02
103	SLU 3	0	-153	1243	4.42	0.03	0
103	SLU 4	-1	-182	1256	5.74	-0.78	-0.01
103	SLU 5	-2	-202	1265	6.61	-1.33	-0.02
103	SLU 6	0	-153	1243	4.42	0.03	0
103	SLU 7	-1	-182	1256	5.74	-0.78	-0.01
103	SLU 8	0	-153	1243	4.42	0.03	0
103	SLU 9	-1	-182	1256	5.74	-0.78	-0.01
103	SLU 10	-2	-247	1605	7.83	-1.31	-0.02
103	SLU 11	0	-198	1584	5.63	0.04	0
103	SLU 12	-1	-227	1597	6.95	-0.77	-0.01
103	SLU 13	-2	-247	1605	7.83	-1.31	-0.02
103	SLU 14	0	-198	1584	5.63	0.04	0
103	SLU 15	-1	-227	1597	6.95	-0.77	-0.01
103	SLU 16	0	-198	1584	5.63	0.04	0
103	SLU 17	-1	-227	1597	6.95	-0.77	-0.01
103	SLU 18	0	-217	1730	6.15	0.05	0
103	SLU 19	-1	-247	1743	7.47	-0.77	-0.01
103	SLU 20	0	-217	1730	6.15	0.05	0
103	SLU 21	-1	-247	1743	7.47	-0.77	-0.01
103	SLU 22	0	-190	1446	5.3	0.04	0
103	SLU 23	-2	-239	1467	7.49	-1.32	-0.02
103	SLU 24	0	-190	1446	5.3	0.04	0
103	SLU 25	-1	-219	1459	6.61	-0.78	-0.01
103	SLU 26	-2	-239	1467	7.49	-1.32	-0.02
103	SLU 27	0	-190	1446	5.3	0.04	0
103	SLU 28	-1	-219	1459	6.61	-0.78	-0.01
103	SLU 29	0	-190	1446	5.3	0.04	0
103	SLU 30	-1	-219	1459	6.61	-0.78	-0.01
103	SLU 31	-2	-284	1808	8.7	-1.31	-0.02
103	SLU 32	0	-235	1787	6.51	0.05	0
103	SLU 33	-1	-264	1800	7.83	-0.77	-0.01
103	SLU 34	-2	-284	1808	8.7	-1.31	-0.02
103	SLU 35	0	-235	1787	6.51	0.05	0
103	SLU 36	-1	-264	1800	7.83	-0.77	-0.01
103	SLU 37	0	-235	1787	6.51	0.05	0
103	SLU 38	-1	-264	1800	7.83	-0.77	-0.01
103	SLU 39	0	-254	1933	7.03	0.06	0
103	SLU 40	-1	-284	1946	8.35	-0.76	-0.01
103	SLU 41	0	-254	1933	7.03	0.06	0
103	SLU 42	-1	-284	1946	8.35	-0.76	-0.01
103	SLU 43	0	-186	1547	5.45	0.04	0
103	SLU 44	-2	-235	1568	7.64	-1.32	-0.02
103	SLU 45	0	-186	1547	5.45	0.04	0
103	SLU 46	-1	-215	1559	6.76	-0.77	-0.01
103	SLU 47	-2	-235	1568	7.64	-1.32	-0.02
103	SLU 48	0	-186	1547	5.45	0.04	0
103	SLU 49	-1	-215	1559	6.76	-0.77	-0.01
103	SLU 50	0	-186	1547	5.45	0.04	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
103	SLU 51	-1	-215	1559	6.76	-0.77	-0.01
103	SLU 52	-2	-280	1909	8.85	-1.31	-0.02
103	SLU 53	0	-231	1888	6.66	0.05	0
103	SLU 54	-1	-260	1900	7.98	-0.76	-0.01
103	SLU 55	-2	-280	1909	8.85	-1.31	-0.02
103	SLU 56	0	-231	1888	6.66	0.05	0
103	SLU 57	-1	-260	1900	7.98	-0.76	-0.01
103	SLU 58	0	-231	1888	6.66	0.05	0
103	SLU 59	-1	-260	1900	7.98	-0.76	-0.01
103	SLU 60	0	-250	2034	7.18	0.06	0
103	SLU 61	-1	-280	2046	8.5	-0.76	-0.01
103	SLU 62	0	-250	2034	7.18	0.06	0
103	SLU 63	-1	-280	2046	8.5	-0.76	-0.01
103	SLU 64	0	-223	1750	6.32	0.05	0
103	SLU 65	-2	-272	1771	8.51	-1.31	-0.02
103	SLU 66	0	-223	1750	6.32	0.05	0
103	SLU 67	-1	-252	1762	7.64	-0.77	-0.01
103	SLU 68	-2	-272	1771	8.51	-1.31	-0.02
103	SLU 69	0	-223	1750	6.32	0.05	0
103	SLU 70	-1	-252	1762	7.64	-0.77	-0.01
103	SLU 71	0	-223	1750	6.32	0.05	0
103	SLU 72	-1	-252	1762	7.64	-0.77	-0.01
103	SLU 73	-2	-317	2112	9.73	-1.3	-0.02
103	SLU 74	0	-268	2091	7.54	0.06	0
103	SLU 75	-1	-297	2103	8.85	-0.76	-0.01
103	SLU 76	-2	-317	2112	9.73	-1.3	-0.02
103	SLU 77	0	-268	2091	7.54	0.06	0
103	SLU 78	-1	-297	2103	8.85	-0.76	-0.01
103	SLU 79	0	-268	2091	7.54	0.06	0
103	SLU 80	-1	-297	2103	8.85	-0.76	-0.01
103	SLU 81	0	-287	2237	8.06	0.06	0
103	SLU 82	-1	-317	2249	9.37	-0.75	-0.01
103	SLU 83	0	-287	2237	8.06	0.06	0
103	SLU 84	-1	-317	2249	9.37	-0.75	-0.01
103	SLE RA 1	0	-163	1301	4.67	0.03	0
103	SLE RA 2	-1	-196	1315	6.13	-0.87	-0.01
103	SLE RA 3	0	-163	1301	4.67	0.03	0
103	SLE RA 4	-1	-183	1310	5.55	-0.51	-0.01
103	SLE RA 5	-1	-196	1315	6.13	-0.87	-0.01
103	SLE RA 6	0	-163	1301	4.67	0.03	0
103	SLE RA 7	-1	-183	1310	5.55	-0.51	-0.01
103	SLE RA 8	0	-163	1301	4.67	0.03	0
103	SLE RA 9	-1	-183	1310	5.55	-0.51	-0.01
103	SLE RA 10	-1	-226	1543	6.94	-0.86	-0.01
103	SLE RA 11	0	-193	1529	5.48	0.04	0
103	SLE RA 12	-1	-213	1537	6.36	-0.5	-0.01
103	SLE RA 13	-1	-226	1543	6.94	-0.86	-0.01
103	SLE RA 14	0	-193	1529	5.48	0.04	0
103	SLE RA 15	-1	-213	1537	6.36	-0.5	-0.01
103	SLE RA 16	0	-193	1529	5.48	0.04	0
103	SLE RA 17	-1	-213	1537	6.36	-0.5	-0.01
103	SLE RA 18	0	-206	1626	5.83	0.05	0
103	SLE RA 19	-1	-226	1634	6.7	-0.5	-0.01
103	SLE RA 20	0	-206	1626	5.83	0.05	0
103	SLE RA 21	-1	-226	1634	6.7	-0.5	-0.01
103	SLE FR 1	0	-163	1301	4.67	0.03	0
103	SLE FR 2	0	-170	1304	4.96	-0.15	0
103	SLE FR 3	0	-163	1301	4.67	0.03	0
103	SLE FR 4	0	-183	1401	5.31	-0.14	0
103	SLE FR 5	0	-176	1399	5.02	0.04	0
103	SLE FR 6	0	-185	1464	5.25	0.04	0
103	SLE QP 1	0	-163	1301	4.67	0.03	0
103	SLE QP 2	0	-176	1399	5.02	0.04	0
103	SLD 1	-10	-76	1364	4.15	4.92	-0.45
103	SLD 2	-10	-76	1364	4.15	4.92	-0.45
103	SLD 3	-12	-210	1494	8.88	3.86	-0.41
103	SLD 4	-12	-210	1494	8.88	3.86	-0.41
103	SLD 5	0	56	1190	-2.42	3.11	-0.21
103	SLD 6	0	56	1190	-2.42	3.11	-0.21
103	SLD 7	-7	-389	1625	13.35	-0.43	-0.05
103	SLD 8	-7	-389	1625	13.35	-0.43	-0.05
103	SLD 9	7	37	1172	-3.31	0.5	0.05
103	SLD 10	7	37	1172	-3.31	0.5	0.05
103	SLD 11	0	-409	1607	12.45	-3.03	0.21
103	SLD 12	0	-409	1607	12.45	-3.03	0.21
103	SLD 13	12	-142	1303	1.16	-3.78	0.41
103	SLD 14	12	-142	1303	1.16	-3.78	0.41
103	SLD 15	10	-276	1433	5.89	-4.84	0.45
103	SLD 16	10	-276	1433	5.89	-4.84	0.45
103	SLV 1	-25	60	1318	3.06	12.5	-1.16
103	SLV 2	-25	60	1318	3.06	12.5	-1.16
103	SLV 3	-30	-253	1624	14.16	9.81	-1.05
103	SLV 4	-30	-253	1624	14.16	9.81	-1.05
103	SLV 5	1	370	911	-12.41	7.86	-0.53
103	SLV 6	1	370	911	-12.41	7.86	-0.53
103	SLV 7	-17	-674	1929	24.6	-1.12	-0.14
103	SLV 8	-17	-674	1929	24.6	-1.12	-0.14
103	SLV 9	17	322	868	-14.56	1.19	0.14
103	SLV 10	17	322	868	-14.56	1.19	0.14



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
103	SLV 11	0	-722	1886	22.44	-7.79	0.53
103	SLV 12	0	-722	1886	22.44	-7.79	0.53
103	SLV 13	30	-99	1174	-4.12	-9.74	1.05
103	SLV 14	30	-99	1174	-4.12	-9.74	1.05
103	SLV 15	25	-412	1479	6.98	-12.43	1.16
103	SLV 16	25	-412	1479	6.98	-12.43	1.16
104	SLU 1	3	-387	1531	19.76	0.83	-0.01
104	SLU 2	0	-387	1544	19.79	-1.77	-0.01
104	SLU 3	3	-387	1531	19.76	0.83	-0.01
104	SLU 4	1	-387	1539	19.78	-0.73	-0.01
104	SLU 5	0	-387	1544	19.79	-1.77	-0.01
104	SLU 6	3	-387	1531	19.76	0.83	-0.01
104	SLU 7	1	-387	1539	19.78	-0.73	-0.01
104	SLU 8	3	-387	1531	19.76	0.83	-0.01
104	SLU 9	1	-387	1539	19.78	-0.73	-0.01
104	SLU 10	1	-415	1855	22.03	-1.49	-0.02
104	SLU 11	3	-416	1842	22	1.12	-0.01
104	SLU 12	2	-415	1849	22.02	-0.44	-0.02
104	SLU 13	1	-415	1855	22.03	-1.49	-0.02
104	SLU 14	3	-416	1842	22	1.12	-0.01
104	SLU 15	2	-415	1849	22.02	-0.44	-0.02
104	SLU 16	3	-416	1842	22	1.12	-0.01
104	SLU 17	2	-415	1849	22.02	-0.44	-0.02
104	SLU 18	4	-428	1975	22.96	1.24	-0.02
104	SLU 19	2	-427	1983	22.98	-0.32	-0.02
104	SLU 20	4	-428	1975	22.96	1.24	-0.02
104	SLU 21	2	-427	1983	22.98	-0.32	-0.02
104	SLU 22	3	-416	1684	21.47	0.95	-0.01
104	SLU 23	1	-416	1697	21.51	-1.65	-0.02
104	SLU 24	3	-416	1684	21.47	0.95	-0.01
104	SLU 25	1	-416	1692	21.49	-0.61	-0.01
104	SLU 26	1	-416	1697	21.51	-1.65	-0.02
104	SLU 27	3	-416	1684	21.47	0.95	-0.01
104	SLU 28	1	-416	1692	21.49	-0.61	-0.01
104	SLU 29	3	-416	1684	21.47	0.95	-0.01
104	SLU 30	1	-416	1692	21.49	-0.61	-0.01
104	SLU 31	1	-444	2008	23.75	-1.36	-0.02
104	SLU 32	4	-445	1995	23.72	1.24	-0.02
104	SLU 33	2	-444	2003	23.74	-0.32	-0.02
104	SLU 34	1	-444	2008	23.75	-1.36	-0.02
104	SLU 35	4	-445	1995	23.72	1.24	-0.02
104	SLU 36	2	-444	2003	23.74	-0.32	-0.02
104	SLU 37	4	-445	1995	23.72	1.24	-0.02
104	SLU 38	2	-444	2003	23.74	-0.32	-0.02
104	SLU 39	4	-457	2128	24.68	1.36	-0.02
104	SLU 40	3	-456	2136	24.7	-0.2	-0.02
104	SLU 41	4	-457	2128	24.68	1.36	-0.02
104	SLU 42	3	-456	2136	24.7	-0.2	-0.02
104	SLU 43	3	-493	1938	25.09	1.04	-0.01
104	SLU 44	1	-493	1951	25.13	-1.57	-0.02
104	SLU 45	3	-493	1938	25.09	1.04	-0.01
104	SLU 46	2	-493	1945	25.11	-0.52	-0.02
104	SLU 47	1	-493	1951	25.13	-1.57	-0.02
104	SLU 48	3	-493	1938	25.09	1.04	-0.01
104	SLU 49	2	-493	1945	25.11	-0.52	-0.02
104	SLU 50	3	-493	1938	25.09	1.04	-0.01
104	SLU 51	2	-493	1945	25.11	-0.52	-0.02
104	SLU 52	2	-521	2261	27.37	-1.28	-0.02
104	SLU 53	4	-522	2248	27.34	1.33	-0.02
104	SLU 54	3	-521	2256	27.36	-0.24	-0.02
104	SLU 55	2	-521	2261	27.37	-1.28	-0.02
104	SLU 56	4	-522	2248	27.34	1.33	-0.02
104	SLU 57	3	-521	2256	27.36	-0.24	-0.02
104	SLU 58	4	-522	2248	27.34	1.33	-0.02
104	SLU 59	3	-521	2256	27.36	-0.24	-0.02
104	SLU 60	4	-534	2381	28.3	1.45	-0.02
104	SLU 61	3	-534	2389	28.32	-0.11	-0.02
104	SLU 62	4	-534	2381	28.3	1.45	-0.02
104	SLU 63	3	-534	2389	28.32	-0.11	-0.02
104	SLU 64	4	-523	2091	26.81	1.16	-0.02
104	SLU 65	1	-522	2104	26.84	-1.44	-0.02
104	SLU 66	4	-523	2091	26.81	1.16	-0.02
104	SLU 67	2	-522	2099	26.83	-0.4	-0.02
104	SLU 68	1	-522	2104	26.84	-1.44	-0.02
104	SLU 69	4	-523	2091	26.81	1.16	-0.02
104	SLU 70	2	-522	2099	26.83	-0.4	-0.02
104	SLU 71	4	-523	2091	26.81	1.16	-0.02
104	SLU 72	2	-522	2099	26.83	-0.4	-0.02
104	SLU 73	2	-550	2415	29.09	-1.16	-0.02
104	SLU 74	4	-551	2402	29.06	1.45	-0.02
104	SLU 75	3	-551	2409	29.07	-0.11	-0.02
104	SLU 76	2	-550	2415	29.09	-1.16	-0.02
104	SLU 77	4	-551	2402	29.06	1.45	-0.02
104	SLU 78	3	-551	2409	29.07	-0.11	-0.02
104	SLU 79	4	-551	2402	29.06	1.45	-0.02
104	SLU 80	3	-551	2409	29.07	-0.11	-0.02
104	SLU 81	5	-563	2535	30.02	1.57	-0.02
104	SLU 82	3	-563	2543	30.04	0.01	-0.02
104	SLU 83	5	-563	2535	30.02	1.57	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
104	SLU 84	3	-563	2543	30.04	0.01	-0.02
104	SLE RA 1	3	-396	1575	20.25	0.87	-0.01
104	SLE RA 2	1	-395	1583	20.27	-0.87	-0.01
104	SLE RA 3	3	-396	1575	20.25	0.87	-0.01
104	SLE RA 4	2	-395	1580	20.26	-0.18	-0.01
104	SLE RA 5	1	-395	1583	20.27	-0.87	-0.01
104	SLE RA 6	3	-396	1575	20.25	0.87	-0.01
104	SLE RA 7	2	-395	1580	20.26	-0.18	-0.01
104	SLE RA 8	3	-396	1575	20.25	0.87	-0.01
104	SLE RA 9	2	-395	1580	20.26	-0.18	-0.01
104	SLE RA 10	2	-414	1790	21.76	-0.68	-0.02
104	SLE RA 11	3	-414	1782	21.74	1.06	-0.01
104	SLE RA 12	2	-414	1787	21.76	0.02	-0.01
104	SLE RA 13	2	-414	1790	21.76	-0.68	-0.02
104	SLE RA 14	3	-414	1782	21.74	1.06	-0.01
104	SLE RA 15	2	-414	1787	21.76	0.02	-0.01
104	SLE RA 16	3	-414	1782	21.74	1.06	-0.01
104	SLE RA 17	2	-414	1787	21.76	0.02	-0.01
104	SLE RA 18	3	-422	1871	22.38	1.14	-0.01
104	SLE RA 19	2	-422	1876	22.4	0.1	-0.02
104	SLE RA 20	3	-422	1871	22.38	1.14	-0.01
104	SLE RA 21	2	-422	1876	22.4	0.1	-0.02
104	SLE FR 1	3	-396	1575	20.25	0.87	-0.01
104	SLE FR 2	2	-396	1576	20.25	0.52	-0.01
104	SLE FR 3	3	-396	1575	20.25	0.87	-0.01
104	SLE FR 4	3	-404	1665	20.89	0.6	-0.01
104	SLE FR 5	3	-404	1663	20.89	0.95	-0.01
104	SLE FR 6	3	-409	1723	21.32	1	-0.01
104	SLE QP 1	3	-396	1575	20.25	0.87	-0.01
104	SLE QP 2	3	-404	1663	20.89	0.95	-0.01
104	SLD 1	12	-404	1735	20.81	9.88	-0.02
104	SLD 2	12	-404	1735	20.81	9.88	-0.02
104	SLD 3	6	-528	1861	26.67	7.17	-0.02
104	SLD 4	6	-528	1861	26.67	7.17	-0.02
104	SLD 5	13	-216	1493	11.97	7.74	-0.01
104	SLD 6	13	-216	1493	11.97	7.74	-0.01
104	SLD 7	-4	-629	1914	31.51	-1.3	-0.02
104	SLD 8	-4	-629	1914	31.51	-1.3	-0.02
104	SLD 9	10	-179	1413	10.26	3.2	0
104	SLD 10	10	-179	1413	10.26	3.2	0
104	SLD 11	-8	-591	1833	29.8	-5.84	-0.02
104	SLD 12	-8	-591	1833	29.8	-5.84	-0.02
104	SLD 13	-1	-279	1466	15.11	-5.27	0
104	SLD 14	-1	-279	1466	15.11	-5.27	0
104	SLD 15	-6	-403	1592	20.97	-7.98	-0.01
104	SLD 16	-6	-403	1592	20.97	-7.98	-0.01
104	SLV 1	24	-415	1841	21.16	23.69	-0.03
104	SLV 2	24	-415	1841	21.16	23.69	-0.03
104	SLV 3	12	-707	2139	35.01	16.96	-0.04
104	SLV 4	12	-707	2139	35.01	16.96	-0.04
104	SLV 5	28	36	1264	-0.03	17.98	0
104	SLV 6	28	36	1264	-0.03	17.98	0
104	SLV 7	-13	-938	2259	46.13	-4.46	-0.04
104	SLV 8	-13	-938	2259	46.13	-4.46	-0.04
104	SLV 9	19	131	1068	-4.35	6.36	0.01
104	SLV 10	19	131	1068	-4.35	6.36	0.01
104	SLV 11	-23	-844	2063	41.81	-16.08	-0.02
104	SLV 12	-23	-844	2063	41.81	-16.08	-0.02
104	SLV 13	-6	-100	1188	6.76	-15.06	0.01
104	SLV 14	-6	-100	1188	6.76	-15.06	0.01
104	SLV 15	-19	-392	1486	20.61	-21.79	0
104	SLV 16	-19	-392	1486	20.61	-21.79	0
105	SLU 1	-3	-407	1534	20.38	-0.85	0.01
105	SLU 2	5	-408	1561	20.5	4.41	0.02
105	SLU 3	-3	-407	1534	20.38	-0.85	0.01
105	SLU 4	2	-408	1550	20.45	2.31	0.02
105	SLU 5	5	-408	1561	20.5	4.41	0.02
105	SLU 6	-3	-407	1534	20.38	-0.85	0.01
105	SLU 7	2	-408	1550	20.45	2.31	0.02
105	SLU 8	-3	-407	1534	20.38	-0.85	0.01
105	SLU 9	2	-408	1550	20.45	2.31	0.02
105	SLU 10	4	-469	1829	23.9	4.17	0.03
105	SLU 11	-3	-468	1802	23.78	-1.1	0.01
105	SLU 12	1	-468	1818	23.85	2.06	0.02
105	SLU 13	4	-469	1829	23.9	4.17	0.03
105	SLU 14	-3	-468	1802	23.78	-1.1	0.01
105	SLU 15	1	-468	1818	23.85	2.06	0.02
105	SLU 16	-3	-468	1802	23.78	-1.1	0.01
105	SLU 17	1	-468	1818	23.85	2.06	0.02
105	SLU 18	-4	-494	1917	25.24	-1.2	0.01
105	SLU 19	1	-494	1933	25.31	1.96	0.02
105	SLU 20	-4	-494	1917	25.24	-1.2	0.01
105	SLU 21	1	-494	1933	25.31	1.96	0.02
105	SLU 22	-3	-450	1673	22.59	-0.96	0.01
105	SLU 23	4	-451	1701	22.71	4.31	0.02
105	SLU 24	-3	-450	1673	22.59	-0.96	0.01
105	SLU 25	1	-450	1690	22.66	2.2	0.02
105	SLU 26	4	-451	1701	22.71	4.31	0.02
105	SLU 27	-3	-450	1673	22.59	-0.96	0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
105	SLU 28	1	-450	1690	22.66	2.2	0.02
105	SLU 29	-3	-450	1673	22.59	-0.96	0.01
105	SLU 30	1	-450	1690	22.66	2.2	0.02
105	SLU 31	4	-511	1968	26.11	4.06	0.03
105	SLU 32	-4	-510	1941	25.99	-1.2	0.01
105	SLU 33	1	-511	1957	26.06	1.96	0.02
105	SLU 34	4	-511	1968	26.11	4.06	0.03
105	SLU 35	-4	-510	1941	25.99	-1.2	0.01
105	SLU 36	1	-511	1957	26.06	1.96	0.02
105	SLU 37	-4	-510	1941	25.99	-1.2	0.01
105	SLU 38	1	-511	1957	26.06	1.96	0.02
105	SLU 39	-4	-536	2056	27.45	-1.31	0.02
105	SLU 40	1	-537	2072	27.52	1.85	0.02
105	SLU 41	-4	-536	2056	27.45	-1.31	0.02
105	SLU 42	1	-537	2072	27.52	1.85	0.02
105	SLU 43	-3	-515	1946	25.74	-1.07	0.01
105	SLU 44	4	-516	1974	25.86	4.2	0.03
105	SLU 45	-3	-515	1946	25.74	-1.07	0.01
105	SLU 46	1	-515	1963	25.81	2.09	0.02
105	SLU 47	4	-516	1974	25.86	4.2	0.03
105	SLU 48	-3	-515	1946	25.74	-1.07	0.01
105	SLU 49	1	-515	1963	25.81	2.09	0.02
105	SLU 50	-3	-515	1946	25.74	-1.07	0.01
105	SLU 51	1	-515	1963	25.81	2.09	0.02
105	SLU 52	3	-576	2242	29.26	3.95	0.03
105	SLU 53	-4	-575	2214	29.14	-1.31	0.02
105	SLU 54	0	-576	2231	29.21	1.84	0.02
105	SLU 55	3	-576	2242	29.26	3.95	0.03
105	SLU 56	-4	-575	2214	29.14	-1.31	0.02
105	SLU 57	0	-576	2231	29.21	1.84	0.02
105	SLU 58	-4	-575	2214	29.14	-1.31	0.02
105	SLU 59	0	-576	2231	29.21	1.84	0.02
105	SLU 60	-4	-601	2329	30.6	-1.42	0.02
105	SLU 61	0	-602	2345	30.67	1.74	0.02
105	SLU 62	-4	-601	2329	30.6	-1.42	0.02
105	SLU 63	0	-602	2345	30.67	1.74	0.02
105	SLU 64	-4	-557	2086	27.94	-1.17	0.01
105	SLU 65	4	-558	2113	28.06	4.09	0.03
105	SLU 66	-4	-557	2086	27.94	-1.17	0.01
105	SLU 67	1	-558	2102	28.02	1.98	0.02
105	SLU 68	4	-558	2113	28.06	4.09	0.03
105	SLU 69	-4	-557	2086	27.94	-1.17	0.01
105	SLU 70	1	-558	2102	28.02	1.98	0.02
105	SLU 71	-4	-557	2086	27.94	-1.17	0.01
105	SLU 72	1	-558	2102	28.02	1.98	0.02
105	SLU 73	3	-619	2381	31.47	3.85	0.03
105	SLU 74	-4	-618	2353	31.35	-1.42	0.02
105	SLU 75	0	-618	2370	31.42	1.74	0.02
105	SLU 76	3	-619	2381	31.47	3.85	0.03
105	SLU 77	-4	-618	2353	31.35	-1.42	0.02
105	SLU 78	0	-618	2370	31.42	1.74	0.02
105	SLU 79	-4	-618	2353	31.35	-1.42	0.02
105	SLU 80	0	-618	2370	31.42	1.74	0.02
105	SLU 81	-5	-644	2468	32.81	-1.52	0.02
105	SLU 82	0	-644	2485	32.88	1.63	0.03
105	SLU 83	-5	-644	2468	32.81	-1.52	0.02
105	SLU 84	0	-644	2485	32.88	1.63	0.03
105	SLE RA 1	-3	-419	1574	21.01	-0.88	0.01
105	SLE RA 2	2	-420	1592	21.09	2.63	0.02
105	SLE RA 3	-3	-419	1574	21.01	-0.88	0.01
105	SLE RA 4	0	-420	1585	21.06	1.23	0.02
105	SLE RA 5	2	-420	1592	21.09	2.63	0.02
105	SLE RA 6	-3	-419	1574	21.01	-0.88	0.01
105	SLE RA 7	0	-420	1585	21.06	1.23	0.02
105	SLE RA 8	-3	-419	1574	21.01	-0.88	0.01
105	SLE RA 9	0	-420	1585	21.06	1.23	0.02
105	SLE RA 10	2	-460	1771	23.36	2.47	0.02
105	SLE RA 11	-3	-460	1752	23.28	-1.04	0.01
105	SLE RA 12	0	-460	1763	23.33	1.06	0.02
105	SLE RA 13	2	-460	1771	23.36	2.47	0.02
105	SLE RA 14	-3	-460	1752	23.28	-1.04	0.01
105	SLE RA 15	0	-460	1763	23.33	1.06	0.02
105	SLE RA 16	-3	-460	1752	23.28	-1.04	0.01
105	SLE RA 17	0	-460	1763	23.33	1.06	0.02
105	SLE RA 18	-3	-477	1829	24.25	-1.11	0.01
105	SLE RA 19	0	-477	1840	24.3	0.99	0.02
105	SLE RA 20	-3	-477	1829	24.25	-1.11	0.01
105	SLE RA 21	0	-477	1840	24.3	0.99	0.02
105	SLE FR 1	-3	-419	1574	21.01	-0.88	0.01
105	SLE FR 2	-2	-420	1577	21.03	-0.18	0.01
105	SLE FR 3	-3	-419	1574	21.01	-0.88	0.01
105	SLE FR 4	-2	-437	1654	22	-0.25	0.01
105	SLE FR 5	-3	-437	1650	21.98	-0.95	0.01
105	SLE FR 6	-3	-448	1701	22.63	-1	0.01
105	SLE QP 1	-3	-419	1574	21.01	-0.88	0.01
105	SLE QP 2	-3	-437	1650	21.98	-0.95	0.01
105	SLD 1	1	-345	1408	17.49	6.39	-0.01
105	SLD 2	1	-345	1408	17.49	6.39	-0.01
105	SLD 3	7	-475	1522	23.48	9.41	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
105	SLD 4	7	-475	1522	23.48	9.41	0
105	SLD 5	-10	-212	1404	11.55	-3.33	0
105	SLD 6	-10	-212	1404	11.55	-3.33	0
105	SLD 7	9	-645	1785	31.52	6.74	0.02
105	SLD 8	9	-645	1785	31.52	6.74	0.02
105	SLD 9	-14	-228	1515	12.45	-8.64	0
105	SLD 10	-14	-228	1515	12.45	-8.64	0
105	SLD 11	5	-661	1896	32.42	1.43	0.03
105	SLD 12	5	-661	1896	32.42	1.43	0.03
105	SLD 13	-13	-399	1779	20.49	-11.31	0.02
105	SLD 14	-13	-399	1779	20.49	-11.31	0.02
105	SLD 15	-7	-528	1893	26.48	-8.29	0.03
105	SLD 16	-7	-528	1893	26.48	-8.29	0.03
105	SLV 1	8	-220	1078	11.33	17.93	-0.04
105	SLV 2	8	-220	1078	11.33	17.93	-0.04
105	SLV 3	21	-526	1348	25.47	25.41	-0.02
105	SLV 4	21	-526	1348	25.47	25.41	-0.02
105	SLV 5	-21	93	1068	-2.67	-6.63	-0.03
105	SLV 6	-21	93	1068	-2.67	-6.63	-0.03
105	SLV 7	25	-928	1970	44.48	18.3	0.03
105	SLV 8	25	-928	1970	44.48	18.3	0.03
105	SLV 9	-31	55	1331	-0.52	-20.2	-0.01
105	SLV 10	-31	55	1331	-0.52	-20.2	-0.01
105	SLV 11	15	-967	2232	46.63	4.73	0.05
105	SLV 12	15	-967	2232	46.63	4.73	0.05
105	SLV 13	-27	-347	1952	18.49	-27.31	0.04
105	SLV 14	-27	-347	1952	18.49	-27.31	0.04
105	SLV 15	-13	-654	2222	32.64	-19.83	0.06
105	SLV 16	-13	-654	2222	32.64	-19.83	0.06
107	SLU 1	278	-330	2007	9.71	7.78	-0.02
107	SLU 2	289	-328	2030	10.06	7.69	-0.02
107	SLU 3	278	-330	2007	9.71	7.78	-0.02
107	SLU 4	285	-329	2021	9.92	7.73	-0.02
107	SLU 5	289	-328	2030	10.06	7.69	-0.02
107	SLU 6	278	-330	2007	9.71	7.78	-0.02
107	SLU 7	285	-329	2021	9.92	7.73	-0.02
107	SLU 8	278	-330	2007	9.71	7.78	-0.02
107	SLU 9	285	-329	2021	9.92	7.73	-0.02
107	SLU 10	383	-372	2481	10.95	10.87	0
107	SLU 11	373	-374	2458	10.6	10.95	0
107	SLU 12	379	-373	2472	10.81	10.9	0
107	SLU 13	383	-372	2481	10.95	10.87	0
107	SLU 14	373	-374	2458	10.6	10.95	0
107	SLU 15	379	-373	2472	10.81	10.9	0
107	SLU 16	373	-374	2458	10.6	10.95	0
107	SLU 17	379	-373	2472	10.81	10.9	0
107	SLU 18	413	-393	2652	10.98	12.31	0.01
107	SLU 19	419	-391	2665	11.19	12.26	0.01
107	SLU 20	413	-393	2652	10.98	12.31	0.01
107	SLU 21	419	-391	2665	11.19	12.26	0.01
107	SLU 22	317	-358	2222	10.44	9.01	-0.01
107	SLU 23	327	-356	2244	10.79	8.92	-0.02
107	SLU 24	317	-358	2222	10.44	9.01	-0.01
107	SLU 25	323	-357	2235	10.65	8.96	-0.01
107	SLU 26	327	-356	2244	10.79	8.92	-0.02
107	SLU 27	317	-358	2222	10.44	9.01	-0.01
107	SLU 28	323	-357	2235	10.65	8.96	-0.01
107	SLU 29	317	-358	2222	10.44	9.01	-0.01
107	SLU 30	323	-357	2235	10.65	8.96	-0.01
107	SLU 31	421	-400	2695	11.69	12.1	0
107	SLU 32	411	-402	2673	11.34	12.18	0.01
107	SLU 33	417	-401	2686	11.55	12.13	0
107	SLU 34	421	-400	2695	11.69	12.1	0
107	SLU 35	411	-402	2673	11.34	12.18	0.01
107	SLU 36	417	-401	2686	11.55	12.13	0
107	SLU 37	411	-402	2673	11.34	12.18	0.01
107	SLU 38	417	-401	2686	11.55	12.13	0
107	SLU 39	451	-421	2866	11.72	13.54	0.01
107	SLU 40	458	-420	2880	11.93	13.49	0.01
107	SLU 41	451	-421	2866	11.72	13.54	0.01
107	SLU 42	458	-420	2880	11.93	13.49	0.01
107	SLU 43	349	-419	2536	12.36	9.69	-0.03
107	SLU 44	359	-417	2559	12.72	9.61	-0.03
107	SLU 45	349	-419	2536	12.36	9.69	-0.03
107	SLU 46	355	-418	2550	12.58	9.64	-0.03
107	SLU 47	359	-417	2559	12.72	9.61	-0.03
107	SLU 48	349	-419	2536	12.36	9.69	-0.03
107	SLU 49	355	-418	2550	12.58	9.64	-0.03
107	SLU 50	349	-419	2536	12.36	9.69	-0.03
107	SLU 51	355	-418	2550	12.58	9.64	-0.03
107	SLU 52	454	-461	3010	13.61	12.78	-0.01
107	SLU 53	443	-463	2987	13.26	12.87	-0.01
107	SLU 54	449	-462	3001	13.47	12.82	-0.01
107	SLU 55	454	-461	3010	13.61	12.78	-0.01
107	SLU 56	443	-463	2987	13.26	12.87	-0.01
107	SLU 57	449	-462	3001	13.47	12.82	-0.01
107	SLU 58	443	-463	2987	13.26	12.87	-0.01
107	SLU 59	449	-462	3001	13.47	12.82	-0.01
107	SLU 60	484	-482	3180	13.64	14.23	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
107	SLU 61	490	-480	3194	13.85	14.18	0
107	SLU 62	484	-482	3180	13.64	14.23	0
107	SLU 63	490	-480	3194	13.85	14.18	0
107	SLU 64	387	-447	2750	13.1	10.92	-0.02
107	SLU 65	397	-445	2773	13.45	10.84	-0.02
107	SLU 66	387	-447	2750	13.1	10.92	-0.02
107	SLU 67	393	-446	2764	13.31	10.87	-0.02
107	SLU 68	397	-445	2773	13.45	10.84	-0.02
107	SLU 69	387	-447	2750	13.1	10.92	-0.02
107	SLU 70	393	-446	2764	13.31	10.87	-0.02
107	SLU 71	387	-447	2750	13.1	10.92	-0.02
107	SLU 72	393	-446	2764	13.31	10.87	-0.02
107	SLU 73	492	-489	3224	14.35	14.01	0
107	SLU 74	481	-491	3201	14	14.1	0
107	SLU 75	488	-490	3215	14.21	14.04	0
107	SLU 76	492	-489	3224	14.35	14.01	0
107	SLU 77	481	-491	3201	14	14.1	0
107	SLU 78	488	-490	3215	14.21	14.04	0
107	SLU 79	481	-491	3201	14	14.1	0
107	SLU 80	488	-490	3215	14.21	14.04	0
107	SLU 81	522	-510	3395	14.38	15.46	0.01
107	SLU 82	528	-509	3408	14.59	15.4	0.01
107	SLU 83	522	-510	3395	14.38	15.46	0.01
107	SLU 84	528	-509	3408	14.59	15.4	0.01
107	SLE RA 1	289	-338	2069	9.92	8.13	-0.02
107	SLE RA 2	296	-337	2084	10.15	8.07	-0.02
107	SLE RA 3	289	-338	2069	9.92	8.13	-0.02
107	SLE RA 4	293	-337	2078	10.06	8.1	-0.02
107	SLE RA 5	296	-337	2084	10.15	8.07	-0.02
107	SLE RA 6	289	-338	2069	9.92	8.13	-0.02
107	SLE RA 7	293	-337	2078	10.06	8.1	-0.02
107	SLE RA 8	289	-338	2069	9.92	8.13	-0.02
107	SLE RA 9	293	-337	2078	10.06	8.1	-0.02
107	SLE RA 10	359	-366	2384	10.75	10.19	0
107	SLE RA 11	352	-367	2369	10.51	10.25	0
107	SLE RA 12	356	-366	2378	10.65	10.21	0
107	SLE RA 13	359	-366	2384	10.75	10.19	0
107	SLE RA 14	352	-367	2369	10.51	10.25	0
107	SLE RA 15	356	-366	2378	10.65	10.21	0
107	SLE RA 16	352	-367	2369	10.51	10.25	0
107	SLE RA 17	356	-366	2378	10.65	10.21	0
107	SLE RA 18	379	-380	2498	10.77	11.15	0
107	SLE RA 19	383	-379	2507	10.91	11.12	0
107	SLE RA 20	379	-380	2498	10.77	11.15	0
107	SLE RA 21	383	-379	2507	10.91	11.12	0
107	SLE FR 1	289	-338	2069	9.92	8.13	-0.02
107	SLE FR 2	291	-338	2072	9.96	8.12	-0.02
107	SLE FR 3	289	-338	2069	9.92	8.13	-0.02
107	SLE FR 4	318	-350	2200	10.22	9.03	-0.01
107	SLE FR 5	316	-350	2197	10.17	9.04	-0.01
107	SLE FR 6	334	-359	2283	10.34	9.64	-0.01
107	SLE QP 1	289	-338	2069	9.92	8.13	-0.02
107	SLE QP 2	316	-350	2197	10.17	9.04	-0.01
107	SLD 1	371	-357	2292	9.73	11.98	0.03
107	SLD 2	371	-357	2292	9.73	11.98	0.03
107	SLD 3	381	-435	2528	12.84	11.56	0
107	SLD 4	381	-435	2528	12.84	11.56	0
107	SLD 5	318	-234	1868	5.32	10.57	0.04
107	SLD 6	318	-234	1868	5.32	10.57	0.04
107	SLD 7	351	-494	2654	15.7	9.15	-0.05
107	SLD 8	351	-494	2654	15.7	9.15	-0.05
107	SLD 9	282	-206	1741	4.65	8.93	0.03
107	SLD 10	282	-206	1741	4.65	8.93	0.03
107	SLD 11	315	-467	2527	15.03	7.51	-0.07
107	SLD 12	315	-467	2527	15.03	7.51	-0.07
107	SLD 13	252	-266	1867	7.5	6.52	-0.02
107	SLD 14	252	-266	1867	7.5	6.52	-0.02
107	SLD 15	262	-344	2103	10.61	6.1	-0.05
107	SLD 16	262	-344	2103	10.61	6.1	-0.05
107	SLV 1	444	-373	2433	9.28	16.06	0.08
107	SLV 2	444	-373	2433	9.28	16.06	0.08
107	SLV 3	468	-558	2991	16.64	15.03	0.01
107	SLV 4	468	-558	2991	16.64	15.03	0.01
107	SLV 5	318	-77	1422	-1.26	12.71	0.12
107	SLV 6	318	-77	1422	-1.26	12.71	0.12
107	SLV 7	398	-693	3281	23.28	9.27	-0.11
107	SLV 8	398	-693	3281	23.28	9.27	-0.11
107	SLV 9	235	-8	1114	-2.93	8.81	0.08
107	SLV 10	235	-8	1114	-2.93	8.81	0.08
107	SLV 11	314	-624	2973	21.6	5.37	-0.14
107	SLV 12	314	-624	2973	21.6	5.37	-0.14
107	SLV 13	164	-143	1404	3.7	3.05	-0.04
107	SLV 14	164	-143	1404	3.7	3.05	-0.04
107	SLV 15	188	-327	1962	11.06	2.02	-0.1
107	SLV 16	188	-327	1962	11.06	2.02	-0.1
108	SLU 1	281	-3	1463	0.92	15.45	0.01
108	SLU 2	290	-5	1476	3.41	15.91	0.01
108	SLU 3	281	-3	1463	0.92	15.45	0.01
108	SLU 4	286	-4	1471	2.42	15.73	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
108	SLU 5	290	-5	1476	3.41	15.91	0.01
108	SLU 6	281	-3	1463	0.92	15.45	0.01
108	SLU 7	286	-4	1471	2.42	15.73	0.01
108	SLU 8	281	-3	1463	0.92	15.45	0.01
108	SLU 9	286	-4	1471	2.42	15.73	0.01
108	SLU 10	413	-6	1786	3.56	22.03	0.01
108	SLU 11	403	-3	1773	1.07	21.57	0.01
108	SLU 12	409	-5	1781	2.57	21.84	0.01
108	SLU 13	413	-6	1786	3.56	22.03	0.01
108	SLU 14	403	-3	1773	1.07	21.57	0.01
108	SLU 15	409	-5	1781	2.57	21.84	0.01
108	SLU 16	403	-3	1773	1.07	21.57	0.01
108	SLU 17	409	-5	1781	2.57	21.84	0.01
108	SLU 18	455	-3	1906	1.14	24.19	0.01
108	SLU 19	461	-5	1914	2.63	24.46	0.01
108	SLU 20	455	-3	1906	1.14	24.19	0.01
108	SLU 21	461	-5	1914	2.63	24.46	0.01
108	SLU 22	326	-3	1606	1.01	17.84	0.01
108	SLU 23	336	-6	1619	3.5	18.3	0.01
108	SLU 24	326	-3	1606	1.01	17.84	0.01
108	SLU 25	332	-5	1613	2.5	18.11	0.01
108	SLU 26	336	-6	1619	3.5	18.3	0.01
108	SLU 27	326	-3	1606	1.01	17.84	0.01
108	SLU 28	332	-5	1613	2.5	18.11	0.01
108	SLU 29	326	-3	1606	1.01	17.84	0.01
108	SLU 30	332	-5	1613	2.5	18.11	0.01
108	SLU 31	458	-6	1929	3.65	24.41	0.01
108	SLU 32	448	-4	1916	1.16	23.95	0.01
108	SLU 33	454	-5	1923	2.66	24.23	0.01
108	SLU 34	458	-6	1929	3.65	24.41	0.01
108	SLU 35	448	-4	1916	1.16	23.95	0.01
108	SLU 36	454	-5	1923	2.66	24.23	0.01
108	SLU 37	448	-4	1916	1.16	23.95	0.01
108	SLU 38	454	-5	1923	2.66	24.23	0.01
108	SLU 39	501	-4	2048	1.23	26.57	0.02
108	SLU 40	507	-5	2056	2.72	26.85	0.01
108	SLU 41	501	-4	2048	1.23	26.57	0.02
108	SLU 42	507	-5	2056	2.72	26.85	0.01
108	SLU 43	349	-3	1853	1.17	19.27	0.01
108	SLU 44	359	-6	1866	3.66	19.73	0.01
108	SLU 45	349	-3	1853	1.17	19.27	0.01
108	SLU 46	355	-5	1861	2.66	19.55	0.01
108	SLU 47	359	-6	1866	3.66	19.73	0.01
108	SLU 48	349	-3	1853	1.17	19.27	0.01
108	SLU 49	355	-5	1861	2.66	19.55	0.01
108	SLU 50	349	-3	1853	1.17	19.27	0.01
108	SLU 51	355	-5	1861	2.66	19.55	0.01
108	SLU 52	481	-6	2176	3.81	25.85	0.01
108	SLU 53	472	-4	2163	1.32	25.38	0.02
108	SLU 54	477	-5	2171	2.81	25.66	0.02
108	SLU 55	481	-6	2176	3.81	25.85	0.01
108	SLU 56	472	-4	2163	1.32	25.38	0.02
108	SLU 57	477	-5	2171	2.81	25.66	0.02
108	SLU 58	472	-4	2163	1.32	25.38	0.02
108	SLU 59	477	-5	2171	2.81	25.66	0.02
108	SLU 60	524	-4	2296	1.38	28	0.02
108	SLU 61	530	-6	2304	2.88	28.28	0.02
108	SLU 62	524	-4	2296	1.38	28	0.02
108	SLU 63	530	-6	2304	2.88	28.28	0.02
108	SLU 64	395	-4	1996	1.26	21.65	0.01
108	SLU 65	404	-6	2009	3.75	22.12	0.01
108	SLU 66	395	-4	1996	1.26	21.65	0.01
108	SLU 67	400	-5	2003	2.75	21.93	0.01
108	SLU 68	404	-6	2009	3.75	22.12	0.01
108	SLU 69	395	-4	1996	1.26	21.65	0.01
108	SLU 70	400	-5	2003	2.75	21.93	0.01
108	SLU 71	395	-4	1996	1.26	21.65	0.01
108	SLU 72	400	-5	2003	2.75	21.93	0.01
108	SLU 73	527	-7	2319	3.9	28.23	0.02
108	SLU 74	517	-4	2306	1.41	27.77	0.02
108	SLU 75	523	-6	2313	2.9	28.05	0.02
108	SLU 76	527	-7	2319	3.9	28.23	0.02
108	SLU 77	517	-4	2306	1.41	27.77	0.02
108	SLU 78	523	-6	2313	2.9	28.05	0.02
108	SLU 79	517	-4	2306	1.41	27.77	0.02
108	SLU 80	523	-6	2313	2.9	28.05	0.02
108	SLU 81	570	-4	2438	1.47	30.39	0.02
108	SLU 82	575	-6	2446	2.97	30.67	0.02
108	SLU 83	570	-4	2438	1.47	30.39	0.02
108	SLU 84	575	-6	2446	2.97	30.67	0.02
108	SLE RA 1	294	-3	1504	0.95	16.13	0.01
108	SLE RA 2	300	-4	1512	2.61	16.44	0.01
108	SLE RA 3	294	-3	1504	0.95	16.13	0.01
108	SLE RA 4	297	-4	1509	1.94	16.32	0.01
108	SLE RA 5	300	-4	1512	2.61	16.44	0.01
108	SLE RA 6	294	-3	1504	0.95	16.13	0.01
108	SLE RA 7	297	-4	1509	1.94	16.32	0.01
108	SLE RA 8	294	-3	1504	0.95	16.13	0.01
108	SLE RA 9	297	-4	1509	1.94	16.32	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
108	SLE RA 10	382	-5	1719	2.71	20.52	0.01
108	SLE RA 11	375	-3	1710	2.01	20.21	0.01
108	SLE RA 12	379	-4	1716	2.04	20.39	0.01
108	SLE RA 13	382	-5	1719	2.71	20.52	0.01
108	SLE RA 14	375	-3	1710	2.05	20.21	0.01
108	SLE RA 15	379	-4	1716	2.04	20.39	0.01
108	SLE RA 16	375	-3	1710	1.05	20.21	0.01
108	SLE RA 17	379	-4	1716	2.04	20.39	0.01
108	SLE RA 18	410	-3	1799	1.09	21.96	0.01
108	SLE RA 19	414	-4	1804	2.09	22.14	0.01
108	SLE RA 20	410	-3	1799	1.09	21.96	0.01
108	SLE RA 21	414	-4	1804	2.09	22.14	0.01
108	SLE FR 1	294	-3	1504	0.95	16.13	0.01
108	SLE FR 2	295	-3	1505	1.28	16.2	0.01
108	SLE FR 3	294	-3	1504	0.95	16.13	0.01
108	SLE FR 4	330	-3	1594	1.32	17.94	0.01
108	SLE FR 5	329	-3	1592	0.99	17.88	0.01
108	SLE FR 6	352	-3	1651	1.02	19.04	0.01
108	SLE QP 1	294	-3	1504	0.95	16.13	0.01
108	SLE QP 2	329	-3	1592	0.99	17.88	0.01
108	SLD 1	417	12	1623	-7.33	22.2	0.03
108	SLD 2	417	12	1623	-7.33	22.2	0.03
108	SLD 3	439	9	1751	-4.21	22.73	0.03
108	SLD 4	439	9	1751	-4.21	22.73	0.03
108	SLD 5	321	6	1407	-6.25	18.36	0.02
108	SLD 6	321	6	1407	-6.25	18.36	0.02
108	SLD 7	395	-4	1834	4.17	20.15	0.01
108	SLD 8	395	-4	1834	4.17	20.15	0.01
108	SLD 9	262	-2	1350	-2.19	15.61	0.01
108	SLD 10	262	-2	1350	-2.19	15.61	0.01
108	SLD 11	336	-12	1778	8.23	17.4	0
108	SLD 12	336	-12	1778	8.23	17.4	0
108	SLD 13	218	-15	1434	6.19	13.03	0
108	SLD 14	218	-15	1434	6.19	13.03	0
108	SLD 15	240	-18	1562	9.31	13.56	-0.01
108	SLD 16	240	-18	1562	9.31	13.56	-0.01
108	SLV 1	537	35	1672	-20.14	28.04	0.06
108	SLV 2	537	35	1672	-20.14	28.04	0.06
108	SLV 3	589	28	1975	-12.49	29.31	0.05
108	SLV 4	589	28	1975	-12.49	29.31	0.05
108	SLV 5	311	20	1156	-16.95	19	0.04
108	SLV 6	311	20	1156	-16.95	19	0.04
108	SLV 7	486	-5	2167	8.55	23.23	0.01
108	SLV 8	486	-5	2167	8.55	23.23	0.01
108	SLV 9	171	-1	1018	-6.57	12.53	0.01
108	SLV 10	171	-1	1018	-6.57	12.53	0.01
108	SLV 11	346	-26	2028	18.94	16.76	-0.01
108	SLV 12	346	-26	2028	18.94	16.76	-0.01
108	SLV 13	68	-34	1210	14.47	6.45	-0.02
108	SLV 14	68	-34	1210	14.47	6.45	-0.02
108	SLV 15	121	-41	1513	22.12	7.72	-0.03
108	SLV 16	121	-41	1513	22.12	7.72	-0.03
109	SLU 1	255	0	1260	0.42	10.08	0
109	SLU 2	263	-5	1270	4.95	10.44	-0.01
109	SLU 3	255	0	1260	0.42	10.08	0
109	SLU 4	260	-3	1266	3.14	10.3	-0.01
109	SLU 5	263	-5	1270	4.95	10.44	-0.01
109	SLU 6	255	0	1260	0.42	10.08	0
109	SLU 7	260	-3	1266	3.14	10.3	-0.01
109	SLU 8	255	0	1260	0.42	10.08	0
109	SLU 9	260	-3	1266	3.14	10.3	-0.01
109	SLU 10	380	-5	1512	5.04	15.35	-0.01
109	SLU 11	371	0	1502	0.5	14.99	0
109	SLU 12	377	-3	1508	3.22	15.21	-0.01
109	SLU 13	380	-5	1512	5.04	15.35	-0.01
109	SLU 14	371	0	1502	0.5	14.99	0
109	SLU 15	377	-3	1508	3.22	15.21	-0.01
109	SLU 16	371	0	1502	0.5	14.99	0
109	SLU 17	377	-3	1508	3.22	15.21	-0.01
109	SLU 18	421	0	1605	0.54	17.09	-0.01
109	SLU 19	426	-3	1612	3.26	17.31	-0.01
109	SLU 20	421	0	1605	0.54	17.09	-0.01
109	SLU 21	426	-3	1612	3.26	17.31	-0.01
109	SLU 22	299	0	1368	0.46	11.94	0
109	SLU 23	308	-5	1378	5	12.3	-0.01
109	SLU 24	299	0	1368	0.46	11.94	0
109	SLU 25	304	-3	1374	3.18	12.16	-0.01
109	SLU 26	308	-5	1378	5	12.3	-0.01
109	SLU 27	299	0	1368	0.46	11.94	0
109	SLU 28	304	-3	1374	3.18	12.16	-0.01
109	SLU 29	299	0	1368	0.46	11.94	0
109	SLU 30	304	-3	1374	3.18	12.16	-0.01
109	SLU 31	424	-5	1620	5.08	17.22	-0.01
109	SLU 32	415	0	1609	0.55	16.85	-0.01
109	SLU 33	421	-3	1615	3.27	17.07	-0.01
109	SLU 34	424	-5	1620	5.08	17.22	-0.01
109	SLU 35	415	0	1609	0.55	16.85	-0.01
109	SLU 36	421	-3	1615	3.27	17.07	-0.01
109	SLU 37	415	0	1609	0.55	16.85	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
109	SLU 38	421	-3	1615	3.27	17.07	-0.01
109	SLU 39	465	-1	1713	0.58	18.95	-0.01
109	SLU 40	470	-3	1719	3.3	19.17	-0.01
109	SLU 41	465	-1	1713	0.58	18.95	-0.01
109	SLU 42	470	-3	1719	3.3	19.17	-0.01
109	SLU 43	316	0	1601	0.53	12.46	-0.01
109	SLU 44	325	-5	1612	5.06	12.83	-0.01
109	SLU 45	316	0	1601	0.53	12.46	-0.01
109	SLU 46	321	-3	1608	3.25	12.68	-0.01
109	SLU 47	325	-5	1612	5.06	12.83	-0.01
109	SLU 48	316	0	1601	0.53	12.46	-0.01
109	SLU 49	321	-3	1608	3.25	12.68	-0.01
109	SLU 50	316	0	1601	0.53	12.46	-0.01
109	SLU 51	321	-3	1608	3.25	12.68	-0.01
109	SLU 52	441	-5	1853	5.15	17.74	-0.01
109	SLU 53	433	-1	1843	0.61	17.37	-0.01
109	SLU 54	438	-3	1849	3.33	17.59	-0.01
109	SLU 55	441	-5	1853	5.15	17.74	-0.01
109	SLU 56	433	-1	1843	0.61	17.37	-0.01
109	SLU 57	438	-3	1849	3.33	17.59	-0.01
109	SLU 58	433	-1	1843	0.61	17.37	-0.01
109	SLU 59	438	-3	1849	3.33	17.59	-0.01
109	SLU 60	483	-1	1947	0.65	19.48	-0.01
109	SLU 61	488	-3	1953	3.37	19.7	-0.01
109	SLU 62	483	-1	1947	0.65	19.48	-0.01
109	SLU 63	488	-3	1953	3.37	19.7	-0.01
109	SLU 64	360	0	1709	0.57	14.32	-0.01
109	SLU 65	369	-5	1719	5.11	14.69	-0.01
109	SLU 66	360	0	1709	0.57	14.32	-0.01
109	SLU 67	365	-3	1715	3.29	14.54	-0.01
109	SLU 68	369	-5	1719	5.11	14.69	-0.01
109	SLU 69	360	0	1709	0.57	14.32	-0.01
109	SLU 70	365	-3	1715	3.29	14.54	-0.01
109	SLU 71	360	0	1709	0.57	14.32	-0.01
109	SLU 72	365	-3	1715	3.29	14.54	-0.01
109	SLU 73	485	-5	1961	5.19	19.6	-0.01
109	SLU 74	477	-1	1951	0.66	19.23	-0.01
109	SLU 75	482	-3	1957	3.38	19.45	-0.01
109	SLU 76	485	-5	1961	5.19	19.6	-0.01
109	SLU 77	477	-1	1951	0.66	19.23	-0.01
109	SLU 78	482	-3	1957	3.38	19.45	-0.01
109	SLU 79	477	-1	1951	0.66	19.23	-0.01
109	SLU 80	482	-3	1957	3.38	19.45	-0.01
109	SLU 81	527	-1	2054	0.69	21.34	-0.01
109	SLU 82	532	-3	2060	3.41	21.56	-0.01
109	SLU 83	527	-1	2054	0.69	21.34	-0.01
109	SLU 84	532	-3	2060	3.41	21.56	-0.01
109	SLE RA 1	267	0	1291	0.43	10.61	0
109	SLE RA 2	273	-3	1298	3.45	10.85	-0.01
109	SLE RA 3	267	0	1291	0.43	10.61	0
109	SLE RA 4	271	-2	1295	2.24	10.76	-0.01
109	SLE RA 5	273	-3	1298	3.45	10.85	-0.01
109	SLE RA 6	267	0	1291	0.43	10.61	0
109	SLE RA 7	271	-2	1295	2.24	10.76	-0.01
109	SLE RA 8	267	0	1291	0.43	10.61	0
109	SLE RA 9	271	-2	1295	2.24	10.76	-0.01
109	SLE RA 10	351	-3	1459	3.51	14.13	-0.01
109	SLE RA 11	345	0	1452	0.49	13.88	0
109	SLE RA 12	348	-2	1456	2.3	14.03	-0.01
109	SLE RA 13	351	-3	1459	3.51	14.13	-0.01
109	SLE RA 14	345	0	1452	0.49	13.88	0
109	SLE RA 15	348	-2	1456	2.3	14.03	-0.01
109	SLE RA 16	345	0	1452	0.49	13.88	0
109	SLE RA 17	348	-2	1456	2.3	14.03	-0.01
109	SLE RA 18	378	0	1521	0.51	15.29	0
109	SLE RA 19	382	-2	1525	2.33	15.43	-0.01
109	SLE RA 20	378	0	1521	0.51	15.29	0
109	SLE RA 21	382	-2	1525	2.33	15.43	-0.01
109	SLE FR 1	267	0	1291	0.43	10.61	0
109	SLE FR 2	268	-1	1292	1.03	10.66	0
109	SLE FR 3	267	0	1291	0.43	10.61	0
109	SLE FR 4	302	-1	1361	1.06	12.06	-0.01
109	SLE FR 5	301	0	1360	0.45	12.01	0
109	SLE FR 6	323	0	1406	0.47	12.95	0
109	SLE QP 1	267	0	1291	0.43	10.61	0
109	SLE QP 2	301	0	1360	0.45	12.01	0
109	SLD 1	415	21	1370	-14.51	17.17	0.05
109	SLD 2	415	21	1370	-14.51	17.17	0.05
109	SLD 3	430	15	1436	-8.08	17.74	0.04
109	SLD 4	430	15	1436	-8.08	17.74	0.04
109	SLD 5	313	15	1263	-13.79	12.7	0.03
109	SLD 6	313	15	1263	-13.79	12.7	0.03
109	SLD 7	361	-4	1483	7.65	14.59	-0.01
109	SLD 8	361	-4	1483	7.65	14.59	-0.01
109	SLD 9	240	4	1237	-6.74	9.43	0
109	SLD 10	240	4	1237	-6.74	9.43	0
109	SLD 11	288	-15	1457	14.7	11.33	-0.03
109	SLD 12	288	-15	1457	14.7	11.33	-0.03
109	SLD 13	172	-16	1284	8.99	6.28	-0.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
109	SLD 14	172	-16	1284	8.99	6.28	-0.05
109	SLD 15	186	-21	1350	15.42	6.85	-0.06
109	SLD 16	186	-21	1350	15.42	6.85	-0.06
109	SLV 1	570	53	1385	-37.44	24.16	0.11
109	SLV 2	570	53	1385	-37.44	24.16	0.11
109	SLV 3	604	39	1541	-21.8	25.51	0.09
109	SLV 4	604	39	1541	-21.8	25.51	0.09
109	SLV 5	329	37	1131	-34.63	13.61	0.07
109	SLV 6	329	37	1131	-34.63	13.61	0.07
109	SLV 7	444	-10	1651	17.5	18.11	-0.01
109	SLV 8	444	-10	1651	17.5	18.11	-0.01
109	SLV 9	157	9	1069	-16.59	5.91	0
109	SLV 10	157	9	1069	-16.59	5.91	0
109	SLV 11	272	-38	1589	35.54	10.42	-0.08
109	SLV 12	272	-38	1589	35.54	10.42	-0.08
109	SLV 13	-3	-40	1179	22.71	-1.48	-0.1
109	SLV 14	-3	-40	1179	22.71	-1.48	-0.1
109	SLV 15	31	-54	1335	38.35	-0.13	-0.12
109	SLV 16	31	-54	1335	38.35	-0.13	-0.12
110	SLU 1	260	0	1214	0.22	12.37	0
110	SLU 2	270	-6	1225	6.04	12.79	-0.01
110	SLU 3	260	0	1214	0.22	12.37	0
110	SLU 4	266	-3	1221	3.71	12.63	-0.01
110	SLU 5	270	-6	1225	6.04	12.79	-0.01
110	SLU 6	260	0	1214	0.22	12.37	0
110	SLU 7	266	-3	1221	3.71	12.63	-0.01
110	SLU 8	260	0	1214	0.22	12.37	0
110	SLU 9	266	-3	1221	3.71	12.63	-0.01
110	SLU 10	387	-6	1440	6.1	18.1	-0.01
110	SLU 11	377	0	1430	0.27	17.68	0
110	SLU 12	383	-4	1436	3.77	17.93	-0.01
110	SLU 13	387	-6	1440	6.1	18.1	-0.01
110	SLU 14	377	0	1430	0.27	17.68	0
110	SLU 15	383	-4	1436	3.77	17.93	-0.01
110	SLU 16	377	0	1430	0.27	17.68	0
110	SLU 17	383	-4	1436	3.77	17.93	-0.01
110	SLU 18	427	0	1522	0.3	19.95	0
110	SLU 19	433	-4	1529	3.79	20.2	-0.01
110	SLU 20	427	0	1522	0.3	19.95	0
110	SLU 21	433	-4	1529	3.79	20.2	-0.01
110	SLU 22	306	0	1308	0.24	14.46	0
110	SLU 23	316	-6	1318	6.07	14.88	-0.01
110	SLU 24	306	0	1308	0.24	14.46	0
110	SLU 25	312	-3	1314	3.74	14.71	-0.01
110	SLU 26	316	-6	1318	6.07	14.88	-0.01
110	SLU 27	306	0	1308	0.24	14.46	0
110	SLU 28	312	-3	1314	3.74	14.71	-0.01
110	SLU 29	306	0	1308	0.24	14.46	0
110	SLU 30	312	-3	1314	3.74	14.71	-0.01
110	SLU 31	432	-6	1534	6.13	20.19	-0.01
110	SLU 32	422	0	1523	0.3	19.76	0
110	SLU 33	428	-4	1530	3.79	20.02	-0.01
110	SLU 34	432	-6	1534	6.13	20.19	-0.01
110	SLU 35	422	0	1523	0.3	19.76	0
110	SLU 36	428	-4	1530	3.79	20.02	-0.01
110	SLU 37	422	0	1523	0.3	19.76	0
110	SLU 38	428	-4	1530	3.79	20.02	-0.01
110	SLU 39	472	0	1616	0.32	22.04	0
110	SLU 40	478	-4	1622	3.82	22.29	-0.01
110	SLU 41	472	0	1616	0.32	22.04	0
110	SLU 42	478	-4	1622	3.82	22.29	-0.01
110	SLU 43	323	0	1546	0.27	15.37	0
110	SLU 44	333	-6	1557	6.1	15.79	-0.01
110	SLU 45	323	0	1546	0.27	15.37	0
110	SLU 46	329	-4	1553	3.77	15.62	-0.01
110	SLU 47	333	-6	1557	6.1	15.79	-0.01
110	SLU 48	323	0	1546	0.27	15.37	0
110	SLU 49	329	-4	1553	3.77	15.62	-0.01
110	SLU 50	323	0	1546	0.27	15.37	0
110	SLU 51	329	-4	1553	3.77	15.62	-0.01
110	SLU 52	450	-6	1773	6.16	21.09	-0.01
110	SLU 53	440	0	1762	0.33	20.67	0
110	SLU 54	446	-4	1768	3.83	20.93	-0.01
110	SLU 55	450	-6	1773	6.16	21.09	-0.01
110	SLU 56	440	0	1762	0.33	20.67	0
110	SLU 57	446	-4	1768	3.83	20.93	-0.01
110	SLU 58	440	0	1762	0.33	20.67	0
110	SLU 59	446	-4	1768	3.83	20.93	-0.01
110	SLU 60	490	0	1854	0.35	22.95	0
110	SLU 61	496	-4	1861	3.85	23.2	-0.01
110	SLU 62	490	0	1854	0.35	22.95	0
110	SLU 63	496	-4	1861	3.85	23.2	-0.01
110	SLU 64	368	0	1640	0.3	17.46	0
110	SLU 65	378	-6	1651	6.13	17.88	-0.01
110	SLU 66	368	0	1640	0.3	17.46	0
110	SLU 67	374	-4	1646	3.8	17.71	-0.01
110	SLU 68	378	-6	1651	6.13	17.88	-0.01
110	SLU 69	368	0	1640	0.3	17.46	0
110	SLU 70	374	-4	1646	3.8	17.71	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
110	SLU 71	368	0	1640	0.3	17.46	0
110	SLU 72	374	-4	1646	3.8	17.71	-0.01
110	SLU 73	495	-6	1866	6.18	23.18	-0.01
110	SLU 74	485	0	1856	0.36	22.76	0
110	SLU 75	491	-4	1862	3.85	23.01	-0.01
110	SLU 76	495	-6	1866	6.18	23.18	-0.01
110	SLU 77	485	0	1856	0.36	22.76	0
110	SLU 78	491	-4	1862	3.85	23.01	-0.01
110	SLU 79	485	0	1856	0.36	22.76	0
110	SLU 80	491	-4	1862	3.85	23.01	-0.01
110	SLU 81	535	0	1948	0.38	25.03	0
110	SLU 82	541	-4	1954	3.88	25.29	-0.01
110	SLU 83	535	0	1948	0.38	25.03	0
110	SLU 84	541	-4	1954	3.88	25.29	-0.01
110	SLE RA 1	273	0	1241	0.22	12.97	0
110	SLE RA 2	280	-4	1248	4.11	13.25	-0.01
110	SLE RA 3	273	0	1241	0.22	12.97	0
110	SLE RA 4	277	-2	1245	2.56	13.14	0
110	SLE RA 5	280	-4	1248	4.11	13.25	-0.01
110	SLE RA 6	273	0	1241	0.22	12.97	0
110	SLE RA 7	277	-2	1245	2.56	13.14	0
110	SLE RA 8	273	0	1241	0.22	12.97	0
110	SLE RA 9	277	-2	1245	2.56	13.14	0
110	SLE RA 10	358	-4	1392	4.15	16.79	-0.01
110	SLE RA 11	351	0	1385	0.26	16.5	0
110	SLE RA 12	355	-2	1389	2.59	16.67	0
110	SLE RA 13	358	-4	1392	4.15	16.79	-0.01
110	SLE RA 14	351	0	1385	0.26	16.5	0
110	SLE RA 15	355	-2	1389	2.59	16.67	0
110	SLE RA 16	351	0	1385	0.26	16.5	0
110	SLE RA 17	355	-2	1389	2.59	16.67	0
110	SLE RA 18	385	0	1446	0.28	18.02	0
110	SLE RA 19	389	-2	1451	2.61	18.19	0
110	SLE RA 20	385	0	1446	0.28	18.02	0
110	SLE RA 21	389	-2	1451	2.61	18.19	0
110	SLE FR 1	273	0	1241	0.22	12.97	0
110	SLE FR 2	275	-1	1242	1	13.03	0
110	SLE FR 3	273	0	1241	0.22	12.97	0
110	SLE FR 4	308	-1	1304	1.02	14.54	0
110	SLE FR 5	307	0	1303	0.24	14.48	0
110	SLE FR 6	329	0	1344	0.25	15.49	0
110	SLE QP 1	273	0	1241	0.22	12.97	0
110	SLE QP 2	307	0	1303	0.24	14.48	0
110	SLD 1	448	23	1228	-19.61	20.61	0.03
110	SLD 2	448	23	1228	-19.61	20.61	0.03
110	SLD 3	462	13	1268	-9.99	21.22	0.01
110	SLD 4	462	13	1268	-9.99	21.22	0.01
110	SLD 5	329	22	1220	-20.32	15.41	0.03
110	SLD 6	329	22	1220	-20.32	15.41	0.03
110	SLD 7	373	-11	1353	11.78	17.42	-0.02
110	SLD 8	373	-11	1353	11.78	17.42	-0.02
110	SLD 9	240	11	1252	-11.3	11.55	0.02
110	SLD 10	240	11	1252	-11.3	11.55	0.02
110	SLD 11	284	-22	1385	20.8	13.56	-0.03
110	SLD 12	284	-22	1385	20.8	13.56	-0.03
110	SLD 13	152	-13	1337	10.47	7.75	-0.01
110	SLD 14	152	-13	1337	10.47	7.75	-0.01
110	SLD 15	165	-23	1377	20.1	8.35	-0.03
110	SLD 16	165	-23	1377	20.1	8.35	-0.03
110	SLV 1	640	58	1128	-49.85	28.92	0.07
110	SLV 2	640	58	1128	-49.85	28.92	0.07
110	SLV 3	672	34	1223	-26.57	30.36	0.03
110	SLV 4	672	34	1223	-26.57	30.36	0.03
110	SLV 5	359	53	1106	-50.09	16.63	0.07
110	SLV 6	359	53	1106	-50.09	16.63	0.07
110	SLV 7	464	-26	1422	27.5	21.43	-0.04
110	SLV 8	464	-26	1422	27.5	21.43	-0.04
110	SLV 9	149	25	1183	-27.02	7.54	0.04
110	SLV 10	149	25	1183	-27.02	7.54	0.04
110	SLV 11	255	-53	1499	50.57	12.34	-0.07
110	SLV 12	255	-53	1499	50.57	12.34	-0.07
110	SLV 13	-58	-34	1382	27.05	-1.39	-0.03
110	SLV 14	-58	-34	1382	27.05	-1.39	-0.03
110	SLV 15	-27	-58	1477	50.33	0.05	-0.07
110	SLV 16	-27	-58	1477	50.33	0.05	-0.07
111	SLU 1	230	0	1209	0.13	9.07	0
111	SLU 2	242	-6	1222	6.06	9.57	-0.01
111	SLU 3	230	0	1209	0.13	9.07	0
111	SLU 4	237	-4	1217	3.69	9.37	0
111	SLU 5	242	-6	1222	6.06	9.57	-0.01
111	SLU 6	230	0	1209	0.13	9.07	0
111	SLU 7	237	-4	1217	3.69	9.37	0
111	SLU 8	230	0	1209	0.13	9.07	0
111	SLU 9	237	-4	1217	3.69	9.37	0
111	SLU 10	353	-6	1428	6.11	14.27	-0.01
111	SLU 11	342	0	1414	0.17	13.77	0
111	SLU 12	349	-4	1422	3.73	14.07	0
111	SLU 13	353	-6	1428	6.11	14.27	-0.01
111	SLU 14	342	0	1414	0.17	13.77	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
111	SLU 15	349	-4	1422	3.73	14.07	0
111	SLU 16	342	0	1414	0.17	13.77	0
111	SLU 17	349	-4	1422	3.73	14.07	0
111	SLU 18	389	0	1502	0.19	15.79	0
111	SLU 19	396	-4	1511	3.75	16.09	0
111	SLU 20	389	0	1502	0.19	15.79	0
111	SLU 21	396	-4	1511	3.75	16.09	0
111	SLU 22	274	0	1296	0.14	10.9	0
111	SLU 23	286	-6	1310	6.08	11.4	-0.01
111	SLU 24	274	0	1296	0.14	10.9	0
111	SLU 25	281	-4	1304	3.7	11.2	0
111	SLU 26	286	-6	1310	6.08	11.4	-0.01
111	SLU 27	274	0	1296	0.14	10.9	0
111	SLU 28	281	-4	1304	3.7	11.2	0
111	SLU 29	274	0	1296	0.14	10.9	0
111	SLU 30	281	-4	1304	3.7	11.2	0
111	SLU 31	397	-6	1515	6.12	16.1	-0.01
111	SLU 32	385	0	1502	0.19	15.6	0
111	SLU 33	392	-4	1510	3.75	15.9	0
111	SLU 34	397	-6	1515	6.12	16.1	-0.01
111	SLU 35	385	0	1502	0.19	15.6	0
111	SLU 36	392	-4	1510	3.75	15.9	0
111	SLU 37	385	0	1502	0.19	15.6	0
111	SLU 38	392	-4	1510	3.75	15.9	0
111	SLU 39	433	0	1590	0.2	17.62	0
111	SLU 40	440	-4	1598	3.76	17.92	0
111	SLU 41	433	0	1590	0.2	17.62	0
111	SLU 42	440	-4	1598	3.76	17.92	0
111	SLU 43	284	0	1541	0.16	11.16	0
111	SLU 44	296	-6	1555	6.1	11.66	-0.01
111	SLU 45	284	0	1541	0.16	11.16	0
111	SLU 46	292	-4	1549	3.72	11.46	0
111	SLU 47	296	-6	1555	6.1	11.66	-0.01
111	SLU 48	284	0	1541	0.16	11.16	0
111	SLU 49	292	-4	1549	3.72	11.46	0
111	SLU 50	284	0	1541	0.16	11.16	0
111	SLU 51	292	-4	1549	3.72	11.46	0
111	SLU 52	408	-6	1760	6.14	16.36	-0.01
111	SLU 53	396	0	1747	0.2	15.86	0
111	SLU 54	403	-4	1755	3.77	16.16	0
111	SLU 55	408	-6	1760	6.14	16.36	-0.01
111	SLU 56	396	0	1747	0.2	15.86	0
111	SLU 57	403	-4	1755	3.77	16.16	0
111	SLU 58	396	0	1747	0.2	15.86	0
111	SLU 59	403	-4	1755	3.77	16.16	0
111	SLU 60	443	0	1835	0.22	17.88	0
111	SLU 61	451	-4	1843	3.78	18.18	0
111	SLU 62	443	0	1835	0.22	17.88	0
111	SLU 63	451	-4	1843	3.78	18.18	0
111	SLU 64	328	0	1629	0.18	12.99	0
111	SLU 65	340	-6	1642	6.11	13.49	-0.01
111	SLU 66	328	0	1629	0.18	12.99	0
111	SLU 67	335	-4	1637	3.74	13.29	0
111	SLU 68	340	-6	1642	6.11	13.49	-0.01
111	SLU 69	328	0	1629	0.18	12.99	0
111	SLU 70	335	-4	1637	3.74	13.29	0
111	SLU 71	328	0	1629	0.18	12.99	0
111	SLU 72	335	-4	1637	3.74	13.29	0
111	SLU 73	451	-6	1848	6.15	18.19	-0.01
111	SLU 74	439	0	1834	0.22	17.7	0
111	SLU 75	446	-4	1843	3.78	18	0
111	SLU 76	451	-6	1848	6.15	18.19	-0.01
111	SLU 77	439	0	1834	0.22	17.7	0
111	SLU 78	446	-4	1843	3.78	18	0
111	SLU 79	439	0	1834	0.22	17.7	0
111	SLU 80	446	-4	1843	3.78	18	0
111	SLU 81	487	0	1923	0.24	19.71	0
111	SLU 82	494	-4	1931	3.8	20.01	0
111	SLU 83	487	0	1923	0.24	19.71	0
111	SLU 84	494	-4	1931	3.8	20.01	0
111	SLE RA 1	243	0	1234	0.13	9.59	0
111	SLE RA 2	251	-4	1243	4.09	9.92	0
111	SLE RA 3	243	0	1234	0.13	9.59	0
111	SLE RA 4	247	-2	1239	2.51	9.79	0
111	SLE RA 5	251	-4	1243	4.09	9.92	0
111	SLE RA 6	243	0	1234	0.13	9.59	0
111	SLE RA 7	247	-2	1239	2.51	9.79	0
111	SLE RA 8	243	0	1234	0.13	9.59	0
111	SLE RA 9	247	-2	1239	2.51	9.79	0
111	SLE RA 10	325	-4	1380	4.12	13.06	0
111	SLE RA 11	317	0	1371	0.16	12.73	0
111	SLE RA 12	322	-2	1376	2.53	12.93	0
111	SLE RA 13	325	-4	1380	4.12	13.06	0
111	SLE RA 14	317	0	1371	0.16	12.73	0
111	SLE RA 15	322	-2	1376	2.53	12.93	0
111	SLE RA 16	317	0	1371	0.16	12.73	0
111	SLE RA 17	322	-2	1376	2.53	12.93	0
111	SLE RA 18	349	0	1429	0.17	14.07	0
111	SLE RA 19	353	-2	1435	2.55	14.27	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
111	SLE RA 20	349	0	1429	0.17	14.07	0
111	SLE RA 21	353	-2	1435	2.55	14.27	0
111	SLE FR 1	243	0	1234	0.13	9.59	0
111	SLE FR 2	244	-1	1235	0.92	9.66	0
111	SLE FR 3	243	0	1234	0.13	9.59	0
111	SLE FR 4	276	-1	1294	0.94	11	0
111	SLE FR 5	274	0	1292	0.14	10.94	0
111	SLE FR 6	296	0	1332	0.15	11.83	0
111	SLE QP 1	243	0	1234	0.13	9.59	0
111	SLE QP 2	274	0	1292	0.14	10.94	0
111	SLD 1	444	24	1231	-23.18	18.09	0.04
111	SLD 2	444	24	1231	-23.18	18.09	0.04
111	SLD 3	460	11	1258	-11.13	18.75	0.02
111	SLD 4	460	11	1258	-11.13	18.75	0.02
111	SLD 5	302	27	1233	-25.13	12.08	0.05
111	SLD 6	302	27	1233	-25.13	12.08	0.05
111	SLD 7	354	-17	1323	15.04	14.28	-0.03
111	SLD 8	354	-17	1323	15.04	14.28	-0.03
111	SLD 9	195	17	1262	-14.75	7.59	0.03
111	SLD 10	195	17	1262	-14.75	7.59	0.03
111	SLD 11	247	-28	1351	25.42	9.79	-0.05
111	SLD 12	247	-28	1351	25.42	9.79	-0.05
111	SLD 13	89	-11	1327	11.42	3.12	-0.02
111	SLD 14	89	-11	1327	11.42	3.12	-0.02
111	SLD 15	105	-25	1354	23.47	3.78	-0.05
111	SLD 16	105	-25	1354	23.47	3.78	-0.05
111	SLV 1	674	62	1147	-58.52	27.78	0.11
111	SLV 2	674	62	1147	-58.52	27.78	0.11
111	SLV 3	711	30	1211	-29.49	29.36	0.05
111	SLV 4	711	30	1211	-29.49	29.36	0.05
111	SLV 5	338	67	1152	-61.5	13.59	0.12
111	SLV 6	338	67	1152	-61.5	13.59	0.12
111	SLV 7	462	-39	1364	35.3	18.86	-0.07
111	SLV 8	462	-39	1364	35.3	18.86	-0.07
111	SLV 9	87	39	1220	-35.01	3.01	0.07
111	SLV 10	87	39	1220	-35.01	3.01	0.07
111	SLV 11	211	-67	1432	61.79	8.28	-0.12
111	SLV 12	211	-67	1432	61.79	8.28	-0.12
111	SLV 13	-162	-30	1374	29.78	-7.49	-0.06
111	SLV 14	-162	-30	1374	29.78	-7.49	-0.06
111	SLV 15	-125	-62	1437	58.81	-5.91	-0.11
111	SLV 16	-125	-62	1437	58.81	-5.91	-0.11
112	SLU 1	243	0	1227	0.08	11.04	0
112	SLU 2	257	-4	1246	4.6	11.6	0
112	SLU 3	243	0	1227	0.08	11.04	0
112	SLU 4	251	-2	1238	2.79	11.38	0
112	SLU 5	257	-4	1246	4.6	11.6	0
112	SLU 6	243	0	1227	0.08	11.04	0
112	SLU 7	251	-2	1238	2.79	11.38	0
112	SLU 8	243	0	1227	0.08	11.04	0
112	SLU 9	251	-2	1238	2.79	11.38	0
112	SLU 10	371	-4	1455	4.63	16.59	0
112	SLU 11	357	0	1436	0.11	16.02	0
112	SLU 12	366	-2	1447	2.82	16.36	0
112	SLU 13	371	-4	1455	4.63	16.59	0
112	SLU 14	357	0	1436	0.11	16.02	0
112	SLU 15	366	-2	1447	2.82	16.36	0
112	SLU 16	357	0	1436	0.11	16.02	0
112	SLU 17	366	-2	1447	2.82	16.36	0
112	SLU 18	406	0	1526	0.12	18.16	0
112	SLU 19	415	-2	1537	2.83	18.5	0
112	SLU 20	406	0	1526	0.12	18.16	0
112	SLU 21	415	-2	1537	2.83	18.5	0
112	SLU 22	288	0	1314	0.08	13.04	0
112	SLU 23	302	-4	1334	4.6	13.61	0
112	SLU 24	288	0	1314	0.08	13.04	0
112	SLU 25	297	-2	1326	2.79	13.38	0
112	SLU 26	302	-4	1334	4.6	13.61	0
112	SLU 27	288	0	1314	0.08	13.04	0
112	SLU 28	297	-2	1326	2.79	13.38	0
112	SLU 29	288	0	1314	0.08	13.04	0
112	SLU 30	297	-2	1326	2.79	13.38	0
112	SLU 31	417	-4	1543	4.63	18.59	0
112	SLU 32	403	0	1524	0.11	18.02	0
112	SLU 33	411	-2	1535	2.83	18.36	0
112	SLU 34	417	-4	1543	4.63	18.59	0
112	SLU 35	403	0	1524	0.11	18.02	0
112	SLU 36	411	-2	1535	2.83	18.36	0
112	SLU 37	403	0	1524	0.11	18.02	0
112	SLU 38	411	-2	1535	2.83	18.36	0
112	SLU 39	452	0	1614	0.13	20.16	0
112	SLU 40	460	-2	1625	2.84	20.5	0
112	SLU 41	452	0	1614	0.13	20.16	0
112	SLU 42	460	-2	1625	2.84	20.5	0
112	SLU 43	300	0	1564	0.1	13.66	0
112	SLU 44	314	-4	1584	4.62	14.23	0
112	SLU 45	300	0	1564	0.1	13.66	0
112	SLU 46	308	-2	1576	2.81	14	0
112	SLU 47	314	-4	1584	4.62	14.23	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
112	SLU 48	300	0	1564	0.1	13.66	0
112	SLU 49	308	-2	1576	2.81	14	0
112	SLU 50	300	0	1564	0.1	13.66	0
112	SLU 51	308	-2	1576	2.81	14	0
112	SLU 52	428	-4	1793	4.65	19.21	0
112	SLU 53	414	0	1774	0.13	18.64	0
112	SLU 54	423	-2	1785	2.84	18.98	0
112	SLU 55	428	-4	1793	4.65	19.21	0
112	SLU 56	414	0	1774	0.13	18.64	0
112	SLU 57	423	-2	1785	2.84	18.98	0
112	SLU 58	414	0	1774	0.13	18.64	0
112	SLU 59	423	-2	1785	2.84	18.98	0
112	SLU 60	463	0	1863	0.14	20.78	0
112	SLU 61	472	-2	1875	2.85	21.12	0
112	SLU 62	463	0	1863	0.14	20.78	0
112	SLU 63	472	-2	1875	2.85	21.12	0
112	SLU 64	345	0	1652	0.1	15.66	0
112	SLU 65	360	-4	1671	4.62	16.23	0
112	SLU 66	345	0	1652	0.1	15.66	0
112	SLU 67	354	-2	1664	2.81	16	0
112	SLU 68	360	-4	1671	4.62	16.23	0
112	SLU 69	345	0	1652	0.1	15.66	0
112	SLU 70	354	-2	1664	2.81	16	0
112	SLU 71	345	0	1652	0.1	15.66	0
112	SLU 72	354	-2	1664	2.81	16	0
112	SLU 73	474	-4	1881	4.65	21.21	0
112	SLU 74	460	0	1862	0.13	20.65	0
112	SLU 75	468	-2	1873	2.85	20.99	0
112	SLU 76	474	-4	1881	4.65	21.21	0
112	SLU 77	460	0	1862	0.13	20.65	0
112	SLU 78	468	-2	1873	2.85	20.99	0
112	SLU 79	460	0	1862	0.13	20.65	0
112	SLU 80	468	-2	1873	2.85	20.99	0
112	SLU 81	509	0	1951	0.15	22.78	0
112	SLU 82	517	-2	1963	2.86	23.12	0
112	SLU 83	509	0	1951	0.15	22.78	0
112	SLU 84	517	-2	1963	2.86	23.12	0
112	SLE RA 1	256	0	1252	0.08	11.61	0
112	SLE RA 2	265	-2	1264	3.09	11.99	0
112	SLE RA 3	256	0	1252	0.08	11.61	0
112	SLE RA 4	261	-1	1259	1.89	11.84	0
112	SLE RA 5	265	-2	1264	3.09	11.99	0
112	SLE RA 6	256	0	1252	0.08	11.61	0
112	SLE RA 7	261	-1	1259	1.89	11.84	0
112	SLE RA 8	256	0	1252	0.08	11.61	0
112	SLE RA 9	261	-1	1259	1.89	11.84	0
112	SLE RA 10	341	-2	1404	3.11	15.31	0
112	SLE RA 11	332	0	1391	0.1	14.93	0
112	SLE RA 12	338	-1	1399	1.91	15.16	0
112	SLE RA 13	341	-2	1404	3.11	15.31	0
112	SLE RA 14	332	0	1391	0.1	14.93	0
112	SLE RA 15	338	-1	1399	1.91	15.16	0
112	SLE RA 16	332	0	1391	0.1	14.93	0
112	SLE RA 17	338	-1	1399	1.91	15.16	0
112	SLE RA 18	365	0	1451	0.11	16.36	0
112	SLE RA 19	370	-1	1459	1.92	16.58	0
112	SLE RA 20	365	0	1451	0.11	16.36	0
112	SLE RA 21	370	-1	1459	1.92	16.58	0
112	SLE FR 1	256	0	1252	0.08	11.61	0
112	SLE FR 2	257	0	1254	0.68	11.68	0
112	SLE FR 3	256	0	1252	0.08	11.61	0
112	SLE FR 4	290	0	1314	0.69	13.11	0
112	SLE FR 5	288	0	1311	0.09	13.03	0
112	SLE FR 6	310	0	1351	0.09	13.98	0
112	SLE QP 1	256	0	1252	0.08	11.61	0
112	SLE QP 2	288	0	1311	0.09	13.03	0
112	SLD 1	473	26	1279	-25.19	20.95	0.08
112	SLD 2	473	26	1279	-25.19	20.95	0.08
112	SLD 3	492	11	1300	-12.02	21.8	0.04
112	SLD 4	492	11	1300	-12.02	21.8	0.04
112	SLD 5	315	30	1270	-27.47	14.12	0.09
112	SLD 6	315	30	1270	-27.47	14.12	0.09
112	SLD 7	378	-19	1340	16.43	16.95	-0.05
112	SLD 8	378	-19	1340	16.43	16.95	-0.05
112	SLD 9	198	19	1283	-16.25	9.11	0.05
112	SLD 10	198	19	1283	-16.25	9.11	0.05
112	SLD 11	262	-30	1353	27.64	11.95	-0.09
112	SLD 12	262	-30	1353	27.64	11.95	-0.09
112	SLD 13	85	-11	1323	12.19	4.27	-0.04
112	SLD 14	85	-11	1323	12.19	4.27	-0.04
112	SLD 15	104	-26	1344	25.36	5.12	-0.08
112	SLD 16	104	-26	1344	25.36	5.12	-0.08
112	SLV 1	722	65	1233	-63.4	31.67	0.2
112	SLV 2	722	65	1233	-63.4	31.67	0.2
112	SLV 3	768	29	1283	-31.71	33.7	0.09
112	SLV 4	768	29	1283	-31.71	33.7	0.09
112	SLV 5	349	73	1211	-67.02	15.55	0.22
112	SLV 6	349	73	1211	-67.02	15.55	0.22
112	SLV 7	501	-45	1380	38.61	22.31	-0.13



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
112	SLV 8	501	-45	1380	38.61	22.31	-0.13
112	SLV 9	75	45	1243	-38.44	3.75	0.13
112	SLV 10	75	45	1243	-38.44	3.75	0.13
112	SLV 11	227	-73	1412	67.2	10.52	-0.22
112	SLV 12	227	-73	1412	67.2	10.52	-0.22
112	SLV 13	-191	-29	1340	31.88	-7.64	-0.09
112	SLV 14	-191	-29	1340	31.88	-7.64	-0.09
112	SLV 15	-145	-65	1390	63.57	-5.61	-0.2
112	SLV 16	-145	-65	1390	63.57	-5.61	-0.2
113	SLU 1	233	0	1281	0.04	9.16	0
113	SLU 2	249	2	1308	1.73	9.83	0.02
113	SLU 3	233	0	1281	0.04	9.16	0
113	SLU 4	243	1	1297	1.05	9.56	0.01
113	SLU 5	249	2	1308	1.73	9.83	0.02
113	SLU 6	233	0	1281	0.04	9.16	0
113	SLU 7	243	1	1297	1.05	9.56	0.01
113	SLU 8	233	0	1281	0.04	9.16	0
113	SLU 9	243	1	1297	1.05	9.56	0.01
113	SLU 10	364	2	1540	1.75	14.6	0.01
113	SLU 11	348	0	1512	0.07	13.92	0
113	SLU 12	358	1	1528	1.08	14.33	0.01
113	SLU 13	364	2	1540	1.75	14.6	0.01
113	SLU 14	348	0	1512	0.07	13.92	0
113	SLU 15	358	1	1528	1.08	14.33	0.01
113	SLU 16	348	0	1512	0.07	13.92	0
113	SLU 17	358	1	1528	1.08	14.33	0.01
113	SLU 18	397	0	1611	0.08	15.96	0
113	SLU 19	407	1	1628	1.09	16.37	0.01
113	SLU 20	397	0	1611	0.08	15.96	0
113	SLU 21	407	1	1628	1.09	16.37	0.01
113	SLU 22	279	0	1377	0.05	11.07	0
113	SLU 23	296	2	1405	1.73	11.75	0.02
113	SLU 24	279	0	1377	0.05	11.07	0
113	SLU 25	289	1	1394	1.06	11.47	0.01
113	SLU 26	296	2	1405	1.73	11.75	0.02
113	SLU 27	279	0	1377	0.05	11.07	0
113	SLU 28	289	1	1394	1.06	11.47	0.01
113	SLU 29	279	0	1377	0.05	11.07	0
113	SLU 30	289	1	1394	1.06	11.47	0.01
113	SLU 31	411	2	1636	1.75	16.51	0.01
113	SLU 32	394	0	1608	0.07	15.83	0
113	SLU 33	404	1	1625	1.08	16.24	0.01
113	SLU 34	411	2	1636	1.75	16.51	0.01
113	SLU 35	394	0	1608	0.07	15.83	0
113	SLU 36	404	1	1625	1.08	16.24	0.01
113	SLU 37	394	0	1608	0.07	15.83	0
113	SLU 38	404	1	1625	1.08	16.24	0.01
113	SLU 39	443	0	1707	0.08	17.87	0
113	SLU 40	453	1	1724	1.09	18.28	0.01
113	SLU 41	443	0	1707	0.08	17.87	0
113	SLU 42	453	1	1724	1.09	18.28	0.01
113	SLU 43	287	0	1632	0.06	11.25	0
113	SLU 44	303	2	1659	1.74	11.93	0.02
113	SLU 45	287	0	1632	0.06	11.25	0
113	SLU 46	297	1	1648	1.07	11.65	0.01
113	SLU 47	303	2	1659	1.74	11.93	0.02
113	SLU 48	287	0	1632	0.06	11.25	0
113	SLU 49	297	1	1648	1.07	11.65	0.01
113	SLU 50	287	0	1632	0.06	11.25	0
113	SLU 51	297	1	1648	1.07	11.65	0.01
113	SLU 52	418	2	1891	1.76	16.69	0.01
113	SLU 53	402	0	1863	0.08	16.01	0
113	SLU 54	412	1	1880	1.09	16.42	0.01
113	SLU 55	418	2	1891	1.76	16.69	0.01
113	SLU 56	402	0	1863	0.08	16.01	0
113	SLU 57	412	1	1880	1.09	16.42	0.01
113	SLU 58	402	0	1863	0.08	16.01	0
113	SLU 59	412	1	1880	1.09	16.42	0.01
113	SLU 60	451	0	1962	0.09	18.05	0
113	SLU 61	461	1	1979	1.1	18.46	0.01
113	SLU 62	451	0	1962	0.09	18.05	0
113	SLU 63	461	1	1979	1.1	18.46	0.01
113	SLU 64	333	0	1728	0.06	13.16	0
113	SLU 65	350	2	1756	1.74	13.84	0.02
113	SLU 66	333	0	1728	0.06	13.16	0
113	SLU 67	343	1	1745	1.07	13.57	0.01
113	SLU 68	350	2	1756	1.74	13.84	0.02
113	SLU 69	333	0	1728	0.06	13.16	0
113	SLU 70	343	1	1745	1.07	13.57	0.01
113	SLU 71	333	0	1728	0.06	13.16	0
113	SLU 72	343	1	1745	1.07	13.57	0.01
113	SLU 73	465	2	1987	1.77	18.6	0.01
113	SLU 74	448	0	1959	0.08	17.92	0
113	SLU 75	458	1	1976	1.09	18.33	0.01
113	SLU 76	465	2	1987	1.77	18.6	0.01
113	SLU 77	448	0	1959	0.08	17.92	0
113	SLU 78	458	1	1976	1.09	18.33	0.01
113	SLU 79	448	0	1959	0.08	17.92	0
113	SLU 80	458	1	1976	1.09	18.33	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
113	SLU 81	497	0	2059	0.09	19.96	0
113	SLU 82	507	1	2075	1.1	20.37	0.01
113	SLU 83	497	0	2059	0.09	19.96	0
113	SLU 84	507	1	2075	1.1	20.37	0.01
113	SLE RA 1	246	0	1308	0.04	9.7	0
113	SLE RA 2	257	1	1327	1.17	10.15	0.01
113	SLE RA 3	246	0	1308	0.04	9.7	0
113	SLE RA 4	253	1	1319	0.72	9.97	0.01
113	SLE RA 5	257	1	1327	1.17	10.15	0.01
113	SLE RA 6	246	0	1308	0.04	9.7	0
113	SLE RA 7	253	1	1319	0.72	9.97	0.01
113	SLE RA 8	246	0	1308	0.04	9.7	0
113	SLE RA 9	253	1	1319	0.72	9.97	0.01
113	SLE RA 10	334	1	1481	1.18	13.33	0.01
113	SLE RA 11	323	0	1462	0.06	12.88	0
113	SLE RA 12	329	1	1473	0.73	13.15	0.01
113	SLE RA 13	334	1	1481	1.18	13.33	0.01
113	SLE RA 14	323	0	1462	0.06	12.88	0
113	SLE RA 15	329	1	1473	0.73	13.15	0.01
113	SLE RA 16	323	0	1462	0.06	12.88	0
113	SLE RA 17	329	1	1473	0.73	13.15	0.01
113	SLE RA 18	355	0	1528	0.07	14.24	0
113	SLE RA 19	362	1	1539	0.74	14.51	0.01
113	SLE RA 20	355	0	1528	0.07	14.24	0
113	SLE RA 21	362	1	1539	0.74	14.51	0.01
113	SLE FR 1	246	0	1308	0.04	9.7	0
113	SLE FR 2	248	0	1312	0.27	9.79	0
113	SLE FR 3	246	0	1308	0.04	9.7	0
113	SLE FR 4	281	0	1378	0.28	11.15	0
113	SLE FR 5	279	0	1374	0.05	11.06	0
113	SLE FR 6	301	0	1418	0.06	11.97	0
113	SLE QP 1	246	0	1308	0.04	9.7	0
113	SLE QP 2	279	0	1374	0.05	11.06	0
113	SLD 1	469	12	1394	-25.51	18.95	0.07
113	SLD 2	469	12	1394	-25.51	18.95	0.07
113	SLD 3	491	26	1416	-12.74	19.82	0.12
113	SLD 4	491	26	1416	-12.74	19.82	0.12
113	SLD 5	304	-18	1348	-26.99	12.12	-0.06
113	SLD 6	304	-18	1348	-26.99	12.12	-0.06
113	SLD 7	374	29	1419	15.58	15	0.12
113	SLD 8	374	29	1419	15.58	15	0.12
113	SLD 9	183	-29	1330	-15.48	7.12	-0.12
113	SLD 10	183	-29	1330	-15.48	7.12	-0.12
113	SLD 11	254	18	1401	27.09	10.01	0.06
113	SLD 12	254	18	1401	27.09	10.01	0.06
113	SLD 13	67	-26	1333	12.84	2.31	-0.12
113	SLD 14	67	-26	1333	12.84	2.31	-0.12
113	SLD 15	88	-12	1354	25.61	3.17	-0.07
113	SLD 16	88	-12	1354	25.61	3.17	-0.07
113	SLV 1	727	32	1422	-64.17	29.63	0.17
113	SLV 2	727	32	1422	-64.17	29.63	0.17
113	SLV 3	778	66	1473	-33.42	31.7	0.29
113	SLV 4	778	66	1473	-33.42	31.7	0.29
113	SLV 5	337	-42	1310	-65.85	13.49	-0.14
113	SLV 6	337	-42	1310	-65.85	13.49	-0.14
113	SLV 7	505	71	1482	36.65	20.39	0.28
113	SLV 8	505	71	1482	36.65	20.39	0.28
113	SLV 9	53	-71	1267	-36.55	1.74	-0.28
113	SLV 10	53	-71	1267	-36.55	1.74	-0.28
113	SLV 11	221	42	1438	65.96	8.63	0.14
113	SLV 12	221	42	1438	65.96	8.63	0.14
113	SLV 13	-220	-66	1275	33.52	-9.57	-0.29
113	SLV 14	-220	-66	1275	33.52	-9.57	-0.29
113	SLV 15	-170	-32	1327	64.27	-7.5	-0.17
113	SLV 16	-170	-32	1327	64.27	-7.5	-0.17
114	SLU 1	237	0	1359	0.03	10.06	0
114	SLU 2	255	8	1397	-1.77	10.72	0.04
114	SLU 3	237	0	1359	0.03	10.06	0
114	SLU 4	248	5	1382	-1.05	10.46	0.03
114	SLU 5	255	8	1397	-1.77	10.72	0.04
114	SLU 6	237	0	1359	0.03	10.06	0
114	SLU 7	248	5	1382	-1.05	10.46	0.03
114	SLU 8	237	0	1359	0.03	10.06	0
114	SLU 9	248	5	1382	-1.05	10.46	0.03
114	SLU 10	367	8	1664	-1.76	15.35	0.04
114	SLU 11	350	0	1626	0.05	14.68	0
114	SLU 12	360	5	1649	-1.03	15.08	0.03
114	SLU 13	367	8	1664	-1.76	15.35	0.04
114	SLU 14	350	0	1626	0.05	14.68	0
114	SLU 15	360	5	1649	-1.03	15.08	0.03
114	SLU 16	350	0	1626	0.05	14.68	0
114	SLU 17	360	5	1649	-1.03	15.08	0.03
114	SLU 18	398	0	1740	0.06	16.67	0
114	SLU 19	409	5	1763	-1.03	17.07	0.03
114	SLU 20	398	0	1740	0.06	16.67	0
114	SLU 21	409	5	1763	-1.03	17.07	0.03
114	SLU 22	283	0	1470	0.03	11.95	0
114	SLU 23	301	8	1508	-1.77	12.62	0.04
114	SLU 24	283	0	1470	0.03	11.95	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
114	SLU 25	294	5	1493	-1.05	12.35	0.03
114	SLU 26	301	8	1508	-1.77	12.62	0.04
114	SLU 27	283	0	1470	0.03	11.95	0
114	SLU 28	294	5	1493	-1.05	12.35	0.03
114	SLU 29	283	0	1470	0.03	11.95	0
114	SLU 30	294	5	1493	-1.05	12.35	0.03
114	SLU 31	414	8	1775	-1.75	17.25	0.04
114	SLU 32	396	0	1737	0.05	16.58	0
114	SLU 33	407	5	1760	-1.03	16.98	0.03
114	SLU 34	414	8	1775	-1.75	17.25	0.04
114	SLU 35	396	0	1737	0.05	16.58	0
114	SLU 36	407	5	1760	-1.03	16.98	0.03
114	SLU 37	396	0	1737	0.05	16.58	0
114	SLU 38	407	5	1760	-1.03	16.98	0.03
114	SLU 39	445	0	1851	0.06	18.56	0
114	SLU 40	455	5	1874	-1.03	18.96	0.03
114	SLU 41	445	0	1851	0.06	18.56	0
114	SLU 42	455	5	1874	-1.03	18.96	0.03
114	SLU 43	293	0	1728	0.04	12.42	0
114	SLU 44	310	8	1766	-1.76	13.09	0.04
114	SLU 45	293	0	1728	0.04	12.42	0
114	SLU 46	303	5	1751	-1.04	12.82	0.03
114	SLU 47	310	8	1766	-1.76	13.09	0.04
114	SLU 48	293	0	1728	0.04	12.42	0
114	SLU 49	303	5	1751	-1.04	12.82	0.03
114	SLU 50	293	0	1728	0.04	12.42	0
114	SLU 51	303	5	1751	-1.04	12.82	0.03
114	SLU 52	423	8	2033	-1.75	17.72	0.04
114	SLU 53	405	0	1995	0.06	17.05	0
114	SLU 54	416	5	2018	-1.02	17.45	0.03
114	SLU 55	423	8	2033	-1.75	17.72	0.04
114	SLU 56	405	0	1995	0.06	17.05	0
114	SLU 57	416	5	2018	-1.02	17.45	0.03
114	SLU 58	405	0	1995	0.06	17.05	0
114	SLU 59	416	5	2018	-1.02	17.45	0.03
114	SLU 60	454	0	2110	0.06	19.03	0
114	SLU 61	464	5	2133	-1.02	19.43	0.03
114	SLU 62	454	0	2110	0.06	19.03	0
114	SLU 63	464	5	2133	-1.02	19.43	0.03
114	SLU 64	339	0	1839	0.04	14.32	0
114	SLU 65	356	8	1877	-1.76	14.99	0.04
114	SLU 66	339	0	1839	0.04	14.32	0
114	SLU 67	349	5	1862	-1.04	14.72	0.03
114	SLU 68	356	8	1877	-1.76	14.99	0.04
114	SLU 69	339	0	1839	0.04	14.32	0
114	SLU 70	349	5	1862	-1.04	14.72	0.03
114	SLU 71	339	0	1839	0.04	14.32	0
114	SLU 72	349	5	1862	-1.04	14.72	0.03
114	SLU 73	469	8	2145	-1.75	19.61	0.04
114	SLU 74	452	0	2106	0.06	18.95	0
114	SLU 75	462	5	2129	-1.02	19.35	0.03
114	SLU 76	469	8	2145	-1.75	19.61	0.04
114	SLU 77	452	0	2106	0.06	18.95	0
114	SLU 78	462	5	2129	-1.02	19.35	0.03
114	SLU 79	452	0	2106	0.06	18.95	0
114	SLU 80	462	5	2129	-1.02	19.35	0.03
114	SLU 81	500	0	2221	0.07	20.93	0
114	SLU 82	510	5	2244	-1.02	21.33	0.03
114	SLU 83	500	0	2221	0.07	20.93	0
114	SLU 84	510	5	2244	-1.02	21.33	0.03
114	SLE RA 1	250	0	1390	0.03	10.6	0
114	SLE RA 2	262	6	1416	-1.17	11.04	0.03
114	SLE RA 3	250	0	1390	0.03	10.6	0
114	SLE RA 4	257	3	1406	-0.69	10.87	0.02
114	SLE RA 5	262	6	1416	-1.17	11.04	0.03
114	SLE RA 6	250	0	1390	0.03	10.6	0
114	SLE RA 7	257	3	1406	-0.69	10.87	0.02
114	SLE RA 8	250	0	1390	0.03	10.6	0
114	SLE RA 9	257	3	1406	-0.69	10.87	0.02
114	SLE RA 10	337	6	1594	-1.16	14.13	0.03
114	SLE RA 11	326	0	1568	0.04	13.68	0
114	SLE RA 12	333	3	1584	-0.68	13.95	0.02
114	SLE RA 13	337	6	1594	-1.16	14.13	0.03
114	SLE RA 14	326	0	1568	0.04	13.68	0
114	SLE RA 15	333	3	1584	-0.68	13.95	0.02
114	SLE RA 16	326	0	1568	0.04	13.68	0
114	SLE RA 17	333	3	1584	-0.68	13.95	0.02
114	SLE RA 18	358	0	1645	0.05	15	0
114	SLE RA 19	365	3	1660	-0.67	15.27	0.02
114	SLE RA 20	358	0	1645	0.05	15	0
114	SLE RA 21	365	3	1660	-0.67	15.27	0.02
114	SLE FR 1	250	0	1390	0.03	10.6	0
114	SLE FR 2	253	1	1395	-0.21	10.69	0.01
114	SLE FR 3	250	0	1390	0.03	10.6	0
114	SLE FR 4	285	1	1472	-0.2	12.01	0.01
114	SLE FR 5	283	0	1467	0.04	11.92	0
114	SLE FR 6	304	0	1518	0.04	12.8	0
114	SLE QP 1	250	0	1390	0.03	10.6	0
114	SLE QP 2	283	0	1467	0.04	11.92	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
114	SLD 1	466	-26	1521	-13.19	19.79	-0.1
114	SLD 2	466	-26	1521	-13.19	19.79	-0.1
114	SLD 3	490	-15	1548	-24.17	20.8	-0.06
114	SLD 4	490	-15	1548	-24.17	20.8	-0.06
114	SLD 5	302	-25	1443	12.73	12.75	-0.09
114	SLD 6	302	-25	1443	12.73	12.75	-0.09
114	SLD 7	381	13	1531	-23.88	16.11	0.04
114	SLD 8	381	13	1531	-23.88	16.11	0.04
114	SLD 9	185	-13	1403	23.96	7.73	-0.04
114	SLD 10	185	-13	1403	23.96	7.73	-0.04
114	SLD 11	264	25	1490	-12.65	11.09	0.09
114	SLD 12	264	25	1490	-12.65	11.09	0.09
114	SLD 13	76	15	1386	24.25	3.04	0.06
114	SLD 14	76	15	1386	24.25	3.04	0.06
114	SLD 15	99	26	1412	13.26	4.05	0.1
114	SLD 16	99	26	1412	13.26	4.05	0.1
114	SLV 1	714	-66	1594	-34.39	30.45	-0.24
114	SLV 2	714	-66	1594	-34.39	30.45	-0.24
114	SLV 3	770	-38	1658	-60.92	32.86	-0.15
114	SLV 4	770	-38	1658	-60.92	32.86	-0.15
114	SLV 5	327	-62	1409	29.95	13.83	-0.22
114	SLV 6	327	-62	1409	29.95	13.83	-0.22
114	SLV 7	514	31	1620	-58.49	21.85	0.1
114	SLV 8	514	31	1620	-58.49	21.85	0.1
114	SLV 9	51	-31	1313	58.56	1.99	-0.1
114	SLV 10	51	-31	1313	58.56	1.99	-0.1
114	SLV 11	239	62	1524	-29.87	10.01	0.22
114	SLV 12	239	62	1524	-29.87	10.01	0.22
114	SLV 13	-205	38	1276	60.99	-9.02	0.15
114	SLV 14	-205	38	1276	60.99	-9.02	0.15
114	SLV 15	-149	66	1339	34.46	-6.61	0.24
114	SLV 16	-149	66	1339	34.46	-6.61	0.24
115	SLU 1	216	0	1459	0.05	8.58	0
115	SLU 2	234	14	1510	-4.53	9.27	0.05
115	SLU 3	216	0	1459	0.05	8.58	0
115	SLU 4	227	8	1489	-2.7	8.99	0.03
115	SLU 5	234	14	1510	-4.53	9.27	0.05
115	SLU 6	216	0	1459	0.05	8.58	0
115	SLU 7	227	8	1489	-2.7	8.99	0.03
115	SLU 8	216	0	1459	0.05	8.58	0
115	SLU 9	227	8	1489	-2.7	8.99	0.03
115	SLU 10	337	14	1823	-4.51	13.53	0.05
115	SLU 11	320	0	1772	0.07	12.84	0
115	SLU 12	330	8	1803	-2.68	13.25	0.03
115	SLU 13	337	14	1823	-4.51	13.53	0.05
115	SLU 14	320	0	1772	0.07	12.84	0
115	SLU 15	330	8	1803	-2.68	13.25	0.03
115	SLU 16	320	0	1772	0.07	12.84	0
115	SLU 17	330	8	1803	-2.68	13.25	0.03
115	SLU 18	365	0	1907	0.08	14.66	0
115	SLU 19	375	8	1937	-2.67	15.08	0.03
115	SLU 20	365	0	1907	0.08	14.66	0
115	SLU 21	375	8	1937	-2.67	15.08	0.03
115	SLU 22	259	0	1590	0.06	10.33	0
115	SLU 23	277	14	1640	-4.52	11.03	0.05
115	SLU 24	259	0	1590	0.06	10.33	0
115	SLU 25	270	8	1620	-2.69	10.75	0.03
115	SLU 26	277	14	1640	-4.52	11.03	0.05
115	SLU 27	259	0	1590	0.06	10.33	0
115	SLU 28	270	8	1620	-2.69	10.75	0.03
115	SLU 29	259	0	1590	0.06	10.33	0
115	SLU 30	270	8	1620	-2.69	10.75	0.03
115	SLU 31	380	14	1954	-4.51	15.29	0.05
115	SLU 32	363	0	1903	0.08	14.59	0
115	SLU 33	373	8	1933	-2.67	15.01	0.03
115	SLU 34	380	14	1954	-4.51	15.29	0.05
115	SLU 35	363	0	1903	0.08	14.59	0
115	SLU 36	373	8	1933	-2.67	15.01	0.03
115	SLU 37	363	0	1903	0.08	14.59	0
115	SLU 38	373	8	1933	-2.67	15.01	0.03
115	SLU 39	407	0	2037	0.08	16.42	0
115	SLU 40	418	8	2068	-2.67	16.83	0.03
115	SLU 41	407	0	2037	0.08	16.42	0
115	SLU 42	418	8	2068	-2.67	16.83	0.03
115	SLU 43	267	0	1852	0.07	10.55	0
115	SLU 44	284	14	1902	-4.51	11.24	0.05
115	SLU 45	267	0	1852	0.07	10.55	0
115	SLU 46	277	8	1882	-2.68	10.97	0.03
115	SLU 47	284	14	1902	-4.51	11.24	0.05
115	SLU 48	267	0	1852	0.07	10.55	0
115	SLU 49	277	8	1882	-2.68	10.97	0.03
115	SLU 50	267	0	1852	0.07	10.55	0
115	SLU 51	277	8	1882	-2.68	10.97	0.03
115	SLU 52	388	14	2216	-4.5	15.5	0.05
115	SLU 53	370	0	2165	0.08	14.81	0
115	SLU 54	381	8	2196	-2.66	15.22	0.03
115	SLU 55	388	14	2216	-4.5	15.5	0.05
115	SLU 56	370	0	2165	0.08	14.81	0
115	SLU 57	381	8	2196	-2.66	15.22	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
115	SLU 58	370	0	2165	0.08	14.81	0
115	SLU 59	381	8	2196	-2.66	15.22	0.03
115	SLU 60	415	0	2300	0.09	16.63	0
115	SLU 61	425	8	2330	-2.66	17.05	0.03
115	SLU 62	415	0	2300	0.09	16.63	0
115	SLU 63	425	8	2330	-2.66	17.05	0.03
115	SLU 64	309	0	1983	0.07	12.31	0
115	SLU 65	327	14	2033	-4.51	13	0.05
115	SLU 66	309	0	1983	0.07	12.31	0
115	SLU 67	320	8	2013	-2.68	12.72	0.03
115	SLU 68	327	14	2033	-4.51	13	0.05
115	SLU 69	309	0	1983	0.07	12.31	0
115	SLU 70	320	8	2013	-2.68	12.72	0.03
115	SLU 71	309	0	1983	0.07	12.31	0
115	SLU 72	320	8	2013	-2.68	12.72	0.03
115	SLU 73	431	14	2346	-4.49	17.26	0.05
115	SLU 74	413	0	2296	0.09	16.56	0
115	SLU 75	424	8	2326	-2.66	16.98	0.03
115	SLU 76	431	14	2346	-4.49	17.26	0.05
115	SLU 77	413	0	2296	0.09	16.56	0
115	SLU 78	424	8	2326	-2.66	16.98	0.03
115	SLU 79	413	0	2296	0.09	16.56	0
115	SLU 80	424	8	2326	-2.66	16.98	0.03
115	SLU 81	458	0	2430	0.1	18.39	0
115	SLU 82	468	8	2461	-2.65	18.81	0.03
115	SLU 83	458	0	2430	0.1	18.39	0
115	SLU 84	468	8	2461	-2.65	18.81	0.03
115	SLE RA 1	229	0	1496	0.05	9.08	0
115	SLE RA 2	240	9	1530	-3	9.54	0.03
115	SLE RA 3	229	0	1496	0.05	9.08	0
115	SLE RA 4	236	6	1517	-1.78	9.36	0.02
115	SLE RA 5	240	9	1530	-3	9.54	0.03
115	SLE RA 6	229	0	1496	0.05	9.08	0
115	SLE RA 7	236	6	1517	-1.78	9.36	0.02
115	SLE RA 8	229	0	1496	0.05	9.08	0
115	SLE RA 9	236	6	1517	-1.78	9.36	0.02
115	SLE RA 10	309	9	1739	-2.99	12.38	0.03
115	SLE RA 11	298	0	1705	0.07	11.92	0
115	SLE RA 12	305	6	1725	-1.77	12.2	0.02
115	SLE RA 13	309	9	1739	-2.99	12.38	0.03
115	SLE RA 14	298	0	1705	0.07	11.92	0
115	SLE RA 15	305	6	1725	-1.77	12.2	0.02
115	SLE RA 16	298	0	1705	0.07	11.92	0
115	SLE RA 17	305	6	1725	-1.77	12.2	0.02
115	SLE RA 18	327	0	1795	0.07	13.14	0
115	SLE RA 19	334	6	1815	-1.76	13.41	0.02
115	SLE RA 20	327	0	1795	0.07	13.14	0
115	SLE RA 21	334	6	1815	-1.76	13.41	0.02
115	SLE FR 1	229	0	1496	0.05	9.08	0
115	SLE FR 2	231	2	1503	-0.56	9.17	0.01
115	SLE FR 3	229	0	1496	0.05	9.08	0
115	SLE FR 4	261	2	1593	-0.55	10.39	0.01
115	SLE FR 5	258	0	1586	0.06	10.3	0
115	SLE FR 6	278	0	1646	0.06	11.11	0
115	SLE QP 1	229	0	1496	0.05	9.08	0
115	SLE QP 2	258	0	1586	0.06	10.3	0
115	SLD 1	424	-26	1659	21.32	17.31	-0.09
115	SLD 2	424	-26	1659	21.32	17.31	-0.09
115	SLD 3	449	-18	1695	13.07	18.32	-0.07
115	SLD 4	449	-18	1695	13.07	18.32	-0.07
115	SLD 5	270	-20	1554	18.95	10.88	-0.06
115	SLD 6	270	-20	1554	18.95	10.88	-0.06
115	SLD 7	353	7	1673	-8.55	14.22	0.01
115	SLD 8	353	7	1673	-8.55	14.22	0.01
115	SLD 9	163	-7	1499	8.67	6.37	-0.01
115	SLD 10	163	-7	1499	8.67	6.37	-0.01
115	SLD 11	246	20	1618	-18.83	9.71	0.06
115	SLD 12	246	20	1618	-18.83	9.71	0.06
115	SLD 13	67	18	1476	-12.95	2.28	0.07
115	SLD 14	67	18	1476	-12.95	2.28	0.07
115	SLD 15	92	26	1512	-21.2	3.28	0.09
115	SLD 16	92	26	1512	-21.2	3.28	0.09
115	SLV 1	650	-66	1757	53.81	26.81	-0.23
115	SLV 2	650	-66	1757	53.81	26.81	-0.23
115	SLV 3	709	-46	1844	33.72	29.2	-0.18
115	SLV 4	709	-46	1844	33.72	29.2	-0.18
115	SLV 5	286	-50	1507	46.66	11.63	-0.15
115	SLV 6	286	-50	1507	46.66	11.63	-0.15
115	SLV 7	483	17	1794	-20.32	19.59	0.03
115	SLV 8	483	17	1794	-20.32	19.59	0.03
115	SLV 9	33	-17	1378	20.44	1.01	-0.03
115	SLV 10	33	-17	1378	20.44	1.01	-0.03
115	SLV 11	231	50	1665	-46.54	8.96	0.15
115	SLV 12	231	50	1665	-46.54	8.96	0.15
115	SLV 13	-192	46	1328	-33.6	-8.6	0.18
115	SLV 14	-192	46	1328	-33.6	-8.6	0.18
115	SLV 15	-133	66	1414	-53.7	-6.22	0.23
115	SLV 16	-133	66	1414	-53.7	-6.22	0.23
116	SLU 1	184	0	1555	0.15	7.38	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
116	SLU 2	199	14	1619	-5.07	7.92	0.03
116	SLU 3	184	0	1555	0.15	7.38	0
116	SLU 4	193	9	1594	-2.98	7.7	0.02
116	SLU 5	199	14	1619	-5.07	7.92	0.03
116	SLU 6	184	0	1555	0.15	7.38	0
116	SLU 7	193	9	1594	-2.98	7.7	0.02
116	SLU 8	184	0	1555	0.15	7.38	0
116	SLU 9	193	9	1594	-2.98	7.7	0.02
116	SLU 10	282	14	1978	-5.03	11.14	0.03
116	SLU 11	267	0	1914	0.19	10.6	0
116	SLU 12	276	9	1952	-2.94	10.93	0.02
116	SLU 13	282	14	1978	-5.03	11.14	0.03
116	SLU 14	267	0	1914	0.19	10.6	0
116	SLU 15	276	9	1952	-2.94	10.93	0.02
116	SLU 16	267	0	1914	0.19	10.6	0
116	SLU 17	276	9	1952	-2.94	10.93	0.02
116	SLU 18	303	0	2068	0.21	11.98	0
116	SLU 19	312	9	2106	-2.92	12.31	0.02
116	SLU 20	303	0	2068	0.21	11.98	0
116	SLU 21	312	9	2106	-2.92	12.31	0.02
116	SLU 22	219	0	1706	0.18	8.73	0
116	SLU 23	234	14	1769	-5.04	9.27	0.03
116	SLU 24	219	0	1706	0.18	8.73	0
116	SLU 25	228	9	1744	-2.96	9.05	0.02
116	SLU 26	234	14	1769	-5.04	9.27	0.03
116	SLU 27	219	0	1706	0.18	8.73	0
116	SLU 28	228	9	1744	-2.96	9.05	0.02
116	SLU 29	219	0	1706	0.18	8.73	0
116	SLU 30	228	9	1744	-2.96	9.05	0.02
116	SLU 31	317	14	2128	-5	12.49	0.03
116	SLU 32	302	0	2064	0.22	11.96	0
116	SLU 33	311	9	2103	-2.91	12.28	0.02
116	SLU 34	317	14	2128	-5	12.49	0.03
116	SLU 35	302	0	2064	0.22	11.96	0
116	SLU 36	311	9	2103	-2.91	12.28	0.02
116	SLU 37	302	0	2064	0.22	11.96	0
116	SLU 38	311	9	2103	-2.91	12.28	0.02
116	SLU 39	338	0	2218	0.24	13.34	0
116	SLU 40	347	9	2256	-2.9	13.66	0.02
116	SLU 41	338	0	2218	0.24	13.34	0
116	SLU 42	347	9	2256	-2.9	13.66	0.02
116	SLU 43	227	0	1970	0.19	9.13	0
116	SLU 44	242	14	2034	-5.03	9.67	0.03
116	SLU 45	227	0	1970	0.19	9.13	0
116	SLU 46	236	9	2009	-2.94	9.45	0.02
116	SLU 47	242	14	2034	-5.03	9.67	0.03
116	SLU 48	227	0	1970	0.19	9.13	0
116	SLU 49	236	9	2009	-2.94	9.45	0.02
116	SLU 50	227	0	1970	0.19	9.13	0
116	SLU 51	236	9	2009	-2.94	9.45	0.02
116	SLU 52	325	14	2393	-4.99	12.89	0.03
116	SLU 53	310	0	2329	0.23	12.35	0
116	SLU 54	319	9	2367	-2.9	12.67	0.02
116	SLU 55	325	14	2393	-4.99	12.89	0.03
116	SLU 56	310	0	2329	0.23	12.35	0
116	SLU 57	319	9	2367	-2.9	12.67	0.02
116	SLU 58	310	0	2329	0.23	12.35	0
116	SLU 59	319	9	2367	-2.9	12.67	0.02
116	SLU 60	346	0	2483	0.25	13.73	0
116	SLU 61	355	9	2521	-2.88	14.06	0.02
116	SLU 62	346	0	2483	0.25	13.73	0
116	SLU 63	355	9	2521	-2.88	14.06	0.02
116	SLU 64	262	0	2121	0.21	10.48	0
116	SLU 65	277	14	2185	-5.01	11.02	0.03
116	SLU 66	262	0	2121	0.21	10.48	0
116	SLU 67	271	9	2159	-2.92	10.8	0.02
116	SLU 68	277	14	2185	-5.01	11.02	0.03
116	SLU 69	262	0	2121	0.21	10.48	0
116	SLU 70	271	9	2159	-2.92	10.8	0.02
116	SLU 71	262	0	2121	0.21	10.48	0
116	SLU 72	271	9	2159	-2.92	10.8	0.02
116	SLU 73	360	14	2543	-4.97	14.24	0.03
116	SLU 74	345	0	2480	0.26	13.71	0
116	SLU 75	354	9	2518	-2.88	14.03	0.02
116	SLU 76	360	14	2543	-4.97	14.24	0.03
116	SLU 77	345	0	2480	0.26	13.71	0
116	SLU 78	354	9	2518	-2.88	14.03	0.02
116	SLU 79	345	0	2480	0.26	13.71	0
116	SLU 80	354	9	2518	-2.88	14.03	0.02
116	SLU 81	381	0	2633	0.27	15.09	0
116	SLU 82	390	9	2671	-2.86	15.41	0.02
116	SLU 83	381	0	2633	0.27	15.09	0
116	SLU 84	390	9	2671	-2.86	15.41	0.02
116	SLE RA 1	194	0	1598	0.16	7.76	0
116	SLE RA 2	204	10	1641	-3.32	8.12	0.02
116	SLE RA 3	194	0	1598	0.16	7.76	0
116	SLE RA 4	200	6	1624	-1.93	7.98	0.01
116	SLE RA 5	204	10	1641	-3.32	8.12	0.02
116	SLE RA 6	194	0	1598	0.16	7.76	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
116	SLE RA 7	200	6	1624	-1.93	7.98	0.01
116	SLE RA 8	194	0	1598	0.16	7.76	0
116	SLE RA 9	200	6	1624	-1.93	7.98	0.01
116	SLE RA 10	259	10	1880	-3.29	10.27	0.02
116	SLE RA 11	250	0	1837	0.19	9.91	0
116	SLE RA 12	255	6	1863	-1.9	10.13	0.01
116	SLE RA 13	259	10	1880	-3.29	10.27	0.02
116	SLE RA 14	250	0	1837	0.19	9.91	0
116	SLE RA 15	255	6	1863	-1.9	10.13	0.01
116	SLE RA 16	250	0	1837	0.19	9.91	0
116	SLE RA 17	255	6	1863	-1.9	10.13	0.01
116	SLE RA 18	273	0	1940	0.2	10.84	0
116	SLE RA 19	279	6	1965	-1.89	11.05	0.01
116	SLE RA 20	273	0	1940	0.2	10.84	0
116	SLE RA 21	279	6	1965	-1.89	11.05	0.01
116	SLE FR 1	194	0	1598	0.16	7.76	0
116	SLE FR 2	196	2	1607	-0.54	7.84	0.01
116	SLE FR 3	194	0	1598	0.16	7.76	0
116	SLE FR 4	220	2	1709	-0.52	8.76	0.01
116	SLE FR 5	218	0	1701	0.17	8.69	0
116	SLE FR 6	234	0	1769	0.18	9.3	0
116	SLE QP 1	194	0	1598	0.16	7.76	0
116	SLE QP 2	218	0	1701	0.17	8.69	0
116	SLD 1	371	-24	1773	16.59	15.3	-0.05
116	SLD 2	371	-24	1773	16.59	15.3	-0.05
116	SLD 3	398	-18	1824	11.35	16.36	-0.04
116	SLD 4	398	-18	1824	11.35	16.36	-0.04
116	SLD 5	223	-16	1646	13.05	9.07	-0.03
116	SLD 6	223	-16	1646	13.05	9.07	-0.03
116	SLD 7	312	3	1815	-4.43	12.59	0.01
116	SLD 8	312	3	1815	-4.43	12.59	0.01
116	SLD 9	123	-4	1587	4.77	4.78	-0.01
116	SLD 10	123	-4	1587	4.77	4.78	-0.01
116	SLD 11	213	16	1756	-12.71	8.3	0.04
116	SLD 12	213	16	1756	-12.71	8.3	0.04
116	SLD 13	38	18	1578	-11.01	1.01	0.04
116	SLD 14	38	18	1578	-11.01	1.01	0.04
116	SLD 15	65	24	1629	-16.25	2.07	0.06
116	SLD 16	65	24	1629	-16.25	2.07	0.06
116	SLV 1	579	-62	1869	41.9	24.3	-0.13
116	SLV 2	579	-62	1869	41.9	24.3	-0.13
116	SLV 3	642	-47	1990	28.94	26.81	-0.1
116	SLV 4	642	-47	1990	28.94	26.81	-0.1
116	SLV 5	230	-42	1568	32.35	9.57	-0.09
116	SLV 6	230	-42	1568	32.35	9.57	-0.09
116	SLV 7	442	9	1972	-10.86	17.92	0.03
116	SLV 8	442	9	1972	-10.86	17.92	0.03
116	SLV 9	-6	-9	1430	11.21	-0.55	-0.02
116	SLV 10	-6	-9	1430	11.21	-0.55	-0.02
116	SLV 11	206	42	1834	-32.01	7.8	0.1
116	SLV 12	206	42	1834	-32.01	7.8	0.1
116	SLV 13	-207	47	1411	-28.59	-9.43	0.1
116	SLV 14	-207	47	1411	-28.59	-9.43	0.1
116	SLV 15	-143	62	1532	-41.56	-6.93	0.14
116	SLV 16	-143	62	1532	-41.56	-6.93	0.14
117	SLU 1	143	-2	1647	0.53	5.65	-0.01
117	SLU 2	155	6	1725	-2.68	6.04	-0.02
117	SLU 3	143	-2	1647	0.53	5.65	-0.01
117	SLU 4	150	3	1694	-1.4	5.88	-0.02
117	SLU 5	155	6	1725	-2.68	6.04	-0.02
117	SLU 6	143	-2	1647	0.53	5.65	-0.01
117	SLU 7	150	3	1694	-1.4	5.88	-0.02
117	SLU 8	143	-2	1647	0.53	5.65	-0.01
117	SLU 9	150	3	1694	-1.4	5.88	-0.02
117	SLU 10	216	5	2124	-2.53	8.56	-0.03
117	SLU 11	205	-2	2046	0.67	8.17	-0.01
117	SLU 12	212	2	2093	-1.25	8.41	-0.02
117	SLU 13	216	5	2124	-2.53	8.56	-0.03
117	SLU 14	205	-2	2046	0.67	8.17	-0.01
117	SLU 15	212	2	2093	-1.25	8.41	-0.02
117	SLU 16	205	-2	2046	0.67	8.17	-0.01
117	SLU 17	212	2	2093	-1.25	8.41	-0.02
117	SLU 18	231	-3	2217	0.73	9.25	-0.01
117	SLU 19	238	2	2264	-1.19	9.49	-0.02
117	SLU 20	231	-3	2217	0.73	9.25	-0.01
117	SLU 21	238	2	2264	-1.19	9.49	-0.02
117	SLU 22	170	-2	1817	0.62	6.72	-0.01
117	SLU 23	181	5	1896	-2.58	7.11	-0.03
117	SLU 24	170	-2	1817	0.62	6.72	-0.01
117	SLU 25	177	2	1864	-1.3	6.96	-0.02
117	SLU 26	181	5	1896	-2.58	7.11	-0.03
117	SLU 27	170	-2	1817	0.62	6.72	-0.01
117	SLU 28	177	2	1864	-1.3	6.96	-0.02
117	SLU 29	170	-2	1817	0.62	6.72	-0.01
117	SLU 30	177	2	1864	-1.3	6.96	-0.02
117	SLU 31	243	5	2294	-2.43	9.63	-0.03
117	SLU 32	232	-3	2216	0.77	9.24	-0.02
117	SLU 33	239	2	2263	-1.15	9.48	-0.02
117	SLU 34	243	5	2294	-2.43	9.63	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
117	SLU 35	232	-3	2216	0.77	9.24	-0.02
117	SLU 36	239	2	2263	-1.15	9.48	-0.02
117	SLU 37	232	-3	2216	0.77	9.24	-0.02
117	SLU 38	239	2	2263	-1.15	9.48	-0.02
117	SLU 39	258	-3	2387	0.83	10.33	-0.02
117	SLU 40	265	1	2434	-1.09	10.56	-0.02
117	SLU 41	258	-3	2387	0.83	10.33	-0.02
117	SLU 42	265	1	2434	-1.09	10.56	-0.02
117	SLU 43	177	-2	2082	0.65	6.98	-0.01
117	SLU 44	189	5	2161	-2.55	7.37	-0.03
117	SLU 45	177	-2	2082	0.65	6.98	-0.01
117	SLU 46	184	2	2130	-1.27	7.21	-0.02
117	SLU 47	189	5	2161	-2.55	7.37	-0.03
117	SLU 48	177	-2	2082	0.65	6.98	-0.01
117	SLU 49	184	2	2130	-1.27	7.21	-0.02
117	SLU 50	177	-2	2082	0.65	6.98	-0.01
117	SLU 51	184	2	2130	-1.27	7.21	-0.02
117	SLU 52	250	5	2560	-2.41	9.89	-0.03
117	SLU 53	239	-3	2481	0.8	9.5	-0.02
117	SLU 54	246	2	2529	-1.13	9.73	-0.02
117	SLU 55	250	5	2560	-2.41	9.89	-0.03
117	SLU 56	239	-3	2481	0.8	9.5	-0.02
117	SLU 57	246	2	2529	-1.13	9.73	-0.02
117	SLU 58	239	-3	2481	0.8	9.5	-0.02
117	SLU 59	246	2	2529	-1.13	9.73	-0.02
117	SLU 60	265	-3	2652	0.86	10.58	-0.02
117	SLU 61	272	1	2700	-1.06	10.81	-0.03
117	SLU 62	265	-3	2652	0.86	10.58	-0.02
117	SLU 63	272	1	2700	-1.06	10.81	-0.03
117	SLU 64	204	-3	2252	0.75	8.05	-0.01
117	SLU 65	215	5	2331	-2.45	8.44	-0.03
117	SLU 66	204	-3	2252	0.75	8.05	-0.01
117	SLU 67	211	2	2300	-1.17	8.28	-0.02
117	SLU 68	215	5	2331	-2.45	8.44	-0.03
117	SLU 69	204	-3	2252	0.75	8.05	-0.01
117	SLU 70	211	2	2300	-1.17	8.28	-0.02
117	SLU 71	204	-3	2252	0.75	8.05	-0.01
117	SLU 72	211	2	2300	-1.17	8.28	-0.02
117	SLU 73	277	4	2730	-2.31	10.96	-0.03
117	SLU 74	265	-3	2651	0.89	10.57	-0.02
117	SLU 75	272	1	2699	-1.03	10.81	-0.03
117	SLU 76	277	4	2730	-2.31	10.96	-0.03
117	SLU 77	265	-3	2651	0.89	10.57	-0.02
117	SLU 78	272	1	2699	-1.03	10.81	-0.03
117	SLU 79	265	-3	2651	0.89	10.57	-0.02
117	SLU 80	272	1	2699	-1.03	10.81	-0.03
117	SLU 81	292	-4	2822	0.96	11.65	-0.02
117	SLU 82	299	1	2870	-0.97	11.89	-0.03
117	SLU 83	292	-4	2822	0.96	11.65	-0.02
117	SLU 84	299	1	2870	-0.97	11.89	-0.03
117	SLE RA 1	151	-2	1695	0.55	5.96	-0.01
117	SLE RA 2	159	3	1748	-1.58	6.22	-0.02
117	SLE RA 3	151	-2	1695	0.55	5.96	-0.01
117	SLE RA 4	155	1	1727	-0.73	6.11	-0.02
117	SLE RA 5	159	3	1748	-1.58	6.22	-0.02
117	SLE RA 6	151	-2	1695	0.55	5.96	-0.01
117	SLE RA 7	155	1	1727	-0.73	6.11	-0.02
117	SLE RA 8	151	-2	1695	0.55	5.96	-0.01
117	SLE RA 9	155	1	1727	-0.73	6.11	-0.02
117	SLE RA 10	200	3	2014	-1.48	7.9	-0.02
117	SLE RA 11	192	-2	1961	0.65	7.64	-0.01
117	SLE RA 12	197	1	1993	-0.63	7.79	-0.02
117	SLE RA 13	200	3	2014	-1.48	7.9	-0.02
117	SLE RA 14	192	-2	1961	0.65	7.64	-0.01
117	SLE RA 15	197	1	1993	-0.63	7.79	-0.02
117	SLE RA 16	192	-2	1961	0.65	7.64	-0.01
117	SLE RA 17	197	1	1993	-0.63	7.79	-0.02
117	SLE RA 18	210	-3	2075	0.69	8.36	-0.01
117	SLE RA 19	214	0	2107	-0.59	8.51	-0.02
117	SLE RA 20	210	-3	2075	0.69	8.36	-0.01
117	SLE RA 21	214	0	2107	-0.59	8.51	-0.02
117	SLE FR 1	151	-2	1695	0.55	5.96	-0.01
117	SLE FR 2	152	-1	1706	0.13	6.01	-0.01
117	SLE FR 3	151	-2	1695	0.55	5.96	-0.01
117	SLE FR 4	170	-1	1820	0.17	6.73	-0.01
117	SLE FR 5	168	-2	1809	0.6	6.68	-0.01
117	SLE FR 6	180	-2	1885	0.62	7.16	-0.01
117	SLE QP 1	151	-2	1695	0.55	5.96	-0.01
117	SLE QP 2	168	-2	1809	0.6	6.68	-0.01
117	SLD 1	304	-18	1857	9.79	12.56	0.02
117	SLD 2	304	-18	1857	9.79	12.56	0.02
117	SLD 3	333	-13	1938	7.23	13.62	0.01
117	SLD 4	333	-13	1938	7.23	13.62	0.01
117	SLD 5	165	-14	1701	7.25	6.84	0.01
117	SLD 6	165	-14	1701	7.25	6.84	0.01
117	SLD 7	262	2	1971	-1.31	10.36	-0.02
117	SLD 8	262	2	1971	-1.31	10.36	-0.02
117	SLD 9	75	-6	1648	2.5	2.99	-0.01
117	SLD 10	75	-6	1648	2.5	2.99	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
117	SLD 11	172	10	1918	-6.06	6.51	-0.03
117	SLD 12	172	10	1918	-6.06	6.51	-0.03
117	SLD 13	4	9	1681	-6.04	-0.27	-0.03
117	SLD 14	4	9	1681	-6.04	-0.27	-0.03
117	SLD 15	33	14	1762	-8.6	0.79	-0.04
117	SLD 16	33	14	1762	-8.6	0.79	-0.04
117	SLV 1	489	-42	1921	24.05	20.54	0.06
117	SLV 2	489	-42	1921	24.05	20.54	0.06
117	SLV 3	557	-30	2113	17.61	23.04	0.04
117	SLV 4	557	-30	2113	17.61	23.04	0.04
117	SLV 5	161	-32	1551	17.39	7.04	0.04
117	SLV 6	161	-32	1551	17.39	7.04	0.04
117	SLV 7	389	8	2192	-4.06	15.38	-0.03
117	SLV 8	389	8	2192	-4.06	15.38	-0.03
117	SLV 9	-52	-12	1427	5.25	-2.03	0
117	SLV 10	-52	-12	1427	5.25	-2.03	0
117	SLV 11	176	28	2067	-16.2	6.31	-0.06
117	SLV 12	176	28	2067	-16.2	6.31	-0.06
117	SLV 13	-220	26	1506	-16.42	-9.69	-0.06
117	SLV 14	-220	26	1506	-16.42	-9.69	-0.06
117	SLV 15	-152	38	1698	-22.86	-7.19	-0.08
117	SLV 16	-152	38	1698	-22.86	-7.19	-0.08
118	SLU 1	86	-204	2422	-143.17	3.29	0.04
118	SLU 2	86	-244	2561	-151.24	3.03	-0.19
118	SLU 3	86	-204	2422	-143.17	3.29	0.04
118	SLU 4	86	-228	2505	-148.01	3.13	-0.09
118	SLU 5	86	-244	2561	-151.24	3.03	-0.19
118	SLU 6	86	-204	2422	-143.17	3.29	0.04
118	SLU 7	86	-228	2505	-148.01	3.13	-0.09
118	SLU 8	86	-204	2422	-143.17	3.29	0.04
118	SLU 9	86	-228	2505	-148.01	3.13	-0.09
118	SLU 10	116	-302	3179	-189.74	4.1	-0.17
118	SLU 11	116	-261	3041	-181.67	4.36	0.05
118	SLU 12	116	-285	3124	-186.51	4.2	-0.08
118	SLU 13	116	-302	3179	-189.74	4.1	-0.17
118	SLU 14	116	-261	3041	-181.67	4.36	0.05
118	SLU 15	116	-285	3124	-186.51	4.2	-0.08
118	SLU 16	116	-261	3041	-181.67	4.36	0.05
118	SLU 17	116	-285	3124	-186.51	4.2	-0.08
118	SLU 18	129	-286	3306	-198.17	4.82	0.06
118	SLU 19	129	-310	3389	-203.01	4.66	-0.08
118	SLU 20	129	-286	3306	-198.17	4.82	0.06
118	SLU 21	129	-310	3389	-203.01	4.66	-0.08
118	SLU 22	98	-242	2715	-164.79	3.72	0.05
118	SLU 23	98	-283	2853	-172.87	3.45	-0.18
118	SLU 24	98	-242	2715	-164.79	3.72	0.05
118	SLU 25	98	-267	2798	-169.64	3.56	-0.09
118	SLU 26	98	-283	2853	-172.87	3.45	-0.18
118	SLU 27	98	-242	2715	-164.79	3.72	0.05
118	SLU 28	98	-267	2798	-169.64	3.56	-0.09
118	SLU 29	98	-242	2715	-164.79	3.72	0.05
118	SLU 30	98	-267	2798	-169.64	3.56	-0.09
118	SLU 31	128	-340	3472	-211.36	4.52	-0.17
118	SLU 32	128	-300	3333	-203.29	4.78	0.06
118	SLU 33	128	-324	3416	-208.14	4.63	-0.08
118	SLU 34	128	-340	3472	-211.36	4.52	-0.17
118	SLU 35	128	-300	3333	-203.29	4.78	0.06
118	SLU 36	128	-324	3416	-208.14	4.63	-0.08
118	SLU 37	128	-300	3333	-203.29	4.78	0.06
118	SLU 38	128	-324	3416	-208.14	4.63	-0.08
118	SLU 39	141	-325	3598	-219.79	5.24	0.07
118	SLU 40	141	-349	3681	-224.64	5.09	-0.07
118	SLU 41	141	-325	3598	-219.79	5.24	0.07
118	SLU 42	141	-349	3681	-224.64	5.09	-0.07
118	SLU 43	107	-251	3049	-178.7	4.13	0.05
118	SLU 44	108	-292	3187	-186.77	3.87	-0.17
118	SLU 45	107	-251	3049	-178.7	4.13	0.05
118	SLU 46	108	-276	3132	-183.55	3.97	-0.08
118	SLU 47	108	-292	3187	-186.77	3.87	-0.17
118	SLU 48	107	-251	3049	-178.7	4.13	0.05
118	SLU 49	108	-276	3132	-183.55	3.97	-0.08
118	SLU 50	107	-251	3049	-178.7	4.13	0.05
118	SLU 51	108	-276	3132	-183.55	3.97	-0.08
118	SLU 52	138	-349	3806	-225.27	4.94	-0.16
118	SLU 53	137	-309	3667	-217.2	5.2	0.06
118	SLU 54	138	-333	3751	-222.05	5.04	-0.07
118	SLU 55	138	-349	3806	-225.27	4.94	-0.16
118	SLU 56	137	-309	3667	-217.2	5.2	0.06
118	SLU 57	138	-333	3751	-222.05	5.04	-0.07
118	SLU 58	137	-309	3667	-217.2	5.2	0.06
118	SLU 59	138	-333	3751	-222.05	5.04	-0.07
118	SLU 60	150	-334	3933	-233.7	5.66	0.07
118	SLU 61	151	-358	4016	-238.54	5.5	-0.07
118	SLU 62	150	-334	3933	-233.7	5.66	0.07
118	SLU 63	151	-358	4016	-238.54	5.5	-0.07
118	SLU 64	119	-290	3341	-200.33	4.56	0.06
118	SLU 65	120	-331	3479	-208.4	4.29	-0.17
118	SLU 66	119	-290	3341	-200.33	4.56	0.06
118	SLU 67	120	-314	3424	-205.17	4.4	-0.08



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
118	SLU 68	120	-331	3479	-208.4	4.29	-0.17
118	SLU 69	119	-290	3341	-200.33	4.56	0.06
118	SLU 70	120	-314	3424	-205.17	4.4	-0.08
118	SLU 71	119	-290	3341	-200.33	4.56	0.06
118	SLU 72	120	-314	3424	-205.17	4.4	-0.08
118	SLU 73	150	-388	4098	-246.9	5.36	-0.16
118	SLU 74	149	-348	3960	-238.83	5.63	0.07
118	SLU 75	150	-372	4043	-243.67	5.47	-0.07
118	SLU 76	150	-388	4098	-246.9	5.36	-0.16
118	SLU 77	149	-348	3960	-238.83	5.63	0.07
118	SLU 78	150	-372	4043	-243.67	5.47	-0.07
118	SLU 79	149	-348	3960	-238.83	5.63	0.07
118	SLU 80	150	-372	4043	-243.67	5.47	-0.07
118	SLU 81	162	-372	4225	-255.33	6.08	0.08
118	SLU 82	163	-397	4308	-260.17	5.93	-0.06
118	SLU 83	162	-372	4225	-255.33	6.08	0.08
118	SLU 84	163	-397	4308	-260.17	5.93	-0.06
118	SLE RA 1	89	-215	2506	-149.35	3.41	0.04
118	SLE RA 2	90	-242	2598	-154.73	3.24	-0.11
118	SLE RA 3	89	-215	2506	-149.35	3.41	0.04
118	SLE RA 4	89	-231	2561	-152.58	3.31	-0.05
118	SLE RA 5	90	-242	2598	-154.73	3.24	-0.11
118	SLE RA 6	89	-215	2506	-149.35	3.41	0.04
118	SLE RA 7	89	-231	2561	-152.58	3.31	-0.05
118	SLE RA 8	89	-215	2506	-149.35	3.41	0.04
118	SLE RA 9	89	-231	2561	-152.58	3.31	-0.05
118	SLE RA 10	110	-280	3011	-180.39	3.95	-0.1
118	SLE RA 11	109	-253	2918	-175.01	4.12	0.05
118	SLE RA 12	109	-269	2974	-178.24	4.02	-0.04
118	SLE RA 13	110	-280	3011	-180.39	3.95	-0.1
118	SLE RA 14	109	-253	2918	-175.01	4.12	0.05
118	SLE RA 15	109	-269	2974	-178.24	4.02	-0.04
118	SLE RA 16	109	-253	2918	-175.01	4.12	0.05
118	SLE RA 17	109	-269	2974	-178.24	4.02	-0.04
118	SLE RA 18	118	-269	3095	-186.01	4.43	0.06
118	SLE RA 19	118	-286	3150	-189.24	4.32	-0.04
118	SLE RA 20	118	-269	3095	-186.01	4.43	0.06
118	SLE RA 21	118	-286	3150	-189.24	4.32	-0.04
118	SLE FR 1	89	-215	2506	-149.35	3.41	0.04
118	SLE FR 2	89	-220	2524	-150.42	3.38	0.01
118	SLE FR 3	89	-215	2506	-149.35	3.41	0.04
118	SLE FR 4	98	-237	2701	-161.42	3.68	0.02
118	SLE FR 5	98	-231	2683	-160.35	3.72	0.05
118	SLE FR 6	103	-242	2800	-167.68	3.92	0.05
118	SLE QP 1	89	-215	2506	-149.35	3.41	0.04
118	SLE QP 2	98	-231	2683	-160.35	3.72	0.05
118	SLD 1	241	-205	2654	-154.43	10.64	-0.54
118	SLD 2	241	-205	2654	-154.43	10.64	-0.54
118	SLD 3	256	-314	2896	-177.63	9.94	-0.79
118	SLD 4	256	-314	2896	-177.63	9.94	-0.79
118	SLD 5	117	-57	2307	-123.39	6.85	0.25
118	SLD 6	117	-57	2307	-123.39	6.85	0.25
118	SLD 7	168	-422	3114	-200.72	4.53	-0.58
118	SLD 8	168	-422	3114	-200.72	4.53	-0.58
118	SLD 9	27	-40	2251	-119.98	2.9	0.67
118	SLD 10	27	-40	2251	-119.98	2.9	0.67
118	SLD 11	78	-405	3058	-197.31	0.59	-0.16
118	SLD 12	78	-405	3058	-197.31	0.59	-0.16
118	SLD 13	-61	-148	2469	-143.06	-2.51	0.88
118	SLD 14	-61	-148	2469	-143.06	-2.51	0.88
118	SLD 15	-45	-258	2711	-166.26	-3.21	0.63
118	SLD 16	-45	-258	2711	-166.26	-3.21	0.63
118	SLV 1	435	-171	2620	-146.85	20.14	-1.44
118	SLV 2	435	-171	2620	-146.85	20.14	-1.44
118	SLV 3	472	-427	3189	-201.24	18.48	-2.07
118	SLV 4	472	-427	3189	-201.24	18.48	-2.07
118	SLV 5	144	177	1800	-73.81	11.17	0.56
118	SLV 6	144	177	1800	-73.81	11.17	0.56
118	SLV 7	265	-680	3698	-255.1	5.61	-1.54
118	SLV 8	265	-680	3698	-255.1	5.61	-1.54
118	SLV 9	-70	217	1667	-65.59	1.82	1.64
118	SLV 10	-70	217	1667	-65.59	1.82	1.64
118	SLV 11	52	-639	3565	-246.88	-3.74	-0.46
118	SLV 12	52	-639	3565	-246.88	-3.74	-0.46
118	SLV 13	-276	-35	2176	-119.46	-11.04	2.16
118	SLV 14	-276	-35	2176	-119.46	-11.04	2.16
118	SLV 15	-240	-292	2745	-173.84	-12.71	1.53
118	SLV 16	-240	-292	2745	-173.84	-12.71	1.53
119	SLU 1	28	-2	1809	0.53	1.27	0.01
119	SLU 2	15	2	1894	2.83	0.81	0.04
119	SLU 3	28	-2	1809	0.53	1.27	0.01
119	SLU 4	20	0	1860	1.91	0.99	0.03
119	SLU 5	15	2	1894	2.83	0.81	0.04
119	SLU 6	28	-2	1809	0.53	1.27	0.01
119	SLU 7	20	0	1860	1.91	0.99	0.03
119	SLU 8	28	-2	1809	0.53	1.27	0.01
119	SLU 9	20	0	1860	1.91	0.99	0.03
119	SLU 10	17	1	2350	2.98	0.97	0.04
119	SLU 11	29	-3	2265	0.68	1.42	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
119	SLU 12	22	0	2316	2.06	1.15	0.03
119	SLU 13	17	1	2350	2.98	0.97	0.04
119	SLU 14	29	-3	2265	0.68	1.42	0.01
119	SLU 15	22	0	2316	2.06	1.15	0.03
119	SLU 16	29	-3	2265	0.68	1.42	0.01
119	SLU 17	22	0	2316	2.06	1.15	0.03
119	SLU 18	30	-3	2461	0.74	1.49	0.01
119	SLU 19	22	-1	2512	2.12	1.21	0.03
119	SLU 20	30	-3	2461	0.74	1.49	0.01
119	SLU 21	22	-1	2512	2.12	1.21	0.03
119	SLU 22	26	-2	2002	0.63	1.26	0.01
119	SLU 23	14	1	2087	2.93	0.8	0.04
119	SLU 24	26	-2	2002	0.63	1.26	0.01
119	SLU 25	19	0	2053	2.01	0.98	0.03
119	SLU 26	14	1	2087	2.93	0.8	0.04
119	SLU 27	26	-2	2002	0.63	1.26	0.01
119	SLU 28	19	0	2053	2.01	0.98	0.03
119	SLU 29	26	-2	2002	0.63	1.26	0.01
119	SLU 30	19	0	2053	2.01	0.98	0.03
119	SLU 31	15	1	2543	3.07	0.96	0.04
119	SLU 32	27	-3	2459	0.77	1.41	0.02
119	SLU 33	20	-1	2510	2.15	1.14	0.03
119	SLU 34	15	1	2543	3.07	0.96	0.04
119	SLU 35	27	-3	2459	0.77	1.41	0.02
119	SLU 36	20	-1	2510	2.15	1.14	0.03
119	SLU 37	27	-3	2459	0.77	1.41	0.02
119	SLU 38	20	-1	2510	2.15	1.14	0.03
119	SLU 39	28	-3	2654	0.83	1.48	0.02
119	SLU 40	21	-1	2705	2.21	1.2	0.03
119	SLU 41	28	-3	2654	0.83	1.48	0.02
119	SLU 42	21	-1	2705	2.21	1.2	0.03
119	SLU 43	37	-2	2285	0.66	1.65	0.01
119	SLU 44	24	1	2370	2.96	1.2	0.04
119	SLU 45	37	-2	2285	0.66	1.65	0.01
119	SLU 46	29	0	2336	2.04	1.38	0.03
119	SLU 47	24	1	2370	2.96	1.2	0.04
119	SLU 48	37	-2	2285	0.66	1.65	0.01
119	SLU 49	29	0	2336	2.04	1.38	0.03
119	SLU 50	37	-2	2285	0.66	1.65	0.01
119	SLU 51	29	0	2336	2.04	1.38	0.03
119	SLU 52	26	1	2826	3.1	1.35	0.04
119	SLU 53	38	-3	2742	0.8	1.81	0.02
119	SLU 54	31	-1	2793	2.18	1.53	0.03
119	SLU 55	26	1	2826	3.1	1.35	0.04
119	SLU 56	38	-3	2742	0.8	1.81	0.02
119	SLU 57	31	-1	2793	2.18	1.53	0.03
119	SLU 58	38	-3	2742	0.8	1.81	0.02
119	SLU 59	31	-1	2793	2.18	1.53	0.03
119	SLU 60	39	-3	2937	0.86	1.87	0.02
119	SLU 61	31	-1	2988	2.24	1.6	0.03
119	SLU 62	39	-3	2937	0.86	1.87	0.02
119	SLU 63	31	-1	2988	2.24	1.6	0.03
119	SLU 64	35	-3	2479	0.76	1.64	0.01
119	SLU 65	23	1	2563	3.06	1.19	0.04
119	SLU 66	35	-3	2479	0.76	1.64	0.01
119	SLU 67	28	-1	2530	2.14	1.37	0.03
119	SLU 68	23	1	2563	3.06	1.19	0.04
119	SLU 69	35	-3	2479	0.76	1.64	0.01
119	SLU 70	28	-1	2530	2.14	1.37	0.03
119	SLU 71	35	-3	2479	0.76	1.64	0.01
119	SLU 72	28	-1	2530	2.14	1.37	0.03
119	SLU 73	24	0	3020	3.2	1.34	0.04
119	SLU 74	36	-3	2935	0.9	1.8	0.02
119	SLU 75	29	-1	2986	2.28	1.52	0.03
119	SLU 76	24	0	3020	3.2	1.34	0.04
119	SLU 77	36	-3	2935	0.9	1.8	0.02
119	SLU 78	29	-1	2986	2.28	1.52	0.03
119	SLU 79	36	-3	2935	0.9	1.8	0.02
119	SLU 80	29	-1	2986	2.28	1.52	0.03
119	SLU 81	37	-4	3131	0.96	1.86	0.02
119	SLU 82	30	-1	3181	2.34	1.59	0.03
119	SLU 83	37	-4	3131	0.96	1.86	0.02
119	SLU 84	30	-1	3181	2.34	1.59	0.03
119	SLE RA 1	27	-2	1864	0.56	1.26	0.01
119	SLE RA 2	19	0	1921	2.09	0.96	0.03
119	SLE RA 3	27	-2	1864	0.56	1.26	0.01
119	SLE RA 4	22	-1	1898	1.48	1.08	0.02
119	SLE RA 5	19	0	1921	2.09	0.96	0.03
119	SLE RA 6	27	-2	1864	0.56	1.26	0.01
119	SLE RA 7	22	-1	1898	1.48	1.08	0.02
119	SLE RA 8	27	-2	1864	0.56	1.26	0.01
119	SLE RA 9	22	-1	1898	1.48	1.08	0.02
119	SLE RA 10	20	0	2225	2.19	1.06	0.03
119	SLE RA 11	28	-3	2168	0.66	1.37	0.01
119	SLE RA 12	23	-1	2202	1.58	1.18	0.02
119	SLE RA 13	20	0	2225	2.19	1.06	0.03
119	SLE RA 14	28	-3	2168	0.66	1.37	0.01
119	SLE RA 15	23	-1	2202	1.58	1.18	0.02
119	SLE RA 16	28	-3	2168	0.66	1.37	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
119	SLE RA 17	23	-1	2202	1.58	1.18	0.02
119	SLE RA 18	29	-3	2299	0.7	1.41	0.01
119	SLE RA 19	24	-1	2333	1.62	1.23	0.02
119	SLE RA 20	29	-3	2299	0.7	1.41	0.01
119	SLE RA 21	24	-1	2333	1.62	1.23	0.02
119	SLE FR 1	27	-2	1864	0.56	1.26	0.01
119	SLE FR 2	26	-2	1875	0.87	1.2	0.01
119	SLE FR 3	27	-2	1864	0.56	1.26	0.01
119	SLE FR 4	26	-2	2006	0.91	1.25	0.02
119	SLE FR 5	28	-2	1995	0.6	1.31	0.01
119	SLE FR 6	28	-2	2081	0.63	1.34	0.01
119	SLE QP 1	27	-2	1864	0.56	1.26	0.01
119	SLE QP 2	28	-2	1995	0.6	1.31	0.01
119	SLD 1	187	7	2002	-9.39	7.99	0.04
119	SLD 2	187	7	2002	-9.39	7.99	0.04
119	SLD 3	168	13	2085	-6.84	7.31	0.05
119	SLD 4	168	13	2085	-6.84	7.31	0.05
119	SLD 5	104	-8	1871	-6.27	4.35	0
119	SLD 6	104	-8	1871	-6.27	4.35	0
119	SLD 7	41	10	2147	2.24	2.07	0.04
119	SLD 8	41	10	2147	2.24	2.07	0.04
119	SLD 9	15	-15	1842	-1.04	0.55	-0.02
119	SLD 10	15	-15	1842	-1.04	0.55	-0.02
119	SLD 11	-49	3	2118	7.47	-1.73	0.02
119	SLD 12	-49	3	2118	7.47	-1.73	0.02
119	SLD 13	-112	-17	1904	8.04	-4.69	-0.03
119	SLD 14	-112	-17	1904	8.04	-4.69	-0.03
119	SLD 15	-132	-12	1987	10.59	-5.37	-0.02
119	SLD 16	-132	-12	1987	10.59	-5.37	-0.02
119	SLV 1	403	22	2014	-24.91	17.07	0.08
119	SLV 2	403	22	2014	-24.91	17.07	0.08
119	SLV 3	358	35	2210	-18.44	15.44	0.11
119	SLV 4	358	35	2210	-18.44	15.44	0.11
119	SLV 5	209	-15	1703	-16.88	8.51	-0.01
119	SLV 6	209	-15	1703	-16.88	8.51	-0.01
119	SLV 7	58	29	2356	4.72	3.08	0.08
119	SLV 8	58	29	2356	4.72	3.08	0.08
119	SLV 9	-3	-34	1633	-3.51	-0.46	-0.06
119	SLV 10	-3	-34	1633	-3.51	-0.46	-0.06
119	SLV 11	-154	10	2286	18.08	-5.89	0.03
119	SLV 12	-154	10	2286	18.08	-5.89	0.03
119	SLV 13	-303	-40	1779	19.64	-12.83	-0.09
119	SLV 14	-303	-40	1779	19.64	-12.83	-0.09
119	SLV 15	-348	-27	1975	26.12	-14.45	-0.06
119	SLV 16	-348	-27	1975	26.12	-14.45	-0.06
120	SLU 1	-33	0	1810	0.13	-1.55	0
120	SLU 2	-49	9	1879	5.39	-2.13	-0.01
120	SLU 3	-33	0	1810	0.13	-1.55	0
120	SLU 4	-43	6	1851	3.29	-1.9	-0.01
120	SLU 5	-49	9	1879	5.39	-2.13	-0.01
120	SLU 6	-33	0	1810	0.13	-1.55	0
120	SLU 7	-43	6	1851	3.29	-1.9	-0.01
120	SLU 8	-33	0	1810	0.13	-1.55	0
120	SLU 9	-43	6	1851	3.29	-1.9	-0.01
120	SLU 10	-80	9	2334	5.42	-3.47	-0.01
120	SLU 11	-63	0	2265	0.16	-2.89	0
120	SLU 12	-73	6	2307	3.32	-3.23	-0.01
120	SLU 13	-80	9	2334	5.42	-3.47	-0.01
120	SLU 14	-63	0	2265	0.16	-2.89	0
120	SLU 15	-73	6	2307	3.32	-3.23	-0.01
120	SLU 16	-63	0	2265	0.16	-2.89	0
120	SLU 17	-73	6	2307	3.32	-3.23	-0.01
120	SLU 18	-76	0	2461	0.17	-3.46	0
120	SLU 19	-86	6	2502	3.33	-3.81	-0.01
120	SLU 20	-76	0	2461	0.17	-3.46	0
120	SLU 21	-86	6	2502	3.33	-3.81	-0.01
120	SLU 22	-47	0	2000	0.15	-2.16	0
120	SLU 23	-64	9	2068	5.41	-2.74	-0.01
120	SLU 24	-47	0	2000	0.15	-2.16	0
120	SLU 25	-57	6	2041	3.31	-2.51	-0.01
120	SLU 26	-64	9	2068	5.41	-2.74	-0.01
120	SLU 27	-47	0	2000	0.15	-2.16	0
120	SLU 28	-57	6	2041	3.31	-2.51	-0.01
120	SLU 29	-47	0	2000	0.15	-2.16	0
120	SLU 30	-57	6	2041	3.31	-2.51	-0.01
120	SLU 31	-94	9	2524	5.44	-4.07	-0.01
120	SLU 32	-78	0	2455	0.18	-3.49	0
120	SLU 33	-87	6	2496	3.33	-3.84	-0.01
120	SLU 34	-94	9	2524	5.44	-4.07	-0.01
120	SLU 35	-78	0	2455	0.18	-3.49	0
120	SLU 36	-87	6	2496	3.33	-3.84	-0.01
120	SLU 37	-78	0	2455	0.18	-3.49	0
120	SLU 38	-87	6	2496	3.33	-3.84	-0.01
120	SLU 39	-90	0	2650	0.19	-4.06	-0.01
120	SLU 40	-100	6	2691	3.34	-4.41	-0.01
120	SLU 41	-90	0	2650	0.19	-4.06	-0.01
120	SLU 42	-100	6	2691	3.34	-4.41	-0.01
120	SLU 43	-39	0	2288	0.17	-1.81	0
120	SLU 44	-55	9	2357	5.43	-2.39	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
120	SLU 45	-39	0	2288	0.17	-1.81	0
120	SLU 46	-48	6	2330	3.32	-2.16	-0.01
120	SLU 47	-55	9	2357	5.43	-2.39	-0.01
120	SLU 48	-39	0	2288	0.17	-1.81	0
120	SLU 49	-48	6	2330	3.32	-2.16	-0.01
120	SLU 50	-39	0	2288	0.17	-1.81	0
120	SLU 51	-48	6	2330	3.32	-2.16	-0.01
120	SLU 52	-85	9	2812	5.45	-3.73	-0.01
120	SLU 53	-69	0	2744	0.2	-3.14	-0.01
120	SLU 54	-78	6	2785	3.35	-3.49	-0.01
120	SLU 55	-85	9	2812	5.45	-3.73	-0.01
120	SLU 56	-69	0	2744	0.2	-3.14	-0.01
120	SLU 57	-78	6	2785	3.35	-3.49	-0.01
120	SLU 58	-69	0	2744	0.2	-3.14	-0.01
120	SLU 59	-78	6	2785	3.35	-3.49	-0.01
120	SLU 60	-82	0	2939	0.21	-3.72	-0.01
120	SLU 61	-91	6	2980	3.36	-4.06	-0.01
120	SLU 62	-82	0	2939	0.21	-3.72	-0.01
120	SLU 63	-91	6	2980	3.36	-4.06	-0.01
120	SLU 64	-53	0	2478	0.19	-2.42	0
120	SLU 65	-69	9	2546	5.44	-3	-0.01
120	SLU 66	-53	0	2478	0.19	-2.42	0
120	SLU 67	-62	5	2519	3.34	-2.77	-0.01
120	SLU 68	-69	9	2546	5.44	-3	-0.01
120	SLU 69	-53	0	2478	0.19	-2.42	0
120	SLU 70	-62	5	2519	3.34	-2.77	-0.01
120	SLU 71	-53	0	2478	0.19	-2.42	0
120	SLU 72	-62	5	2519	3.34	-2.77	-0.01
120	SLU 73	-99	9	3002	5.47	-4.33	-0.01
120	SLU 74	-83	0	2933	0.21	-3.75	-0.01
120	SLU 75	-92	5	2974	3.37	-4.1	-0.01
120	SLU 76	-99	9	3002	5.47	-4.33	-0.01
120	SLU 77	-83	0	2933	0.21	-3.75	-0.01
120	SLU 78	-92	5	2974	3.37	-4.1	-0.01
120	SLU 79	-83	0	2933	0.21	-3.75	-0.01
120	SLU 80	-92	5	2974	3.37	-4.1	-0.01
120	SLU 81	-96	0	3128	0.22	-4.32	-0.01
120	SLU 82	-105	5	3169	3.38	-4.67	-0.01
120	SLU 83	-96	0	3128	0.22	-4.32	-0.01
120	SLU 84	-105	5	3169	3.38	-4.67	-0.01
120	SLE RA 1	-37	0	1864	0.14	-1.73	0
120	SLE RA 2	-48	6	1910	3.64	-2.11	-0.01
120	SLE RA 3	-37	0	1864	0.14	-1.73	0
120	SLE RA 4	-44	4	1892	2.24	-1.96	-0.01
120	SLE RA 5	-48	6	1910	3.64	-2.11	-0.01
120	SLE RA 6	-37	0	1864	0.14	-1.73	0
120	SLE RA 7	-44	4	1892	2.24	-1.96	-0.01
120	SLE RA 8	-37	0	1864	0.14	-1.73	0
120	SLE RA 9	-44	4	1892	2.24	-1.96	-0.01
120	SLE RA 10	-68	6	2214	3.66	-3	-0.01
120	SLE RA 11	-57	0	2168	0.16	-2.61	0
120	SLE RA 12	-64	4	2195	2.26	-2.85	-0.01
120	SLE RA 13	-68	6	2214	3.66	-3	-0.01
120	SLE RA 14	-57	0	2168	0.16	-2.61	0
120	SLE RA 15	-64	4	2195	2.26	-2.85	-0.01
120	SLE RA 16	-57	0	2168	0.16	-2.61	0
120	SLE RA 17	-64	4	2195	2.26	-2.85	-0.01
120	SLE RA 18	-66	0	2298	0.17	-2.99	0
120	SLE RA 19	-73	4	2325	2.27	-3.23	-0.01
120	SLE RA 20	-66	0	2298	0.17	-2.99	0
120	SLE RA 21	-73	4	2325	2.27	-3.23	-0.01
120	SLE FR 1	-37	0	1864	0.14	-1.73	0
120	SLE FR 2	-40	1	1873	0.84	-1.8	0
120	SLE FR 3	-37	0	1864	0.14	-1.73	0
120	SLE FR 4	-48	1	2004	0.85	-2.18	0
120	SLE FR 5	-46	0	1994	0.15	-2.11	0
120	SLE FR 6	-52	0	2081	0.15	-2.36	0
120	SLE QP 1	-37	0	1864	0.14	-1.73	0
120	SLE QP 2	-46	0	1994	0.15	-2.11	0
120	SLD 1	116	18	1995	-18.56	4.68	-0.03
120	SLD 2	116	18	1995	-18.56	4.68	-0.03
120	SLD 3	98	23	2045	-13.15	4	-0.02
120	SLD 4	98	23	2045	-13.15	4	-0.02
120	SLD 5	29	-3	1917	-13.67	0.97	-0.03
120	SLD 6	29	-3	1917	-13.67	0.97	-0.03
120	SLD 7	-29	16	2087	4.36	-1.31	0.01
120	SLD 8	-29	16	2087	4.36	-1.31	0.01
120	SLD 9	-63	-16	1902	-4.07	-2.9	-0.02
120	SLD 10	-63	-16	1902	-4.07	-2.9	-0.02
120	SLD 11	-121	3	2071	13.97	-5.18	0.02
120	SLD 12	-121	3	2071	13.97	-5.18	0.02
120	SLD 13	-190	-24	1943	13.45	-8.21	0.01
120	SLD 14	-190	-24	1943	13.45	-8.21	0.01
120	SLD 15	-208	-18	1994	18.86	-8.89	0.02
120	SLD 16	-208	-18	1994	18.86	-8.89	0.02
120	SLV 1	336	45	1997	-47.63	13.95	-0.07
120	SLV 2	336	45	1997	-47.63	13.95	-0.07
120	SLV 3	295	60	2119	-33.91	12.33	-0.04
120	SLV 4	295	60	2119	-33.91	12.33	-0.04





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
120	SLV 5	131	-8	1811	-34.99	5.18	-0.06
120	SLV 6	131	-8	1811	-34.99	5.18	-0.06
120	SLV 7	-6	40	2216	10.73	-0.24	0.02
120	SLV 8	-6	40	2216	10.73	-0.24	0.02
120	SLV 9	-86	-40	1773	-10.44	-3.97	-0.03
120	SLV 10	-86	-40	1773	-10.44	-3.97	-0.03
120	SLV 11	-223	8	2177	35.28	-9.39	0.05
120	SLV 12	-223	8	2177	35.28	-9.39	0.05
120	SLV 13	-387	-60	1870	34.2	-16.54	0.03
120	SLV 14	-387	-60	1870	34.2	-16.54	0.03
120	SLV 15	-428	-45	1991	47.92	-18.17	0.06
120	SLV 16	-428	-45	1991	47.92	-18.17	0.06
121	SLU 1	-92	0	1788	0.02	-3.43	0
121	SLU 2	-111	7	1844	10.37	-4.17	-0.01
121	SLU 3	-92	0	1788	0.02	-3.43	0
121	SLU 4	-103	4	1822	6.23	-3.87	-0.01
121	SLU 5	-111	7	1844	10.37	-4.17	-0.01
121	SLU 6	-92	0	1788	0.02	-3.43	0
121	SLU 7	-103	4	1822	6.23	-3.87	-0.01
121	SLU 8	-92	0	1788	0.02	-3.43	0
121	SLU 9	-103	4	1822	6.23	-3.87	-0.01
121	SLU 10	-168	7	2286	10.36	-6.39	-0.01
121	SLU 11	-150	0	2230	0.02	-5.66	0
121	SLU 12	-161	4	2264	6.22	-6.1	-0.01
121	SLU 13	-168	7	2286	10.36	-6.39	-0.01
121	SLU 14	-150	0	2230	0.02	-5.66	0
121	SLU 15	-161	4	2264	6.22	-6.1	-0.01
121	SLU 16	-150	0	2230	0.02	-5.66	0
121	SLU 17	-161	4	2264	6.22	-6.1	-0.01
121	SLU 18	-175	0	2419	0.01	-6.61	0
121	SLU 19	-186	4	2453	6.22	-7.05	-0.01
121	SLU 20	-175	0	2419	0.01	-6.61	0
121	SLU 21	-186	4	2453	6.22	-7.05	-0.01
121	SLU 22	-117	0	1970	0.01	-4.39	0
121	SLU 23	-136	7	2026	10.36	-5.12	-0.01
121	SLU 24	-117	0	1970	0.01	-4.39	0
121	SLU 25	-128	4	2004	6.22	-4.83	-0.01
121	SLU 26	-136	7	2026	10.36	-5.12	-0.01
121	SLU 27	-117	0	1970	0.01	-4.39	0
121	SLU 28	-128	4	2004	6.22	-4.83	-0.01
121	SLU 29	-117	0	1970	0.01	-4.39	0
121	SLU 30	-128	4	2004	6.22	-4.83	-0.01
121	SLU 31	-193	7	2468	10.35	-7.35	-0.01
121	SLU 32	-175	0	2412	0.01	-6.61	0
121	SLU 33	-186	4	2446	6.22	-7.06	-0.01
121	SLU 34	-193	7	2468	10.35	-7.35	-0.01
121	SLU 35	-175	0	2412	0.01	-6.61	0
121	SLU 36	-186	4	2446	6.22	-7.06	-0.01
121	SLU 37	-175	0	2412	0.01	-6.61	0
121	SLU 38	-186	4	2446	6.22	-7.06	-0.01
121	SLU 39	-199	0	2602	0.01	-7.57	0
121	SLU 40	-211	4	2635	6.21	-8.01	-0.01
121	SLU 41	-199	0	2602	0.01	-7.57	0
121	SLU 42	-211	4	2635	6.21	-8.01	-0.01
121	SLU 43	-111	0	2262	0.03	-4.14	0
121	SLU 44	-130	7	2318	10.38	-4.87	-0.01
121	SLU 45	-111	0	2262	0.03	-4.14	0
121	SLU 46	-123	4	2296	6.24	-4.58	-0.01
121	SLU 47	-130	7	2318	10.38	-4.87	-0.01
121	SLU 48	-111	0	2262	0.03	-4.14	0
121	SLU 49	-123	4	2296	6.24	-4.58	-0.01
121	SLU 50	-111	0	2262	0.03	-4.14	0
121	SLU 51	-123	4	2296	6.24	-4.58	-0.01
121	SLU 52	-188	7	2760	10.37	-7.1	-0.01
121	SLU 53	-169	0	2704	0.02	-6.36	0
121	SLU 54	-180	4	2738	6.23	-6.8	-0.01
121	SLU 55	-188	7	2760	10.37	-7.1	-0.01
121	SLU 56	-169	0	2704	0.02	-6.36	0
121	SLU 57	-180	4	2738	6.23	-6.8	-0.01
121	SLU 58	-169	0	2704	0.02	-6.36	0
121	SLU 59	-180	4	2738	6.23	-6.8	-0.01
121	SLU 60	-194	0	2893	0.02	-7.32	0
121	SLU 61	-205	4	2927	6.23	-7.76	-0.01
121	SLU 62	-194	0	2893	0.02	-7.32	0
121	SLU 63	-205	4	2927	6.23	-7.76	-0.01
121	SLU 64	-136	0	2444	0.02	-5.09	0
121	SLU 65	-155	7	2500	10.37	-5.83	-0.01
121	SLU 66	-136	0	2444	0.02	-5.09	0
121	SLU 67	-147	4	2478	6.23	-5.53	-0.01
121	SLU 68	-155	7	2500	10.37	-5.83	-0.01
121	SLU 69	-136	0	2444	0.02	-5.09	0
121	SLU 70	-147	4	2478	6.23	-5.53	-0.01
121	SLU 71	-136	0	2444	0.02	-5.09	0
121	SLU 72	-147	4	2478	6.23	-5.53	-0.01
121	SLU 73	-212	7	2942	10.36	-8.05	-0.01
121	SLU 74	-194	0	2886	0.02	-7.32	0
121	SLU 75	-205	4	2920	6.22	-7.76	-0.01
121	SLU 76	-212	7	2942	10.36	-8.05	-0.01
121	SLU 77	-194	0	2886	0.02	-7.32	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
121	SLU 78	-205	4	2920	6.22	-7.76	-0.01
121	SLU 79	-194	0	2886	0.02	-7.32	0
121	SLU 80	-205	4	2920	6.22	-7.76	-0.01
121	SLU 81	-219	0	3076	0.01	-8.27	0
121	SLU 82	-230	4	3109	6.22	-8.71	-0.01
121	SLU 83	-219	0	3076	0.01	-8.27	0
121	SLU 84	-230	4	3109	6.22	-8.71	-0.01
121	SLE RA 1	-99	0	1840	0.02	-3.71	0
121	SLE RA 2	-112	5	1877	6.92	-4.2	-0.01
121	SLE RA 3	-99	0	1840	0.02	-3.71	0
121	SLE RA 4	-107	3	1863	4.16	-4	-0.01
121	SLE RA 5	-112	5	1877	6.92	-4.2	-0.01
121	SLE RA 6	-99	0	1840	0.02	-3.71	0
121	SLE RA 7	-107	3	1863	4.16	-4	-0.01
121	SLE RA 8	-99	0	1840	0.02	-3.71	0
121	SLE RA 9	-107	3	1863	4.16	-4	-0.01
121	SLE RA 10	-150	5	2172	6.91	-5.68	-0.01
121	SLE RA 11	-138	0	2135	0.02	-5.19	0
121	SLE RA 12	-145	3	2157	4.15	-5.48	-0.01
121	SLE RA 13	-150	5	2172	6.91	-5.68	-0.01
121	SLE RA 14	-138	0	2135	0.02	-5.19	0
121	SLE RA 15	-145	3	2157	4.15	-5.48	-0.01
121	SLE RA 16	-138	0	2135	0.02	-5.19	0
121	SLE RA 17	-145	3	2157	4.15	-5.48	-0.01
121	SLE RA 18	-154	0	2261	0.01	-5.83	0
121	SLE RA 19	-162	3	2283	4.15	-6.12	-0.01
121	SLE RA 20	-154	0	2261	0.01	-5.83	0
121	SLE RA 21	-162	3	2283	4.15	-6.12	-0.01
121	SLE FR 1	-99	0	1840	0.02	-3.71	0
121	SLE FR 2	-102	1	1848	1.4	-3.8	0
121	SLE FR 3	-99	0	1840	0.02	-3.71	0
121	SLE FR 4	-118	1	1974	1.4	-4.44	0
121	SLE FR 5	-116	0	1967	0.02	-4.34	0
121	SLE FR 6	-127	0	2051	0.02	-4.77	0
121	SLE QP 1	-99	0	1840	0.02	-3.71	0
121	SLE QP 2	-116	0	1967	0.02	-4.34	0
121	SLD 1	48	20	1925	-26.02	2.57	-0.02
121	SLD 2	48	20	1925	-26.02	2.57	-0.02
121	SLD 3	32	26	1960	-16.87	1.88	-0.02
121	SLD 4	32	26	1960	-16.87	1.88	-0.02
121	SLD 5	-41	-4	1900	-21.68	-1.22	0.01
121	SLD 6	-41	-4	1900	-21.68	-1.22	0.01
121	SLD 7	-97	18	2018	8.83	-3.52	-0.02
121	SLD 8	-97	18	2018	8.83	-3.52	-0.02
121	SLD 9	-135	-18	1915	-8.8	-5.16	0.02
121	SLD 10	-135	-18	1915	-8.8	-5.16	0.02
121	SLD 11	-190	4	2033	21.71	-7.46	-0.01
121	SLD 12	-190	4	2033	21.71	-7.46	-0.01
121	SLD 13	-263	-26	1973	16.9	-10.56	0.02
121	SLD 14	-263	-26	1973	16.9	-10.56	0.02
121	SLD 15	-280	-20	2008	26.06	-11.25	0.01
121	SLD 16	-280	-20	2008	26.06	-11.25	0.01
121	SLV 1	272	50	1865	-66.36	11.98	-0.04
121	SLV 2	272	50	1865	-66.36	11.98	-0.04
121	SLV 3	232	67	1950	-43.32	10.33	-0.06
121	SLV 4	232	67	1950	-43.32	10.33	-0.06
121	SLV 5	61	-11	1807	-54.84	3.06	0.02
121	SLV 6	61	-11	1807	-54.84	3.06	0.02
121	SLV 7	-72	46	2091	21.96	-2.45	-0.05
121	SLV 8	-72	46	2091	21.96	-2.45	-0.05
121	SLV 9	-160	-46	1843	-21.92	-6.24	0.04
121	SLV 10	-160	-46	1843	-21.92	-6.24	0.04
121	SLV 11	-293	11	2126	54.87	-11.75	-0.02
121	SLV 12	-293	11	2126	54.87	-11.75	-0.02
121	SLV 13	-464	-67	1983	43.36	-19.02	0.06
121	SLV 14	-464	-67	1983	43.36	-19.02	0.06
121	SLV 15	-504	-50	2068	66.4	-20.67	0.04
121	SLV 16	-504	-50	2068	66.4	-20.67	0.04
122	SLU 1	-160	0	1729	-0.01	-6.69	0
122	SLU 2	-178	-1	1773	16.86	-7.4	-0.01
122	SLU 3	-160	0	1729	-0.01	-6.69	0
122	SLU 4	-171	0	1756	10.12	-7.12	-0.01
122	SLU 5	-178	-1	1773	16.86	-7.4	-0.01
122	SLU 6	-160	0	1729	-0.01	-6.69	0
122	SLU 7	-171	0	1756	10.12	-7.12	-0.01
122	SLU 8	-160	0	1729	-0.01	-6.69	0
122	SLU 9	-171	0	1756	10.12	-7.12	-0.01
122	SLU 10	-266	-1	2187	16.85	-11.01	-0.01
122	SLU 11	-247	0	2143	-0.02	-10.29	0
122	SLU 12	-258	0	2169	10.1	-10.72	-0.01
122	SLU 13	-266	-1	2187	16.85	-11.01	-0.01
122	SLU 14	-247	0	2143	-0.02	-10.29	0
122	SLU 15	-258	0	2169	10.1	-10.72	-0.01
122	SLU 16	-247	0	2143	-0.02	-10.29	0
122	SLU 17	-258	0	2169	10.1	-10.72	-0.01
122	SLU 18	-284	0	2320	-0.03	-11.84	0
122	SLU 19	-296	0	2346	10.09	-12.27	-0.01
122	SLU 20	-284	0	2320	-0.03	-11.84	0
122	SLU 21	-296	0	2346	10.09	-12.27	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
122	SLU 22	-196	0	1899	-0.02	-8.19	0
122	SLU 23	-215	-1	1943	16.85	-8.9	-0.01
122	SLU 24	-196	0	1899	-0.02	-8.19	0
122	SLU 25	-207	0	1925	10.1	-8.62	-0.01
122	SLU 26	-215	-1	1943	16.85	-8.9	-0.01
122	SLU 27	-196	0	1899	-0.02	-8.19	0
122	SLU 28	-207	0	1925	10.1	-8.62	-0.01
122	SLU 29	-196	0	1899	-0.02	-8.19	0
122	SLU 30	-207	0	1925	10.1	-8.62	-0.01
122	SLU 31	-302	-1	2356	16.84	-12.51	-0.01
122	SLU 32	-283	0	2312	-0.04	-11.79	0
122	SLU 33	-294	0	2339	10.09	-12.22	-0.01
122	SLU 34	-302	-1	2356	16.84	-12.51	-0.01
122	SLU 35	-283	0	2312	-0.04	-11.79	0
122	SLU 36	-294	0	2339	10.09	-12.22	-0.01
122	SLU 37	-283	0	2312	-0.04	-11.79	0
122	SLU 38	-294	0	2339	10.09	-12.22	-0.01
122	SLU 39	-321	0	2489	-0.04	-13.34	0
122	SLU 40	-332	0	2516	10.08	-13.77	-0.01
122	SLU 41	-321	0	2489	-0.04	-13.34	0
122	SLU 42	-332	0	2516	10.08	-13.77	-0.01
122	SLU 43	-195	0	2190	-0.01	-8.18	0
122	SLU 44	-214	-1	2234	16.87	-8.9	-0.01
122	SLU 45	-195	0	2190	-0.01	-8.18	0
122	SLU 46	-206	0	2216	10.12	-8.61	-0.01
122	SLU 47	-214	-1	2234	16.87	-8.9	-0.01
122	SLU 48	-195	0	2190	-0.01	-8.18	0
122	SLU 49	-206	0	2216	10.12	-8.61	-0.01
122	SLU 50	-195	0	2190	-0.01	-8.18	0
122	SLU 51	-206	0	2216	10.12	-8.61	-0.01
122	SLU 52	-301	-1	2647	16.85	-12.5	-0.01
122	SLU 53	-282	0	2603	-0.02	-11.79	0
122	SLU 54	-294	0	2630	10.1	-12.22	-0.01
122	SLU 55	-301	-1	2647	16.85	-12.5	-0.01
122	SLU 56	-282	0	2603	-0.02	-11.79	0
122	SLU 57	-294	0	2630	10.1	-12.22	-0.01
122	SLU 58	-282	0	2603	-0.02	-11.79	0
122	SLU 59	-294	0	2630	10.1	-12.22	-0.01
122	SLU 60	-320	0	2781	-0.03	-13.33	0
122	SLU 61	-331	0	2807	10.1	-13.76	-0.01
122	SLU 62	-320	0	2781	-0.03	-13.33	0
122	SLU 63	-331	0	2807	10.1	-13.76	-0.01
122	SLU 64	-231	0	2360	-0.02	-9.68	0
122	SLU 65	-250	-1	2403	16.85	-10.4	-0.01
122	SLU 66	-231	0	2360	-0.02	-9.68	0
122	SLU 67	-243	0	2386	10.1	-10.11	-0.01
122	SLU 68	-250	-1	2403	16.85	-10.4	-0.01
122	SLU 69	-231	0	2360	-0.02	-9.68	0
122	SLU 70	-243	0	2386	10.1	-10.11	-0.01
122	SLU 71	-231	0	2360	-0.02	-9.68	0
122	SLU 72	-243	0	2386	10.1	-10.11	-0.01
122	SLU 73	-337	-1	2817	16.84	-14	-0.01
122	SLU 74	-319	0	2773	-0.04	-13.28	0
122	SLU 75	-330	0	2799	10.09	-13.71	-0.01
122	SLU 76	-337	-1	2817	16.84	-14	-0.01
122	SLU 77	-319	0	2773	-0.04	-13.28	0
122	SLU 78	-330	0	2799	10.09	-13.71	-0.01
122	SLU 79	-319	0	2773	-0.04	-13.28	0
122	SLU 80	-330	0	2799	10.09	-13.71	-0.01
122	SLU 81	-356	0	2950	-0.04	-14.83	0
122	SLU 82	-367	0	2976	10.08	-15.26	-0.01
122	SLU 83	-356	0	2950	-0.04	-14.83	0
122	SLU 84	-367	0	2976	10.08	-15.26	-0.01
122	SLE RA 1	-170	0	1778	-0.01	-7.12	0
122	SLE RA 2	-182	0	1807	11.24	-7.59	-0.01
122	SLE RA 3	-170	0	1778	-0.01	-7.12	0
122	SLE RA 4	-178	0	1795	6.74	-7.4	-0.01
122	SLE RA 5	-182	0	1807	11.24	-7.59	-0.01
122	SLE RA 6	-170	0	1778	-0.01	-7.12	0
122	SLE RA 7	-178	0	1795	6.74	-7.4	-0.01
122	SLE RA 8	-170	0	1778	-0.01	-7.12	0
122	SLE RA 9	-178	0	1795	6.74	-7.4	-0.01
122	SLE RA 10	-241	0	2083	11.23	-10	-0.01
122	SLE RA 11	-228	0	2053	-0.02	-9.52	0
122	SLE RA 12	-236	0	2071	6.73	-9.81	-0.01
122	SLE RA 13	-241	0	2083	11.23	-10	-0.01
122	SLE RA 14	-228	0	2053	-0.02	-9.52	0
122	SLE RA 15	-236	0	2071	6.73	-9.81	-0.01
122	SLE RA 16	-228	0	2053	-0.02	-9.52	0
122	SLE RA 17	-236	0	2071	6.73	-9.81	-0.01
122	SLE RA 18	-253	0	2172	-0.03	-10.55	0
122	SLE RA 19	-261	0	2189	6.72	-10.84	-0.01
122	SLE RA 20	-253	0	2172	-0.03	-10.55	0
122	SLE RA 21	-261	0	2189	6.72	-10.84	-0.01
122	SLE FR 1	-170	0	1778	-0.01	-7.12	0
122	SLE FR 2	-173	0	1784	2.24	-7.21	0
122	SLE FR 3	-170	0	1778	-0.01	-7.12	0
122	SLE FR 4	-197	0	1902	2.23	-8.24	0
122	SLE FR 5	-195	0	1896	-0.02	-8.15	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
122	SLE FR 6	-212	0	1975	-0.02	-8.83	0
122	SLE QP 1	-170	0	1778	-0.01	-7.12	0
122	SLE QP 2	-195	0	1896	-0.02	-8.15	0
122	SLD 1	-20	19	1843	-32.01	-0.73	-0.01
122	SLD 2	-20	19	1843	-32.01	-0.73	-0.01
122	SLD 3	-36	30	1869	-18.89	-1.4	-0.02
122	SLD 4	-36	30	1869	-18.89	-1.4	-0.02
122	SLD 5	-118	-11	1842	-29.52	-4.91	0
122	SLD 6	-118	-11	1842	-29.52	-4.91	0
122	SLD 7	-172	26	1926	14.23	-7.13	-0.01
122	SLD 8	-172	26	1926	14.23	-7.13	-0.01
122	SLD 9	-218	-25	1866	-14.26	-9.16	0.01
122	SLD 10	-218	-25	1866	-14.26	-9.16	0.01
122	SLD 11	-272	11	1950	29.49	-11.38	0
122	SLD 12	-272	11	1950	29.49	-11.38	0
122	SLD 13	-354	-30	1923	18.85	-14.89	0.02
122	SLD 14	-354	-30	1923	18.85	-14.89	0.02
122	SLD 15	-370	-19	1948	31.98	-15.56	0.01
122	SLD 16	-370	-19	1948	31.98	-15.56	0.01
122	SLV 1	218	49	1771	-81.5	9.39	-0.03
122	SLV 2	218	49	1771	-81.5	9.39	-0.03
122	SLV 3	180	76	1832	-48.61	7.79	-0.05
122	SLV 4	180	76	1832	-48.61	7.79	-0.05
122	SLV 5	-12	-26	1766	-74.34	-0.47	0.01
122	SLV 6	-12	-26	1766	-74.34	-0.47	0.01
122	SLV 7	-142	64	1970	35.29	-5.78	-0.03
122	SLV 8	-142	64	1970	35.29	-5.78	-0.03
122	SLV 9	-248	-64	1822	-35.32	-10.51	0.03
122	SLV 10	-248	-64	1822	-35.32	-10.51	0.03
122	SLV 11	-378	27	2026	74.31	-15.82	-0.01
122	SLV 12	-378	27	2026	74.31	-15.82	-0.01
122	SLV 13	-570	-76	1960	48.57	-24.09	0.05
122	SLV 14	-570	-76	1960	48.57	-24.09	0.05
122	SLV 15	-609	-49	2021	81.46	-25.68	0.03
122	SLV 16	-609	-49	2021	81.46	-25.68	0.03
123	SLU 1	-204	0	1641	-0.01	-7.82	0
123	SLU 2	-222	-10	1674	23.29	-8.55	-0.01
123	SLU 3	-204	0	1641	-0.01	-7.82	0
123	SLU 4	-215	-6	1661	13.97	-8.26	-0.01
123	SLU 5	-222	-10	1674	23.29	-8.55	-0.01
123	SLU 6	-204	0	1641	-0.01	-7.82	0
123	SLU 7	-215	-6	1661	13.97	-8.26	-0.01
123	SLU 8	-204	0	1641	-0.01	-7.82	0
123	SLU 9	-215	-6	1661	13.97	-8.26	-0.01
123	SLU 10	-330	-10	2045	23.27	-12.84	-0.01
123	SLU 11	-312	0	2012	-0.02	-12.11	0
123	SLU 12	-323	-6	2031	13.96	-12.55	-0.01
123	SLU 13	-330	-10	2045	23.27	-12.84	-0.01
123	SLU 14	-312	0	2012	-0.02	-12.11	0
123	SLU 15	-323	-6	2031	13.96	-12.55	-0.01
123	SLU 16	-312	0	2012	-0.02	-12.11	0
123	SLU 17	-323	-6	2031	13.96	-12.55	-0.01
123	SLU 18	-358	0	2170	-0.03	-13.95	0
123	SLU 19	-369	-6	2190	13.95	-14.39	-0.01
123	SLU 20	-358	0	2170	-0.03	-13.95	0
123	SLU 21	-369	-6	2190	13.95	-14.39	-0.01
123	SLU 22	-248	0	1793	-0.02	-9.56	0
123	SLU 23	-266	-10	1826	23.27	-10.3	-0.01
123	SLU 24	-248	0	1793	-0.02	-9.56	0
123	SLU 25	-259	-6	1813	13.95	-10	-0.01
123	SLU 26	-266	-10	1826	23.27	-10.3	-0.01
123	SLU 27	-248	0	1793	-0.02	-9.56	0
123	SLU 28	-259	-6	1813	13.95	-10	-0.01
123	SLU 29	-248	0	1793	-0.02	-9.56	0
123	SLU 30	-259	-6	1813	13.95	-10	-0.01
123	SLU 31	-374	-10	2197	23.26	-14.59	-0.01
123	SLU 32	-356	0	2163	-0.04	-13.85	0
123	SLU 33	-367	-6	2183	13.94	-14.29	-0.01
123	SLU 34	-374	-10	2197	23.26	-14.59	-0.01
123	SLU 35	-356	0	2163	-0.04	-13.85	0
123	SLU 36	-367	-6	2183	13.94	-14.29	-0.01
123	SLU 37	-356	0	2163	-0.04	-13.85	0
123	SLU 38	-367	-6	2183	13.94	-14.29	-0.01
123	SLU 39	-402	0	2322	-0.04	-15.69	0
123	SLU 40	-413	-6	2342	13.94	-16.13	-0.01
123	SLU 41	-402	0	2322	-0.04	-15.69	0
123	SLU 42	-413	-6	2342	13.94	-16.13	-0.01
123	SLU 43	-250	0	2081	-0.01	-9.56	0
123	SLU 44	-268	-10	2114	23.29	-10.3	-0.01
123	SLU 45	-250	0	2081	-0.01	-9.56	0
123	SLU 46	-261	-6	2101	13.97	-10.01	-0.01
123	SLU 47	-268	-10	2114	23.29	-10.3	-0.01
123	SLU 48	-250	0	2081	-0.01	-9.56	0
123	SLU 49	-261	-6	2101	13.97	-10.01	-0.01
123	SLU 50	-250	0	2081	-0.01	-9.56	0
123	SLU 51	-261	-6	2101	13.97	-10.01	-0.01
123	SLU 52	-376	-10	2485	23.28	-14.59	-0.01
123	SLU 53	-358	0	2452	-0.02	-13.85	0
123	SLU 54	-369	-6	2472	13.96	-14.3	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
123	SLU 55	-376	-10	2485	23.28	-14.59	-0.01
123	SLU 56	-358	0	2452	-0.02	-13.85	0
123	SLU 57	-369	-6	2472	13.96	-14.3	-0.01
123	SLU 58	-358	0	2452	-0.02	-13.85	0
123	SLU 59	-369	-6	2472	13.96	-14.3	-0.01
123	SLU 60	-404	0	2611	-0.03	-15.69	0
123	SLU 61	-415	-6	2631	13.95	-16.14	-0.01
123	SLU 62	-404	0	2611	-0.03	-15.69	0
123	SLU 63	-415	-6	2631	13.95	-16.14	-0.01
123	SLU 64	-294	0	2233	-0.02	-11.31	0
123	SLU 65	-312	-10	2266	23.28	-12.05	-0.01
123	SLU 66	-294	0	2233	-0.02	-11.31	0
123	SLU 67	-305	-6	2253	13.96	-11.75	-0.01
123	SLU 68	-312	-10	2266	23.28	-12.05	-0.01
123	SLU 69	-294	0	2233	-0.02	-11.31	0
123	SLU 70	-305	-6	2253	13.96	-11.75	-0.01
123	SLU 71	-294	0	2233	-0.02	-11.31	0
123	SLU 72	-305	-6	2253	13.96	-11.75	-0.01
123	SLU 73	-420	-10	2637	23.26	-16.34	-0.01
123	SLU 74	-402	0	2603	-0.04	-15.6	0
123	SLU 75	-413	-6	2623	13.94	-16.04	-0.01
123	SLU 76	-420	-10	2637	23.26	-16.34	-0.01
123	SLU 77	-402	0	2603	-0.04	-15.6	0
123	SLU 78	-413	-6	2623	13.94	-16.04	-0.01
123	SLU 79	-402	0	2603	-0.04	-15.6	0
123	SLU 80	-413	-6	2623	13.94	-16.04	-0.01
123	SLU 81	-448	0	2762	-0.04	-17.44	0
123	SLU 82	-459	-6	2782	13.94	-17.88	-0.01
123	SLU 83	-448	0	2762	-0.04	-17.44	0
123	SLU 84	-459	-6	2782	13.94	-17.88	-0.01
123	SLE RA 1	-216	0	1684	-0.01	-8.31	0
123	SLE RA 2	-228	-6	1706	15.52	-8.81	-0.01
123	SLE RA 3	-216	0	1684	-0.01	-8.31	0
123	SLE RA 4	-224	-4	1697	9.3	-8.61	0
123	SLE RA 5	-228	-6	1706	15.52	-8.81	-0.01
123	SLE RA 6	-216	0	1684	-0.01	-8.31	0
123	SLE RA 7	-224	-4	1697	9.3	-8.61	0
123	SLE RA 8	-216	0	1684	-0.01	-8.31	0
123	SLE RA 9	-224	-4	1697	9.3	-8.61	0
123	SLE RA 10	-300	-6	1953	15.51	-11.67	-0.01
123	SLE RA 11	-288	0	1931	-0.02	-11.18	0
123	SLE RA 12	-296	-4	1945	9.3	-11.47	0
123	SLE RA 13	-300	-6	1953	15.51	-11.67	-0.01
123	SLE RA 14	-288	0	1931	-0.02	-11.18	0
123	SLE RA 15	-296	-4	1945	9.3	-11.47	0
123	SLE RA 16	-288	0	1931	-0.02	-11.18	0
123	SLE RA 17	-296	-4	1945	9.3	-11.47	0
123	SLE RA 18	-319	0	2037	-0.03	-12.4	0
123	SLE RA 19	-327	-4	2051	9.29	-12.7	0
123	SLE RA 20	-319	0	2037	-0.03	-12.4	0
123	SLE RA 21	-327	-4	2051	9.29	-12.7	0
123	SLE FR 1	-216	0	1684	-0.01	-8.31	0
123	SLE FR 2	-219	-1	1689	3.09	-8.41	0
123	SLE FR 3	-216	0	1684	-0.01	-8.31	0
123	SLE FR 4	-250	-1	1795	3.09	-9.64	0
123	SLE FR 5	-247	0	1790	-0.02	-9.54	0
123	SLE FR 6	-268	0	1861	-0.02	-10.36	0
123	SLE QP 1	-216	0	1684	-0.01	-8.31	0
123	SLE QP 2	-247	0	1790	-0.02	-9.54	0
123	SLD 1	-58	18	1734	19.76	-1.44	-0.02
123	SLD 2	-58	18	1734	19.76	-1.44	-0.02
123	SLD 3	-75	33	1753	36.24	-2.15	-0.03
123	SLD 4	-75	33	1753	36.24	-2.15	-0.03
123	SLD 5	-165	-17	1744	-19.09	-6.04	0
123	SLD 6	-165	-17	1744	-19.09	-6.04	0
123	SLD 7	-220	33	1808	35.87	-8.4	-0.02
123	SLD 8	-220	33	1808	35.87	-8.4	-0.02
123	SLD 9	-274	-33	1772	-35.9	-10.68	0.02
123	SLD 10	-274	-33	1772	-35.9	-10.68	0.02
123	SLD 11	-329	17	1836	19.05	-13.05	0
123	SLD 12	-329	17	1836	19.05	-13.05	0
123	SLD 13	-420	-33	1827	-36.28	-16.93	0.03
123	SLD 14	-420	-33	1827	-36.28	-16.93	0.03
123	SLD 15	-436	-18	1846	-19.79	-17.64	0.02
123	SLD 16	-436	-18	1846	-19.79	-17.64	0.02
123	SLV 1	200	47	1658	51.05	9.58	-0.05
123	SLV 2	200	47	1658	51.05	9.58	-0.05
123	SLV 3	160	84	1704	92.26	7.88	-0.06
123	SLV 4	160	84	1704	92.26	7.88	-0.06
123	SLV 5	-53	-42	1680	-47.2	-1.22	0
123	SLV 6	-53	-42	1680	-47.2	-1.22	0
123	SLV 7	-185	82	1834	90.16	-6.9	-0.04
123	SLV 8	-185	82	1834	90.16	-6.9	-0.04
123	SLV 9	-309	-82	1746	-90.2	-12.19	0.04
123	SLV 10	-309	-82	1746	-90.2	-12.19	0.04
123	SLV 11	-441	42	1900	47.16	-17.86	0
123	SLV 12	-441	42	1900	47.16	-17.86	0
123	SLV 13	-655	-84	1876	-92.29	-26.96	0.06
123	SLV 14	-655	-84	1876	-92.29	-26.96	0.06



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
123	SLV 15	-694	-47	1922	-51.09	-28.67	0.05
123	SLV 16	-694	-47	1922	-51.09	-28.67	0.05
124	SLU 1	-243	0	1536	0	-10.24	0
124	SLU 2	-259	-17	1561	28.09	-10.88	-0.01
124	SLU 3	-243	0	1536	0	-10.24	0
124	SLU 4	-253	-10	1551	16.85	-10.62	-0.01
124	SLU 5	-259	-17	1561	28.09	-10.88	-0.01
124	SLU 6	-243	0	1536	0	-10.24	0
124	SLU 7	-253	-10	1551	16.85	-10.62	-0.01
124	SLU 8	-243	0	1536	0	-10.24	0
124	SLU 9	-253	-10	1551	16.85	-10.62	-0.01
124	SLU 10	-382	-17	1881	28.08	-15.92	-0.01
124	SLU 11	-366	0	1856	-0.01	-15.28	0
124	SLU 12	-376	-10	1871	16.85	-15.66	-0.01
124	SLU 13	-382	-17	1881	28.08	-15.92	-0.01
124	SLU 14	-366	0	1856	-0.01	-15.28	0
124	SLU 15	-376	-10	1871	16.85	-15.66	-0.01
124	SLU 16	-366	0	1856	-0.01	-15.28	0
124	SLU 17	-376	-10	1871	16.85	-15.66	-0.01
124	SLU 18	-419	0	1994	-0.01	-17.44	0
124	SLU 19	-429	-10	2009	16.84	-17.83	-0.01
124	SLU 20	-419	0	1994	-0.01	-17.44	0
124	SLU 21	-429	-10	2009	16.84	-17.83	-0.01
124	SLU 22	-293	0	1667	-0.01	-12.28	0
124	SLU 23	-309	-17	1692	28.08	-12.92	-0.01
124	SLU 24	-293	0	1667	-0.01	-12.28	0
124	SLU 25	-303	-10	1682	16.84	-12.67	-0.01
124	SLU 26	-309	-17	1692	28.08	-12.92	-0.01
124	SLU 27	-293	0	1667	-0.01	-12.28	0
124	SLU 28	-303	-10	1682	16.84	-12.67	-0.01
124	SLU 29	-293	0	1667	-0.01	-12.28	0
124	SLU 30	-303	-10	1682	16.84	-12.67	-0.01
124	SLU 31	-432	-17	2013	28.07	-17.96	-0.01
124	SLU 32	-416	0	1988	-0.02	-17.32	0
124	SLU 33	-425	-10	2003	16.83	-17.71	-0.01
124	SLU 34	-432	-17	2013	28.07	-17.96	-0.01
124	SLU 35	-416	0	1988	-0.02	-17.32	0
124	SLU 36	-425	-10	2003	16.83	-17.71	-0.01
124	SLU 37	-416	0	1988	-0.02	-17.32	0
124	SLU 38	-425	-10	2003	16.83	-17.71	-0.01
124	SLU 39	-468	0	2125	-0.02	-19.49	0
124	SLU 40	-478	-10	2140	16.83	-19.87	-0.01
124	SLU 41	-468	0	2125	-0.02	-19.49	0
124	SLU 42	-478	-10	2140	16.83	-19.87	-0.01
124	SLU 43	-299	0	1952	0.01	-12.61	0
124	SLU 44	-315	-17	1976	28.09	-13.25	-0.01
124	SLU 45	-299	0	1952	0.01	-12.61	0
124	SLU 46	-309	-10	1966	16.86	-12.99	-0.01
124	SLU 47	-315	-17	1976	28.09	-13.25	-0.01
124	SLU 48	-299	0	1952	0.01	-12.61	0
124	SLU 49	-309	-10	1966	16.86	-12.99	-0.01
124	SLU 50	-299	0	1952	0.01	-12.61	0
124	SLU 51	-309	-10	1966	16.86	-12.99	-0.01
124	SLU 52	-438	-17	2297	28.08	-18.29	-0.01
124	SLU 53	-422	0	2272	0	-17.65	0
124	SLU 54	-432	-10	2287	16.85	-18.04	-0.01
124	SLU 55	-438	-17	2297	28.08	-18.29	-0.01
124	SLU 56	-422	0	2272	0	-17.65	0
124	SLU 57	-432	-10	2287	16.85	-18.04	-0.01
124	SLU 58	-422	0	2272	0	-17.65	0
124	SLU 59	-432	-10	2287	16.85	-18.04	-0.01
124	SLU 60	-475	0	2410	-0.01	-19.81	0
124	SLU 61	-484	-10	2424	16.85	-20.2	-0.01
124	SLU 62	-475	0	2410	-0.01	-19.81	0
124	SLU 63	-484	-10	2424	16.85	-20.2	-0.01
124	SLU 64	-349	0	2083	-0.01	-14.65	0
124	SLU 65	-365	-17	2108	28.08	-15.29	-0.01
124	SLU 66	-349	0	2083	-0.01	-14.65	0
124	SLU 67	-358	-10	2098	16.85	-15.04	-0.01
124	SLU 68	-365	-17	2108	28.08	-15.29	-0.01
124	SLU 69	-349	0	2083	-0.01	-14.65	0
124	SLU 70	-358	-10	2098	16.85	-15.04	-0.01
124	SLU 71	-349	0	2083	-0.01	-14.65	0
124	SLU 72	-358	-10	2098	16.85	-15.04	-0.01
124	SLU 73	-488	-17	2428	28.07	-20.33	-0.01
124	SLU 74	-472	0	2404	-0.01	-19.7	0
124	SLU 75	-481	-10	2418	16.84	-20.08	-0.01
124	SLU 76	-488	-17	2428	28.07	-20.33	-0.01
124	SLU 77	-472	0	2404	-0.01	-19.7	0
124	SLU 78	-481	-10	2418	16.84	-20.08	-0.01
124	SLU 79	-472	0	2404	-0.01	-19.7	0
124	SLU 80	-481	-10	2418	16.84	-20.08	-0.01
124	SLU 81	-524	0	2541	-0.02	-21.86	0
124	SLU 82	-534	-10	2556	16.83	-22.24	-0.01
124	SLU 83	-524	0	2541	-0.02	-21.86	0
124	SLU 84	-534	-10	2556	16.83	-22.24	-0.01
124	SLE RA 1	-257	0	1574	0	-10.82	0
124	SLE RA 2	-268	-11	1590	18.72	-11.25	-0.01
124	SLE RA 3	-257	0	1574	0	-10.82	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
124	SLE RA 4	-264	-7	1583	11.23	-11.08	-0.01
124	SLE RA 5	-268	-11	1590	18.72	-11.25	-0.01
124	SLE RA 6	-257	0	1574	0	-10.82	0
124	SLE RA 7	-264	-7	1583	11.23	-11.08	-0.01
124	SLE RA 8	-257	0	1574	0	-10.82	0
124	SLE RA 9	-264	-7	1583	11.23	-11.08	-0.01
124	SLE RA 10	-350	-11	1804	18.72	-14.61	-0.01
124	SLE RA 11	-339	0	1787	-0.01	-14.18	0
124	SLE RA 12	-346	-7	1797	11.23	-14.44	-0.01
124	SLE RA 13	-350	-11	1804	18.72	-14.61	-0.01
124	SLE RA 14	-339	0	1787	-0.01	-14.18	0
124	SLE RA 15	-346	-7	1797	11.23	-14.44	-0.01
124	SLE RA 16	-339	0	1787	-0.01	-14.18	0
124	SLE RA 17	-346	-7	1797	11.23	-14.44	-0.01
124	SLE RA 18	-374	0	1879	-0.01	-15.63	0
124	SLE RA 19	-381	-7	1889	11.23	-15.88	-0.01
124	SLE RA 20	-374	0	1879	-0.01	-15.63	0
124	SLE RA 21	-381	-7	1889	11.23	-15.88	-0.01
124	SLE FR 1	-257	0	1574	0	-10.82	0
124	SLE FR 2	-260	-2	1577	3.74	-10.91	0
124	SLE FR 3	-257	0	1574	0	-10.82	0
124	SLE FR 4	-295	-2	1668	3.74	-12.35	0
124	SLE FR 5	-293	0	1665	0	-12.26	0
124	SLE FR 6	-316	0	1726	-0.01	-13.22	0
124	SLE QP 1	-257	0	1574	0	-10.82	0
124	SLE QP 2	-293	0	1665	0	-12.26	0
124	SLD 1	-91	-17	1617	19.74	-3.8	-0.01
124	SLD 2	-91	-17	1617	19.74	-3.8	-0.01
124	SLD 3	-108	-35	1633	38.35	-4.49	-0.02
124	SLD 4	-108	-35	1633	38.35	-4.49	-0.02
124	SLD 5	-206	22	1627	-22.31	-8.67	0.01
124	SLD 6	-206	22	1627	-22.31	-8.67	0.01
124	SLD 7	-263	-37	1680	39.73	-10.98	-0.02
124	SLD 8	-263	-37	1680	39.73	-10.98	-0.02
124	SLD 9	-322	38	1651	-39.74	-13.54	0.02
124	SLD 10	-322	38	1651	-39.74	-13.54	0.02
124	SLD 11	-379	-22	1703	22.3	-15.86	-0.01
124	SLD 12	-379	-22	1703	22.3	-15.86	-0.01
124	SLD 13	-477	35	1697	-38.36	-20.04	0.02
124	SLD 14	-477	35	1697	-38.36	-20.04	0.02
124	SLD 15	-494	17	1713	-19.75	-20.73	0.01
124	SLD 16	-494	17	1713	-19.75	-20.73	0.01
124	SLV 1	183	-45	1552	51.11	7.74	-0.03
124	SLV 2	183	-45	1552	51.11	7.74	-0.03
124	SLV 3	143	-89	1591	97.54	6.07	-0.06
124	SLV 4	143	-89	1591	97.54	6.07	-0.06
124	SLV 5	-88	53	1573	-55.1	-3.74	0.04
124	SLV 6	-88	53	1573	-55.1	-3.74	0.04
124	SLV 7	-223	-93	1701	99.69	-9.28	-0.06
124	SLV 8	-223	-93	1701	99.69	-9.28	-0.06
124	SLV 9	-362	93	1630	-99.7	-15.24	0.06
124	SLV 10	-362	93	1630	-99.7	-15.24	0.06
124	SLV 11	-497	-53	1757	55.09	-20.78	-0.04
124	SLV 12	-497	-53	1757	55.09	-20.78	-0.04
124	SLV 13	-728	89	1740	-97.55	-30.6	0.06
124	SLV 14	-728	89	1740	-97.55	-30.6	0.06
124	SLV 15	-768	45	1778	-51.11	-32.26	0.03
124	SLV 16	-768	45	1778	-51.11	-32.26	0.03
125	SLU 1	-248	0	1441	0.02	-9.6	0
125	SLU 2	-262	-21	1459	30.15	-10.19	-0.04
125	SLU 3	-248	0	1441	0.02	-9.6	0
125	SLU 4	-256	-13	1452	18.1	-9.95	-0.02
125	SLU 5	-262	-21	1459	30.15	-10.19	-0.04
125	SLU 6	-248	0	1441	0.02	-9.6	0
125	SLU 7	-256	-13	1452	18.1	-9.95	-0.02
125	SLU 8	-248	0	1441	0.02	-9.6	0
125	SLU 9	-256	-13	1452	18.1	-9.95	-0.02
125	SLU 10	-388	-21	1731	30.15	-15.25	-0.04
125	SLU 11	-374	0	1712	0.02	-14.65	0
125	SLU 12	-382	-13	1723	18.1	-15.01	-0.02
125	SLU 13	-388	-21	1731	30.15	-15.25	-0.04
125	SLU 14	-374	0	1712	0.02	-14.65	0
125	SLU 15	-382	-13	1723	18.1	-15.01	-0.02
125	SLU 16	-374	0	1712	0.02	-14.65	0
125	SLU 17	-382	-13	1723	18.1	-15.01	-0.02
125	SLU 18	-428	0	1829	0.02	-16.82	0
125	SLU 19	-436	-13	1840	18.1	-17.18	-0.02
125	SLU 20	-428	0	1829	0.02	-16.82	0
125	SLU 21	-436	-13	1840	18.1	-17.18	-0.02
125	SLU 22	-298	0	1553	0.02	-11.6	0
125	SLU 23	-312	-21	1571	30.15	-12.2	-0.04
125	SLU 24	-298	0	1553	0.02	-11.6	0
125	SLU 25	-307	-13	1564	18.09	-11.96	-0.02
125	SLU 26	-312	-21	1571	30.15	-12.2	-0.04
125	SLU 27	-298	0	1553	0.02	-11.6	0
125	SLU 28	-307	-13	1564	18.09	-11.96	-0.02
125	SLU 29	-298	0	1553	0.02	-11.6	0
125	SLU 30	-307	-13	1564	18.09	-11.96	-0.02
125	SLU 31	-438	-21	1843	30.15	-17.25	-0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
125	SLU 32	-424	0	1825	0.02	-16.66	0
125	SLU 33	-432	-13	1836	18.09	-17.02	-0.02
125	SLU 34	-438	-21	1843	30.15	-17.25	-0.04
125	SLU 35	-424	0	1825	0.02	-16.66	0
125	SLU 36	-432	-13	1836	18.09	-17.02	-0.02
125	SLU 37	-424	0	1825	0.02	-16.66	0
125	SLU 38	-432	-13	1836	18.09	-17.02	-0.02
125	SLU 39	-478	0	1941	0.02	-18.83	0
125	SLU 40	-486	-13	1952	18.09	-19.19	-0.02
125	SLU 41	-478	0	1941	0.02	-18.83	0
125	SLU 42	-486	-13	1952	18.09	-19.19	-0.02
125	SLU 43	-305	0	1834	0.03	-11.79	0
125	SLU 44	-319	-21	1853	30.16	-12.38	-0.04
125	SLU 45	-305	0	1834	0.03	-11.79	0
125	SLU 46	-314	-13	1845	18.11	-12.14	-0.02
125	SLU 47	-319	-21	1853	30.16	-12.38	-0.04
125	SLU 48	-305	0	1834	0.03	-11.79	0
125	SLU 49	-314	-13	1845	18.11	-12.14	-0.02
125	SLU 50	-305	0	1834	0.03	-11.79	0
125	SLU 51	-314	-13	1845	18.11	-12.14	-0.02
125	SLU 52	-445	-21	2124	30.16	-17.44	-0.04
125	SLU 53	-431	0	2106	0.03	-16.85	0
125	SLU 54	-439	-13	2117	18.11	-17.2	-0.02
125	SLU 55	-445	-21	2124	30.16	-17.44	-0.04
125	SLU 56	-431	0	2106	0.03	-16.85	0
125	SLU 57	-439	-13	2117	18.11	-17.2	-0.02
125	SLU 58	-431	0	2106	0.03	-16.85	0
125	SLU 59	-439	-13	2117	18.11	-17.2	-0.02
125	SLU 60	-485	0	2222	0.03	-19.01	0
125	SLU 61	-493	-13	2234	18.11	-19.37	-0.02
125	SLU 62	-485	0	2222	0.03	-19.01	0
125	SLU 63	-493	-13	2234	18.11	-19.37	-0.02
125	SLU 64	-355	0	1947	0.03	-13.79	0
125	SLU 65	-369	-21	1965	30.15	-14.39	-0.04
125	SLU 66	-355	0	1947	0.03	-13.79	0
125	SLU 67	-364	-13	1958	18.1	-14.15	-0.02
125	SLU 68	-369	-21	1965	30.15	-14.39	-0.04
125	SLU 69	-355	0	1947	0.03	-13.79	0
125	SLU 70	-364	-13	1958	18.1	-14.15	-0.02
125	SLU 71	-355	0	1947	0.03	-13.79	0
125	SLU 72	-364	-13	1958	18.1	-14.15	-0.02
125	SLU 73	-495	-21	2237	30.16	-19.45	-0.04
125	SLU 74	-481	0	2218	0.03	-18.85	0
125	SLU 75	-490	-13	2229	18.1	-19.21	-0.02
125	SLU 76	-495	-21	2237	30.16	-19.45	-0.04
125	SLU 77	-481	0	2218	0.03	-18.85	0
125	SLU 78	-490	-13	2229	18.1	-19.21	-0.02
125	SLU 79	-481	0	2218	0.03	-18.85	0
125	SLU 80	-490	-13	2229	18.1	-19.21	-0.02
125	SLU 81	-535	0	2335	0.03	-21.02	0
125	SLU 82	-543	-12	2346	18.1	-21.38	-0.02
125	SLU 83	-535	0	2335	0.03	-21.02	0
125	SLU 84	-543	-12	2346	18.1	-21.38	-0.02
125	SLE RA 1	-262	0	1473	0.02	-10.17	0
125	SLE RA 2	-272	-14	1485	20.11	-10.56	-0.02
125	SLE RA 3	-262	0	1473	0.02	-10.17	0
125	SLE RA 4	-268	-8	1480	12.07	-10.41	-0.01
125	SLE RA 5	-272	-14	1485	20.11	-10.56	-0.02
125	SLE RA 6	-262	0	1473	0.02	-10.17	0
125	SLE RA 7	-268	-8	1480	12.07	-10.41	-0.01
125	SLE RA 8	-262	0	1473	0.02	-10.17	0
125	SLE RA 9	-268	-8	1480	12.07	-10.41	-0.01
125	SLE RA 10	-356	-14	1666	20.11	-13.94	-0.02
125	SLE RA 11	-346	0	1654	0.02	-13.54	0
125	SLE RA 12	-352	-8	1661	12.07	-13.78	-0.01
125	SLE RA 13	-356	-14	1666	20.11	-13.94	-0.02
125	SLE RA 14	-346	0	1654	0.02	-13.54	0
125	SLE RA 15	-352	-8	1661	12.07	-13.78	-0.01
125	SLE RA 16	-346	0	1654	0.02	-13.54	0
125	SLE RA 17	-352	-8	1661	12.07	-13.78	-0.01
125	SLE RA 18	-382	0	1732	0.02	-14.99	0
125	SLE RA 19	-388	-8	1739	12.07	-15.22	-0.01
125	SLE RA 20	-382	0	1732	0.02	-14.99	0
125	SLE RA 21	-388	-8	1739	12.07	-15.22	-0.01
125	SLE FR 1	-262	0	1473	0.02	-10.17	0
125	SLE FR 2	-264	-3	1475	4.04	-10.25	0
125	SLE FR 3	-262	0	1473	0.02	-10.17	0
125	SLE FR 4	-300	-3	1553	4.04	-11.69	0
125	SLE FR 5	-298	0	1550	0.02	-11.61	0
125	SLE FR 6	-322	0	1602	0.02	-12.58	0
125	SLE QP 1	-262	0	1473	0.02	-10.17	0
125	SLE QP 2	-298	0	1550	0.02	-11.61	0
125	SLD 1	-89	-16	1518	18.86	-2.74	-0.03
125	SLD 2	-89	-16	1518	18.86	-2.74	-0.03
125	SLD 3	-107	-35	1534	38	-3.52	-0.07
125	SLD 4	-107	-35	1534	38	-3.52	-0.07
125	SLD 5	-208	23	1516	-23.36	-7.78	0.04
125	SLD 6	-208	23	1516	-23.36	-7.78	0.04
125	SLD 7	-268	-39	1569	40.45	-10.36	-0.07





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
125	SLD 8	-268	-39	1569	40.45	-10.36	-0.07
125	SLD 9	-328	39	1531	-40.41	-12.87	0.07
125	SLD 10	-328	39	1531	-40.41	-12.87	0.07
125	SLD 11	-388	-23	1584	23.41	-15.45	-0.04
125	SLD 12	-388	-23	1584	23.41	-15.45	-0.04
125	SLD 13	-489	35	1567	-37.95	-19.71	0.07
125	SLD 14	-489	35	1567	-37.95	-19.71	0.07
125	SLD 15	-507	16	1583	-18.81	-20.49	0.03
125	SLD 16	-507	16	1583	-18.81	-20.49	0.03
125	SLV 1	195	-42	1472	48.88	9.32	-0.09
125	SLV 2	195	-42	1472	48.88	9.32	-0.09
125	SLV 3	152	-87	1510	96.57	7.47	-0.17
125	SLV 4	152	-87	1510	96.57	7.47	-0.17
125	SLV 5	-85	57	1469	-57.65	-2.53	0.1
125	SLV 6	-85	57	1469	-57.65	-2.53	0.1
125	SLV 7	-228	-96	1596	101.32	-8.7	-0.17
125	SLV 8	-228	-96	1596	101.32	-8.7	-0.17
125	SLV 9	-368	96	1504	-101.27	-14.53	0.17
125	SLV 10	-368	96	1504	-101.27	-14.53	0.17
125	SLV 11	-511	-57	1631	57.7	-20.7	-0.1
125	SLV 12	-511	-57	1631	57.7	-20.7	-0.1
125	SLV 13	-748	88	1590	-96.53	-30.7	0.17
125	SLV 14	-748	88	1590	-96.53	-30.7	0.17
125	SLV 15	-791	42	1628	-48.84	-32.55	0.09
125	SLV 16	-791	42	1628	-48.84	-32.55	0.09
126	SLU 1	-265	0	1366	0.06	-11.77	0
126	SLU 2	-278	-20	1380	29.03	-12.28	-0.05
126	SLU 3	-265	0	1366	0.06	-11.77	0
126	SLU 4	-273	-12	1375	17.44	-12.08	-0.03
126	SLU 5	-278	-20	1380	29.03	-12.28	-0.05
126	SLU 6	-265	0	1366	0.06	-11.77	0
126	SLU 7	-273	-12	1375	17.44	-12.08	-0.03
126	SLU 8	-265	0	1366	0.06	-11.77	0
126	SLU 9	-273	-12	1375	17.44	-12.08	-0.03
126	SLU 10	-402	-20	1613	29.04	-17.55	-0.05
126	SLU 11	-390	0	1599	0.07	-17.04	0
126	SLU 12	-398	-12	1608	17.45	-17.35	-0.03
126	SLU 13	-402	-20	1613	29.04	-17.55	-0.05
126	SLU 14	-390	0	1599	0.07	-17.04	0
126	SLU 15	-398	-12	1608	17.45	-17.35	-0.03
126	SLU 16	-390	0	1599	0.07	-17.04	0
126	SLU 17	-398	-12	1608	17.45	-17.35	-0.03
126	SLU 18	-444	0	1699	0.08	-19.3	0
126	SLU 19	-451	-12	1708	17.46	-19.61	-0.03
126	SLU 20	-444	0	1699	0.08	-19.3	0
126	SLU 21	-451	-12	1708	17.46	-19.61	-0.03
126	SLU 22	-315	0	1464	0.06	-13.87	0
126	SLU 23	-327	-20	1478	29.03	-14.39	-0.05
126	SLU 24	-315	0	1464	0.06	-13.87	0
126	SLU 25	-322	-12	1472	17.44	-14.18	-0.03
126	SLU 26	-327	-20	1478	29.03	-14.39	-0.05
126	SLU 27	-315	0	1464	0.06	-13.87	0
126	SLU 28	-322	-12	1472	17.44	-14.18	-0.03
126	SLU 29	-315	0	1464	0.06	-13.87	0
126	SLU 30	-322	-12	1472	17.44	-14.18	-0.03
126	SLU 31	-452	-20	1711	29.04	-19.65	-0.05
126	SLU 32	-439	0	1697	0.07	-19.14	0
126	SLU 33	-447	-12	1705	17.45	-19.45	-0.03
126	SLU 34	-452	-20	1711	29.04	-19.65	-0.05
126	SLU 35	-439	0	1697	0.07	-19.14	0
126	SLU 36	-447	-12	1705	17.45	-19.45	-0.03
126	SLU 37	-439	0	1697	0.07	-19.14	0
126	SLU 38	-447	-12	1705	17.45	-19.45	-0.03
126	SLU 39	-493	0	1797	0.08	-21.4	0
126	SLU 40	-500	-12	1805	17.46	-21.71	-0.03
126	SLU 41	-493	0	1797	0.08	-21.4	0
126	SLU 42	-500	-12	1805	17.46	-21.71	-0.03
126	SLU 43	-328	0	1742	0.08	-14.58	0
126	SLU 44	-341	-20	1757	29.05	-15.09	-0.05
126	SLU 45	-328	0	1742	0.08	-14.58	0
126	SLU 46	-336	-12	1751	17.46	-14.89	-0.03
126	SLU 47	-341	-20	1757	29.05	-15.09	-0.05
126	SLU 48	-328	0	1742	0.08	-14.58	0
126	SLU 49	-336	-12	1751	17.46	-14.89	-0.03
126	SLU 50	-328	0	1742	0.08	-14.58	0
126	SLU 51	-336	-12	1751	17.46	-14.89	-0.03
126	SLU 52	-465	-20	1990	29.06	-20.36	-0.05
126	SLU 53	-453	0	1976	0.09	-19.85	0
126	SLU 54	-460	-12	1984	17.47	-20.16	-0.03
126	SLU 55	-465	-20	1990	29.06	-20.36	-0.05
126	SLU 56	-453	0	1976	0.09	-19.85	0
126	SLU 57	-460	-12	1984	17.47	-20.16	-0.03
126	SLU 58	-453	0	1976	0.09	-19.85	0
126	SLU 59	-460	-12	1984	17.47	-20.16	-0.03
126	SLU 60	-506	0	2076	0.1	-22.11	0
126	SLU 61	-514	-12	2084	17.48	-22.42	-0.03
126	SLU 62	-506	0	2076	0.1	-22.11	0
126	SLU 63	-514	-12	2084	17.48	-22.42	-0.03
126	SLU 64	-378	0	1840	0.08	-16.68	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
126	SLU 65	-390	-20	1854	29.05	-17.2	-0.05
126	SLU 66	-378	0	1840	0.08	-16.68	0
126	SLU 67	-385	-12	1849	17.46	-16.99	-0.03
126	SLU 68	-390	-20	1854	29.05	-17.2	-0.05
126	SLU 69	-378	0	1840	0.08	-16.68	0
126	SLU 70	-385	-12	1849	17.46	-16.99	-0.03
126	SLU 71	-378	0	1840	0.08	-16.68	0
126	SLU 72	-385	-12	1849	17.46	-16.99	-0.03
126	SLU 73	-515	-20	2087	29.06	-22.47	-0.05
126	SLU 74	-502	0	2073	0.09	-21.95	0
126	SLU 75	-510	-12	2082	17.47	-22.26	-0.03
126	SLU 76	-515	-20	2087	29.06	-22.47	-0.05
126	SLU 77	-502	0	2073	0.09	-21.95	0
126	SLU 78	-510	-12	2082	17.47	-22.26	-0.03
126	SLU 79	-502	0	2073	0.09	-21.95	0
126	SLU 80	-510	-12	2082	17.47	-22.26	-0.03
126	SLU 81	-556	0	2173	0.09	-24.21	0
126	SLU 82	-563	-12	2182	17.48	-24.52	-0.03
126	SLU 83	-556	0	2173	0.09	-24.21	0
126	SLU 84	-563	-12	2182	17.48	-24.52	-0.03
126	SLE RA 1	-280	0	1394	0.06	-12.37	0
126	SLE RA 2	-288	-14	1403	19.37	-12.71	-0.04
126	SLE RA 3	-280	0	1394	0.06	-12.37	0
126	SLE RA 4	-285	-8	1400	11.65	-12.58	-0.02
126	SLE RA 5	-288	-14	1403	19.37	-12.71	-0.04
126	SLE RA 6	-280	0	1394	0.06	-12.37	0
126	SLE RA 7	-285	-8	1400	11.65	-12.58	-0.02
126	SLE RA 8	-280	0	1394	0.06	-12.37	0
126	SLE RA 9	-285	-8	1400	11.65	-12.58	-0.02
126	SLE RA 10	-371	-14	1559	19.38	-16.23	-0.04
126	SLE RA 11	-363	0	1549	0.07	-15.89	0
126	SLE RA 12	-368	-8	1555	11.66	-16.09	-0.02
126	SLE RA 13	-371	-14	1559	19.38	-16.23	-0.04
126	SLE RA 14	-363	0	1549	0.07	-15.89	0
126	SLE RA 15	-368	-8	1555	11.66	-16.09	-0.02
126	SLE RA 16	-363	0	1549	0.07	-15.89	0
126	SLE RA 17	-368	-8	1555	11.66	-16.09	-0.02
126	SLE RA 18	-398	0	1616	0.07	-17.39	0
126	SLE RA 19	-403	-8	1622	11.66	-17.59	-0.02
126	SLE RA 20	-398	0	1616	0.07	-17.39	0
126	SLE RA 21	-403	-8	1622	11.66	-17.59	-0.02
126	SLE FR 1	-280	0	1394	0.06	-12.37	0
126	SLE FR 2	-281	-3	1396	3.92	-12.44	-0.01
126	SLE FR 3	-280	0	1394	0.06	-12.37	0
126	SLE FR 4	-317	-3	1463	3.93	-13.95	-0.01
126	SLE FR 5	-315	0	1461	0.06	-13.88	0
126	SLE FR 6	-339	0	1505	0.07	-14.88	0
126	SLE QP 1	-280	0	1394	0.06	-12.37	0
126	SLE QP 2	-315	0	1461	0.06	-13.88	0
126	SLD 1	-110	-14	1468	17.29	-5.34	-0.04
126	SLD 2	-110	-14	1468	17.29	-5.34	-0.04
126	SLD 3	-128	-32	1487	35.3	-6.08	-0.09
126	SLD 4	-128	-32	1487	35.3	-6.08	-0.09
126	SLD 5	-226	22	1434	-22.08	-10.2	0.06
126	SLD 6	-226	22	1434	-22.08	-10.2	0.06
126	SLD 7	-287	-36	1498	37.95	-12.65	-0.1
126	SLD 8	-287	-36	1498	37.95	-12.65	-0.1
126	SLD 9	-343	36	1424	-37.82	-15.1	0.1
126	SLD 10	-343	36	1424	-37.82	-15.1	0.1
126	SLD 11	-405	-22	1487	22.21	-17.56	-0.06
126	SLD 12	-405	-22	1487	22.21	-17.56	-0.06
126	SLD 13	-502	32	1434	-35.17	-21.68	0.09
126	SLD 14	-502	32	1434	-35.17	-21.68	0.09
126	SLD 15	-520	14	1453	-17.16	-22.42	0.04
126	SLD 16	-520	14	1453	-17.16	-22.42	0.04
126	SLV 1	169	-38	1481	44.84	6.28	-0.11
126	SLV 2	169	-38	1481	44.84	6.28	-0.11
126	SLV 3	125	-80	1526	89.61	4.52	-0.23
126	SLV 4	125	-80	1526	89.61	4.52	-0.23
126	SLV 5	-104	53	1398	-54.41	-5.17	0.15
126	SLV 6	-104	53	1398	-54.41	-5.17	0.15
126	SLV 7	-249	-88	1549	94.84	-11.02	-0.25
126	SLV 8	-249	-88	1549	94.84	-11.02	-0.25
126	SLV 9	-381	88	1372	-94.71	-16.73	0.25
126	SLV 10	-381	88	1372	-94.71	-16.73	0.25
126	SLV 11	-527	-53	1523	54.54	-22.59	-0.15
126	SLV 12	-527	-53	1523	54.54	-22.59	-0.15
126	SLV 13	-756	80	1395	-89.48	-32.28	0.23
126	SLV 14	-756	80	1395	-89.48	-32.28	0.23
126	SLV 15	-800	38	1440	-44.71	-34.03	0.11
126	SLV 16	-800	38	1440	-44.71	-34.03	0.11
127	SLU 1	-259	0	1322	0.12	-10.08	0
127	SLU 2	-269	-16	1335	25.01	-10.52	-0.04
127	SLU 3	-259	0	1322	0.12	-10.08	0
127	SLU 4	-265	-10	1330	15.05	-10.34	-0.02
127	SLU 5	-269	-16	1335	25.01	-10.52	-0.04
127	SLU 6	-259	0	1322	0.12	-10.08	0
127	SLU 7	-265	-10	1330	15.05	-10.34	-0.02
127	SLU 8	-259	0	1322	0.12	-10.08	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
127	SLU 9	-265	-10	1330	15.05	-10.34	-0.02
127	SLU 10	-387	-16	1544	25.04	-15.37	-0.04
127	SLU 11	-377	0	1531	0.14	-14.94	0
127	SLU 12	-383	-10	1539	15.08	-15.2	-0.02
127	SLU 13	-387	-16	1544	25.04	-15.37	-0.04
127	SLU 14	-377	0	1531	0.14	-14.94	0
127	SLU 15	-383	-10	1539	15.08	-15.2	-0.02
127	SLU 16	-377	0	1531	0.14	-14.94	0
127	SLU 17	-383	-10	1539	15.08	-15.2	-0.02
127	SLU 18	-427	0	1621	0.15	-17.02	0
127	SLU 19	-434	-10	1629	15.09	-17.28	-0.02
127	SLU 20	-427	0	1621	0.15	-17.02	0
127	SLU 21	-434	-10	1629	15.09	-17.28	-0.02
127	SLU 22	-305	0	1412	0.13	-11.96	0
127	SLU 23	-315	-16	1424	25.02	-12.4	-0.04
127	SLU 24	-305	0	1412	0.13	-11.96	0
127	SLU 25	-311	-10	1419	15.06	-12.22	-0.02
127	SLU 26	-315	-16	1424	25.02	-12.4	-0.04
127	SLU 27	-305	0	1412	0.13	-11.96	0
127	SLU 28	-311	-10	1419	15.06	-12.22	-0.02
127	SLU 29	-305	0	1412	0.13	-11.96	0
127	SLU 30	-311	-10	1419	15.06	-12.22	-0.02
127	SLU 31	-433	-16	1633	25.05	-17.25	-0.04
127	SLU 32	-423	0	1621	0.15	-16.81	0
127	SLU 33	-429	-10	1628	15.09	-17.07	-0.02
127	SLU 34	-433	-16	1633	25.05	-17.25	-0.04
127	SLU 35	-423	0	1621	0.15	-16.81	0
127	SLU 36	-429	-10	1628	15.09	-17.07	-0.02
127	SLU 37	-423	0	1621	0.15	-16.81	0
127	SLU 38	-429	-10	1628	15.09	-17.07	-0.02
127	SLU 39	-473	0	1711	0.16	-18.89	0
127	SLU 40	-480	-10	1718	15.1	-19.15	-0.02
127	SLU 41	-473	0	1711	0.16	-18.89	0
127	SLU 42	-480	-10	1718	15.1	-19.15	-0.02
127	SLU 43	-321	0	1688	0.15	-12.46	0
127	SLU 44	-331	-16	1701	25.04	-12.9	-0.04
127	SLU 45	-321	0	1688	0.15	-12.46	0
127	SLU 46	-327	-10	1696	15.09	-12.73	-0.02
127	SLU 47	-331	-16	1701	25.04	-12.9	-0.04
127	SLU 48	-321	0	1688	0.15	-12.46	0
127	SLU 49	-327	-10	1696	15.09	-12.73	-0.02
127	SLU 50	-321	0	1688	0.15	-12.46	0
127	SLU 51	-327	-10	1696	15.09	-12.73	-0.02
127	SLU 52	-449	-16	1910	25.07	-17.76	-0.04
127	SLU 53	-439	0	1897	0.18	-17.32	0
127	SLU 54	-445	-10	1905	15.11	-17.58	-0.02
127	SLU 55	-449	-16	1910	25.07	-17.76	-0.04
127	SLU 56	-439	0	1897	0.18	-17.32	0
127	SLU 57	-445	-10	1905	15.11	-17.58	-0.02
127	SLU 58	-439	0	1897	0.18	-17.32	0
127	SLU 59	-445	-10	1905	15.11	-17.58	-0.02
127	SLU 60	-489	0	1987	0.19	-19.4	0
127	SLU 61	-496	-10	1994	15.12	-19.66	-0.02
127	SLU 62	-489	0	1987	0.19	-19.4	0
127	SLU 63	-496	-10	1994	15.12	-19.66	-0.02
127	SLU 64	-366	0	1778	0.16	-14.34	0
127	SLU 65	-377	-16	1790	25.05	-14.78	-0.04
127	SLU 66	-366	0	1778	0.16	-14.34	0
127	SLU 67	-373	-10	1785	15.1	-14.6	-0.02
127	SLU 68	-377	-16	1790	25.05	-14.78	-0.04
127	SLU 69	-366	0	1778	0.16	-14.34	0
127	SLU 70	-373	-10	1785	15.1	-14.6	-0.02
127	SLU 71	-366	0	1778	0.16	-14.34	0
127	SLU 72	-373	-10	1785	15.1	-14.6	-0.02
127	SLU 73	-495	-16	1999	25.08	-19.63	-0.04
127	SLU 74	-485	0	1987	0.18	-19.19	0
127	SLU 75	-491	-10	1994	15.12	-19.46	-0.02
127	SLU 76	-495	-16	1999	25.08	-19.63	-0.04
127	SLU 77	-485	0	1987	0.18	-19.19	0
127	SLU 78	-491	-10	1994	15.12	-19.46	-0.02
127	SLU 79	-485	0	1987	0.18	-19.19	0
127	SLU 80	-491	-10	1994	15.12	-19.46	-0.02
127	SLU 81	-535	0	2077	0.2	-21.27	0
127	SLU 82	-542	-10	2084	15.13	-21.54	-0.02
127	SLU 83	-535	0	2077	0.2	-21.27	0
127	SLU 84	-542	-10	2084	15.13	-21.54	-0.02
127	SLE RA 1	-272	0	1348	0.12	-10.62	0
127	SLE RA 2	-279	-11	1356	16.72	-10.91	-0.03
127	SLE RA 3	-272	0	1348	0.12	-10.62	0
127	SLE RA 4	-276	-6	1353	10.08	-10.79	-0.02
127	SLE RA 5	-279	-11	1356	16.72	-10.91	-0.03
127	SLE RA 6	-272	0	1348	0.12	-10.62	0
127	SLE RA 7	-276	-6	1353	10.08	-10.79	-0.02
127	SLE RA 8	-272	0	1348	0.12	-10.62	0
127	SLE RA 9	-276	-6	1353	10.08	-10.79	-0.02
127	SLE RA 10	-358	-11	1496	16.73	-14.15	-0.03
127	SLE RA 11	-351	0	1487	0.14	-13.85	0
127	SLE RA 12	-355	-6	1492	10.1	-14.03	-0.02
127	SLE RA 13	-358	-11	1496	16.73	-14.15	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
127	SLE RA 14	-351	0	1487	0.14	-13.85	0
127	SLE RA 15	-355	-6	1492	10.1	-14.03	-0.02
127	SLE RA 16	-351	0	1487	0.14	-13.85	0
127	SLE RA 17	-355	-6	1492	10.1	-14.03	-0.02
127	SLE RA 18	-384	0	1547	0.14	-15.24	0
127	SLE RA 19	-389	-6	1552	10.1	-15.42	-0.02
127	SLE RA 20	-384	0	1547	0.14	-15.24	0
127	SLE RA 21	-389	-6	1552	10.1	-15.42	-0.02
127	SLE FR 1	-272	0	1348	0.12	-10.62	0
127	SLE FR 2	-273	-2	1350	3.44	-10.68	-0.01
127	SLE FR 3	-272	0	1348	0.12	-10.62	0
127	SLE FR 4	-307	-2	1409	3.45	-12.06	-0.01
127	SLE FR 5	-306	0	1408	0.13	-12	0
127	SLE FR 6	-328	0	1447	0.13	-12.93	0
127	SLE QP 1	-272	0	1348	0.12	-10.62	0
127	SLE QP 2	-306	0	1408	0.13	-12	0
127	SLD 1	-111	-14	1411	15.41	-3.56	-0.05
127	SLD 2	-111	-14	1411	15.41	-3.56	-0.05
127	SLD 3	-131	-28	1437	30.79	-4.44	-0.09
127	SLD 4	-131	-28	1437	30.79	-4.44	-0.09
127	SLD 5	-216	17	1369	-18.62	-8.13	0.05
127	SLD 6	-216	17	1369	-18.62	-8.13	0.05
127	SLD 7	-284	-30	1456	32.66	-11.08	-0.09
127	SLD 8	-284	-30	1456	32.66	-11.08	-0.09
127	SLD 9	-327	30	1360	-32.4	-12.93	0.09
127	SLD 10	-327	30	1360	-32.4	-12.93	0.09
127	SLD 11	-395	-17	1446	18.88	-15.88	-0.05
127	SLD 12	-395	-17	1446	18.88	-15.88	-0.05
127	SLD 13	-480	28	1379	-30.53	-19.57	0.08
127	SLD 14	-480	28	1379	-30.53	-19.57	0.08
127	SLD 15	-500	14	1404	-15.15	-20.45	0.05
127	SLD 16	-500	14	1404	-15.15	-20.45	0.05
127	SLV 1	154	-37	1417	39.86	7.9	-0.12
127	SLV 2	154	-37	1417	39.86	7.9	-0.12
127	SLV 3	105	-71	1479	78.02	5.81	-0.22
127	SLV 4	105	-71	1479	78.02	5.81	-0.22
127	SLV 5	-94	41	1318	-45.82	-2.85	0.11
127	SLV 6	-94	41	1318	-45.82	-2.85	0.11
127	SLV 7	-256	-74	1522	81.36	-9.84	-0.21
127	SLV 8	-256	-74	1522	81.36	-9.84	-0.21
127	SLV 9	-355	74	1293	-81.11	-14.17	0.21
127	SLV 10	-355	74	1293	-81.11	-14.17	0.21
127	SLV 11	-517	-41	1498	46.08	-21.16	-0.11
127	SLV 12	-517	-41	1498	46.08	-21.16	-0.11
127	SLV 13	-716	71	1337	-77.76	-29.82	0.21
127	SLV 14	-716	71	1337	-77.76	-29.82	0.21
127	SLV 15	-765	37	1398	-39.61	-31.91	0.12
127	SLV 16	-765	37	1398	-39.61	-31.91	0.12
128	SLU 1	-290	0	1304	0.21	-13.14	0
128	SLU 2	-299	-9	1316	19.05	-13.57	-0.01
128	SLU 3	-290	0	1304	0.21	-13.14	0
128	SLU 4	-295	-6	1311	11.52	-13.4	-0.01
128	SLU 5	-299	-9	1316	19.05	-13.57	-0.01
128	SLU 6	-290	0	1304	0.21	-13.14	0
128	SLU 7	-295	-6	1311	11.52	-13.4	-0.01
128	SLU 8	-290	0	1304	0.21	-13.14	0
128	SLU 9	-295	-6	1311	11.52	-13.4	-0.01
128	SLU 10	-415	-9	1517	19.1	-18.59	-0.01
128	SLU 11	-406	0	1504	0.26	-18.16	0
128	SLU 12	-411	-6	1512	11.56	-18.42	-0.01
128	SLU 13	-415	-9	1517	19.1	-18.59	-0.01
128	SLU 14	-406	0	1504	0.26	-18.16	0
128	SLU 15	-411	-6	1512	11.56	-18.42	-0.01
128	SLU 16	-406	0	1504	0.26	-18.16	0
128	SLU 17	-411	-6	1512	11.56	-18.42	-0.01
128	SLU 18	-455	0	1590	0.28	-20.31	0
128	SLU 19	-461	-6	1598	11.58	-20.57	-0.01
128	SLU 20	-455	0	1590	0.28	-20.31	0
128	SLU 21	-461	-6	1598	11.58	-20.57	-0.01
128	SLU 22	-334	0	1392	0.23	-15.1	0
128	SLU 23	-344	-9	1405	19.07	-15.53	-0.01
128	SLU 24	-334	0	1392	0.23	-15.1	0
128	SLU 25	-340	-6	1400	11.54	-15.36	-0.01
128	SLU 26	-344	-9	1405	19.07	-15.53	-0.01
128	SLU 27	-334	0	1392	0.23	-15.1	0
128	SLU 28	-340	-6	1400	11.54	-15.36	-0.01
128	SLU 29	-334	0	1392	0.23	-15.1	0
128	SLU 30	-340	-6	1400	11.54	-15.36	-0.01
128	SLU 31	-460	-9	1605	19.12	-20.55	-0.01
128	SLU 32	-450	0	1593	0.28	-20.12	0
128	SLU 33	-456	-6	1600	11.58	-20.38	-0.01
128	SLU 34	-460	-9	1605	19.12	-20.55	-0.01
128	SLU 35	-450	0	1593	0.28	-20.12	0
128	SLU 36	-456	-6	1600	11.58	-20.38	-0.01
128	SLU 37	-450	0	1593	0.28	-20.12	0
128	SLU 38	-456	-6	1600	11.58	-20.38	-0.01
128	SLU 39	-500	0	1678	0.3	-22.27	0
128	SLU 40	-506	-6	1686	11.6	-22.53	-0.01
128	SLU 41	-500	0	1678	0.3	-22.27	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
128	SLU 42	-506	-6	1686	11.6	-22.53	-0.01
128	SLU 43	-361	0	1665	0.27	-16.41	0
128	SLU 44	-371	-9	1677	19.11	-16.84	-0.01
128	SLU 45	-361	0	1665	0.27	-16.41	0
128	SLU 46	-367	-6	1672	11.57	-16.67	-0.01
128	SLU 47	-371	-9	1677	19.11	-16.84	-0.01
128	SLU 48	-361	0	1665	0.27	-16.41	0
128	SLU 49	-367	-6	1672	11.57	-16.67	-0.01
128	SLU 50	-361	0	1665	0.27	-16.41	0
128	SLU 51	-367	-6	1672	11.57	-16.67	-0.01
128	SLU 52	-487	-9	1878	19.16	-21.86	-0.01
128	SLU 53	-477	0	1865	0.32	-21.43	0
128	SLU 54	-483	-6	1873	11.62	-21.69	-0.01
128	SLU 55	-487	-9	1878	19.16	-21.86	-0.01
128	SLU 56	-477	0	1865	0.32	-21.43	0
128	SLU 57	-483	-6	1873	11.62	-21.69	-0.01
128	SLU 58	-477	0	1865	0.32	-21.43	0
128	SLU 59	-483	-6	1873	11.62	-21.69	-0.01
128	SLU 60	-527	0	1951	0.34	-23.58	0
128	SLU 61	-533	-6	1958	11.64	-23.84	-0.01
128	SLU 62	-527	0	1951	0.34	-23.58	0
128	SLU 63	-533	-6	1958	11.64	-23.84	-0.01
128	SLU 64	-406	0	1753	0.29	-18.37	0
128	SLU 65	-415	-9	1766	19.13	-18.8	-0.01
128	SLU 66	-406	0	1753	0.29	-18.37	0
128	SLU 67	-412	-6	1761	11.59	-18.63	-0.01
128	SLU 68	-415	-9	1766	19.13	-18.8	-0.01
128	SLU 69	-406	0	1753	0.29	-18.37	0
128	SLU 70	-412	-6	1761	11.59	-18.63	-0.01
128	SLU 71	-406	0	1753	0.29	-18.37	0
128	SLU 72	-412	-6	1761	11.59	-18.63	-0.01
128	SLU 73	-531	-9	1966	19.18	-23.82	-0.01
128	SLU 74	-522	0	1953	0.34	-23.39	0
128	SLU 75	-528	-6	1961	11.64	-23.65	-0.01
128	SLU 76	-531	-9	1966	19.18	-23.82	-0.01
128	SLU 77	-522	0	1953	0.34	-23.39	0
128	SLU 78	-528	-6	1961	11.64	-23.65	-0.01
128	SLU 79	-522	0	1953	0.34	-23.39	0
128	SLU 80	-528	-6	1961	11.64	-23.65	-0.01
128	SLU 81	-572	0	2039	0.36	-25.54	0
128	SLU 82	-577	-6	2047	11.66	-25.8	-0.01
128	SLU 83	-572	0	2039	0.36	-25.54	0
128	SLU 84	-577	-6	2047	11.66	-25.8	-0.01
128	SLE RA 1	-302	0	1329	0.22	-13.7	0
128	SLE RA 2	-309	-6	1338	12.78	-13.99	-0.01
128	SLE RA 3	-302	0	1329	0.22	-13.7	0
128	SLE RA 4	-306	-4	1334	7.75	-13.87	-0.01
128	SLE RA 5	-309	-6	1338	12.78	-13.99	-0.01
128	SLE RA 6	-302	0	1329	0.22	-13.7	0
128	SLE RA 7	-306	-4	1334	7.75	-13.87	-0.01
128	SLE RA 8	-302	0	1329	0.22	-13.7	0
128	SLE RA 9	-306	-4	1334	7.75	-13.87	-0.01
128	SLE RA 10	-386	-6	1471	12.81	-17.33	-0.01
128	SLE RA 11	-380	0	1463	0.25	-17.05	0
128	SLE RA 12	-384	-4	1468	7.79	-17.22	-0.01
128	SLE RA 13	-386	-6	1471	12.81	-17.33	-0.01
128	SLE RA 14	-380	0	1463	0.25	-17.05	0
128	SLE RA 15	-384	-4	1468	7.79	-17.22	-0.01
128	SLE RA 16	-380	0	1463	0.25	-17.05	0
128	SLE RA 17	-384	-4	1468	7.79	-17.22	-0.01
128	SLE RA 18	-413	0	1520	0.26	-18.48	0
128	SLE RA 19	-417	-4	1525	7.8	-18.65	-0.01
128	SLE RA 20	-413	0	1520	0.26	-18.48	0
128	SLE RA 21	-417	-4	1525	7.8	-18.65	-0.01
128	SLE FR 1	-302	0	1329	0.22	-13.7	0
128	SLE FR 2	-304	-1	1331	2.73	-13.76	0
128	SLE FR 3	-302	0	1329	0.22	-13.7	0
128	SLE FR 4	-337	-1	1388	2.74	-15.19	0
128	SLE FR 5	-336	0	1386	0.23	-15.14	0
128	SLE FR 6	-358	0	1424	0.24	-16.09	0
128	SLE QP 1	-302	0	1329	0.22	-13.7	0
128	SLE QP 2	-336	0	1386	0.23	-15.14	0
128	SLD 1	-156	-16	1352	13.53	-7.5	-0.06
128	SLD 2	-156	-16	1352	13.53	-7.5	-0.06
128	SLD 3	-179	-26	1390	25.22	-8.34	-0.08
128	SLD 4	-179	-26	1390	25.22	-8.34	-0.08
128	SLD 5	-248	10	1318	-13.51	-11.57	0.02
128	SLD 6	-248	10	1318	-13.51	-11.57	0.02
128	SLD 7	-322	-23	1445	25.46	-14.37	-0.06
128	SLD 8	-322	-23	1445	25.46	-14.37	-0.06
128	SLD 9	-349	23	1327	-25	-15.9	0.06
128	SLD 10	-349	23	1327	-25	-15.9	0.06
128	SLD 11	-423	-10	1455	13.97	-18.7	-0.02
128	SLD 12	-423	-10	1455	13.97	-18.7	-0.02
128	SLD 13	-492	26	1383	-24.76	-21.93	0.08
128	SLD 14	-492	26	1383	-24.76	-21.93	0.08
128	SLD 15	-515	16	1421	-13.07	-22.77	0.06
128	SLD 16	-515	16	1421	-13.07	-22.77	0.06
128	SLV 1	87	-42	1304	34.79	2.86	-0.14



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
128	SLV 2	87	-42	1304	34.79	2.86	-0.14
128	SLV 3	34	-66	1394	63.7	0.87	-0.2
128	SLV 4	34	-66	1394	63.7	0.87	-0.2
128	SLV 5	-128	24	1224	-33.26	-6.72	0.04
128	SLV 6	-128	24	1224	-33.26	-6.72	0.04
128	SLV 7	-305	-57	1526	63.13	-13.36	-0.15
128	SLV 8	-305	-57	1526	63.13	-13.36	-0.15
128	SLV 9	-366	56	1247	-62.66	-16.91	0.15
128	SLV 10	-366	56	1247	-62.66	-16.91	0.15
128	SLV 11	-543	-24	1548	33.72	-23.55	-0.04
128	SLV 12	-543	-24	1548	33.72	-23.55	-0.04
128	SLV 13	-705	66	1378	-63.24	-31.14	0.2
128	SLV 14	-705	66	1378	-63.24	-31.14	0.2
128	SLV 15	-758	42	1469	-34.33	-33.13	0.14
128	SLV 16	-758	42	1469	-34.33	-33.13	0.14
129	SLU 1	-286	0	1325	0.42	-11.23	0
129	SLU 2	-295	-3	1340	12.51	-11.61	0
129	SLU 3	-286	0	1325	0.42	-11.23	0
129	SLU 4	-291	-2	1334	7.68	-11.45	0
129	SLU 5	-295	-3	1340	12.51	-11.61	0
129	SLU 6	-286	0	1325	0.42	-11.23	0
129	SLU 7	-291	-2	1334	7.68	-11.45	0
129	SLU 8	-286	0	1325	0.42	-11.23	0
129	SLU 9	-291	-2	1334	7.68	-11.45	0
129	SLU 10	-405	-4	1549	12.6	-16.18	0
129	SLU 11	-396	0	1533	0.51	-15.8	0
129	SLU 12	-401	-2	1543	7.76	-16.03	0
129	SLU 13	-405	-4	1549	12.6	-16.18	0
129	SLU 14	-396	0	1533	0.51	-15.8	0
129	SLU 15	-401	-2	1543	7.76	-16.03	0
129	SLU 16	-396	0	1533	0.51	-15.8	0
129	SLU 17	-401	-2	1543	7.76	-16.03	0
129	SLU 18	-443	0	1623	0.55	-17.76	0
129	SLU 19	-449	-2	1632	7.8	-17.99	0
129	SLU 20	-443	0	1623	0.55	-17.76	0
129	SLU 21	-449	-2	1632	7.8	-17.99	0
129	SLU 22	-327	0	1420	0.47	-12.94	0
129	SLU 23	-336	-4	1436	12.56	-13.31	0
129	SLU 24	-327	0	1420	0.47	-12.94	0
129	SLU 25	-332	-2	1430	7.72	-13.16	0
129	SLU 26	-336	-4	1436	12.56	-13.31	0
129	SLU 27	-327	0	1420	0.47	-12.94	0
129	SLU 28	-332	-2	1430	7.72	-13.16	0
129	SLU 29	-327	0	1420	0.47	-12.94	0
129	SLU 30	-332	-2	1430	7.72	-13.16	0
129	SLU 31	-446	-4	1645	12.65	-17.88	0
129	SLU 32	-437	0	1629	0.55	-17.51	0
129	SLU 33	-442	-2	1639	7.81	-17.73	0
129	SLU 34	-446	-4	1645	12.65	-17.88	0
129	SLU 35	-437	0	1629	0.55	-17.51	0
129	SLU 36	-442	-2	1639	7.81	-17.73	0
129	SLU 37	-437	0	1629	0.55	-17.51	0
129	SLU 38	-442	-2	1639	7.81	-17.73	0
129	SLU 39	-484	-1	1719	0.59	-19.47	0
129	SLU 40	-490	-2	1728	7.85	-19.69	0
129	SLU 41	-484	-1	1719	0.59	-19.47	0
129	SLU 42	-490	-2	1728	7.85	-19.69	0
129	SLU 43	-358	0	1689	0.53	-14.01	0
129	SLU 44	-367	-4	1705	12.62	-14.39	0
129	SLU 45	-358	0	1689	0.53	-14.01	0
129	SLU 46	-363	-2	1698	7.79	-14.24	0
129	SLU 47	-367	-4	1705	12.62	-14.39	0
129	SLU 48	-358	0	1689	0.53	-14.01	0
129	SLU 49	-363	-2	1698	7.79	-14.24	0
129	SLU 50	-358	0	1689	0.53	-14.01	0
129	SLU 51	-363	-2	1698	7.79	-14.24	0
129	SLU 52	-477	-4	1913	12.71	-18.96	0
129	SLU 53	-468	-1	1898	0.62	-18.58	0
129	SLU 54	-473	-2	1907	7.87	-18.81	0
129	SLU 55	-477	-4	1913	12.71	-18.96	0
129	SLU 56	-468	-1	1898	0.62	-18.58	0
129	SLU 57	-473	-2	1907	7.87	-18.81	0
129	SLU 58	-468	-1	1898	0.62	-18.58	0
129	SLU 59	-473	-2	1907	7.87	-18.81	0
129	SLU 60	-515	-1	1987	0.66	-20.54	0
129	SLU 61	-520	-2	1997	7.91	-20.77	0
129	SLU 62	-515	-1	1987	0.66	-20.54	0
129	SLU 63	-520	-2	1997	7.91	-20.77	0
129	SLU 64	-399	0	1785	0.58	-15.72	0
129	SLU 65	-408	-4	1801	12.67	-16.1	0
129	SLU 66	-399	0	1785	0.58	-15.72	0
129	SLU 67	-404	-2	1794	7.83	-15.94	0
129	SLU 68	-408	-4	1801	12.67	-16.1	0
129	SLU 69	-399	0	1785	0.58	-15.72	0
129	SLU 70	-404	-2	1794	7.83	-15.94	0
129	SLU 71	-399	0	1785	0.58	-15.72	0
129	SLU 72	-404	-2	1794	7.83	-15.94	0
129	SLU 73	-518	-4	2009	12.76	-20.67	0
129	SLU 74	-509	-1	1994	0.66	-20.29	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
129	SLU 75	-514	-2	2003	7.92	-20.52	0
129	SLU 76	-518	-4	2009	12.76	-20.67	0
129	SLU 77	-509	-1	1994	0.66	-20.29	0
129	SLU 78	-514	-2	2003	7.92	-20.52	0
129	SLU 79	-509	-1	1994	0.66	-20.29	0
129	SLU 80	-514	-2	2003	7.92	-20.52	0
129	SLU 81	-556	-1	2083	0.7	-22.25	0
129	SLU 82	-561	-2	2093	7.96	-22.48	0
129	SLU 83	-556	-1	2083	0.7	-22.25	0
129	SLU 84	-561	-2	2093	7.96	-22.48	0
129	SLE RA 1	-298	0	1352	0.43	-11.72	0
129	SLE RA 2	-304	-2	1362	8.5	-11.97	0
129	SLE RA 3	-298	0	1352	0.43	-11.72	0
129	SLE RA 4	-301	-2	1358	5.27	-11.87	0
129	SLE RA 5	-304	-2	1362	8.5	-11.97	0
129	SLE RA 6	-298	0	1352	0.43	-11.72	0
129	SLE RA 7	-301	-2	1358	5.27	-11.87	0
129	SLE RA 8	-298	0	1352	0.43	-11.72	0
129	SLE RA 9	-301	-2	1358	5.27	-11.87	0
129	SLE RA 10	-377	-2	1502	8.55	-15.02	0
129	SLE RA 11	-371	0	1491	0.49	-14.76	0
129	SLE RA 12	-375	-2	1497	5.33	-14.91	0
129	SLE RA 13	-377	-2	1502	8.55	-15.02	0
129	SLE RA 14	-371	0	1491	0.49	-14.76	0
129	SLE RA 15	-375	-2	1497	5.33	-14.91	0
129	SLE RA 16	-371	0	1491	0.49	-14.76	0
129	SLE RA 17	-375	-2	1497	5.33	-14.91	0
129	SLE RA 18	-403	0	1551	0.52	-16.07	0
129	SLE RA 19	-406	-2	1557	5.35	-16.22	0
129	SLE RA 20	-403	0	1551	0.52	-16.07	0
129	SLE RA 21	-406	-2	1557	5.35	-16.22	0
129	SLE FR 1	-298	0	1352	0.43	-11.72	0
129	SLE FR 2	-299	-1	1354	2.05	-11.77	0
129	SLE FR 3	-298	0	1352	0.43	-11.72	0
129	SLE FR 4	-330	-1	1414	2.07	-13.07	0
129	SLE FR 5	-329	0	1412	0.46	-13.02	0
129	SLE FR 6	-350	0	1451	0.48	-13.89	0
129	SLE QP 1	-298	0	1352	0.43	-11.72	0
129	SLE QP 2	-329	0	1412	0.46	-13.02	0
129	SLD 1	-164	-20	1324	11.4	-5.86	-0.04
129	SLD 2	-164	-20	1324	11.4	-5.86	-0.04
129	SLD 3	-193	-26	1385	18.96	-7	-0.06
129	SLD 4	-193	-26	1385	18.96	-7	-0.06
129	SLD 5	-236	3	1292	-7.72	-9.15	0.01
129	SLD 6	-236	3	1292	-7.72	-9.15	0.01
129	SLD 7	-332	-17	1497	17.47	-12.94	-0.03
129	SLD 8	-332	-17	1497	17.47	-12.94	-0.03
129	SLD 9	-326	17	1326	-16.55	-13.1	0.04
129	SLD 10	-326	17	1326	-16.55	-13.1	0.04
129	SLD 11	-422	-4	1531	8.64	-16.9	0
129	SLD 12	-422	-4	1531	8.64	-16.9	0
129	SLD 13	-466	25	1438	-18.04	-19.04	0.06
129	SLD 14	-466	25	1438	-18.04	-19.04	0.06
129	SLD 15	-494	19	1499	-10.48	-20.18	0.05
129	SLD 16	-494	19	1499	-10.48	-20.18	0.05
129	SLV 1	60	-50	1205	28.81	3.84	-0.12
129	SLV 2	60	-50	1205	28.81	3.84	-0.12
129	SLV 3	-8	-65	1350	47.45	1.15	-0.15
129	SLV 4	-8	-65	1350	47.45	1.15	-0.15
129	SLV 5	-109	7	1128	-19.31	-3.88	0.01
129	SLV 6	-109	7	1128	-19.31	-3.88	0.01
129	SLV 7	-336	-43	1614	42.83	-12.85	-0.09
129	SLV 8	-336	-43	1614	42.83	-12.85	-0.09
129	SLV 9	-322	42	1209	-41.91	-13.19	0.09
129	SLV 10	-322	42	1209	-41.91	-13.19	0.09
129	SLV 11	-549	-8	1695	20.23	-22.16	0
129	SLV 12	-549	-8	1695	20.23	-22.16	0
129	SLV 13	-650	64	1473	-46.54	-27.19	0.16
129	SLV 14	-650	64	1473	-46.54	-27.19	0.16
129	SLV 15	-718	49	1619	-27.9	-29.88	0.13
129	SLV 16	-718	49	1619	-27.9	-29.88	0.13
130	SLU 1	-304	-3	1516	0.96	-16.16	-0.01
130	SLU 2	-316	-3	1539	6.71	-16.77	-0.02
130	SLU 3	-304	-3	1516	0.96	-16.16	-0.01
130	SLU 4	-311	-3	1530	4.41	-16.52	-0.02
130	SLU 5	-316	-3	1539	6.71	-16.77	-0.02
130	SLU 6	-304	-3	1516	0.96	-16.16	-0.01
130	SLU 7	-311	-3	1530	4.41	-16.52	-0.02
130	SLU 8	-304	-3	1516	0.96	-16.16	-0.01
130	SLU 9	-311	-3	1530	4.41	-16.52	-0.02
130	SLU 10	-421	-4	1804	6.89	-21.92	-0.03
130	SLU 11	-409	-3	1781	1.14	-21.31	-0.02
130	SLU 12	-416	-4	1795	4.59	-21.68	-0.02
130	SLU 13	-421	-4	1804	6.89	-21.92	-0.03
130	SLU 14	-409	-3	1781	1.14	-21.31	-0.02
130	SLU 15	-416	-4	1795	4.59	-21.68	-0.02
130	SLU 16	-409	-3	1781	1.14	-21.31	-0.02
130	SLU 17	-416	-4	1795	4.59	-21.68	-0.02
130	SLU 18	-453	-4	1895	1.22	-23.52	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
130	SLU 19	-461	-4	1909	4.67	-23.89	-0.02
130	SLU 20	-453	-4	1895	1.22	-23.52	-0.02
130	SLU 21	-461	-4	1909	4.67	-23.89	-0.02
130	SLU 22	-342	-3	1643	1.07	-18.15	-0.02
130	SLU 23	-354	-3	1666	6.81	-18.76	-0.03
130	SLU 24	-342	-3	1643	1.07	-18.15	-0.02
130	SLU 25	-349	-3	1657	4.51	-18.52	-0.02
130	SLU 26	-354	-3	1666	6.81	-18.76	-0.03
130	SLU 27	-342	-3	1643	1.07	-18.15	-0.02
130	SLU 28	-349	-3	1657	4.51	-18.52	-0.02
130	SLU 29	-342	-3	1643	1.07	-18.15	-0.02
130	SLU 30	-349	-3	1657	4.51	-18.52	-0.02
130	SLU 31	-459	-4	1931	6.99	-23.92	-0.03
130	SLU 32	-447	-4	1908	1.25	-23.31	-0.02
130	SLU 33	-454	-4	1922	4.7	-23.67	-0.02
130	SLU 34	-459	-4	1931	6.99	-23.92	-0.03
130	SLU 35	-447	-4	1908	1.25	-23.31	-0.02
130	SLU 36	-454	-4	1922	4.7	-23.67	-0.02
130	SLU 37	-447	-4	1908	1.25	-23.31	-0.02
130	SLU 38	-454	-4	1922	4.7	-23.67	-0.02
130	SLU 39	-491	-4	2022	1.32	-25.52	-0.02
130	SLU 40	-499	-4	2036	4.77	-25.88	-0.03
130	SLU 41	-491	-4	2022	1.32	-25.52	-0.02
130	SLU 42	-499	-4	2036	4.77	-25.88	-0.03
130	SLU 43	-382	-4	1927	1.22	-20.32	-0.02
130	SLU 44	-395	-4	1950	6.97	-20.93	-0.03
130	SLU 45	-382	-4	1927	1.22	-20.32	-0.02
130	SLU 46	-390	-4	1941	4.67	-20.68	-0.02
130	SLU 47	-395	-4	1950	6.97	-20.93	-0.03
130	SLU 48	-382	-4	1927	1.22	-20.32	-0.02
130	SLU 49	-390	-4	1941	4.67	-20.68	-0.02
130	SLU 50	-382	-4	1927	1.22	-20.32	-0.02
130	SLU 51	-390	-4	1941	4.67	-20.68	-0.02
130	SLU 52	-499	-4	2216	7.15	-26.08	-0.03
130	SLU 53	-487	-4	2192	1.4	-25.47	-0.02
130	SLU 54	-494	-4	2206	4.85	-25.84	-0.03
130	SLU 55	-499	-4	2216	7.15	-26.08	-0.03
130	SLU 56	-487	-4	2192	1.4	-25.47	-0.02
130	SLU 57	-494	-4	2206	4.85	-25.84	-0.03
130	SLU 58	-487	-4	2192	1.4	-25.47	-0.02
130	SLU 59	-494	-4	2206	4.85	-25.84	-0.03
130	SLU 60	-532	-4	2306	1.48	-27.68	-0.02
130	SLU 61	-539	-5	2320	4.92	-28.05	-0.03
130	SLU 62	-532	-4	2306	1.48	-27.68	-0.02
130	SLU 63	-539	-5	2320	4.92	-28.05	-0.03
130	SLU 64	-420	-4	2054	1.32	-22.31	-0.02
130	SLU 65	-432	-4	2077	7.07	-22.92	-0.03
130	SLU 66	-420	-4	2054	1.32	-22.31	-0.02
130	SLU 67	-428	-4	2068	4.77	-22.68	-0.03
130	SLU 68	-432	-4	2077	7.07	-22.92	-0.03
130	SLU 69	-420	-4	2054	1.32	-22.31	-0.02
130	SLU 70	-428	-4	2068	4.77	-22.68	-0.03
130	SLU 71	-420	-4	2054	1.32	-22.31	-0.02
130	SLU 72	-428	-4	2068	4.77	-22.68	-0.03
130	SLU 73	-537	-5	2343	7.25	-28.08	-0.03
130	SLU 74	-525	-4	2319	1.5	-27.47	-0.02
130	SLU 75	-532	-5	2333	4.95	-27.83	-0.03
130	SLU 76	-537	-5	2343	7.25	-28.08	-0.03
130	SLU 77	-525	-4	2319	1.5	-27.47	-0.02
130	SLU 78	-532	-5	2333	4.95	-27.83	-0.03
130	SLU 79	-525	-4	2319	1.5	-27.47	-0.02
130	SLU 80	-532	-5	2333	4.95	-27.83	-0.03
130	SLU 81	-570	-5	2433	1.58	-29.68	-0.02
130	SLU 82	-577	-5	2447	5.03	-30.04	-0.03
130	SLU 83	-570	-5	2433	1.58	-29.68	-0.02
130	SLU 84	-577	-5	2447	5.03	-30.04	-0.03
130	SLE RA 1	-315	-3	1552	0.99	-16.73	-0.02
130	SLE RA 2	-323	-3	1568	4.83	-17.13	-0.02
130	SLE RA 3	-315	-3	1552	0.99	-16.73	-0.02
130	SLE RA 4	-320	-3	1562	3.29	-16.97	-0.02
130	SLE RA 5	-323	-3	1568	4.83	-17.13	-0.02
130	SLE RA 6	-315	-3	1552	0.99	-16.73	-0.02
130	SLE RA 7	-320	-3	1562	3.29	-16.97	-0.02
130	SLE RA 8	-315	-3	1552	0.99	-16.73	-0.02
130	SLE RA 9	-320	-3	1562	3.29	-16.97	-0.02
130	SLE RA 10	-393	-3	1744	4.95	-20.57	-0.02
130	SLE RA 11	-385	-3	1729	1.11	-20.16	-0.02
130	SLE RA 12	-390	-3	1738	3.41	-20.41	-0.02
130	SLE RA 13	-393	-3	1744	4.95	-20.57	-0.02
130	SLE RA 14	-385	-3	1729	1.11	-20.16	-0.02
130	SLE RA 15	-390	-3	1738	3.41	-20.41	-0.02
130	SLE RA 16	-385	-3	1729	1.11	-20.16	-0.02
130	SLE RA 17	-390	-3	1738	3.41	-20.41	-0.02
130	SLE RA 18	-415	-3	1805	1.16	-21.64	-0.02
130	SLE RA 19	-419	-4	1814	3.46	-21.88	-0.02
130	SLE RA 20	-415	-3	1805	1.16	-21.64	-0.02
130	SLE RA 21	-419	-4	1814	3.46	-21.88	-0.02
130	SLE FR 1	-315	-3	1552	0.99	-16.73	-0.02
130	SLE FR 2	-317	-3	1555	1.76	-16.81	-0.02





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
130	SLE FR 3	-315	-3	1552	0.99	-16.73	-0.02
130	SLE FR 4	-346	-3	1631	1.81	-18.28	-0.02
130	SLE FR 5	-345	-3	1628	1.04	-18.2	-0.02
130	SLE FR 6	-365	-3	1678	1.08	-19.18	-0.02
130	SLE QP 1	-315	-3	1552	0.99	-16.73	-0.02
130	SLE QP 2	-345	-3	1628	1.04	-18.2	-0.02
130	SLD 1	-196	-18	1411	7.78	-11.35	0
130	SLD 2	-196	-18	1411	7.78	-11.35	0
130	SLD 3	-233	-22	1530	11.4	-12.42	-0.01
130	SLD 4	-233	-22	1530	11.4	-12.42	-0.01
130	SLD 5	-243	-2	1382	-2.42	-14.52	0
130	SLD 6	-243	-2	1382	-2.42	-14.52	0
130	SLD 7	-369	-15	1779	9.63	-18.09	-0.02
130	SLD 8	-369	-15	1779	9.63	-18.09	-0.02
130	SLD 9	-321	9	1477	-7.55	-18.31	-0.01
130	SLD 10	-321	9	1477	-7.55	-18.31	-0.01
130	SLD 11	-447	-4	1874	4.51	-21.88	-0.03
130	SLD 12	-447	-4	1874	4.51	-21.88	-0.03
130	SLD 13	-456	16	1726	-9.31	-23.98	-0.02
130	SLD 14	-456	16	1726	-9.31	-23.98	-0.02
130	SLD 15	-494	12	1845	-5.69	-25.05	-0.03
130	SLD 16	-494	12	1845	-5.69	-25.05	-0.03
130	SLV 1	6	-43	1116	18.45	-2.09	0.01
130	SLV 2	6	-43	1116	18.45	-2.09	0.01
130	SLV 3	-83	-52	1398	27.36	-4.62	0
130	SLV 4	-83	-52	1398	27.36	-4.62	0
130	SLV 5	-105	-1	1047	-7.24	-9.53	0.01
130	SLV 6	-105	-1	1047	-7.24	-9.53	0.01
130	SLV 7	-401	-32	1986	22.45	-17.96	-0.03
130	SLV 8	-401	-32	1986	22.45	-17.96	-0.03
130	SLV 9	-288	26	1270	-20.36	-18.43	0
130	SLV 10	-288	26	1270	-20.36	-18.43	0
130	SLV 11	-585	-5	2209	9.33	-26.87	-0.04
130	SLV 12	-585	-5	2209	9.33	-26.87	-0.04
130	SLV 13	-606	46	1858	-25.27	-31.78	-0.03
130	SLV 14	-606	46	1858	-25.27	-31.78	-0.03
130	SLV 15	-695	37	2140	-16.36	-34.31	-0.04
130	SLV 16	-695	37	2140	-16.36	-34.31	-0.04
131	SLU 1	-290	-339	2054	10.09	-8.32	0.02
131	SLU 2	-307	-335	2095	10.86	-7.97	0.02
131	SLU 3	-290	-339	2054	10.09	-8.32	0.02
131	SLU 4	-300	-337	2079	10.55	-8.11	0.02
131	SLU 5	-307	-335	2095	10.86	-7.97	0.02
131	SLU 6	-290	-339	2054	10.09	-8.32	0.02
131	SLU 7	-300	-337	2079	10.55	-8.11	0.02
131	SLU 8	-290	-339	2054	10.09	-8.32	0.02
131	SLU 9	-300	-337	2079	10.55	-8.11	0.02
131	SLU 10	-386	-390	2495	12.39	-10.65	0.01
131	SLU 11	-369	-394	2454	11.62	-11	0.01
131	SLU 12	-379	-392	2478	12.08	-10.79	0.01
131	SLU 13	-386	-390	2495	12.39	-10.65	0.01
131	SLU 14	-369	-394	2454	11.62	-11	0.01
131	SLU 15	-379	-392	2478	12.08	-10.79	0.01
131	SLU 16	-369	-394	2454	11.62	-11	0.01
131	SLU 17	-379	-392	2478	12.08	-10.79	0.01
131	SLU 18	-403	-418	2625	12.27	-12.14	0.01
131	SLU 19	-413	-415	2650	12.74	-11.93	0.01
131	SLU 20	-403	-418	2625	12.27	-12.14	0.01
131	SLU 21	-413	-415	2650	12.74	-11.93	0.01
131	SLU 22	-322	-373	2251	11.09	-9.35	0.02
131	SLU 23	-339	-368	2293	11.86	-9	0.02
131	SLU 24	-322	-373	2251	11.09	-9.35	0.02
131	SLU 25	-332	-370	2276	11.55	-9.14	0.02
131	SLU 26	-339	-368	2293	11.86	-9	0.02
131	SLU 27	-322	-373	2251	11.09	-9.35	0.02
131	SLU 28	-332	-370	2276	11.55	-9.14	0.02
131	SLU 29	-322	-373	2251	11.09	-9.35	0.02
131	SLU 30	-332	-370	2276	11.55	-9.14	0.02
131	SLU 31	-417	-423	2692	13.39	-11.67	0.01
131	SLU 32	-401	-428	2651	12.62	-12.02	0.01
131	SLU 33	-411	-425	2676	13.08	-11.81	0.01
131	SLU 34	-417	-423	2692	13.39	-11.67	0.01
131	SLU 35	-401	-428	2651	12.62	-12.02	0.01
131	SLU 36	-411	-425	2676	13.08	-11.81	0.01
131	SLU 37	-401	-428	2651	12.62	-12.02	0.01
131	SLU 38	-411	-425	2676	13.08	-11.81	0.01
131	SLU 39	-435	-451	2822	13.28	-13.17	0.01
131	SLU 40	-445	-449	2847	13.74	-12.96	0.01
131	SLU 41	-435	-451	2822	13.28	-13.17	0.01
131	SLU 42	-445	-449	2847	13.74	-12.96	0.01
131	SLU 43	-366	-430	2603	12.77	-10.47	0.03
131	SLU 44	-383	-425	2644	13.54	-10.12	0.02
131	SLU 45	-366	-430	2603	12.77	-10.47	0.03
131	SLU 46	-376	-427	2628	13.23	-10.26	0.03
131	SLU 47	-383	-425	2644	13.54	-10.12	0.02
131	SLU 48	-366	-430	2603	12.77	-10.47	0.03
131	SLU 49	-376	-427	2628	13.23	-10.26	0.03
131	SLU 50	-366	-430	2603	12.77	-10.47	0.03
131	SLU 51	-376	-427	2628	13.23	-10.26	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
131	SLU 52	-462	-480	3044	15.07	-12.79	0.02
131	SLU 53	-445	-485	3002	14.3	-13.14	0.02
131	SLU 54	-455	-482	3027	14.76	-12.93	0.02
131	SLU 55	-462	-480	3044	15.07	-12.79	0.02
131	SLU 56	-445	-485	3002	14.3	-13.14	0.02
131	SLU 57	-455	-482	3027	14.76	-12.93	0.02
131	SLU 58	-445	-485	3002	14.3	-13.14	0.02
131	SLU 59	-455	-482	3027	14.76	-12.93	0.02
131	SLU 60	-479	-508	3174	14.96	-14.29	0.01
131	SLU 61	-489	-505	3198	15.42	-14.08	0.01
131	SLU 62	-479	-508	3174	14.96	-14.29	0.01
131	SLU 63	-489	-505	3198	15.42	-14.08	0.01
131	SLU 64	-398	-463	2800	13.77	-11.49	0.03
131	SLU 65	-415	-459	2841	14.54	-11.14	0.03
131	SLU 66	-398	-463	2800	13.77	-11.49	0.03
131	SLU 67	-408	-460	2825	14.23	-11.28	0.03
131	SLU 68	-415	-459	2841	14.54	-11.14	0.03
131	SLU 69	-398	-463	2800	13.77	-11.49	0.03
131	SLU 70	-408	-460	2825	14.23	-11.28	0.03
131	SLU 71	-398	-463	2800	13.77	-11.49	0.03
131	SLU 72	-408	-460	2825	14.23	-11.28	0.03
131	SLU 73	-493	-514	3241	16.07	-13.82	0.02
131	SLU 74	-477	-518	3200	15.3	-14.17	0.02
131	SLU 75	-487	-515	3224	15.77	-13.96	0.02
131	SLU 76	-493	-514	3241	16.07	-13.82	0.02
131	SLU 77	-477	-518	3200	15.3	-14.17	0.02
131	SLU 78	-487	-515	3224	15.77	-13.96	0.02
131	SLU 79	-477	-518	3200	15.3	-14.17	0.02
131	SLU 80	-487	-515	3224	15.77	-13.96	0.02
131	SLU 81	-511	-542	3371	15.96	-15.31	0.02
131	SLU 82	-521	-539	3396	16.42	-15.1	0.01
131	SLU 83	-511	-542	3371	15.96	-15.31	0.02
131	SLU 84	-521	-539	3396	16.42	-15.1	0.01
131	SLE RA 1	-299	-349	2111	10.37	-8.61	0.02
131	SLE RA 2	-310	-346	2138	10.89	-8.38	0.02
131	SLE RA 3	-299	-349	2111	10.37	-8.61	0.02
131	SLE RA 4	-306	-347	2127	10.68	-8.48	0.02
131	SLE RA 5	-310	-346	2138	10.89	-8.38	0.02
131	SLE RA 6	-299	-349	2111	10.37	-8.61	0.02
131	SLE RA 7	-306	-347	2127	10.68	-8.48	0.02
131	SLE RA 8	-299	-349	2111	10.37	-8.61	0.02
131	SLE RA 9	-306	-347	2127	10.68	-8.48	0.02
131	SLE RA 10	-363	-383	2404	11.91	-10.16	0.01
131	SLE RA 11	-352	-386	2377	11.39	-10.4	0.02
131	SLE RA 12	-358	-384	2393	11.7	-10.26	0.01
131	SLE RA 13	-363	-383	2404	11.91	-10.16	0.01
131	SLE RA 14	-352	-386	2377	11.39	-10.4	0.02
131	SLE RA 15	-358	-384	2393	11.7	-10.26	0.01
131	SLE RA 16	-352	-386	2377	11.39	-10.4	0.02
131	SLE RA 17	-358	-384	2393	11.7	-10.26	0.01
131	SLE RA 18	-374	-401	2491	11.83	-11.16	0.01
131	SLE RA 19	-381	-399	2508	12.14	-11.02	0.01
131	SLE RA 20	-374	-401	2491	11.83	-11.16	0.01
131	SLE RA 21	-381	-399	2508	12.14	-11.02	0.01
131	SLE FR 1	-299	-349	2111	10.37	-8.61	0.02
131	SLE FR 2	-301	-348	2116	10.48	-8.57	0.02
131	SLE FR 3	-299	-349	2111	10.37	-8.61	0.02
131	SLE FR 4	-324	-364	2230	10.91	-9.33	0.02
131	SLE FR 5	-322	-365	2225	10.81	-9.38	0.02
131	SLE FR 6	-337	-375	2301	11.1	-9.89	0.02
131	SLE QP 1	-299	-349	2111	10.37	-8.61	0.02
131	SLE QP 2	-322	-365	2225	10.81	-9.38	0.02
131	SLD 1	-231	-293	1807	10.28	-6.07	0.03
131	SLD 2	-231	-293	1807	10.28	-6.07	0.03
131	SLD 3	-241	-373	2024	13.51	-5.39	0.07
131	SLD 4	-241	-373	2024	13.51	-5.39	0.07
131	SLD 5	-280	-222	1770	5.75	-9.42	-0.03
131	SLD 6	-280	-222	1770	5.75	-9.42	-0.03
131	SLD 7	-312	-488	2494	16.52	-7.15	0.08
131	SLD 8	-312	-488	2494	16.52	-7.15	0.08
131	SLD 9	-331	-241	1956	5.11	-11.61	-0.05
131	SLD 10	-331	-241	1956	5.11	-11.61	-0.05
131	SLD 11	-364	-507	2679	15.87	-9.34	0.07
131	SLD 12	-364	-507	2679	15.87	-9.34	0.07
131	SLD 13	-402	-356	2425	8.12	-13.37	-0.03
131	SLD 14	-402	-356	2425	8.12	-13.37	-0.03
131	SLD 15	-412	-436	2642	11.34	-12.69	0
131	SLD 16	-412	-436	2642	11.34	-12.69	0
131	SLV 1	-109	-194	1240	9.68	-1.52	0.05
131	SLV 2	-109	-194	1240	9.68	-1.52	0.05
131	SLV 3	-133	-382	1753	17.31	0.11	0.13
131	SLV 4	-133	-382	1753	17.31	0.11	0.13
131	SLV 5	-221	-28	1151	-1.1	-9.48	-0.09
131	SLV 6	-221	-28	1151	-1.1	-9.48	-0.09
131	SLV 7	-301	-655	2862	24.33	-4.07	0.17
131	SLV 8	-301	-655	2862	24.33	-4.07	0.17
131	SLV 9	-342	-74	1588	-2.71	-14.69	-0.14
131	SLV 10	-342	-74	1588	-2.71	-14.69	-0.14
131	SLV 11	-422	-701	3299	22.72	-9.28	0.13



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
131	SLV 12	-422	-701	3299	22.72	-9.28	0.13
131	SLV 13	-511	-347	2696	4.31	-18.86	-0.09
131	SLV 14	-511	-347	2696	4.31	-18.86	-0.09
131	SLV 15	-535	-535	3210	11.94	-17.24	-0.01
131	SLV 16	-535	-535	3210	11.94	-17.24	-0.01
962	SLU 1	0	0	6403	47.6	-40.64	0
962	SLU 2	0	0	6329	47.41	-40.34	0
962	SLU 3	0	0	6403	47.6	-40.64	0
962	SLU 4	0	0	6359	47.48	-40.46	0
962	SLU 5	0	0	6329	47.41	-40.34	0
962	SLU 6	0	0	6403	47.6	-40.64	0
962	SLU 7	0	0	6359	47.48	-40.46	0
962	SLU 8	0	0	6403	47.6	-40.64	0
962	SLU 9	0	0	6359	47.48	-40.46	0
962	SLU 10	0	0	8277	61.31	-53.39	0
962	SLU 11	0	0	8351	61.5	-53.69	0
962	SLU 12	0	0	8306	61.39	-53.51	0
962	SLU 13	0	0	8277	61.31	-53.39	0
962	SLU 14	0	0	8351	61.5	-53.69	0
962	SLU 15	0	0	8306	61.39	-53.51	0
962	SLU 16	0	0	8351	61.5	-53.69	0
962	SLU 17	0	0	8306	61.39	-53.51	0
962	SLU 18	0	0	9185	67.46	-59.28	0
962	SLU 19	0	0	9141	67.34	-59.1	0
962	SLU 20	0	0	9185	67.46	-59.28	0
962	SLU 21	0	0	9141	67.34	-59.1	0
962	SLU 22	0	0	7356	55	-46.47	0
962	SLU 23	0	0	7282	54.8	-46.17	0
962	SLU 24	0	0	7356	55	-46.47	0
962	SLU 25	0	0	7312	54.88	-46.29	0
962	SLU 26	0	0	7282	54.8	-46.17	0
962	SLU 27	0	0	7356	55	-46.47	0
962	SLU 28	0	0	7312	54.88	-46.29	0
962	SLU 29	0	0	7356	55	-46.47	0
962	SLU 30	0	0	7312	54.88	-46.29	0
962	SLU 31	0	0	9230	68.7	-59.22	0
962	SLU 32	0	0	9304	68.9	-59.51	0
962	SLU 33	0	0	9259	68.78	-59.33	0
962	SLU 34	0	0	9230	68.7	-59.22	0
962	SLU 35	0	0	9304	68.9	-59.51	0
962	SLU 36	0	0	9259	68.78	-59.33	0
962	SLU 37	0	0	9304	68.9	-59.51	0
962	SLU 38	0	0	9259	68.78	-59.33	0
962	SLU 39	0	0	10138	74.86	-65.1	0
962	SLU 40	0	0	10094	74.74	-64.93	0
962	SLU 41	0	0	10138	74.86	-65.1	0
962	SLU 42	0	0	10094	74.74	-64.93	0
962	SLU 43	0	0	7997	59.35	-50.83	0
962	SLU 44	0	0	7924	59.15	-50.54	0
962	SLU 45	0	0	7997	59.35	-50.83	0
962	SLU 46	0	0	7953	59.23	-50.66	0
962	SLU 47	0	0	7924	59.15	-50.54	0
962	SLU 48	0	0	7997	59.35	-50.83	0
962	SLU 49	0	0	7953	59.23	-50.66	0
962	SLU 50	0	0	7997	59.35	-50.83	0
962	SLU 51	0	0	7953	59.23	-50.66	0
962	SLU 52	0	0	9871	73.05	-63.58	0
962	SLU 53	0	0	9945	73.25	-63.88	0
962	SLU 54	0	0	9901	73.13	-63.7	0
962	SLU 55	0	0	9871	73.05	-63.58	0
962	SLU 56	0	0	9945	73.25	-63.88	0
962	SLU 57	0	0	9901	73.13	-63.7	0
962	SLU 58	0	0	9945	73.25	-63.88	0
962	SLU 59	0	0	9901	73.13	-63.7	0
962	SLU 60	0	0	10779	79.21	-69.47	0
962	SLU 61	0	0	10735	79.09	-69.29	0
962	SLU 62	0	0	10779	79.21	-69.47	0
962	SLU 63	0	0	10735	79.09	-69.29	0
962	SLU 64	0	0	8950	66.74	-56.66	0
962	SLU 65	0	0	8877	66.55	-56.36	0
962	SLU 66	0	0	8950	66.74	-56.66	0
962	SLU 67	0	0	8906	66.63	-56.48	0
962	SLU 68	0	0	8877	66.55	-56.36	0
962	SLU 69	0	0	8950	66.74	-56.66	0
962	SLU 70	0	0	8906	66.63	-56.48	0
962	SLU 71	0	0	8950	66.74	-56.66	0
962	SLU 72	0	0	8906	66.63	-56.48	0
962	SLU 73	0	0	10824	80.45	-69.41	0
962	SLU 74	0	0	10898	80.64	-69.71	0
962	SLU 75	0	0	10854	80.53	-69.53	0
962	SLU 76	0	0	10824	80.45	-69.41	0
962	SLU 77	0	0	10898	80.64	-69.71	0
962	SLU 78	0	0	10854	80.53	-69.53	0
962	SLU 79	0	0	10898	80.64	-69.71	0
962	SLU 80	0	0	10854	80.53	-69.53	0
962	SLU 81	0	0	11732	86.6	-75.3	0
962	SLU 82	0	0	11688	86.48	-75.12	0
962	SLU 83	0	0	11732	86.6	-75.3	0
962	SLU 84	0	0	11688	86.48	-75.12	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
962	SLE RA 1	0	0	6676	49.72	-42.3	0
962	SLE RA 2	0	0	6626	49.58	-42.11	0
962	SLE RA 3	0	0	6676	49.72	-42.3	0
962	SLE RA 4	0	0	6646	49.64	-42.19	0
962	SLE RA 5	0	0	6626	49.58	-42.11	0
962	SLE RA 6	0	0	6676	49.72	-42.3	0
962	SLE RA 7	0	0	6646	49.64	-42.19	0
962	SLE RA 8	0	0	6676	49.72	-42.3	0
962	SLE RA 9	0	0	6646	49.64	-42.19	0
962	SLE RA 10	0	0	7925	58.85	-50.8	0
962	SLE RA 11	0	0	7974	58.98	-51	0
962	SLE RA 12	0	0	7944	58.9	-50.88	0
962	SLE RA 13	0	0	7925	58.85	-50.8	0
962	SLE RA 14	0	0	7974	58.98	-51	0
962	SLE RA 15	0	0	7944	58.9	-50.88	0
962	SLE RA 16	0	0	7974	58.98	-51	0
962	SLE RA 17	0	0	7944	58.9	-50.88	0
962	SLE RA 18	0	0	8530	62.96	-54.73	0
962	SLE RA 19	0	0	8501	62.88	-54.61	0
962	SLE RA 20	0	0	8530	62.96	-54.73	0
962	SLE RA 21	0	0	8501	62.88	-54.61	0
962	SLE FR 1	0	0	6676	49.72	-42.3	0
962	SLE FR 2	0	0	6666	49.69	-42.26	0
962	SLE FR 3	0	0	6676	49.72	-42.3	0
962	SLE FR 4	0	0	7222	53.66	-45.99	0
962	SLE FR 5	0	0	7232	53.69	-46.03	0
962	SLE FR 6	0	0	7603	56.34	-48.52	0
962	SLE QP 1	0	0	6676	49.72	-42.3	0
962	SLE QP 2	0	0	7232	53.69	-46.03	0
962	SLD 1	0	0	8313	62.35	-50.77	0
962	SLD 2	0	0	8313	62.35	-50.77	0
962	SLD 3	0	0	7909	60.64	-48.38	0
962	SLD 4	0	0	7909	60.64	-48.38	0
962	SLD 5	0	0	8170	58.88	-51.08	0
962	SLD 6	0	0	8170	58.88	-51.08	0
962	SLD 7	0	0	6821	53.18	-43.11	0
962	SLD 8	0	0	6821	53.18	-43.11	0
962	SLD 9	0	0	7642	54.2	-48.96	0
962	SLD 10	0	0	7642	54.2	-48.96	0
962	SLD 11	0	0	6294	48.5	-40.98	0
962	SLD 12	0	0	6294	48.5	-40.98	0
962	SLD 13	0	0	6555	46.73	-43.69	0
962	SLD 14	0	0	6555	46.73	-43.69	0
962	SLD 15	0	0	6151	45.02	-41.29	0
962	SLD 16	0	0	6151	45.02	-41.29	0
962	SLV 1	0	0	9805	74.84	-57.91	0
962	SLV 2	0	0	9805	74.84	-57.91	0
962	SLV 3	0	0	8846	70.59	-52.06	0
962	SLV 4	0	0	8846	70.59	-52.06	0
962	SLV 5	0	0	9459	66.47	-58.45	0
962	SLV 6	0	0	9459	66.47	-58.45	0
962	SLV 7	0	0	6261	52.32	-38.98	0
962	SLV 8	0	0	6261	52.32	-38.98	0
962	SLV 9	0	0	8203	55.06	-53.08	0
962	SLV 10	0	0	8203	55.06	-53.08	0
962	SLV 11	0	0	5004	40.9	-33.61	0
962	SLV 12	0	0	5004	40.9	-33.61	0
962	SLV 13	0	0	5618	36.79	-40	0
962	SLV 14	0	0	5618	36.79	-40	0
962	SLV 15	0	0	4658	32.54	-34.16	0
962	SLV 16	0	0	4658	32.54	-34.16	0
986	SLU 1	0	0	5644	41.95	35.49	0
986	SLU 2	0	0	5575	41.81	35.22	0
986	SLU 3	0	0	5644	41.95	35.49	0
986	SLU 4	0	0	5602	41.87	35.33	0
986	SLU 5	0	0	5575	41.81	35.22	0
986	SLU 6	0	0	5644	41.95	35.49	0
986	SLU 7	0	0	5602	41.87	35.33	0
986	SLU 8	0	0	5644	41.95	35.49	0
986	SLU 9	0	0	5602	41.87	35.33	0
986	SLU 10	0	0	6758	50.67	42.36	0
986	SLU 11	0	0	6827	50.81	42.63	0
986	SLU 12	0	0	6786	50.73	42.47	0
986	SLU 13	0	0	6758	50.67	42.36	0
986	SLU 14	0	0	6827	50.81	42.63	0
986	SLU 15	0	0	6786	50.73	42.47	0
986	SLU 16	0	0	6827	50.81	42.63	0
986	SLU 17	0	0	6786	50.73	42.47	0
986	SLU 18	0	0	7335	54.61	45.69	0
986	SLU 19	0	0	7293	54.52	45.53	0
986	SLU 20	0	0	7335	54.61	45.69	0
986	SLU 21	0	0	7293	54.52	45.53	0
986	SLU 22	0	0	6228	46.68	38.85	0
986	SLU 23	0	0	6159	46.54	38.58	0
986	SLU 24	0	0	6228	46.68	38.85	0
986	SLU 25	0	0	6186	46.59	38.69	0
986	SLU 26	0	0	6159	46.54	38.58	0
986	SLU 27	0	0	6228	46.68	38.85	0
986	SLU 28	0	0	6186	46.59	38.69	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
986	SLU 29	0	0	6228	46.68	38.85	0
986	SLU 30	0	0	6186	46.59	38.69	0
986	SLU 31	0	0	7343	55.4	45.72	0
986	SLU 32	0	0	7411	55.54	45.99	0
986	SLU 33	0	0	7370	55.46	45.82	0
986	SLU 34	0	0	7343	55.4	45.72	0
986	SLU 35	0	0	7411	55.54	45.99	0
986	SLU 36	0	0	7370	55.46	45.82	0
986	SLU 37	0	0	7411	55.54	45.99	0
986	SLU 38	0	0	7370	55.46	45.82	0
986	SLU 39	0	0	7919	59.34	49.04	0
986	SLU 40	0	0	7877	59.25	48.88	0
986	SLU 41	0	0	7919	59.34	49.04	0
986	SLU 42	0	0	7877	59.25	48.88	0
986	SLU 43	0	0	7136	52.91	44.99	0
986	SLU 44	0	0	7067	52.77	44.72	0
986	SLU 45	0	0	7136	52.91	44.99	0
986	SLU 46	0	0	7095	52.83	44.83	0
986	SLU 47	0	0	7067	52.77	44.72	0
986	SLU 48	0	0	7136	52.91	44.99	0
986	SLU 49	0	0	7095	52.83	44.83	0
986	SLU 50	0	0	7136	52.91	44.99	0
986	SLU 51	0	0	7095	52.83	44.83	0
986	SLU 52	0	0	8251	61.63	51.86	0
986	SLU 53	0	0	8320	61.77	52.13	0
986	SLU 54	0	0	8279	61.69	51.97	0
986	SLU 55	0	0	8251	61.63	51.86	0
986	SLU 56	0	0	8320	61.77	52.13	0
986	SLU 57	0	0	8279	61.69	51.97	0
986	SLU 58	0	0	8320	61.77	52.13	0
986	SLU 59	0	0	8279	61.69	51.97	0
986	SLU 60	0	0	8827	65.57	55.19	0
986	SLU 61	0	0	8786	65.49	55.03	0
986	SLU 62	0	0	8827	65.57	55.19	0
986	SLU 63	0	0	8786	65.49	55.03	0
986	SLU 64	0	0	7720	57.64	48.34	0
986	SLU 65	0	0	7652	57.5	48.08	0
986	SLU 66	0	0	7720	57.64	48.34	0
986	SLU 67	0	0	7679	57.56	48.18	0
986	SLU 68	0	0	7652	57.5	48.08	0
986	SLU 69	0	0	7720	57.64	48.34	0
986	SLU 70	0	0	7679	57.56	48.18	0
986	SLU 71	0	0	7720	57.64	48.34	0
986	SLU 72	0	0	7679	57.56	48.18	0
986	SLU 73	0	0	8835	66.36	55.21	0
986	SLU 74	0	0	8904	66.5	55.48	0
986	SLU 75	0	0	8863	66.42	55.32	0
986	SLU 76	0	0	8835	66.36	55.21	0
986	SLU 77	0	0	8904	66.5	55.48	0
986	SLU 78	0	0	8863	66.42	55.32	0
986	SLU 79	0	0	8904	66.5	55.48	0
986	SLU 80	0	0	8863	66.42	55.32	0
986	SLU 81	0	0	9412	70.3	58.54	0
986	SLU 82	0	0	9370	70.22	58.38	0
986	SLU 83	0	0	9412	70.3	58.54	0
986	SLU 84	0	0	9370	70.22	58.38	0
986	SLE RA 1	0	0	5810	43.3	36.45	0
986	SLE RA 2	0	0	5764	43.21	36.27	0
986	SLE RA 3	0	0	5810	43.3	36.45	0
986	SLE RA 4	0	0	5783	43.24	36.34	0
986	SLE RA 5	0	0	5764	43.21	36.27	0
986	SLE RA 6	0	0	5810	43.3	36.45	0
986	SLE RA 7	0	0	5783	43.24	36.34	0
986	SLE RA 8	0	0	5810	43.3	36.45	0
986	SLE RA 9	0	0	5783	43.24	36.34	0
986	SLE RA 10	0	0	6554	49.11	41.03	0
986	SLE RA 11	0	0	6600	49.21	41.21	0
986	SLE RA 12	0	0	6572	49.15	41.1	0
986	SLE RA 13	0	0	6554	49.11	41.03	0
986	SLE RA 14	0	0	6600	49.21	41.21	0
986	SLE RA 15	0	0	6572	49.15	41.1	0
986	SLE RA 16	0	0	6600	49.21	41.21	0
986	SLE RA 17	0	0	6572	49.15	41.1	0
986	SLE RA 18	0	0	6938	51.74	43.25	0
986	SLE RA 19	0	0	6910	51.68	43.14	0
986	SLE RA 20	0	0	6938	51.74	43.25	0
986	SLE RA 21	0	0	6910	51.68	43.14	0
986	SLE FR 1	0	0	5810	43.3	36.45	0
986	SLE FR 2	0	0	5801	43.28	36.42	0
986	SLE FR 3	0	0	5810	43.3	36.45	0
986	SLE FR 4	0	0	6139	45.81	38.45	0
986	SLE FR 5	0	0	6149	45.83	38.49	0
986	SLE FR 6	0	0	6374	47.52	39.85	0
986	SLE QP 1	0	0	5810	43.3	36.45	0
986	SLE QP 2	0	0	6149	45.83	38.49	0
986	SLD 1	0	0	5550	39.88	42.45	0
986	SLD 2	0	0	5550	39.88	42.45	0
986	SLD 3	0	0	5108	38.14	39.98	0
986	SLD 4	0	0	5108	38.14	39.98	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
986	SLD 5	0	0	6640	46.69	43.43	0
986	SLD 6	0	0	6640	46.69	43.43	0
986	SLD 7	0	0	5166	40.88	35.19	0
986	SLD 8	0	0	5166	40.88	35.19	0
986	SLD 9	0	0	7131	50.78	41.79	0
986	SLD 10	0	0	7131	50.78	41.79	0
986	SLD 11	0	0	5658	44.98	33.55	0
986	SLD 12	0	0	5658	44.98	33.55	0
986	SLD 13	0	0	7190	53.53	37	0
986	SLD 14	0	0	7190	53.53	37	0
986	SLD 15	0	0	6747	51.79	34.53	0
986	SLD 16	0	0	6747	51.79	34.53	0
986	SLV 1	0	0	4738	31.35	48.16	0
986	SLV 2	0	0	4738	31.35	48.16	0
986	SLV 3	0	0	3689	27.18	42.3	0
986	SLV 4	0	0	3689	27.18	42.3	0
986	SLV 5	0	0	7316	47.8	50.28	0
986	SLV 6	0	0	7316	47.8	50.28	0
986	SLV 7	0	0	3820	33.93	30.74	0
986	SLV 8	0	0	3820	33.93	30.74	0
986	SLV 9	0	0	8478	57.74	46.24	0
986	SLV 10	0	0	8478	57.74	46.24	0
986	SLV 11	0	0	4981	43.87	26.7	0
986	SLV 12	0	0	4981	43.87	26.7	0
986	SLV 13	0	0	8609	64.48	34.68	0
986	SLV 14	0	0	8609	64.48	34.68	0
986	SLV 15	0	0	7560	60.32	28.82	0
986	SLV 16	0	0	7560	60.32	28.82	0
1078	SLU 1	0	0	6417	-46.08	-41.16	0
1078	SLU 2	0	0	6534	-46.7	-42.77	0
1078	SLU 3	0	0	6417	-46.08	-41.16	0
1078	SLU 4	0	0	6487	-46.45	-42.12	0
1078	SLU 5	0	0	6534	-46.7	-42.77	0
1078	SLU 6	0	0	6417	-46.08	-41.16	0
1078	SLU 7	0	0	6487	-46.45	-42.12	0
1078	SLU 8	0	0	6417	-46.08	-41.16	0
1078	SLU 9	0	0	6487	-46.45	-42.12	0
1078	SLU 10	0	0	8663	-60.3	-56.54	0
1078	SLU 11	0	0	8547	-59.69	-54.93	0
1078	SLU 12	0	0	8617	-60.05	-55.9	0
1078	SLU 13	0	0	8663	-60.3	-56.54	0
1078	SLU 14	0	0	8547	-59.69	-54.93	0
1078	SLU 15	0	0	8617	-60.05	-55.9	0
1078	SLU 16	0	0	8547	-59.69	-54.93	0
1078	SLU 17	0	0	8617	-60.05	-55.9	0
1078	SLU 18	0	0	9459	-65.52	-60.83	0
1078	SLU 19	0	0	9529	-65.88	-61.8	0
1078	SLU 20	0	0	9459	-65.52	-60.83	0
1078	SLU 21	0	0	9529	-65.88	-61.8	0
1078	SLU 22	0	0	7430	-52.94	-47.14	0
1078	SLU 23	0	0	7546	-53.56	-48.75	0
1078	SLU 24	0	0	7430	-52.94	-47.14	0
1078	SLU 25	0	0	7500	-53.31	-48.1	0
1078	SLU 26	0	0	7546	-53.56	-48.75	0
1078	SLU 27	0	0	7430	-52.94	-47.14	0
1078	SLU 28	0	0	7500	-53.31	-48.1	0
1078	SLU 29	0	0	7430	-52.94	-47.14	0
1078	SLU 30	0	0	7500	-53.31	-48.1	0
1078	SLU 31	0	0	9676	-67.16	-62.53	0
1078	SLU 32	0	0	9559	-66.55	-60.91	0
1078	SLU 33	0	0	9629	-66.91	-61.88	0
1078	SLU 34	0	0	9676	-67.16	-62.53	0
1078	SLU 35	0	0	9559	-66.55	-60.91	0
1078	SLU 36	0	0	9629	-66.91	-61.88	0
1078	SLU 37	0	0	9559	-66.55	-60.91	0
1078	SLU 38	0	0	9629	-66.91	-61.88	0
1078	SLU 39	0	0	10471	-72.38	-66.81	0
1078	SLU 40	0	0	10541	-72.74	-67.78	0
1078	SLU 41	0	0	10471	-72.38	-66.81	0
1078	SLU 42	0	0	10541	-72.74	-67.78	0
1078	SLU 43	0	0	7996	-57.56	-51.45	0
1078	SLU 44	0	0	8112	-58.17	-53.07	0
1078	SLU 45	0	0	7996	-57.56	-51.45	0
1078	SLU 46	0	0	8066	-57.93	-52.42	0
1078	SLU 47	0	0	8112	-58.17	-53.07	0
1078	SLU 48	0	0	7996	-57.56	-51.45	0
1078	SLU 49	0	0	8066	-57.93	-52.42	0
1078	SLU 50	0	0	7996	-57.56	-51.45	0
1078	SLU 51	0	0	8066	-57.93	-52.42	0
1078	SLU 52	0	0	10242	-71.77	-66.84	0
1078	SLU 53	0	0	10125	-71.16	-65.23	0
1078	SLU 54	0	0	10195	-71.53	-66.19	0
1078	SLU 55	0	0	10242	-71.77	-66.84	0
1078	SLU 56	0	0	10125	-71.16	-65.23	0
1078	SLU 57	0	0	10195	-71.53	-66.19	0
1078	SLU 58	0	0	10125	-71.16	-65.23	0
1078	SLU 59	0	0	10195	-71.53	-66.19	0
1078	SLU 60	0	0	11037	-76.99	-71.13	0
1078	SLU 61	0	0	11107	-77.36	-72.1	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
1078	SLU 62	0	0	11037	-76.99	-71.13	0
1078	SLU 63	0	0	11107	-77.36	-72.1	0
1078	SLU 64	0	0	9008	-64.42	-57.43	0
1078	SLU 65	0	0	9124	-65.03	-59.05	0
1078	SLU 66	0	0	9008	-64.42	-57.43	0
1078	SLU 67	0	0	9078	-64.79	-58.4	0
1078	SLU 68	0	0	9124	-65.03	-59.05	0
1078	SLU 69	0	0	9008	-64.42	-57.43	0
1078	SLU 70	0	0	9078	-64.79	-58.4	0
1078	SLU 71	0	0	9008	-64.42	-57.43	0
1078	SLU 72	0	0	9078	-64.79	-58.4	0
1078	SLU 73	0	0	11254	-78.63	-72.82	0
1078	SLU 74	0	0	11137	-78.02	-71.21	0
1078	SLU 75	0	0	11207	-78.39	-72.18	0
1078	SLU 76	0	0	11254	-78.63	-72.82	0
1078	SLU 77	0	0	11137	-78.02	-71.21	0
1078	SLU 78	0	0	11207	-78.39	-72.18	0
1078	SLU 79	0	0	11137	-78.02	-71.21	0
1078	SLU 80	0	0	11207	-78.39	-72.18	0
1078	SLU 81	0	0	12050	-83.85	-77.11	0
1078	SLU 82	0	0	12120	-84.22	-78.08	0
1078	SLU 83	0	0	12050	-83.85	-77.11	0
1078	SLU 84	0	0	12120	-84.22	-78.08	0
1078	SLE RA 1	0	0	6707	-48.04	-42.86	0
1078	SLE RA 2	0	0	6784	-48.45	-43.94	0
1078	SLE RA 3	0	0	6707	-48.04	-42.86	0
1078	SLE RA 4	0	0	6753	-48.29	-43.51	0
1078	SLE RA 5	0	0	6784	-48.45	-43.94	0
1078	SLE RA 6	0	0	6707	-48.04	-42.86	0
1078	SLE RA 7	0	0	6753	-48.29	-43.51	0
1078	SLE RA 8	0	0	6707	-48.04	-42.86	0
1078	SLE RA 9	0	0	6753	-48.29	-43.51	0
1078	SLE RA 10	0	0	8204	-57.52	-53.12	0
1078	SLE RA 11	0	0	8126	-57.11	-52.05	0
1078	SLE RA 12	0	0	8173	-57.36	-52.69	0
1078	SLE RA 13	0	0	8204	-57.52	-53.12	0
1078	SLE RA 14	0	0	8126	-57.11	-52.05	0
1078	SLE RA 15	0	0	8173	-57.36	-52.69	0
1078	SLE RA 16	0	0	8126	-57.11	-52.05	0
1078	SLE RA 17	0	0	8173	-57.36	-52.69	0
1078	SLE RA 18	0	0	8734	-61	-55.98	0
1078	SLE RA 19	0	0	8781	-61.24	-56.63	0
1078	SLE RA 20	0	0	8734	-61	-55.98	0
1078	SLE RA 21	0	0	8781	-61.24	-56.63	0
1078	SLE FR 1	0	0	6707	-48.04	-42.86	0
1078	SLE FR 2	0	0	6722	-48.13	-43.08	0
1078	SLE FR 3	0	0	6707	-48.04	-42.86	0
1078	SLE FR 4	0	0	7330	-52.01	-47.01	0
1078	SLE FR 5	0	0	7315	-51.93	-46.8	0
1078	SLE FR 6	0	0	7721	-54.52	-49.42	0
1078	SLE QP 1	0	0	6707	-48.04	-42.86	0
1078	SLE QP 2	0	0	7315	-51.93	-46.8	0
1078	SLD 1	0	0	7964	-57.76	-48.67	0
1078	SLD 2	0	0	7964	-57.76	-48.67	0
1078	SLD 3	0	0	8399	-59.48	-51.16	0
1078	SLD 4	0	0	8399	-59.48	-51.16	0
1078	SLD 5	0	0	6849	-51.06	-43.59	0
1078	SLD 6	0	0	6849	-51.06	-43.59	0
1078	SLD 7	0	0	8301	-56.81	-51.87	0
1078	SLD 8	0	0	8301	-56.81	-51.87	0
1078	SLD 9	0	0	6329	-47.05	-41.73	0
1078	SLD 10	0	0	6329	-47.05	-41.73	0
1078	SLD 11	0	0	7781	-52.8	-50.01	0
1078	SLD 12	0	0	7781	-52.8	-50.01	0
1078	SLD 13	0	0	6231	-44.38	-42.44	0
1078	SLD 14	0	0	6231	-44.38	-42.44	0
1078	SLD 15	0	0	6666	-46.11	-44.93	0
1078	SLD 16	0	0	6666	-46.11	-44.93	0
1078	SLV 1	0	0	8851	-66.09	-51.68	0
1078	SLV 2	0	0	8851	-66.09	-51.68	0
1078	SLV 3	0	0	9882	-70.23	-57.58	0
1078	SLV 4	0	0	9882	-70.23	-57.58	0
1078	SLV 5	0	0	6211	-49.91	-39.31	0
1078	SLV 6	0	0	6211	-49.91	-39.31	0
1078	SLV 7	0	0	9649	-63.69	-58.98	0
1078	SLV 8	0	0	9649	-63.69	-58.98	0
1078	SLV 9	0	0	4980	-40.17	-34.61	0
1078	SLV 10	0	0	4980	-40.17	-34.61	0
1078	SLV 11	0	0	8419	-53.95	-54.29	0
1078	SLV 12	0	0	8419	-53.95	-54.29	0
1078	SLV 13	0	0	4748	-33.64	-36.02	0
1078	SLV 14	0	0	4748	-33.64	-36.02	0
1078	SLV 15	0	0	5779	-37.77	-41.92	0
1078	SLV 16	0	0	5779	-37.77	-41.92	0
1102	SLU 1	0	0	6169	-46.08	40.51	0
1102	SLU 2	0	0	6313	-47.85	43.53	0
1102	SLU 3	0	0	6169	-46.08	40.51	0
1102	SLU 4	0	0	6256	-47.15	42.32	0
1102	SLU 5	0	0	6313	-47.85	43.53	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
1102	SLU 6	0	0	6169	-46.08	40.51	0
1102	SLU 7	0	0	6256	-47.15	42.32	0
1102	SLU 8	0	0	6169	-46.08	40.51	0
1102	SLU 9	0	0	6256	-47.15	42.32	0
1102	SLU 10	0	0	7796	-58.65	52.86	0
1102	SLU 11	0	0	7652	-56.88	49.83	0
1102	SLU 12	0	0	7739	-57.94	51.65	0
1102	SLU 13	0	0	7796	-58.65	52.86	0
1102	SLU 14	0	0	7652	-56.88	49.83	0
1102	SLU 15	0	0	7739	-57.94	51.65	0
1102	SLU 16	0	0	7652	-56.88	49.83	0
1102	SLU 17	0	0	7739	-57.94	51.65	0
1102	SLU 18	0	0	8288	-61.5	53.83	0
1102	SLU 19	0	0	8374	-62.57	55.65	0
1102	SLU 20	0	0	8288	-61.5	53.83	0
1102	SLU 21	0	0	8374	-62.57	55.65	0
1102	SLU 22	0	0	6941	-52.06	44.85	0
1102	SLU 23	0	0	7086	-53.83	47.87	0
1102	SLU 24	0	0	6941	-52.06	44.85	0
1102	SLU 25	0	0	7028	-53.12	46.66	0
1102	SLU 26	0	0	7086	-53.83	47.87	0
1102	SLU 27	0	0	6941	-52.06	44.85	0
1102	SLU 28	0	0	7028	-53.12	46.66	0
1102	SLU 29	0	0	6941	-52.06	44.85	0
1102	SLU 30	0	0	7028	-53.12	46.66	0
1102	SLU 31	0	0	8569	-64.63	57.2	0
1102	SLU 32	0	0	8424	-62.85	54.17	0
1102	SLU 33	0	0	8511	-63.92	55.99	0
1102	SLU 34	0	0	8569	-64.63	57.2	0
1102	SLU 35	0	0	8424	-62.85	54.17	0
1102	SLU 36	0	0	8511	-63.92	55.99	0
1102	SLU 37	0	0	8424	-62.85	54.17	0
1102	SLU 38	0	0	8511	-63.92	55.99	0
1102	SLU 39	0	0	9060	-67.48	58.17	0
1102	SLU 40	0	0	9147	-68.54	59.98	0
1102	SLU 41	0	0	9060	-67.48	58.17	0
1102	SLU 42	0	0	9147	-68.54	59.98	0
1102	SLU 43	0	0	7755	-57.86	51.18	0
1102	SLU 44	0	0	7899	-59.63	54.2	0
1102	SLU 45	0	0	7755	-57.86	51.18	0
1102	SLU 46	0	0	7842	-58.92	52.99	0
1102	SLU 47	0	0	7899	-59.63	54.2	0
1102	SLU 48	0	0	7755	-57.86	51.18	0
1102	SLU 49	0	0	7842	-58.92	52.99	0
1102	SLU 50	0	0	7755	-57.86	51.18	0
1102	SLU 51	0	0	7842	-58.92	52.99	0
1102	SLU 52	0	0	9382	-70.42	63.53	0
1102	SLU 53	0	0	9238	-68.65	60.5	0
1102	SLU 54	0	0	9325	-69.71	62.32	0
1102	SLU 55	0	0	9382	-70.42	63.53	0
1102	SLU 56	0	0	9238	-68.65	60.5	0
1102	SLU 57	0	0	9325	-69.71	62.32	0
1102	SLU 58	0	0	9238	-68.65	60.5	0
1102	SLU 59	0	0	9325	-69.71	62.32	0
1102	SLU 60	0	0	9874	-73.28	64.5	0
1102	SLU 61	0	0	9960	-74.34	66.31	0
1102	SLU 62	0	0	9874	-73.28	64.5	0
1102	SLU 63	0	0	9960	-74.34	66.31	0
1102	SLU 64	0	0	8527	-63.83	55.51	0
1102	SLU 65	0	0	8672	-65.61	58.54	0
1102	SLU 66	0	0	8527	-63.83	55.51	0
1102	SLU 67	0	0	8614	-64.9	57.33	0
1102	SLU 68	0	0	8672	-65.61	58.54	0
1102	SLU 69	0	0	8527	-63.83	55.51	0
1102	SLU 70	0	0	8614	-64.9	57.33	0
1102	SLU 71	0	0	8527	-63.83	55.51	0
1102	SLU 72	0	0	8614	-64.9	57.33	0
1102	SLU 73	0	0	10155	-76.4	67.86	0
1102	SLU 74	0	0	10010	-74.63	64.84	0
1102	SLU 75	0	0	10097	-75.69	66.65	0
1102	SLU 76	0	0	10155	-76.4	67.86	0
1102	SLU 77	0	0	10010	-74.63	64.84	0
1102	SLU 78	0	0	10097	-75.69	66.65	0
1102	SLU 79	0	0	10010	-74.63	64.84	0
1102	SLU 80	0	0	10097	-75.69	66.65	0
1102	SLU 81	0	0	10646	-79.25	68.83	0
1102	SLU 82	0	0	10733	-80.32	70.65	0
1102	SLU 83	0	0	10646	-79.25	68.83	0
1102	SLU 84	0	0	10733	-80.32	70.65	0
1102	SLE RA 1	0	0	6390	-47.79	41.75	0
1102	SLE RA 2	0	0	6486	-48.97	43.77	0
1102	SLE RA 3	0	0	6390	-47.79	41.75	0
1102	SLE RA 4	0	0	6447	-48.5	42.96	0
1102	SLE RA 5	0	0	6486	-48.97	43.77	0
1102	SLE RA 6	0	0	6390	-47.79	41.75	0
1102	SLE RA 7	0	0	6447	-48.5	42.96	0
1102	SLE RA 8	0	0	6390	-47.79	41.75	0
1102	SLE RA 9	0	0	6447	-48.5	42.96	0
1102	SLE RA 10	0	0	7475	-56.17	49.98	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
1102	SLE RA 11	0	0	7378	-54.99	47.97	0
1102	SLE RA 12	0	0	7436	-55.69	49.18	0
1102	SLE RA 13	0	0	7475	-56.17	49.98	0
1102	SLE RA 14	0	0	7378	-54.99	47.97	0
1102	SLE RA 15	0	0	7436	-55.69	49.18	0
1102	SLE RA 16	0	0	7378	-54.99	47.97	0
1102	SLE RA 17	0	0	7436	-55.69	49.18	0
1102	SLE RA 18	0	0	7802	-58.07	50.63	0
1102	SLE RA 19	0	0	7860	-58.78	51.84	0
1102	SLE RA 20	0	0	7802	-58.07	50.63	0
1102	SLE RA 21	0	0	7860	-58.78	51.84	0
1102	SLE FR 1	0	0	6390	-47.79	41.75	0
1102	SLE FR 2	0	0	6409	-48.03	42.15	0
1102	SLE FR 3	0	0	6390	-47.79	41.75	0
1102	SLE FR 4	0	0	6833	-51.11	44.82	0
1102	SLE FR 5	0	0	6813	-50.87	44.41	0
1102	SLE FR 6	0	0	7096	-52.93	46.19	0
1102	SLE QP 1	0	0	6390	-47.79	41.75	0
1102	SLE QP 2	0	0	6813	-50.87	44.41	0
1102	SLD 1	0	0	5715	-42.31	39.02	0
1102	SLD 2	0	0	5715	-42.31	39.02	0
1102	SLD 3	0	0	6114	-43.93	41.66	0
1102	SLD 4	0	0	6114	-43.93	41.66	0
1102	SLD 5	0	0	5880	-45.84	38.79	0
1102	SLD 6	0	0	5880	-45.84	38.79	0
1102	SLD 7	0	0	7208	-51.25	47.59	0
1102	SLD 8	0	0	7208	-51.25	47.59	0
1102	SLD 9	0	0	6419	-50.49	41.23	0
1102	SLD 10	0	0	6419	-50.49	41.23	0
1102	SLD 11	0	0	7747	-55.91	50.04	0
1102	SLD 12	0	0	7747	-55.91	50.04	0
1102	SLD 13	0	0	7513	-57.82	47.17	0
1102	SLD 14	0	0	7513	-57.82	47.17	0
1102	SLD 15	0	0	7912	-59.44	49.81	0
1102	SLD 16	0	0	7912	-59.44	49.81	0
1102	SLV 1	0	0	4225	-30.13	31	0
1102	SLV 2	0	0	4225	-30.13	31	0
1102	SLV 3	0	0	5171	-34.12	37.38	0
1102	SLV 4	0	0	5171	-34.12	37.38	0
1102	SLV 5	0	0	4602	-38.59	30.71	0
1102	SLV 6	0	0	4602	-38.59	30.71	0
1102	SLV 7	0	0	7756	-51.91	51.99	0
1102	SLV 8	0	0	7756	-51.91	51.99	0
1102	SLV 9	0	0	5871	-49.84	36.84	0
1102	SLV 10	0	0	5871	-49.84	36.84	0
1102	SLV 11	0	0	9025	-63.16	58.12	0
1102	SLV 12	0	0	9025	-63.16	58.12	0
1102	SLV 13	0	0	8456	-67.63	51.44	0
1102	SLV 14	0	0	8456	-67.63	51.44	0
1102	SLV 15	0	0	9402	-71.62	57.83	0
1102	SLV 16	0	0	9402	-71.62	57.83	0
2030	SLU 1	0	0	2719	30.8	-34.63	0
2030	SLU 2	0	0	2706	30.71	-34.58	0
2030	SLU 3	0	0	2719	30.8	-34.63	0
2030	SLU 4	0	0	2711	30.75	-34.6	0
2030	SLU 5	0	0	2706	30.71	-34.58	0
2030	SLU 6	0	0	2719	30.8	-34.63	0
2030	SLU 7	0	0	2711	30.75	-34.6	0
2030	SLU 8	0	0	2719	30.8	-34.63	0
2030	SLU 9	0	0	2711	30.75	-34.6	0
2030	SLU 10	0	0	3864	40.04	-54.63	0
2030	SLU 11	0	0	3877	40.13	-54.68	0
2030	SLU 12	0	0	3869	40.08	-54.65	0
2030	SLU 13	0	0	3864	40.04	-54.63	0
2030	SLU 14	0	0	3877	40.13	-54.68	0
2030	SLU 15	0	0	3869	40.08	-54.65	0
2030	SLU 16	0	0	3877	40.13	-54.68	0
2030	SLU 17	0	0	3869	40.08	-54.65	0
2030	SLU 18	0	0	4373	44.13	-63.27	0
2030	SLU 19	0	0	4366	44.08	-63.24	0
2030	SLU 20	0	0	4373	44.13	-63.27	0
2030	SLU 21	0	0	4366	44.08	-63.24	0
2030	SLU 22	0	0	3216	35.11	-42.94	0
2030	SLU 23	0	0	3203	35.03	-42.89	0
2030	SLU 24	0	0	3216	35.11	-42.94	0
2030	SLU 25	0	0	3208	35.06	-42.91	0
2030	SLU 26	0	0	3203	35.03	-42.89	0
2030	SLU 27	0	0	3216	35.11	-42.94	0
2030	SLU 28	0	0	3208	35.06	-42.91	0
2030	SLU 29	0	0	3216	35.11	-42.94	0
2030	SLU 30	0	0	3208	35.06	-42.91	0
2030	SLU 31	0	0	4361	44.36	-62.94	0
2030	SLU 32	0	0	4374	44.44	-62.99	0
2030	SLU 33	0	0	4366	44.39	-62.96	0
2030	SLU 34	0	0	4361	44.36	-62.94	0
2030	SLU 35	0	0	4374	44.44	-62.99	0
2030	SLU 36	0	0	4366	44.39	-62.96	0
2030	SLU 37	0	0	4374	44.44	-62.99	0
2030	SLU 38	0	0	4366	44.39	-62.96	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
2030	SLU 39	0	0	4870	48.44	-71.58	0
2030	SLU 40	0	0	4863	48.39	-71.55	0
2030	SLU 41	0	0	4870	48.44	-71.58	0
2030	SLU 42	0	0	4863	48.39	-71.55	0
2030	SLU 43	0	0	3364	38.56	-42.17	0
2030	SLU 44	0	0	3351	38.47	-42.12	0
2030	SLU 45	0	0	3364	38.56	-42.17	0
2030	SLU 46	0	0	3356	38.51	-42.14	0
2030	SLU 47	0	0	3351	38.47	-42.12	0
2030	SLU 48	0	0	3364	38.56	-42.17	0
2030	SLU 49	0	0	3356	38.51	-42.14	0
2030	SLU 50	0	0	3364	38.56	-42.17	0
2030	SLU 51	0	0	3356	38.51	-42.14	0
2030	SLU 52	0	0	4509	47.8	-62.17	0
2030	SLU 53	0	0	4522	47.89	-62.22	0
2030	SLU 54	0	0	4515	47.84	-62.19	0
2030	SLU 55	0	0	4509	47.8	-62.17	0
2030	SLU 56	0	0	4522	47.89	-62.22	0
2030	SLU 57	0	0	4515	47.84	-62.19	0
2030	SLU 58	0	0	4522	47.89	-62.22	0
2030	SLU 59	0	0	4515	47.84	-62.19	0
2030	SLU 60	0	0	5019	51.89	-70.81	0
2030	SLU 61	0	0	5011	51.84	-70.78	0
2030	SLU 62	0	0	5019	51.89	-70.81	0
2030	SLU 63	0	0	5011	51.84	-70.78	0
2030	SLU 64	0	0	3861	42.87	-50.48	0
2030	SLU 65	0	0	3848	42.79	-50.43	0
2030	SLU 66	0	0	3861	42.87	-50.48	0
2030	SLU 67	0	0	3853	42.82	-50.45	0
2030	SLU 68	0	0	3848	42.79	-50.43	0
2030	SLU 69	0	0	3861	42.87	-50.48	0
2030	SLU 70	0	0	3853	42.82	-50.45	0
2030	SLU 71	0	0	3861	42.87	-50.48	0
2030	SLU 72	0	0	3853	42.82	-50.45	0
2030	SLU 73	0	0	5006	52.12	-70.48	0
2030	SLU 74	0	0	5019	52.2	-70.53	0
2030	SLU 75	0	0	5011	52.15	-70.5	0
2030	SLU 76	0	0	5006	52.12	-70.48	0
2030	SLU 77	0	0	5019	52.2	-70.53	0
2030	SLU 78	0	0	5011	52.15	-70.5	0
2030	SLU 79	0	0	5019	52.2	-70.53	0
2030	SLU 80	0	0	5011	52.15	-70.5	0
2030	SLU 81	0	0	5515	56.2	-79.12	0
2030	SLU 82	0	0	5508	56.15	-79.09	0
2030	SLU 83	0	0	5515	56.2	-79.12	0
2030	SLU 84	0	0	5508	56.15	-79.09	0
2030	SLE RA 1	0	0	2861	32.03	-37	0
2030	SLE RA 2	0	0	2852	31.97	-36.97	0
2030	SLE RA 3	0	0	2861	32.03	-37	0
2030	SLE RA 4	0	0	2856	32	-36.98	0
2030	SLE RA 5	0	0	2852	31.97	-36.97	0
2030	SLE RA 6	0	0	2861	32.03	-37	0
2030	SLE RA 7	0	0	2856	32	-36.98	0
2030	SLE RA 8	0	0	2861	32.03	-37	0
2030	SLE RA 9	0	0	2856	32	-36.98	0
2030	SLE RA 10	0	0	3624	38.19	-50.34	0
2030	SLE RA 11	0	0	3633	38.25	-50.37	0
2030	SLE RA 12	0	0	3628	38.22	-50.35	0
2030	SLE RA 13	0	0	3624	38.19	-50.34	0
2030	SLE RA 14	0	0	3633	38.25	-50.37	0
2030	SLE RA 15	0	0	3628	38.22	-50.35	0
2030	SLE RA 16	0	0	3633	38.25	-50.37	0
2030	SLE RA 17	0	0	3628	38.22	-50.35	0
2030	SLE RA 18	0	0	3964	40.92	-56.1	0
2030	SLE RA 19	0	0	3959	40.88	-56.08	0
2030	SLE RA 20	0	0	3964	40.92	-56.1	0
2030	SLE RA 21	0	0	3959	40.88	-56.08	0
2030	SLE FR 1	0	0	2861	32.03	-37	0
2030	SLE FR 2	0	0	2859	32.02	-37	0
2030	SLE FR 3	0	0	2861	32.03	-37	0
2030	SLE FR 4	0	0	3190	34.68	-42.73	0
2030	SLE FR 5	0	0	3192	34.7	-42.73	0
2030	SLE FR 6	0	0	3412	36.47	-46.55	0
2030	SLE QP 1	0	0	2861	32.03	-37	0
2030	SLE QP 2	0	0	3192	34.7	-42.73	0
2030	SLD 1	0	0	3685	41.89	-49.07	0
2030	SLD 2	0	0	3685	41.89	-49.07	0
2030	SLD 3	0	0	3584	39.72	-45.78	0
2030	SLD 4	0	0	3584	39.72	-45.78	0
2030	SLD 5	0	0	3492	40.14	-49.64	0
2030	SLD 6	0	0	3492	40.14	-49.64	0
2030	SLD 7	0	0	3156	32.91	-38.64	0
2030	SLD 8	0	0	3156	32.91	-38.64	0
2030	SLD 9	0	0	3227	36.48	-46.82	0
2030	SLD 10	0	0	3227	36.48	-46.82	0
2030	SLD 11	0	0	2891	29.25	-35.83	0
2030	SLD 12	0	0	2891	29.25	-35.83	0
2030	SLD 13	0	0	2799	29.67	-39.69	0
2030	SLD 14	0	0	2799	29.67	-39.69	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
2030	SLD 15	0	0	2699	27.5	-36.39	0
2030	SLD 16	0	0	2699	27.5	-36.39	0
2030	SLV 1	0	0	4355	52.91	-59.32	0
2030	SLV 2	0	0	4355	52.91	-59.32	0
2030	SLV 3	0	0	4106	46.81	-50.04	0
2030	SLV 4	0	0	4106	46.81	-50.04	0
2030	SLV 5	0	0	3919	49.41	-61.79	0
2030	SLV 6	0	0	3919	49.41	-61.79	0
2030	SLV 7	0	0	3087	29.08	-30.85	0
2030	SLV 8	0	0	3087	29.08	-30.85	0
2030	SLV 9	0	0	3296	40.31	-54.62	0
2030	SLV 10	0	0	3296	40.31	-54.62	0
2030	SLV 11	0	0	2464	19.99	-23.68	0
2030	SLV 12	0	0	2464	19.99	-23.68	0
2030	SLV 13	0	0	2278	22.58	-35.42	0
2030	SLV 14	0	0	2278	22.58	-35.42	0
2030	SLV 15	0	0	2028	16.48	-26.14	0
2030	SLV 16	0	0	2028	16.48	-26.14	0
2054	SLU 1	0	0	2369	27.46	29.83	0
2054	SLU 2	0	0	2352	27.46	29.77	0
2054	SLU 3	0	0	2369	27.46	29.83	0
2054	SLU 4	0	0	2359	27.46	29.79	0
2054	SLU 5	0	0	2352	27.46	29.77	0
2054	SLU 6	0	0	2369	27.46	29.83	0
2054	SLU 7	0	0	2359	27.46	29.79	0
2054	SLU 8	0	0	2369	27.46	29.83	0
2054	SLU 9	0	0	2359	27.46	29.79	0
2054	SLU 10	0	0	3070	33.06	41.76	0
2054	SLU 11	0	0	3087	33.06	41.82	0
2054	SLU 12	0	0	3077	33.06	41.78	0
2054	SLU 13	0	0	3070	33.06	41.76	0
2054	SLU 14	0	0	3087	33.06	41.82	0
2054	SLU 15	0	0	3077	33.06	41.78	0
2054	SLU 16	0	0	3087	33.06	41.82	0
2054	SLU 17	0	0	3077	33.06	41.78	0
2054	SLU 18	0	0	3395	35.46	46.96	0
2054	SLU 19	0	0	3385	35.46	46.92	0
2054	SLU 20	0	0	3395	35.46	46.96	0
2054	SLU 21	0	0	3385	35.46	46.92	0
2054	SLU 22	0	0	2677	30.07	34.87	0
2054	SLU 23	0	0	2660	30.07	34.82	0
2054	SLU 24	0	0	2677	30.07	34.87	0
2054	SLU 25	0	0	2667	30.07	34.84	0
2054	SLU 26	0	0	2660	30.07	34.82	0
2054	SLU 27	0	0	2677	30.07	34.87	0
2054	SLU 28	0	0	2667	30.07	34.84	0
2054	SLU 29	0	0	2677	30.07	34.87	0
2054	SLU 30	0	0	2667	30.07	34.84	0
2054	SLU 31	0	0	3378	35.68	46.81	0
2054	SLU 32	0	0	3395	35.67	46.86	0
2054	SLU 33	0	0	3385	35.68	46.83	0
2054	SLU 34	0	0	3378	35.68	46.81	0
2054	SLU 35	0	0	3395	35.67	46.86	0
2054	SLU 36	0	0	3385	35.68	46.83	0
2054	SLU 37	0	0	3395	35.67	46.86	0
2054	SLU 38	0	0	3385	35.68	46.83	0
2054	SLU 39	0	0	3703	38.08	52	0
2054	SLU 40	0	0	3692	38.08	51.97	0
2054	SLU 41	0	0	3703	38.08	52	0
2054	SLU 42	0	0	3692	38.08	51.97	0
2054	SLU 43	0	0	2975	34.8	37.04	0
2054	SLU 44	0	0	2958	34.8	36.99	0
2054	SLU 45	0	0	2975	34.8	37.04	0
2054	SLU 46	0	0	2964	34.8	37.01	0
2054	SLU 47	0	0	2958	34.8	36.99	0
2054	SLU 48	0	0	2975	34.8	37.04	0
2054	SLU 49	0	0	2964	34.8	37.01	0
2054	SLU 50	0	0	2975	34.8	37.04	0
2054	SLU 51	0	0	2964	34.8	37.01	0
2054	SLU 52	0	0	3675	40.4	48.98	0
2054	SLU 53	0	0	3693	40.4	49.03	0
2054	SLU 54	0	0	3682	40.4	49	0
2054	SLU 55	0	0	3675	40.4	48.98	0
2054	SLU 56	0	0	3693	40.4	49.03	0
2054	SLU 57	0	0	3682	40.4	49	0
2054	SLU 58	0	0	3693	40.4	49.03	0
2054	SLU 59	0	0	3682	40.4	49	0
2054	SLU 60	0	0	4000	42.8	54.17	0
2054	SLU 61	0	0	3990	42.8	54.14	0
2054	SLU 62	0	0	4000	42.8	54.17	0
2054	SLU 63	0	0	3990	42.8	54.14	0
2054	SLU 64	0	0	3282	37.41	42.09	0
2054	SLU 65	0	0	3265	37.42	42.04	0
2054	SLU 66	0	0	3282	37.41	42.09	0
2054	SLU 67	0	0	3272	37.41	42.06	0
2054	SLU 68	0	0	3265	37.42	42.04	0
2054	SLU 69	0	0	3282	37.41	42.09	0
2054	SLU 70	0	0	3272	37.41	42.06	0
2054	SLU 71	0	0	3282	37.41	42.09	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
2054	SLU 72	0	0	3272	37.41	42.06	0
2054	SLU 73	0	0	3983	43.02	54.03	0
2054	SLU 74	0	0	4000	43.02	54.08	0
2054	SLU 75	0	0	3990	43.02	54.05	0
2054	SLU 76	0	0	3983	43.02	54.03	0
2054	SLU 77	0	0	4000	43.02	54.08	0
2054	SLU 78	0	0	3990	43.02	54.05	0
2054	SLU 79	0	0	4000	43.02	54.08	0
2054	SLU 80	0	0	3990	43.02	54.05	0
2054	SLU 81	0	0	4308	45.42	59.22	0
2054	SLU 82	0	0	4298	45.42	59.19	0
2054	SLU 83	0	0	4308	45.42	59.22	0
2054	SLU 84	0	0	4298	45.42	59.19	0
2054	SLE RA 1	0	0	2457	28.21	31.27	0
2054	SLE RA 2	0	0	2446	28.21	31.23	0
2054	SLE RA 3	0	0	2457	28.21	31.27	0
2054	SLE RA 4	0	0	2450	28.21	31.25	0
2054	SLE RA 5	0	0	2446	28.21	31.23	0
2054	SLE RA 6	0	0	2457	28.21	31.27	0
2054	SLE RA 7	0	0	2450	28.21	31.25	0
2054	SLE RA 8	0	0	2457	28.21	31.27	0
2054	SLE RA 9	0	0	2450	28.21	31.25	0
2054	SLE RA 10	0	0	2924	31.94	39.23	0
2054	SLE RA 11	0	0	2936	31.94	39.26	0
2054	SLE RA 12	0	0	2929	31.94	39.24	0
2054	SLE RA 13	0	0	2924	31.94	39.23	0
2054	SLE RA 14	0	0	2936	31.94	39.26	0
2054	SLE RA 15	0	0	2929	31.94	39.24	0
2054	SLE RA 16	0	0	2936	31.94	39.26	0
2054	SLE RA 17	0	0	2929	31.94	39.24	0
2054	SLE RA 18	0	0	3141	33.54	42.69	0
2054	SLE RA 19	0	0	3134	33.54	42.67	0
2054	SLE RA 20	0	0	3141	33.54	42.69	0
2054	SLE RA 21	0	0	3134	33.54	42.67	0
2054	SLE FR 1	0	0	2457	28.21	31.27	0
2054	SLE FR 2	0	0	2455	28.21	31.26	0
2054	SLE FR 3	0	0	2457	28.21	31.27	0
2054	SLE FR 4	0	0	2660	29.81	34.69	0
2054	SLE FR 5	0	0	2662	29.81	34.7	0
2054	SLE FR 6	0	0	2799	30.87	36.98	0
2054	SLE QP 1	0	0	2457	28.21	31.27	0
2054	SLE QP 2	0	0	2662	29.81	34.7	0
2054	SLD 1	0	0	2388	24.02	29.95	0
2054	SLD 2	0	0	2388	24.02	29.95	0
2054	SLD 3	0	0	2275	22.18	27.11	0
2054	SLD 4	0	0	2275	22.18	27.11	0
2054	SLD 5	0	0	2752	30.86	37.57	0
2054	SLD 6	0	0	2752	30.86	37.57	0
2054	SLD 7	0	0	2375	24.73	28.12	0
2054	SLD 8	0	0	2375	24.73	28.12	0
2054	SLD 9	0	0	2950	34.88	41.27	0
2054	SLD 10	0	0	2950	34.88	41.27	0
2054	SLD 11	0	0	2573	28.75	31.82	0
2054	SLD 12	0	0	2573	28.75	31.82	0
2054	SLD 13	0	0	3050	37.44	42.28	0
2054	SLD 14	0	0	3050	37.44	42.28	0
2054	SLD 15	0	0	2937	35.6	39.44	0
2054	SLD 16	0	0	2937	35.6	39.44	0
2054	SLV 1	0	0	2017	15.42	22.52	0
2054	SLV 2	0	0	2017	15.42	22.52	0
2054	SLV 3	0	0	1745	10.76	15.34	0
2054	SLV 4	0	0	1745	10.76	15.34	0
2054	SLV 5	0	0	2882	32.57	41.94	0
2054	SLV 6	0	0	2882	32.57	41.94	0
2054	SLV 7	0	0	1974	17.02	18	0
2054	SLV 8	0	0	1974	17.02	18	0
2054	SLV 9	0	0	3351	42.6	51.39	0
2054	SLV 10	0	0	3351	42.6	51.39	0
2054	SLV 11	0	0	2443	27.05	27.45	0
2054	SLV 12	0	0	2443	27.05	27.45	0
2054	SLV 13	0	0	3580	48.85	54.05	0
2054	SLV 14	0	0	3580	48.85	54.05	0
2054	SLV 15	0	0	3307	44.19	46.87	0
2054	SLV 16	0	0	3307	44.19	46.87	0
2125	SLU 1	0	0	2741	-30.08	-37.24	0
2125	SLU 2	0	0	2806	-34.11	-42.53	0
2125	SLU 3	0	0	2741	-30.08	-37.24	0
2125	SLU 4	0	0	2780	-32.5	-40.41	0
2125	SLU 5	0	0	2806	-34.11	-42.53	0
2125	SLU 6	0	0	2741	-30.08	-37.24	0
2125	SLU 7	0	0	2780	-32.5	-40.41	0
2125	SLU 8	0	0	2741	-30.08	-37.24	0
2125	SLU 9	0	0	2780	-32.5	-40.41	0
2125	SLU 10	0	0	3970	-42.92	-64.5	0
2125	SLU 11	0	0	3905	-38.9	-59.21	0
2125	SLU 12	0	0	3944	-41.31	-62.38	0
2125	SLU 13	0	0	3970	-42.92	-64.5	0
2125	SLU 14	0	0	3905	-38.9	-59.21	0
2125	SLU 15	0	0	3944	-41.31	-62.38	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
2125	SLU 16	0	0	3905	-38.9	-59.21	0
2125	SLU 17	0	0	3944	-41.31	-62.38	0
2125	SLU 18	0	0	4403	-42.67	-68.62	0
2125	SLU 19	0	0	4443	-45.09	-71.8	0
2125	SLU 20	0	0	4403	-42.67	-68.62	0
2125	SLU 21	0	0	4443	-45.09	-71.8	0
2125	SLU 22	0	0	3229	-34.05	-46.22	0
2125	SLU 23	0	0	3295	-38.08	-51.51	0
2125	SLU 24	0	0	3229	-34.05	-46.22	0
2125	SLU 25	0	0	3268	-36.46	-49.39	0
2125	SLU 26	0	0	3295	-38.08	-51.51	0
2125	SLU 27	0	0	3229	-34.05	-46.22	0
2125	SLU 28	0	0	3268	-36.46	-49.39	0
2125	SLU 29	0	0	3229	-34.05	-46.22	0
2125	SLU 30	0	0	3268	-36.46	-49.39	0
2125	SLU 31	0	0	4458	-46.89	-73.48	0
2125	SLU 32	0	0	4393	-42.86	-68.19	0
2125	SLU 33	0	0	4432	-45.28	-71.36	0
2125	SLU 34	0	0	4458	-46.89	-73.48	0
2125	SLU 35	0	0	4393	-42.86	-68.19	0
2125	SLU 36	0	0	4432	-45.28	-71.36	0
2125	SLU 37	0	0	4393	-42.86	-68.19	0
2125	SLU 38	0	0	4432	-45.28	-71.36	0
2125	SLU 39	0	0	4892	-46.64	-77.6	0
2125	SLU 40	0	0	4931	-49.06	-80.78	0
2125	SLU 41	0	0	4892	-46.64	-77.6	0
2125	SLU 42	0	0	4931	-49.06	-80.78	0
2125	SLU 43	0	0	3395	-37.74	-45.33	0
2125	SLU 44	0	0	3461	-41.77	-50.62	0
2125	SLU 45	0	0	3395	-37.74	-45.33	0
2125	SLU 46	0	0	3435	-40.16	-48.51	0
2125	SLU 47	0	0	3461	-41.77	-50.62	0
2125	SLU 48	0	0	3395	-37.74	-45.33	0
2125	SLU 49	0	0	3435	-40.16	-48.51	0
2125	SLU 50	0	0	3395	-37.74	-45.33	0
2125	SLU 51	0	0	3435	-40.16	-48.51	0
2125	SLU 52	0	0	4625	-50.59	-72.59	0
2125	SLU 53	0	0	4559	-46.56	-67.3	0
2125	SLU 54	0	0	4598	-48.98	-70.47	0
2125	SLU 55	0	0	4625	-50.59	-72.59	0
2125	SLU 56	0	0	4559	-46.56	-67.3	0
2125	SLU 57	0	0	4598	-48.98	-70.47	0
2125	SLU 58	0	0	4559	-46.56	-67.3	0
2125	SLU 59	0	0	4598	-48.98	-70.47	0
2125	SLU 60	0	0	5058	-50.34	-76.72	0
2125	SLU 61	0	0	5097	-52.75	-79.89	0
2125	SLU 62	0	0	5058	-50.34	-76.72	0
2125	SLU 63	0	0	5097	-52.75	-79.89	0
2125	SLU 64	0	0	3884	-41.71	-54.31	0
2125	SLU 65	0	0	3949	-45.74	-59.6	0
2125	SLU 66	0	0	3884	-41.71	-54.31	0
2125	SLU 67	0	0	3923	-44.13	-57.48	0
2125	SLU 68	0	0	3949	-45.74	-59.6	0
2125	SLU 69	0	0	3884	-41.71	-54.31	0
2125	SLU 70	0	0	3923	-44.13	-57.48	0
2125	SLU 71	0	0	3884	-41.71	-54.31	0
2125	SLU 72	0	0	3923	-44.13	-57.48	0
2125	SLU 73	0	0	5113	-54.56	-81.57	0
2125	SLU 74	0	0	5048	-50.53	-76.28	0
2125	SLU 75	0	0	5087	-52.94	-79.45	0
2125	SLU 76	0	0	5113	-54.56	-81.57	0
2125	SLU 77	0	0	5048	-50.53	-76.28	0
2125	SLU 78	0	0	5087	-52.94	-79.45	0
2125	SLU 79	0	0	5048	-50.53	-76.28	0
2125	SLU 80	0	0	5087	-52.94	-79.45	0
2125	SLU 81	0	0	5547	-54.31	-85.7	0
2125	SLU 82	0	0	5586	-56.72	-88.87	0
2125	SLU 83	0	0	5547	-54.31	-85.7	0
2125	SLU 84	0	0	5586	-56.72	-88.87	0
2125	SLE RA 1	0	0	2880	-31.21	-39.8	0
2125	SLE RA 2	0	0	2924	-33.9	-43.33	0
2125	SLE RA 3	0	0	2880	-31.21	-39.8	0
2125	SLE RA 4	0	0	2906	-32.82	-41.92	0
2125	SLE RA 5	0	0	2924	-33.9	-43.33	0
2125	SLE RA 6	0	0	2880	-31.21	-39.8	0
2125	SLE RA 7	0	0	2906	-32.82	-41.92	0
2125	SLE RA 8	0	0	2880	-31.21	-39.8	0
2125	SLE RA 9	0	0	2906	-32.82	-41.92	0
2125	SLE RA 10	0	0	3700	-39.78	-57.98	0
2125	SLE RA 11	0	0	3656	-37.09	-54.45	0
2125	SLE RA 12	0	0	3682	-38.7	-56.57	0
2125	SLE RA 13	0	0	3700	-39.78	-57.98	0
2125	SLE RA 14	0	0	3656	-37.09	-54.45	0
2125	SLE RA 15	0	0	3682	-38.7	-56.57	0
2125	SLE RA 16	0	0	3656	-37.09	-54.45	0
2125	SLE RA 17	0	0	3682	-38.7	-56.57	0
2125	SLE RA 18	0	0	3989	-39.61	-60.73	0
2125	SLE RA 19	0	0	4015	-41.22	-62.84	0
2125	SLE RA 20	0	0	3989	-39.61	-60.73	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
2125	SLE RA 21	0	0	4015	-41.22	-62.84	0
2125	SLE FR 1	0	0	2880	-31.21	-39.8	0
2125	SLE FR 2	0	0	2889	-31.75	-40.51	0
2125	SLE FR 3	0	0	2880	-31.21	-39.8	0
2125	SLE FR 4	0	0	3222	-34.27	-46.79	0
2125	SLE FR 5	0	0	3213	-33.73	-46.08	0
2125	SLE FR 6	0	0	3434	-35.41	-50.27	0
2125	SLE QP 1	0	0	2880	-31.21	-39.8	0
2125	SLE QP 2	0	0	3213	-33.73	-46.08	0
2125	SLD 1	0	0	3537	-38.04	-48.26	0
2125	SLD 2	0	0	3537	-38.04	-48.26	0
2125	SLD 3	0	0	3634	-39.81	-50.69	0
2125	SLD 4	0	0	3634	-39.81	-50.69	0
2125	SLD 5	0	0	3164	-32.35	-43.04	0
2125	SLD 6	0	0	3164	-32.35	-43.04	0
2125	SLD 7	0	0	3485	-38.23	-51.16	0
2125	SLD 8	0	0	3485	-38.23	-51.16	0
2125	SLD 9	0	0	2941	-29.23	-41.01	0
2125	SLD 10	0	0	2941	-29.23	-41.01	0
2125	SLD 11	0	0	3261	-35.11	-49.12	0
2125	SLD 12	0	0	3261	-35.11	-49.12	0
2125	SLD 13	0	0	2792	-27.65	-41.47	0
2125	SLD 14	0	0	2792	-27.65	-41.47	0
2125	SLD 15	0	0	2888	-29.42	-43.9	0
2125	SLD 16	0	0	2888	-29.42	-43.9	0
2125	SLV 1	0	0	3970	-44.09	-51.49	0
2125	SLV 2	0	0	3970	-44.09	-51.49	0
2125	SLV 3	0	0	4201	-48.77	-57.93	0
2125	SLV 4	0	0	4201	-48.77	-57.93	0
2125	SLV 5	0	0	3091	-29.75	-37.94	0
2125	SLV 6	0	0	3091	-29.75	-37.94	0
2125	SLV 7	0	0	3858	-45.33	-59.4	0
2125	SLV 8	0	0	3858	-45.33	-59.4	0
2125	SLV 9	0	0	2567	-22.13	-32.77	0
2125	SLV 10	0	0	2567	-22.13	-32.77	0
2125	SLV 11	0	0	3335	-37.72	-54.22	0
2125	SLV 12	0	0	3335	-37.72	-54.22	0
2125	SLV 13	0	0	2225	-18.7	-34.23	0
2125	SLV 14	0	0	2225	-18.7	-34.23	0
2125	SLV 15	0	0	2455	-23.37	-40.67	0
2125	SLV 16	0	0	2455	-23.37	-40.67	0
2149	SLU 1	0	0	2546	-28.71	31.48	0
2149	SLU 2	0	0	2609	-33.22	37.25	0
2149	SLU 3	0	0	2546	-28.71	31.48	0
2149	SLU 4	0	0	2584	-31.41	34.94	0
2149	SLU 5	0	0	2609	-33.22	37.25	0
2149	SLU 6	0	0	2546	-28.71	31.48	0
2149	SLU 7	0	0	2584	-31.41	34.94	0
2149	SLU 8	0	0	2546	-28.71	31.48	0
2149	SLU 9	0	0	2584	-31.41	34.94	0
2149	SLU 10	0	0	3411	-39.28	50.1	0
2149	SLU 11	0	0	3348	-34.77	44.33	0
2149	SLU 12	0	0	3386	-37.48	47.8	0
2149	SLU 13	0	0	3411	-39.28	50.1	0
2149	SLU 14	0	0	3348	-34.77	44.33	0
2149	SLU 15	0	0	3386	-37.48	47.8	0
2149	SLU 16	0	0	3348	-34.77	44.33	0
2149	SLU 17	0	0	3386	-37.48	47.8	0
2149	SLU 18	0	0	3692	-37.37	49.84	0
2149	SLU 19	0	0	3729	-40.07	53.3	0
2149	SLU 20	0	0	3692	-37.37	49.84	0
2149	SLU 21	0	0	3729	-40.07	53.3	0
2149	SLU 22	0	0	2897	-31.64	36.89	0
2149	SLU 23	0	0	2960	-36.15	42.65	0
2149	SLU 24	0	0	2897	-31.64	36.89	0
2149	SLU 25	0	0	2935	-34.34	40.35	0
2149	SLU 26	0	0	2960	-36.15	42.65	0
2149	SLU 27	0	0	2897	-31.64	36.89	0
2149	SLU 28	0	0	2935	-34.34	40.35	0
2149	SLU 29	0	0	2897	-31.64	36.89	0
2149	SLU 30	0	0	2935	-34.34	40.35	0
2149	SLU 31	0	0	3762	-42.21	55.51	0
2149	SLU 32	0	0	3699	-37.7	49.74	0
2149	SLU 33	0	0	3737	-40.41	53.2	0
2149	SLU 34	0	0	3762	-42.21	55.51	0
2149	SLU 35	0	0	3699	-37.7	49.74	0
2149	SLU 36	0	0	3737	-40.41	53.2	0
2149	SLU 37	0	0	3699	-37.7	49.74	0
2149	SLU 38	0	0	3737	-40.41	53.2	0
2149	SLU 39	0	0	4043	-40.3	55.25	0
2149	SLU 40	0	0	4080	-43	58.71	0
2149	SLU 41	0	0	4043	-40.3	55.25	0
2149	SLU 42	0	0	4080	-43	58.71	0
2149	SLU 43	0	0	3190	-36.31	39.07	0
2149	SLU 44	0	0	3252	-40.82	44.84	0
2149	SLU 45	0	0	3190	-36.31	39.07	0
2149	SLU 46	0	0	3227	-39.02	42.53	0
2149	SLU 47	0	0	3252	-40.82	44.84	0
2149	SLU 48	0	0	3190	-36.31	39.07	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
2149	SLU 49	0	0	3227	-39.02	42.53	0
2149	SLU 50	0	0	3190	-36.31	39.07	0
2149	SLU 51	0	0	3227	-39.02	42.53	0
2149	SLU 52	0	0	4054	-46.89	57.69	0
2149	SLU 53	0	0	3992	-42.38	51.93	0
2149	SLU 54	0	0	4029	-45.08	55.39	0
2149	SLU 55	0	0	4054	-46.89	57.69	0
2149	SLU 56	0	0	3992	-42.38	51.93	0
2149	SLU 57	0	0	4029	-45.08	55.39	0
2149	SLU 58	0	0	3992	-42.38	51.93	0
2149	SLU 59	0	0	4029	-45.08	55.39	0
2149	SLU 60	0	0	4335	-44.97	57.43	0
2149	SLU 61	0	0	4373	-47.68	60.89	0
2149	SLU 62	0	0	4335	-44.97	57.43	0
2149	SLU 63	0	0	4373	-47.68	60.89	0
2149	SLU 64	0	0	3541	-39.24	44.48	0
2149	SLU 65	0	0	3603	-43.76	50.25	0
2149	SLU 66	0	0	3541	-39.24	44.48	0
2149	SLU 67	0	0	3578	-41.95	47.94	0
2149	SLU 68	0	0	3603	-43.76	50.25	0
2149	SLU 69	0	0	3541	-39.24	44.48	0
2149	SLU 70	0	0	3578	-41.95	47.94	0
2149	SLU 71	0	0	3541	-39.24	44.48	0
2149	SLU 72	0	0	3578	-41.95	47.94	0
2149	SLU 73	0	0	4405	-49.82	63.1	0
2149	SLU 74	0	0	4342	-45.31	57.33	0
2149	SLU 75	0	0	4380	-48.01	60.79	0
2149	SLU 76	0	0	4405	-49.82	63.1	0
2149	SLU 77	0	0	4342	-45.31	57.33	0
2149	SLU 78	0	0	4380	-48.01	60.79	0
2149	SLU 79	0	0	4342	-45.31	57.33	0
2149	SLU 80	0	0	4380	-48.01	60.79	0
2149	SLU 81	0	0	4686	-47.9	62.84	0
2149	SLU 82	0	0	4724	-50.61	66.3	0
2149	SLU 83	0	0	4686	-47.9	62.84	0
2149	SLU 84	0	0	4724	-50.61	66.3	0
2149	SLE RA 1	0	0	2646	-29.54	33.03	0
2149	SLE RA 2	0	0	2688	-32.55	36.87	0
2149	SLE RA 3	0	0	2646	-29.54	33.03	0
2149	SLE RA 4	0	0	2671	-31.35	35.33	0
2149	SLE RA 5	0	0	2688	-32.55	36.87	0
2149	SLE RA 6	0	0	2646	-29.54	33.03	0
2149	SLE RA 7	0	0	2671	-31.35	35.33	0
2149	SLE RA 8	0	0	2646	-29.54	33.03	0
2149	SLE RA 9	0	0	2671	-31.35	35.33	0
2149	SLE RA 10	0	0	3223	-36.59	45.44	0
2149	SLE RA 11	0	0	3181	-33.58	41.59	0
2149	SLE RA 12	0	0	3206	-35.39	43.9	0
2149	SLE RA 13	0	0	3223	-36.59	45.44	0
2149	SLE RA 14	0	0	3181	-33.58	41.59	0
2149	SLE RA 15	0	0	3206	-35.39	43.9	0
2149	SLE RA 16	0	0	3181	-33.58	41.59	0
2149	SLE RA 17	0	0	3206	-35.39	43.9	0
2149	SLE RA 18	0	0	3410	-35.32	45.27	0
2149	SLE RA 19	0	0	3435	-37.12	47.57	0
2149	SLE RA 20	0	0	3410	-35.32	45.27	0
2149	SLE RA 21	0	0	3435	-37.12	47.57	0
2149	SLE FR 1	0	0	2646	-29.54	33.03	0
2149	SLE FR 2	0	0	2655	-30.14	33.79	0
2149	SLE FR 3	0	0	2646	-29.54	33.03	0
2149	SLE FR 4	0	0	2884	-31.88	37.47	0
2149	SLE FR 5	0	0	2876	-31.27	36.7	0
2149	SLE FR 6	0	0	3028	-32.43	39.15	0
2149	SLE QP 1	0	0	2646	-29.54	33.03	0
2149	SLE QP 2	0	0	2876	-31.27	36.7	0
2149	SLD 1	0	0	2425	-25.24	31.06	0
2149	SLD 2	0	0	2425	-25.24	31.06	0
2149	SLD 3	0	0	2521	-27.12	33.4	0
2149	SLD 4	0	0	2521	-27.12	33.4	0
2149	SLD 5	0	0	2596	-26.62	31.46	0
2149	SLD 6	0	0	2596	-26.62	31.46	0
2149	SLD 7	0	0	2914	-32.88	39.25	0
2149	SLD 8	0	0	2914	-32.88	39.25	0
2149	SLD 9	0	0	2837	-29.67	34.14	0
2149	SLD 10	0	0	2837	-29.67	34.14	0
2149	SLD 11	0	0	3155	-35.93	41.93	0
2149	SLD 12	0	0	3155	-35.93	41.93	0
2149	SLD 13	0	0	3230	-35.43	40	0
2149	SLD 14	0	0	3230	-35.43	40	0
2149	SLD 15	0	0	3326	-37.31	42.34	0
2149	SLD 16	0	0	3326	-37.31	42.34	0
2149	SLV 1	0	0	1818	-16.43	22.65	0
2149	SLV 2	0	0	1818	-16.43	22.65	0
2149	SLV 3	0	0	2048	-21.32	28.75	0
2149	SLV 4	0	0	2048	-21.32	28.75	0
2149	SLV 5	0	0	2210	-19.4	23.24	0
2149	SLV 6	0	0	2210	-19.4	23.24	0
2149	SLV 7	0	0	2976	-35.71	43.56	0
2149	SLV 8	0	0	2976	-35.71	43.56	0



Nodo		Reazione a traslazione			Reazione a rotazione		
Ind.	Cont. N.br.	x	y	z	x	y	z
2149	SLV 9	0	0	2775	-26.84	29.84	0
2149	SLV 10	0	0	2775	-26.84	29.84	0
2149	SLV 11	0	0	3541	-43.15	50.16	0
2149	SLV 12	0	0	3541	-43.15	50.16	0
2149	SLV 13	0	0	3703	-41.23	44.65	0
2149	SLV 14	0	0	3703	-41.23	44.65	0
2149	SLV 15	0	0	3933	-46.12	50.75	0
2149	SLV 16	0	0	3933	-46.12	50.75	0

### 1.3 Risposta modale

**Modo:** identificativo del modo di vibrare.

**Periodo:** periodo. [s]

**Massa X:** massa partecipante in direzione globale X. Il valore è adimensionale.

**Massa Y:** massa partecipante in direzione globale Y. Il valore è adimensionale.

**Massa Z:** massa partecipante in direzione globale Z. Il valore è adimensionale.

**Massa rot. X:** massa rotazionale partecipante attorno la direzione globale X. Il valore è adimensionale.

**Massa rot. Y:** massa rotazionale partecipante attorno la direzione globale Y. Il valore è adimensionale.

**Massa rot. Z:** massa rotazionale partecipante attorno la direzione globale Z. Il valore è adimensionale.

**Massa sX:** massa partecipante in direzione Sisma X. Il valore è adimensionale.

**Massa sY:** massa partecipante in direzione Sisma Y. Il valore è adimensionale.

**Totale masse partecipanti:**

Traslazione X: 0.931716

Traslazione Y: 0.966475

Traslazione Z: 0

Rotazione X: 0.884525

Rotazione Y: 0.943455

Rotazione Z: 0.947329

Modo	Periodo	Massa X	Massa Y	Massa Z	Massa rot. X	Massa rot. Y	Massa rot. Z	Massa sX	Massa sY
1	3.321781806	0.000004886	0.079357762	0	0.187176255	0.000005614	0.080365335	0.000004886	0.079357762
2	2.28630522	0.000064899	0.042514229	0	0.097866391	0.000104221	0.050020331	0.000064899	0.042514229
3	2.062867633	0.000165667	0.015655374	0	0.037244801	0.000274245	0.017154322	0.000165667	0.015655374
4	1.807015871	0.000850522	0.000024325	0	0.000076312	0.00142939	0.00051054	0.000850522	0.000024325
5	1.316044864	0.089963861	0.000008458	0	0.00001023	0.019846761	0.000309581	0.089963861	0.000008458
6	1.297377762	0.003295869	0.000012186	0	0.000040385	0.00220213	0.000591858	0.003295869	0.000012186
7	1.081544825	0.00029757	0.001429059	0	0.004953386	0.000070054	0.001076567	0.00029757	0.001429059
8	0.131622092	0.000001977	0.012497938	0	0.025639906	0.000894985	0.012665197	0.000001977	0.012497938
9	0.98533143	0.000243631	0.038602227	0	0.0091796609	0.00012786	0.037159245	0.000243631	0.038602227
10	0.900166663	0.000608166	0.00014255	0	0.000203632	0.005735661	0.000172988	0.000608166	0.00014255
11	0.867868236	0.000112951	0.015432972	0	0.049249009	0.000017906	0.006900267	0.000112951	0.015432972
12	0.791317605	0.0286622	0.005672351	0	0.009113687	0.030255753	0.005382545	0.0286622	0.005672351
13	0.759570053	0.04510336	0.002274101	0	0.000060974	0.034814704	0.000555057	0.04510336	0.002274101
14	0.719553173	0.016418148	0.010198801	0	0.006320483	0.013237984	0.010800925	0.016418148	0.010198801
15	0.655427447	0.000848386	0.014109598	0	0.003581663	0.000376524	0.013668423	0.000848386	0.014109598
16	0.63265909	0.022326747	0.00155427	0	0.000045498	0.022598181	0.00234414	0.022326747	0.00155427
17	0.622956569	0.005443621	0.004747392	0	0.002433565	0.004716753	0.004414493	0.005443621	0.004747392
18	0.583941841	0.061729355	0.000078074	0	0.000359321	0.041397086	0.000004861	0.061729355	0.000078074
19	0.574150435	0.028582858	0.008838481	0	0.000870813	0.01712103	0.009888201	0.028582858	0.008838481
20	0.561759367	0.003663351	0.002354827	0	0.000675188	0.003148697	0.001386215	0.003663351	0.002354827
21	0.553086191	0.001050789	0.000078123	0	0.000073249	0.000119392	0.000274614	0.001050789	0.000078123
22	0.544016141	0.000065762	0.000865822	0	0.000623602	0.004353175	0.001964829	0.000065762	0.000865822
23	0.523668258	0.000145583	0.000087276	0	0.000395314	0.000200046	0.000080434	0.000145583	0.000087276
24	0.518341044	0.009016497	0.003707268	0	0.003389757	0.001670626	0.004706397	0.009016497	0.003707268
25	0.493549504	0.000166498	0.002669898	0	0.010663984	0.00026253	0.002034797	0.000166498	0.002669898
26	0.4849943	0.010579371	0.000424197	0	0.000034461	0.003457442	0.000587368	0.010579371	0.000424197
27	0.469453491	0.014211086	0.002735354	0	0.008613141	0.000969458	0.003060345	0.014211086	0.002735354
28	0.456304287	0.007057419	0.007936024	0	0.016224679	0.000052972	0.008174136	0.007057419	0.007936024
29	0.436261213	0.000014779	0.002648923	0	0.005688867	0.000652234	0.002407234	0.000014779	0.002648923
30	0.430359856	0.000255121	0.000141983	0	0.000071165	0.000000879	0.000208539	0.000255121	0.000141983
31	0.391297754	0.000815755	0.02055424	0	0.002910724	0.00016122	0.018807255	0.000815755	0.02055424
32	0.370443354	0.000008617	0.032165744	0	0.019650262	0.000000486	0.029759242	0.000008617	0.032165744
33	0.364481988	0.003062788	0.001853299	0	0.000111222	0.000344747	0.001215396	0.003062788	0.001853299
34	0.347086641	0.007409565	0.001314315	0	0.000388373	0.003239247	0.000323628	0.007409565	0.001314315
35	0.339533527	0.00199773	0.003606702	0	0.00002462	0.000808019	0.004361189	0.00199773	0.003606702
36	0.31050055	0.007891654	0.000094591	0	0.000001034	0.001649181	0.000352202	0.007891654	0.000094591
37	0.301854312	0.001238921	0.008119389	0	0.000093651	0.000331535	0.007231357	0.001238921	0.008119389
38	0.288471219	0.002306294	0.000166578	0	0.000001542	0.000099556	0.000028277	0.002306294	0.000166578
39	0.262604257	0.000087323	0.00884242	0	0.001894181	0.00001492	0.009278682	0.000087323	0.00884242
40	0.250723267	0.002951975	0.000084196	0	0.000073545	0.000000984	0.000118286	0.002951975	0.000084196
41	0.229652037	0.00000262	0.014456369	0	0.006770501	0.000004942	0.013425907	0.00000262	0.014456369
42	0.191894727	0.000834672	0.01682517	0	0.01331561	0.000745733	0.015133496	0.000834672	0.01682517
43	0.180481082	0.006064409	0.002468108	0	0.001735035	0.005617823	0.002857725	0.006064409	0.002468108
44	0.153491826	0.000684034	0.01497601	0	0.007116797	0.000177774	0.013510225	0.000684034	0.01497601
45	0.144288574	0.020404298	0.000248334	0	0.000265235	0.004902558	0.000580796	0.020404298	0.000248334
46	0.113484174	0.033838786	0.002158475	0	0.00148629	0.011005585	0.001562251	0.033838786	0.002158475
47	0.109614942	0.0020641	0.030383063	0	0.021948755	0.00061812	0.028644299	0.0020641	0.030383063
48	0.075307558	0.000049175	0.104117559	0	0.042018808	0.00017895	0.095888507	0.000049175	0.104117559
49	0.070790437	0.036005537	0.000127363	0	0.000331503	0.062362153	0.00006409	0.036005537	0.000127363
50	0.055142385	0.35161152	0.000456446	0	0.000234129	0.587647453	0.002111849	0.35161152	0.000456446





Modo	Periodo	Massa X	Massa Y	Massa Z	Massa rot. X	Massa rot. Y	Massa rot. Z	Massa sX	Massa sY
51	0.035302586	0.001814358	0.419112548	0	0.194138327	0.001484644	0.412936315	0.001814358	0.419112548
52	0.031923248	0.04868183	0.005712603	0	0.005156101	0.029278795	0.007516081	0.04868183	0.005712603
53	0.029353403	0.047736757	0.000544275	0	0.000000085	0.021666241	0.001078135	0.047736757	0.000544275
54	0.024751314	0.001774026	0.000862422	0	0.000788201	0.000375358	0.000935359	0.001774026	0.000862422
55	0.024187007	0.000439474	0.000324198	0	0.000167416	0.000013752	0.000411619	0.000439474	0.000324198
56	0.018581067	0.000472157	0.000090133	0	0.000030569	0.000104409	0.000239659	0.000472157	0.000090133
57	0.017699408	0.000467557	0.000002926	0	0.000197863	0.000000101	0.000017195	0.000467557	0.000002926
58	0.013958801	0.000002889	0.000000593	0	0.000120442	0.000221931	0.000005324	0.000002889	0.000000593
59	0.010879912	0.000004524	0.000005273	0	0.00007903	0.00026708	0.000044313	0.000004524	0.000005273
60	0.009780219	0.000043675	0.000002277	0	0.000000822	0.000017585	0.000020433	0.000043675	0.000002277

## 1.4 Equilibrio globale forze

**Contributo:** Nome attribuito al sistema risultante.

**Fx:** Componente X di forza del sistema risultante. [daN]

**Fy:** Componente Y di forza del sistema risultante. [daN]

**Fz:** Componente Z di forza del sistema risultante. [daN]

**Mx:** Componente di momento attorno l'asse X del sistema risultante. [daN\*m]

**My:** Componente di momento attorno l'asse Y del sistema risultante. [daN\*m]

**Mz:** Componente di momento attorno l'asse Z del sistema risultante. [daN\*m]

**Bilancio in condizione di carico: Pesì strutturali**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0.023	-220477.154	-259412.44	-6416098.46	-0.65
Reazioni	0	-0.023	220477.154	259412.44	6416098.46	0.65
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Permanenti portati**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	-41506.714	-50885.12	-1214726.69	0
Reazioni	0	0	41506.714	50885.12	1214726.69	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Variabile A**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	-54274.629	-66537.93	-1588379.54	0
Reazioni	0	0	54274.629	66537.93	1588379.54	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Vento**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	949.674	0	-3074.81	0	-27680.23
Reazioni	0	-949.674	0	3074.81	0	27680.23
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Sisma X SLV**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	65951.227	0	0	0	243243.78	-76728.41
Reazioni	-65951.227	0	0	0	-243243.78	76728.41
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Sisma Y SLV**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	61892.196	0	-228273.11	0	-1802476.35
Reazioni	0	-61892.196	0	228273.11	0	1802476.35
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Sisma X SLD**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	28199.349	0	0	0	104005.89	-32807.45
Reazioni	-28199.349	0	0	0	-104005.89	32807.45
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Sisma Y SLD**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	26192.588	0	-96604.48	0	-762802.46
Reazioni	0	-26192.588	0	96604.48	0	762802.46
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Rig Ux**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	0
Reazioni	0	0	0	0	0	0
P-Delta	0	0	0	0	0	0



Contributo	Fx	Fy	Fz	Mx	My	Mz
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Rig Uy

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	0
Reazioni	0	0	0	0	0	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Rig Rz

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	0
Reazioni	0	0	0	0	0	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

## 1.5 Risposta di spettro

**Spettro:** condizione elementare corrispondente allo spettro.

**N.b.:** nome breve della condizione elementare.

**Fx:** componente della forza lungo l'asse X. [daN]

**Fy:** componente della forza lungo l'asse Y. [daN]

**Fz:** componente della forza lungo l'asse Z. [daN]

**Mx:** componente della coppia attorno all'asse X. [daN\*m]

**My:** componente della coppia attorno all'asse Y. [daN\*m]

**Mz:** componente della coppia attorno all'asse Z. [daN\*m]

**Max X:** massima reazione lungo l'asse X.

**Valore:** valore massimo della reazione. [daN]

**Angolo:** angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]

**Max Y:** massima reazione lungo l'asse Y.

**Valore:** valore massimo della reazione. [daN]

**Angolo:** angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]

**Max Z:** massima reazione lungo l'asse Z.

**Valore:** valore massimo della reazione. [daN]

**Angolo:** angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]

Spettro N.b.	Fx	Fy	Fz	Mx	My	Mz	Max X		Max Y		Max Z	
							Valore	Angolo	Valore	Angolo	Valore	Angolo
SLV X	27478.01	2433.47	0	4954.8745	9.882E04	8.912E04	27494.28	2	28571.07	92	0	0
SLV Y	2433.47	28551.55	0	6.100E04	6331.9348	8.341E05	27494.28	2	28571.07	92	0	0
X SLD	11573.24	1000.04	0	2050.5844	4.200E04	3.695E04	11579.84	2	12094.56	92	0	0
Y SLD	1000.04	12086.15	0	2.570E04	2638.4904	3.531E05	11579.84	2	12094.56	92	0	0

## 1.6 Annotazioni solutore

**Informazioni:** informazioni fornite dal solutore al termine del calcolo del modello.

Informazioni

## 1.7 Statistiche soluzione

Tipo di equazioni	Lineari
Tecnica di soluzione	Intel MKL PARDISO
Numero equazioni	11958
Elemento min. diagonale	930.23841712
Elemento max diagonale	754631336.709689
Rapporto max/min	811223.57754558
Elementi non nulli	441164

# 2 Verifiche

## 2.1 Verifica regolarità strutturale

Le unità di misura elencate nel capitolo sono in [m, daN] ove non espressamente specificato.

**Livello:**



**Descr:** descrizione livello.

**Quota:** quota livello. [m]

**Q:** quota livello. [m]

**Qinf:** quota livello precedente. [m]

**Comb:** combinazione.

**A1:** a1 (Distribuzione masse).

**A1n:** a1 numeratore (distanza tra centro massa vs. centro rigidezza [se presente] o centro dell'ingombro del piano). [m]

**A1d:** a1 denominatore (ingombro del piano nella medesima direzione [x o y globale]). [m]

**A1r:** a1 rapporto (distanza centro massa/rigidezza su ingombro del piano).

**A2:** a2 (Distribuzione rigidezze).

**A2n:** a2 numeratore (rigidezza max [x o y globale]).

**A2d:** a2 denominatore (rigidezza min [x o y globale]).

**A2r:** a2 rapporto (rigidezza max/min).

**A3:** a3 (Forma compatta).

**A3n:** a3 numeratore (area convessa). [m<sup>2</sup>]

**A3d:** a3 denominatore (area piano). [m<sup>2</sup>]

**A3r:** a3 rapporto (area convessa/area piano).

**B:** b (Rapporto lati).

**Bn:** b numeratore (lato max [x o y globale]). [m]

**Bd:** b denominatore (lato min [x o y globale]). [m]

**Br:** b rapporto (lato max/min).

**C:** c (Rapporto rigidezze piano).

**Cn:** c numeratore (rigidezza elementi verticali).

**Cd:** c denominatore (rigidezza piano).

**Cr:** c rapporto (rigidezza elementi verticali/rigidezza piano).

**E1:** e1 (Variazione masse).

**E1n:** e1 numeratore (massa max). [daN]

**E1d:** e1 denominatore (massa min). [daN]

**E1r:** e1 rapporto (massa max/min).

**E2:** e2 (Riduzione rigidezze).

**E2n:** e2 numeratore (rigidezza relativa alla traslazione KUmax). [daN/m]

**E2d:** e2 denominatore (rigidezza relativa alla traslazione KUmin). [daN/m]

**E2r:** e2 rapporto (variazione massima in decremento Kmax/Kmin).

**E3:** e3 (Incremento rigidezze).

**E3n:** e3 numeratore (rigidezza relativa alla traslazione KUmax). [daN/m]

**E3d:** e3 denominatore (rigidezza relativa alla traslazione KUmin). [daN/m]

**E3r:** e3 rapporto (variazione massima in incremento Kmax/Kmin).

**F:** f (Rapporto Capacità/Domanda).

**Fn:** f numeratore (rapporto capacità/domanda massimo [c/d max]). [daN]

**Fd:** f denominatore (rapporto capacità/domanda minimo [c/d min]). [daN]

**Fr:** f rapporto (variazione massima [rapporto (c/d max)/(c/d min)]).

**G1:** g1 (Rastremazione di piano).

**G1n:** g1 numeratore (L1). [m]

**G1d:** g1 denominatore (L2). [m]

**G1r:** g1 rapporto (L1/L2).

**G2:** g2 (Rastremazione totale).

**G2n:** g2 numeratore (L0). [m]

**G2d:** g2 denominatore (Li). [m]

**G2r:** g2 rapporto (L0/Li).

**Capacità/Domanda in X:**

**VrdX:** taglio resistente complessivo in direzione X. [daN]

**VedX:** taglio agente complessivo in direzione X. [daN]

**|Rd/Ed|:** |Rd/Ed| (rapporto capacità/domanda in termini di resistenza a taglio).

**Capacità/Domanda in Y:**

**VrdY:** taglio resistente complessivo in direzione Y. [daN]

**VedY:** taglio agente complessivo in direzione Y. [daN]

## Verifica regolarità strutturale

Controllo regolarità edificio secondo D.M. 17-01-18 (N.T.C.) §7.2.1 - §C7.2.1

### Avvertenze

La seguente procedura valuta la regolarità della costruzione secondo quanto indicato nelle NTC 2018 §7.2.1.

Tali valutazioni sono a carattere puramente informativo e vengono condotte sulla base del modello e delle verifiche presenti alla sua generazione, con le limitazioni indicate nella manualistica.

In ogni caso l'impostazione di regolarità della costruzione, in pianta ed elevazione, va indicata nelle preferenze di analisi dall'utente utilizzatore del software.

### Sintesi dei risultati

Orizzontamenti considerati nella valutazione

Nessun livello di fondazione trovato

Livelli di elevazione considerati: Rialzato(L2), Primo(L3),

Regolarità in pianta - NO

L'edificio risulta NON regolare in pianta, in base alle condizioni indicate in NTC 2018 §7.2.1

Ok - Criterio A1 (Distribuzione masse) rispettato, con rapporto massimo 0 (limite=0,2) al livello Rialzato

N.V. - Criterio A2 (Distribuzione rigidezze) non valutabile al livello Rialzato



Ok - Criterio A3 (Forma compatta) rispettato, con rapporto massimo 1 (limite=1,05) al livello Rialzato  
Ok - Criterio B (Rapporto lati) rispettato, con rapporto massimo 1,07 (limite=4) al livello Primo  
No - Criterio C (Rapporto rigidezze piano) NON rispettato, con rapporto massimo > 999 (limite=0) al livello Rialzato

Regolarità in altezza - NO

L'edificio risulta NON regolare in altezza, in base alle condizioni indicate in NTC 2018 §7.2.1

Ok - Criterio D (Altezza elementi sismoresistenti) rispettato, con rapporto massimo 1 (limite=1,01)

Ok - Criterio E1 (Variazione masse) rispettato, con rapporto massimo 1,02 (limite=1,25) tra il livello Primo ed il precedente

N.V. - Criterio E2 (Riduzione rigidezze) non valutabile tra il livello Primo ed il precedente

N.V. - Criterio E3 (Incremento rigidezze) non valutabile tra il livello Primo ed il precedente

No - Criterio F (Rapporto Capacità/Domanda) NON rispettato, con rapporto massimo 11.5/0.3=33.3 (limite=1) tra il livello Primo ed il precedente

Ok - Criterio G1 (Rastremazione di piano) rispettato, con rapporto massimo 0,01 (limite=0,1) tra il livello Primo ed il precedente

Ok - Criterio G2 (Rastremazione totale) rispettato, con rapporto massimo 0,01 (limite=0,3) tra il livello Primo ed il precedente

## Valori per piano

### Verifiche di regolarità in pianta

Livello		A1			A2			A3			B			C		
Descr	Quota	A1n	A1d	A1r	A2n	A2d	A2r	A3n	A3d	A3r	Bn	Bd	Br	Cn	Cd	Cr
Rialzato	1.32	0	9.45	0				95.7823	95.782	1	10.14	9.45	1.07	9999	1	9999
Primo	5.08	0	9.99	0				92.8663	92.8663	1	9.99	9.3	1.07	9999	1	9999

### Verifiche di regolarità in elevazione

Rapporto di regolarità per la condizione D (Altezza elementi sismoresistenti): 3.76/3.76=0.01.

Livello		E1			E2			E3			F			G1			G2			
Descr	Q	Qinf	E1n	E1d	E1r	E2n	E2d	E2r	E3n	E3d	E3r	Fn	Fd	Fr	G1n	G1d	G1r	G2n	G2d	G2r
Primo	5.08	1.32	65192	63887	1.02							11.5	0.3	33.29	0.08	9.45	0.01	0.08	9.45	0.01

### Dettaglio delle resistenze di piano a taglio (per valutazione punto F)

Livello			Capacità/Domanda in X				Capacità/Domanda in Y			
Descr	Q	Comb	VrdX	VedX	Rd/Ed		VrdY	VedY	Rd/Ed	
Rialzato	1.32	SLV 1	73102	-30762	2.4		97710	-8056	12.1	
Rialzato	1.32	SLV 2	73102	-30762	2.4		97710	-8056	12.1	
Rialzato	1.32	SLV 3	74589	-30875	2.4		97688	7042	13.9	
Rialzato	1.32	SLV 4	74589	-30875	2.4		97688	7042	13.9	
Rialzato	1.32	SLV 5	75900	-9058	8.4		96103	-25316	3.8	
Rialzato	1.32	SLV 6	75900	-9058	8.4		96103	-25316	3.8	
Rialzato	1.32	SLV 7	79593	-9434	8.4		96029	25012	3.8	
Rialzato	1.32	SLV 8	79593	-9434	8.4		96029	25012	3.8	
Rialzato	1.32	SLV 9	83608	9434	8.9		94703	-25012	3.8	
Rialzato	1.32	SLV 10	83608	9434	8.9		94703	-25012	3.8	
Rialzato	1.32	SLV 11	78172	9058	8.6		94629	25316	3.7	
Rialzato	1.32	SLV 12	78172	9058	8.6		94629	25316	3.7	
Rialzato	1.32	SLV 13	78876	30875	2.6		93044	-7042	13.2	
Rialzato	1.32	SLV 14	78876	30875	2.6		93044	-7042	13.2	
Rialzato	1.32	SLV 15	79750	30762	2.6		93021	8056	11.5	
Rialzato	1.32	SLV 16	79750	30762	2.6		93021	8056	11.5	
Primo	5.08	SLV 1	43554	-16429	2.7		3071	-2020	1.5	
Primo	5.08	SLV 2	43554	-16429	2.7		3071	-2020	1.5	
Primo	5.08	SLV 3	43558	-16252	2.7		668	737	0.9	
Primo	5.08	SLV 4	43558	-16252	2.7		668	737	0.9	
Primo	5.08	SLV 5	41660	-5198	8		4645	-4788	1	
Primo	5.08	SLV 6	41660	-5198	8		4645	-4788	1	
Primo	5.08	SLV 7	40769	-4607	8.8		772	4403	0.2	
Primo	5.08	SLV 8	40769	-4607	8.8		772	4403	0.2	
Primo	5.08	SLV 9	41379	4607	9		4625	-4403	1.1	
Primo	5.08	SLV 10	41379	4607	9		4625	-4403	1.1	
Primo	5.08	SLV 11	42182	5198	8.1		801	4788	0.2	
Primo	5.08	SLV 12	42182	5198	8.1		801	4788	0.2	
Primo	5.08	SLV 13	43139	16252	2.7		559	-737	0.8	
Primo	5.08	SLV 14	43139	16252	2.7		559	-737	0.8	
Primo	5.08	SLV 15	43153	16429	2.6		701	2020	0.3	
Primo	5.08	SLV 16	43153	16429	2.6		701	2020	0.3	

## 2.2 Verifica sismica globale

**Desc.:** descrizione.

**Stato limite:** (muratura) V=Taglio; PF=Pressoflessione; PFFP=Pressoflessione fuori piano; R=Ribaltamento.

**Molt.:** moltiplicatore minimo della azione sismica che produce lo stato limite.

**Comb.:** combinazione.

**PGA:** accelerazione al suolo.

**iPGA (ξE):** indicatore di rischio sismico in termini di PGA ovvero rapporto tra l'azione sismica massima sopportabile dall'elemento e l'azione sismica massima che si utilizzerebbe nel progetto nuovo (§C8.3).

**TR:** tempo di ritorno.

**(TR/TRrif)^.41:** indicatore di rischio sismico in termini di periodo di ritorno.

**fa:** fattore di accelerazione.

**Stato limite:** (muratura) V=Taglio; PF=Presso flessione; PFFP=Pressoflessione fuori piano; R=Ribaltamento.

**Coeff.s.:** coefficiente minimo prodotto dallo stato limite.



**Verifica:** stato di verifica.

**Maschio:** maschio.

**Stato limite:** (maschio muratura)  $V$ =Taglio;  $PF$ =Presso flessione;  $PFFP$ =Presso flessione fuori piano;  $R$ =Ribaltamento.

**Trave:** trave di collegamento in muratura.

**Stato limite:** (trave muratura)  $V$ =Taglio;  $F$ =Flessione.

**S. L.:** stato limite di riferimento.

**TR,C:** periodo di ritorno di capacità.

**PGA,C:** accelerazione di aggancio di capacità.

**TR,Rif:** periodo di ritorno di riferimento.

**PGA,Rif:** accelerazione di aggancio di riferimento.

**Tipo rottura:** tipo di rottura che fornisce il valore minimo degli elementi considerati.

**PAM:** perdita media annua attesa.

**Classe PAM:** classe di rischio PAM.

**IS-V:** indice di sicurezza.

**Classe IS-V:** classe di rischio IS-V.

## Verifica di elementi dotati di indicatori di rischio sismico mediante analisi con fattore q

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.) § C8.7.1

### Accelerazioni e tempi di ritorno

Accelerazione di aggancio SLO ( $ag/g_{SLO} \cdot S \cdot ST$ )  $PGA, SLOrif = 0.081$

Accelerazione di aggancio SLD ( $ag/g_{SLD} \cdot S \cdot ST$ )  $PGA, SLDrif = 0.101$

Accelerazione di aggancio SLV ( $ag/g_{SLV} \cdot S \cdot ST$ )  $PGA, SLVrif = 0.244$

$Tr, SLOrif = 30$  anni

$Tr, SLDrif = 50$  anni

$Tr, SLVrif = 475$  anni

### Moltiplicatori minimi delle condizioni sismiche

(Il valore di  $\zeta E$  corrisponde al valore di I.R. PGA secondo quanto riportato nella Circolare 7 21-01-19 §C8.3)

#### Rottura a taglio

Moltiplicatore: 0

Maschio 3

Lunghezza: 1.325; altezza: 2.69; spessore: 0.45; sezione a quota: 1.03

Combinazione SLV 1 N = -1800 V par. = -1279 I' = 0 fvd = 8333 Vt scorrimento = 0 Vt fess. diag. = 0

Tempo di ritorno 0 anni

Indicatore  $iTr = (Tr/Tr, SLVrif)^{.41} = 0$

PGA 0

Indicatore  $iPGA = PGA/PGA, SLVrif = 0$

Fattore di accelerazione  $fa = 0$

#### Rottura a flessione

Moltiplicatore: 0

Maschio 3

Lunghezza: 1.325; altezza: 2.69; spessore: 0.45 sezione a quota 1.03

Combinazione SLV 1 N = -1800 M = 1608.24  $\sigma 0 = 0$  fd = 143750 Mu = 0

Tempo di ritorno 0 anni

Indicatore  $iTr = (Tr/Tr, SLVrif)^{.41} = 0$

PGA 0

Indicatore  $iPGA = PGA/PGA, SLVrif = 0$

Fattore di accelerazione  $fa = 0$

#### Rottura a pressoflessione nel piano ortogonale

Moltiplicatore: 0.105

Maschio 16

Lunghezza: 0.32; altezza: 3.76; spessore: 0.3; sezione a quota: 3.2

Combinazione SLV 1 fd = 143750 Ta = 0.08 Wa = 540 N = -35 M = 5.09 Mc = 5.24

Tempo di ritorno 1 anni

Indicatore  $iTr = (Tr/Tr, SLVrif)^{.41} = 0.08$

PGA 0.02

Indicatore  $iPGA = PGA/PGA, SLVrif = 0.08$

Fattore di accelerazione  $fa = 0.0777$

#### Rottura per meccanismi locali di collasso

Moltiplicatore: 0

Maschio 15

Lunghezza: 9.001; altezza: 3.76; spessore: 0.3 f.agg. = 0 a.lim. = 0

Combinazione SLV 1 N top = 2852 N base = -17360 T orto = -7  $\alpha 0 = 0$  M\* = 0 e\* = 0 a0\* = 0

Tempo di ritorno 0 anni

Indicatore  $iTr = (Tr/Tr, SLVrif)^{.41} = 0$

PGA 0

Indicatore  $iPGA = PGA/PGA, SLVrif = 0$

Fattore di accelerazione  $fa = 0$



## Indicatori minimi riferiti al solo materiale muratura

Desc.	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	fa
Maschio 3	PF	0	SLV 1	0	0	0	0	0
Maschio 3	V	0	SLV 1	0	0	0	0	0
Maschio 16	PFFP	0.105	SLV 1	0.0195	0.0798	1	0.0799	0.0777
Maschio 15	R	0	SLV 1	0	0	0	0	0
Trave di accoppiamento 12	PF	0.46	SLV 7	0.1095	0.4484	65	0.4424	0.4475
Trave di accoppiamento 1	V	0	SLV 1	0	0	0	0	0

## Coefficienti di sicurezza riferiti al solo materiale muratura

Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 1	PF SLU	24.864	SLU 40	Si
Maschio 1	V SLU	67.084	SLU 2	Si
Maschio 1	PF	10.699	SLV 11	Si
Maschio 1	V	3.072	SLV 11	Si
Maschio 1	PFFP	11.138	SLV 13	Si
Maschio 1	R	0.129	SLV 5	No
Maschio 2	PF SLU	5.323	SLU 81	Si
Maschio 2	V SLU	8.753	SLU 2	Si
Maschio 2	PF	2.897	SLV 9	Si
Maschio 2	V	2.482	SLV 7	Si
Maschio 2	PFFP	12	SLV 11	Si
Maschio 2	R	0.041	SLV 15	No
Maschio 3	PF SLU	0	SLU 1	No
Maschio 3	V SLU	0	SLU 1	No
Maschio 3	PF	0	SLV 1	No
Maschio 3	V	0	SLV 1	No
Maschio 3	PFFP	6.253	SLV 7	Si
Maschio 3	R	0.121	SLV 7	No
Maschio 4	PF SLU	15.473	SLU 39	Si
Maschio 4	V SLU	63.226	SLU 39	Si
Maschio 4	PF	10.413	SLV 7	Si
Maschio 4	V	4.262	SLV 15	Si
Maschio 4	PFFP	11.574	SLV 7	Si
Maschio 4	R	0.136	SLV 9	No
Maschio 5	PF SLU	0	SLU 1	No
Maschio 5	V SLU	0	SLU 1	No
Maschio 5	PF	0	SLV 1	No
Maschio 5	V	0	SLV 1	No
Maschio 5	PFFP	5.792	SLV 11	Si
Maschio 5	R	0	SLV 14	No
Maschio 6	PF SLU	9.462	SLU 64	Si
Maschio 6	V SLU	9.683	SLU 10	Si
Maschio 6	PF	0	SLV 6	No
Maschio 6	V	0	SLV 1	No
Maschio 6	PFFP	0	SLV 6	No
Maschio 6	R	0	SLV 6	No
Maschio 7	PF SLU	2.747	SLU 39	Si
Maschio 7	V SLU	2.406	SLU 81	Si
Maschio 7	PF	0	SLV 1	No
Maschio 7	V	0	SLV 1	No
Maschio 7	PFFP	7.096	SLV 5	Si
Maschio 7	R	0.167	SLV 11	No
Maschio 8	PF SLU	7.278	SLU 40	Si
Maschio 8	V SLU	7.713	SLU 81	Si
Maschio 8	PF	4.426	SLV 3	Si
Maschio 8	V	2.648	SLV 13	Si
Maschio 8	PFFP	16.581	SLV 13	Si
Maschio 8	R	0.101	SLV 11	No
Maschio 9	PF SLU	1.019	SLU 44	Si
Maschio 9	V SLU	0.666	SLU 44	No
Maschio 9	PF	0	SLV 1	No
Maschio 9	V	0	SLV 1	No
Maschio 9	PFFP	5.994	SLV 1	Si
Maschio 9	R	0.147	SLV 11	No
Maschio 10	PF SLU	10.568	SLU 43	Si
Maschio 10	V SLU	48.498	SLU 40	Si
Maschio 10	PF	4.199	SLV 13	Si
Maschio 10	V	3.636	SLV 13	Si
Maschio 10	PFFP	12.609	SLV 9	Si
Maschio 10	R	0.084	SLV 11	No
Maschio 11	PF SLU	1.139	SLU 44	Si
Maschio 11	V SLU	1	SLU 82	No
Maschio 11	PF	0	SLV 11	No
Maschio 11	V	0	SLV 11	No
Maschio 11	PFFP	7.216	SLV 9	Si
Maschio 11	R	0.136	SLV 7	No
Maschio 12	PF SLU	4.502	SLU 82	Si
Maschio 12	V SLU	2.484	SLU 82	Si
Maschio 12	PF	1.129	SLV 5	Si
Maschio 12	V	0.368	SLV 5	No
Maschio 12	PFFP	15.28	SLV 9	Si
Maschio 12	R	0.048	SLV 13	No
Maschio 13	PF SLU	1.528	SLU 81	Si
Maschio 13	V SLU	0.754	SLU 81	No
Maschio 13	PF	0	SLV 12	No
Maschio 13	V	0	SLV 7	No
Maschio 13	PFFP	16.284	SLV 13	Si
Maschio 13	R	0	SLV 12	No
Maschio 14	PF SLU	35.203	SLU 39	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 14	V SLU	52.467	SLU 2	Si
Maschio 14	PF	10.573	SLV 7	Si
Maschio 14	V	3.062	SLV 7	Si
Maschio 14	PFFP	9.899	SLV 3	Si
Maschio 14	R	0.132	SLV 9	No
Maschio 15	PF SLU	0	SLU 84	No
Maschio 15	V SLU	0	SLU 1	No
Maschio 15	PF	0	SLV 16	No
Maschio 15	V	0	SLV 1	No
Maschio 15	PFFP	0	SLV 9	No
Maschio 15	R	0	SLV 16	No
Maschio 16	PF SLU	2.272	SLU 31	Si
Maschio 16	V SLU	11.426	SLU 2	Si
Maschio 16	PF	0	SLV 6	No
Maschio 16	V	0	SLV 1	No
Maschio 16	PFFP	0	SLV 6	No
Maschio 16	R	0	SLV 6	No
Maschio 17	PF SLU	0	SLU 1	No
Maschio 17	V SLU	0	SLU 1	No
Maschio 17	PF	0	SLV 1	No
Maschio 17	V	0	SLV 1	No
Maschio 17	PFFP	1.834	SLV 3	Si
Maschio 17	R	0	SLV 3	No
Maschio 18	PF SLU	3.688	SLU 39	Si
Maschio 18	V SLU	6.021	SLU 39	Si
Maschio 18	PF	2.228	SLV 15	Si
Maschio 18	V	2.422	SLV 1	Si
Maschio 18	PFFP	3.113	SLV 15	Si
Maschio 18	R	0.023	SLV 15	No
Maschio 19	PF SLU	12.531	SLU 39	Si
Maschio 19	V SLU	3.556	SLU 82	Si
Maschio 19	PF	2.36	SLV 3	Si
Maschio 19	V	1.962	SLV 13	Si
Maschio 19	PFFP	2.243	SLV 3	Si
Maschio 19	R	0.033	SLV 15	No
Maschio 20	PF SLU	0	SLU 1	No
Maschio 20	V SLU	0	SLU 1	No
Maschio 20	PF	0	SLV 5	No
Maschio 20	V	0	SLV 5	No
Maschio 20	PFFP	1.108	SLV 15	Si
Maschio 20	R	0	SLV 16	No
Maschio 21	PF SLU	0.996	SLU 44	No
Maschio 21	V SLU	0.34	SLU 44	No
Maschio 21	PF	0.945	SLV 3	No
Maschio 21	V	0.019	SLV 3	No
Maschio 21	PFFP	1.958	SLV 13	Si
Maschio 21	R	0	SLV 1	No
Maschio 22	PF SLU	1.857	SLU 81	Si
Maschio 22	V SLU	1.158	SLU 81	Si
Maschio 22	PF	1.49	SLV 13	Si
Maschio 22	V	0.991	SLV 13	No
Maschio 22	PFFP	3.119	SLV 3	Si
Maschio 22	R	0.04	SLV 13	No
Maschio 23	PF SLU	8.361	SLU 82	Si
Maschio 23	V SLU	4.269	SLU 81	Si
Maschio 23	PF	3.677	SLV 1	Si
Maschio 23	V	2.613	SLV 1	Si
Maschio 23	PFFP	2.317	SLV 1	Si
Maschio 23	R	0.044	SLV 3	No
Maschio 24	PF SLU	0	SLU 1	No
Maschio 24	V SLU	0	SLU 1	No
Maschio 24	PF	0	SLV 9	No
Maschio 24	V	0	SLV 9	No
Maschio 24	PFFP	1.402	SLV 13	Si
Maschio 24	R	0	SLV 1	No
Maschio 25	PF SLU	0	SLU 1	No
Maschio 25	V SLU	0	SLU 1	No
Maschio 25	PF	0	SLV 12	No
Maschio 25	V	0	SLV 3	No
Maschio 25	PFFP	0	SLV 12	No
Maschio 25	R	0	SLV 4	No
Maschio 26	PF SLU	0	SLU 1	No
Maschio 26	V SLU	0	SLU 1	No
Maschio 26	PF	0	SLV 16	No
Maschio 26	V	0	SLV 7	No
Maschio 26	PFFP	1.765	SLV 5	Si
Maschio 26	R	0	SLV 16	No
Maschio 27	PF SLU	5.199	SLU 82	Si
Maschio 27	V SLU	4.487	SLU 82	Si
Maschio 27	PF	2.454	SLV 13	Si
Maschio 27	V	3.289	SLV 3	Si
Maschio 27	PFFP	2.287	SLV 13	Si
Maschio 27	R	0.036	SLV 3	No
Maschio 28	PF SLU	4.24	SLU 40	Si
Maschio 28	V SLU	9.937	SLU 81	Si
Maschio 28	PF	3.023	SLV 3	Si
Maschio 28	V	1.947	SLV 13	Si
Maschio 28	PFFP	2.564	SLV 5	Si
Maschio 28	R	0.031	SLV 15	No
Maschio 29	PF SLU	0	SLU 84	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 29	V SLU	0	SLU 1	No
Maschio 29	PF	0	SLV 16	No
Maschio 29	V	0	SLV 1	No
Maschio 29	PFFP	0	SLV 1	No
Maschio 29	R	0	SLV 16	No

#### Verifica maschi in muratura

Maschio	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
1	PF	1.64	SLV 15	0.362	1.483	1618	1.653	Si
	V	1.633	SLV 15	0.362	1.483	1618	1.653	Si
	PFFP	3.954	SLV 13	0.362	1.483	1618	1.653	Si
	R	0.143	SLV 5	0.031	0.127	3	0.125	No
2	PF	2.622	SLV 11	0.362	1.483	1618	1.653	Si
	V	1.958	SLV 11	0.362	1.483	1618	1.653	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.087	SLV 5	0.02	0.08	1	0.08	No
3	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	3.044	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.175	SLV 7	0.038	0.157	5	0.155	No
4	PF	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	3.775	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.141	SLV 5	0.031	0.127	3	0.125	No
5	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	2.993	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.19	SLV 7	0.044	0.181	7	0.177	No
6	PF	0.23	SLV 1	0.053	0.218	11	0.214	No
	V	0.216	SLV 1	0.049	0.201	9	0.197	No
	PFFP	0.46	SLV 1	0.109	0.445	64	0.44	No
	R	0.095	SLV 1	0.02	0.08	1	0.08	No
7	PF	0.379	SLV 1	0.089	0.364	39	0.359	No
	V	0.362	SLV 1	0.085	0.346	35	0.343	No
	PFFP	2.66	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.188	SLV 7	0.044	0.181	7	0.177	No
8	PF	3.275	SLV 13	0.362	1.483	1618	1.653	Si
	V	2.435	SLV 13	0.362	1.483	1618	1.653	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.131	SLV 11	0.026	0.107	2	0.106	No
9	PF	0.282	SLV 3	0.066	0.269	19	0.267	No
	V	0.118	SLV 3	0.026	0.107	2	0.106	No
	PFFP	2.334	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.166	SLV 5	0.038	0.157	5	0.155	No
10	PF	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.632	SLV 13	0.362	1.483	1618	1.653	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.132	SLV 11	0.031	0.127	3	0.125	No
11	PF	0.494	SLV 15	0.117	0.479	77	0.474	No
	V	0.249	SLV 15	0.057	0.234	13	0.229	No
	PFFP	3.633	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.168	SLV 7	0.038	0.157	5	0.155	No
12	PF	1.06	SLV 5	0.259	1.059	563	1.072	Si
	V	0.74	SLV 5	0.179	0.733	208	0.713	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.081	SLV 7	0	0	0	0	No
13	PF	0.219	SLV 11	0.051	0.21	10	0.205	No
	V	0.112	SLV 11	0.026	0.107	2	0.106	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.083	SLV 7	0	0	0	0	No
14	PF	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.979	SLV 7	0.362	1.483	1618	1.653	Si
	PFFP	3.389	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.145	SLV 7	0.031	0.127	3	0.125	No
15	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	0.504	SLV 13	0.119	0.487	80	0.482	No
	R	0	SLV 1	0	0	0	0	No
16	PF	0.041	SLV 1	0	0	0	0	No
	V	0.041	SLV 1	0	0	0	0	No
	PFFP	0.105	SLV 1	0.02	0.08	1	0.08	No
	R	0.044	SLV 1	0	0	0	0	No
17	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	1.705	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.05	SLV 3	0	0	0	0	No
18	PF	3.421	SLV 15	0.362	1.483	1618	1.653	Si
	V	2.2	SLV 15	0.362	1.483	1618	1.653	Si
	PFFP	2.532	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.044	SLV 1	0	0	0	0	No
19	PF	2.501	SLV 3	0.362	1.483	1618	1.653	Si
	V	1.862	SLV 3	0.362	1.483	1618	1.653	Si
	PFFP	1.799	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.049	SLV 1	0	0	0	0	No
20	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	1.089	SLV 15	0.266	1.087	609	1.107	Si
	R	0	SLV 1	0	0	0	0	No
21	PF	0.78	SLV 3	0.188	0.771	238	0.753	No
	V	0.34	SLV 3	0.079	0.323	30	0.322	No





Maschio	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
22	PFFP	1.858	SLV 13	0.362	1.483	1618	1.653	Si
	R	0.046	SLV 13	0	0	0	0	No
	PF	1.982	SLV 3	0.362	1.483	1618	1.653	Si
	V	0.987	SLV 13	0.241	0.986	458	0.985	No
	PFFP	3.026	SLV 3	0.362	1.483	1618	1.653	Si
23	R	0.045	SLV 1	0	0	0	0	No
	PF	3.186	SLV 15	0.362	1.483	1618	1.653	Si
	V	2.561	SLV 15	0.362	1.483	1618	1.653	Si
	PFFP	2.287	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.049	SLV 1	0	0	0	0	No
24	PF	0.009	SLV 15	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	1.357	SLV 13	0.33	1.349	1183	1.454	Si
	R	0.052	SLV 1	0	0	0	0	No
	PF	0	SLV 1	0	0	0	0	No
25	V	0	SLV 1	0	0	0	0	No
	PFFP	0.219	SLV 11	0.051	0.21	10	0.205	No
	R	0.148	SLV 1	0.031	0.127	3	0.125	No
	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
27	PFFP	1.328	SLV 5	0.323	1.323	1109	1.416	Si
	R	0.052	SLV 11	0	0	0	0	No
	PF	1.643	SLV 13	0.362	1.483	1618	1.653	Si
	V	1.57	SLV 13	0.362	1.483	1618	1.653	Si
	PFFP	1.564	SLV 13	0.362	1.483	1618	1.653	Si
28	R	0.044	SLV 1	0	0	0	0	No
	PF	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.971	SLV 13	0.362	1.483	1618	1.653	Si
	PFFP	2.348	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.044	SLV 1	0	0	0	0	No
29	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	0.755	SLV 1	0.182	0.744	217	0.725	No
	R	0	SLV 1	0	0	0	0	No

#### Verifica travi di collegamento in muratura

Trave	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
1	F	2.775	SLV 7	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
2	F	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.024	SLV 1	0	0	0	0	No
3	F	2.186	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
4	F	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.075	SLV 13	0	0	0	0	No
5	F	1.901	SLV 13	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
6	F	0.529	SLV 15	0.125	0.513	90	0.506	No
	V	0	SLV 1	0	0	0	0	No
7	F	1.508	SLV 3	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
8	F	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.021	SLV 3	0	0	0	0	No
9	F	1.339	SLV 13	0.325	1.331	1133	1.428	Si
	V	0	SLV 1	0	0	0	0	No
10	F	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
11	F	1.746	SLV 13	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
12	F	0.46	SLV 7	0.11	0.448	65	0.442	No
	V	0	SLV 1	0	0	0	0	No
13	F	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
14	F	3.69	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
15	F	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.09	SLV 15	0.02	0.08	1	0.08	No
16	F	3.989	SLV 13	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
17	F	3.779	SLV 3	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
18	F	2.756	SLV 13	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
19	F	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.396	SLV 13	0.093	0.38	43	0.373	No
20	F	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.114	SLV 15	0.02	0.08	1	0.08	No
21	F	3.691	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.153	SLV 15	0.035	0.143	4	0.141	No
22	F	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
23	F	1.972	SLV 7	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
24	F	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No

#### Periodi di ritorno e accelerazioni di aggancio per gli Stati Limite

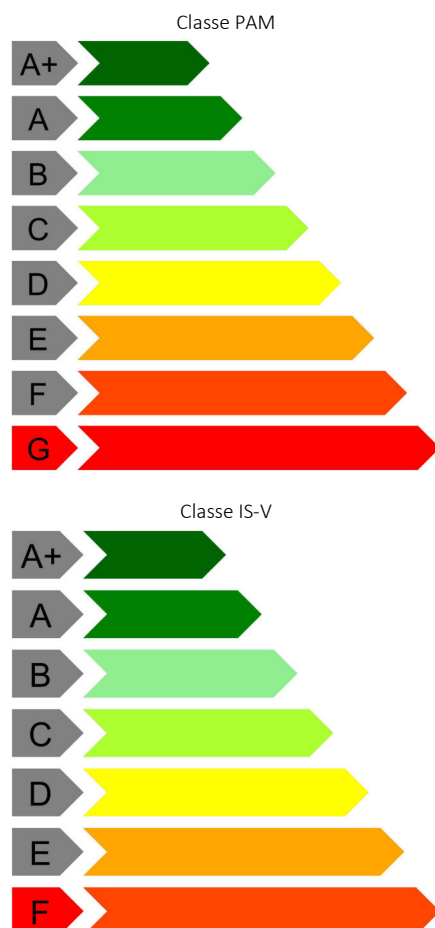
S. L.	TR,C	PGA,C	TR,Rif	PGA,Rif	Tipo rottura
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S. L.	TR,C	PGA,C	TR,Rif	PGA,Rif	Tipo rottura
Stato limite di salvaguardia della vita	0	0	475	0.244	taglio maschio muratura

Coefficienti relativi alle Linee guida per la classificazione del rischio sismico delle costruzioni secondo il D.M. 24 09/01/2020

TR,C	TR,Rif	PAM	Classe PAM	IS-V	Classe IS-V	Tipo rottura
0	475	8.22	G	0	F	taglio maschio muratura



## 2.3 Verifiche maschi in muratura

Le unità di misura elencate nel capitolo sono in [m, daN, s] ove non espressamente specificato.

**X<sub>ini</sub>**: coordinate del punto iniziale del maschio. [m]

**Y<sub>ini</sub>**: coordinate del punto iniziale del maschio. [m]

**X<sub>fin</sub>**: coordinate del punto finale del maschio. [m]

**Y<sub>fin</sub>**: coordinate del punto finale del maschio. [m]

**Quota i.**: livello o falda inferiore.

**Quota s.**: livello o falda superiore.

**l**: lunghezza del maschio. [m]

**Sp.**: spessore. [m]

**h<sub>netta</sub>**: altezza netta (a filo solai). [m]

**h<sub>ini</sub>**: altezza nel modello al punto iniziale. [m]

**h<sub>fin</sub>**: altezza nel modello al punto finale. [m]

**a**: distanza tra irrigidimenti laterali. [m]

**a.s.,sx**: lunghezza di appoggio del solaio di sinistra. [m]

**a.s.,dx**: lunghezza di appoggio del solaio di destra. [m]

**f<sub>b</sub>**: resistenza normalizzata a compressione verticale dei blocchi. [daN/m<sup>2</sup>]

**f<sub>k</sub>**: resistenza caratteristica a compressione della muratura utilizzata. [daN/m<sup>2</sup>]

**f<sub>vk0</sub>**: resistenza caratteristica a taglio in assenza di carichi verticali. [daN/m<sup>2</sup>]

**f<sub>medio</sub>**: resistenza media a compressione della muratura utilizzata. [daN/m<sup>2</sup>]

**τ<sub>0</sub>**: resistenza media a taglio in assenza di azioni normali [C8.7.1.16]. [daN/m<sup>2</sup>]

**f<sub>v0</sub>**: resistenza media a taglio in assenza di azioni normali [C8.7.1.17]. [daN/m<sup>2</sup>]



$\mu$ : coefficiente di attrito [C8.7.1.17].

$\phi$ : coefficiente di ammorsamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.

$f_v, \lim$ : valore massimo della resistenza a taglio che può essere impiegata nel calcolo. [daN/m<sup>2</sup>]

$E$ : modulo di elasticità longitudinale della muratura utilizzato. [daN/m<sup>2</sup>]

$G$ : modulo di elasticità tangenziale della muratura utilizzato. [daN/m<sup>2</sup>]

$FC$ : fattore di confidenza della muratura.

**Comb.**: combinazione.

**Quota**: quota della sezione di verifica. [m]

$N$ : sforzo normale. [daN]

$M$ : momento flettente nel piano. [daN\*m]

$\sigma_0$ : tensione media di compressione. [daN/m<sup>2</sup>]

$M_u$ : momento flettente ultimo. [daN\*m]

$c.s.$ : coefficiente di sicurezza.

**Verifica**: stato di verifica.

$V_{par}$ : taglio nel piano. [daN]

$\sigma_N$ : tensione media di compressione sulla parte reagente. [daN/m<sup>2</sup>]

$l'$ : lunghezza della parte compressa della parete. [m]

$f_{vd}$ : resistenza a taglio di calcolo. [daN/m<sup>2</sup>]

$V_t \text{ scorr.}$ : taglio ultimo per verifica a scorrimento. [daN]

$V_t \text{ fess.diag.}$ : taglio ultimo per verifica a fessurazione diagonale regolare [C8.7.1.17]. [daN]

$V_t, \lim$ : taglio limite [C8.7.1.18]. [daN]

$c.s.$ : coefficiente di sicurezza a taglio.

$f_d$ : resistenza a compressione di calcolo. [daN/m<sup>2</sup>]

$S_a$ : accelerazione massima, adimensionalizzata rispetto a  $g$ , che l'elemento strutturale subisce durante il sisma.

$M$ : momento flettente fuori piano. [daN\*m]

$M_c$ : momento di collasso per azioni perpendicolari al piano. [daN\*m]

**Coeff.s.**: coefficiente di sicurezza.

$N_{top}$ : sforzo normale in sommità. [daN]

$N_{base}$ : sforzo normale al piede. [daN]

$V_{orto}$ : taglio fuori piano. [daN]

$\alpha_0$ : moltiplicatore secondo [C8.7.1.1].

$M^*$ : massa partecipante al cinematismo. [daN/(m/s<sup>2</sup>)]

$e^*$ : frazione di massa partecipante della muratura [C8.7.1.5].

$\alpha_0^*$ : accelerazione spettrale di attivazione del meccanismo [C8.7.1.8]. [m/s<sup>2</sup>]

$a_{Lim}$ : accelerazione limite [C7.2.11]. [m/s<sup>2</sup>]

**Stato limite**:  $pF_{SLU}$ =Presso flessione per azioni non sismiche;  $V_{SLU}$ =Taglio per azioni non sismiche;  $pF_{SLV}$ =Presso flessione per azioni sismiche;  $V_{SLV}$ =Taglio per azioni sismiche;  $pFFP_{SLV}$ =Presso flessione fuori piano per azioni sismiche;  $R_{SLV}$ =Ribaltamento per azioni sismiche.

## Maschio 1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.108	-3.274	-34.108	5.726	L1	L2	9.001	0.45	2.69	2.69	2.69			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

$f_b$	$f_k$	$f_{vk0}$	$f_{medio}$	$\tau_0$	$f_{v0}$	$\mu$	$\phi$	$f_{v, \lim}$	$E$	$G$	$FC$
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	$M_u$	c.s.	Verifica
SLU 36	-1.37	-50353	-1816.81	12432	192018.14	105.69	Si
SLU 36	1.32	-29861	-4650.13	7373	122221.67	26.283	Si
SLU 42	-1.37	-53048	-1975.92	13097	200347.22	101.395	Si
SLU 42	1.32	-32199	-5259.22	7950	130764.48	24.864	Si
SLU 34	-1.37	-50307	-1662.58	12421	191874.49	115.408	Si
SLU 34	1.32	-29625	-4691.36	7314	121350.48	25.867	Si
SLU 31	-1.37	-50307	-1662.58	12421	191874.49	115.408	Si
SLU 31	1.32	-29625	-4691.36	7314	121350.48	25.867	Si
SLU 41	-1.37	-53117	-2207.26	13114	200557.53	90.863	Si
SLU 41	1.32	-32554	-5197.38	8037	132045.82	25.406	Si
SLU 82	-1.37	-63879	-2219.14	15771	231813.58	104.461	Si
SLU 82	1.32	-37309	-5630.21	9211	148914.14	26.449	Si
SLU 39	-1.37	-53117	-2207.26	13114	200557.53	90.863	Si
SLU 39	1.32	-32554	-5197.38	8037	132045.82	25.406	Si
SLU 38	-1.37	-50353	-1816.81	12432	192018.14	105.69	Si
SLU 38	1.32	-29861	-4650.13	7373	122221.67	26.283	Si
SLU 40	-1.37	-53048	-1975.92	13097	200347.22	101.395	Si
SLU 40	1.32	-32199	-5259.22	7950	130764.48	24.864	Si
SLU 33	-1.37	-50353	-1816.81	12432	192018.14	105.69	Si
SLU 33	1.32	-29861	-4650.13	7373	122221.67	26.283	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	$M_u$	c.s.	Verifica
SLV 12	-1.37	-42558	12868.38	10508	175054.25	13.603	Si
SLV 12	1.32	-19524	-7888.11	4820	84396.56	10.699	Si
SLV 9	-1.37	-42436	-15566.45	10477	174599.7	11.216	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 9	1.32	-19579	2729.79	4834	84624.41	31	Si
SLV 11	-1.37	-42558	12868.38	10508	175054.25	13.603	Si
SLV 11	1.32	-19524	-7888.11	4820	84396.56	10.699	Si
SLV 15	-1.37	-40754	3255.05	10062	168303.34	51.705	Si
SLV 15	1.32	-9763	-3354.02	2411	43071.23	12.842	Si
SLV 7	-1.37	-44068	12577.93	10880	180658.34	14.363	Si
SLV 7	1.32	-27906	-8589.11	6890	118505.11	13.797	Si
SLV 16	-1.37	-40754	3255.05	10062	168303.34	51.705	Si
SLV 16	1.32	-9763	-3354.02	2411	43071.23	12.842	Si
SLV 5	-1.37	-43946	-15856.9	10850	180207.13	11.365	Si
SLV 5	1.32	-27961	2028.8	6904	118724.59	58.52	Si
SLV 6	-1.37	-43946	-15856.9	10850	180207.13	11.365	Si
SLV 6	1.32	-27961	2028.8	6904	118724.59	58.52	Si
SLV 8	-1.37	-44068	12577.93	10880	180658.34	14.363	Si
SLV 8	1.32	-27906	-8589.11	6890	118505.11	13.797	Si
SLV 10	-1.37	-42436	-15566.45	10477	174599.7	11.216	Si
SLV 10	1.32	-19579	2729.79	4834	84624.41	31	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 13	-1.37	-46559	325	-1258.36		11495	9.0006	7088	28709			88.45	Si
SLU 13	1.32	-26018	376	-3790.48		6424	9.0006	6412	25971			69.01	Si
SLU 68	-1.37	-54847	325	-1534.56		13542	9.0006	7361	29814			91.83	Si
SLU 68	1.32	-29279	376	-3641.14		7229	9.0006	6519	26405			70.16	Si
SLU 65	-1.37	-54847	325	-1534.56		13542	9.0006	7361	29814			91.83	Si
SLU 65	1.32	-29279	376	-3641.14		7229	9.0006	6519	26405			70.16	Si
SLU 23	-1.37	-44017	325	-1291.34		10868	9.0006	7005	28370			87.41	Si
SLU 23	1.32	-24170	376	-3270.15		5967	9.0006	6351	25724			68.36	Si
SLU 47	-1.37	-51100	325	-1130.34		12616	9.0006	7238	29315			90.31	Si
SLU 47	1.32	-25672	376	-2740.26		6338	9.0006	6401	25924			68.88	Si
SLU 10	-1.37	-46559	325	-1258.36		11495	9.0006	7088	28709			88.45	Si
SLU 10	1.32	-26018	376	-3790.48		6424	9.0006	6412	25971			69.01	Si
SLU 2	-1.37	-40269	325	-887.12		9942	9.0006	6881	27871			85.88	Si
SLU 2	1.32	-20563	376	-2369.27		5077	9.0006	6232	25243			67.08	Si
SLU 26	-1.37	-44017	325	-1291.34		10868	9.0006	7005	28370			87.41	Si
SLU 26	1.32	-24170	376	-3270.15		5967	9.0006	6351	25724			68.36	Si
SLU 44	-1.37	-51100	325	-1130.34		12616	9.0006	7238	29315			90.31	Si
SLU 44	1.32	-25672	376	-2740.26		6338	9.0006	6401	25924			68.88	Si
SLU 5	-1.37	-40269	325	-887.12		9942	9.0006	6881	27871			85.88	Si
SLU 5	1.32	-20563	376	-2369.27		5077	9.0006	6232	25243			67.08	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	-1.37	-42436	-13699	-15566.45		10477	9.0006	10429	42239			3.08	Si
SLV 9	1.32	-19579	-10463	2729.79		4834	9.0006	9300	37668			3.6	Si
SLV 7	-1.37	-44068	13700	12577.93		10880	9.0006	10509	42566			3.11	Si
SLV 7	1.32	-27906	10464	-8589.11		6890	9.0006	9711	39333			3.76	Si
SLV 5	-1.37	-43946	-13755	-15856.9		10850	9.0006	10503	42541			3.09	Si
SLV 5	1.32	-27961	-10716	2028.8		6904	9.0006	9714	39344			3.67	Si
SLV 8	-1.37	-44068	13700	12577.93		10880	9.0006	10509	42566			3.11	Si
SLV 8	1.32	-27906	10464	-8589.11		6890	9.0006	9711	39333			3.76	Si
SLV 6	-1.37	-43946	-13755	-15856.9		10850	9.0006	10503	42541			3.09	Si
SLV 6	1.32	-27961	-10716	2028.8		6904	9.0006	9714	39344			3.67	Si
SLV 16	-1.37	-40754	4212	3255.05		10062	9.0006	10346	41903			9.95	Si
SLV 16	1.32	-9763	3598	-3354.02		2411	9.0006	8815	35705			9.92	Si
SLV 12	-1.37	-42558	13756	12868.38		10508	9.0006	10435	42264			3.07	Si
SLV 12	1.32	-19524	10716	-7888.11		4820	9.0006	9297	37657			3.51	Si
SLV 10	-1.37	-42436	-13699	-15566.45		10477	9.0006	10429	42239			3.08	Si
SLV 10	1.32	-19579	-10463	2729.79		4834	9.0006	9300	37668			3.6	Si
SLV 15	-1.37	-40754	4212	3255.05		10062	9.0006	10346	41903			9.95	Si
SLV 15	1.32	-9763	3598	-3354.02		2411	9.0006	8815	35705			9.92	Si
SLV 11	-1.37	-42558	13756	12868.38		10508	9.0006	10435	42264			3.07	Si
SLV 11	1.32	-19524	10716	-7888.11		4820	9.0006	9297	37657			3.51	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 14	143750	0.24	6960	-28190	537.03	5981.44	11.14	Si
SLV 13	143750	0.24	6960	-28190	537.03	5981.44	11.14	Si
SLV 15	143750	0.24	6970	-28231	537.03	5989.61	11.15	Si
SLV 16	143750	0.24	6970	-28231	537.03	5989.61	11.15	Si
SLV 9	143750	0.24	8030	-32525	537.03	6837.26	12.73	Si
SLV 10	143750	0.24	8030	-32525	537.03	6837.26	12.73	Si
SLV 12	143750	0.24	8064	-32662	537.03	6863.93	12.78	Si
SLV 11	143750	0.24	8064	-32662	537.03	6863.93	12.78	Si
SLV 6	143750	0.24	8958	-36283	537.03	7565.08	14.09	Si
SLV 5	143750	0.24	8958	-36283	537.03	7565.08	14.09	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -0.025 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 5	-27961	-43946	363	0.096	4424.2	0.912	1.52525	11.8104	No
SLV 6	-27961	-43946	363	0.096	4424.2	0.912	1.52525	11.8104	No
SLV 11	-19524	-42558	-355	0.1	3589.8	0.9	1.60707	11.8104	No
SLV 12	-19524	-42558	-355	0.1	3589.8	0.9	1.60707	11.8104	No
SLV 7	-27906	-44068	142	0.102	4418.7	0.912	1.61911	11.8104	No
SLV 8	-27906	-44068	142	0.102	4418.7	0.912	1.61911	11.8104	No
SLV 9	-19579	-42436	-134	0.107	3595.2	0.9	1.72801	11.8104	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 10	-19579	-42436	-134	0.107	3595.2	0.9	1.72801	11.8104	No
SLV 1	-37722	-45750	865	0.083	5402.1	0.924	1.30022	7.39556	No
SLV 2	-37722	-45750	865	0.083	5402.1	0.924	1.30022	7.39556	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	24.864	SLV 40	Si
V_SLV	67.084	SLV 2	Si
PF_SLV	10.699	SLV 11	Si
V_SLV	3.072	SLV 11	Si
PFFP_SLV	11.138	SLV 13	Si
R_SLV	0.129	SLV 5	No

## Maschio 2

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-29.758	2.281	-29.758	5.501	L1	L2	3.22	0.3	2.69	2.69	2.69			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 83	-1.37	-24230	-5072.4	25083	26998.38	5.323	Si
SLV 83	0.81	-18061	-3252.81	18696	22403.83	6.888	Si
SLV 37	-1.37	-19626	-4250	20317	23716.76	5.58	Si
SLV 37	0.81	-14848	-2710.98	15370	19394.41	7.154	Si
SLV 41	-1.37	-21332	-4686.21	22083	25034.19	5.342	Si
SLV 41	0.81	-16439	-2991.18	17017	20937.16	7	Si
SLV 26	-1.37	-14842	-2438.89	15364	19388.46	7.95	Si
SLV 26	0.81	-10438	-2664.37	10806	14576.33	5.471	Si
SLV 2	-1.37	-12050	-1531.27	12474	16429.07	10.729	Si
SLV 2	0.81	-7765	-2111.33	8038	11267.68	5.337	Si
SLV 23	-1.37	-14842	-2438.89	15364	19388.46	7.95	Si
SLV 23	0.81	-10438	-2664.37	10806	14576.33	5.471	Si
SLV 35	-1.37	-19626	-4250	20317	23716.76	5.58	Si
SLV 35	0.81	-14848	-2710.98	15370	19394.41	7.154	Si
SLV 5	-1.37	-12050	-1531.27	12474	16429.07	10.729	Si
SLV 5	0.81	-7765	-2111.33	8038	11267.68	5.337	Si
SLV 81	-1.37	-24230	-5072.4	25083	26998.38	5.323	Si
SLV 81	0.81	-18061	-3252.81	18696	22403.83	6.888	Si
SLV 39	-1.37	-21332	-4686.21	22083	25034.19	5.342	Si
SLV 39	0.81	-16439	-2991.18	17017	20937.16	7	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 10	-1.37	-17287	-8200.88	17896	23756.1	2.897	Si
SLV 10	0.81	-11147	-759.67	11539	16251.77	21.393	Si
SLV 12	-1.37	-11860	2324.01	12278	17176.18	7.391	Si
SLV 12	0.81	-9133	-3208.54	9454	13566.02	4.228	Si
SLV 7	-1.37	-12287	2451.49	12719	17722.31	7.229	Si
SLV 7	0.81	-9427	-2938.23	9759	13965.49	4.753	Si
SLV 11	-1.37	-11860	2324.01	12278	17176.18	7.391	Si
SLV 11	0.81	-9133	-3208.54	9454	13566.02	4.228	Si
SLV 8	-1.37	-12287	2451.49	12719	17722.31	7.229	Si
SLV 8	0.81	-9427	-2938.23	9759	13965.49	4.753	Si
SLV 6	-1.37	-17714	-8073.4	18337	24239.1	3.002	Si
SLV 6	0.81	-11441	-489.37	11844	16635.06	33.993	Si
SLV 9	-1.37	-17287	-8200.88	17896	23756.1	2.897	Si
SLV 9	0.81	-11147	-759.67	11539	16251.77	21.393	Si
SLV 13	-1.37	-14890	-4665.89	15414	20948.98	4.49	Si
SLV 13	0.81	-10099	-1932.12	10454	14867.59	7.695	Si
SLV 14	-1.37	-14890	-4665.89	15414	20948.98	4.49	Si
SLV 14	0.81	-10099	-1932.12	10454	14867.59	7.695	Si
SLV 5	-1.37	-17714	-8073.4	18337	24239.1	3.002	Si
SLV 5	0.81	-11441	-489.37	11844	16635.06	33.993	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	-1.37	-16031	666	-2549.08		16596	3.22	7768	7504			11.27	Si
SLV 10	0.81	-11476	628	-2765.13		11880	3.22	7140	6897			10.98	Si
SLV 68	-1.37	-17740	665	-2825.07		18364	3.22	8004	7732			11.63	Si
SLV 68	0.81	-12060	632	-2926		12485	3.22	7220	6975			11.04	Si
SLV 23	-1.37	-14842	666	-2438.89		15364	3.22	7604	7346			11.03	Si
SLV 23	0.81	-10438	677	-2664.37		10806	3.22	6996	6758			9.98	Si
SLV 65	-1.37	-17740	665	-2825.07		18364	3.22	8004	7732			11.63	Si
SLV 65	0.81	-12060	632	-2926		12485	3.22	7220	6975			11.04	Si
SLV 2	-1.37	-12050	665	-1531.27		12474	3.22	7219	6973			10.49	Si
SLV 2	0.81	-7765	731	-2111.33		8038	3.22	6627	6402			8.75	Si
SLV 26	-1.37	-14842	666	-2438.89		15364	3.22	7604	7346			11.03	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 26	0.81	-10438	677	-2664.37		10806	3.22	6996	6758			9.98	Si
SLU 5	-1.37	-12050	665	-1531.27		12474	3.22	7219	6973			10.49	Si
SLU 5	0.81	-7765	731	-2111.33		8038	3.22	6627	6402			8.75	Si
SLU 13	-1.37	-16031	666	-2549.08		16596	3.22	7768	7504			11.27	Si
SLU 13	0.81	-11476	628	-2765.13		11880	3.22	7140	6897			10.98	Si
SLU 44	-1.37	-14948	664	-1917.45		15474	3.22	7619	7360			11.08	Si
SLU 44	0.81	-9387	686	-2372.96		9717	3.22	6851	6618			9.65	Si
SLU 47	-1.37	-14948	664	-1917.45		15474	3.22	7619	7360			11.08	Si
SLU 47	0.81	-9387	686	-2372.96		9717	3.22	6851	6618			9.65	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	-1.37	-17714	-4002	-8073.4		18337	3.22	12001	11593			2.9	Si
SLV 5	0.81	-11441	-3747	-489.37		11844	3.22	10702	10338			2.76	Si
SLV 6	-1.37	-17714	-4002	-8073.4		18337	3.22	12001	11593			2.9	Si
SLV 6	0.81	-11441	-3747	-489.37		11844	3.22	10702	10338			2.76	Si
SLV 12	-1.37	-11860	3999	2324.01		12278	3.22	10789	10422			2.61	Si
SLV 12	0.81	-9133	3230	-3208.54		9454	3.22	10224	9877			3.06	Si
SLV 1	-1.37	-16312	-846	-4240.97		16886	3.22	11711	11312			13.37	Si
SLV 1	0.81	-11080	-2044	-1031.12		11470	3.22	10627	10266			5.02	Si
SLV 8	-1.37	-12287	4233	2451.49		12719	3.22	10877	10507			2.48	Si
SLV 8	0.81	-9427	2743	-2938.23		9759	3.22	10285	9935			3.62	Si
SLV 7	-1.37	-12287	4233	2451.49		12719	3.22	10877	10507			2.48	Si
SLV 7	0.81	-9427	2743	-2938.23		9759	3.22	10285	9935			3.62	Si
SLV 11	-1.37	-11860	3999	2324.01		12278	3.22	10789	10422			2.61	Si
SLV 11	0.81	-9133	3230	-3208.54		9454	3.22	10224	9877			3.06	Si
SLV 2	-1.37	-16312	-846	-4240.97		16886	3.22	11711	11312			13.37	Si
SLV 2	0.81	-11080	-2044	-1031.12		11470	3.22	10627	10266			5.02	Si
SLV 9	-1.37	-17287	-4236	-8200.88		17896	3.22	11912	11507			2.72	Si
SLV 9	0.81	-11147	-3260	-759.67		11539	3.22	10641	10279			3.15	Si
SLV 10	-1.37	-17287	-4236	-8200.88		17896	3.22	11912	11507			2.72	Si
SLV 10	0.81	-11147	-3260	-759.67		11539	3.22	10641	10279			3.15	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025  $W_a$  0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 12	143750	0.24	11735	-11336	128.08	1537.04	12	Si
SLV 11	143750	0.24	11735	-11336	128.08	1537.04	12	Si
SLV 15	143750	0.24	12122	-11710	128.08	1582.18	12.35	Si
SLV 16	143750	0.24	12122	-11710	128.08	1582.18	12.35	Si
SLV 8	143750	0.24	12138	-11725	128.08	1584.06	12.37	Si
SLV 7	143750	0.24	12138	-11725	128.08	1584.06	12.37	Si
SLV 13	143750	0.24	12857	-12420	128.08	1666.93	13.01	Si
SLV 14	143750	0.24	12857	-12420	128.08	1666.93	13.01	Si
SLV 3	143750	0.24	13466	-13008	128.08	1736.18	13.56	Si
SLV 4	143750	0.24	13466	-13008	128.08	1736.18	13.56	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -0.025  $W_a = 0.05$   $T_a = 0.0403$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 15	-7841	-13262	-394	0.03	1172.4	0.919	0.47283	11.57485	No
SLV 16	-7841	-13262	-394	0.03	1172.4	0.919	0.47283	11.57485	No
SLV 2	-8756	-16312	393	0.032	1264.2	0.923	0.50458	11.57485	No
SLV 1	-8756	-16312	393	0.032	1264.2	0.923	0.50458	11.57485	No
SLV 12	-7625	-11860	-279	0.041	1150.7	0.918	0.64737	11.92471	No
SLV 11	-7625	-11860	-279	0.041	1150.7	0.918	0.64737	11.92471	No
SLV 14	-8195	-14890	-288	0.041	1207.9	0.921	0.64425	11.57485	No
SLV 13	-8195	-14890	-288	0.041	1207.9	0.921	0.64425	11.57485	No
SLV 4	-8402	-14684	288	0.041	1228.6	0.922	0.64857	11.57485	No
SLV 3	-8402	-14684	288	0.041	1228.6	0.922	0.64857	11.57485	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.323	SLU 81	Si
V_SLU	8.753	SLU 2	Si
PF_SLV	2.897	SLV 9	Si
V_SLV	2.482	SLV 7	Si
PFFP_SLV	12	SLV 11	Si
R_SLV	0.041	SLV 15	No

## Maschio 3

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.108	-3.274	-32.783	-3.274	L1	L2	1.325	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	t0	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 56	0.63	-3297	1402.64	5529	2035.82	1.451	Si
SLU 56	1.03	-2635	2232.88	0	0	0	No, $e \geq l/2$
SLU 58	0.63	-3297	1402.64	5529	2035.82	1.451	Si
SLU 58	1.03	-2635	2232.88	0	0	0	No, $e \geq l/2$
SLU 54	0.63	-3297	1396.63	5530	2036.15	1.458	Si
SLU 54	1.03	-2641	2225.38	0	0	0	No, $e \geq l/2$
SLU 61	0.63	-3641	1503.9	6107	2231.56	1.484	Si
SLU 61	1.03	-2998	2424.61	0	0	0	No, $e \geq l/2$
SLU 59	0.63	-3297	1396.63	5530	2036.15	1.458	Si
SLU 59	1.03	-2641	2225.38	0	0	0	No, $e \geq l/2$
SLU 55	0.63	-3298	1392.62	5531	2036.36	1.462	Si
SLU 55	1.03	-2646	2220.38	0	0	0	No, $e \geq l/2$
SLU 60	0.63	-3641	1509.91	6106	2231.25	1.478	Si
SLU 60	1.03	-2991	2432.11	0	0	0	No, $e \geq l/2$
SLU 1	0.63	-2004	916.69	3362	1273.15	1.389	Si
SLU 1	1.03	-1471	1415.41	0	0	0	No, $e \geq l/2$
SLU 53	0.63	-3297	1402.64	5529	2035.82	1.451	Si
SLU 53	1.03	-2635	2232.88	0	0	0	No, $e \geq l/2$
SLU 57	0.63	-3297	1396.63	5530	2036.15	1.458	Si
SLU 57	1.03	-2641	2225.38	0	0	0	No, $e \geq l/2$

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 6	0.63	-2102	1242.12	3525	1352.32	1.089	Si
SLV 6	1.03	-1327	2068.73	0	0	0	No, $e \geq l/2$
SLV 3	0.63	-1662	801.78	2788	1076.05	1.342	Si
SLV 3	1.03	-1453	1900.2	0	0	0	No, $e \geq l/2$
SLV 7	0.63	-2149	715.72	3605	1381.93	1.931	Si
SLV 7	1.03	-2003	1384.51	0	0	0	No, $e \geq l/2$
SLV 8	0.63	-2149	715.72	3605	1381.93	1.931	Si
SLV 8	1.03	-2003	1384.51	0	0	0	No, $e \geq l/2$
SLV 9	0.63	-2505	1326.28	4202	1602.64	1.208	Si
SLV 9	1.03	-1597	1831.97	0	0	0	No, $e \geq l/2$
SLV 4	0.63	-1662	801.78	2788	1076.05	1.342	Si
SLV 4	1.03	-1453	1900.2	0	0	0	No, $e \geq l/2$
SLV 10	0.63	-2505	1326.28	4202	1602.64	1.208	Si
SLV 10	1.03	-1597	1831.97	0	0	0	No, $e \geq l/2$
SLV 5	0.63	-2102	1242.12	3525	1352.32	1.089	Si
SLV 5	1.03	-1327	2068.73	0	0	0	No, $e \geq l/2$
SLV 2	0.63	-1648	959.7	2764	1067.05	1.112	Si
SLV 2	1.03	-1250	2105.47	0	0	0	No, $e \geq l/2$
SLV 1	0.63	-1648	959.7	2764	1067.05	1.112	Si
SLV 1	1.03	-1250	2105.47	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 60	0.63	-3641	-2112	1509.91		10884	0.7434	7007	2344			1.11	Si
SLU 60	1.03	-2991	-2118	2432.11		0	0	5556	0			0	No, $V_u < V$
SLU 59	0.63	-3297	-1870	1396.63		10222	0.7168	6919	2232			1.19	Si
SLU 59	1.03	-2641	-1874	2225.38		0	0	5556	0			0	No, $V_u < V$
SLU 1	0.63	-2004	-1045	916.69		7237	0.6155	6520	1806			1.73	Si
SLU 1	1.03	-1471	-1048	1415.41		0	0	5556	0			0	No, $V_u < V$
SLU 58	0.63	-3297	-1863	1402.64		10302	0.7111	6929	2217			1.19	Si
SLU 58	1.03	-2635	-1868	2232.88		0	0	5556	0			0	No, $V_u < V$
SLU 53	0.63	-3297	-1863	1402.64		10302	0.7111	6929	2217			1.19	Si
SLU 53	1.03	-2635	-1868	2232.88		0	0	5556	0			0	No, $V_u < V$
SLU 55	0.63	-3298	-1874	1392.62		10170	0.7206	6912	2241			1.2	Si
SLU 55	1.03	-2646	-1878	2220.38		0	0	5556	0			0	No, $V_u < V$
SLU 57	0.63	-3297	-1870	1396.63		10222	0.7168	6919	2232			1.19	Si
SLU 57	1.03	-2641	-1874	2225.38		0	0	5556	0			0	No, $V_u < V$
SLU 61	0.63	-3641	-2119	1503.9		10811	0.7485	6997	2357			1.11	Si
SLU 61	1.03	-2998	-2124	2424.61		0	0	5556	0			0	No, $V_u < V$
SLU 54	0.63	-3297	-1870	1396.63		10222	0.7168	6919	2232			1.19	Si
SLU 54	1.03	-2641	-1874	2225.38		0	0	5556	0			0	No, $V_u < V$
SLU 56	0.63	-3297	-1863	1402.64		10302	0.7111	6929	2217			1.19	Si
SLU 56	1.03	-2635	-1868	2232.88		0	0	5556	0			0	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	0.63	-2102	-1776	1242.12		21762	0.2146	12686	1225			0.69	No, $V_u < V$
SLV 5	1.03	-1327	-1658	2068.73		0	0	8333	0			0	No, $V_u < V$
SLV 10	0.63	-2505	-723	1326.28		13943	0.3993	11122	1998			2.76	Si
SLV 10	1.03	-1597	-670	1831.97		0	0	8333	0			0	No, $V_u < V$
SLV 3	0.63	-1662	-3038	801.78		6835	0.5404	9700	2359			0.78	No, $V_u < V$
SLV 3	1.03	-1453	-2960	1900.2		0	0	8333	0			0	No, $V_u < V$
SLV 8	0.63	-2149	-1828	715.72		4832	0.9885	9300	4137			2.26	Si
SLV 8	1.03	-2003	-1888	1384.51		0	0	8333	0			0	No, $V_u < V$
SLV 1	0.63	-1648	-3023	959.7		15234	0.2404	11380	1231			0.41	No, $V_u < V$
SLV 1	1.03	-1250	-2890	2105.47		0	0	8333	0			0	No, $V_u < V$
SLV 6	0.63	-2102	-1776	1242.12		21762	0.2146	12686	1225			0.69	No, $V_u < V$
SLV 6	1.03	-1327	-1658	2068.73		0	0	8333	0			0	No, $V_u < V$
SLV 2	0.63	-1648	-3023	959.7		15234	0.2404	11380	1231			0.41	No, $V_u < V$
SLV 2	1.03	-1250	-2890	2105.47		0	0	8333	0			0	No, $V_u < V$
SLV 9	0.63	-2505	-723	1326.28		13943	0.3993	11122	1998			2.76	Si
SLV 9	1.03	-1597	-670	1831.97		0	0	8333	0			0	No, $V_u < V$
SLV 4	0.63	-1662	-3038	801.78		6835	0.5404	9700	2359			0.78	No, $V_u < V$
SLV 4	1.03	-1453	-2960	1900.2		0	0	8333	0			0	No, $V_u < V$



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	0.63	-2149	-1828	715.72		4832	0.9885	9300	4137			2.26	Si
SLV 7	1.03	-2003	-1888	1384.51		0	0	8333	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 7	143750	0.24	3803	-2268	79.06	494.34	6.25	Si
SLV 8	143750	0.24	3803	-2268	79.06	494.34	6.25	Si
SLV 11	143750	0.24	3947	-2353	79.06	512.36	6.48	Si
SLV 12	143750	0.24	3947	-2353	79.06	512.36	6.48	Si
SLV 4	143750	0.24	4264	-2543	79.06	552.12	6.98	Si
SLV 3	143750	0.24	4264	-2543	79.06	552.12	6.98	Si
SLV 15	143750	0.24	4742	-2828	79.06	611.51	7.74	Si
SLV 16	143750	0.24	4742	-2828	79.06	611.51	7.74	Si
SLV 1	143750	0.24	4803	-2864	79.06	619.01	7.83	Si
SLV 2	143750	0.24	4803	-2864	79.06	619.01	7.83	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -0.025 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 7	-947	-4082	110	0.088	349.1	0.893	1.43459	11.8104	No
SLV 8	-947	-4082	110	0.088	349.1	0.893	1.43459	11.8104	No
SLV 9	-710	-5971	-109	0.089	330.2	0.9	1.43782	11.8104	No
SLV 10	-710	-5971	-109	0.089	330.2	0.9	1.43782	11.8104	No
SLV 12	-1343	-3663	68	0.102	383.4	0.889	1.67525	11.8104	No
SLV 11	-1343	-3663	68	0.102	383.4	0.889	1.67525	11.8104	No
SLV 5	-314	-6389	-67	0.114	304	0.932	1.77878	11.8104	No
SLV 6	-314	-6389	-67	0.114	304	0.932	1.77878	11.8104	No
SLV 14	-1394	-4676	-96	0.093	387.9	0.889	1.51245	7.39556	No
SLV 13	-1394	-4676	-96	0.093	387.9	0.889	1.51245	7.39556	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLU	0	SLU 1	No
V SLU	0	SLU 1	No
PF SLV	0	SLV 1	No
V SLV	0	SLV 1	No
PFFP SLV	6.253	SLV 7	Si
R SLV	0.121	SLV 7	No

## Maschio 4

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-31.783	-3.274	-26.798	-3.274	L1	L2	4.985	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 83	0.63	-32846	-3057.51	14642	67152.36	21.963	Si
SLU 83	1.03	-30441	-3645.95	13570	63234.9	17.344	Si
SLU 18	0.63	-25987	-2660.03	11585	55561.77	20.888	Si
SLU 18	1.03	-24142	-3116.89	10762	52223.28	16.755	Si
SLU 19	0.63	-25982	-2656.77	11582	55552.27	20.91	Si
SLU 19	1.03	-24135	-3115	10759	52211.24	16.761	Si
SLU 41	0.63	-28734	-3135.72	12809	60358.05	19.249	Si
SLU 41	1.03	-26826	-3686.9	11959	57048.55	15.473	Si
SLU 40	0.63	-28729	-3132.47	12807	60348.94	19.266	Si
SLU 40	1.03	-26820	-3685.01	11956	57036.99	15.478	Si
SLU 20	0.63	-25987	-2660.03	11585	55561.77	20.888	Si
SLU 20	1.03	-24142	-3116.89	10762	52223.28	16.755	Si
SLU 42	0.63	-28729	-3132.47	12807	60348.94	19.266	Si
SLU 42	1.03	-26820	-3685.01	11956	57036.99	15.478	Si
SLU 81	0.63	-32846	-3057.51	14642	67152.36	21.963	Si
SLU 81	1.03	-30441	-3645.95	13570	63234.9	17.344	Si
SLU 21	0.63	-25982	-2656.77	11582	55552.27	20.91	Si
SLU 21	1.03	-24135	-3115	10759	52211.24	16.761	Si
SLU 39	0.63	-28734	-3135.72	12809	60358.05	19.249	Si
SLU 39	1.03	-26826	-3686.9	11959	57048.55	15.473	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 11	0.63	-16955	-2864.32	7558	39646.59	13.842	Si
SLV 11	1.03	-16001	-2887.88	7133	37554.64	13.004	Si
SLV 4	0.63	-18066	-3063.57	8053	42060.92	13.729	Si
SLV 4	1.03	-16388	-1356.89	7305	38404.24	28.303	Si
SLV 8	0.63	-16602	-3733.1	7401	38874.58	10.413	Si
SLV 8	1.03	-15563	-2696.2	6938	36588.94	13.571	Si





Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 7	0.63	-16602	-3733.1	7401	38874.58	10.413	Si
SLV 7	1.03	-15563	-2696.2	6938	36588.94	13.571	Si
SLV 15	0.63	-19242	-167.64	8578	44594.16	266.011	Si
SLV 15	1.03	-17847	-1995.83	7956	41587.8	20.837	Si
SLV 9	0.63	-22313	1944.55	9947	51087.78	26.272	Si
SLV 9	1.03	-19816	299.78	8834	45820.95	152.847	Si
SLV 12	0.63	-16955	-2864.32	7558	39646.59	13.842	Si
SLV 12	1.03	-16001	-2887.88	7133	37554.64	13.004	Si
SLV 16	0.63	-19242	-167.64	8578	44594.16	266.011	Si
SLV 16	1.03	-17847	-1995.83	7956	41587.8	20.837	Si
SLV 3	0.63	-18066	-3063.57	8053	42060.92	13.729	Si
SLV 3	1.03	-16388	-1356.89	7305	38404.24	28.303	Si
SLV 10	0.63	-22313	1944.55	9947	51087.78	26.272	Si
SLV 10	1.03	-19816	299.78	8834	45820.95	152.847	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 40	0.63	-28729	254	-3132.47	12807	4.985	7263	16293				64.21	Si
SLU 40	1.03	-26820	253	-3685.01	11956	4.985	7150	16038				63.3	Si
SLU 20	0.63	-25987	207	-2660.03	11585	4.985	7100	15927				76.81	Si
SLU 20	1.03	-24142	207	-3116.89	10762	4.985	6990	15681				75.76	Si
SLU 39	0.63	-28734	254	-3135.72	12809	4.985	7263	16294				64.12	Si
SLU 39	1.03	-26826	254	-3686.9	11959	4.985	7150	16039				63.23	Si
SLU 18	0.63	-25987	207	-2660.03	11585	4.985	7100	15927				76.81	Si
SLU 18	1.03	-24142	207	-3116.89	10762	4.985	6990	15681				75.76	Si
SLU 42	0.63	-28729	254	-3132.47	12807	4.985	7263	16293				64.21	Si
SLU 42	1.03	-26820	253	-3685.01	11956	4.985	7150	16038				63.3	Si
SLU 84	0.63	-32840	240	-3054.25	14640	4.985	7508	16841				70.04	Si
SLU 84	1.03	-30435	240	-3644.07	13567	4.985	7365	16520				68.83	Si
SLU 82	0.63	-32840	240	-3054.25	14640	4.985	7508	16841				70.04	Si
SLU 82	1.03	-30435	240	-3644.07	13567	4.985	7365	16520				68.83	Si
SLU 81	0.63	-32846	241	-3057.51	14642	4.985	7508	16842				69.95	Si
SLU 81	1.03	-30441	240	-3645.95	13570	4.985	7365	16521				68.75	Si
SLU 83	0.63	-32846	241	-3057.51	14642	4.985	7508	16842				69.95	Si
SLU 83	1.03	-30441	240	-3645.95	13570	4.985	7365	16521				68.75	Si
SLU 41	0.63	-28734	254	-3135.72	12809	4.985	7263	16294				64.12	Si
SLU 41	1.03	-26826	254	-3686.9	11959	4.985	7150	16039				63.23	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	0.63	-20850	5194	1275.02	9294	4.985	10192	22864				4.4	Si
SLV 13	1.03	-18992	5040	-1039.53	8466	4.985	10027	22492				4.46	Si
SLV 4	0.63	-18066	-5070	-3063.57	8053	4.985	9944	22307				4.4	Si
SLV 4	1.03	-16388	-4917	-1356.89	7305	4.985	9794	21971				4.47	Si
SLV 12	0.63	-16955	1774	-2864.32	7558	4.985	9845	22085				12.45	Si
SLV 12	1.03	-16001	1754	-2887.88	7133	4.985	9760	21894				12.48	Si
SLV 1	0.63	-19673	-5165	-1620.91	8770	4.985	10087	22628				4.38	Si
SLV 1	1.03	-17532	-5026	-400.59	7816	4.985	9896	22200				4.42	Si
SLV 14	0.63	-20850	5194	1275.02	9294	4.985	10192	22864				4.4	Si
SLV 14	1.03	-18992	5040	-1039.53	8466	4.985	10027	22492				4.46	Si
SLV 2	0.63	-19673	-5165	-1620.91	8770	4.985	10087	22628				4.38	Si
SLV 2	1.03	-17532	-5026	-400.59	7816	4.985	9896	22200				4.42	Si
SLV 11	0.63	-16955	1774	-2864.32	7558	4.985	9845	22085				12.45	Si
SLV 11	1.03	-16001	1754	-2887.88	7133	4.985	9760	21894				12.48	Si
SLV 16	0.63	-19242	5289	-167.64	8578	4.985	10049	22542				4.26	Si
SLV 16	1.03	-17847	5150	-1995.83	7956	4.985	9925	22263				4.32	Si
SLV 15	0.63	-19242	5289	-167.64	8578	4.985	10049	22542				4.26	Si
SLV 15	1.03	-17847	5150	-1995.83	7956	4.985	9925	22263				4.32	Si
SLV 3	0.63	-18066	-5070	-3063.57	8053	4.985	9944	22307				4.4	Si
SLV 3	1.03	-16388	-4917	-1356.89	7305	4.985	9794	21971				4.47	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 8	143750	0.24	7251	-16266	297.44	3442.6	11.57	Si
SLV 7	143750	0.24	7251	-16266	297.44	3442.6	11.57	Si
SLV 12	143750	0.24	7342	-16470	297.44	3483.06	11.71	Si
SLV 11	143750	0.24	7342	-16470	297.44	3483.06	11.71	Si
SLV 4	143750	0.24	8370	-18776	297.44	3935.29	13.23	Si
SLV 3	143750	0.24	8370	-18776	297.44	3935.29	13.23	Si
SLV 16	143750	0.24	8674	-19457	297.44	4067.05	13.67	Si
SLV 15	143750	0.24	8674	-19457	297.44	4067.05	13.67	Si
SLV 1	143750	0.24	9421	-21133	297.44	4388.24	14.75	Si
SLV 2	143750	0.24	9421	-21133	297.44	4388.24	14.75	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = -0.025 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 9	-17243	-30534	-51	0.101	2625.7	0.917	1.60827	11.8104	No
SLV 10	-17243	-30534	-51	0.101	2625.7	0.917	1.60827	11.8104	No
SLV 5	-16932	-30441	-41	0.102	2594.7	0.916	1.62056	11.8104	No
SLV 6	-16932	-30441	-41	0.102	2594.7	0.916	1.62056	11.8104	No
SLV 8	-13648	-17113	53	0.105	2267.6	0.908	1.6763	11.8104	No
SLV 7	-13648	-17113	53	0.105	2267.6	0.908	1.6763	11.8104	No
SLV 11	-13959	-17206	43	0.105	2298.4	0.908	1.67767	11.8104	No
SLV 12	-13959	-17206	43	0.105	2298.4	0.908	1.67767	11.8104	No
SLV 13	-16455	-25977	-30	0.103	2547	0.915	1.63707	7.39556	No
SLV 14	-16455	-25977	-30	0.103	2547	0.915	1.63707	7.39556	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	15.473	SLU 39	Si
V_SLU	63.226	SLU 39	Si
PF_SLV	10.413	SLV 7	Si
V_SLV	4.262	SLV 15	Si
PFFP_SLV	11.574	SLV 7	Si
R_SLV	0.136	SLV 9	No

## Maschio 5

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

## Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-25.798	-3.274	-24.423	-3.274	L1	L2	1.375	0.45	2.69	2.69	2.69			

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$ 

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 61	0.63	-3119	-1435.51	5041	2011.54	1.401	Si
SLU 61	1.03	-2415	-2308.49	0	0	0	No, e>l/2
SLU 55	0.63	-2911	-1353.18	4704	1885.43	1.393	Si
SLU 55	1.03	-2209	-2149.69	0	0	0	No, e>l/2
SLU 60	0.63	-3119	-1441.1	5042	2011.89	1.396	Si
SLU 60	1.03	-2410	-2315.43	0	0	0	No, e>l/2
SLU 59	0.63	-2911	-1356.91	4704	1885.66	1.39	Si
SLU 59	1.03	-2206	-2154.32	0	0	0	No, e>l/2
SLU 53	0.63	-2911	-1362.5	4705	1886.02	1.384	Si
SLU 53	1.03	-2201	-2161.25	0	0	0	No, e>l/2
SLU 57	0.63	-2911	-1356.91	4704	1885.66	1.39	Si
SLU 57	1.03	-2206	-2154.32	0	0	0	No, e>l/2
SLU 54	0.63	-2911	-1356.91	4704	1885.66	1.39	Si
SLU 54	1.03	-2206	-2154.32	0	0	0	No, e>l/2
SLU 56	0.63	-2911	-1362.5	4705	1886.02	1.384	Si
SLU 56	1.03	-2201	-2161.25	0	0	0	No, e>l/2
SLU 58	0.63	-2911	-1362.5	4705	1886.02	1.384	Si
SLU 58	1.03	-2201	-2161.25	0	0	0	No, e>l/2
SLU 1	0.63	-1922	-930.26	3107	1271.17	1.366	Si
SLU 1	1.03	-1371	-1429.88	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$ 

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 6	0.63	-2264	-1356.57	3659	1509.7	1.113	Si
SLV 6	1.03	-1424	-1902.82	0	0	0	No, e>l/2
SLV 11	0.63	-1979	-659.14	3199	1325.26	2.011	Si
SLV 11	1.03	-1712	-1258.06	0	0	0	No, e>l/2
SLV 2	0.63	-2473	-1234.86	3997	1644.81	1.332	Si
SLV 2	1.03	-1743	-1220.54	0	0	0	No, e>l/2
SLV 14	0.63	-1794	-965.87	2899	1204.06	1.247	Si
SLV 14	1.03	-1263	-2224.08	0	0	0	No, e>l/2
SLV 1	0.63	-2473	-1234.86	3997	1644.81	1.332	Si
SLV 1	1.03	-1743	-1220.54	0	0	0	No, e>l/2
SLV 10	0.63	-2060	-1275.87	3329	1377.58	1.08	Si
SLV 10	1.03	-1280	-2203.88	0	0	0	No, e>l/2
SLV 13	0.63	-1794	-965.87	2899	1204.06	1.247	Si
SLV 13	1.03	-1263	-2224.08	0	0	0	No, e>l/2
SLV 12	0.63	-1979	-659.14	3199	1325.26	2.011	Si
SLV 12	1.03	-1712	-1258.06	0	0	0	No, e>l/2
SLV 9	0.63	-2060	-1275.87	3329	1377.58	1.08	Si
SLV 9	1.03	-1280	-2203.88	0	0	0	No, e>l/2
SLV 5	0.63	-2264	-1356.57	3659	1509.7	1.113	Si
SLV 5	1.03	-1424	-1902.82	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$ 

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 59	0.63	-2911	1735	-1356.91		9741	0.6641	6854	2048			1.18	Si
SLU 59	1.03	-2206	1739	-2154.32		0	0	5556	0			0	No, Vu<V
SLU 61	0.63	-3119	1926	-1435.51		10167	0.6817	6911	2120			1.1	Si
SLU 61	1.03	-2415	1930	-2308.49		0	0	5556	0			0	No, Vu<V
SLU 1	0.63	-1922	1036	-930.26		6995	0.6107	6488	1783			1.72	Si
SLU 1	1.03	-1371	1039	-1429.88		0	0	5556	0			0	No, Vu<V
SLU 58	0.63	-2911	1729	-1362.5		9824	0.6586	6865	2035			1.18	Si
SLU 58	1.03	-2201	1734	-2161.25		0	0	5556	0			0	No, Vu<V
SLU 55	0.63	-2911	1739	-1353.18		9686	0.6677	6847	2057			1.18	Si
SLU 55	1.03	-2209	1743	-2149.69		0	0	5556	0			0	No, Vu<V
SLU 57	0.63	-2911	1735	-1356.91		9741	0.6641	6854	2048			1.18	Si
SLU 57	1.03	-2206	1739	-2154.32		0	0	5556	0			0	No, Vu<V
SLU 53	0.63	-2911	1729	-1362.5		9824	0.6586	6865	2035			1.18	Si
SLU 53	1.03	-2201	1734	-2161.25		0	0	5556	0			0	No, Vu<V
SLU 56	0.63	-2911	1729	-1362.5		9824	0.6586	6865	2035			1.18	Si
SLU 56	1.03	-2201	1734	-2161.25		0	0	5556	0			0	No, Vu<V



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 60	0.63	-3119	1920	-1441.1		10246	0.6766	6922	2107			1.1	Si
SLU 60	1.03	-2410	1924	-2315.43		0	0	5556	0			0	No, Vu<V
SLU 54	0.63	-2911	1735	-1356.91		9741	0.6641	6854	2048			1.18	Si
SLU 54	1.03	-2206	1739	-2154.32		0	0	5556	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	0.63	-2264	917	-1356.57		19005	0.2647	12134	1445			1.58	Si
SLV 5	1.03	-1424	824	-1902.82		0	0	8333	0			0	No, Vu<V
SLV 2	0.63	-2473	-531	-1234.86		9733	0.5647	10280	2612			4.92	Si
SLV 2	1.03	-1743	-608	-1220.54		0	0	8333	0			0	No, Vu<V
SLV 6	0.63	-2264	917	-1356.57		19005	0.2647	12134	1445			1.58	Si
SLV 6	1.03	-1424	824	-1902.82		0	0	8333	0			0	No, Vu<V
SLV 10	0.63	-2060	2008	-1275.87		22403	0.2043	12814	1178			0.59	No, Vu<V
SLV 10	1.03	-1280	1949	-2203.88		0	0	8333	0			0	No, Vu<V
SLV 13	0.63	-1794	3107	-965.87		8913	0.4473	10116	2036			0.66	No, Vu<V
SLV 13	1.03	-1263	3144	-2224.08		0	0	8333	0			0	No, Vu<V
SLV 11	0.63	-1979	1511	-659.14		4136	1.0635	9161	4384			2.9	Si
SLV 11	1.03	-1712	1611	-1258.06		0	0	8333	0			0	No, Vu<V
SLV 9	0.63	-2060	2008	-1275.87		22403	0.2043	12814	1178			0.59	No, Vu<V
SLV 9	1.03	-1280	1949	-2203.88		0	0	8333	0			0	No, Vu<V
SLV 14	0.63	-1794	3107	-965.87		8913	0.4473	10116	2036			0.66	No, Vu<V
SLV 14	1.03	-1263	3144	-2224.08		0	0	8333	0			0	No, Vu<V
SLV 1	0.63	-2473	-531	-1234.86		9733	0.5647	10280	2612			4.92	Si
SLV 1	1.03	-1743	-608	-1220.54		0	0	8333	0			0	No, Vu<V
SLV 12	0.63	-1979	1511	-659.14		4136	1.0635	9161	4384			2.9	Si
SLV 12	1.03	-1712	1611	-1258.06		0	0	8333	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 12	143750	0.24	3515	-2175	82.04	475.21	5.79	Si
SLV 11	143750	0.24	3515	-2175	82.04	475.21	5.79	Si
SLV 8	143750	0.24	3578	-2214	82.04	483.49	5.89	Si
SLV 7	143750	0.24	3578	-2214	82.04	483.49	5.89	Si
SLV 16	143750	0.24	4024	-2490	82.04	541.8	6.6	Si
SLV 15	143750	0.24	4024	-2490	82.04	541.8	6.6	Si
SLV 4	143750	0.24	4235	-2620	82.04	569.11	6.94	Si
SLV 3	143750	0.24	4235	-2620	82.04	569.11	6.94	Si
SLV 14	143750	0.24	4524	-2799	82.04	606.54	7.39	Si
SLV 13	143750	0.24	4524	-2799	82.04	606.54	7.39	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -0.025 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 13	104	-6046	-8	0	0	0	0	7.39556	No, Trazione
SLV 14	104	-6046	-8	0	0	0	0	7.39556	No, Trazione
SLV 7	-1050	-3377	-25	0.123	367.9	0.892	2.00393	11.8104	No
SLV 8	-1050	-3377	-25	0.123	367.9	0.892	2.00393	11.8104	No
SLV 12	-698	-3822	-36	0.124	339.8	0.902	2.00479	11.8104	No
SLV 11	-698	-3822	-36	0.124	339.8	0.902	2.00479	11.8104	No
SLV 6	-447	-6002	37	0.129	322.4	0.919	2.0434	11.8104	No
SLV 5	-447	-6002	37	0.129	322.4	0.919	2.0434	11.8104	No
SLV 10	-95	-6446	26	0.146	306.5	0.973	2.17989	11.8104	No
SLV 9	-95	-6446	26	0.146	306.5	0.973	2.17989	11.8104	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	5.792	SLV 11	Si
R_SLV	0	SLV 14	No

## Maschio 6

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-34.108	1.056	-33.734	1.056	L1	L2	0.374	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>k</sub>	f <sub>vk0</sub>	f <sub>medio</sub>	$\tau_0$	f <sub>v0</sub>	$\mu$	$\phi$	f <sub>v,lim</sub>	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 27	-1.37	-1932	-8.8	11479	310.54	35.306	Si
SLU 27	0.8	-1163	-20.86	6908	199.09	9.542	Si
SLU 66	-1.37	-2415	-10.7	14343	372.12	34.767	Si
SLU 66	0.8	-1425	-25.25	8467	238.9	9.462	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 79	-1.37	-2624	-17.8	15585	396.87	22.301	Si
SLU 79	0.8	-1671	-28.24	9925	274.45	9.72	Si
SLU 29	-1.37	-1932	-8.8	11479	310.54	35.306	Si
SLU 29	0.8	-1163	-20.86	6908	199.09	9.542	Si
SLU 69	-1.37	-2415	-10.7	14343	372.12	34.767	Si
SLU 69	0.8	-1425	-25.25	8467	238.9	9.462	Si
SLU 22	-1.37	-1932	-8.8	11479	310.54	35.306	Si
SLU 22	0.8	-1163	-20.86	6908	199.09	9.542	Si
SLU 77	-1.37	-2624	-17.8	15585	396.87	22.301	Si
SLU 77	0.8	-1671	-28.24	9925	274.45	9.72	Si
SLU 71	-1.37	-2415	-10.7	14343	372.12	34.767	Si
SLU 71	0.8	-1425	-25.25	8467	238.9	9.462	Si
SLU 64	-1.37	-2415	-10.7	14343	372.12	34.767	Si
SLU 64	0.8	-1425	-25.25	8467	238.9	9.462	Si
SLU 24	-1.37	-1932	-8.8	11479	310.54	35.306	Si
SLU 24	0.8	-1163	-20.86	6908	199.09	9.542	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 1	-1.37	-2496	312.52	14828	410.27	1.313	Si
SLV 1	0.8	3085	-68.52	0	0	0	No, Trazione
SLV 4	-1.37	-2379	260.36	14134	393.58	1.512	Si
SLV 4	0.8	2423	-59.8	0	0	0	No, Trazione
SLV 15	-1.37	-1271	-332.54	0	0	0	No, $e \geq l/2$
SLV 15	0.8	-5359	29.25	31832	741.24	25.342	Si
SLV 6	-1.37	-2245	165.85	13335	374.07	2.255	Si
SLV 6	0.8	1133	-47.52	0	0	0	No, Trazione
SLV 16	-1.37	-1271	-332.54	0	0	0	No, $e \geq l/2$
SLV 16	0.8	-5359	29.25	31832	741.24	25.342	Si
SLV 13	-1.37	-1388	-280.38	0	0	0	No, $e \geq l/2$
SLV 13	0.8	-4697	20.53	27903	678.01	33.024	Si
SLV 14	-1.37	-1388	-280.38	0	0	0	No, $e \geq l/2$
SLV 14	0.8	-4697	20.53	27903	678.01	33.024	Si
SLV 5	-1.37	-2245	165.85	13335	374.07	2.255	Si
SLV 5	0.8	1133	-47.52	0	0	0	No, Trazione
SLV 3	-1.37	-2379	260.36	14134	393.58	1.512	Si
SLV 3	0.8	2423	-59.8	0	0	0	No, Trazione
SLV 2	-1.37	-2496	312.52	14828	410.27	1.313	Si
SLV 2	0.8	3085	-68.52	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 2	-1.37	-1749	-49	-19.88		10387	0.3741	6940	1168			23.73	Si
SLU 2	0.8	-1175	-99	-16.07		6981	0.3741	6486	1092			10.99	Si
SLU 5	-1.37	-1749	-49	-19.88		10387	0.3741	6940	1168			23.73	Si
SLU 5	0.8	-1175	-99	-16.07		6981	0.3741	6486	1092			10.99	Si
SLU 10	-1.37	-1958	-63	-26.97		11629	0.3741	7106	1196			19.02	Si
SLU 10	0.8	-1421	-116	-19.06		8439	0.3741	6681	1125			9.68	Si
SLU 55	-1.37	-2440	-67	-28.88		14492	0.3741	7488	1261			18.88	Si
SLU 55	0.8	-1683	-117	-23.44		9998	0.3741	6889	1160			9.95	Si
SLU 76	-1.37	-2592	-68	-30.01		15395	0.3741	7608	1281			18.93	Si
SLU 76	0.8	-1818	-117	-26.36		10797	0.3741	6995	1178			10.07	Si
SLU 73	-1.37	-2592	-68	-30.01		15395	0.3741	7608	1281			18.93	Si
SLU 73	0.8	-1818	-117	-26.36		10797	0.3741	6995	1178			10.07	Si
SLU 52	-1.37	-2440	-67	-28.88		14492	0.3741	7488	1261			18.88	Si
SLU 52	0.8	-1683	-117	-23.44		9998	0.3741	6889	1160			9.95	Si
SLU 31	-1.37	-2110	-64	-28.11		12531	0.3741	7226	1217			19.06	Si
SLU 31	0.8	-1555	-117	-21.98		9238	0.3741	6787	1143			9.8	Si
SLU 34	-1.37	-2110	-64	-28.11		12531	0.3741	7226	1217			19.06	Si
SLU 34	0.8	-1555	-117	-21.98		9238	0.3741	6787	1143			9.8	Si
SLU 13	-1.37	-1958	-63	-26.97		11629	0.3741	7106	1196			19.02	Si
SLU 13	0.8	-1421	-116	-19.06		8439	0.3741	6681	1125			9.68	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	-1.37	-2496	865	312.52		29892	0.1856	14312	1195			1.38	Si
SLV 1	0.8	3085	2891	-68.52		0	0	8333	0			0	No, $V_u < V$
SLV 6	-1.37	-2245	460	165.85		14693	0.3395	11272	1722			3.74	Si
SLV 6	0.8	1133	1520	-47.52		0	0	8333	0			0	No, $V_u < V$
SLV 2	-1.37	-2496	865	312.52		29892	0.1856	14312	1195			1.38	Si
SLV 2	0.8	3085	2891	-68.52		0	0	8333	0			0	No, $V_u < V$
SLV 15	-1.37	-1271	-901	-332.54		0	0	8333	0			0	No, $V_u < V$
SLV 15	0.8	-5359	-2905	29.25		31832	0.3741	14700	2475			0.85	No, $V_u < V$
SLV 14	-1.37	-1388	-760	-280.38		0	0	8333	0			0	No, $V_u < V$
SLV 14	0.8	-4697	-2471	20.53		27903	0.3741	13914	2342			0.95	No, $V_u < V$
SLV 4	-1.37	-2379	724	260.36		22705	0.2329	12874	1349			1.86	Si
SLV 4	0.8	2423	2458	-59.8		0	0	8333	0			0	No, $V_u < V$
SLV 3	-1.37	-2379	724	260.36		22705	0.2329	12874	1349			1.86	Si
SLV 3	0.8	2423	2458	-59.8		0	0	8333	0			0	No, $V_u < V$
SLV 5	-1.37	-2245	460	165.85		14693	0.3395	11272	1722			3.74	Si
SLV 5	0.8	1133	1520	-47.52		0	0	8333	0			0	No, $V_u < V$
SLV 16	-1.37	-1271	-901	-332.54		0	0	8333	0			0	No, $V_u < V$
SLV 16	0.8	-5359	-2905	29.25		31832	0.3741	14700	2475			0.85	No, $V_u < V$
SLV 13	-1.37	-1388	-760	-280.38		0	0	8333	0			0	No, $V_u < V$
SLV 13	0.8	-4697	-2471	20.53		27903	0.3741	13914	2342			0.95	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025  $W_a$  0.08 denominatore 8  $\gamma_M = 2$



Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 2	143750	0.24	0	1802	22.32	0	0	No, Trazione
SLV 1	143750	0.24	0	1802	22.32	0	0	No, Trazione
SLV 3	143750	0.24	0	1258	22.32	0	0	No, Trazione
SLV 4	143750	0.24	0	1258	22.32	0	0	No, Trazione
SLV 5	143750	0.24	0	229	22.32	0	0	No, Trazione
SLV 6	143750	0.24	0	229	22.32	0	0	No, Trazione
SLV 8	143750	0.24	9405	-1583	22.32	328.82	14.73	Si
SLV 7	143750	0.24	9405	-1583	22.32	328.82	14.73	Si
SLV 9	143750	0.24	9880	-1663	22.32	343.97	15.41	Si
SLV 10	143750	0.24	9880	-1663	22.32	343.97	15.41	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = -0.025  $W_a = 0.08$   $T_a = 0.0269$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 6	4480	-2245	-5	0	0	0	0	11.8104	No, Trazione
SLV 5	4480	-2245	-5	0	0	0	0	11.8104	No, Trazione
SLV 4	7682	-2379	0	0	0	0	0	7.39556	No, Trazione
SLV 1	9253	-2496	-3	0	0	0	0	7.39556	No, Trazione
SLV 2	9253	-2496	-3	0	0	0	0	7.39556	No, Trazione
SLV 3	7682	-2379	0	0	0	0	0	7.39556	No, Trazione
SLV 12	-6418	-1523	5	0.088	717.2	0.973	1.31296	11.8104	No
SLV 11	-6418	-1523	5	0.088	717.2	0.973	1.31296	11.8104	No
SLV 9	-1182	-1912	-3	0.103	185.8	0.913	1.63952	11.8104	No
SLV 10	-1182	-1912	-3	0.103	185.8	0.913	1.63952	11.8104	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	9.462	SLU 64	Si
V_SLU	9.683	SLU 10	Si
PF_SLV	0	SLV 6	No
V_SLV	0	SLV 1	No
PFFP_SLV	0	SLV 6	No
R_SLV	0	SLV 6	No

## Maschio 7

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-32.734	1.056	-30.903	1.056	L1	L2	1.831	0.45	2.69	2.69	2.69			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 42	-1.37	-8795	-1324.3	10675	6996.54	5.283	Si
SLU 42	0.8	-1982	600.84	2405	1760.68	2.93	Si
SLU 35	-1.37	-8181	-1184.69	9929	6576.12	5.551	Si
SLU 35	0.8	-1816	550.21	2204	1617.54	2.94	Si
SLU 32	-1.37	-8181	-1184.69	9929	6576.12	5.551	Si
SLU 32	0.8	-1816	550.21	2204	1617.54	2.94	Si
SLU 41	-1.37	-8722	-1349.42	10586	6946.6	5.148	Si
SLU 41	0.8	-1950	630.86	2367	1733.18	2.747	Si
SLU 20	-1.37	-8179	-1183.89	9927	6574.95	5.554	Si
SLU 20	0.8	-1818	548.48	2207	1619.57	2.953	Si
SLU 18	-1.37	-8179	-1183.89	9927	6574.95	5.554	Si
SLU 18	0.8	-1818	548.48	2207	1619.57	2.953	Si
SLU 39	-1.37	-8722	-1349.42	10586	6946.6	5.148	Si
SLU 39	0.8	-1950	630.86	2367	1733.18	2.747	Si
SLU 81	-1.37	-10448	-1483.1	12681	8075.82	5.445	Si
SLU 81	0.8	-2317	686.51	2812	2047.47	2.982	Si
SLU 37	-1.37	-8181	-1184.69	9929	6576.12	5.551	Si
SLU 37	0.8	-1816	550.21	2204	1617.54	2.94	Si
SLU 40	-1.37	-8795	-1324.3	10675	6996.54	5.283	Si
SLU 40	0.8	-1982	600.84	2405	1760.68	2.93	Si

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 13	-1.37	-7957	2557.09	9658	6708.62	2.624	Si
SLV 13	0.8	-2297	-1100.49	2788	2055.19	1.868	Si
SLV 3	-1.37	-5826	-4140.88	7071	5024.62	1.213	Si
SLV 3	0.8	-701	1814.38	0	0	0	No, $e \geq l/2$
SLV 2	-1.37	-5071	-4202.92	6155	4408.76	1.049	Si
SLV 2	0.8	-393	1993.04	0	0	0	No, $e \geq l/2$
SLV 5	-1.37	-5201	-1909.29	6313	4515.52	2.365	Si
SLV 5	0.8	-701	1118.74	0	0	0	No, $e \geq l/2$
SLV 4	-1.37	-5826	-4140.88	7071	5024.62	1.213	Si
SLV 4	0.8	-701	1814.38	0	0	0	No, $e \geq l/2$
SLV 16	-1.37	-8712	2619.13	10574	7284.89	2.781	Si
SLV 16	0.8	-2605	-1279.15	3162	2323.13	1.816	Si
SLV 14	-1.37	-7957	2557.09	9658	6708.62	2.624	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 14	0.8	-2297	-1100.49	2788	2055.19	1.868	Si
SLV 15	-1.37	-8712	2619.13	10574	7284.89	2.781	Si
SLV 15	0.8	-2605	-1279.15	3162	2323.13	1.816	Si
SLV 6	-1.37	-5201	-1909.29	6313	4515.52	2.365	Si
SLV 6	0.8	-701	1118.74	0	0	0	No, $e > l/2$
SLV 1	-1.37	-5071	-4202.92	6155	4408.76	1.049	Si
SLV 1	0.8	-393	1993.04	0	0	0	No, $e > l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 42	-1.37	-8795	-2236	-1324.3		10675	1.8309	6979	5750			2.57	Si
SLU 42	0.8	-1982	-419	600.84		2405	1.8309	5876	4841			11.57	Si
SLU 40	-1.37	-8795	-2236	-1324.3		10675	1.8309	6979	5750			2.57	Si
SLU 40	0.8	-1982	-419	600.84		2405	1.8309	5876	4841			11.57	Si
SLU 39	-1.37	-8722	-2276	-1349.42		10586	1.8309	6967	5740			2.52	Si
SLU 39	0.8	-1950	-438	630.86		2440	1.7757	5881	4699			10.72	Si
SLU 84	-1.37	-10522	-2442	-1457.97		12771	1.8309	7258	5980			2.45	Si
SLU 84	0.8	-2348	-466	656.49		2850	1.8309	5936	4890			10.49	Si
SLU 82	-1.37	-10522	-2442	-1457.97		12771	1.8309	7258	5980			2.45	Si
SLU 82	0.8	-2348	-466	656.49		2850	1.8309	5936	4890			10.49	Si
SLU 81	-1.37	-10448	-2482	-1483.1		12681	1.8309	7246	5970			2.41	Si
SLU 81	0.8	-2317	-486	686.51		2812	1.8309	5930	4886			10.05	Si
SLU 74	-1.37	-9907	-2192	-1318.37		12025	1.8309	7159	5898			2.69	Si
SLU 74	0.8	-2183	-436	605.86		2649	1.8309	5909	4868			11.16	Si
SLU 41	-1.37	-8722	-2276	-1349.42		10586	1.8309	6967	5740			2.52	Si
SLU 41	0.8	-1950	-438	630.86		2440	1.7757	5881	4699			10.72	Si
SLU 83	-1.37	-10448	-2482	-1483.1		12681	1.8309	7246	5970			2.41	Si
SLU 83	0.8	-2317	-486	686.51		2812	1.8309	5930	4886			10.05	Si
SLU 77	-1.37	-9907	-2192	-1318.37		12025	1.8309	7159	5898			2.69	Si
SLU 77	0.8	-2183	-436	605.86		2649	1.8309	5909	4868			11.16	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	-1.37	-5201	-1880	-1909.29		7026	1.6451	9739	7209			3.83	Si
SLV 5	0.8	-701	-814	1118.74		0	0	8333	0			0	No, $V_u < V$
SLV 14	-1.37	-7957	2044	2557.09		9921	1.7823	10318	8275			4.05	Si
SLV 14	0.8	-2297	1087	-1100.49		3899	1.3093	9113	5369			4.94	Si
SLV 7	-1.37	-7716	-2646	-1702.5		9365	1.8309	10206	8409			3.18	Si
SLV 7	0.8	-1726	-556	523.22		2095	1.8309	8752	7211			12.96	Si
SLV 4	-1.37	-5826	-4635	-4140.88		21085	0.614	12550	3468			0.75	No, $V_u < V$
SLV 4	0.8	-701	-1622	1814.38		0	0	8333	0			0	No, $V_u < V$
SLV 2	-1.37	-5071	-4405	-4202.92		43326	0.2601	16250	1902			0.43	No, $V_u < V$
SLV 2	0.8	-393	-1699	1993.04		0	0	8333	0			0	No, $V_u < V$
SLV 3	-1.37	-5826	-4635	-4140.88		21085	0.614	12550	3468			0.75	No, $V_u < V$
SLV 3	0.8	-701	-1622	1814.38		0	0	8333	0			0	No, $V_u < V$
SLV 8	-1.37	-7716	-2646	-1702.5		9365	1.8309	10206	8409			3.18	Si
SLV 8	0.8	-1726	-556	523.22		2095	1.8309	8752	7211			12.96	Si
SLV 1	-1.37	-5071	-4405	-4202.92		43326	0.2601	16250	1902			0.43	No, $V_u < V$
SLV 1	0.8	-393	-1699	1993.04		0	0	8333	0			0	No, $V_u < V$
SLV 13	-1.37	-7957	2044	2557.09		9921	1.7823	10318	8275			4.05	Si
SLV 13	0.8	-2297	1087	-1100.49		3899	1.3093	9113	5369			4.94	Si
SLV 6	-1.37	-5201	-1880	-1909.29		7026	1.6451	9739	7209			3.83	Si
SLV 6	0.8	-701	-814	1118.74		0	0	8333	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	143750	0.24	4336	-3572	109.24	775.23	7.1	Si
SLV 5	143750	0.24	4336	-3572	109.24	775.23	7.1	Si
SLV 2	143750	0.24	4507	-3714	109.24	804.72	7.37	Si
SLV 1	143750	0.24	4507	-3714	109.24	804.72	7.37	Si
SLV 10	143750	0.24	4986	-4108	109.24	886.63	8.12	Si
SLV 9	143750	0.24	4986	-4108	109.24	886.63	8.12	Si
SLV 3	143750	0.24	5305	-4371	109.24	940.7	8.61	Si
SLV 4	143750	0.24	5305	-4371	109.24	940.7	8.61	Si
SLV 13	143750	0.24	6676	-5500	109.24	1169.94	10.71	Si
SLV 14	143750	0.24	6676	-5500	109.24	1169.94	10.71	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -0.025 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 12	-987	-8582	51	0.123	456.7	0.9	1.97781	11.8104	No
SLV 11	-987	-8582	51	0.123	456.7	0.9	1.97781	11.8104	No
SLV 8	-1040	-7716	43	0.124	460.8	0.899	2.01098	11.8104	No
SLV 7	-1040	-7716	43	0.124	460.8	0.899	2.01098	11.8104	No
SLV 6	-631	-5201	-46	0.13	431.6	0.916	2.05615	11.8104	No
SLV 5	-631	-5201	-46	0.13	431.6	0.916	2.05615	11.8104	No
SLV 9	-578	-6067	-38	0.134	428.3	0.92	2.11033	11.8104	No
SLV 10	-578	-6067	-38	0.134	428.3	0.92	2.11033	11.8104	No
SLV 16	-781	-8712	29	0.133	441.7	0.908	2.13544	7.39556	No
SLV 15	-781	-8712	29	0.133	441.7	0.908	2.13544	7.39556	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLU	2.747	SLU 39	Si
V SLU	2.406	SLU 81	Si
PF SLV	0	SLV 1	No
V SLV	0	SLV 1	No



Stato limite	Coeff.s.	Comb.	Verifica
PFFP SLV	7.096	SLV 5	Si
R SLV	0.167	SLV 11	No

## Maschio 8

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-29.903	1.056	-24.423	1.056	L1	L2	5.48	0.45	2.69	2.69	2.69			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 34	-1.37	-47262	-12450.77	19165	99029.43	7.954	Si
SLU 34	0.73	-34534	-8235.77	14004	78354.97	9.514	Si
SLU 40	-1.37	-51464	-14411.72	20870	104885.16	7.278	Si
SLU 40	0.73	-38432	-10003.13	15585	85157.39	8.513	Si
SLU 31	-1.37	-47262	-12450.77	19165	99029.43	7.954	Si
SLU 31	0.73	-34534	-8235.77	14004	78354.97	9.514	Si
SLU 82	-1.37	-59659	-15334.14	24193	114917.32	7.494	Si
SLU 82	0.73	-43450	-10090.61	17619	93300.84	9.246	Si
SLU 84	-1.37	-59659	-15334.14	24193	114917.32	7.494	Si
SLU 84	0.73	-43450	-10090.61	17619	93300.84	9.246	Si
SLU 81	-1.37	-59655	-15268.71	24191	114913.12	7.526	Si
SLU 81	0.73	-43449	-10058.76	17619	93300.22	9.276	Si
SLU 41	-1.37	-51461	-14346.28	20868	104880.12	7.311	Si
SLU 41	0.73	-38432	-9971.29	15585	85156.71	8.54	Si
SLU 39	-1.37	-51461	-14346.28	20868	104880.12	7.311	Si
SLU 39	0.73	-38432	-9971.29	15585	85156.71	8.54	Si
SLU 83	-1.37	-59655	-15268.71	24191	114913.12	7.526	Si
SLU 83	0.73	-43449	-10058.76	17619	93300.22	9.276	Si
SLU 42	-1.37	-51464	-14411.72	20870	104885.16	7.278	Si
SLU 42	0.73	-38432	-10003.13	15585	85157.39	8.513	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 8	-1.37	-43875	-15880.22	17792	102711.57	6.468	Si
SLV 8	0.73	-27336	-6283.79	11085	68104.77	10.838	Si
SLV 6	-1.37	-32567	-7538.22	13206	79589.35	10.558	Si
SLV 6	0.73	-24445	-5302.38	9913	61545.22	11.607	Si
SLV 14	-1.37	-30674	7908.18	12439	75491.56	9.546	Si
SLV 14	0.73	-22165	2286.85	8988	56264.52	24.604	Si
SLV 3	-1.37	-43067	-22849.96	17464	101137.69	4.426	Si
SLV 3	0.73	-28096	-10211.76	11394	69805.63	6.836	Si
SLV 13	-1.37	-30674	7908.18	12439	75491.56	9.546	Si
SLV 13	0.73	-22165	2286.85	8988	56264.52	24.604	Si
SLV 5	-1.37	-32567	-7538.22	13206	79589.35	10.558	Si
SLV 5	0.73	-24445	-5302.38	9913	61545.22	11.607	Si
SLV 1	-1.37	-39675	-20347.36	16089	94395.37	4.639	Si
SLV 1	0.73	-27229	-9917.34	11042	67865.72	6.843	Si
SLV 7	-1.37	-43875	-15880.22	17792	102711.57	6.468	Si
SLV 7	0.73	-27336	-6283.79	11085	68104.77	10.838	Si
SLV 2	-1.37	-39675	-20347.36	16089	94395.37	4.639	Si
SLV 2	0.73	-27229	-9917.34	11042	67865.72	6.843	Si
SLV 4	-1.37	-43067	-22849.96	17464	101137.69	4.426	Si
SLV 4	0.73	-28096	-10211.76	11394	69805.63	6.836	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 60	-1.37	-54929	2220	-13126.88		22274	5.48	8525	21024			9.47	Si
SLU 60	0.73	-39384	2235	-8323.82		15971	5.48	7685	18951			8.48	Si
SLU 81	-1.37	-59655	2513	-15268.71		24191	5.48	8781	21654			8.62	Si
SLU 81	0.73	-43449	2527	-10058.76		17619	5.48	7905	19493			7.71	Si
SLU 62	-1.37	-54929	2220	-13126.88		22274	5.48	8525	21024			9.47	Si
SLU 62	0.73	-39384	2235	-8323.82		15971	5.48	7685	18951			8.48	Si
SLU 41	-1.37	-51461	2306	-14346.28		20868	5.48	8338	20561			8.92	Si
SLU 41	0.73	-38432	2316	-9971.29		15585	5.48	7634	18824			8.13	Si
SLU 42	-1.37	-51464	2278	-14411.72		20870	5.48	8338	20562			9.03	Si
SLU 42	0.73	-38432	2285	-10003.13		15585	5.48	7634	18824			8.24	Si
SLU 84	-1.37	-59659	2486	-15334.14		24193	5.48	8781	21655			8.71	Si
SLU 84	0.73	-43450	2496	-10090.61		17619	5.48	7905	19493			7.81	Si
SLU 82	-1.37	-59659	2486	-15334.14		24193	5.48	8781	21655			8.71	Si
SLU 82	0.73	-43450	2496	-10090.61		17619	5.48	7905	19493			7.81	Si
SLU 40	-1.37	-51464	2278	-14411.72		20870	5.48	8338	20562			9.03	Si
SLU 40	0.73	-38432	2285	-10003.13		15585	5.48	7634	18824			8.24	Si
SLU 39	-1.37	-51461	2306	-14346.28		20868	5.48	8338	20561			8.92	Si
SLU 39	0.73	-38432	2316	-9971.29		15585	5.48	7634	18824			8.13	Si
SLU 83	-1.37	-59655	2513	-15268.71		24191	5.48	8781	21654			8.62	Si
SLU 83	0.73	-43449	2527	-10058.76		17619	5.48	7905	19493			7.71	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	-1.37	-39675	-6408	-20347.36		16089	5.48	11551	28485			4.45	Si
SLV 2	0.73	-27229	-6714	-9917.34		11042	5.48	10542	25996			3.87	Si
SLV 14	-1.37	-30674	8861	7908.18		12439	5.48	10821	26685			3.01	Si
SLV 14	0.73	-22165	9435	2286.85		8988	5.48	10131	24983			2.65	Si
SLV 10	-1.37	-29867	3326	938.44		12112	5.48	10756	26523			7.97	Si
SLV 10	0.73	-22926	3881	-1641.13		9297	5.48	10193	25135			6.48	Si
SLV 15	-1.37	-34067	9024	5405.58		13815	5.48	11096	27363			3.03	Si
SLV 15	0.73	-23032	9351	1992.42		9340	5.48	10201	25156			2.69	Si
SLV 3	-1.37	-43067	-6244	-22849.96		17464	5.48	11826	29163			4.67	Si
SLV 3	0.73	-28096	-6799	-10211.76		11394	5.48	10612	26169			3.85	Si
SLV 16	-1.37	-34067	9024	5405.58		13815	5.48	11096	27363			3.03	Si
SLV 16	0.73	-23032	9351	1992.42		9340	5.48	10201	25156			2.69	Si
SLV 13	-1.37	-30674	8861	7908.18		12439	5.48	10821	26685			3.01	Si
SLV 13	0.73	-22165	9435	2286.85		8988	5.48	10131	24983			2.65	Si
SLV 4	-1.37	-43067	-6244	-22849.96		17464	5.48	11826	29163			4.67	Si
SLV 4	0.73	-28096	-6799	-10211.76		11394	5.48	10612	26169			3.85	Si
SLV 1	-1.37	-39675	-6408	-20347.36		16089	5.48	11551	28485			4.45	Si
SLV 1	0.73	-27229	-6714	-9917.34		11042	5.48	10542	25996			3.87	Si
SLV 9	-1.37	-29867	3326	938.44		12112	5.48	10756	26523			7.97	Si
SLV 9	0.73	-22926	3881	-1641.13		9297	5.48	10193	25135			6.48	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 13	143750	0.24	10710	-26411	326.97	5421.51	16.58	Si
SLV 14	143750	0.24	10710	-26411	326.97	5421.51	16.58	Si
SLV 10	143750	0.24	10825	-26694	326.97	5473.99	16.74	Si
SLV 9	143750	0.24	10825	-26694	326.97	5473.99	16.74	Si
SLV 15	143750	0.24	11288	-27836	326.97	5684.53	17.39	Si
SLV 16	143750	0.24	11288	-27836	326.97	5684.53	17.39	Si
SLV 5	143750	0.24	11501	-28362	326.97	5780.79	17.68	Si
SLV 6	143750	0.24	11501	-28362	326.97	5780.79	17.68	Si
SLV 12	143750	0.24	12752	-31446	326.97	6336.93	19.38	Si
SLV 11	143750	0.24	12752	-31446	326.97	6336.93	19.38	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -0.025 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 12	-21380	-41174	-729	0.075	3129.6	0.921	1.18707	11.8104	No
SLV 11	-21380	-41174	-729	0.075	3129.6	0.921	1.18707	11.8104	No
SLV 5	-20102	-32567	679	0.077	3001.3	0.919	1.21417	11.8104	No
SLV 6	-20102	-32567	679	0.077	3001.3	0.919	1.21417	11.8104	No
SLV 7	-22203	-43875	-513	0.083	3212.2	0.923	1.30962	11.8104	No
SLV 8	-22203	-43875	-513	0.083	3212.2	0.923	1.30962	11.8104	No
SLV 10	-19279	-29867	463	0.085	2918.9	0.917	1.34834	11.8104	No
SLV 9	-19279	-29867	463	0.085	2918.9	0.917	1.34834	11.8104	No
SLV 15	-19685	-34067	-564	0.081	2959.6	0.918	1.28452	7.39556	No
SLV 16	-19685	-34067	-564	0.081	2959.6	0.918	1.28452	7.39556	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.278	SLU 40	Si
V_SLU	7.713	SLU 81	Si
PF_SLV	4.426	SLV 3	Si
V_SLV	2.648	SLV 13	Si
PFFP_SLV	16.581	SLV 13	Si
R_SLV	0.101	SLV 11	No

## Maschio 9

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.108	5.726	-32.543	5.726	L1	L2	1.565	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>k</sub>	f <sub>vk0</sub>	f <sub>medio</sub>	$\tau_0$	f <sub>v0</sub>	$\mu$	$\phi$	f <sub>v,lim</sub>	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 46	0.63	-3583	1602.33	5088	2628.6	1.64	Si
SLU 46	1.03	-2904	2111.93	4123	2157.03	1.021	Si
SLU 43	0.63	-3577	1601.69	5079	2624.34	1.638	Si
SLU 43	1.03	-2905	2105.56	4125	2158.04	1.025	Si
SLU 2	0.63	-2900	1280.04	4118	2154.58	1.683	Si
SLU 2	1.03	-2377	1703.1	3376	1783.24	1.047	Si
SLU 48	0.63	-3577	1601.69	5079	2624.34	1.638	Si
SLU 48	1.03	-2905	2105.56	4125	2158.04	1.025	Si
SLU 44	0.63	-3587	1602.76	5094	2631.44	1.642	Si
SLU 44	1.03	-2903	2116.17	4122	2156.35	1.019	Si





Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 50	0.63	-3577	1601.69	5079	2624.34	1.638	Si
SLU 50	1.03	-2905	2105.56	4125	2158.04	1.025	Si
SLU 47	0.63	-3587	1602.76	5094	2631.44	1.642	Si
SLU 47	1.03	-2903	2116.17	4122	2156.35	1.019	Si
SLU 49	0.63	-3583	1602.33	5088	2628.6	1.64	Si
SLU 49	1.03	-2904	2111.93	4123	2157.03	1.021	Si
SLU 51	0.63	-3583	1602.33	5088	2628.6	1.64	Si
SLU 51	1.03	-2904	2111.93	4123	2157.03	1.021	Si
SLU 45	0.63	-3577	1601.69	5079	2624.34	1.638	Si
SLU 45	1.03	-2905	2105.56	4125	2158.04	1.025	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 2	0.63	-1605	367.65	2279	1232.64	3.353	Si
SLV 2	1.03	-1242	1272.75	0	0	0	No, $e \geq l/2$
SLV 15	0.63	-5215	2527.58	7406	3833.7	1.517	Si
SLV 15	1.03	-4632	2636.68	6577	3429.29	1.301	Si
SLV 7	0.63	-2938	1490.64	4172	2220.77	1.49	Si
SLV 7	1.03	-2180	2250.91	0	0	0	No, $e \geq l/2$
SLV 8	0.63	-2938	1490.64	4172	2220.77	1.49	Si
SLV 8	1.03	-2180	2250.91	0	0	0	No, $e \geq l/2$
SLV 16	0.63	-5215	2527.58	7406	3833.7	1.517	Si
SLV 16	1.03	-4632	2636.68	6577	3429.29	1.301	Si
SLV 11	0.63	-4010	2078.01	5694	2991.56	1.44	Si
SLV 11	1.03	-3238	2577.39	0	0	0	No, $e \geq l/2$
SLV 1	0.63	-1605	367.65	2279	1232.64	3.353	Si
SLV 1	1.03	-1242	1272.75	0	0	0	No, $e \geq l/2$
SLV 4	0.63	-1644	569.67	2334	1261.5	2.214	Si
SLV 4	1.03	-1105	1548.41	0	0	0	No, $e \geq l/2$
SLV 12	0.63	-4010	2078.01	5694	2991.56	1.44	Si
SLV 12	1.03	-3238	2577.39	0	0	0	No, $e \geq l/2$
SLV 3	0.63	-1644	569.67	2334	1261.5	2.214	Si
SLV 3	1.03	-1105	1548.41	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 44	0.63	-3587	-1180	1602.76		7915	1.0071	6611	2996			2.54	Si
SLU 44	1.03	-2903	-1174	2116.17		40236	0.1603	10833	781			0.67	No, $V_u < V$
SLU 48	0.63	-3577	-1178	1601.69		7916	1.0041	6611	2987			2.53	Si
SLU 48	1.03	-2905	-1183	2105.56		37300	0.1731	10529	820			0.69	No, $V_u < V$
SLU 49	0.63	-3583	-1179	1602.33		7916	1.0059	6611	2992			2.54	Si
SLU 49	1.03	-2904	-1177	2111.93		39007	0.1654	10756	801			0.68	No, $V_u < V$
SLU 43	0.63	-3577	-1178	1601.69		7916	1.0041	6611	2987			2.53	Si
SLU 43	1.03	-2905	-1183	2105.56		37300	0.1731	10529	820			0.69	No, $V_u < V$
SLU 47	0.63	-3587	-1180	1602.76		7915	1.0071	6611	2996			2.54	Si
SLU 47	1.03	-2903	-1174	2116.17		40236	0.1603	10833	781			0.67	No, $V_u < V$
SLU 50	0.63	-3577	-1178	1601.69		7916	1.0041	6611	2987			2.53	Si
SLU 50	1.03	-2905	-1183	2105.56		37300	0.1731	10529	820			0.69	No, $V_u < V$
SLU 46	0.63	-3583	-1179	1602.33		7916	1.0059	6611	2992			2.54	Si
SLU 46	1.03	-2904	-1177	2111.93		39007	0.1654	10756	801			0.68	No, $V_u < V$
SLU 68	0.63	-4112	-1476	1780.58		8716	1.0483	6718	3169			2.15	Si
SLU 68	1.03	-3453	-1470	2392.28		28507	0.2692	9356	1133			0.77	No, $V_u < V$
SLU 51	0.63	-3583	-1179	1602.33		7916	1.0059	6611	2992			2.54	Si
SLU 51	1.03	-2904	-1177	2111.93		39007	0.1654	10756	801			0.68	No, $V_u < V$
SLU 45	0.63	-3577	-1178	1601.69		7916	1.0041	6611	2987			2.53	Si
SLU 45	1.03	-2905	-1183	2105.56		37300	0.1731	10529	820			0.69	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	0.63	-1605	-2659	367.65		2279	1.565	8789	6190			2.33	Si
SLV 2	1.03	-1242	-2842	1272.75		0	0	8333	0			0	No, $V_u < V$
SLV 8	0.63	-2938	-1612	1490.64		7909	0.8256	9915	3684			2.29	Si
SLV 8	1.03	-2180	-1495	2250.91		0	0	8333	0			0	No, $V_u < V$
SLV 3	0.63	-1644	-2610	569.67		2793	1.3077	8892	5232			2	Si
SLV 3	1.03	-1105	-2697	1548.41		0	0	8333	0			0	No, $V_u < V$
SLV 5	0.63	-2811	-1774	817.21		4234	1.4752	9180	6094			3.44	Si
SLV 5	1.03	-2636	-1977	1332.03		7044	0.8318	9742	3646			1.84	Si
SLV 6	0.63	-2811	-1774	817.21		4234	1.4752	9180	6094			3.44	Si
SLV 6	1.03	-2636	-1977	1332.03		7044	0.8318	9742	3646			1.84	Si
SLV 1	0.63	-1605	-2659	367.65		2279	1.565	8789	6190			2.33	Si
SLV 1	1.03	-1242	-2842	1272.75		0	0	8333	0			0	No, $V_u < V$
SLV 7	0.63	-2938	-1612	1490.64		7909	0.8256	9915	3684			2.29	Si
SLV 7	1.03	-2180	-1495	2250.91		0	0	8333	0			0	No, $V_u < V$
SLV 4	0.63	-1644	-2610	569.67		2793	1.3077	8892	5232			2	Si
SLV 4	1.03	-1105	-2697	1548.41		0	0	8333	0			0	No, $V_u < V$
SLV 11	0.63	-4010	-805	2078.01		11239	0.7929	10581	3775			4.69	Si
SLV 11	1.03	-3238	-609	2577.39		0	0	8333	0			0	No, $V_u < V$
SLV 12	0.63	-4010	-805	2078.01		11239	0.7929	10581	3775			4.69	Si
SLV 12	1.03	-3238	-609	2577.39		0	0	8333	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025  $W_a$  0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 2	143750	0.24	3641	-2564	93.38	559.75	5.99	Si
SLV 1	143750	0.24	3641	-2564	93.38	559.75	5.99	Si
SLV 4	143750	0.24	4005	-2821	93.38	613.83	6.57	Si
SLV 3	143750	0.24	4005	-2821	93.38	613.83	6.57	Si
SLV 6	143750	0.24	4269	-3006	93.38	652.8	6.99	Si



Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 5	143750	0.24	4269	-3006	93.38	652.8	6.99	Si
SLV 10	143750	0.24	5171	-3642	93.38	784.73	8.4	Si
SLV 9	143750	0.24	5171	-3642	93.38	784.73	8.4	Si
SLV 7	143750	0.24	5482	-3861	93.38	829.75	8.89	Si
SLV 8	143750	0.24	5482	-3861	93.38	829.75	8.89	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -0.025 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 11	-2084	-7102	57	0.106	498.4	0.89	1.73593	11.8104	No
SLV 12	-2084	-7102	57	0.106	498.4	0.89	1.73593	11.8104	No
SLV 5	-1788	-4566	-59	0.108	471	0.889	1.75991	11.8104	No
SLV 6	-1788	-4566	-59	0.108	471	0.889	1.75991	11.8104	No
SLV 10	-2639	-4420	-32	0.109	551	0.893	1.77589	11.8104	No
SLV 9	-2639	-4420	-32	0.109	551	0.893	1.77589	11.8104	No
SLV 7	-1233	-7248	30	0.122	421.9	0.891	1.99013	11.8104	No
SLV 8	-1233	-7248	30	0.122	421.9	0.891	1.99013	11.8104	No
SLV 15	-3272	-5993	57	0.101	612.2	0.899	1.62929	7.39556	No
SLV 16	-3272	-5993	57	0.101	612.2	0.899	1.62929	7.39556	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.019	SLU 44	Si
V_SLU	0.666	SLU 44	No
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	5.994	SLV 1	Si
R_SLV	0.147	SLV 11	No

## Maschio 10

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-31.543	5.726	-27.338	5.726	L1	L2	4.205	0.45	2.69	2.69	2.69			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fV0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 43	0.63	-17539	2836.9	9269	32680.34	11.52	Si
SLU 43	1.03	-15984	2850.36	8447	30121.62	10.568	Si
SLU 49	0.63	-17933	2763.57	9477	33317.58	12.056	Si
SLU 49	1.03	-16302	2794.88	8615	30650.12	10.967	Si
SLU 71	0.63	-19839	3135.74	10485	36343.64	11.59	Si
SLU 71	1.03	-18293	3113.39	9667	33896.68	10.887	Si
SLU 64	0.63	-19839	3135.74	10485	36343.64	11.59	Si
SLU 64	1.03	-18293	3113.39	9667	33896.68	10.887	Si
SLU 45	0.63	-17539	2836.9	9269	32680.34	11.52	Si
SLU 45	1.03	-15984	2850.36	8447	30121.62	10.568	Si
SLU 48	0.63	-17539	2836.9	9269	32680.34	11.52	Si
SLU 48	1.03	-15984	2850.36	8447	30121.62	10.568	Si
SLU 69	0.63	-19839	3135.74	10485	36343.64	11.59	Si
SLU 69	1.03	-18293	3113.39	9667	33896.68	10.887	Si
SLU 50	0.63	-17539	2836.9	9269	32680.34	11.52	Si
SLU 50	1.03	-15984	2850.36	8447	30121.62	10.568	Si
SLU 46	0.63	-17933	2763.57	9477	33317.58	12.056	Si
SLU 46	1.03	-16302	2794.88	8615	30650.12	10.967	Si
SLU 66	0.63	-19839	3135.74	10485	36343.64	11.59	Si
SLU 66	1.03	-18293	3113.39	9667	33896.68	10.887	Si

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 5	0.63	-15315	1554.13	8094	30066.8	19.346	Si
SLV 5	1.03	-14610	1778.64	7721	28776.57	16.179	Si
SLV 16	0.63	-15793	6829.8	8346	30936.59	4.53	Si
SLV 16	1.03	-14302	4846.57	7558	28209.48	5.821	Si
SLV 11	0.63	-17449	3564.75	9221	33917.28	9.515	Si
SLV 11	1.03	-15802	3266.19	8351	30953.22	9.477	Si
SLV 12	0.63	-17449	3564.75	9221	33917.28	9.515	Si
SLV 12	1.03	-15802	3266.19	8351	30953.22	9.477	Si
SLV 6	0.63	-15315	1554.13	8094	30066.8	19.346	Si
SLV 6	1.03	-14610	1778.64	7721	28776.57	16.179	Si
SLV 13	0.63	-14973	7011.65	7913	29442.11	4.199	Si
SLV 13	1.03	-13730	4815.89	7256	27152.91	5.638	Si
SLV 10	0.63	-14716	4170.9	7777	28970.44	6.946	Si
SLV 10	1.03	-13896	3163.93	7344	27460.21	8.679	Si
SLV 15	0.63	-15793	6829.8	8346	30936.59	4.53	Si
SLV 15	1.03	-14302	4846.57	7558	28209.48	5.821	Si
SLV 14	0.63	-14973	7011.65	7913	29442.11	4.199	Si
SLV 14	1.03	-13730	4815.89	7256	27152.91	5.638	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 9	0.63	-14716	4170.9	7777	28970.44	6.946	Si
SLV 9	1.03	-13896	3163.93	7344	27460.21	8.679	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 42	0.63	-24923	278	3551.61		13171	4.205	7312	13836			49.71	Si
SLU 42	1.03	-23741	282	3396.02		12546	4.205	7228	13678			48.5	Si
SLU 82	0.63	-28364	223	4127.47		14990	4.205	7554	14294			64.15	Si
SLU 82	1.03	-26821	227	3984.42		14174	4.205	7445	14089			62.2	Si
SLU 83	0.63	-27970	220	4200.81		14782	4.205	7526	14242			64.66	Si
SLU 83	1.03	-26503	220	4039.91		14006	4.205	7423	14046			63.78	Si
SLU 81	0.63	-27970	220	4200.81		14782	4.205	7526	14242			64.66	Si
SLU 81	1.03	-26503	220	4039.91		14006	4.205	7423	14046			63.78	Si
SLU 34	0.63	-22746	195	3183.2		12021	4.205	7158	13545			69.5	Si
SLU 34	1.03	-21490	201	3081.07		11357	4.205	7070	13378			66.54	Si
SLU 41	0.63	-24530	276	3624.95		12963	4.205	7284	13783			49.98	Si
SLU 41	1.03	-23423	276	3451.5		12378	4.205	7206	13636			49.45	Si
SLU 31	0.63	-22746	195	3183.2		12021	4.205	7158	13545			69.5	Si
SLU 31	1.03	-21490	201	3081.07		11357	4.205	7070	13378			66.54	Si
SLU 84	0.63	-28364	223	4127.47		14990	4.205	7554	14294			64.15	Si
SLU 84	1.03	-26821	227	3984.42		14174	4.205	7445	14089			62.2	Si
SLU 39	0.63	-24530	276	3624.95		12963	4.205	7284	13783			49.98	Si
SLU 39	1.03	-23423	276	3451.5		12378	4.205	7206	13636			49.45	Si
SLU 40	0.63	-24923	278	3551.61		13171	4.205	7312	13836			49.71	Si
SLU 40	1.03	-23741	282	3396.02		12546	4.205	7228	13678			48.5	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	0.63	-17791	-5147	-1892.77		9402	4.205	10214	19327			3.75	Si
SLV 3	1.03	-16682	-5113	-228.93		8816	4.205	10097	19105			3.74	Si
SLV 9	0.63	-14716	1574	4170.9		7777	4.205	9889	18712			11.89	Si
SLV 9	1.03	-13896	1566	3163.93		7344	4.205	9802	18548			11.85	Si
SLV 16	0.63	-15793	5098	6829.8		8346	4.205	10003	18927			3.71	Si
SLV 16	1.03	-14302	5063	4846.57		7558	4.205	9845	18629			3.68	Si
SLV 4	0.63	-17791	-5147	-1892.77		9402	4.205	10214	19327			3.75	Si
SLV 4	1.03	-16682	-5113	-228.93		8816	4.205	10097	19105			3.74	Si
SLV 13	0.63	-14973	5127	7011.65		7913	4.205	9916	18763			3.66	Si
SLV 13	1.03	-13730	5092	4815.89		7256	4.205	9785	18515			3.64	Si
SLV 14	0.63	-14973	5127	7011.65		7913	4.205	9916	18763			3.66	Si
SLV 14	1.03	-13730	5092	4815.89		7256	4.205	9785	18515			3.64	Si
SLV 1	0.63	-16971	-5119	-1710.92		8969	4.205	10127	19163			3.74	Si
SLV 1	1.03	-16110	-5083	-198.26		8514	4.205	10036	18991			3.74	Si
SLV 2	0.63	-16971	-5119	-1710.92		8969	4.205	10127	19163			3.74	Si
SLV 2	1.03	-16110	-5083	-198.26		8514	4.205	10036	18991			3.74	Si
SLV 15	0.63	-15793	5098	6829.8		8346	4.205	10003	18927			3.71	Si
SLV 15	1.03	-14302	5063	4846.57		7558	4.205	9845	18629			3.68	Si
SLV 10	0.63	-14716	1574	4170.9		7777	4.205	9889	18712			11.89	Si
SLV 10	1.03	-13896	1566	3163.93		7344	4.205	9802	18548			11.85	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	143750	0.24	7947	-15038	250.9	3163.57	12.61	Si
SLV 10	143750	0.24	7947	-15038	250.9	3163.57	12.61	Si
SLV 5	143750	0.24	8169	-15458	250.9	3245.59	12.94	Si
SLV 6	143750	0.24	8169	-15458	250.9	3245.59	12.94	Si
SLV 14	143750	0.24	8258	-15627	250.9	3278.36	13.07	Si
SLV 13	143750	0.24	8258	-15627	250.9	3278.36	13.07	Si
SLV 16	143750	0.24	8747	-16551	250.9	3457.35	13.78	Si
SLV 15	143750	0.24	8747	-16551	250.9	3457.35	13.78	Si
SLV 1	143750	0.24	8998	-17026	250.9	3548.82	14.14	Si
SLV 2	143750	0.24	8998	-17026	250.9	3548.82	14.14	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -0.025 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 12	-13683	-20990	-771	0.062	2128.7	0.914	0.99225	11.8104	No
SLV 11	-13683	-20990	-771	0.062	2128.7	0.914	0.99225	11.8104	No
SLV 6	-12665	-17043	746	0.063	2027.3	0.911	0.99898	11.8104	No
SLV 5	-12665	-17043	746	0.063	2027.3	0.911	0.99898	11.8104	No
SLV 10	-11869	-16699	669	0.066	1948.1	0.909	1.06033	11.8104	No
SLV 9	-11869	-16699	669	0.066	1948.1	0.909	1.06033	11.8104	No
SLV 7	-14479	-21334	-694	0.067	2208.3	0.916	1.06805	11.8104	No
SLV 8	-14479	-21334	-694	0.067	2208.3	0.916	1.06805	11.8104	No
SLV 16	-12119	-19086	-357	0.085	1973	0.909	1.36157	7.39556	No
SLV 15	-12119	-19086	-357	0.085	1973	0.909	1.36157	7.39556	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	10.568	SLU 43	Si
V_SLU	48.498	SLU 40	Si
PF_SLV	4.199	SLV 13	Si
V_SLV	3.636	SLV 13	Si
PFFP_SLV	12.609	SLV 9	Si
R_SLV	0.084	SLV 11	No



## Maschio 11

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-26.338	5.726	-24.423	5.726	L1	L2	1.915	0.45	2.69	2.69	2.69			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 72	0.63	-4689	-2265.82	5442	4190.12	1.849	Si
SLU 72	1.03	-3808	-2985.81	4419	3448.72	1.155	Si
SLU 46	0.63	-4280	-2083.73	4967	3848.56	1.847	Si
SLU 46	1.03	-3409	-2709.07	3955	3105.28	1.146	Si
SLU 5	0.63	-3414	-1663.56	3962	3110.11	1.87	Si
SLU 5	1.03	-2729	-2180.17	3167	2511.55	1.152	Si
SLU 47	0.63	-4291	-2093.14	4979	3857.14	1.843	Si
SLU 47	1.03	-3410	-2726.37	3957	3106.35	1.139	Si
SLU 44	0.63	-4291	-2093.14	4979	3857.14	1.843	Si
SLU 44	1.03	-3410	-2726.37	3957	3106.35	1.139	Si
SLU 65	0.63	-4700	-2275.23	5454	4198.59	1.845	Si
SLU 65	1.03	-3810	-3003.11	4421	3449.78	1.149	Si
SLU 68	0.63	-4700	-2275.23	5454	4198.59	1.845	Si
SLU 68	1.03	-3810	-3003.11	4421	3449.78	1.149	Si
SLU 2	0.63	-3414	-1663.56	3962	3110.11	1.87	Si
SLU 2	1.03	-2729	-2180.17	3167	2511.55	1.152	Si
SLU 51	0.63	-4280	-2083.73	4967	3848.56	1.847	Si
SLU 51	1.03	-3409	-2709.07	3955	3105.28	1.146	Si
SLU 49	0.63	-4280	-2083.73	4967	3848.56	1.847	Si
SLU 49	1.03	-3409	-2709.07	3955	3105.28	1.146	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 15	0.63	-3215	-1589.59	3731	2984.33	1.877	Si
SLV 15	1.03	-2650	-2999.33	0	0	0	No, e>l/2
SLV 10	0.63	-3454	-1344.45	4008	3198.45	2.379	Si
SLV 10	1.03	-3138	-2060.42	3641	2915.07	1.415	Si
SLV 12	0.63	-3755	-2077.97	4357	3467.05	1.668	Si
SLV 12	1.03	-2860	-3006.99	0	0	0	No, e>l/2
SLV 13	0.63	-3125	-1369.53	3626	2903.04	2.12	Si
SLV 13	1.03	-2733	-2715.35	0	0	0	No, e>l/2
SLV 11	0.63	-3755	-2077.97	4357	3467.05	1.668	Si
SLV 11	1.03	-2860	-3006.99	0	0	0	No, e>l/2
SLV 14	0.63	-3125	-1369.53	3626	2903.04	2.12	Si
SLV 14	1.03	-2733	-2715.35	0	0	0	No, e>l/2
SLV 16	0.63	-3215	-1589.59	3731	2984.33	1.877	Si
SLV 16	1.03	-2650	-2999.33	0	0	0	No, e>l/2
SLV 8	0.63	-4127	-2276.54	4789	3796.94	1.668	Si
SLV 8	1.03	-3123	-2729.59	3624	2901.37	1.063	Si
SLV 9	0.63	-3454	-1344.45	4008	3198.45	2.379	Si
SLV 9	1.03	-3138	-2060.42	3641	2915.07	1.415	Si
SLV 7	0.63	-4127	-2276.54	4789	3796.94	1.668	Si
SLV 7	1.03	-3123	-2729.59	3624	2901.37	1.063	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	0.63	-6099	2357	-2843.88		9197	1.4736	6782	4497			1.91	Si
SLU 83	1.03	-5257	2362	-3854.91		17367	0.6727	7871	2383			1.01	Si
SLU 78	0.63	-5687	2112	-2680.34		8664	1.4585	6711	4404			2.09	Si
SLU 78	1.03	-4824	2103	-3612.34		17126	0.6259	7839	2208			1.05	Si
SLU 73	0.63	-5697	2113	-2689.75		8694	1.4561	6715	4400			2.08	Si
SLU 73	1.03	-4825	2093	-3629.64		17414	0.6157	7877	2183			1.04	Si
SLU 82	0.63	-6114	2358	-2857.99		9242	1.4702	6788	4491			1.9	Si
SLU 82	1.03	-5259	2348	-3880.86		17743	0.6586	7921	2348			1	No, Vu<V
SLU 84	0.63	-6114	2358	-2857.99		9242	1.4702	6788	4491			1.9	Si
SLU 84	1.03	-5259	2348	-3880.86		17743	0.6586	7921	2348			1	No, Vu<V
SLU 81	0.63	-6099	2357	-2843.88		9197	1.4736	6782	4497			1.91	Si
SLU 81	1.03	-5257	2362	-3854.91		17367	0.6727	7871	2383			1.01	Si
SLU 76	0.63	-5697	2113	-2689.75		8694	1.4561	6715	4400			2.08	Si
SLU 76	1.03	-4825	2093	-3629.64		17414	0.6157	7877	2183			1.04	Si
SLU 80	0.63	-5687	2112	-2680.34		8664	1.4585	6711	4404			2.09	Si
SLU 80	1.03	-4824	2103	-3612.34		17126	0.6259	7839	2208			1.05	Si
SLU 79	0.63	-5671	2111	-2666.22		8620	1.4621	6705	4411			2.09	Si
SLU 79	1.03	-4822	2117	-3586.4		16711	0.6412	7784	2246			1.06	Si
SLU 75	0.63	-5687	2112	-2680.34		8664	1.4585	6711	4404			2.09	Si
SLU 75	1.03	-4824	2103	-3612.34		17126	0.6259	7839	2208			1.05	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	0.63	-3755	1969	-2077.97		6883	1.2123	9710	5297			2.69	Si
SLV 12	1.03	-2860	1563	-3006.99		0	0	8333	0			0	No, Vu<V
SLV 14	0.63	-3125	3726	-1369.53		4458	1.5576	9225	6466			1.74	Si
SLV 14	1.03	-2733	3813	-2715.35		0	0	8333	0			0	No, Vu<V



Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	0.63	-3454	2077	-1344.45		4502	1.7047	9234	7083			3.41	Si
SLV 10	1.03	-3138	2469	-2060.42		7725	0.9027	9878	4013			1.63	Si
SLV 11	0.63	-3755	1969	-2077.97		6883	1.2123	9710	5297			2.69	Si
SLV 11	1.03	-2860	1563	-3006.99		0	0	8333	0			0	No, Vu<V
SLV 4	0.63	-4456	-1125	-2251.46		7299	1.3568	9793	5979			5.32	Si
SLV 4	1.03	-3527	-1204	-2074.65		7074	1.108	9748	4860			4.04	Si
SLV 16	0.63	-3215	3693	-1589.59		5143	1.3892	9362	5852			1.58	Si
SLV 16	1.03	-2650	3541	-2999.33		0	0	8333	0			0	No, Vu<V
SLV 15	0.63	-3215	3693	-1589.59		5143	1.3892	9362	5852			1.58	Si
SLV 15	1.03	-2650	3541	-2999.33		0	0	8333	0			0	No, Vu<V
SLV 9	0.63	-3454	2077	-1344.45		4502	1.7047	9234	7083			3.41	Si
SLV 9	1.03	-3138	2469	-2060.42		7725	0.9027	9878	4013			1.63	Si
SLV 3	0.63	-4456	-1125	-2251.46		7299	1.3568	9793	5979			5.32	Si
SLV 3	1.03	-3527	-1204	-2074.65		7074	1.108	9748	4860			4.04	Si
SLV 13	0.63	-3125	3726	-1369.53		4458	1.5576	9225	6466			1.74	Si
SLV 13	1.03	-2733	3813	-2715.35		0	0	8333	0			0	No, Vu<V

#### Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.08 denominatore 8  $\gamma M = 2$

Comb.	fd	Sa	$\sigma 0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	143750	0.24	4411	-3802	114.26	824.46	7.22	Si
SLV 10	143750	0.24	4411	-3802	114.26	824.46	7.22	Si
SLV 5	143750	0.24	4478	-3859	114.26	836.42	7.32	Si
SLV 6	143750	0.24	4478	-3859	114.26	836.42	7.32	Si
SLV 14	143750	0.24	4904	-4226	114.26	912.64	7.99	Si
SLV 13	143750	0.24	4904	-4226	114.26	912.64	7.99	Si
SLV 2	143750	0.24	5125	-4417	114.26	952.1	8.33	Si
SLV 1	143750	0.24	5125	-4417	114.26	952.1	8.33	Si
SLV 16	143750	0.24	5392	-4647	114.26	999.37	8.75	Si
SLV 15	143750	0.24	5392	-4647	114.26	999.37	8.75	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = -0.025 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 8	-2067	-8159	114	0.098	565.4	0.889	1.60757	11.8104	No
SLV 7	-2067	-8159	114	0.098	565.4	0.889	1.60757	11.8104	No
SLV 9	-1883	-5950	-115	0.099	548.9	0.889	1.61106	11.8104	No
SLV 10	-1883	-5950	-115	0.099	548.9	0.889	1.61106	11.8104	No
SLV 5	-2335	-5501	-79	0.105	589.9	0.889	1.7216	11.8104	No
SLV 6	-2335	-5501	-79	0.105	589.9	0.889	1.7216	11.8104	No
SLV 12	-1615	-8608	77	0.11	525.4	0.89	1.79563	11.8104	No
SLV 11	-1615	-8608	77	0.11	525.4	0.89	1.79563	11.8104	No
SLV 4	-2688	-6705	89	0.102	622.7	0.89	1.6572	7.39556	No
SLV 3	-2688	-6705	89	0.102	622.7	0.89	1.6572	7.39556	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.139	SLU 44	Si
V_SLU	1	SLU 82	No
PF_SLV	0	SLV 11	No
V_SLV	0	SLV 11	No
PFFP_SLV	7.216	SLV 9	Si
R_SLV	0.136	SLV 7	No

## Maschio 12

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-28.073	-3.274	-28.073	-1.549	L1	L2	1.726	0.3	2.69	2.69	2.69			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>k</sub>	f <sub>vk0</sub>	f <sub>medio</sub>	$\tau 0$	f <sub>v0</sub>	$\mu$	$\phi$	f <sub>v,lim</sub>	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 76	-1.37	-14720	1124.46	28436	8267.08	7.352	Si
SLU 76	0.8	-12628	1639.74	24394	7632.65	4.655	Si
SLU 83	-1.37	-15796	1240.19	30514	8523.6	6.873	Si
SLU 83	0.8	-13739	1774.44	26540	7991.81	4.504	Si
SLU 81	-1.37	-15796	1240.19	30514	8523.6	6.873	Si
SLU 81	0.8	-13739	1774.44	26540	7991.81	4.504	Si
SLU 84	-1.37	-15788	1233.24	30497	8521.7	6.91	Si
SLU 84	0.8	-13739	1775.32	26539	7991.65	4.502	Si
SLU 78	-1.37	-14726	1129.1	28447	8268.6	7.323	Si
SLU 78	0.8	-12629	1639.15	24395	7632.77	4.657	Si
SLU 73	-1.37	-14720	1124.46	28436	8267.08	7.352	Si
SLU 73	0.8	-12628	1639.74	24394	7632.65	4.655	Si
SLU 80	-1.37	-14726	1129.1	28447	8268.6	7.323	Si
SLU 80	0.8	-12629	1639.15	24395	7632.77	4.657	Si
SLU 82	-1.37	-15788	1233.24	30497	8521.7	6.91	Si
SLU 82	0.8	-13739	1775.32	26539	7991.65	4.502	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 75	-1.37	-14726	1129.1	28447	8268.6	7.323	Si
SLU 75	0.8	-12629	1639.15	24395	7632.77	4.657	Si
SLU 79	-1.37	-14735	1136.05	28464	8270.87	7.28	Si
SLU 79	0.8	-12629	1638.27	24396	7632.97	4.659	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 15	-1.37	-10835	2314.77	20930	7747.08	3.347	Si
SLV 15	0.8	-7258	807.48	14020	5543.31	6.865	Si
SLV 9	-1.37	-4911	-3430.48	9487	3908.3	1.139	Si
SLV 9	0.8	-7997	1499.69	15448	6027.34	4.019	Si
SLV 16	-1.37	-10835	2314.77	20930	7747.08	3.347	Si
SLV 16	0.8	-7258	807.48	14020	5543.31	6.865	Si
SLV 6	-1.37	-5159	-3621.05	9966	4088.34	1.129	Si
SLV 6	0.8	-8490	1562.74	16400	6341.95	4.058	Si
SLV 12	-1.37	-14470	5066.31	27953	9628.78	1.901	Si
SLV 12	0.8	-7745	547.93	14961	5863.92	10.702	Si
SLV 8	-1.37	-14719	4875.74	28432	9744.09	1.998	Si
SLV 8	0.8	-8238	610.99	15913	6181.93	10.118	Si
SLV 11	-1.37	-14470	5066.31	27953	9628.78	1.901	Si
SLV 11	0.8	-7745	547.93	14961	5863.92	10.702	Si
SLV 7	-1.37	-14719	4875.74	28432	9744.09	1.998	Si
SLV 7	0.8	-8238	610.99	15913	6181.93	10.118	Si
SLV 10	-1.37	-4911	-3430.48	9487	3908.3	1.139	Si
SLV 10	0.8	-7997	1499.69	15448	6027.34	4.019	Si
SLV 5	-1.37	-5159	-3621.05	9966	4088.34	1.129	Si
SLV 5	0.8	-8490	1562.74	16400	6341.95	4.058	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	-1.37	-15788	-2005	1233.24		30497	1.7256	9622	4981			2.48	Si
SLU 82	0.8	-13739	-1008	1775.32		26539	1.7256	9094	4708			4.67	Si
SLU 78	-1.37	-14726	-1847	1129.1		28447	1.7256	9348	4839			2.62	Si
SLU 78	0.8	-12629	-932	1639.15		24395	1.7256	8808	4560			4.89	Si
SLU 81	-1.37	-15796	-1997	1240.19		30514	1.7256	9624	4982			2.49	Si
SLU 81	0.8	-13739	-1002	1774.44		26540	1.7256	9094	4708			4.7	Si
SLU 80	-1.37	-14726	-1847	1129.1		28447	1.7256	9348	4839			2.62	Si
SLU 80	0.8	-12629	-932	1639.15		24395	1.7256	8808	4560			4.89	Si
SLU 76	-1.37	-14720	-1853	1124.46		28436	1.7256	9347	4839			2.61	Si
SLU 76	0.8	-12628	-935	1639.74		24394	1.7256	8808	4560			4.88	Si
SLU 40	-1.37	-13684	-1797	1103.13		26434	1.7256	9080	4701			2.62	Si
SLU 40	0.8	-12198	-901	1585.88		23563	1.7256	8697	4502			4.99	Si
SLU 83	-1.37	-15796	-1997	1240.19		30514	1.7256	9624	4982			2.49	Si
SLU 83	0.8	-13739	-1002	1774.44		26540	1.7256	9094	4708			4.7	Si
SLU 84	-1.37	-15788	-2005	1233.24		30497	1.7256	9622	4981			2.48	Si
SLU 84	0.8	-13739	-1008	1775.32		26539	1.7256	9094	4708			4.67	Si
SLU 73	-1.37	-14720	-1853	1124.46		28436	1.7256	9347	4839			2.61	Si
SLU 73	0.8	-12628	-935	1639.74		24394	1.7256	8808	4560			4.88	Si
SLU 42	-1.37	-13684	-1797	1103.13		26434	1.7256	9080	4701			2.62	Si
SLU 42	0.8	-12198	-901	1585.88		23563	1.7256	8697	4502			4.99	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	-1.37	-8795	-3232	-869.51		16989	1.7256	11731	6073			1.88	Si
SLV 1	0.8	-8977	-1412	1303.19		17341	1.7256	11802	6109			4.33	Si
SLV 7	-1.37	-14719	3334	4875.74		30768	1.5946	14487	6930			2.08	Si
SLV 7	0.8	-8238	2945	610.99		15913	1.7256	11516	5962			2.02	Si
SLV 10	-1.37	-4911	-5691	-3430.48		33216	0.4928	14977	2214			0.39	No, Vu<V
SLV 10	0.8	-7997	-4141	1499.69		15448	1.7256	11423	5913			1.43	Si
SLV 9	-1.37	-4911	-5691	-3430.48		33216	0.4928	14977	2214			0.39	No, Vu<V
SLV 9	0.8	-7997	-4141	1499.69		15448	1.7256	11423	5913			1.43	Si
SLV 8	-1.37	-14719	3334	4875.74		30768	1.5946	14487	6930			2.08	Si
SLV 8	0.8	-8238	2945	610.99		15913	1.7256	11516	5962			2.02	Si
SLV 5	-1.37	-5159	-6076	-3621.05		35618	0.4828	15457	2239			0.37	No, Vu<V
SLV 5	0.8	-8490	-4004	1562.74		16400	1.7256	11613	6012			1.5	Si
SLV 11	-1.37	-14470	3720	5066.31		31361	1.538	14606	6739			1.81	Si
SLV 11	0.8	-7745	2808	547.93		14961	1.7256	11325	5863			2.09	Si
SLV 6	-1.37	-5159	-6076	-3621.05		35618	0.4828	15457	2239			0.37	No, Vu<V
SLV 6	0.8	-8490	-4004	1562.74		16400	1.7256	11613	6012			1.5	Si
SLV 2	-1.37	-8795	-3232	-869.51		16989	1.7256	11731	6073			1.88	Si
SLV 2	0.8	-8977	-1412	1303.19		17341	1.7256	11802	6109			4.33	Si
SLV 12	-1.37	-14470	3720	5066.31		31361	1.538	14606	6739			1.81	Si
SLV 12	0.8	-7745	2808	547.93		14961	1.7256	11325	5863			2.09	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	143750	0.24	15464	-8005	68.64	1048.8	15.28	Si
SLV 10	143750	0.24	15464	-8005	68.64	1048.8	15.28	Si
SLV 14	143750	0.24	16132	-8351	68.64	1087.27	15.84	Si
SLV 13	143750	0.24	16132	-8351	68.64	1087.27	15.84	Si
SLV 5	143750	0.24	16518	-8551	68.64	1109.25	16.16	Si
SLV 6	143750	0.24	16518	-8551	68.64	1109.25	16.16	Si
SLV 16	143750	0.24	17759	-9193	68.64	1178.58	17.17	Si
SLV 15	143750	0.24	17759	-9193	68.64	1178.58	17.17	Si
SLV 2	143750	0.24	19647	-10171	68.64	1280.29	18.65	Si
SLV 1	143750	0.24	19647	-10171	68.64	1280.29	18.65	Si



## Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = -0.025  $W_a = 0.05$   $T_a = 0.0403$

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 13	-6388	-7967	-221	0.036	848.5	0.936	0.55953	11.57485	No
SLV 14	-6388	-7967	-221	0.036	848.5	0.936	0.55953	11.57485	No
SLV 4	-8044	-11662	221	0.04	1016.2	0.945	0.60783	11.57485	No
SLV 3	-8044	-11662	221	0.04	1016.2	0.945	0.60783	11.57485	No
SLV 16	-6075	-10835	-184	0.04	816.8	0.934	0.62622	11.57485	No
SLV 15	-6075	-10835	-184	0.04	816.8	0.934	0.62622	11.57485	No
SLV 2	-8357	-8795	184	0.044	1048	0.946	0.67417	11.57485	No
SLV 1	-8357	-8795	184	0.044	1048	0.946	0.67417	11.57485	No
SLV 7	-6989	-14719	122	0.049	909.4	0.939	0.76393	11.92471	No
SLV 8	-6989	-14719	122	0.049	909.4	0.939	0.76393	11.92471	No

## Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.502	SLU 82	Si
V_SLU	2.484	SLU 82	Si
PF_SLV	1.129	SLV 5	Si
V_SLV	0.368	SLV 5	No
PFFP_SLV	15.28	SLV 9	Si
R_SLV	0.048	SLV 13	No

## Maschio 13

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-28.073	0.331	-28.073	1.056	L1	L2	0.725	0.3	2.69	2.69	2.69			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

## Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 77	-1.37	-3916	703.47	18002	1105.69	1.572	Si
SLU 77	0.8	-5578	-375.47	25644	1385.37	3.69	Si
SLU 42	-1.37	-3666	681.49	16856	1054	1.547	Si
SLU 42	0.8	-5527	-359.91	25409	1378.45	3.83	Si
SLU 83	-1.37	-4230	763.88	19450	1167.37	1.528	Si
SLU 83	0.8	-6134	-404.04	28203	1453.75	3.598	Si
SLU 41	-1.37	-3660	683.18	16829	1052.71	1.541	Si
SLU 41	0.8	-5525	-360.65	25402	1378.25	3.822	Si
SLU 40	-1.37	-3666	681.49	16856	1054	1.547	Si
SLU 40	0.8	-5527	-359.91	25409	1378.45	3.83	Si
SLU 39	-1.37	-3660	683.18	16829	1052.71	1.541	Si
SLU 39	0.8	-5525	-360.65	25402	1378.25	3.822	Si
SLU 81	-1.37	-4230	763.88	19450	1167.37	1.528	Si
SLU 81	0.8	-6134	-404.04	28203	1453.75	3.598	Si
SLU 79	-1.37	-3916	703.47	18002	1105.69	1.572	Si
SLU 79	0.8	-5578	-375.47	25644	1385.37	3.69	Si
SLU 82	-1.37	-4236	762.19	19478	1168.51	1.533	Si
SLU 82	0.8	-6136	-403.3	28210	1453.91	3.605	Si
SLU 84	-1.37	-4236	762.19	19478	1168.51	1.533	Si
SLU 84	0.8	-6136	-403.3	28210	1453.91	3.605	Si

## Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 7	-1.37	-64	1370.77	0	0	0	No, $e > l/2$
SLV 7	0.8	-4602	-462.43	21159	1379.38	2.983	Si
SLV 11	-1.37	213	1407.41	0	0	0	No, Trazione
SLV 11	0.8	-4083	-450.34	18774	1252.75	2.782	Si
SLV 15	-1.37	-1326	793.61	0	0	0	No, $e > l/2$
SLV 15	0.8	-2884	-287.71	13260	932.04	3.24	Si
SLV 16	-1.37	-1326	793.61	0	0	0	No, $e > l/2$
SLV 16	0.8	-2884	-287.71	13260	932.04	3.24	Si
SLV 12	-1.37	213	1407.41	0	0	0	No, Trazione
SLV 12	0.8	-4083	-450.34	18774	1252.75	2.782	Si
SLV 4	-1.37	-2247	671.46	10332	745.71	1.111	Si
SLV 4	0.8	-4614	-328	21213	1382.14	4.214	Si
SLV 5	-1.37	-5380	-505.11	24736	1555.47	3.079	Si
SLV 5	0.8	-2906	-38.05	13360	938.18	24.654	Si
SLV 8	-1.37	-64	1370.77	0	0	0	No, $e > l/2$
SLV 8	0.8	-4602	-462.43	21159	1379.38	2.983	Si
SLV 3	-1.37	-2247	671.46	10332	745.71	1.111	Si
SLV 3	0.8	-4614	-328	21213	1382.14	4.214	Si
SLV 6	-1.37	-5380	-505.11	24736	1555.47	3.079	Si
SLV 6	0.8	-2906	-38.05	13360	938.18	24.654	Si

## Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 39	-1.37	-3660	1749	683.18		23127	0.5275	8639	1367			0.78	No, $V_u < V$



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 39	0.8	-5525	512	-360.65		25402	0.725	8943	1945			3.8	Si
SLU 84	-1.37	-4236	1951	762.19		25780	0.5478	8993	1478			0.76	No, Vu<V
SLU 84	0.8	-6136	551	-403.3		28210	0.725	9317	2026			3.68	Si
SLU 40	-1.37	-3666	1747	681.49		23065	0.5298	8631	1372			0.79	No, Vu<V
SLU 40	0.8	-5527	510	-359.91		25409	0.725	8943	1945			3.82	Si
SLU 82	-1.37	-4236	1951	762.19		25780	0.5478	8993	1478			0.76	No, Vu<V
SLU 82	0.8	-6136	551	-403.3		28210	0.725	9317	2026			3.68	Si
SLU 74	-1.37	-3916	1799	703.47		23795	0.5485	8728	1436			0.8	No, Vu<V
SLU 74	0.8	-5578	505	-375.47		25644	0.725	8975	1952			3.86	Si
SLU 81	-1.37	-4230	1953	763.88		25837	0.5458	9000	1474			0.75	No, Vu<V
SLU 81	0.8	-6134	553	-404.04		28203	0.725	9316	2026			3.66	Si
SLU 77	-1.37	-3916	1799	703.47		23795	0.5485	8728	1436			0.8	No, Vu<V
SLU 77	0.8	-5578	505	-375.47		25644	0.725	8975	1952			3.86	Si
SLU 41	-1.37	-3660	1749	683.18		23127	0.5275	8639	1367			0.78	No, Vu<V
SLU 41	0.8	-5525	512	-360.65		25402	0.725	8943	1945			3.8	Si
SLU 83	-1.37	-4230	1953	763.88		25837	0.5458	9000	1474			0.75	No, Vu<V
SLU 83	0.8	-6134	553	-404.04		28203	0.725	9316	2026			3.66	Si
SLU 42	-1.37	-3666	1747	681.49		23065	0.5298	8631	1372			0.79	No, Vu<V
SLU 42	0.8	-5527	510	-359.91		25409	0.725	8943	1945			3.82	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	-1.37	-1326	1453	793.61		0	0	8333	0			0	No, Vu<V
SLV 16	0.8	-2884	679	-287.71		13260	0.725	10985	2389			3.52	Si
SLV 1	-1.37	-3842	853	108.7		17664	0.725	11866	2581			3.02	Si
SLV 1	0.8	-4105	-52	-200.68		18873	0.725	12108	2633			50.37	Si
SLV 8	-1.37	-64	2760	1370.77		0	0	8333	0			0	No, Vu<V
SLV 8	0.8	-4602	333	-462.43		21159	0.725	12565	2733			8.2	Si
SLV 12	-1.37	213	2659	1407.41		0	0	8333	0			0	No, Vu<V
SLV 12	0.8	-4083	531	-450.34		18774	0.725	12088	2629			4.95	Si
SLV 7	-1.37	-64	2760	1370.77		0	0	8333	0			0	No, Vu<V
SLV 7	0.8	-4602	333	-462.43		21159	0.725	12565	2733			8.2	Si
SLV 3	-1.37	-2247	1787	671.46		39201	0.1911	16173	927			0.52	No, Vu<V
SLV 3	0.8	-4614	19	-328		21213	0.725	12576	2735			142.33	Si
SLV 4	-1.37	-2247	1787	671.46		39201	0.1911	16173	927			0.52	No, Vu<V
SLV 4	0.8	-4614	19	-328		21213	0.725	12576	2735			142.33	Si
SLV 2	-1.37	-3842	853	108.7		17664	0.725	11866	2581			3.02	Si
SLV 2	0.8	-4105	-52	-200.68		18873	0.725	12108	2633			50.37	Si
SLV 11	-1.37	213	2659	1407.41		0	0	8333	0			0	No, Vu<V
SLV 11	0.8	-4083	531	-450.34		18774	0.725	12088	2629			4.95	Si
SLV 15	-1.37	-1326	1453	793.61		0	0	8333	0			0	No, Vu<V
SLV 15	0.8	-2884	679	-287.71		13260	0.725	10985	2389			3.52	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 14	143750	0.24	16667	-3625	28.84	469.6	16.28	Si
SLV 13	143750	0.24	16667	-3625	28.84	469.6	16.28	Si
SLV 9	143750	0.24	16928	-3682	28.84	475.76	16.5	Si
SLV 10	143750	0.24	16928	-3682	28.84	475.76	16.5	Si
SLV 16	143750	0.24	18348	-3991	28.84	508.72	17.64	Si
SLV 15	143750	0.24	18348	-3991	28.84	508.72	17.64	Si
SLV 6	143750	0.24	18832	-4096	28.84	519.71	18.02	Si
SLV 5	143750	0.24	18832	-4096	28.84	519.71	18.02	Si
SLV 12	143750	0.24	22531	-4900	28.84	599.52	20.79	Si
SLV 11	143750	0.24	22531	-4900	28.84	599.52	20.79	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -0.025 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 11	-2068	213	36	0	0	0	0	11.92471	No, Trazione
SLV 12	-2068	213	36	0	0	0	0	11.92471	No, Trazione
SLV 13	-1745	-2920	-112	0.019	261.9	0.918	0.30614	11.57485	No
SLV 14	-1745	-2920	-112	0.019	261.9	0.918	0.30614	11.57485	No
SLV 4	-2746	-2247	111	0.031	362.8	0.937	0.47579	11.57485	No
SLV 3	-2746	-2247	111	0.031	362.8	0.937	0.47579	11.57485	No
SLV 10	-2118	-5104	-92	0.032	299.4	0.926	0.50398	11.92471	No
SLV 9	-2118	-5104	-92	0.032	299.4	0.926	0.50398	11.92471	No
SLV 8	-2373	-64	91	0.034	325.1	0.931	0.53704	11.92471	No
SLV 7	-2373	-64	91	0.034	325.1	0.931	0.53704	11.92471	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.528	SLU 81	Si
V_SLU	0.754	SLU 81	No
PF_SLV	0	SLV 12	No
V_SLV	0	SLV 7	No
PFFP_SLV	16.284	SLV 13	Si
R_SLV	0	SLV 12	No

## Maschio 14

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)





## Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-24.423	-5.726	-24.423	-3.274	L1	L2	9.001	0.45	2.69	2.69	2.69			

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>k</sub>	f <sub>vk0</sub>	f <sub>medio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>v,lim</sub>	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

## Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γ<sub>M</sub> = 3

Comb.	Quota	N	M	σ <sub>0</sub>	Mu	c.s.	Verifica
SLU 42	-1.37	-52213	-3885.42	12891	197787.4	50.905	Si
SLU 42	1.32	-31604	-3518.38	7803	128602.95	36.552	Si
SLU 41	-1.37	-52309	-3578.69	12915	198084.32	55.351	Si
SLU 41	1.32	-31686	-3661.66	7823	128901.63	35.203	Si
SLU 40	-1.37	-52213	-3885.42	12891	197787.4	50.905	Si
SLU 40	1.32	-31604	-3518.38	7803	128602.95	36.552	Si
SLU 32	-1.37	-49622	-3212.3	12251	189724.9	59.062	Si
SLU 32	1.32	-29268	-3333.11	7226	120031.48	36.012	Si
SLU 37	-1.37	-49622	-3212.3	12251	189724.9	59.062	Si
SLU 37	1.32	-29268	-3333.11	7226	120031.48	36.012	Si
SLU 83	-1.37	-63050	-3907.86	15567	229518.15	58.732	Si
SLU 83	1.32	-36564	-4000.35	9028	146313.23	36.575	Si
SLU 35	-1.37	-49622	-3212.3	12251	189724.9	59.062	Si
SLU 35	1.32	-29268	-3333.11	7226	120031.48	36.012	Si
SLU 39	-1.37	-52309	-3578.69	12915	198084.32	55.351	Si
SLU 39	1.32	-31686	-3661.66	7823	128901.63	35.203	Si
SLU 79	-1.37	-60362	-3541.47	14903	221946.3	62.671	Si
SLU 79	1.32	-34146	-3671.8	8431	137764.82	37.52	Si
SLU 81	-1.37	-63050	-3907.86	15567	229518.15	58.732	Si
SLU 81	1.32	-36564	-4000.35	9028	146313.23	36.575	Si

## Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γ<sub>M</sub> = 2

Comb.	Quota	N	M	σ <sub>0</sub>	Mu	c.s.	Verifica
SLV 12	-1.37	-45056	-15417	11124	184304.96	11.955	Si
SLV 12	1.32	-24254	2788.73	5988	103802.51	37.222	Si
SLV 8	-1.37	-39754	-15561.32	9815	164533.74	10.573	Si
SLV 8	1.32	-21565	2593.82	5324	92819.86	35.785	Si
SLV 6	-1.37	-40194	11053.8	9924	166194.77	15.035	Si
SLV 6	1.32	-21312	-7401.42	5262	91780.69	12.4	Si
SLV 9	-1.37	-45496	11198.12	11233	185923.54	16.603	Si
SLV 9	1.32	-24002	-7206.51	5926	102775.7	14.262	Si
SLV 1	-1.37	-33855	1570.14	8359	141933.42	90.396	Si
SLV 1	1.32	-18263	-4130.48	4509	79155.81	19.164	Si
SLV 10	-1.37	-45496	11198.12	11233	185923.54	16.603	Si
SLV 10	1.32	-24002	-7206.51	5926	102775.7	14.262	Si
SLV 11	-1.37	-45056	-15417	11124	184304.96	11.955	Si
SLV 11	1.32	-24254	2788.73	5988	103802.51	37.222	Si
SLV 7	-1.37	-39754	-15561.32	9815	164533.74	10.573	Si
SLV 7	1.32	-21565	2593.82	5324	92819.86	35.785	Si
SLV 2	-1.37	-33855	1570.14	8359	141933.42	90.396	Si
SLV 2	1.32	-18263	-4130.48	4509	79155.81	19.164	Si
SLV 5	-1.37	-40194	11053.8	9924	166194.77	15.035	Si
SLV 5	1.32	-21312	-7401.42	5262	91780.69	12.4	Si

## Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γ<sub>M</sub> = 3

Comb.	Quota	N	V par	M	σ <sub>0</sub>	σ <sub>N</sub>	I'	f <sub>vd</sub>	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLU 44	-1.37	-50406	-419	-2609.7		12445	9.0006	7215	29222			69.76	Si
SLU 44	1.32	-24931	-480	-1995.53		6155	9.0006	6376	25826			53.77	Si
SLU 10	-1.37	-45938	-419	-3135.44		11342	9.0006	7068	28626			68.3	Si
SLU 10	1.32	-25694	-481	-2423.46		6344	9.0006	6401	25927			53.95	Si
SLU 23	-1.37	-43189	-419	-2868.61		10663	9.0006	6977	28260			67.46	Si
SLU 23	1.32	-23490	-480	-2327.69		5800	9.0006	6329	25633			53.37	Si
SLU 68	-1.37	-53929	-419	-3197.78		13315	9.0006	7331	29692			70.81	Si
SLU 68	1.32	-28368	-481	-2666.38		7004	9.0006	6489	26284			54.68	Si
SLU 13	-1.37	-45938	-419	-3135.44		11342	9.0006	7068	28626			68.3	Si
SLU 13	1.32	-25694	-481	-2423.46		6344	9.0006	6401	25927			53.95	Si
SLU 47	-1.37	-50406	-419	-2609.7		12445	9.0006	7215	29222			69.76	Si
SLU 47	1.32	-24931	-480	-1995.53		6155	9.0006	6376	25826			53.77	Si
SLU 26	-1.37	-43189	-419	-2868.61		10663	9.0006	6977	28260			67.46	Si
SLU 26	1.32	-23490	-480	-2327.69		5800	9.0006	6329	25633			53.37	Si
SLU 65	-1.37	-53929	-419	-3197.78		13315	9.0006	7331	29692			70.81	Si
SLU 65	1.32	-28368	-481	-2666.38		7004	9.0006	6489	26284			54.68	Si
SLU 5	-1.37	-39666	-418	-2280.53		9793	9.0006	6861	27790			66.41	Si
SLU 5	1.32	-20052	-480	-1656.84		4951	9.0006	6216	25175			52.47	Si
SLU 2	-1.37	-39666	-418	-2280.53		9793	9.0006	6861	27790			66.41	Si
SLU 2	1.32	-20052	-480	-1656.84		4951	9.0006	6216	25175			52.47	Si

## Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γ<sub>M</sub> = 2

Comb.	Quota	N	V par	M	σ <sub>0</sub>	σ <sub>N</sub>	I'	f <sub>vd</sub>	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLV 6	-1.37	-40194	13645	11053.8		9924	9.0006	10318	41791			3.06	Si
SLV 6	1.32	-21312	10060	-7401.42		5262	9.0006	9386	38015			3.78	Si
SLV 8	-1.37	-39754	-13617	-15561.32		9815	9.0006	10296	41703			3.06	Si
SLV 8	1.32	-21565	-10036	2593.82		5324	9.0006	9398	38065			3.79	Si
SLV 7	-1.37	-39754	-13617	-15561.32		9815	9.0006	10296	41703			3.06	Si
SLV 7	1.32	-21565	-10036	2593.82		5324	9.0006	9398	38065			3.79	Si
SLV 12	-1.37	-45056	-13649	-15417		11124	9.0006	10558	42763			3.13	Si
SLV 12	1.32	-24254	-10065	2788.73		5988	9.0006	9531	38603			3.84	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	-1.37	-45496	13613	11198.12		11233	9.0006	10580	42851			3.15	Si
SLV 10	1.32	-24002	10031	-7206.51		5926	9.0006	9519	38553			3.84	Si
SLV 2	-1.37	-33855	4140	1570.14		8359	9.0006	10005	40523			9.79	Si
SLV 2	1.32	-18263	3060	-4130.48		4509	9.0006	9235	37405			12.22	Si
SLV 11	-1.37	-45056	-13649	-15417		11124	9.0006	10558	42763			3.13	Si
SLV 11	1.32	-24254	-10065	2788.73		5988	9.0006	9531	38603			3.84	Si
SLV 5	-1.37	-40194	13645	11053.8		9924	9.0006	10318	41791			3.06	Si
SLV 5	1.32	-21312	10060	-7401.42		5262	9.0006	9386	38015			3.78	Si
SLV 1	-1.37	-33855	4140	1570.14		8359	9.0006	10005	40523			9.79	Si
SLV 1	1.32	-18263	3060	-4130.48		4509	9.0006	9235	37405			12.22	Si
SLV 9	-1.37	-45496	13613	11198.12		11233	9.0006	10580	42851			3.15	Si
SLV 9	1.32	-24002	10031	-7206.51		5926	9.0006	9519	38553			3.84	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -0.025 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.24	6142	-24878	537.03	5316.16	9.9	Si
SLV 3	143750	0.24	6142	-24878	537.03	5316.16	9.9	Si
SLV 2	143750	0.24	6145	-24890	537.03	5318.54	9.9	Si
SLV 1	143750	0.24	6145	-24890	537.03	5318.54	9.9	Si
SLV 7	143750	0.24	7342	-29738	537.03	6289.08	11.71	Si
SLV 8	143750	0.24	7342	-29738	537.03	6289.08	11.71	Si
SLV 5	143750	0.24	7352	-29778	537.03	6296.82	11.73	Si
SLV 6	143750	0.24	7352	-29778	537.03	6296.82	11.73	Si
SLV 12	143750	0.24	8374	-33916	537.03	7108.19	13.24	Si
SLV 11	143750	0.24	8374	-33916	537.03	7108.19	13.24	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -0.025 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 10	-24002	-45496	357	0.097	4030.8	0.907	1.56061	11.8104	No
SLV 9	-24002	-45496	357	0.097	4030.8	0.907	1.56061	11.8104	No
SLV 7	-21565	-39754	-360	0.098	3790.2	0.903	1.58252	11.8104	No
SLV 8	-21565	-39754	-360	0.098	3790.2	0.903	1.58252	11.8104	No
SLV 12	-24254	-45056	243	0.101	4055.8	0.907	1.61187	11.8104	No
SLV 11	-24254	-45056	243	0.101	4055.8	0.907	1.61187	11.8104	No
SLV 5	-21312	-40194	-246	0.102	3765.3	0.903	1.64399	11.8104	No
SLV 6	-21312	-40194	-246	0.102	3765.3	0.903	1.64399	11.8104	No
SLV 3	-18339	-33723	-1022	0.076	3474.2	0.898	1.23727	7.39556	No
SLV 4	-18339	-33723	-1022	0.076	3474.2	0.898	1.23727	7.39556	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	35.203	SLU 39	Si
V_SLU	52.467	SLU 2	Si
PF_SLV	10.573	SLV 7	Si
V_SLV	3.062	SLV 7	Si
PFFP_SLV	9.899	SLV 3	Si
R_SLV	0.132	SLV 9	No

## Maschio 15

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X inl.	Y inl.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h inl.	h fin.	a	a.s,sx	a.s,dx
-34.108	-3.274	-34.108	5.726	L2	L3	9.001	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 56	1.32	-23309	1149.81	8632	93781.19	81.562	Si
SLU 56	5.08	3966	143.15	0	0	0	No, Trazione
SLU 54	1.32	-22880	1393.46	8473	92255.3	66.206	Si
SLU 54	5.08	3997	-20.33	0	0	0	No, Trazione
SLU 58	1.32	-23309	1149.81	8632	93781.19	81.562	Si
SLU 58	5.08	3966	143.15	0	0	0	No, Trazione
SLU 59	1.32	-22880	1393.46	8473	92255.3	66.206	Si
SLU 59	5.08	3997	-20.33	0	0	0	No, Trazione
SLU 53	1.32	-23309	1149.81	8632	93781.19	81.562	Si
SLU 53	5.08	3966	143.15	0	0	0	No, Trazione
SLU 61	1.32	-23664	1501.2	8764	95036.32	63.307	Si
SLU 61	5.08	4347	9.8	0	0	0	No, Trazione
SLU 60	1.32	-24093	1257.56	8923	96548.44	76.775	Si
SLU 60	5.08	4316	173.29	0	0	0	No, Trazione
SLU 57	1.32	-22880	1393.46	8473	92255.3	66.206	Si
SLU 57	5.08	3997	-20.33	0	0	0	No, Trazione
SLU 55	1.32	-22594	1555.89	8368	91233.85	58.638	Si
SLU 55	5.08	4018	-129.33	0	0	0	No, Trazione
SLU 1	1.32	-16674	744.5	6175	69349.81	93.15	Si
SLU 1	5.08	2517	70.07	0	0	0	No, Trazione



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 6	1.32	-22948	-5258.62	8499	96089.47	18.273	Si
SLV 6	5.08	3030	2340.33	0	0	0	No, Trazione
SLV 8	1.32	-23462	5645.29	8689	98075.68	17.373	Si
SLV 8	5.08	2946	-2185.92	0	0	0	No, Trazione
SLV 3	1.32	-36919	240.27	13673	147555.25	614.13	Si
SLV 3	5.08	3293	-667.45	0	0	0	No, Trazione
SLV 2	1.32	-36765	-3030.91	13616	147016.71	48.506	Si
SLV 2	5.08	3318	690.42	0	0	0	No, Trazione
SLV 4	1.32	-36919	240.27	13673	147555.25	614.13	Si
SLV 4	5.08	3293	-667.45	0	0	0	No, Trazione
SLV 9	1.32	-11259	-3896.92	4170	48938.61	12.558	Si
SLV 9	5.08	2758	2396.66	0	0	0	No, Trazione
SLV 7	1.32	-23462	5645.29	8689	98075.68	17.373	Si
SLV 7	5.08	2946	-2185.92	0	0	0	No, Trazione
SLV 10	1.32	-11259	-3896.92	4170	48938.61	12.558	Si
SLV 10	5.08	2758	2396.66	0	0	0	No, Trazione
SLV 1	1.32	-36765	-3030.91	13616	147016.71	48.506	Si
SLV 1	5.08	3318	690.42	0	0	0	No, Trazione
SLV 5	1.32	-22948	-5258.62	8499	96089.47	18.273	Si
SLV 5	5.08	3030	2340.33	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 55	1.32	-22594	315	1555.89		8368	9.0006	6671	18013			57.17	Si
SLU 55	5.08	4018	86	-129.33		0	0	5556	0			0	No, Vu<V
SLU 59	1.32	-22880	189	1393.46		8473	9.0006	6685	18052			95.44	Si
SLU 59	5.08	3997	51	-20.33		0	0	5556	0			0	No, Vu<V
SLU 54	1.32	-22880	189	1393.46		8473	9.0006	6685	18052			95.44	Si
SLU 54	5.08	3997	51	-20.33		0	0	5556	0			0	No, Vu<V
SLU 58	1.32	-23309	0	1149.81		8632	9.0006	6707	18109			1000	Si
SLU 58	5.08	3966	0	143.15		0	0	5556	0			0	No, Vu<V
SLU 56	1.32	-23309	0	1149.81		8632	9.0006	6707	18109			1000	Si
SLU 56	5.08	3966	0	143.15		0	0	5556	0			0	No, Vu<V
SLU 60	1.32	-24093	0	1257.56		8923	9.0006	6745	18213			1000	Si
SLU 60	5.08	4316	0	173.29		0	0	5556	0			0	No, Vu<V
SLU 53	1.32	-23309	0	1149.81		8632	9.0006	6707	18109			1000	Si
SLU 53	5.08	3966	0	143.15		0	0	5556	0			0	No, Vu<V
SLU 61	1.32	-23664	189	1501.2		8764	9.0006	6724	18156			95.98	Si
SLU 61	5.08	4347	51	9.8		0	0	5556	0			0	No, Vu<V
SLU 57	1.32	-22880	189	1393.46		8473	9.0006	6685	18052			95.44	Si
SLU 57	5.08	3997	51	-20.33		0	0	5556	0			0	No, Vu<V
SLU 1	1.32	-16674	0	744.5		6175	9.0006	6379	17224			1000	Si
SLU 1	5.08	2517	0	70.07		0	0	5556	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	1.32	-11259	-5459	-3896.92		4170	9.0006	9167	24753			4.53	Si
SLV 9	5.08	2758	-1191	2396.66		0	0	8333	0			0	No, Vu<V
SLV 3	1.32	-36919	1443	240.27		13673	9.0006	11068	29885			20.71	Si
SLV 3	5.08	3293	381	-667.45		0	0	8333	0			0	No, Vu<V
SLV 5	1.32	-22948	-5588	-5258.62		8499	9.0006	10033	27091			4.85	Si
SLV 5	5.08	3030	-1175	2340.33		0	0	8333	0			0	No, Vu<V
SLV 8	1.32	-23462	5459	5645.29		8689	9.0006	10071	27194			4.98	Si
SLV 8	5.08	2946	1191	-2185.92		0	0	8333	0			0	No, Vu<V
SLV 1	1.32	-36765	-1871	-3030.91		13616	9.0006	11057	29854			15.95	Si
SLV 1	5.08	3318	-329	690.42		0	0	8333	0			0	No, Vu<V
SLV 6	1.32	-22948	-5588	-5258.62		8499	9.0006	10033	27091			4.85	Si
SLV 6	5.08	3030	-1175	2340.33		0	0	8333	0			0	No, Vu<V
SLV 4	1.32	-36919	1443	240.27		13673	9.0006	11068	29885			20.71	Si
SLV 4	5.08	3293	381	-667.45		0	0	8333	0			0	No, Vu<V
SLV 7	1.32	-23462	5459	5645.29		8689	9.0006	10071	27194			4.98	Si
SLV 7	5.08	2946	1191	-2185.92		0	0	8333	0			0	No, Vu<V
SLV 10	1.32	-11259	-5459	-3896.92		4170	9.0006	9167	24753			4.53	Si
SLV 10	5.08	2758	-1191	2396.66		0	0	8333	0			0	No, Vu<V
SLV 2	1.32	-36765	-1871	-3030.91		13616	9.0006	11057	29854			15.95	Si
SLV 2	5.08	3318	-329	690.42		0	0	8333	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 12	143750	0.48	0	-6095	1360.42	0	0	No, e>t/2
SLV 10	143750	0.48	0	-5980	1360.42	0	0	No, e>t/2
SLV 13	143750	0.48	0	-1283	1360.42	0	0	No, e>t/2
SLV 16	143750	0.48	0	-1318	1360.42	0	0	No, e>t/2
SLV 11	143750	0.48	0	-6095	1360.42	0	0	No, e>t/2
SLV 9	143750	0.48	0	-5980	1360.42	0	0	No, e>t/2
SLV 14	143750	0.48	0	-1283	1360.42	0	0	No, e>t/2
SLV 15	143750	0.48	0	-1318	1360.42	0	0	No, e>t/2
SLV 6	143750	0.48	3718	-10040	1360.42	1460.16	1.07	Si
SLV 5	143750	0.48	3718	-10040	1360.42	1460.16	1.07	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.2 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 9	2758	-11259	53	0	0	0	0	8.12787	No, Trazione
SLV 3	3293	-36919	-126	0	0	0	0	19.50315	No, Trazione



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 5	3030	-22948	-13	0	0	0	0	8.12787	No, Trazione
SLV 6	3030	-22948	-13	0	0	0	0	8.12787	No, Trazione
SLV 8	2946	-23462	-67	0	0	0	0	8.12787	No, Trazione
SLV 2	3318	-36765	-110	0	0	0	0	19.50315	No, Trazione
SLV 4	3293	-36919	-126	0	0	0	0	19.50315	No, Trazione
SLV 7	2946	-23462	-67	0	0	0	0	8.12787	No, Trazione
SLV 10	2758	-11259	53	0	0	0	0	8.12787	No, Trazione
SLV 1	3318	-36765	-110	0	0	0	0	19.50315	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLV 1	No
PFFP_SLV	0	SLV 9	No
R_SLV	0	SLV 16	No

## Maschio 16

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.108	1.056	-33.788	1.056	L2	L3	0.32	0.3	3.76	3.76	3.76			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 55	1.32	-2183	101.65	22735	251.75	2.477	Si
SLU 55	5.08	-777	34.38	8096	111.99	3.257	Si
SLU 52	1.32	-2183	101.65	22735	251.75	2.477	Si
SLU 52	5.08	-777	34.38	8096	111.99	3.257	Si
SLU 10	1.32	-1972	99.7	20539	235.94	2.366	Si
SLU 10	5.08	-759	32.9	7905	109.63	3.332	Si
SLU 13	1.32	-1972	99.7	20539	235.94	2.366	Si
SLU 13	5.08	-759	32.9	7905	109.63	3.332	Si
SLU 76	1.32	-2349	111.36	24465	262.92	2.361	Si
SLU 76	5.08	-966	42.62	10059	135.43	3.178	Si
SLU 40	1.32	-2053	96.53	21384	242.24	2.509	Si
SLU 40	5.08	-1150	50.69	11975	156.9	3.095	Si
SLU 34	1.32	-2138	109.41	22269	248.54	2.272	Si
SLU 34	5.08	-947	41.13	9868	133.21	3.238	Si
SLU 73	1.32	-2349	111.36	24465	262.92	2.361	Si
SLU 73	5.08	-966	42.62	10059	135.43	3.178	Si
SLU 31	1.32	-2138	109.41	22269	248.54	2.272	Si
SLU 31	5.08	-947	41.13	9868	133.21	3.238	Si
SLU 42	1.32	-2053	96.53	21384	242.24	2.509	Si
SLU 42	5.08	-1150	50.69	11975	156.9	3.095	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 13	1.32	-17053	1454.14	177637	0	0	No, Rottura per schiacciamento
SLV 13	5.08	-372	-123.92	0	0	0	No, $e > l/2$
SLV 15	1.32	-19971	1705.57	208032	0	0	No, Rottura per schiacciamento
SLV 15	5.08	-475	-132.92	0	0	0	No, $e > l/2$
SLV 6	1.32	9039	-857.56	0	0	0	No, Trazione
SLV 6	5.08	-307	82.87	0	0	0	No, $e > l/2$
SLV 2	1.32	17852	-1651.04	0	0	0	No, Trazione
SLV 2	5.08	-458	178.05	0	0	0	No, $e > l/2$
SLV 5	1.32	9039	-857.56	0	0	0	No, Trazione
SLV 5	5.08	-307	82.87	0	0	0	No, $e > l/2$
SLV 1	1.32	17852	-1651.04	0	0	0	No, Trazione
SLV 1	5.08	-458	178.05	0	0	0	No, $e > l/2$
SLV 16	1.32	-19971	1705.57	208032	0	0	No, Rottura per schiacciamento
SLV 16	5.08	-475	-132.92	0	0	0	No, $e > l/2$
SLV 14	1.32	-17053	1454.14	177637	0	0	No, Rottura per schiacciamento
SLV 14	5.08	-372	-123.92	0	0	0	No, $e > l/2$
SLV 3	1.32	14934	-1399.62	0	0	0	No, Trazione
SLV 3	5.08	-562	169.04	0	0	0	No, $e > l/2$
SLV 4	1.32	14934	-1399.62	0	0	0	No, Trazione
SLV 4	5.08	-562	169.04	0	0	0	No, $e > l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 47	1.32	-1764	65	77.56		18375	0.32	8006	769			11.8	Si
SLU 47	5.08	-300	3	13.9		3127	0.32	5973	573			172.51	Si
SLU 68	1.32	-1930	65	87.28		20105	0.32	8236	791			12.11	Si



Comb.	Quota	N	V par	M	$\alpha 0$	$\alpha N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 68	5.08	-489	2	22.14		5091	0.32	6234	598			252.5	Si
SLU 2	1.32	-1553	65	75.61		16179	0.32	7713	740			11.43	Si
SLU 2	5.08	-282	3	12.42		2936	0.32	5947	571			164.73	Si
SLU 13	1.32	-1972	65	99.7		20539	0.32	8294	796			12.28	Si
SLU 13	5.08	-759	1	32.9		7905	0.32	6610	635			586.13	Si
SLU 44	1.32	-1764	65	77.56		18375	0.32	8006	769			11.8	Si
SLU 44	5.08	-300	3	13.9		3127	0.32	5973	573			172.51	Si
SLU 26	1.32	-1719	65	85.33		17909	0.32	7943	763			11.74	Si
SLU 26	5.08	-470	3	20.66		4900	0.32	6209	596			237.25	Si
SLU 5	1.32	-1553	65	75.61		16179	0.32	7713	740			11.43	Si
SLU 5	5.08	-282	3	12.42		2936	0.32	5947	571			164.73	Si
SLU 23	1.32	-1719	65	85.33		17909	0.32	7943	763			11.74	Si
SLU 23	5.08	-470	3	20.66		4900	0.32	6209	596			237.25	Si
SLU 65	1.32	-1930	65	87.28		20105	0.32	8236	791			12.11	Si
SLU 65	5.08	-489	2	22.14		5091	0.32	6234	598			252.5	Si
SLU 10	1.32	-1972	65	99.7		20539	0.32	8294	796			12.28	Si
SLU 10	5.08	-759	1	32.9		7905	0.32	6610	635			586.13	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\alpha 0$	$\alpha N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	1.32	9039	-1004	-857.56		0	0	8333	0			0	No, Vu<V
SLV 5	5.08	-307	-1116	82.87		0	0	8333	0			0	No, Vu<V
SLV 15	1.32	-19971	1976	1705.57		297462	0.2238	16250	1091			0.55	No, Vu<V
SLV 15	5.08	-475	2285	-132.92		0	0	8333	0			0	No, Vu<V
SLV 3	1.32	14934	-1701	-1399.62		0	0	8333	0			0	No, Vu<V
SLV 3	5.08	-562	-2008	169.04		0	0	8333	0			0	No, Vu<V
SLV 13	1.32	-17053	1703	1454.14		253555	0.2242	16250	1093			0.64	No, Vu<V
SLV 13	5.08	-372	2003	-123.92		0	0	8333	0			0	No, Vu<V
SLV 1	1.32	17852	-1973	-1651.04		0	0	8333	0			0	No, Vu<V
SLV 1	5.08	-458	-2290	178.05		0	0	8333	0			0	No, Vu<V
SLV 2	1.32	17852	-1973	-1651.04		0	0	8333	0			0	No, Vu<V
SLV 2	5.08	-458	-2290	178.05		0	0	8333	0			0	No, Vu<V
SLV 4	1.32	14934	-1701	-1399.62		0	0	8333	0			0	No, Vu<V
SLV 4	5.08	-562	-2008	169.04		0	0	8333	0			0	No, Vu<V
SLV 14	1.32	-17053	1703	1454.14		253555	0.2242	16250	1093			0.64	No, Vu<V
SLV 14	5.08	-372	2003	-123.92		0	0	8333	0			0	No, Vu<V
SLV 16	1.32	-19971	1976	1705.57		297462	0.2238	16250	1091			0.55	No, Vu<V
SLV 16	5.08	-475	2285	-132.92		0	0	8333	0			0	No, Vu<V
SLV 6	1.32	9039	-1004	-857.56		0	0	8333	0			0	No, Vu<V
SLV 6	5.08	-307	-1116	82.87		0	0	8333	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2  $W_a$  0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\alpha 0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	143750	0.48	0	3194	48.37	0	0	No, Trazione
SLV 4	143750	0.48	0	5213	48.37	0	0	No, Trazione
SLV 3	143750	0.48	0	5213	48.37	0	0	No, Trazione
SLV 1	143750	0.48	0	6416	48.37	0	0	No, Trazione
SLV 2	143750	0.48	0	6416	48.37	0	0	No, Trazione
SLV 5	143750	0.48	0	3194	48.37	0	0	No, Trazione
SLV 10	143750	0.48	8029	-771	48.37	108.02	2.23	Si
SLV 9	143750	0.48	8029	-771	48.37	108.02	2.23	Si
SLV 7	143750	0.48	8509	-817	48.37	114	2.36	Si
SLV 8	143750	0.48	8509	-817	48.37	114	2.36	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 3.2  $W_a = 0.05$   $T_a = 0.0787$

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 4	-562	14934	-57	0	0	0	0	19.50315	No, Trazione
SLV 2	-458	17852	-62	0	0	0	0	19.50315	No, Trazione
SLV 16	-475	-19971	62	0	102.3	0.892	0	19.50315	No
SLV 1	-458	17852	-62	0	0	0	0	19.50315	No, Trazione
SLV 5	-307	9039	-26	0	0	0	0	8.12787	No, Trazione
SLV 3	-562	14934	-57	0	0	0	0	19.50315	No, Trazione
SLV 13	-372	-17053	57	0	92.6	0.889	0	19.50315	No
SLV 14	-372	-17053	57	0	92.6	0.889	0	19.50315	No
SLV 15	-475	-19971	62	0	102.3	0.892	0	19.50315	No
SLV 6	-307	9039	-26	0	0	0	0	8.12787	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.272	SLU 31	Si
V_SLU	11.426	SLU 2	Si
PF_SLV	0	SLV 6	No
V_SLV	0	SLV 1	No
PFFP_SLV	0	SLV 6	No
R_SLV	0	SLV 6	No

## Maschio 17

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-34.108	-3.274	-32.708	-3.274	L2	L3	1.4	0.3	3.76	3.76	3.76			



## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 71	2.32	-3865	-277.66	9204	2400.11	8.644	Si
SLU 71	4.22	-2524	1905.75	0	0	0	No, $e \geq l/2$
SLU 64	2.32	-3865	-277.66	9204	2400.11	8.644	Si
SLU 64	4.22	-2524	1905.75	0	0	0	No, $e \geq l/2$
SLU 68	2.32	-3857	-278.48	9183	2395.52	8.602	Si
SLU 68	4.22	-2531	1904.05	0	0	0	No, $e \geq l/2$
SLU 67	2.32	-3860	-278.15	9191	2397.36	8.619	Si
SLU 67	4.22	-2528	1904.73	0	0	0	No, $e \geq l/2$
SLU 44	2.32	-3165	-278.52	7535	2010.47	7.218	Si
SLU 44	4.22	-1561	1476.25	0	0	0	No, $e \geq l/2$
SLU 72	2.32	-3860	-278.15	9191	2397.36	8.619	Si
SLU 72	4.22	-2528	1904.73	0	0	0	No, $e \geq l/2$
SLU 43	2.32	-3173	-277.7	7556	2015.3	7.257	Si
SLU 43	4.22	-1554	1477.95	0	0	0	No, $e \geq l/2$
SLU 65	2.32	-3857	-278.48	9183	2395.52	8.602	Si
SLU 65	4.22	-2531	1904.05	0	0	0	No, $e \geq l/2$
SLU 66	2.32	-3865	-277.66	9204	2400.11	8.644	Si
SLU 66	4.22	-2524	1905.75	0	0	0	No, $e \geq l/2$
SLU 1	2.32	-2624	-213.6	6247	1695.67	7.938	Si
SLU 1	4.22	-1451	1249.71	0	0	0	No, $e \geq l/2$

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 4	2.32	-2399	-1120.53	5712	1600.9	1.429	Si
SLV 4	4.22	-2694	2470.4	0	0	0	No, $e \geq l/2$
SLV 8	2.32	-2929	-397.1	6974	1933.34	4.869	Si
SLV 8	4.22	-2544	1823.29	0	0	0	No, $e \geq l/2$
SLV 1	2.32	-2468	-1177.92	5877	1644.79	1.396	Si
SLV 1	4.22	-2675	2530.27	0	0	0	No, $e \geq l/2$
SLV 7	2.32	-2929	-397.1	6974	1933.34	4.869	Si
SLV 7	4.22	-2544	1823.29	0	0	0	No, $e \geq l/2$
SLV 5	2.32	-3160	-588.4	7524	2075.77	3.528	Si
SLV 5	4.22	-2479	2022.86	0	0	0	No, $e \geq l/2$
SLV 9	2.32	-3683	-25.71	8770	2393.35	93.107	Si
SLV 9	4.22	-2330	1528.06	5548	1557.12	1.019	Si
SLV 3	2.32	-2399	-1120.53	5712	1600.9	1.429	Si
SLV 3	4.22	-2694	2470.4	0	0	0	No, $e \geq l/2$
SLV 2	2.32	-2468	-1177.92	5877	1644.79	1.396	Si
SLV 2	4.22	-2675	2530.27	0	0	0	No, $e \geq l/2$
SLV 10	2.32	-3683	-25.71	8770	2393.35	93.107	Si
SLV 10	4.22	-2330	1528.06	5548	1557.12	1.019	Si
SLV 6	2.32	-3160	-588.4	7524	2075.77	3.528	Si
SLV 6	4.22	-2479	2022.86	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 1	2.32	-2624	-892	-213.6	6247	1.4	6388	2683				3.01	Si
SLU 1	4.22	-1451	-892	1249.71	0	0	5556	0				0	No, $V_u < V$
SLU 43	2.32	-3173	-1047	-277.7	7556	1.4	6563	2756				2.63	Si
SLU 43	4.22	-1554	-1047	1477.95	0	0	5556	0				0	No, $V_u < V$
SLU 65	2.32	-3857	-1382	-278.48	9183	1.4	6780	2848				2.06	Si
SLU 65	4.22	-2531	-1378	1904.05	0	0	5556	0				0	No, $V_u < V$
SLU 67	2.32	-3860	-1379	-278.15	9191	1.4	6781	2848				2.07	Si
SLU 67	4.22	-2528	-1377	1904.73	0	0	5556	0				0	No, $V_u < V$
SLU 68	2.32	-3857	-1382	-278.48	9183	1.4	6780	2848				2.06	Si
SLU 68	4.22	-2531	-1378	1904.05	0	0	5556	0				0	No, $V_u < V$
SLU 44	2.32	-3165	-1054	-278.52	7535	1.4	6560	2755				2.61	Si
SLU 44	4.22	-1561	-1051	1476.25	0	0	5556	0				0	No, $V_u < V$
SLU 71	2.32	-3865	-1375	-277.66	9204	1.4	6783	2849				2.07	Si
SLU 71	4.22	-2524	-1375	1905.75	0	0	5556	0				0	No, $V_u < V$
SLU 64	2.32	-3865	-1375	-277.66	9204	1.4	6783	2849				2.07	Si
SLU 64	4.22	-2524	-1375	1905.75	0	0	5556	0				0	No, $V_u < V$
SLU 72	2.32	-3860	-1379	-278.15	9191	1.4	6781	2848				2.07	Si
SLU 72	4.22	-2528	-1377	1904.73	0	0	5556	0				0	No, $V_u < V$
SLU 66	2.32	-3865	-1375	-277.66	9204	1.4	6783	2849				2.07	Si
SLU 66	4.22	-2524	-1375	1905.75	0	0	5556	0				0	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	2.32	-3160	-1760	-588.4	7524	1.4	9838	4132				2.35	Si
SLV 5	4.22	-2479	-1514	2022.86	0	0	8333	0				0	No, $V_u < V$
SLV 8	2.32	-2929	-1633	-397.1	6974	1.4	9728	4086				2.5	Si
SLV 8	4.22	-2544	-1657	1823.29	0	0	8333	0				0	No, $V_u < V$
SLV 6	2.32	-3160	-1760	-588.4	7524	1.4	9838	4132				2.35	Si
SLV 6	4.22	-2479	-1514	2022.86	0	0	8333	0				0	No, $V_u < V$
SLV 9	2.32	-3683	-820	-25.71	8770	1.4	10087	4237				5.17	Si
SLV 9	4.22	-2330	-797	1528.06	58509	0.1328	16250	647				0.81	No, $V_u < V$
SLV 4	2.32	-2399	-2775	-1120.53	11443	0.6988	10622	2227				0.8	No, $V_u < V$
SLV 4	4.22	-2694	-2443	2470.4	0	0	8333	0				0	No, $V_u < V$
SLV 2	2.32	-2468	-2813	-1177.92	12310	0.6684	10795	2165				0.77	No, $V_u < V$
SLV 2	4.22	-2675	-2401	2530.27	0	0	8333	0				0	No, $V_u < V$



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	2.32	-2399	-2775	-1120.53		11443	0.6988	10622	2227			0.8	No, Vu<V
SLV 3	4.22	-2694	-2443	2470.4		0	0	8333	0			0	No, Vu<V
SLV 7	2.32	-2929	-1633	-397.1		6974	1.4	9728	4086			2.5	Si
SLV 7	4.22	-2544	-1657	1823.29		0	0	8333	0			0	No, Vu<V
SLV 10	2.32	-3683	-820	-25.71		8770	1.4	10087	4237			5.17	Si
SLV 10	4.22	-2330	-797	1528.06		58509	0.1328	16250	647			0.81	No, Vu<V
SLV 1	2.32	-2468	-2813	-1177.92		12310	0.6684	10795	2165			0.77	No, Vu<V
SLV 1	4.22	-2675	-2401	2530.27		0	0	8333	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 3	143750	0.48	6507	-2733	211.61	388.11	1.83	Si
SLV 4	143750	0.48	6507	-2733	211.61	388.11	1.83	Si
SLV 1	143750	0.48	6633	-2786	211.61	395.19	1.87	Si
SLV 2	143750	0.48	6633	-2786	211.61	395.19	1.87	Si
SLV 8	143750	0.48	6794	-2853	211.61	404.22	1.91	Si
SLV 7	143750	0.48	6794	-2853	211.61	404.22	1.91	Si
SLV 11	143750	0.48	7166	-3010	211.61	424.96	2.01	Si
SLV 12	143750	0.48	7166	-3010	211.61	424.96	2.01	Si
SLV 6	143750	0.48	7213	-3030	211.61	427.61	2.02	Si
SLV 5	143750	0.48	7213	-3030	211.61	427.61	2.02	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.2 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 3	-633	-4181	150	0	320.1	0.904	0	19.50315	No
SLV 8	-1009	-3863	179	0	350.1	0.892	0	8.12787	No
SLV 10	-881	-4511	-176	0	339.5	0.894	0	8.12787	No
SLV 4	-633	-4181	150	0	320.1	0.904	0	19.50315	No
SLV 7	-1009	-3863	179	0	350.1	0.892	0	8.12787	No
SLV 9	-881	-4511	-176	0	339.5	0.894	0	8.12787	No
SLV 14	-1257	-4193	-146	0.006	371.6	0.889	0.10581	19.50315	No
SLV 13	-1257	-4193	-146	0.006	371.6	0.889	0.10581	19.50315	No
SLV 6	-662	-4570	-113	0.013	322.3	0.902	0.20789	8.12787	No
SLV 5	-662	-4570	-113	0.013	322.3	0.902	0.20789	8.12787	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	1.834	SLV 3	Si
R_SLV	0	SLV 3	No

## Maschio 18

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-31.708	-3.274	-29.878	-3.274	L2	L3	1.83	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 83	2.32	-15749	-359.8	28687	9335.53	25.947	Si
SLU 83	4.22	-11510	-2091.13	20966	7821.21	3.74	Si
SLU 81	2.32	-15749	-359.8	28687	9335.53	25.947	Si
SLU 81	4.22	-11510	-2091.13	20966	7821.21	3.74	Si
SLU 41	2.32	-14407	-373	26242	8935.62	23.956	Si
SLU 41	4.22	-10948	-2051	19942	7565.07	3.688	Si
SLU 40	2.32	-14406	-374.15	26241	8935.38	23.882	Si
SLU 40	4.22	-10947	-2049.52	19939	7564.49	3.691	Si
SLU 82	2.32	-15748	-360.95	28685	9335.33	25.863	Si
SLU 82	4.22	-11509	-2089.65	20964	7820.66	3.743	Si
SLU 39	2.32	-14407	-373	26242	8935.62	23.956	Si
SLU 39	4.22	-10948	-2051	19942	7565.07	3.688	Si
SLU 42	2.32	-14406	-374.15	26241	8935.38	23.882	Si
SLU 42	4.22	-10947	-2049.52	19939	7564.49	3.691	Si
SLU 20	2.32	-12658	-301.37	23056	8303.68	27.553	Si
SLU 20	4.22	-9360	-1721.25	17049	6771.81	3.934	Si
SLU 18	2.32	-12658	-301.37	23056	8303.68	27.553	Si
SLU 18	4.22	-9360	-1721.25	17049	6771.81	3.934	Si
SLU 84	2.32	-15748	-360.95	28685	9335.33	25.863	Si
SLU 84	4.22	-11509	-2089.65	20964	7820.66	3.743	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
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Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 13	2.32	-7540	1075.17	13734	6123.69	5.696	Si
SLV 13	4.22	-5561	-1995.39	10130	4666.62	2.339	Si
SLV 12	2.32	-7659	271.99	13950	6207.7	22.823	Si
SLV 12	4.22	-5272	-1340.85	9603	4444.8	3.315	Si
SLV 3	2.32	-8879	-1297.21	16172	7048.7	5.434	Si
SLV 3	4.22	-4993	301.48	9096	4228.89	14.027	Si
SLV 4	2.32	-8879	-1297.21	16172	7048.7	5.434	Si
SLV 4	4.22	-4993	301.48	9096	4228.89	14.027	Si
SLV 10	2.32	-8301	222.16	15120	6655.24	29.957	Si
SLV 10	4.22	-5438	-1066.8	9905	4572.37	4.286	Si
SLV 9	2.32	-8301	222.16	15120	6655.24	29.957	Si
SLV 9	4.22	-5438	-1066.8	9905	4572.37	4.286	Si
SLV 11	2.32	-7659	271.99	13950	6207.7	22.823	Si
SLV 11	4.22	-5272	-1340.85	9603	4444.8	3.315	Si
SLV 16	2.32	-7348	1090.11	13384	5986.61	5.492	Si
SLV 16	4.22	-5511	-2077.61	10039	4628.6	2.228	Si
SLV 14	2.32	-7540	1075.17	13734	6123.69	5.696	Si
SLV 14	4.22	-5561	-1995.39	10130	4666.62	2.339	Si
SLV 15	2.32	-7348	1090.11	13384	5986.61	5.492	Si
SLV 15	4.22	-5511	-2077.61	10039	4628.6	2.228	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	2.32	-15748	-153	-360.95	28685	1.83	9380	5150				33.58	Si
SLU 82	4.22	-11509	744	-2089.65	20964	1.83	8351	4585				6.16	Si
SLU 81	2.32	-15749	-152	-359.8	28687	1.83	9380	5150				33.99	Si
SLU 81	4.22	-11510	746	-2091.13	20966	1.83	8351	4585				6.15	Si
SLU 41	2.32	-14407	-65	-373	26242	1.83	9055	4971				76.11	Si
SLU 41	4.22	-10948	749	-2051	19942	1.83	8214	4510				6.02	Si
SLU 20	2.32	-12658	-93	-301.37	23056	1.83	8630	4738				51.19	Si
SLU 20	4.22	-9360	617	-1721.25	17049	1.83	7829	4298				6.96	Si
SLU 18	2.32	-12658	-93	-301.37	23056	1.83	8630	4738				51.19	Si
SLU 18	4.22	-9360	617	-1721.25	17049	1.83	7829	4298				6.96	Si
SLU 39	2.32	-14407	-65	-373	26242	1.83	9055	4971				76.11	Si
SLU 39	4.22	-10948	749	-2051	19942	1.83	8214	4510				6.02	Si
SLU 40	2.32	-14406	-67	-374.15	26241	1.83	9054	4971				74.04	Si
SLU 40	4.22	-10947	748	-2049.52	19939	1.83	8214	4510				6.03	Si
SLU 83	2.32	-15749	-152	-359.8	28687	1.83	9380	5150				33.99	Si
SLU 83	4.22	-11510	746	-2091.13	20966	1.83	8351	4585				6.15	Si
SLU 42	2.32	-14406	-67	-374.15	26241	1.83	9054	4971				74.04	Si
SLU 42	4.22	-10947	748	-2049.52	19939	1.83	8214	4510				6.03	Si
SLU 84	2.32	-15748	-153	-360.95	28685	1.83	9380	5150				33.58	Si
SLU 84	4.22	-11509	744	-2089.65	20964	1.83	8351	4585				6.16	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	2.32	-8879	-2436	-1297.21	16172	1.83	11568	6351				2.61	Si
SLV 3	4.22	-4993	-909	301.48	9096	1.83	10152	5574				6.13	Si
SLV 16	2.32	-7348	2207	1090.11	13384	1.83	11010	6045				2.74	Si
SLV 16	4.22	-5511	1459	-2077.61	11382	1.6141	10610	5138				3.52	Si
SLV 4	2.32	-8879	-2436	-1297.21	16172	1.83	11568	6351				2.61	Si
SLV 4	4.22	-4993	-909	301.48	9096	1.83	10152	5574				6.13	Si
SLV 1	2.32	-9071	-2639	-1312.16	16523	1.83	11638	6389				2.42	Si
SLV 1	4.22	-5043	-914	383.69	9186	1.83	10171	5584				6.11	Si
SLV 2	2.32	-9071	-2639	-1312.16	16523	1.83	11638	6389				2.42	Si
SLV 2	4.22	-5043	-914	383.69	9186	1.83	10171	5584				6.11	Si
SLV 13	2.32	-7540	2005	1075.17	13734	1.83	11080	6083				3.03	Si
SLV 13	4.22	-5561	1455	-1995.39	11110	1.6686	10555	5284				3.63	Si
SLV 14	2.32	-7540	2005	1075.17	13734	1.83	11080	6083				3.03	Si
SLV 14	4.22	-5561	1455	-1995.39	11110	1.6686	10555	5284				3.63	Si
SLV 6	2.32	-8760	-1250	-494.03	15956	1.83	11525	6327				5.06	Si
SLV 6	4.22	-5283	-90	-353.07	9622	1.83	10258	5632				62.51	Si
SLV 15	2.32	-7348	2207	1090.11	13384	1.83	11010	6045				2.74	Si
SLV 15	4.22	-5511	1459	-2077.61	11382	1.6141	10610	5138				3.52	Si
SLV 5	2.32	-8760	-1250	-494.03	15956	1.83	11525	6327				5.06	Si
SLV 5	4.22	-5283	-90	-353.07	9622	1.83	10258	5632				62.51	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2  $W_a$  0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 15	143750	0.48	11548	-6340	276.6	861.13	3.11	Si
SLV 16	143750	0.48	11548	-6340	276.6	861.13	3.11	Si
SLV 14	143750	0.48	11865	-6514	276.6	882.18	3.19	Si
SLV 13	143750	0.48	11865	-6514	276.6	882.18	3.19	Si
SLV 12	143750	0.48	12142	-6666	276.6	900.54	3.26	Si
SLV 11	143750	0.48	12142	-6666	276.6	900.54	3.26	Si
SLV 7	143750	0.48	12967	-7119	276.6	954.51	3.45	Si
SLV 8	143750	0.48	12967	-7119	276.6	954.51	3.45	Si
SLV 10	143750	0.48	13196	-7245	276.6	969.32	3.5	Si
SLV 9	143750	0.48	13196	-7245	276.6	969.32	3.5	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.2  $W_a = 0.05$   $T_a = 0.0787$

Comb.	N top	N base	V orto	$\sigma_0$	M*	e*	a0*	aLim	Verifica
SLV 16	-3136	-8587	138	0.027	625.4	0.895	0.44039	19.50315	No
SLV 15	-3136	-8587	138	0.027	625.4	0.895	0.44039	19.50315	No
SLV 2	-3148	-7729	-138	0.027	626.6	0.895	0.44106	19.50315	No
SLV 1	-3148	-7729	-138	0.027	626.6	0.895	0.44106	19.50315	No





Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 13	-3143	-8734	135	0.028	626.1	0.895	0.44837	19.50315	No
SLV 14	-3143	-8734	135	0.028	626.1	0.895	0.44837	19.50315	No
SLV 3	-3141	-7582	-135	0.028	625.9	0.895	0.4485	19.50315	No
SLV 4	-3141	-7582	-135	0.028	625.9	0.895	0.4485	19.50315	No
SLV 6	-3155	-8252	-45	0.046	627.2	0.896	0.74195	8.12787	No
SLV 5	-3155	-8252	-45	0.046	627.2	0.896	0.74195	8.12787	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.688	SLU 39	Si
V_SLU	6.021	SLU 39	Si
PF_SLV	2.228	SLV 15	Si
V_SLV	2.422	SLV 1	Si
PFFP_SLV	3.113	SLV 15	Si
R_SLV	0.023	SLV 15	No

## Maschio 19

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-28.478	-3.274	-26.647	-3.274	L2	L3	1.83	0.3	3.76	3.76	3.76			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>k</sub>	f <sub>vk0</sub>	f <sub>medio</sub>	$\tau 0$	f <sub>v0</sub>	$\mu$	$\phi$	f <sub>v,lim</sub>	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 82	2.32	-11886	152.58	21646	7986.81	52.347	Si
SLU 82	4.22	-7371	425.97	13424	5633.9	13.226	Si
SLU 20	2.32	-9453	123.41	17216	6822.88	55.285	Si
SLU 20	4.22	-5962	352.78	10857	4728.63	13.404	Si
SLU 41	2.32	-10597	158.11	19298	7400.15	46.803	Si
SLU 41	4.22	-6889	425.67	12547	5333.82	12.531	Si
SLU 40	2.32	-10595	159.38	19296	7399.54	46.426	Si
SLU 40	4.22	-6888	424.51	12544	5332.65	12.562	Si
SLU 84	2.32	-11886	152.58	21646	7986.81	52.347	Si
SLU 84	4.22	-7371	425.97	13424	5633.9	13.226	Si
SLU 18	2.32	-9453	123.41	17216	6822.88	55.285	Si
SLU 18	4.22	-5962	352.78	10857	4728.63	13.404	Si
SLU 39	2.32	-10597	158.11	19298	7400.15	46.803	Si
SLU 39	4.22	-6889	425.67	12547	5333.82	12.531	Si
SLU 81	2.32	-11887	151.3	21648	7987.35	52.79	Si
SLU 81	4.22	-7373	427.13	13427	5635.02	13.193	Si
SLU 83	2.32	-11887	151.3	21648	7987.35	52.79	Si
SLU 83	4.22	-7373	427.13	13427	5635.02	13.193	Si
SLU 42	2.32	-10595	159.38	19296	7399.54	46.426	Si
SLU 42	4.22	-6888	424.51	12544	5332.65	12.562	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 13	2.32	-8132	1158.68	14810	6540	5.644	Si
SLV 13	4.22	-3539	-1014.42	6446	3068.27	3.025	Si
SLV 1	2.32	-5745	-1017.02	10462	4807.3	4.727	Si
SLV 1	4.22	-3648	1284.82	6645	3157.38	2.457	Si
SLV 3	2.32	-5274	-1062.34	9605	4447.29	4.186	Si
SLV 3	4.22	-3649	1338.25	6646	3157.96	2.36	Si
SLV 4	2.32	-5274	-1062.34	9605	4447.29	4.186	Si
SLV 4	4.22	-3649	1338.25	6646	3157.96	2.36	Si
SLV 14	2.32	-8132	1158.68	14810	6540	5.644	Si
SLV 14	4.22	-3539	-1014.42	6446	3068.27	3.025	Si
SLV 2	2.32	-5745	-1017.02	10462	4807.3	4.727	Si
SLV 2	4.22	-3648	1284.82	6645	3157.38	2.457	Si
SLV 8	2.32	-5561	-353.71	10127	4667.01	13.194	Si
SLV 8	4.22	-3612	595.86	6578	3127.48	5.249	Si
SLV 16	2.32	-7661	1113.36	13952	6210.65	5.578	Si
SLV 16	4.22	-3540	-960.98	6447	3068.85	3.193	Si
SLV 15	2.32	-7661	1113.36	13952	6210.65	5.578	Si
SLV 15	4.22	-3540	-960.98	6447	3068.85	3.193	Si
SLV 7	2.32	-5561	-353.71	10127	4667.01	13.194	Si
SLV 7	4.22	-3612	595.86	6578	3127.48	5.249	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\alpha 0$	$\alpha N$	I'	f <sub>vd</sub>	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLU 83	2.32	-11887	1302	151.3		21648	1.8303	8442	4635			3.56	Si
SLU 83	4.22	-7373	-41	427.13		13427	1.8303	7346	4034			98.81	Si
SLU 40	2.32	-10595	1191	159.38		19296	1.8303	8128	4463			3.75	Si
SLU 40	4.22	-6888	-81	424.51		12544	1.8303	7228	3969			49.22	Si
SLU 76	2.32	-10731	1156	121.49		19543	1.8303	8161	4481			3.88	Si
SLU 76	4.22	-6382	13	345.81		11624	1.8303	7105	3902			304.28	Si
SLU 73	2.32	-10731	1156	121.49		19543	1.8303	8161	4481			3.88	Si
SLU 73	4.22	-6382	13	345.81		11624	1.8303	7105	3902			304.28	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	2.32	-11887	1302	151.3		21648	1.8303	8442	4635			3.56	Si
SLU 81	4.22	-7373	-41	427.13		13427	1.8303	7346	4034			98.81	Si
SLU 82	2.32	-11886	1303	152.58		21646	1.8303	8442	4635			3.56	Si
SLU 82	4.22	-7371	-39	425.97		13424	1.8303	7345	4033			102.56	Si
SLU 39	2.32	-10597	1189	158.11		19298	1.8303	8129	4463			3.75	Si
SLU 39	4.22	-6889	-82	425.67		12547	1.8303	7228	3969			48.33	Si
SLU 84	2.32	-11886	1303	152.58		21646	1.8303	8442	4635			3.56	Si
SLU 84	4.22	-7371	-39	425.97		13424	1.8303	7345	4033			102.56	Si
SLU 42	2.32	-10595	1191	159.38		19296	1.8303	8128	4463			3.75	Si
SLU 42	4.22	-6888	-81	424.51		12544	1.8303	7228	3969			49.22	Si
SLU 41	2.32	-10597	1189	158.11		19298	1.8303	8129	4463			3.75	Si
SLU 41	4.22	-6889	-82	425.67		12547	1.8303	7228	3969			48.33	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	2.32	-5745	-1645	-1017.02		10462	1.8303	10426	5725			3.48	Si
SLV 1	4.22	-3648	-806	1284.82		7200	1.689	9773	4952			6.15	Si
SLV 3	2.32	-5274	-1787	-1062.34		9605	1.8303	10254	5631			3.15	Si
SLV 3	4.22	-3649	-986	1338.25		7393	1.6453	9812	4843			4.91	Si
SLV 9	2.32	-7846	1645	450.05		14288	1.8303	11191	6145			3.73	Si
SLV 9	4.22	-3577	662	-272.03		6514	1.8303	9636	5291			8	Si
SLV 4	2.32	-5274	-1787	-1062.34		9605	1.8303	10254	5631			3.15	Si
SLV 4	4.22	-3649	-986	1338.25		7393	1.6453	9812	4843			4.91	Si
SLV 15	2.32	-7661	3019	1113.36		13952	1.8303	11124	6108			2.02	Si
SLV 15	4.22	-3540	947	-960.98		6447	1.8303	9623	5284			5.58	Si
SLV 13	2.32	-8132	3161	1158.68		14810	1.8303	11295	6202			1.96	Si
SLV 13	4.22	-3539	1128	-1014.42		6446	1.8303	9623	5284			4.69	Si
SLV 14	2.32	-8132	3161	1158.68		14810	1.8303	11295	6202			1.96	Si
SLV 14	4.22	-3539	1128	-1014.42		6446	1.8303	9623	5284			4.69	Si
SLV 2	2.32	-5745	-1645	-1017.02		10462	1.8303	10426	5725			3.48	Si
SLV 2	4.22	-3648	-806	1284.82		7200	1.689	9773	4952			6.15	Si
SLV 16	2.32	-7661	3019	1113.36		13952	1.8303	11124	6108			2.02	Si
SLV 16	4.22	-3540	947	-960.98		6447	1.8303	9623	5284			5.58	Si
SLV 10	2.32	-7846	1645	450.05		14288	1.8303	11191	6145			3.73	Si
SLV 10	4.22	-3577	662	-272.03		6514	1.8303	9636	5291			8	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.48	8066	-4429	276.65	620.47	2.24	Si
SLV 3	143750	0.48	8066	-4429	276.65	620.47	2.24	Si
SLV 1	143750	0.48	8363	-4592	276.65	641.67	2.32	Si
SLV 2	143750	0.48	8363	-4592	276.65	641.67	2.32	Si
SLV 8	143750	0.48	9095	-4994	276.65	693.34	2.51	Si
SLV 7	143750	0.48	9095	-4994	276.65	693.34	2.51	Si
SLV 5	143750	0.48	10086	-5538	276.65	762.17	2.75	Si
SLV 6	143750	0.48	10086	-5538	276.65	762.17	2.75	Si
SLV 11	143750	0.48	10275	-5642	276.65	775.1	2.8	Si
SLV 12	143750	0.48	10275	-5642	276.65	775.1	2.8	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 3.2 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 15	-1819	-6370	76	0.039	501.6	0.889	0.64459	19.50315	No
SLV 16	-1819	-6370	76	0.039	501.6	0.889	0.64459	19.50315	No
SLV 2	-1785	-7198	-76	0.039	498.5	0.889	0.64461	19.50315	No
SLV 1	-1785	-7198	-76	0.039	498.5	0.889	0.64461	19.50315	No
SLV 14	-1844	-7006	42	0.048	503.8	0.889	0.79256	19.50315	No
SLV 13	-1844	-7006	42	0.048	503.8	0.889	0.79256	19.50315	No
SLV 3	-1760	-6562	-42	0.049	496.3	0.889	0.79587	19.50315	No
SLV 4	-1760	-6562	-42	0.049	496.3	0.889	0.79587	19.50315	No
SLV 11	-1770	-5696	74	0.04	497.1	0.889	0.65477	8.12787	No
SLV 12	-1770	-5696	74	0.04	497.1	0.889	0.65477	8.12787	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	12.531	SLU 39	Si
V_SLU	3.556	SLU 82	Si
PF_SLV	2.36	SLV 3	Si
V_SLV	1.962	SLV 13	Si
PFFP_SLV	2.243	SLV 3	Si
R_SLV	0.033	SLV 15	No

## Maschio 20

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-25.647	-3.274	-24.423	-3.274	L2	L3	1.225	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	f <sub>v0</sub>	$\mu$	$\phi$	f <sub>v,lim</sub>	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 57	2.32	-2870	335.36	7812	1588.93	4.738	Si
SLU 57	4.22	-1772	-1411.07	0	0	0	No, $e \geq l/2$
SLU 56	2.32	-2877	335.24	7830	1592.29	4.75	Si
SLU 56	4.22	-1767	-1411.88	0	0	0	No, $e \geq l/2$
SLU 59	2.32	-2870	335.36	7812	1588.93	4.738	Si
SLU 59	4.22	-1772	-1411.07	0	0	0	No, $e \geq l/2$
SLU 53	2.32	-2877	335.24	7830	1592.29	4.75	Si
SLU 53	4.22	-1767	-1411.88	0	0	0	No, $e \geq l/2$
SLU 60	2.32	-3168	352.3	8624	1734.76	4.924	Si
SLU 60	4.22	-2230	-1601.93	0	0	0	No, $e \geq l/2$
SLU 58	2.32	-2877	335.24	7830	1592.29	4.75	Si
SLU 58	4.22	-1767	-1411.88	0	0	0	No, $e \geq l/2$
SLU 55	2.32	-2866	335.44	7799	1586.69	4.73	Si
SLU 55	4.22	-1775	-1410.52	0	0	0	No, $e \geq l/2$
SLU 61	2.32	-3162	352.43	8605	1731.48	4.913	Si
SLU 61	4.22	-2234	-1601.11	0	0	0	No, $e \geq l/2$
SLU 54	2.32	-2870	335.36	7812	1588.93	4.738	Si
SLU 54	4.22	-1772	-1411.07	0	0	0	No, $e \geq l/2$
SLU 1	2.32	-1765	231.91	4804	1017.11	4.386	Si
SLU 1	4.22	-643	-793.4	0	0	0	No, $e \geq l/2$

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 13	2.32	-1339	952.65	0	0	0	No, $e \geq l/2$
SLV 13	4.22	-1323	-1664.94	0	0	0	No, $e \geq l/2$
SLV 9	2.32	-1965	560.93	5348	1150.48	2.051	Si
SLV 9	4.22	-1186	-1320.14	0	0	0	No, $e \geq l/2$
SLV 6	2.32	-2413	158.38	6568	1398.17	8.828	Si
SLV 6	4.22	-1044	-932.38	0	0	0	No, $e \geq l/2$
SLV 7	2.32	-2118	-64.23	5764	1235.56	19.237	Si
SLV 7	4.22	-960	-624.97	0	0	0	No, $e \geq l/2$
SLV 10	2.32	-1965	560.93	5348	1150.48	2.051	Si
SLV 10	4.22	-1186	-1320.14	0	0	0	No, $e \geq l/2$
SLV 8	2.32	-2118	-64.23	5764	1235.56	19.237	Si
SLV 8	4.22	-960	-624.97	0	0	0	No, $e \geq l/2$
SLV 5	2.32	-2413	158.38	6568	1398.17	8.828	Si
SLV 5	4.22	-1044	-932.38	0	0	0	No, $e \geq l/2$
SLV 12	2.32	-1669	338.32	4544	984.26	2.909	Si
SLV 12	4.22	-1102	-1012.74	0	0	0	No, $e \geq l/2$
SLV 11	2.32	-1669	338.32	4544	984.26	2.909	Si
SLV 11	4.22	-1102	-1012.74	0	0	0	No, $e \geq l/2$
SLV 14	2.32	-1339	952.65	0	0	0	No, $e \geq l/2$
SLV 14	4.22	-1323	-1664.94	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 58	2.32	-2877	1114	335.24		7830	1.2247	6600	2425			2.18	Si
SLU 58	4.22	-1767	1115	-1411.88		0	0	5556	0			0	No, $V_u < V$
SLU 60	2.32	-3168	1278	352.3		8624	1.2247	6705	2464			1.93	Si
SLU 60	4.22	-2230	1279	-1601.93		0	0	5556	0			0	No, $V_u < V$
SLU 59	2.32	-2870	1119	335.36		7812	1.2247	6597	2424			2.17	Si
SLU 59	4.22	-1772	1117	-1411.07		0	0	5556	0			0	No, $V_u < V$
SLU 61	2.32	-3162	1283	352.43		8605	1.2247	6703	2463			1.92	Si
SLU 61	4.22	-2234	1281	-1601.11		0	0	5556	0			0	No, $V_u < V$
SLU 55	2.32	-2866	1121	335.44		7799	1.2247	6595	2423			2.16	Si
SLU 55	4.22	-1775	1119	-1410.52		0	0	5556	0			0	No, $V_u < V$
SLU 57	2.32	-2870	1119	335.36		7812	1.2247	6597	2424			2.17	Si
SLU 57	4.22	-1772	1117	-1411.07		0	0	5556	0			0	No, $V_u < V$
SLU 54	2.32	-2870	1119	335.36		7812	1.2247	6597	2424			2.17	Si
SLU 54	4.22	-1772	1117	-1411.07		0	0	5556	0			0	No, $V_u < V$
SLU 53	2.32	-2877	1114	335.24		7830	1.2247	6600	2425			2.18	Si
SLU 53	4.22	-1767	1115	-1411.88		0	0	5556	0			0	No, $V_u < V$
SLU 56	2.32	-2877	1114	335.24		7830	1.2247	6600	2425			2.18	Si
SLU 56	4.22	-1767	1115	-1411.88		0	0	5556	0			0	No, $V_u < V$
SLU 1	2.32	-1765	603	231.91		4804	1.2247	6196	2276			3.78	Si
SLU 1	4.22	-643	603	-793.4		0	0	5556	0			0	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	2.32	-2118	314	-64.23		5764	1.2247	9486	3485			11.09	Si
SLV 8	4.22	-960	425	-624.97		0	0	8333	0			0	No, $V_u < V$
SLV 10	2.32	-1965	1197	560.93		6679	0.9806	9669	2844			2.38	Si
SLV 10	4.22	-1186	1087	-1320.14		0	0	8333	0			0	No, $V_u < V$
SLV 14	2.32	-1339	1999	952.65		0	0	8333	0			0	No, $V_u < V$
SLV 14	4.22	-1323	1792	-1664.94		0	0	8333	0			0	No, $V_u < V$
SLV 6	2.32	-2413	465	158.38		6568	1.2247	9647	3544			7.62	Si
SLV 6	4.22	-1044	469	-932.38		0	0	8333	0			0	No, $V_u < V$
SLV 5	2.32	-2413	465	158.38		6568	1.2247	9647	3544			7.62	Si
SLV 5	4.22	-1044	469	-932.38		0	0	8333	0			0	No, $V_u < V$
SLV 12	2.32	-1669	1046	338.32		4544	1.2247	9242	3396			3.25	Si
SLV 12	4.22	-1102	1042	-1012.74		0	0	8333	0			0	No, $V_u < V$
SLV 11	2.32	-1669	1046	338.32		4544	1.2247	9242	3396			3.25	Si
SLV 11	4.22	-1102	1042	-1012.74		0	0	8333	0			0	No, $V_u < V$
SLV 7	2.32	-2118	314	-64.23		5764	1.2247	9486	3485			11.09	Si
SLV 7	4.22	-960	425	-624.97		0	0	8333	0			0	No, $V_u < V$
SLV 13	2.32	-1339	1999	952.65		0	0	8333	0			0	No, $V_u < V$
SLV 13	4.22	-1323	1792	-1664.94		0	0	8333	0			0	No, $V_u < V$



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	2.32	-1965	1197	560.93		6679	0.9806	9669	2844			2.38	Si
SLV 9	4.22	-1186	1087	-1320.14		0	0	8333	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 16	143750	0.48	3844	-1412	185.11	205.19	1.11	Si
SLV 15	143750	0.48	3844	-1412	185.11	205.19	1.11	Si
SLV 13	143750	0.48	4040	-1484	185.11	215.28	1.16	Si
SLV 14	143750	0.48	4040	-1484	185.11	215.28	1.16	Si
SLV 12	143750	0.48	4069	-1495	185.11	216.76	1.17	Si
SLV 11	143750	0.48	4069	-1495	185.11	216.76	1.17	Si
SLV 7	143750	0.48	4457	-1637	185.11	236.66	1.28	Si
SLV 8	143750	0.48	4457	-1637	185.11	236.66	1.28	Si
SLV 9	143750	0.48	4721	-1735	185.11	250.12	1.35	Si
SLV 10	143750	0.48	4721	-1735	185.11	250.12	1.35	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.2 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 5	229	-3353	100	0	0	0	0	8.12787	No, Trazione
SLV 10	435	-3419	-232	0	0	0	0	8.12787	No, Trazione
SLV 3	-235	-2740	575	0	260.1	0.937	0	19.50315	No
SLV 1	-132	-2988	534	0	255.8	0.959	0	19.50315	No
SLV 2	-132	-2988	534	0	255.8	0.959	0	19.50315	No
SLV 4	-235	-2740	575	0	260.1	0.937	0	19.50315	No
SLV 6	229	-3353	100	0	0	0	0	8.12787	No, Trazione
SLV 7	-116	-2528	235	0	255.3	0.962	0	8.12787	No
SLV 9	435	-3419	-232	0	0	0	0	8.12787	No, Trazione
SLV 8	-116	-2528	235	0	255.3	0.962	0	8.12787	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 5	No
V_SLV	0	SLV 5	No
PFFP_SLV	1.108	SLV 15	Si
R_SLV	0	SLV 16	No

## Maschio 21

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-34.108	5.726	-32.168	5.726	L2	L3	1.94	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 2	1.32	-5048	-1131.82	8674	4375.43	3.866	Si
SLU 2	4.22	-2353	2007.3	4043	2169.33	1.081	Si
SLU 44	1.32	-6187	-1405.37	10631	5218.37	3.713	Si
SLU 44	4.22	-2565	2363.69	4406	2353.06	0.996	No, M>Mu
SLU 46	1.32	-6170	-1385.77	10601	5205.73	3.757	Si
SLU 46	4.22	-2553	2349.7	4386	2342.94	0.997	No, M>Mu
SLU 48	1.32	-6143	-1356.37	10555	5186.73	3.824	Si
SLU 48	4.22	-2535	2328.71	4356	2327.74	1	No, M>Mu
SLU 43	1.32	-6143	-1356.37	10555	5186.73	3.824	Si
SLU 43	4.22	-2535	2328.71	4356	2327.74	1	No, M>Mu
SLU 51	1.32	-6170	-1385.77	10601	5205.73	3.757	Si
SLU 51	4.22	-2553	2349.7	4386	2342.94	0.997	No, M>Mu
SLU 49	1.32	-6170	-1385.77	10601	5205.73	3.757	Si
SLU 49	4.22	-2553	2349.7	4386	2342.94	0.997	No, M>Mu
SLU 45	1.32	-6143	-1356.37	10555	5186.73	3.824	Si
SLU 45	4.22	-2535	2328.71	4356	2327.74	1	No, M>Mu
SLU 47	1.32	-6187	-1405.37	10631	5218.37	3.713	Si
SLU 47	4.22	-2565	2363.69	4406	2353.06	0.996	No, M>Mu
SLU 50	1.32	-6143	-1356.37	10555	5186.73	3.824	Si
SLU 50	4.22	-2535	2328.71	4356	2327.74	1	No, M>Mu

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 8	1.32	-6251	-2110.37	10741	5530.56	2.621	Si
SLV 8	4.22	-3929	3245.9	6751	3600.8	1.109	Si
SLV 1	1.32	-4839	-2905.64	8314	4374.2	1.505	Si
SLV 1	4.22	-4160	3933.83	7147	3798.82	0.966	No, M>Mu
SLV 3	1.32	-5153	-3117.13	8854	4636.38	1.487	Si
SLV 3	4.22	-4189	4047.22	7197	3823.62	0.945	No, M>Mu



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 4	1.32	-5153	-3117.13	8854	4636.38	1.487	Si
SLV 4	4.22	-4189	4047.22	7197	3823.62	0.945	No, M>Mu
SLV 2	1.32	-4839	-2905.64	8314	4374.2	1.505	Si
SLV 2	4.22	-4160	3933.83	7147	3798.82	0.966	No, M>Mu
SLV 7	1.32	-6251	-2110.37	10741	5530.56	2.621	Si
SLV 7	4.22	-3929	3245.9	6751	3600.8	1.109	Si
SLV 5	1.32	-5203	-1405.4	8940	4677.54	3.328	Si
SLV 5	4.22	-3833	2867.95	6585	3517.38	1.226	Si
SLV 6	1.32	-5203	-1405.4	8940	4677.54	3.328	Si
SLV 6	4.22	-3833	2867.95	6585	3517.38	1.226	Si
SLV 12	1.32	-6878	-1035.94	11817	6026.14	5.817	Si
SLV 12	4.22	-3678	2445.67	6320	3383.19	1.383	Si
SLV 11	1.32	-6878	-1035.94	11817	6026.14	5.817	Si
SLV 11	4.22	-3678	2445.67	6320	3383.19	1.383	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 44	1.32	-6187	-1438	-1405.37	10631	1.94	6973	4058				2.82	Si
SLU 44	4.22	-2565	-1385	2363.69	58962	0.145	10833	471				0.34	No, Vu<V
SLU 46	1.32	-6170	-1419	-1385.77	10601	1.94	6969	4056				2.86	Si
SLU 46	4.22	-2553	-1388	2349.7	57207	0.1488	10833	483				0.35	No, Vu<V
SLU 50	1.32	-6143	-1390	-1356.37	10555	1.94	6963	4052				2.91	Si
SLU 50	4.22	-2535	-1391	2328.71	54712	0.1545	10833	502				0.36	No, Vu<V
SLU 51	1.32	-6170	-1419	-1385.77	10601	1.94	6969	4056				2.86	Si
SLU 51	4.22	-2553	-1388	2349.7	57207	0.1488	10833	483				0.35	No, Vu<V
SLU 43	1.32	-6143	-1390	-1356.37	10555	1.94	6963	4052				2.91	Si
SLU 43	4.22	-2535	-1391	2328.71	54712	0.1545	10833	502				0.36	No, Vu<V
SLU 49	1.32	-6170	-1419	-1385.77	10601	1.94	6969	4056				2.86	Si
SLU 49	4.22	-2553	-1388	2349.7	57207	0.1488	10833	483				0.35	No, Vu<V
SLU 45	1.32	-6143	-1390	-1356.37	10555	1.94	6963	4052				2.91	Si
SLU 45	4.22	-2535	-1391	2328.71	54712	0.1545	10833	502				0.36	No, Vu<V
SLU 48	1.32	-6143	-1390	-1356.37	10555	1.94	6963	4052				2.91	Si
SLU 48	4.22	-2535	-1391	2328.71	54712	0.1545	10833	502				0.36	No, Vu<V
SLU 2	1.32	-5048	-1225	-1131.82	8674	1.94	6712	3906				3.19	Si
SLU 2	4.22	-2353	-1172	2007.3	22347	0.351	8535	899				0.77	No, Vu<V
SLU 47	1.32	-6187	-1438	-1405.37	10631	1.94	6973	4058				2.82	Si
SLU 47	4.22	-2565	-1385	2363.69	58962	0.145	10833	471				0.34	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1.32	-4839	-3498	-2905.64	14550	1.1085	11243	3739				1.07	Si
SLV 1	4.22	-4160	-2940	3933.83	190345	0.0728	16250	355				0.12	No, Vu<V
SLV 2	1.32	-4839	-3498	-2905.64	14550	1.1085	11243	3739				1.07	Si
SLV 2	4.22	-4160	-2940	3933.83	190345	0.0728	16250	355				0.12	No, Vu<V
SLV 5	1.32	-5203	-2161	-1405.4	8940	1.94	10121	5891				2.73	Si
SLV 5	4.22	-3833	-2047	2867.95	19207	0.6652	12175	2429				1.19	Si
SLV 12	1.32	-6878	-1025	-1035.94	11817	1.94	10697	6226				6.07	Si
SLV 12	4.22	-3678	-1140	2445.67	13396	0.9152	11013	3024				2.65	Si
SLV 4	1.32	-5153	-3500	-3117.13	15682	1.0953	11470	3769				1.08	Si
SLV 4	4.22	-4189	-2907	4047.22	1240931	0.0113	16250	55				0.02	No, Vu<V
SLV 6	1.32	-5203	-2161	-1405.4	8940	1.94	10121	5891				2.73	Si
SLV 6	4.22	-3833	-2047	2867.95	19207	0.6652	12175	2429				1.19	Si
SLV 7	1.32	-6251	-2169	-2110.37	10983	1.8972	10530	5993				2.76	Si
SLV 7	4.22	-3929	-1938	3245.9	30335	0.4318	14400	1865				0.96	No, Vu<V
SLV 8	1.32	-6251	-2169	-2110.37	10983	1.8972	10530	5993				2.76	Si
SLV 8	4.22	-3929	-1938	3245.9	30335	0.4318	14400	1865				0.96	No, Vu<V
SLV 11	1.32	-6878	-1025	-1035.94	11817	1.94	10697	6226				6.07	Si
SLV 11	4.22	-3678	-1140	2445.67	13396	0.9152	11013	3024				2.65	Si
SLV 3	1.32	-5153	-3500	-3117.13	15682	1.0953	11470	3769				1.08	Si
SLV 3	4.22	-4189	-2907	4047.22	1240931	0.0113	16250	55				0.02	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 13	143750	0.48	6977	-4060	293.23	574.28	1.96	Si
SLV 14	143750	0.48	6977	-4060	293.23	574.28	1.96	Si
SLV 9	143750	0.48	7011	-4081	293.23	576.96	1.97	Si
SLV 10	143750	0.48	7011	-4081	293.23	576.96	1.97	Si
SLV 15	143750	0.48	7157	-4165	293.23	588.18	2.01	Si
SLV 16	143750	0.48	7157	-4165	293.23	588.18	2.01	Si
SLV 6	143750	0.48	7221	-4203	293.23	593.14	2.02	Si
SLV 5	143750	0.48	7221	-4203	293.23	593.14	2.02	Si
SLV 11	143750	0.48	7611	-4430	293.23	623.08	2.12	Si
SLV 12	143750	0.48	7611	-4430	293.23	623.08	2.12	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 3.2 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 13	-2266	-6927	-339	0	562.5	0.889	0	19.50315	No
SLV 1	-1641	-4839	282	0	506.1	0.89	0	19.50315	No
SLV 2	-1641	-4839	282	0	506.1	0.89	0	19.50315	No
SLV 3	-1549	-5153	334	0	498.1	0.89	0	19.50315	No
SLV 4	-1549	-5153	334	0	498.1	0.89	0	19.50315	No
SLV 14	-2266	-6927	-339	0	562.5	0.889	0	19.50315	No
SLV 16	-2173	-7242	-286	0	554	0.889	0	19.50315	No
SLV 15	-2173	-7242	-286	0	554	0.889	0	19.50315	No
SLV 7	-1660	-6251	179	0.012	507.7	0.89	0.20048	8.12787	No
SLV 8	-1660	-6251	179	0.012	507.7	0.89	0.20048	8.12787	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.996	SLU 44	No
V_SLU	0.34	SLU 44	No
PF_SLV	0.945	SLV 3	No
V_SLV	0.019	SLV 3	No
PFFP_SLV	1.958	SLV 13	Si
R_SLV	0	SLV 1	No

## Maschio 22

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

## Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-30.968	5.726	-30.088	5.726	L2	L3	0.88	0.3	3.76	3.76	3.76			

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$ 

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 60	3.32	-6980	396.39	26440	2074.38	5.233	Si
SLU 60	4.22	-6070	-962.43	22994	1917.03	1.992	Si
SLU 82	3.32	-8002	450.64	30312	2210.81	4.906	Si
SLU 82	4.22	-7039	-1117.17	26662	2083.38	1.865	Si
SLU 39	3.32	-7535	422.93	28543	2153.8	5.093	Si
SLU 39	4.22	-6722	-1075.76	25463	2033.22	1.89	Si
SLU 41	3.32	-7535	422.93	28543	2153.8	5.093	Si
SLU 41	4.22	-6722	-1075.76	25463	2033.22	1.89	Si
SLU 62	3.32	-6980	396.39	26440	2074.38	5.233	Si
SLU 62	4.22	-6070	-962.43	22994	1917.03	1.992	Si
SLU 84	3.32	-8002	450.64	30312	2210.81	4.906	Si
SLU 84	4.22	-7039	-1117.17	26662	2083.38	1.865	Si
SLU 42	3.32	-7524	420.93	28498	2152.22	5.113	Si
SLU 42	4.22	-6711	-1070.34	25419	2031.28	1.898	Si
SLU 40	3.32	-7524	420.93	28498	2152.22	5.113	Si
SLU 40	4.22	-6711	-1070.34	25419	2031.28	1.898	Si
SLU 81	3.32	-8014	452.63	30357	2212.15	4.887	Si
SLU 81	4.22	-7051	-1122.59	26707	2085.17	1.857	Si
SLU 83	3.32	-8014	452.63	30357	2212.15	4.887	Si
SLU 83	4.22	-7051	-1122.59	26707	2085.17	1.857	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$ 

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 12	3.32	-3898	281.74	14766	1507.93	5.352	Si
SLV 12	4.22	-3386	-613	12827	1333.53	2.175	Si
SLV 6	3.32	-3739	158.36	14162	1454.35	9.184	Si
SLV 6	4.22	-3014	-387.39	11418	1202.34	3.104	Si
SLV 5	3.32	-3739	158.36	14162	1454.35	9.184	Si
SLV 5	4.22	-3014	-387.39	11418	1202.34	3.104	Si
SLV 10	3.32	-4029	319.14	15260	1551.24	4.861	Si
SLV 10	4.22	-3537	-711.85	13398	1385.62	1.947	Si
SLV 13	3.32	-4321	493.62	16369	1646.69	3.336	Si
SLV 13	4.22	-4094	-1055.79	15508	1572.74	1.49	Si
SLV 15	3.32	-4282	482.4	16221	1634.05	3.387	Si
SLV 15	4.22	-4049	-1026.13	15336	1557.86	1.518	Si
SLV 16	3.32	-4282	482.4	16221	1634.05	3.387	Si
SLV 16	4.22	-4049	-1026.13	15336	1557.86	1.518	Si
SLV 14	3.32	-4321	493.62	16369	1646.69	3.336	Si
SLV 14	4.22	-4094	-1055.79	15508	1572.74	1.49	Si
SLV 11	3.32	-3898	281.74	14766	1507.93	5.352	Si
SLV 11	4.22	-3386	-613	12827	1333.53	2.175	Si
SLV 9	3.32	-4029	319.14	15260	1551.24	4.861	Si
SLV 9	4.22	-3537	-711.85	13398	1385.62	1.947	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$ 

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	3.32	-8002	1483	450.64		30312	0.88	9597	2534			1.71	Si
SLU 84	4.22	-7039	2010	-1117.17		27804	0.8439	9263	2345			1.17	Si
SLU 40	3.32	-7524	1417	420.93		28498	0.88	9355	2470			1.74	Si
SLU 40	4.22	-6711	1907	-1070.34		26582	0.8415	9100	2297			1.2	Si
SLU 39	3.32	-7535	1424	422.93		28543	0.88	9361	2471			1.74	Si
SLU 39	4.22	-6722	1921	-1075.76		26678	0.8399	9113	2296			1.2	Si
SLU 60	3.32	-6980	1280	396.39		26440	0.88	9081	2397			1.87	Si
SLU 60	4.22	-6070	1750	-962.43		23965	0.8444	8751	2217			1.27	Si
SLU 81	3.32	-8014	1490	452.63		30357	0.88	9603	2535			1.7	Si
SLU 81	4.22	-7051	2023	-1122.59		27901	0.8423	9276	2344			1.16	Si
SLU 41	3.32	-7535	1424	422.93		28543	0.88	9361	2471			1.74	Si
SLU 41	4.22	-6722	1921	-1075.76		26678	0.8399	9113	2296			1.2	Si
SLU 83	3.32	-8014	1490	452.63		30357	0.88	9603	2535			1.7	Si
SLU 83	4.22	-7051	2023	-1122.59		27901	0.8423	9276	2344			1.16	Si
SLU 82	3.32	-8002	1483	450.64		30312	0.88	9597	2534			1.71	Si
SLU 82	4.22	-7039	2010	-1117.17		27804	0.8439	9263	2345			1.17	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 62	3.32	-6980	1280	396.39		26440	0.88	9081	2397			1.87	Si
SLU 62	4.22	-6070	1750	-962.43		23965	0.8444	8751	2217			1.27	Si
SLU 42	3.32	-7524	1417	420.93		28498	0.88	9355	2470			1.74	Si
SLU 42	4.22	-6711	1907	-1070.34		26582	0.8415	9100	2297			1.2	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	3.32	-4282	1801	482.4		16221	0.88	11577	3056			1.7	Si
SLV 16	4.22	-4049	2118	-1026.13		24114	0.5597	13156	2209			1.04	Si
SLV 5	3.32	-3739	427	158.36		14162	0.88	11166	2948			6.9	Si
SLV 5	4.22	-3014	708	-387.39		11418	0.88	10617	2803			3.96	Si
SLV 11	3.32	-3898	913	281.74		14766	0.88	11287	2980			3.26	Si
SLV 11	4.22	-3386	1156	-613		14528	0.7769	11239	2620			2.27	Si
SLV 9	3.32	-4029	1125	319.14		15260	0.88	11385	3006			2.67	Si
SLV 9	4.22	-3537	1446	-711.85		16461	0.7162	11626	2498			1.73	Si
SLV 10	3.32	-4029	1125	319.14		15260	0.88	11385	3006			2.67	Si
SLV 10	4.22	-3537	1446	-711.85		16461	0.7162	11626	2498			1.73	Si
SLV 14	3.32	-4321	1865	493.62		16369	0.88	11607	3064			1.64	Si
SLV 14	4.22	-4094	2205	-1055.79		24978	0.5463	13329	2185			0.99	No, Vu<V
SLV 15	3.32	-4282	1801	482.4		16221	0.88	11577	3056			1.7	Si
SLV 15	4.22	-4049	2118	-1026.13		24114	0.5597	13156	2209			1.04	Si
SLV 6	3.32	-3739	427	158.36		14162	0.88	11166	2948			6.9	Si
SLV 6	4.22	-3014	708	-387.39		11418	0.88	10617	2803			3.96	Si
SLV 12	3.32	-3898	913	281.74		14766	0.88	11287	2980			3.26	Si
SLV 12	4.22	-3386	1156	-613		14528	0.7769	11239	2620			2.27	Si
SLV 13	3.32	-4321	1865	493.62		16369	0.88	11607	3064			1.64	Si
SLV 13	4.22	-4094	2205	-1055.79		24978	0.5463	13329	2185			0.99	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.48	11574	-3055	133.01	414.9	3.12	Si
SLV 3	143750	0.48	11574	-3055	133.01	414.9	3.12	Si
SLV 7	143750	0.48	11614	-3066	133.01	416.19	3.13	Si
SLV 8	143750	0.48	11614	-3066	133.01	416.19	3.13	Si
SLV 1	143750	0.48	11634	-3071	133.01	416.84	3.13	Si
SLV 2	143750	0.48	11634	-3071	133.01	416.84	3.13	Si
SLV 12	143750	0.48	11709	-3091	133.01	419.23	3.15	Si
SLV 11	143750	0.48	11709	-3091	133.01	419.23	3.15	Si
SLV 6	143750	0.48	11815	-3119	133.01	422.64	3.18	Si
SLV 5	143750	0.48	11815	-3119	133.01	422.64	3.18	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 3.2 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 13	-1510	-2058	17	0.048	300.9	0.895	0.77354	19.50315	No
SLV 14	-1510	-2058	17	0.048	300.9	0.895	0.77354	19.50315	No
SLV 3	-1379	-5442	-17	0.048	288.3	0.893	0.78209	19.50315	No
SLV 4	-1379	-5442	-17	0.048	288.3	0.893	0.78209	19.50315	No
SLV 16	-1508	-2167	14	0.049	300.8	0.895	0.79291	19.50315	No
SLV 15	-1508	-2167	14	0.049	300.8	0.895	0.79291	19.50315	No
SLV 1	-1380	-5333	-14	0.049	288.5	0.893	0.80232	19.50315	No
SLV 2	-1380	-5333	-14	0.049	288.5	0.893	0.80232	19.50315	No
SLV 9	-1467	-3077	9	0.051	296.8	0.895	0.82865	8.12787	No
SLV 10	-1467	-3077	9	0.051	296.8	0.895	0.82865	8.12787	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.857	SLU 81	Si
V_SLU	1.158	SLU 81	Si
PF_SLV	1.49	SLV 13	Si
V_SLV	0.991	SLV 13	No
PFFP_SLV	3.119	SLV 3	Si
R_SLV	0.04	SLV 13	No

## Maschio 23

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X inl.	Y inl.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h inl.	h fin.	a	a.s,sx	a.s,dx
-29.588	5.726	-27.338	5.726	L2	L3	2.25	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 84	3.32	-11497	-463.28	17033	10229.69	22.081	Si
SLU 84	4.22	-9071	1019.2	13439	8521.47	8.361	Si
SLU 42	3.32	-10608	-406.39	15715	9631.45	23.7	Si
SLU 42	4.22	-8542	968.57	12655	8116.79	8.38	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 81	3.32	-11497	-480.08	17033	10229.68	21.308	Si
SLU 81	4.22	-9072	1018.4	13439	8521.77	8.368	Si
SLU 63	3.32	-10166	-424.98	15060	9322.05	21.935	Si
SLU 63	4.22	-7890	879.02	11690	7602.94	8.649	Si
SLU 40	3.32	-10608	-406.39	15715	9631.45	23.7	Si
SLU 40	4.22	-8542	968.57	12655	8116.79	8.38	Si
SLU 39	3.32	-10608	-423.19	15715	9631.43	22.759	Si
SLU 39	4.22	-8542	967.77	12655	8117.1	8.387	Si
SLU 82	3.32	-11497	-463.28	17033	10229.69	22.081	Si
SLU 82	4.22	-9071	1019.2	13439	8521.47	8.361	Si
SLU 61	3.32	-10166	-424.98	15060	9322.05	21.935	Si
SLU 61	4.22	-7890	879.02	11690	7602.94	8.649	Si
SLU 41	3.32	-10608	-423.19	15715	9631.43	22.759	Si
SLU 41	4.22	-8542	967.77	12655	8117.1	8.387	Si
SLU 83	3.32	-11497	-480.08	17033	10229.68	21.308	Si
SLU 83	4.22	-9072	1018.4	13439	8521.77	8.368	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 5	3.32	-5919	-610.11	8769	6181.22	10.131	Si
SLV 5	4.22	-4507	791.06	6677	4793.61	6.06	Si
SLV 15	3.32	-5479	487.54	8116	5754.04	11.802	Si
SLV 15	4.22	-3682	-477.92	5455	3957.26	8.28	Si
SLV 3	3.32	-6176	-966.43	9149	6427.43	6.651	Si
SLV 3	4.22	-4905	1390.17	7267	5189.99	3.733	Si
SLV 1	3.32	-6170	-1036.84	9141	6421.91	6.194	Si
SLV 1	4.22	-4919	1415.42	7287	5203.87	3.677	Si
SLV 8	3.32	-5938	-375.38	8798	6199.73	16.516	Si
SLV 8	4.22	-4461	706.87	6608	4746.78	6.715	Si
SLV 6	3.32	-5919	-610.11	8769	6181.22	10.131	Si
SLV 6	4.22	-4507	791.06	6677	4793.61	6.06	Si
SLV 2	3.32	-6170	-1036.84	9141	6421.91	6.194	Si
SLV 2	4.22	-4919	1415.42	7287	5203.87	3.677	Si
SLV 7	3.32	-5938	-375.38	8798	6199.73	16.516	Si
SLV 7	4.22	-4461	706.87	6608	4746.78	6.715	Si
SLV 4	3.32	-6176	-966.43	9149	6427.43	6.651	Si
SLV 4	4.22	-4905	1390.17	7267	5189.99	3.733	Si
SLV 16	3.32	-5479	487.54	8116	5754.04	11.802	Si
SLV 16	4.22	-3682	-477.92	5455	3957.26	8.28	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	3.32	-11497	-156	-480.08		17033	2.25	7827	5283			33.8	Si
SLU 81	4.22	-9072	-1162	1018.4		13439	2.25	7347	4960			4.27	Si
SLU 39	3.32	-10608	-124	-423.19		15715	2.25	7651	5164			41.72	Si
SLU 39	4.22	-8542	-1071	967.77		12655	2.25	7243	4889			4.56	Si
SLU 40	3.32	-10608	-106	-406.39		15715	2.25	7651	5164			48.68	Si
SLU 40	4.22	-8542	-1049	968.57		12655	2.25	7243	4889			4.66	Si
SLU 83	3.32	-11497	-156	-480.08		17033	2.25	7827	5283			33.8	Si
SLU 83	4.22	-9072	-1162	1018.4		13439	2.25	7347	4960			4.27	Si
SLU 42	3.32	-10608	-106	-406.39		15715	2.25	7651	5164			48.68	Si
SLU 42	4.22	-8542	-1049	968.57		12655	2.25	7243	4889			4.66	Si
SLU 84	3.32	-11497	-139	-463.28		17033	2.25	7827	5283			38.12	Si
SLU 84	4.22	-9071	-1139	1019.2		13439	2.25	7347	4959			4.35	Si
SLU 41	3.32	-10608	-124	-423.19		15715	2.25	7651	5164			41.72	Si
SLU 41	4.22	-8542	-1071	967.77		12655	2.25	7243	4889			4.56	Si
SLU 82	3.32	-11497	-139	-463.28		17033	2.25	7827	5283			38.12	Si
SLU 82	4.22	-9071	-1139	1019.2		13439	2.25	7347	4959			4.35	Si
SLU 60	3.32	-10166	-155	-441.78		15060	2.25	7564	5105			32.96	Si
SLU 60	4.22	-7891	-1030	878.22		11690	2.25	7114	4802			4.66	Si
SLU 62	3.32	-10166	-155	-441.78		15060	2.25	7564	5105			32.96	Si
SLU 62	4.22	-7891	-1030	878.22		11690	2.25	7114	4802			4.66	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	3.32	-5479	2400	487.54		8116	2.25	9957	6721			2.8	Si
SLV 15	4.22	-3682	1040	-477.92		5455	2.25	9424	6361			6.12	Si
SLV 16	3.32	-5479	2400	487.54		8116	2.25	9957	6721			2.8	Si
SLV 16	4.22	-3682	1040	-477.92		5455	2.25	9424	6361			6.12	Si
SLV 3	3.32	-6176	-2516	-966.43		9149	2.25	10163	6860			2.73	Si
SLV 3	4.22	-4905	-2165	1390.17		7267	2.25	9787	6606			3.05	Si
SLV 1	3.32	-6170	-2625	-1036.84		9141	2.25	10161	6859			2.61	Si
SLV 1	4.22	-4919	-2215	1415.42		7287	2.25	9791	6609			2.98	Si
SLV 13	3.32	-5473	2291	417.13		8108	2.25	9955	6720			2.93	Si
SLV 13	4.22	-3696	991	-452.66		5475	2.25	9428	6364			6.42	Si
SLV 5	3.32	-5919	-1032	-610.11		8769	2.25	10087	6809			6.6	Si
SLV 5	4.22	-4507	-1150	791.06		6677	2.25	9669	6526			5.68	Si
SLV 2	3.32	-6170	-2625	-1036.84		9141	2.25	10161	6859			2.61	Si
SLV 2	4.22	-4919	-2215	1415.42		7287	2.25	9791	6609			2.98	Si
SLV 14	3.32	-5473	2291	417.13		8108	2.25	9955	6720			2.93	Si
SLV 14	4.22	-3696	991	-452.66		5475	2.25	9428	6364			6.42	Si
SLV 6	3.32	-5919	-1032	-610.11		8769	2.25	10087	6809			6.6	Si
SLV 6	4.22	-4507	-1150	791.06		6677	2.25	9669	6526			5.68	Si
SLV 4	3.32	-6176	-2516	-966.43		9149	2.25	10163	6860			2.73	Si
SLV 4	4.22	-4905	-2165	1390.17		7267	2.25	9787	6606			3.05	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.05 denominatore 8  $\gamma_M = 2$





Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 1	143750	0.48	8353	-5638	340.08	787.93	2.32	Si
SLV 2	143750	0.48	8353	-5638	340.08	787.93	2.32	Si
SLV 6	143750	0.48	8371	-5651	340.08	789.53	2.32	Si
SLV 5	143750	0.48	8371	-5651	340.08	789.53	2.32	Si
SLV 3	143750	0.48	8382	-5658	340.08	790.48	2.32	Si
SLV 4	143750	0.48	8382	-5658	340.08	790.48	2.32	Si
SLV 9	143750	0.48	8416	-5681	340.08	793.46	2.33	Si
SLV 10	143750	0.48	8416	-5681	340.08	793.46	2.33	Si
SLV 8	143750	0.48	8469	-5716	340.08	798.02	2.35	Si
SLV 7	143750	0.48	8469	-5716	340.08	798.02	2.35	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = 3.2  $W_a = 0.05$   $T_a = 0.0787$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 4	-2451	-6670	-30	0.053	636.1	0.889	0.8649	19.50315	No
SLV 3	-2451	-6670	-30	0.053	636.1	0.889	0.8649	19.50315	No
SLV 13	-2408	-8313	29	0.053	632.2	0.889	0.86723	19.50315	No
SLV 14	-2408	-8313	29	0.053	632.2	0.889	0.86723	19.50315	No
SLV 1	-2443	-6614	-26	0.054	635.3	0.889	0.87613	19.50315	No
SLV 2	-2443	-6614	-26	0.054	635.3	0.889	0.87613	19.50315	No
SLV 16	-2416	-8369	26	0.054	632.9	0.889	0.87772	19.50315	No
SLV 15	-2416	-8369	26	0.054	632.9	0.889	0.87772	19.50315	No
SLV 7	-2449	-7330	-14	0.056	635.9	0.889	0.91982	8.12787	No
SLV 8	-2449	-7330	-14	0.056	635.9	0.889	0.91982	8.12787	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	8.361	SLU 82	Si
V_SLU	4.269	SLU 81	Si
PF_SLV	3.677	SLV 1	Si
V_SLV	2.613	SLV 1	Si
PFFP_SLV	2.317	SLV 1	Si
R_SLV	0.044	SLV 3	No

## Maschio 24

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-26.338	5.726	-24.423	5.726	L2	L3	1.915	0.3	3.76	3.76	3.76			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 1	2.32	-3260	87.15	5674	2903.66	33.318	Si
SLU 1	4.22	-1218	-1448.68	0	0	0	No, e>l/2
SLU 45	2.32	-4027	136.44	7009	3523.82	25.827	Si
SLU 45	4.22	-1339	-1761.84	0	0	0	No, e>l/2
SLU 70	2.32	-4666	76.56	8122	4022.46	52.542	Si
SLU 70	4.22	-2062	-2129.21	0	0	0	No, e>l/2
SLU 69	2.32	-4641	68.93	8079	4003.35	58.077	Si
SLU 69	4.22	-2052	-2116.03	0	0	0	No, e>l/2
SLU 44	2.32	-4068	149.15	7081	3556.7	23.847	Si
SLU 44	4.22	-1356	-1783.81	0	0	0	No, e>l/2
SLU 43	2.32	-4027	136.44	7009	3523.82	25.827	Si
SLU 43	4.22	-1339	-1761.84	0	0	0	No, e>l/2
SLU 68	2.32	-4683	81.64	8151	4035.19	49.427	Si
SLU 68	4.22	-2069	-2138	0	0	0	No, e>l/2
SLU 66	2.32	-4641	68.93	8079	4003.35	58.077	Si
SLU 66	4.22	-2052	-2116.03	0	0	0	No, e>l/2
SLU 67	2.32	-4666	76.56	8122	4022.46	52.542	Si
SLU 67	4.22	-2062	-2129.21	0	0	0	No, e>l/2
SLU 71	2.32	-4641	68.93	8079	4003.35	58.077	Si
SLU 71	4.22	-2052	-2116.03	0	0	0	No, e>l/2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 8	2.32	-4283	-236.89	7455	3850.74	16.256	Si
SLV 8	4.22	-1862	-1598.13	3242	1736	1.086	Si
SLV 12	2.32	-3861	490.47	6721	3493.96	7.124	Si
SLV 12	4.22	-1974	-2310.85	0	0	0	No, e>l/2
SLV 13	2.32	-3098	1196.03	5392	2835.02	2.37	Si
SLV 13	4.22	-2135	-2939.08	0	0	0	No, e>l/2
SLV 10	2.32	-3443	270.43	5993	3134.79	11.592	Si
SLV 10	4.22	-2022	-1998.12	0	0	0	No, e>l/2
SLV 11	2.32	-3861	490.47	6721	3493.96	7.124	Si
SLV 11	4.22	-1974	-2310.85	0	0	0	No, e>l/2
SLV 14	2.32	-3098	1196.03	5392	2835.02	2.37	Si
SLV 14	4.22	-2135	-2939.08	0	0	0	No, e>l/2
SLV 16	2.32	-3223	1262.04	5610	2944.45	2.333	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 16	4.22	-2120	-3032.9	0	0	0	No, $e \geq l/2$
SLV 9	2.32	-3443	270.43	5993	3134.79	11.592	Si
SLV 9	4.22	-2022	-1998.12	0	0	0	No, $e \geq l/2$
SLV 7	2.32	-4283	-236.89	7455	3850.74	16.256	Si
SLV 7	4.22	-1862	-1598.13	3242	1736	1.086	Si
SLV 15	2.32	-3223	1262.04	5610	2944.45	2.333	Si
SLV 15	4.22	-2120	-3032.9	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 65	2.32	-4683	1238	81.64		8151	1.915	6642	3816			3.08	Si
SLU 65	4.22	-2069	1191	-2138		0	0	5556	0			0	No, $V_u < V$
SLU 67	2.32	-4666	1227	76.56		8122	1.915	6639	3814			3.11	Si
SLU 67	4.22	-2062	1198	-2129.21		0	0	5556	0			0	No, $V_u < V$
SLU 44	2.32	-4068	1038	149.15		7081	1.915	6500	3734			3.6	Si
SLU 44	4.22	-1356	990	-1783.81		0	0	5556	0			0	No, $V_u < V$
SLU 68	2.32	-4683	1238	81.64		8151	1.915	6642	3816			3.08	Si
SLU 68	4.22	-2069	1191	-2138		0	0	5556	0			0	No, $V_u < V$
SLU 66	2.32	-4641	1209	68.93		8079	1.915	6633	3811			3.15	Si
SLU 66	4.22	-2052	1209	-2116.03		0	0	5556	0			0	No, $V_u < V$
SLU 72	2.32	-4666	1227	76.56		8122	1.915	6639	3814			3.11	Si
SLU 72	4.22	-2062	1198	-2129.21		0	0	5556	0			0	No, $V_u < V$
SLU 43	2.32	-4027	1009	136.44		7009	1.915	6490	3729			3.7	Si
SLU 43	4.22	-1339	1008	-1761.84		0	0	5556	0			0	No, $V_u < V$
SLU 64	2.32	-4641	1209	68.93		8079	1.915	6633	3811			3.15	Si
SLU 64	4.22	-2052	1209	-2116.03		0	0	5556	0			0	No, $V_u < V$
SLU 1	2.32	-3260	829	87.15		5674	1.915	6312	3626			4.38	Si
SLU 1	4.22	-1218	829	-1448.68		0	0	5556	0			0	No, $V_u < V$
SLU 71	2.32	-4641	1209	68.93		8079	1.915	6633	3811			3.15	Si
SLU 71	4.22	-2052	1209	-2116.03		0	0	5556	0			0	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	2.32	-3098	2949	1196.03		6024	1.7141	9538	4905			1.66	Si
SLV 14	4.22	-2135	2681	-2939.08		0	0	8333	0			0	No, $V_u < V$
SLV 9	2.32	-3443	1525	270.43		5993	1.915	9532	5476			3.59	Si
SLV 9	4.22	-2022	1609	-1998.12		0	0	8333	0			0	No, $V_u < V$
SLV 12	2.32	-3861	1712	490.47		6721	1.915	9678	5560			3.25	Si
SLV 12	4.22	-1974	1435	-2310.85		0	0	8333	0			0	No, $V_u < V$
SLV 7	2.32	-4283	548	-236.89		7455	1.915	9824	5644			10.3	Si
SLV 7	4.22	-1862	464	-1598.13		20813	0.2983	12496	1118			2.41	Si
SLV 10	2.32	-3443	1525	270.43		5993	1.915	9532	5476			3.59	Si
SLV 10	4.22	-2022	1609	-1998.12		0	0	8333	0			0	No, $V_u < V$
SLV 11	2.32	-3861	1712	490.47		6721	1.915	9678	5560			3.25	Si
SLV 11	4.22	-1974	1435	-2310.85		0	0	8333	0			0	No, $V_u < V$
SLV 15	2.32	-3223	3005	1262.04		6328	1.6978	9599	4889			1.63	Si
SLV 15	4.22	-2120	2629	-3032.9		0	0	8333	0			0	No, $V_u < V$
SLV 13	2.32	-3098	2949	1196.03		6024	1.7141	9538	4905			1.66	Si
SLV 13	4.22	-2135	2681	-2939.08		0	0	8333	0			0	No, $V_u < V$
SLV 16	2.32	-3223	3005	1262.04		6328	1.6978	9599	4889			1.63	Si
SLV 16	4.22	-2120	2629	-3032.9		0	0	8333	0			0	No, $V_u < V$
SLV 8	2.32	-4283	548	-236.89		7455	1.915	9824	5644			10.3	Si
SLV 8	4.22	-1862	464	-1598.13		20813	0.2983	12496	1118			2.41	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 13	143750	0.48	4907	-2819	289.45	405.89	1.4	Si
SLV 14	143750	0.48	4907	-2819	289.45	405.89	1.4	Si
SLV 9	143750	0.48	5002	-2874	289.45	413.42	1.43	Si
SLV 10	143750	0.48	5002	-2874	289.45	413.42	1.43	Si
SLV 16	143750	0.48	5057	-2905	289.45	417.78	1.44	Si
SLV 15	143750	0.48	5057	-2905	289.45	417.78	1.44	Si
SLV 5	143750	0.48	5234	-3007	289.45	431.72	1.49	Si
SLV 6	143750	0.48	5234	-3007	289.45	431.72	1.49	Si
SLV 12	143750	0.48	5503	-3162	289.45	452.88	1.56	Si
SLV 11	143750	0.48	5503	-3162	289.45	452.88	1.56	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.2 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 1	-930	-4703	-251	0	442.7	0.901	0	19.50315	No
SLV 3	-836	-4980	-201	0	435.8	0.905	0	19.50315	No
SLV 14	-163	-4680	197	0	398.7	0.965	0	19.50315	No
SLV 2	-930	-4703	-251	0	442.7	0.901	0	19.50315	No
SLV 16	-69	-4957	247	0	396.8	0.984	0	19.50315	No
SLV 4	-836	-4980	-201	0	435.8	0.905	0	19.50315	No
SLV 13	-163	-4680	197	0	398.7	0.965	0	19.50315	No
SLV 15	-69	-4957	247	0	396.8	0.984	0	19.50315	No
SLV 11	-227	-5288	149	0.007	400.7	0.955	0.10816	8.12787	No
SLV 12	-227	-5288	149	0.007	400.7	0.955	0.10816	8.12787	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLU	0	SLU 1	No
V SLU	0	SLU 1	No
PF SLV	0	SLV 9	No
V SLV	0	SLV 9	No



Stato limite	Coeff.s.	Comb.	Verifica
PFFP SLV	1.402	SLV 13	Si
R SLV	0	SLV 1	No

## Maschio 25

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-28.073	-3.274	-28.073	-0.094	L2	L3	3.181	0.15	3.76	3.76	3.76			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 59	1.32	-3396	-3014.48	7119	4929.3	1.635	Si
SLU 59	3.42	-1371	-2982.43	0	0	0	No, e>l/2
SLU 55	1.32	-3397	-3016.71	7119	4929.39	1.634	Si
SLU 55	3.42	-1372	-2980.47	0	0	0	No, e>l/2
SLU 58	1.32	-3396	-3011.12	7119	4929.16	1.637	Si
SLU 58	3.42	-1368	-2985.38	0	0	0	No, e>l/2
SLU 56	1.32	-3396	-3011.12	7119	4929.16	1.637	Si
SLU 56	3.42	-1368	-2985.38	0	0	0	No, e>l/2
SLU 53	1.32	-3396	-3011.12	7119	4929.16	1.637	Si
SLU 53	3.42	-1368	-2985.38	0	0	0	No, e>l/2
SLU 54	1.32	-3396	-3014.48	7119	4929.3	1.635	Si
SLU 54	3.42	-1371	-2982.43	0	0	0	No, e>l/2
SLU 1	1.32	-2302	-1781.73	4824	3443.38	1.933	Si
SLU 1	3.42	-814	-1916.02	0	0	0	No, e>l/2
SLU 57	1.32	-3396	-3014.48	7119	4929.3	1.635	Si
SLU 57	3.42	-1371	-2982.43	0	0	0	No, e>l/2
SLU 60	1.32	-3551	-3382.21	7442	5130.61	1.517	Si
SLU 60	3.42	-1491	-3272.16	0	0	0	No, e>l/2
SLU 61	1.32	-3551	-3385.56	7442	5130.75	1.515	Si
SLU 61	3.42	-1493	-3269.22	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 8	1.32	-3068	329.57	6431	4622.56	14.026	Si
SLV 8	3.42	111	-3684.39	0	0	0	No, Trazione
SLV 4	1.32	-3212	-2028	6733	4826.81	2.38	Si
SLV 4	3.42	-692	-2242.71	0	0	0	No, e>l/2
SLV 11	1.32	-2650	729.61	5554	4022.49	5.513	Si
SLV 11	3.42	185	-3974.18	0	0	0	No, Trazione
SLV 9	1.32	-1667	-4672.83	0	0	0	No, e>l/2
SLV 9	3.42	-1860	-821.06	3899	2863.97	3.488	Si
SLV 6	1.32	-2085	-5072.87	0	0	0	No, e>l/2
SLV 6	3.42	-1934	-531.27	4055	2974.21	5.598	Si
SLV 12	1.32	-2650	729.61	5554	4022.49	5.513	Si
SLV 12	3.42	185	-3974.18	0	0	0	No, Trazione
SLV 7	1.32	-3068	329.57	6431	4622.56	14.026	Si
SLV 7	3.42	111	-3684.39	0	0	0	No, Trazione
SLV 5	1.32	-2085	-5072.87	0	0	0	No, e>l/2
SLV 5	3.42	-1934	-531.27	4055	2974.21	5.598	Si
SLV 3	1.32	-3212	-2028	6733	4826.81	2.38	Si
SLV 3	3.42	-692	-2242.71	0	0	0	No, e>l/2
SLV 10	1.32	-1667	-4672.83	0	0	0	No, e>l/2
SLV 10	3.42	-1860	-821.06	3899	2863.97	3.488	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 61	1.32	-3551	-259	-3385.56		12391	1.9104	7208	2065			7.99	Si
SLU 61	3.42	-1493	-258	-3269.22		0	0	5556	0			0	No, Vu<V
SLU 53	1.32	-3396	-238	-3011.12		10725	2.1112	6986	2212			9.29	Si
SLU 53	3.42	-1368	-237	-2985.38		0	0	5556	0			0	No, Vu<V
SLU 59	1.32	-3396	-242	-3014.48		10740	2.1083	6988	2210			9.12	Si
SLU 59	3.42	-1371	-242	-2982.43		0	0	5556	0			0	No, Vu<V
SLU 60	1.32	-3551	-254	-3382.21		12373	1.9132	7205	2068			8.13	Si
SLU 60	3.42	-1491	-254	-3272.16		0	0	5556	0			0	No, Vu<V
SLU 57	1.32	-3396	-242	-3014.48		10740	2.1083	6988	2210			9.12	Si
SLU 57	3.42	-1371	-242	-2982.43		0	0	5556	0			0	No, Vu<V
SLU 1	1.32	-2302	-164	-1781.73		6267	2.4485	6391	2347			14.28	Si
SLU 1	3.42	-814	-164	-1916.02		0	0	5556	0			0	No, Vu<V
SLU 58	1.32	-3396	-238	-3011.12		10725	2.1112	6986	2212			9.29	Si
SLU 58	3.42	-1368	-237	-2985.38		0	0	5556	0			0	No, Vu<V
SLU 55	1.32	-3397	-245	-3016.71		10750	2.1063	6989	2208			9	Si
SLU 55	3.42	-1372	-245	-2980.47		0	0	5556	0			0	No, Vu<V
SLU 54	1.32	-3396	-242	-3014.48		10740	2.1083	6988	2210			9.12	Si
SLU 54	3.42	-1371	-242	-2982.43		0	0	5556	0			0	No, Vu<V
SLU 56	1.32	-3396	-238	-3011.12		10725	2.1112	6986	2212			9.29	Si
SLU 56	3.42	-1368	-237	-2985.38		0	0	5556	0			0	No, Vu<V



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	1.32	-1667	-3369	-4672.83	0	0	0	8333	0			0	No, Vu<V
SLV 10	3.42	-1860	-2855	-821.06		3899	3.1806	9113	4348			1.52	Si
SLV 8	1.32	-3068	2997	329.57		6431	3.1806	9620	4589			1.53	Si
SLV 8	3.42	111	2484	-3684.39	0	0	0	8333	0			0	No, Vu<V
SLV 3	1.32	-3212	1254	-2028		7444	2.8768	9822	4238			3.38	Si
SLV 3	3.42	-692	875	-2242.71	0	0	0	8333	0			0	No, Vu<V
SLV 11	1.32	-2650	2677	729.61		5554	3.1806	9444	4506			1.68	Si
SLV 11	3.42	185	2312	-3974.18	0	0	0	8333	0			0	No, Vu<V
SLV 12	1.32	-2650	2677	729.61		5554	3.1806	9444	4506			1.68	Si
SLV 12	3.42	185	2312	-3974.18	0	0	0	8333	0			0	No, Vu<V
SLV 4	1.32	-3212	1254	-2028		7444	2.8768	9822	4238			3.38	Si
SLV 4	3.42	-692	875	-2242.71	0	0	0	8333	0			0	No, Vu<V
SLV 9	1.32	-1667	-3369	-4672.83	0	0	0	8333	0			0	No, Vu<V
SLV 9	3.42	-1860	-2855	-821.06		3899	3.1806	9113	4348			1.52	Si
SLV 5	1.32	-2085	-3049	-5072.87	0	0	0	8333	0			0	No, Vu<V
SLV 5	3.42	-1934	-2683	-531.27		4055	3.1806	9144	4363			1.63	Si
SLV 7	1.32	-3068	2997	329.57		6431	3.1806	9620	4589			1.53	Si
SLV 7	3.42	111	2484	-3684.39	0	0	0	8333	0			0	No, Vu<V
SLV 6	1.32	-2085	-3049	-5072.87	0	0	0	8333	0			0	No, Vu<V
SLV 6	3.42	-1934	-2683	-531.27		4055	3.1806	9144	4363			1.63	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.03 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 5	143750	0.48	0	-1901	240.37	0	0	No, e>t/2
SLV 3	143750	0.48	0	-1017	240.37	0	0	No, e>t/2
SLV 7	143750	0.48	0	-163	240.37	0	0	No, e>t/2
SLV 8	143750	0.48	0	-163	240.37	0	0	No, e>t/2
SLV 9	143750	0.48	0	-1690	240.37	0	0	No, e>t/2
SLV 10	143750	0.48	0	-1690	240.37	0	0	No, e>t/2
SLV 1	143750	0.48	0	-1539	240.37	0	0	No, e>t/2
SLV 6	143750	0.48	0	-1901	240.37	0	0	No, e>t/2
SLV 2	143750	0.48	0	-1539	240.37	0	0	No, e>t/2
SLV 4	143750	0.48	0	-1017	240.37	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.2 Wa = 0.03 Ta = 0.1574

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 2	53	-2917	-24	0	0	0	0	3.67416	No, Trazione
SLV 4	53	-3212	-3	0	0	0	0	3.67416	No, Trazione
SLV 1	53	-2917	-24	0	0	0	0	3.67416	No, Trazione
SLV 3	53	-3212	-3	0	0	0	0	3.67416	No, Trazione
SLV 5	-5	-2085	-39	0.016	329.1	0.998	0.22683	2.39674	No
SLV 6	-5	-2085	-39	0.016	329.1	0.998	0.22683	2.39674	No
SLV 12	-56	-2650	39	0.016	329.5	0.984	0.23392	2.39674	No
SLV 11	-56	-2650	39	0.016	329.5	0.984	0.23392	2.39674	No
SLV 15	-115	-1818	24	0.025	330.6	0.97	0.37262	3.67416	No
SLV 16	-115	-1818	24	0.025	330.6	0.97	0.37262	3.67416	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 12	No
V_SLV	0	SLV 3	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 4	No

## Maschio 26

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-28.073	0.706	-28.073	1.056	L2	L3	0.35	0.15	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 61	1.32	-715	141.49	0	0	0	No, e>l/2
SLU 61	3.42	-1936	-122.27	36869	185.42	1.517	Si
SLU 58	1.32	-589	131.87	0	0	0	No, e>l/2
SLU 58	3.42	-1728	-114.81	32914	180.21	1.57	Si
SLU 57	1.32	-592	131.28	0	0	0	No, e>l/2
SLU 57	3.42	-1725	-114.76	32861	180.12	1.57	Si
SLU 59	1.32	-592	131.28	0	0	0	No, e>l/2
SLU 59	3.42	-1725	-114.76	32861	180.12	1.57	Si
SLU 1	1.32	-243	88.98	0	0	0	No, e>l/2
SLU 1	3.42	-1021	-79.49	19449	136.03	1.711	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 60	1.32	-712	142.08	0	0	0	No, $e>l/2$
SLU 60	3.42	-1938	-122.32	36922	185.46	1.516	Si
SLU 55	1.32	-594	130.88	0	0	0	No, $e>l/2$
SLU 55	3.42	-1723	-114.72	32826	180.05	1.57	Si
SLU 54	1.32	-592	131.28	0	0	0	No, $e>l/2$
SLU 54	3.42	-1725	-114.76	32861	180.12	1.57	Si
SLU 56	1.32	-589	131.87	0	0	0	No, $e>l/2$
SLU 56	3.42	-1728	-114.81	32914	180.21	1.57	Si
SLU 53	1.32	-589	131.87	0	0	0	No, $e>l/2$
SLU 53	3.42	-1728	-114.81	32914	180.21	1.57	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 7	1.32	-262	199.41	0	0	0	No, $e>l/2$
SLV 7	3.42	-1675	-69.53	31898	216.56	3.115	Si
SLV 13	1.32	52	102.4	0	0	0	No, Trazione
SLV 13	3.42	-1321	-127.52	25166	183.59	1.44	Si
SLV 15	1.32	178	166.57	0	0	0	No, Trazione
SLV 15	3.42	-1627	-121.84	30984	212.48	1.744	Si
SLV 3	1.32	-724	101.93	13797	112.45	1.103	Si
SLV 3	3.42	-1152	-51.55	21949	165.43	3.209	Si
SLV 16	1.32	178	166.57	0	0	0	No, Trazione
SLV 16	3.42	-1627	-121.84	30984	212.48	1.744	Si
SLV 8	1.32	-262	199.41	0	0	0	No, $e>l/2$
SLV 8	3.42	-1675	-69.53	31898	216.56	3.115	Si
SLV 11	1.32	8	218.8	0	0	0	No, Trazione
SLV 11	3.42	-1817	-90.61	34609	227.91	2.515	Si
SLV 4	1.32	-724	101.93	13797	112.45	1.103	Si
SLV 4	3.42	-1152	-51.55	21949	165.43	3.209	Si
SLV 12	1.32	8	218.8	0	0	0	No, Trazione
SLV 12	3.42	-1817	-90.61	34609	227.91	2.515	Si
SLV 14	1.32	52	102.4	0	0	0	No, Trazione
SLV 14	3.42	-1321	-127.52	25166	183.59	1.44	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 56	1.32	-589	236	131.87	0	0	0	5556	0	0	0	0	No, $V_u < V$
SLU 56	3.42	-1728	235	-114.81	35372	0.3257	10272	502	0	0	0	2.13	Si
SLU 55	1.32	-594	232	130.88	0	0	0	5556	0	0	0	0	No, $V_u < V$
SLU 55	3.42	-1723	235	-114.72	35319	0.3253	10265	501	0	0	0	2.13	Si
SLU 53	1.32	-589	236	131.87	0	0	0	5556	0	0	0	0	No, $V_u < V$
SLU 53	3.42	-1728	235	-114.81	35372	0.3257	10272	502	0	0	0	2.13	Si
SLU 59	1.32	-592	234	131.28	0	0	0	5556	0	0	0	0	No, $V_u < V$
SLU 59	3.42	-1725	235	-114.76	35340	0.3254	10268	501	0	0	0	2.13	Si
SLU 54	1.32	-592	234	131.28	0	0	0	5556	0	0	0	0	No, $V_u < V$
SLU 54	3.42	-1725	235	-114.76	35340	0.3254	10268	501	0	0	0	2.13	Si
SLU 60	1.32	-712	252	142.08	0	0	0	5556	0	0	0	0	No, $V_u < V$
SLU 60	3.42	-1938	251	-122.32	38496	0.3357	10688	538	0	0	0	2.14	Si
SLU 61	1.32	-715	250	141.49	0	0	0	5556	0	0	0	0	No, $V_u < V$
SLU 61	3.42	-1936	251	-122.27	38462	0.3355	10684	538	0	0	0	2.14	Si
SLU 58	1.32	-589	236	131.87	0	0	0	5556	0	0	0	0	No, $V_u < V$
SLU 58	3.42	-1728	235	-114.81	35372	0.3257	10272	502	0	0	0	2.13	Si
SLU 1	1.32	-243	163	88.98	0	0	0	5556	0	0	0	0	No, $V_u < V$
SLU 1	3.42	-1021	163	-79.49	23356	0.2915	8670	379	0	0	0	2.33	Si
SLU 57	1.32	-592	234	131.28	0	0	0	5556	0	0	0	0	No, $V_u < V$
SLU 57	3.42	-1725	235	-114.76	35340	0.3254	10268	501	0	0	0	2.13	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	1.32	52	457	102.4	0	0	0	8333	0	0	0	0	No, $V_u < V$
SLV 13	3.42	-1321	329	-127.52	37408	0.2355	15815	559	0	0	0	1.7	Si
SLV 16	1.32	178	600	166.57	0	0	0	8333	0	0	0	0	No, $V_u < V$
SLV 16	3.42	-1627	344	-121.84	36112	0.3003	15556	701	0	0	0	2.04	Si
SLV 14	1.32	52	457	102.4	0	0	0	8333	0	0	0	0	No, $V_u < V$
SLV 14	3.42	-1321	329	-127.52	37408	0.2355	15815	559	0	0	0	1.7	Si
SLV 10	1.32	-410	51	4.93	7805	0.35	9894	519	0	0	0	10.27	Si
SLV 10	3.42	-799	205	-109.54	46862	0.1137	16250	277	0	0	0	1.35	Si
SLV 7	1.32	-262	319	199.41	0	0	0	8333	0	0	0	0	No, $V_u < V$
SLV 7	3.42	-1675	163	-69.53	31898	0.35	14713	772	0	0	0	4.73	Si
SLV 11	1.32	8	525	218.8	0	0	0	8333	0	0	0	0	No, $V_u < V$
SLV 11	3.42	-1817	255	-90.61	34609	0.35	15255	801	0	0	0	3.14	Si
SLV 8	1.32	-262	319	199.41	0	0	0	8333	0	0	0	0	No, $V_u < V$
SLV 8	3.42	-1675	163	-69.53	31898	0.35	14713	772	0	0	0	4.73	Si
SLV 12	1.32	8	525	218.8	0	0	0	8333	0	0	0	0	No, $V_u < V$
SLV 12	3.42	-1817	255	-90.61	34609	0.35	15255	801	0	0	0	3.14	Si
SLV 9	1.32	-410	51	4.93	7805	0.35	9894	519	0	0	0	10.27	Si
SLV 9	3.42	-799	205	-109.54	46862	0.1137	16250	277	0	0	0	1.35	Si
SLV 15	1.32	178	600	166.57	0	0	0	8333	0	0	0	0	No, $V_u < V$
SLV 15	3.42	-1627	344	-121.84	36112	0.3003	15556	701	0	0	0	2.04	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2  $W_a$  0.03 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	143750	0.48	13309	-699	26.45	46.7	1.77	Si
SLV 5	143750	0.48	13309	-699	26.45	46.7	1.77	Si
SLV 10	143750	0.48	16063	-843	26.45	54.93	2.08	Si
SLV 9	143750	0.48	16063	-843	26.45	54.93	2.08	Si
SLV 2	143750	0.48	16834	-884	26.45	57.15	2.16	Si



Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 1	143750	0.48	16834	-884	26.45	57.15	2.16	Si
SLV 3	143750	0.48	22611	-1187	26.45	72.56	2.74	Si
SLV 4	143750	0.48	22611	-1187	26.45	72.56	2.74	Si
SLV 13	143750	0.48	26017	-1366	26.45	80.63	3.05	Si
SLV 14	143750	0.48	26017	-1366	26.45	80.63	3.05	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.2 Wa = 0.03 Ta = 0.1574

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 14	208	52	-5	0	0	0	0	3.67416	No, Trazione
SLV 9	-272	-410	-26	0	57.2	0.893	0	2.39674	No
SLV 10	-272	-410	-26	0	57.2	0.893	0	2.39674	No
SLV 11	298	8	36	0	0	0	0	2.39674	No, Trazione
SLV 7	57	-262	37	0	0	0	0	2.39674	No, Trazione
SLV 6	-513	-680	-26	0	80.8	0.913	0	2.39674	No
SLV 8	57	-262	37	0	0	0	0	2.39674	No, Trazione
SLV 12	298	8	36	0	0	0	0	2.39674	No, Trazione
SLV 13	208	52	-5	0	0	0	0	3.67416	No, Trazione
SLV 5	-513	-680	-26	0	80.8	0.913	0	2.39674	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLV 7	No
PFFP_SLV	1.765	SLV 5	Si
R_SLV	0	SLV 16	No

## Maschio 27

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-30.558	1.056	-29.008	1.056	L2	L3	1.55	0.3	3.76	3.76	3.76			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	f $\nu_0$	$\mu$	$\phi$	f $\nu_{lim}$	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 42	1.32	-12934	-725.14	27815	6601.08	9.103	Si
SLU 42	3.42	-11182	1134.08	24047	6107.76	5.386	Si
SLU 83	1.32	-14181	-721.69	30497	6875.71	9.527	Si
SLU 83	3.42	-11904	1209.88	25599	6326.14	5.229	Si
SLU 41	1.32	-12923	-713.08	27792	6598.41	9.253	Si
SLU 41	3.42	-11171	1126.52	24024	6104.32	5.419	Si
SLU 82	1.32	-14192	-733.75	30520	6877.82	9.374	Si
SLU 82	3.42	-11914	1217.43	25622	6329.26	5.199	Si
SLU 84	1.32	-14192	-733.75	30520	6877.82	9.374	Si
SLU 84	3.42	-11914	1217.43	25622	6329.26	5.199	Si
SLU 76	1.32	-12570	-619.36	27032	6508.82	10.509	Si
SLU 76	3.42	-10292	1069.4	22134	5809.06	5.432	Si
SLU 73	1.32	-12570	-619.36	27032	6508.82	10.509	Si
SLU 73	3.42	-10292	1069.4	22134	5809.06	5.432	Si
SLU 39	1.32	-12923	-713.08	27792	6598.41	9.253	Si
SLU 39	3.42	-11171	1126.52	24024	6104.32	5.419	Si
SLU 40	1.32	-12934	-725.14	27815	6601.08	9.103	Si
SLU 40	3.42	-11182	1134.08	24047	6107.76	5.386	Si
SLU 81	1.32	-14181	-721.69	30497	6875.71	9.527	Si
SLU 81	3.42	-11904	1209.88	25599	6326.14	5.229	Si

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 8	1.32	-8698	-1087.17	18706	5709.08	5.251	Si
SLV 8	3.42	-6870	1098.11	14775	4680.63	4.262	Si
SLV 13	1.32	-5109	1468.36	10987	3603.55	2.454	Si
SLV 13	3.42	-3474	-222.56	7471	2527.72	11.357	Si
SLV 1	1.32	-9512	-1883.47	20455	6137.53	3.259	Si
SLV 1	3.42	-7670	1272.62	16495	5141.78	4.04	Si
SLV 14	1.32	-5109	1468.36	10987	3603.55	2.454	Si
SLV 14	3.42	-3474	-222.56	7471	2527.72	11.357	Si
SLV 2	1.32	-9512	-1883.47	20455	6137.53	3.259	Si
SLV 2	3.42	-7670	1272.62	16495	5141.78	4.04	Si
SLV 16	1.32	-5445	1294.43	11709	3815.38	2.948	Si
SLV 16	3.42	-3783	-61.58	8135	2736.42	44.439	Si
SLV 7	1.32	-8698	-1087.17	18706	5709.08	5.251	Si
SLV 7	3.42	-6870	1098.11	14775	4680.63	4.262	Si
SLV 15	1.32	-5445	1294.43	11709	3815.38	2.948	Si
SLV 15	3.42	-3783	-61.58	8135	2736.42	44.439	Si
SLV 3	1.32	-9847	-2057.4	21177	6309.04	3.067	Si
SLV 3	3.42	-7979	1433.61	17158	5315.14	3.708	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 4	1.32	-9847	-2057.4	21177	6309.04	3.067	Si
SLV 4	3.42	-7979	1433.61	17158	5315.14	3.708	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	1.32	-14192	-930	-733.75		30520	1.55	9625	4476			4.81	Si
SLU 82	3.42	-11914	-930	1217.43		25622	1.55	8972	4172			4.49	Si
SLU 83	1.32	-14181	-920	-721.69		30497	1.55	9622	4474			4.86	Si
SLU 83	3.42	-11904	-920	1209.88		25599	1.55	8969	4170			4.53	Si
SLU 39	1.32	-12923	-877	-713.08		27792	1.55	9261	4306			4.91	Si
SLU 39	3.42	-11171	-877	1126.52		24024	1.55	8759	4073			4.65	Si
SLU 84	1.32	-14192	-930	-733.75		30520	1.55	9625	4476			4.81	Si
SLU 84	3.42	-11914	-930	1217.43		25622	1.55	8972	4172			4.49	Si
SLU 76	1.32	-12570	-805	-619.36		27032	1.55	9160	4259			5.29	Si
SLU 76	3.42	-10292	-805	1069.4		22134	1.55	8507	3956			4.91	Si
SLU 73	1.32	-12570	-805	-619.36		27032	1.55	9160	4259			5.29	Si
SLU 73	3.42	-10292	-805	1069.4		22134	1.55	8507	3956			4.91	Si
SLU 41	1.32	-12923	-877	-713.08		27792	1.55	9261	4306			4.91	Si
SLU 41	3.42	-11171	-877	1126.52		24024	1.55	8759	4073			4.65	Si
SLU 40	1.32	-12934	-886	-725.14		27815	1.55	9264	4308			4.86	Si
SLU 40	3.42	-11182	-886	1134.08		24047	1.55	8762	4074			4.6	Si
SLU 81	1.32	-14181	-920	-721.69		30497	1.55	9622	4474			4.86	Si
SLU 81	3.42	-11904	-920	1209.88		25599	1.55	8969	4170			4.53	Si
SLU 42	1.32	-12934	-886	-725.14		27815	1.55	9264	4308			4.86	Si
SLU 42	3.42	-11182	-886	1134.08		24047	1.55	8762	4074			4.6	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1.32	-9512	-1542	-1883.47		20455	1.55	12424	5777			3.75	Si
SLV 1	3.42	-7670	-1497	1272.62		16495	1.55	11632	5409			3.61	Si
SLV 16	1.32	-5445	684	1294.43		11709	1.55	10675	4964			7.26	Si
SLV 16	3.42	-3783	639	-61.58		8135	1.55	9960	4632			7.25	Si
SLV 2	1.32	-9512	-1542	-1883.47		20455	1.55	12424	5777			3.75	Si
SLV 2	3.42	-7670	-1497	1272.62		16495	1.55	11632	5409			3.61	Si
SLV 14	1.32	-5109	878	1468.36		11642	1.4628	10662	4679			5.33	Si
SLV 14	3.42	-3474	805	-222.56		7471	1.55	9828	4570			5.68	Si
SLV 13	1.32	-5109	878	1468.36		11642	1.4628	10662	4679			5.33	Si
SLV 13	3.42	-3474	805	-222.56		7471	1.55	9828	4570			5.68	Si
SLV 8	1.32	-8698	-1117	-1087.17		18706	1.55	12074	5615			5.03	Si
SLV 8	3.42	-6870	-1051	1098.11		14775	1.55	11288	5249			5	Si
SLV 3	1.32	-9847	-1736	-2057.4		21177	1.55	12569	5844			3.37	Si
SLV 3	3.42	-7979	-1663	1433.61		17158	1.55	11765	5471			3.29	Si
SLV 15	1.32	-5445	684	1294.43		11709	1.55	10675	4964			7.26	Si
SLV 15	3.42	-3783	639	-61.58		8135	1.55	9960	4632			7.25	Si
SLV 4	1.32	-9847	-1736	-2057.4		21177	1.55	12569	5844			3.37	Si
SLV 4	3.42	-7979	-1663	1433.61		17158	1.55	11765	5471			3.29	Si
SLV 7	1.32	-8698	-1117	-1087.17		18706	1.55	12074	5615			5.03	Si
SLV 7	3.42	-6870	-1051	1098.11		14775	1.55	11288	5249			5	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2  $W_a$  0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 14	143750	0.48	8236	-3830	234.28	535.76	2.29	Si
SLV 13	143750	0.48	8236	-3830	234.28	535.76	2.29	Si
SLV 16	143750	0.48	8859	-4119	234.28	573.09	2.45	Si
SLV 15	143750	0.48	8859	-4119	234.28	573.09	2.45	Si
SLV 9	143750	0.48	10674	-4963	234.28	679.48	2.9	Si
SLV 10	143750	0.48	10674	-4963	234.28	679.48	2.9	Si
SLV 12	143750	0.48	12749	-5928	234.28	796.45	3.4	Si
SLV 11	143750	0.48	12749	-5928	234.28	796.45	3.4	Si
SLV 5	143750	0.48	13386	-6225	234.28	831.4	3.55	Si
SLV 6	143750	0.48	13386	-6225	234.28	831.4	3.55	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 3.2  $W_a = 0.05$   $T_a = 0.0787$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 3	-3189	-9847	45	0.044	581.5	0.9	0.70266	19.50315	No
SLV 4	-3189	-9847	45	0.044	581.5	0.9	0.70266	19.50315	No
SLV 14	-2709	-5109	-46	0.044	534.8	0.896	0.71024	19.50315	No
SLV 13	-2709	-5109	-46	0.044	534.8	0.896	0.71024	19.50315	No
SLV 2	-3179	-9512	-4	0.052	580.6	0.9	0.84334	19.50315	No
SLV 1	-3179	-9512	-4	0.052	580.6	0.9	0.84334	19.50315	No
SLV 15	-2719	-5445	3	0.054	535.8	0.896	0.87144	19.50315	No
SLV 16	-2719	-5445	3	0.054	535.8	0.896	0.87144	19.50315	No
SLV 9	-2862	-6258	-89	0.034	549.6	0.897	0.54966	8.12787	No
SLV 10	-2862	-6258	-89	0.034	549.6	0.897	0.54966	8.12787	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.199	SLU 82	Si
V_SLU	4.487	SLU 82	Si
PF_SLV	2.454	SLV 13	Si
V_SLV	3.289	SLV 3	Si
PFFP_SLV	2.287	SLV 13	Si
R_SLV	0.036	SLV 3	No



## Maschio 28

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-28.208	1.056	-24.423	1.056	L2	L3	3.785	0.3	3.76	3.76	3.76			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 41	1.32	-24495	-8008.65	21572	34080.87	4.256	Si
SLU 41	3.42	-19718	-5341.46	17365	29361.8	5.497	Si
SLU 82	1.32	-27530	-8591.23	24245	36593.8	4.259	Si
SLU 82	3.42	-21225	-5638.04	18692	30951.23	5.49	Si
SLU 31	1.32	-21889	-6943.59	19277	31622.25	4.554	Si
SLU 31	3.42	-16969	-4506.25	14944	26222.4	5.819	Si
SLU 39	1.32	-24495	-8008.65	21572	34080.87	4.256	Si
SLU 39	3.42	-19718	-5341.46	17365	29361.8	5.497	Si
SLU 42	1.32	-24498	-8038.03	21574	34082.8	4.24	Si
SLU 42	3.42	-19716	-5328.28	17364	29359.51	5.51	Si
SLU 40	1.32	-24498	-8038.03	21574	34082.8	4.24	Si
SLU 40	3.42	-19716	-5328.28	17364	29359.51	5.51	Si
SLU 83	1.32	-27528	-8561.86	24243	36592.13	4.274	Si
SLU 83	3.42	-21227	-5651.21	18694	30953.39	5.477	Si
SLU 81	1.32	-27528	-8561.86	24243	36592.13	4.274	Si
SLU 81	3.42	-21227	-5651.21	18694	30953.39	5.477	Si
SLU 84	1.32	-27530	-8591.23	24245	36593.8	4.259	Si
SLU 84	3.42	-21225	-5638.04	18692	30951.23	5.49	Si
SLU 34	1.32	-21889	-6943.59	19277	31622.25	4.554	Si
SLU 34	3.42	-16969	-4506.25	14944	26222.4	5.819	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 15	1.32	-15032	206.37	13239	25366.37	122.919	Si
SLV 15	3.42	-11601	-3373.84	10216	20118.84	5.963	Si
SLV 6	1.32	-14716	-4516.82	12960	24896.1	5.512	Si
SLV 6	3.42	-9744	-2152.31	8581	17144.64	7.966	Si
SLV 2	1.32	-16249	-8648.08	14310	27149.29	3.139	Si
SLV 2	3.42	-9501	-1906.32	8367	16749.49	8.786	Si
SLV 7	1.32	-17149	-6785.39	15102	28442.79	4.192	Si
SLV 7	3.42	-10826	-2740.53	9534	18889.35	6.893	Si
SLV 8	1.32	-17149	-6785.39	15102	28442.79	4.192	Si
SLV 8	3.42	-10826	-2740.53	9534	18889.35	6.893	Si
SLV 1	1.32	-16249	-8648.08	14310	27149.29	3.139	Si
SLV 1	3.42	-9501	-1906.32	8367	16749.49	8.786	Si
SLV 5	1.32	-14716	-4516.82	12960	24896.1	5.512	Si
SLV 5	3.42	-9744	-2152.31	8581	17144.64	7.966	Si
SLV 16	1.32	-15032	206.37	13239	25366.37	122.919	Si
SLV 16	3.42	-11601	-3373.84	10216	20118.84	5.963	Si
SLV 4	1.32	-16978	-9328.65	14952	28199.74	3.023	Si
SLV 4	3.42	-9826	-2082.79	8653	17278.41	8.296	Si
SLV 3	1.32	-16978	-9328.65	14952	28199.74	3.023	Si
SLV 3	3.42	-9826	-2082.79	8653	17278.41	8.296	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	1.32	-27528	921	-8561.86	24243	3.785	8788	9979				10.84	Si
SLU 81	3.42	-21227	920	-5651.21	18694	3.785	8048	9139				9.94	Si
SLU 79	1.32	-24918	790	-7447.84	21945	3.785	8482	9631				12.2	Si
SLU 79	3.42	-18482	789	-4837.96	16276	3.785	7726	8773				11.12	Si
SLU 41	1.32	-24495	877	-8008.65	21572	3.785	8432	9574				10.92	Si
SLU 41	3.42	-19718	876	-5341.46	17365	3.785	7871	8937				10.21	Si
SLU 77	1.32	-24918	790	-7447.84	21945	3.785	8482	9631				12.2	Si
SLU 77	3.42	-18482	789	-4837.96	16276	3.785	7726	8773				11.12	Si
SLU 83	1.32	-27528	921	-8561.86	24243	3.785	8788	9979				10.84	Si
SLU 83	3.42	-21227	920	-5651.21	18694	3.785	8048	9139				9.94	Si
SLU 84	1.32	-27530	883	-8591.23	24245	3.785	8788	9979				11.3	Si
SLU 84	3.42	-21225	897	-5638.04	18692	3.785	8048	9138				10.18	Si
SLU 39	1.32	-24495	877	-8008.65	21572	3.785	8432	9574				10.92	Si
SLU 39	3.42	-19718	876	-5341.46	17365	3.785	7871	8937				10.21	Si
SLU 40	1.32	-24498	839	-8038.03	21574	3.785	8432	9575				11.41	Si
SLU 40	3.42	-19716	853	-5328.28	17364	3.785	7871	8937				10.47	Si
SLU 42	1.32	-24498	839	-8038.03	21574	3.785	8432	9575				11.41	Si
SLU 42	3.42	-19716	853	-5328.28	17364	3.785	7871	8937				10.47	Si
SLU 82	1.32	-27530	883	-8591.23	24245	3.785	8788	9979				11.3	Si
SLU 82	3.42	-21225	897	-5638.04	18692	3.785	8048	9138				10.18	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	1.32	-14302	6330	886.94		12596	3.785	10852	12323			1.95	Si
SLV 13	3.42	-11276	5405	-3197.37		9931	3.785	10319	11718			2.17	Si
SLV 16	1.32	-15032	6306	206.37		13239	3.785	10981	12469			1.98	Si
SLV 16	3.42	-11601	5591	-3373.84		10216	3.785	10377	11783			2.11	Si





Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	1.32	-16565	2155	-3924.89		14588	3.785	11251	12775			5.93	Si
SLV 12	3.42	-11358	2260	-3127.85		10003	3.785	10334	11734			5.19	Si
SLV 3	1.32	-16978	-5471	-9328.65		14952	3.785	11324	12858			2.35	Si
SLV 3	3.42	-9826	-4547	-2082.79		8653	3.785	10064	11428			2.51	Si
SLV 11	1.32	-16565	2155	-3924.89		14588	3.785	11251	12775			5.93	Si
SLV 11	3.42	-11358	2260	-3127.85		10003	3.785	10334	11734			5.19	Si
SLV 15	1.32	-15032	6306	206.37		13239	3.785	10981	12469			1.98	Si
SLV 15	3.42	-11601	5591	-3373.84		10216	3.785	10377	11783			2.11	Si
SLV 1	1.32	-16249	-5447	-8648.08		14310	3.785	11195	12712			2.33	Si
SLV 1	3.42	-9501	-4733	-1906.32		8367	3.785	10007	11363			2.4	Si
SLV 14	1.32	-14302	6330	886.94		12596	3.785	10852	12323			1.95	Si
SLV 14	3.42	-11276	5405	-3197.37		9931	3.785	10319	11718			2.17	Si
SLV 4	1.32	-16978	-5471	-9328.65		14952	3.785	11324	12858			2.35	Si
SLV 4	3.42	-9826	-4547	-2082.79		8653	3.785	10064	11428			2.51	Si
SLV 2	1.32	-16249	-5447	-8648.08		14310	3.785	11195	12712			2.33	Si
SLV 2	3.42	-9501	-4733	-1906.32		8367	3.785	10007	11363			2.4	Si

#### Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 5	143750	0.48	9322	-10585	572.1	1466.6	2.56	Si
SLV 6	143750	0.48	9322	-10585	572.1	1466.6	2.56	Si
SLV 1	143750	0.48	9390	-10662	572.1	1476.38	2.58	Si
SLV 2	143750	0.48	9390	-10662	572.1	1476.38	2.58	Si
SLV 9	143750	0.48	9566	-10862	572.1	1501.79	2.63	Si
SLV 10	143750	0.48	9566	-10862	572.1	1501.79	2.63	Si
SLV 3	143750	0.48	9692	-11005	572.1	1519.85	2.66	Si
SLV 4	143750	0.48	9692	-11005	572.1	1519.85	2.66	Si
SLV 13	143750	0.48	10204	-11587	572.1	1592.87	2.78	Si
SLV 14	143750	0.48	10204	-11587	572.1	1592.87	2.78	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = 3.2 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 15	-7237	-15032	188	0.037	1366.3	0.898	0.59494	19.50315	No
SLV 16	-7237	-15032	188	0.037	1366.3	0.898	0.59494	19.50315	No
SLV 2	-6518	-16249	-187	0.037	1296.5	0.896	0.59504	19.50315	No
SLV 1	-6518	-16249	-187	0.037	1296.5	0.896	0.59504	19.50315	No
SLV 13	-7078	-14302	29	0.051	1350.9	0.898	0.82962	19.50315	No
SLV 14	-7078	-14302	29	0.051	1350.9	0.898	0.82962	19.50315	No
SLV 4	-6676	-16978	-28	0.052	1311.9	0.896	0.83984	19.50315	No
SLV 3	-6676	-16978	-28	0.052	1311.9	0.896	0.83984	19.50315	No
SLV 6	-6529	-14716	-296	0.026	1297.6	0.896	0.42405	8.12787	No
SLV 5	-6529	-14716	-296	0.026	1297.6	0.896	0.42405	8.12787	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.24	SLU 40	Si
V_SLU	9.937	SLU 81	Si
PF_SLV	3.023	SLV 3	Si
V_SLV	1.947	SLV 13	Si
PFFP_SLV	2.564	SLV 5	Si
R_SLV	0.031	SLV 15	No

## Maschio 29

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-24.423	5.726	-24.423	-3.274	L2	L3	9.001	0.3	3.76	3.76	3.76			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>k</sub>	f <sub>vk0</sub>	f <sub>medio</sub>	$\tau_0$	f <sub>v0</sub>	$\mu$	$\phi$	f <sub>v,lim</sub>	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 58	1.32	-23583	1081.88	8734	94750.88	87.58	Si
SLU 58	5.08	3019	563.18	0	0	0	No, Trazione
SLU 59	1.32	-23528	885.85	8714	94558.17	106.742	Si
SLU 59	5.08	3044	729.5	0	0	0	No, Trazione
SLU 54	1.32	-23528	885.85	8714	94558.17	106.742	Si
SLU 54	5.08	3044	729.5	0	0	0	No, Trazione
SLU 56	1.32	-23583	1081.88	8734	94750.88	87.58	Si
SLU 56	5.08	3019	563.18	0	0	0	No, Trazione
SLU 57	1.32	-23528	885.85	8714	94558.17	106.742	Si
SLU 57	5.08	3044	729.5	0	0	0	No, Trazione
SLU 53	1.32	-23583	1081.88	8734	94750.88	87.58	Si
SLU 53	5.08	3019	563.18	0	0	0	No, Trazione
SLU 61	1.32	-24447	1100.86	9054	97789.75	88.83	Si
SLU 61	5.08	3158	802.61	0	0	0	No, Trazione
SLU 1	1.32	-16665	530.63	6172	69314.11	130.626	Si
SLU 1	5.08	2154	325.81	0	0	0	No, Trazione



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 60	1.32	-24501	1296.89	9074	97980.41	75.55	Si
SLU 60	5.08	3132	636.28	0	0	0	No, Trazione
SLU 55	1.32	-23492	755.17	8700	94429.63	125.045	Si
SLU 55	5.08	3061	840.39	0	0	0	No, Trazione

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 2	1.32	-11576	2370.02	4287	50268.26	21.21	Si
SLV 2	5.08	1564	-956.71	0	0	0	No, Trazione
SLV 5	1.32	-15439	5825.47	5718	66228.12	11.369	Si
SLV 5	5.08	2103	-2038.84	0	0	0	No, Trazione
SLV 7	1.32	-16007	-4237.72	5928	68542.83	16.174	Si
SLV 7	5.08	2002	2427.24	0	0	0	No, Trazione
SLV 4	1.32	-11747	-648.94	4350	50981.57	78.561	Si
SLV 4	5.08	1533	383.12	0	0	0	No, Trazione
SLV 1	1.32	-11576	2370.02	4287	50268.26	21.21	Si
SLV 1	5.08	1564	-956.71	0	0	0	No, Trazione
SLV 9	1.32	-18920	5768.34	7007	80263.97	13.915	Si
SLV 9	5.08	2535	-1626.55	0	0	0	No, Trazione
SLV 6	1.32	-15439	5825.47	5718	66228.12	11.369	Si
SLV 6	5.08	2103	-2038.84	0	0	0	No, Trazione
SLV 8	1.32	-16007	-4237.72	5928	68542.83	16.174	Si
SLV 8	5.08	2002	2427.24	0	0	0	No, Trazione
SLV 3	1.32	-11747	-648.94	4350	50981.57	78.561	Si
SLV 3	5.08	1533	383.12	0	0	0	No, Trazione
SLV 10	1.32	-18920	5768.34	7007	80263.97	13.915	Si
SLV 10	5.08	2535	-1626.55	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 56	1.32	-23583	-2	1081.88		8734	9.0006	6720	18145			1000	Si
SLU 56	5.08	3019	0	563.18		0	0	5556	0			0	No, Vu<V
SLU 59	1.32	-23528	-230	885.85		8714	9.0006	6717	18138			78.92	Si
SLU 59	5.08	3044	-48	729.5		0	0	5556	0			0	No, Vu<V
SLU 60	1.32	-24501	-2	1296.89		9074	9.0006	6765	18268			1000	Si
SLU 60	5.08	3132	0	636.28		0	0	5556	0			0	No, Vu<V
SLU 54	1.32	-23528	-230	885.85		8714	9.0006	6717	18138			78.92	Si
SLU 54	5.08	3044	-48	729.5		0	0	5556	0			0	No, Vu<V
SLU 55	1.32	-23492	-382	755.17		8700	9.0006	6716	18133			47.49	Si
SLU 55	5.08	3061	-80	840.39		0	0	5556	0			0	No, Vu<V
SLU 61	1.32	-24447	-230	1100.86		9054	9.0006	6763	18261			79.38	Si
SLU 61	5.08	3158	-48	802.61		0	0	5556	0			0	No, Vu<V
SLU 53	1.32	-23583	-2	1081.88		8734	9.0006	6720	18145			1000	Si
SLU 53	5.08	3019	0	563.18		0	0	5556	0			0	No, Vu<V
SLU 1	1.32	-16665	-1	530.63		6172	9.0006	6378	17223			1000	Si
SLU 1	5.08	2154	0	325.81		0	0	5556	0			0	No, Vu<V
SLU 58	1.32	-23583	-2	1081.88		8734	9.0006	6720	18145			1000	Si
SLU 58	5.08	3019	0	563.18		0	0	5556	0			0	No, Vu<V
SLU 57	1.32	-23528	-230	885.85		8714	9.0006	6717	18138			78.92	Si
SLU 57	5.08	3044	-48	729.5		0	0	5556	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	1.32	-16007	-5353	-4237.72		5928	9.0006	9519	25703			4.8	Si
SLV 8	5.08	2002	-916	2427.24		0	0	8333	0			0	No, Vu<V
SLV 6	1.32	-15439	5676	5825.47		5718	9.0006	9477	25589			4.51	Si
SLV 6	5.08	2103	1182	-2038.84		0	0	8333	0			0	No, Vu<V
SLV 3	1.32	-11747	-1114	-648.94		4350	9.0006	9203	24851			22.31	Si
SLV 3	5.08	1533	130	383.12		0	0	8333	0			0	No, Vu<V
SLV 9	1.32	-18920	5351	5768.34		7007	9.0006	9735	26286			4.91	Si
SLV 9	5.08	2535	915	-1626.55		0	0	8333	0			0	No, Vu<V
SLV 10	1.32	-18920	5351	5768.34		7007	9.0006	9735	26286			4.91	Si
SLV 10	5.08	2535	915	-1626.55		0	0	8333	0			0	No, Vu<V
SLV 7	1.32	-16007	-5353	-4237.72		5928	9.0006	9519	25703			4.8	Si
SLV 7	5.08	2002	-916	2427.24		0	0	8333	0			0	No, Vu<V
SLV 4	1.32	-11747	-1114	-648.94		4350	9.0006	9203	24851			22.31	Si
SLV 4	5.08	1533	130	383.12		0	0	8333	0			0	No, Vu<V
SLV 1	1.32	-11576	2195	2370.02		4287	9.0006	9191	24817			11.31	Si
SLV 1	5.08	1564	759	-956.71		0	0	8333	0			0	No, Vu<V
SLV 2	1.32	-11576	2195	2370.02		4287	9.0006	9191	24817			11.31	Si
SLV 2	5.08	1564	759	-956.71		0	0	8333	0			0	No, Vu<V
SLV 5	1.32	-15439	5676	5825.47		5718	9.0006	9477	25589			4.51	Si
SLV 5	5.08	2103	1182	-2038.84		0	0	8333	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.2 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 8	143750	0.48	0	-8062	1360.42	0	0	No, e>t/2
SLV 3	143750	0.48	0	-6522	1360.42	0	0	No, e>t/2
SLV 5	143750	0.48	0	-7895	1360.42	0	0	No, e>t/2
SLV 6	143750	0.48	0	-7895	1360.42	0	0	No, e>t/2
SLV 7	143750	0.48	0	-8062	1360.42	0	0	No, e>t/2
SLV 1	143750	0.48	0	-6472	1360.42	0	0	No, e>t/2
SLV 4	143750	0.48	0	-6522	1360.42	0	0	No, e>t/2
SLV 2	143750	0.48	0	-6472	1360.42	0	0	No, e>t/2
SLV 9	143750	0.48	3395	-9166	1360.42	1336.69	0.98	No, M>Mu
SLV 10	143750	0.48	3395	-9166	1360.42	1336.69	0.98	No, M>Mu



## Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.2 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 5	2103	-15439	3	0	0	0	0	8.12787	No, Trazione
SLV 4	1533	-11747	26	0	0	0	0	19.50315	No, Trazione
SLV 10	2535	-18920	-14	0	0	0	0	8.12787	No, Trazione
SLV 6	2103	-15439	3	0	0	0	0	8.12787	No, Trazione
SLV 3	1533	-11747	26	0	0	0	0	19.50315	No, Trazione
SLV 1	1564	-11576	25	0	0	0	0	19.50315	No, Trazione
SLV 8	2002	-16007	6	0	0	0	0	8.12787	No, Trazione
SLV 9	2535	-18920	-14	0	0	0	0	8.12787	No, Trazione
SLV 7	2002	-16007	6	0	0	0	0	8.12787	No, Trazione
SLV 2	1564	-11576	25	0	0	0	0	19.50315	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLV 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 16	No

## 2.4 Verifiche travi di accoppiamento in muratura

Le unità di misura elencate nel capitolo sono in [m, daN] ove non espressamente specificato.

**X<sub>ini.</sub>**: coordinata punto iniziale. [m]

**Y<sub>ini.</sub>**: coordinata punto iniziale. [m]

**Z<sub>ini.inf.</sub>**: coordinata punto iniziale. [m]

**Z<sub>ini.sup.</sub>**: coordinata punto iniziale. [m]

**H<sub>ini.</sub>**: altezza della sezione iniziale. [m]

**X<sub>fin.</sub>**: coordinata punto finale. [m]

**Y<sub>fin.</sub>**: coordinata punto finale. [m]

**Z<sub>fin.inf.</sub>**: coordinata punto finale. [m]

**Z<sub>fin.sup.</sub>**: coordinata punto finale. [m]

**H<sub>fin.</sub>**: altezza della sezione finale. [m]

**Luce**: lunghezza della trave. [m]

**Spessore**: spessore. [m]

**R. Trazione**: resistenza a trazione dell'elemento teso disposto orizzontalmente. [daN]

**fb**: resistenza normalizzata a compressione in direzione orizzontale dei blocchi. [daN/m<sup>2</sup>]

**f<sub>hk</sub>**: resistenza caratteristica a compressione della muratura utilizzata in direzione orizzontale. [daN/m<sup>2</sup>]

**f<sub>vk0</sub>**: resistenza caratteristica a taglio in assenza di carichi verticali. [daN/m<sup>2</sup>]

**f<sub>hmedio</sub>**: resistenza media a compressione della muratura utilizzata in direzione orizzontale. [daN/m<sup>2</sup>]

**$\tau 0$** : resistenza media a taglio in assenza di azioni normali [C8.7.1.16]. [daN/m<sup>2</sup>]

**f<sub>vo</sub>**: resistenza media a taglio in assenza di azioni normali [C8.7.1.17]. [daN/m<sup>2</sup>]

**$\mu$** : coefficiente di attrito [C8.7.1.17].

**$\phi$** : coefficiente di ammortamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.

**f<sub>vk,lim</sub>**: valore caratteristico massimo della resistenza a taglio che può essere impiegata nel calcolo (§11.10.3.3). [daN/m<sup>2</sup>]

**E**: modulo di elasticità longitudinale della muratura utilizzato. [daN/m<sup>2</sup>]

**G**: modulo di elasticità tangenziale della muratura utilizzato. [daN/m<sup>2</sup>]

**FC**: fattore di confidenza della muratura.

**Sezione**: sezione di verifica.

**$\gamma M$** : fattore parziale di sicurezza del materiale.

**N**: sforzo normale. [daN]

**M**: momento flettente nel piano. [daN\*m]

**Mu**: momento ultimo. [daN\*m]

**Comb.**: combinazione.

**c.s.**: coefficiente di sicurezza.

**Verifica**: stato di verifica.

**M**: momento flettente. [daN\*m]

**V**: taglio nel piano. [daN]

**V<sub>t</sub>**: resistenza a taglio secondo [7.8.4]. [daN]

**V<sub>p</sub>**: resistenza a taglio secondo [7.8.6]. [daN]

**V<sub>t fess. diag.</sub>**: resistenza a taglio per fessurazione diagonale secondo §C8.7.1.3.1.1 formule [C8.7.1.16] ovvero [C8.7.1.17]. [daN]

**V<sub>t,lim</sub>**: taglio limite [C8.1.7.18]. [daN]

**Stato limite**: pF\_SLV=Presso flessione per azioni sismiche; V\_SLV=Taglio per azioni sismiche.

**Coeff.s.**: coefficiente di sicurezza.

### Trave di accoppiamento 1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



## Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-29.758	1.281	0.81	1.32	0.51	-29.758	2.281	0.81	1.32	0.51	1	0.3	30000

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

## Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-809	1.88	395.89	SLU 81	211.07	Si
fin.	3	566	-72.29	395.89	SLU 81	5.48	Si
ini.	3	-736	3.91	395.89	SLU 76	101.33	Si
fin.	3	536	-72.12	395.89	SLU 76	5.49	Si
ini.	3	-807	2.79	395.89	SLU 82	141.91	Si
fin.	3	581	-77.45	395.89	SLU 82	5.11	Si
ini.	3	-807	2.79	395.89	SLU 84	141.91	Si
fin.	3	581	-77.45	395.89	SLU 84	5.11	Si
ini.	3	-679	3.9	395.89	SLU 63	101.53	Si
fin.	3	517	-72.17	395.89	SLU 63	5.49	Si
ini.	3	-736	1.42	395.89	SLU 42	279.22	Si
fin.	3	524	-70.12	395.89	SLU 42	5.65	Si
ini.	3	-679	3.9	395.89	SLU 61	101.53	Si
fin.	3	517	-72.17	395.89	SLU 61	5.49	Si
ini.	3	-736	1.42	395.89	SLU 40	279.22	Si
fin.	3	524	-70.12	395.89	SLU 40	5.65	Si
ini.	3	-736	3.91	395.89	SLU 73	101.33	Si
fin.	3	536	-72.12	395.89	SLU 73	5.49	Si
ini.	3	-809	1.88	395.89	SLU 83	211.07	Si
fin.	3	566	-72.29	395.89	SLU 83	5.48	Si

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-736	1.42	1111			589	231	SLU 42	0.21	No
fin.	3	524	-70.12	-1334			393	0	SLU 42	0	No
ini.	3	-807	2.79	1222			608	238	SLU 82	0.19	No
fin.	3	581	-77.45	-1470			393	0	SLU 82	0	No
ini.	3	-736	3.91	1114			589	231	SLU 76	0.21	No
fin.	3	536	-72.12	-1344			393	0	SLU 76	0	No
ini.	3	-739	2.38	1126			590	231	SLU 79	0.21	No
fin.	3	512	-63.53	-1347			393	0	SLU 79	0	No
ini.	3	-737	3.3	1119			589	231	SLU 78	0.21	No
fin.	3	526	-68.68	-1345			393	0	SLU 78	0	No
ini.	3	-809	1.88	1230			608	238	SLU 81	0.19	No
fin.	3	566	-72.29	-1472			393	0	SLU 81	0	No
ini.	3	-739	2.38	1126			590	231	SLU 74	0.21	No
fin.	3	512	-63.53	-1347			393	0	SLU 74	0	No
ini.	3	-737	3.3	1119			589	231	SLU 75	0.21	No
fin.	3	526	-68.68	-1345			393	0	SLU 75	0	No
ini.	3	-739	2.38	1126			590	231	SLU 77	0.21	No
fin.	3	512	-63.53	-1347			393	0	SLU 77	0	No
ini.	3	-737	3.3	1119			589	231	SLU 80	0.21	No
fin.	3	526	-68.68	-1345			393	0	SLU 80	0	No

## Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	29	-179.7	593.83	SLV 5	3.3	Si
fin.	2	846	11.55	593.83	SLV 5	51.41	Si
ini.	2	112	-210.33	593.83	SLV 9	2.82	Si
fin.	2	811	91.05	593.83	SLV 9	6.52	Si
ini.	2	29	-179.7	593.83	SLV 6	3.3	Si
fin.	2	846	11.55	593.83	SLV 6	51.41	Si
ini.	2	-954	185	593.83	SLV 12	3.21	Si
fin.	2	-210	-87.18	593.83	SLV 12	6.81	Si
ini.	2	-954	185	593.83	SLV 11	3.21	Si
fin.	2	-210	-87.18	593.83	SLV 11	6.81	Si
ini.	2	-760	113	593.83	SLV 4	5.26	Si
fin.	2	223	-197.05	593.83	SLV 4	3.01	Si
ini.	2	-1037	215.63	593.83	SLV 8	2.75	Si
fin.	2	-175	-166.68	593.83	SLV 8	3.56	Si
ini.	2	112	-210.33	593.83	SLV 10	2.82	Si
fin.	2	811	91.05	593.83	SLV 10	6.52	Si
ini.	2	-1037	215.63	593.83	SLV 7	2.75	Si
fin.	2	-175	-166.68	593.83	SLV 7	3.56	Si
ini.	2	-760	113	593.83	SLV 3	5.26	Si
fin.	2	223	-197.05	593.83	SLV 3	3.01	Si

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-165	-107.7	849			633	244	SLV 14	0.29	No
fin.	2	413	121.42	-807			589	150	SLV 14	0.19	No
ini.	2	112	-210.33	962			589	205	SLV 10	0.21	No
fin.	2	811	91.05	-650			589	0	SLV 10	0	No
ini.	2	29	-179.7	919			589	217	SLV 5	0.24	No
fin.	2	846	11.55	-638			589	0	SLV 5	0	No
ini.	2	-440	-5.6	706			707	278	SLV 2	0.39	No
fin.	2	529	-143.58	-766			589	123	SLV 2	0.16	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-760	113	567			792	313	SLV 3	0.55	No
fin.	2	223	-197.05	-888			589	187	SLV 3	0.21	No
ini.	2	112	-210.33	962			589	205	SLV 9	0.21	No
fin.	2	811	91.05	-650			589	0	SLV 9	0	No
ini.	2	-760	113	567			792	313	SLV 4	0.55	No
fin.	2	223	-197.05	-888			589	187	SLV 4	0.21	No
ini.	2	-440	-5.6	706			707	278	SLV 1	0.39	No
fin.	2	529	-143.58	-766			589	123	SLV 1	0.16	No
ini.	2	-165	-107.7	849			633	244	SLV 13	0.29	No
fin.	2	413	121.42	-807			589	150	SLV 13	0.19	No
ini.	2	29	-179.7	919			589	217	SLV 6	0.24	No
fin.	2	846	11.55	-638			589	0	SLV 6	0	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.754	SLV 7	Si
V_SLV	0	SLV 5	No
PF_SLU	5.112	SLU 82	Si
V_SLU	0	SLU 40	No

## Trave di accoppiamento 2

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-32.783	-3.274	-1.37	0.63	2	-31.783	-3.274	-1.37	0.63	2	1	0.45	30000

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	84	-1468.11	9132.35	SLU 83	6.22	Si
fin.	3	-1149	101.4	9132.35	SLU 83	90.06	Si
ini.	3	85	-1467.15	9132.35	SLU 84	6.22	Si
fin.	3	-1150	103.18	9132.35	SLU 84	88.51	Si
ini.	3	28	-1332.31	9132.35	SLU 77	6.85	Si
fin.	3	-1090	65.85	9132.35	SLU 77	138.69	Si
ini.	3	84	-1468.11	9132.35	SLU 81	6.22	Si
fin.	3	-1149	101.4	9132.35	SLU 81	90.06	Si
ini.	3	28	-1332.31	9132.35	SLU 74	6.85	Si
fin.	3	-1090	65.85	9132.35	SLU 74	138.69	Si
ini.	3	85	-1467.15	9132.35	SLU 82	6.22	Si
fin.	3	-1150	103.18	9132.35	SLU 82	88.51	Si
ini.	3	34	-1335.45	9132.35	SLU 62	6.84	Si
fin.	3	-1090	71.18	9132.35	SLU 62	128.3	Si
ini.	3	34	-1335.45	9132.35	SLU 60	6.84	Si
fin.	3	-1090	71.18	9132.35	SLU 60	128.3	Si
ini.	3	35	-1334.49	9132.35	SLU 63	6.84	Si
fin.	3	-1091	72.96	9132.35	SLU 63	125.16	Si
ini.	3	35	-1334.49	9132.35	SLU 61	6.84	Si
fin.	3	-1091	72.96	9132.35	SLU 61	125.16	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	84	-1468.11	1731			3466	1286	SLU 81	0.74	No
fin.	3	-1149	101.4	3792			3926	1534	SLU 81	0.4	No
ini.	3	134	-1299.38	1529			3466	1275	SLU 41	0.83	No
fin.	3	-959	120.29	3420			3850	1498	SLU 41	0.44	No
ini.	3	85	-1467.15	1735			3466	1286	SLU 82	0.74	No
fin.	3	-1150	103.18	3792			3926	1534	SLU 82	0.4	No
ini.	3	85	-1467.15	1735			3466	1286	SLU 84	0.74	No
fin.	3	-1150	103.18	3792			3926	1534	SLU 84	0.4	No
ini.	3	35	-1334.49	1586			3466	1297	SLU 61	0.82	No
fin.	3	-1091	72.96	3405			3902	1523	SLU 61	0.45	No
ini.	3	134	-1299.38	1529			3466	1275	SLU 39	0.83	No
fin.	3	-959	120.29	3420			3850	1498	SLU 39	0.44	No
ini.	3	35	-1334.49	1586			3466	1297	SLU 63	0.82	No
fin.	3	-1091	72.96	3405			3902	1523	SLU 63	0.45	No
ini.	3	135	-1298.42	1533			3466	1275	SLU 40	0.83	No
fin.	3	-960	122.07	3420			3850	1499	SLU 40	0.44	No
ini.	3	135	-1298.42	1533			3466	1275	SLU 42	0.83	No
fin.	3	-960	122.07	3420			3850	1499	SLU 42	0.44	No
ini.	3	84	-1468.11	1731			3466	1286	SLU 83	0.74	No
fin.	3	-1149	101.4	3792			3926	1534	SLU 83	0.4	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	4	-769.03	13698.53	SLV 10	17.81	Si
fin.	2	-744	-48.7	13698.53	SLV 10	281.29	Si
ini.	2	696	-1743.55	13698.53	SLV 1	7.86	Si
fin.	2	-892	587.8	13698.53	SLV 1	23.3	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	408	-1277.16	13698.53	SLV 6	10.73	Si
fin.	2	-820	281.4	13698.53	SLV 6	48.68	Si
ini.	2	-112	-915.92	13698.53	SLV 7	14.96	Si
fin.	2	-772	56.5	13698.53	SLV 7	242.43	Si
ini.	2	-112	-915.92	13698.53	SLV 8	14.96	Si
fin.	2	-772	56.5	13698.53	SLV 8	242.43	Si
ini.	2	696	-1743.55	13698.53	SLV 2	7.86	Si
fin.	2	-892	587.8	13698.53	SLV 2	23.3	Si
ini.	2	408	-1277.16	13698.53	SLV 5	10.73	Si
fin.	2	-820	281.4	13698.53	SLV 5	48.68	Si
ini.	2	540	-1635.18	13698.53	SLV 3	8.38	Si
fin.	2	-877	520.33	13698.53	SLV 3	26.33	Si
ini.	2	540	-1635.18	13698.53	SLV 4	8.38	Si
fin.	2	-877	520.33	13698.53	SLV 4	26.33	Si
ini.	2	4	-769.03	13698.53	SLV 9	17.81	Si
fin.	2	-744	-48.7	13698.53	SLV 9	281.29	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	540	-1635.18	3232			5199	1835	SLV 3	0.57	No
fin.	2	-877	520.33	4201			5550	2139	SLV 3	0.51	No
ini.	2	408	-1277.16	1388			5199	1866	SLV 6	1.34	Si
fin.	2	-820	281.4	2782			5527	2127	SLV 6	0.76	No
ini.	2	-112	-915.92	1894			5244	1981	SLV 8	1.05	Si
fin.	2	-772	56.5	2640			5508	2118	SLV 8	0.8	No
ini.	2	4	-769.03	89			5199	1956	SLV 9	22.04	Si
fin.	2	-744	-48.7	1487			5497	2112	SLV 9	1.42	Si
ini.	2	-112	-915.92	1894			5244	1981	SLV 7	1.05	Si
fin.	2	-772	56.5	2640			5508	2118	SLV 7	0.8	No
ini.	2	696	-1743.55	3080			5199	1799	SLV 2	0.58	No
fin.	2	-892	587.8	4244			5556	2142	SLV 2	0.5	No
ini.	2	408	-1277.16	1388			5199	1866	SLV 5	1.34	Si
fin.	2	-820	281.4	2782			5527	2127	SLV 5	0.76	No
ini.	2	696	-1743.55	3080			5199	1799	SLV 1	0.58	No
fin.	2	-892	587.8	4244			5556	2142	SLV 1	0.5	No
ini.	2	540	-1635.18	3232			5199	1835	SLV 4	0.57	No
fin.	2	-877	520.33	4201			5550	2139	SLV 4	0.51	No
ini.	2	4	-769.03	89			5199	1956	SLV 10	22.04	Si
fin.	2	-744	-48.7	1487			5497	2112	SLV 10	1.42	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	7.857	SLV 1	Si
V_SLV	0.505	SLV 1	No
PF_SLU	6.22	SLU 81	Si
V_SLU	0.405	SLU 82	No

## Trave di accoppiamento 3

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-32.783	-3.274	1.03	1.32	0.29	-31.783	-3.274	1.03	1.32	0.29	1	0.45	30000

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-161	-144.58	192.01	SLU 81	1.33	Si
fin.	3	625	3.23	192.01	SLU 81	59.39	Si
ini.	3	-162	-144.76	192.01	SLU 84	1.33	Si
fin.	3	626	3.44	192.01	SLU 84	55.89	Si
ini.	3	-152	-130.23	192.01	SLU 42	1.47	Si
fin.	3	580	7.29	192.01	SLU 42	26.36	Si
ini.	3	-162	-144.76	192.01	SLU 82	1.33	Si
fin.	3	626	3.44	192.01	SLU 82	55.89	Si
ini.	3	-144	-130.44	192.01	SLU 61	1.47	Si
fin.	3	550	0.03	192.01	SLU 61	5775.08	Si
ini.	3	-142	-130.27	192.01	SLU 60	1.47	Si
fin.	3	549	-0.17	192.01	SLU 60	1136.25	Si
ini.	3	-152	-130.23	192.01	SLU 40	1.47	Si
fin.	3	580	7.29	192.01	SLU 40	26.36	Si
ini.	3	-161	-144.58	192.01	SLU 83	1.33	Si
fin.	3	625	3.23	192.01	SLU 83	59.39	Si
ini.	3	-144	-130.44	192.01	SLU 63	1.47	Si
fin.	3	550	0.03	192.01	SLU 63	5775.08	Si
ini.	3	-142	-130.27	192.01	SLU 62	1.47	Si
fin.	3	549	-0.17	192.01	SLU 62	1136.25	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
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Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-152	-130.23	721			376	146	SLU 40	0.2	No
fin.	3	580	7.29	-151			335	0	SLU 40	0	No
ini.	3	-150	-130.05	721			375	146	SLU 39	0.2	No
fin.	3	580	7.08	-152			335	0	SLU 39	0	No
ini.	3	-129	-114.94	645			369	144	SLU 36	0.22	No
fin.	3	501	3.5	-154			335	0	SLU 36	0	No
ini.	3	-152	-130.23	721			376	146	SLU 42	0.2	No
fin.	3	580	7.29	-151			335	0	SLU 42	0	No
ini.	3	-129	-114.94	645			369	144	SLU 38	0.22	No
fin.	3	501	3.5	-154			335	0	SLU 38	0	No
ini.	3	-122	-115.28	666			368	143	SLU 52	0.21	No
fin.	3	471	-3.62	-204			335	0	SLU 52	0	No
ini.	3	-119	-114.99	665			367	142	SLU 53	0.21	No
fin.	3	470	-3.96	-206			335	0	SLU 53	0	No
ini.	3	-150	-130.05	721			375	146	SLU 41	0.2	No
fin.	3	580	7.08	-152			335	0	SLU 41	0	No
ini.	3	-127	-114.77	644			369	143	SLU 37	0.22	No
fin.	3	500	3.3	-155			335	0	SLU 37	0	No
ini.	3	-161	-144.58	814			378	148	SLU 83	0.18	No
fin.	3	625	3.23	-202			335	0	SLU 83	0	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-480	-174.6	288.01	SLV 1	1.65	Si
fin.	2	1039	91.13	288.01	SLV 1	3.16	Si
ini.	2	295	4.24	288.01	SLV 13	67.98	Si
fin.	2	-342	-96.81	288.01	SLV 13	2.98	Si
ini.	2	-245	-126.26	288.01	SLV 6	2.28	Si
fin.	2	636	31.45	288.01	SLV 6	9.16	Si
ini.	2	295	4.24	288.01	SLV 14	67.98	Si
fin.	2	-342	-96.81	288.01	SLV 14	2.98	Si
ini.	2	327	16.46	288.01	SLV 15	17.5	Si
fin.	2	-411	-102.03	288.01	SLV 15	2.82	Si
ini.	2	327	16.46	288.01	SLV 16	17.5	Si
fin.	2	-411	-102.03	288.01	SLV 16	2.82	Si
ini.	2	-480	-174.6	288.01	SLV 2	1.65	Si
fin.	2	1039	91.13	288.01	SLV 2	3.16	Si
ini.	2	-449	-162.38	288.01	SLV 3	1.77	Si
fin.	2	970	85.91	288.01	SLV 3	3.35	Si
ini.	2	-449	-162.38	288.01	SLV 4	1.77	Si
fin.	2	970	85.91	288.01	SLV 4	3.35	Si
ini.	2	-245	-126.26	288.01	SLV 5	2.28	Si
fin.	2	636	31.45	288.01	SLV 5	9.16	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	295	4.24	113			503	140	SLV 14	1.24	Si
fin.	2	-342	-96.81	-605			594	233	SLV 14	0.39	No
ini.	2	-245	-126.26	592			568	222	SLV 6	0.37	No
fin.	2	636	31.45	-63			503	30	SLV 6	0.47	No
ini.	2	-449	-162.38	818			622	246	SLV 4	0.3	No
fin.	2	970	85.91	284			503	0	SLV 4	0	No
ini.	2	-141	-85.53	554			540	209	SLV 7	0.38	No
fin.	2	406	14.04	3			503	116	SLV 7	43.98	Si
ini.	2	-480	-174.6	829			631	249	SLV 2	0.3	No
fin.	2	1039	91.13	264			503	0	SLV 2	0	No
ini.	2	295	4.24	113			503	140	SLV 13	1.24	Si
fin.	2	-342	-96.81	-605			594	233	SLV 13	0.39	No
ini.	2	-480	-174.6	829			631	249	SLV 1	0.3	No
fin.	2	1039	91.13	264			503	0	SLV 1	0	No
ini.	2	-141	-85.53	554			540	209	SLV 8	0.38	No
fin.	2	406	14.04	3			503	116	SLV 8	43.98	Si
ini.	2	-245	-126.26	592			568	222	SLV 5	0.37	No
fin.	2	636	31.45	-63			503	30	SLV 5	0.47	No
ini.	2	-449	-162.38	818			622	246	SLV 3	0.3	No
fin.	2	970	85.91	284			503	0	SLV 3	0	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.65	SLV 1	Si
V_SLV	0	SLV 1	No
PF_SLU	1.326	SLU 82	Si
V_SLU	0	SLU 18	No

#### Trave di accoppiamento 4

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

##### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-26.798	-3.274	-1.37	0.63	2	-25.798	-3.274	-1.37	0.63	2	1	0.45	30000

##### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	t <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2



#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1184	136.5	9132.35	SLU 80	66.9	Si
fin.	3	-70	-1155.79	9132.35	SLU 80	7.9	Si
ini.	3	-1246	174.31	9132.35	SLU 81	52.39	Si
fin.	3	-33	-1257.92	9132.35	SLU 81	7.26	Si
ini.	3	-1183	134.81	9132.35	SLU 79	67.74	Si
fin.	3	-71	-1156.32	9132.35	SLU 79	7.9	Si
ini.	3	-1247	176.01	9132.35	SLU 84	51.88	Si
fin.	3	-32	-1257.39	9132.35	SLU 84	7.26	Si
ini.	3	-1184	136.5	9132.35	SLU 75	66.9	Si
fin.	3	-70	-1155.79	9132.35	SLU 75	7.9	Si
ini.	3	-1184	136.5	9132.35	SLU 78	66.9	Si
fin.	3	-70	-1155.79	9132.35	SLU 78	7.9	Si
ini.	3	-1183	134.81	9132.35	SLU 77	67.74	Si
fin.	3	-71	-1156.32	9132.35	SLU 77	7.9	Si
ini.	3	-1246	174.31	9132.35	SLU 83	52.39	Si
fin.	3	-33	-1257.92	9132.35	SLU 83	7.26	Si
ini.	3	-1183	134.81	9132.35	SLU 74	67.74	Si
fin.	3	-71	-1156.32	9132.35	SLU 74	7.9	Si
ini.	3	-1247	176.01	9132.35	SLU 82	51.88	Si
fin.	3	-32	-1257.39	9132.35	SLU 82	7.26	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-1247	176.01	-3421			3965	1552	SLU 84	0.45	No
fin.	3	-32	-1257.39	-1588			3479	1311	SLU 84	0.83	No
ini.	3	-1185	137.64	-3099			3940	1540	SLU 76	0.5	No
fin.	3	-70	-1155.44	-1449			3494	1319	SLU 76	0.91	No
ini.	3	-1185	137.64	-3099			3940	1540	SLU 73	0.5	No
fin.	3	-70	-1155.44	-1449			3494	1319	SLU 73	0.91	No
ini.	3	-1247	176.01	-3421			3965	1552	SLU 82	0.45	No
fin.	3	-32	-1257.39	-1588			3479	1311	SLU 82	0.83	No
ini.	3	-1047	185.41	-3049			3885	1515	SLU 41	0.5	No
fin.	3	17	-1097.13	-1397			3466	1301	SLU 41	0.93	No
ini.	3	-1048	187.11	-3051			3885	1515	SLU 42	0.5	No
fin.	3	17	-1096.6	-1401			3466	1301	SLU 42	0.93	No
ini.	3	-1048	187.11	-3051			3885	1515	SLU 40	0.5	No
fin.	3	17	-1096.6	-1401			3466	1301	SLU 40	0.93	No
ini.	3	-1246	174.31	-3420			3964	1552	SLU 81	0.45	No
fin.	3	-33	-1257.92	-1584			3479	1311	SLU 81	0.83	No
ini.	3	-1246	174.31	-3420			3964	1552	SLU 83	0.45	No
fin.	3	-33	-1257.92	-1584			3479	1311	SLU 83	0.83	No
ini.	3	-1047	185.41	-3049			3885	1515	SLU 39	0.5	No
fin.	3	17	-1097.13	-1397			3466	1301	SLU 39	0.93	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-775	569.92	13698.53	SLV 15	24.04	Si
fin.	2	722	-1495.94	13698.53	SLV 15	9.16	Si
ini.	2	-1008	631.04	13698.53	SLV 13	21.71	Si
fin.	2	591	-1609.11	13698.53	SLV 13	8.51	Si
ini.	2	-1230	316.88	13698.53	SLV 10	43.23	Si
fin.	2	-93	-1180.8	13698.53	SLV 10	11.6	Si
ini.	2	-1008	631.04	13698.53	SLV 14	21.71	Si
fin.	2	591	-1609.11	13698.53	SLV 14	8.51	Si
ini.	2	-454	113.16	13698.53	SLV 12	121.05	Si
fin.	2	342	-803.57	13698.53	SLV 12	17.05	Si
ini.	2	-1230	316.88	13698.53	SLV 9	43.23	Si
fin.	2	-93	-1180.8	13698.53	SLV 9	11.6	Si
ini.	2	-454	113.16	13698.53	SLV 11	121.05	Si
fin.	2	342	-803.57	13698.53	SLV 11	17.05	Si
ini.	2	-1188	-13.52	13698.53	SLV 5	1013.5	Si
fin.	2	-548	-700.51	13698.53	SLV 5	19.56	Si
ini.	2	-1188	-13.52	13698.53	SLV 6	1013.5	Si
fin.	2	-548	-700.51	13698.53	SLV 6	19.56	Si
ini.	2	-775	569.92	13698.53	SLV 16	24.04	Si
fin.	2	722	-1495.94	13698.53	SLV 16	9.16	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1008	631.04	-4430			5602	2165	SLV 14	0.49	No
fin.	2	591	-1609.11	-3133			5199	1824	SLV 14	0.58	No
ini.	2	-1230	316.88	-3387			5691	2208	SLV 9	0.65	No
fin.	2	-93	-1180.8	-1741			5236	1977	SLV 9	1.14	Si
ini.	2	-775	569.92	-3969			5509	2118	SLV 16	0.53	No
fin.	2	722	-1495.94	-3029			5199	1793	SLV 16	0.59	No
ini.	2	-1188	-13.52	-2033			5674	2200	SLV 5	1.08	Si
fin.	2	-548	-700.51	-444			5418	2072	SLV 5	4.67	Si
ini.	2	-1230	316.88	-3387			5691	2208	SLV 10	0.65	No
fin.	2	-93	-1180.8	-1741			5236	1977	SLV 10	1.14	Si
ini.	2	-1188	-13.52	-2033			5674	2200	SLV 6	1.08	Si
fin.	2	-548	-700.51	-444			5418	2072	SLV 6	4.67	Si
ini.	2	-775	569.92	-3969			5509	2118	SLV 15	0.53	No
fin.	2	722	-1495.94	-3029			5199	1793	SLV 15	0.59	No
ini.	2	-454	113.16	-1850			5381	2053	SLV 12	1.11	Si
fin.	2	342	-803.57	-1394			5199	1881	SLV 12	1.35	Si
ini.	2	-454	113.16	-1850			5381	2053	SLV 11	1.11	Si
fin.	2	342	-803.57	-1394			5199	1881	SLV 11	1.35	Si





Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1008	631.04	-4430			5602	2165	SLV 13	0.49	No
fin.	2	591	-1609.11	-3133			5199	1824	SLV 13	0.58	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	8.513	SLV 13	Si
V_SLV	0.489	SLV 13	No
PF_SLU	7.26	SLU 81	Si
V_SLU	0.454	SLU 82	No

## Trave di accoppiamento 5

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-26.798	-3.274	1.03	1.32	0.29	-25.798	-3.274	1.03	1.32	0.29	1	0.45	30000

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>d</sub>	f <sub>nk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	651	6.76	192.01	SLU 81	28.42	Si
fin.	3	-324	-155.71	192.01	SLU 81	1.23	Si
ini.	3	580	2.92	192.01	SLU 63	65.82	Si
fin.	3	-286	-141.35	192.01	SLU 63	1.36	Si
ini.	3	579	2.85	192.01	SLU 78	67.38	Si
fin.	3	-287	-141.39	192.01	SLU 78	1.36	Si
ini.	3	579	2.85	192.01	SLU 80	67.38	Si
fin.	3	-287	-141.39	192.01	SLU 80	1.36	Si
ini.	3	579	2.98	192.01	SLU 76	64.51	Si
fin.	3	-287	-141.51	192.01	SLU 76	1.36	Si
ini.	3	652	6.95	192.01	SLU 82	27.64	Si
fin.	3	-326	-155.89	192.01	SLU 82	1.23	Si
ini.	3	579	2.98	192.01	SLU 73	64.51	Si
fin.	3	-287	-141.51	192.01	SLU 73	1.36	Si
ini.	3	579	2.85	192.01	SLU 75	67.38	Si
fin.	3	-287	-141.39	192.01	SLU 75	1.36	Si
ini.	3	651	6.76	192.01	SLU 83	28.42	Si
fin.	3	-324	-155.71	192.01	SLU 83	1.23	Si
ini.	3	652	6.95	192.01	SLU 84	27.64	Si
fin.	3	-326	-155.89	192.01	SLU 84	1.23	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	593	10.53	132			335	0	SLU 42	0	No
fin.	3	-301	-138.3	-753			415	164	SLU 42	0.22	No
ini.	3	508	-1.05	194			335	0	SLU 52	0	No
fin.	3	-248	-126.98	-718			401	158	SLU 52	0.22	No
ini.	3	519	6.25	139			335	0	SLU 37	0	No
fin.	3	-260	-123.62	-681			404	159	SLU 37	0.23	No
ini.	3	520	6.44	138			335	0	SLU 38	0	No
fin.	3	-262	-123.8	-682			405	160	SLU 38	0.23	No
ini.	3	593	10.53	132			335	0	SLU 40	0	No
fin.	3	-301	-138.3	-753			415	164	SLU 40	0.22	No
ini.	3	592	10.34	133			335	0	SLU 41	0	No
fin.	3	-299	-138.12	-752			415	164	SLU 41	0.22	No
ini.	3	651	6.76	183			335	0	SLU 83	0	No
fin.	3	-324	-155.71	-861			422	167	SLU 83	0.19	No
ini.	3	520	6.44	138			335	0	SLU 36	0	No
fin.	3	-262	-123.8	-682			405	160	SLU 36	0.23	No
ini.	3	506	-1.37	195			335	0	SLU 53	0	No
fin.	3	-245	-126.68	-717			401	158	SLU 53	0.22	No
ini.	3	592	10.34	133			335	0	SLU 39	0	No
fin.	3	-299	-138.12	-752			415	164	SLU 39	0.22	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	407	10.05	288.01	SLV 11	28.66	Si
fin.	2	-212	-94.03	288.01	SLV 11	3.06	Si
ini.	2	694	30.34	288.01	SLV 9	9.49	Si
fin.	2	-336	-142.52	288.01	SLV 9	2.02	Si
ini.	2	1069	78.45	288.01	SLV 13	3.67	Si
fin.	2	-544	-193.68	288.01	SLV 13	1.49	Si
ini.	2	983	72.36	288.01	SLV 16	3.98	Si
fin.	2	-507	-179.14	288.01	SLV 16	1.61	Si
ini.	2	-376	-85.37	288.01	SLV 4	3.37	Si
fin.	2	211	15.52	288.01	SLV 4	18.55	Si
ini.	2	1069	78.45	288.01	SLV 14	3.67	Si
fin.	2	-544	-193.68	288.01	SLV 14	1.49	Si
ini.	2	407	10.05	288.01	SLV 12	28.66	Si
fin.	2	-212	-94.03	288.01	SLV 12	3.06	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	694	30.34	288.01	SLV 10	9.49	Si
fin.	2	-336	-142.52	288.01	SLV 10	2.02	Si
ini.	2	-376	-85.37	288.01	SLV 3	3.37	Si
fin.	2	211	15.52	288.01	SLV 3	18.55	Si
ini.	2	983	72.36	288.01	SLV 15	3.98	Si
fin.	2	-507	-179.14	288.01	SLV 15	1.61	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	983	72.36	-184			503	0	SLV 15	0	No
fin.	2	-507	-179.14	-924			638	252	SLV 15	0.27	No
ini.	2	1069	78.45	-190			503	0	SLV 14	0	No
fin.	2	-544	-193.68	-972			648	256	SLV 14	0.26	No
ini.	2	286	-16.98	246			503	142	SLV 6	0.58	No
fin.	2	-120	-84.12	-458			535	206	SLV 6	0.45	No
ini.	2	1069	78.45	-190			503	0	SLV 13	0	No
fin.	2	-544	-193.68	-972			648	256	SLV 13	0.26	No
ini.	2	694	30.34	41			503	0	SLV 9	0	No
fin.	2	-336	-142.52	-721			592	233	SLV 9	0.32	No
ini.	2	286	-16.98	246			503	142	SLV 5	0.58	No
fin.	2	-120	-84.12	-458			535	206	SLV 5	0.45	No
ini.	2	983	72.36	-184			503	0	SLV 16	0	No
fin.	2	-507	-179.14	-924			638	252	SLV 16	0.27	No
ini.	2	407	10.05	62			503	116	SLV 12	1.86	Si
fin.	2	-212	-94.03	-562			559	218	SLV 12	0.39	No
ini.	2	694	30.34	41			503	0	SLV 10	0	No
fin.	2	-336	-142.52	-721			592	233	SLV 10	0.32	No
ini.	2	407	10.05	62			503	116	SLV 11	1.86	Si
fin.	2	-212	-94.03	-562			559	218	SLV 11	0.39	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.487	SLV 13	Si
V_SLV	0	SLV 9	No
PF_SLU	1.232	SLU 82	Si
V_SLU	0	SLU 10	No

## Trave di accoppiamento 6

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-33.734	1.056	0.8	1.32	0.52	-32.734	1.056	0.8	1.32	0.52	1	0.45	30000

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-205	75.54	617.35	SLU 76	8.17	Si
fin.	3	-45	-158.27	617.35	SLU 76	3.9	Si
ini.	3	-205	75.54	617.35	SLU 73	8.17	Si
fin.	3	-45	-158.27	617.35	SLU 73	3.9	Si
ini.	3	-133	51.89	617.35	SLU 78	11.9	Si
fin.	3	-8	-148.68	617.35	SLU 78	4.15	Si
ini.	3	-141	56.47	617.35	SLU 84	10.93	Si
fin.	3	-7	-158.66	617.35	SLU 84	3.89	Si
ini.	3	-204	74.2	617.35	SLU 55	8.32	Si
fin.	3	-52	-145.43	617.35	SLU 55	4.25	Si
ini.	3	-139	55.13	617.35	SLU 61	11.2	Si
fin.	3	-14	-145.81	617.35	SLU 61	4.23	Si
ini.	3	-133	51.89	617.35	SLU 75	11.9	Si
fin.	3	-8	-148.68	617.35	SLU 75	4.15	Si
ini.	3	-139	55.13	617.35	SLU 63	11.2	Si
fin.	3	-14	-145.81	617.35	SLU 63	4.23	Si
ini.	3	-141	56.47	617.35	SLU 82	10.93	Si
fin.	3	-7	-158.66	617.35	SLU 82	3.89	Si
ini.	3	-133	51.89	617.35	SLU 80	11.9	Si
fin.	3	-8	-148.68	617.35	SLU 80	4.15	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-141	56.47	-508			638	246	SLU 82	0.48	No
fin.	3	-7	-158.66	-546			603	227	SLU 82	0.42	No
ini.	3	-139	55.13	-460			638	245	SLU 61	0.53	No
fin.	3	-14	-145.81	-533			605	228	SLU 61	0.43	No
ini.	3	-133	51.89	-458			636	245	SLU 80	0.53	No
fin.	3	-8	-148.68	-532			603	227	SLU 80	0.43	No
ini.	3	-133	51.89	-458			636	245	SLU 75	0.53	No
fin.	3	-8	-148.68	-532			603	227	SLU 75	0.43	No
ini.	3	-204	74.2	-495			655	254	SLU 52	0.51	No
fin.	3	-52	-145.43	-558			615	233	SLU 52	0.42	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-133	51.89	-458			636	245	SLU 78	0.53	No
fin.	3	-8	-148.68	-532			603	227	SLU 78	0.43	No
ini.	3	-141	56.47	-508			638	246	SLU 84	0.48	No
fin.	3	-7	-158.66	-546			603	227	SLU 84	0.42	No
ini.	3	-205	75.54	-543			656	254	SLU 73	0.47	No
fin.	3	-45	-158.27	-570			613	233	SLU 73	0.41	No
ini.	3	-205	75.54	-543			656	254	SLU 76	0.47	No
fin.	3	-45	-158.27	-570			613	233	SLU 76	0.41	No
ini.	3	-204	74.2	-495			655	254	SLU 55	0.51	No
fin.	3	-52	-145.43	-558			615	233	SLU 55	0.42	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	5464	-1727.03	926.02	SLV 1	0.54	No
fin.	2	2914	754.18	926.02	SLV 1	1.23	Si
ini.	2	-4720	1486.01	926.02	SLV 13	0.62	No
fin.	2	-2470	-811.96	926.02	SLV 13	1.14	Si
ini.	2	5464	-1727.03	926.02	SLV 2	0.54	No
fin.	2	2914	754.18	926.02	SLV 2	1.23	Si
ini.	2	-2803	914.71	926.02	SLV 11	1.01	Si
fin.	2	-1393	-525.24	926.02	SLV 11	1.76	Si
ini.	2	-2803	914.71	926.02	SLV 12	1.01	Si
fin.	2	-1393	-525.24	926.02	SLV 12	1.76	Si
ini.	2	-5480	1741.36	926.02	SLV 15	0.53	No
fin.	2	-2843	-932.62	926.02	SLV 15	0.99	No
ini.	2	-5480	1741.36	926.02	SLV 16	0.53	No
fin.	2	-2843	-932.62	926.02	SLV 16	0.99	No
ini.	2	4703	-1471.68	926.02	SLV 4	0.63	No
fin.	2	2542	633.52	926.02	SLV 4	1.46	Si
ini.	2	-4720	1486.01	926.02	SLV 14	0.62	No
fin.	2	-2470	-811.96	926.02	SLV 14	1.14	Si
ini.	2	4703	-1471.68	926.02	SLV 3	0.63	No
fin.	2	2542	633.52	926.02	SLV 3	1.46	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	5464	-1727.03	5973			901	0	SLV 1	0	No
fin.	2	2914	754.18	2489			901	0	SLV 1	0	No
ini.	2	-4720	1486.01	-5415			2160	761	SLV 14	0.14	No
fin.	2	-2470	-811.96	-2769			1560	598	SLV 14	0.22	No
ini.	2	5464	-1727.03	5973			901	0	SLV 2	0	No
fin.	2	2914	754.18	2489			901	0	SLV 2	0	No
ini.	2	-5480	1741.36	-6346			2363	809	SLV 15	0.13	No
fin.	2	-2843	-932.62	-3184			1659	628	SLV 15	0.2	No
ini.	2	-4720	1486.01	-5415			2160	761	SLV 13	0.14	No
fin.	2	-2470	-811.96	-2769			1560	598	SLV 13	0.22	No
ini.	2	4703	-1471.68	5042			901	0	SLV 4	0	No
fin.	2	2542	633.52	2074			901	0	SLV 4	0	No
ini.	2	4703	-1471.68	5042			901	0	SLV 3	0	No
fin.	2	2542	633.52	2074			901	0	SLV 3	0	No
ini.	2	2787	-900.38	3072			901	0	SLV 5	0	No
fin.	2	1464	346.8	1132			901	0	SLV 5	0	No
ini.	2	2787	-900.38	3072			901	0	SLV 6	0	No
fin.	2	1464	346.8	1132			901	0	SLV 6	0	No
ini.	2	-5480	1741.36	-6346			2363	809	SLV 16	0.13	No
fin.	2	-2843	-932.62	-3184			1659	628	SLV 16	0.2	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.532	SLV 15	No
V_SLV	0	SLV 1	No
PF_SLU	3.891	SLU 82	Si
V_SLU	0.408	SLU 73	No

#### Trave di accoppiamento 7

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

##### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-30.903	1.056	0.73	1.32	0.59	-29.903	1.056	0.73	1.32	0.59	1	0.45	30000

##### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2277	-620.78	794.74	SLU 76	1.28	Si
fin.	3	-378	68.68	794.74	SLU 76	11.57	Si
ini.	3	-2343	-631.9	794.74	SLU 42	1.26	Si
fin.	3	-367	72.49	794.74	SLU 42	10.96	Si
ini.	3	-2277	-620.78	794.74	SLU 73	1.28	Si
fin.	3	-378	68.68	794.74	SLU 73	11.57	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2343	-631.9	794.74	SLU 40	1.26	Si
fin.	3	-367	72.49	794.74	SLU 40	10.96	Si
ini.	3	-2554	-695.48	794.74	SLU 82	1.14	Si
fin.	3	-407	78.68	794.74	SLU 82	10.1	Si
ini.	3	-2554	-695.48	794.74	SLU 84	1.14	Si
fin.	3	-407	78.68	794.74	SLU 84	10.1	Si
ini.	3	-2314	-630.68	794.74	SLU 41	1.26	Si
fin.	3	-346	75.29	794.74	SLU 41	10.56	Si
ini.	3	-2525	-694.26	794.74	SLU 81	1.14	Si
fin.	3	-385	81.49	794.74	SLU 81	9.75	Si
ini.	3	-2525	-694.26	794.74	SLU 83	1.14	Si
fin.	3	-385	81.49	794.74	SLU 83	9.75	Si
ini.	3	-2314	-630.68	794.74	SLU 39	1.26	Si
fin.	3	-346	75.29	794.74	SLU 39	10.56	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-2343	-631.9	4367			1306	490	SLU 42	0.11	No
fin.	3	-367	72.49	-1893			780	305	SLU 42	0.16	No
ini.	3	-2343	-631.9	4367			1306	490	SLU 40	0.11	No
fin.	3	-367	72.49	-1893			780	305	SLU 40	0.16	No
ini.	3	-2229	-618.74	4280			1276	481	SLU 77	0.11	No
fin.	3	-342	73.35	-1896			773	302	SLU 77	0.16	No
ini.	3	-2525	-694.26	4805			1355	504	SLU 81	0.1	No
fin.	3	-385	81.49	-2112			784	307	SLU 81	0.15	No
ini.	3	-2525	-694.26	4805			1355	504	SLU 83	0.1	No
fin.	3	-385	81.49	-2112			784	307	SLU 83	0.15	No
ini.	3	-2229	-618.74	4280			1276	481	SLU 74	0.11	No
fin.	3	-342	73.35	-1896			773	302	SLU 74	0.16	No
ini.	3	-2554	-695.48	4811			1363	506	SLU 84	0.11	No
fin.	3	-407	78.68	-2118			790	310	SLU 84	0.15	No
ini.	3	-2554	-695.48	4811			1363	506	SLU 82	0.11	No
fin.	3	-407	78.68	-2118			790	310	SLU 82	0.15	No
ini.	3	-2314	-630.68	4360			1299	488	SLU 39	0.11	No
fin.	3	-346	75.29	-1887			774	302	SLU 39	0.16	No
ini.	3	-2314	-630.68	4360			1299	488	SLU 41	0.11	No
fin.	3	-346	75.29	-1887			774	302	SLU 41	0.16	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1815	-547.19	1192.11	SLV 7	2.18	Si
fin.	2	-395	20.36	1192.11	SLV 7	58.54	Si
ini.	2	-1491	-909.13	1192.11	SLV 2	1.31	Si
fin.	2	493	538.37	1192.11	SLV 2	2.21	Si
ini.	2	-1143	161.88	1192.11	SLV 15	7.36	Si
fin.	2	-907	-449.54	1192.11	SLV 15	2.65	Si
ini.	2	-996	-523.49	1192.11	SLV 5	2.28	Si
fin.	2	336	336.4	1192.11	SLV 5	3.54	Si
ini.	2	-996	-523.49	1192.11	SLV 6	2.28	Si
fin.	2	336	336.4	1192.11	SLV 6	3.54	Si
ini.	2	-1736	-916.24	1192.11	SLV 3	1.3	Si
fin.	2	274	443.56	1192.11	SLV 3	2.69	Si
ini.	2	-1143	161.88	1192.11	SLV 16	7.36	Si
fin.	2	-907	-449.54	1192.11	SLV 16	2.65	Si
ini.	2	-1815	-547.19	1192.11	SLV 8	2.18	Si
fin.	2	-395	20.36	1192.11	SLV 8	58.54	Si
ini.	2	-1736	-916.24	1192.11	SLV 4	1.3	Si
fin.	2	274	443.56	1192.11	SLV 4	2.69	Si
ini.	2	-1491	-909.13	1192.11	SLV 1	1.31	Si
fin.	2	493	538.37	1192.11	SLV 1	2.21	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-996	-523.49	2847			1288	509	SLV 5	0.18	No
fin.	2	336	336.4	-1136			1022	333	SLV 5	0.29	No
ini.	2	-1736	-916.24	4440			1486	585	SLV 3	0.13	No
fin.	2	274	443.56	-1835			1022	343	SLV 3	0.19	No
ini.	2	-1815	-547.19	3387			1507	592	SLV 8	0.17	No
fin.	2	-395	20.36	-1567			1128	438	SLV 8	0.28	No
ini.	2	-1491	-909.13	4278			1420	561	SLV 2	0.13	No
fin.	2	493	538.37	-1705			1022	305	SLV 2	0.18	No
ini.	2	-996	-523.49	2847			1288	509	SLV 6	0.18	No
fin.	2	336	336.4	-1136			1022	333	SLV 6	0.29	No
ini.	2	-1736	-916.24	4440			1486	585	SLV 4	0.13	No
fin.	2	274	443.56	-1835			1022	343	SLV 4	0.19	No
ini.	2	-1637	-223.76	2322			1459	575	SLV 12	0.25	No
fin.	2	-749	-247.57	-1208			1222	481	SLV 12	0.4	No
ini.	2	-1491	-909.13	4278			1420	561	SLV 1	0.13	No
fin.	2	493	538.37	-1705			1022	305	SLV 1	0.18	No
ini.	2	-1815	-547.19	3387			1507	592	SLV 7	0.17	No
fin.	2	-395	20.36	-1567			1128	438	SLV 7	0.28	No
ini.	2	-1637	-223.76	2322			1459	575	SLV 11	0.25	No
fin.	2	-749	-247.57	-1208			1222	481	SLV 11	0.4	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.301	SLV 3	Si
V_SLV	0.131	SLV 1	No
PF_SLU	1.143	SLU 82	Si



Stato limite	Coeff.s.	Comb.	Verifica
V_SLU	0.105	SLU 81	No

## Trave di accoppiamento 8

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-32.543	5.726	-1.37	0.63	2	-31.543	5.726	-1.37	0.63	2	1	0.45	30000

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb <sub>m</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	486	-793.02	9132.35	SLU 40	11.52	Si
fin.	3	-868	-410.46	9132.35	SLU 40	22.25	Si
ini.	3	422	-870.54	9132.35	SLU 81	10.49	Si
fin.	3	-1071	-467.6	9132.35	SLU 81	19.53	Si
ini.	3	416	-875.08	9132.35	SLU 82	10.44	Si
fin.	3	-1102	-463.35	9132.35	SLU 82	19.71	Si
ini.	3	293	-783.02	9132.35	SLU 63	11.66	Si
fin.	3	-1090	-419.78	9132.35	SLU 63	21.76	Si
ini.	3	416	-875.08	9132.35	SLU 84	10.44	Si
fin.	3	-1102	-463.35	9132.35	SLU 84	19.71	Si
ini.	3	492	-788.49	9132.35	SLU 41	11.58	Si
fin.	3	-836	-414.71	9132.35	SLU 41	22.02	Si
ini.	3	293	-783.02	9132.35	SLU 61	11.66	Si
fin.	3	-1090	-419.78	9132.35	SLU 61	21.76	Si
ini.	3	422	-870.54	9132.35	SLU 83	10.49	Si
fin.	3	-1071	-467.6	9132.35	SLU 83	19.53	Si
ini.	3	486	-793.02	9132.35	SLU 42	11.52	Si
fin.	3	-868	-410.46	9132.35	SLU 42	22.25	Si
ini.	3	492	-788.49	9132.35	SLU 39	11.58	Si
fin.	3	-836	-414.71	9132.35	SLU 39	22.02	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt <sub>lim</sub>	Comb.	c.s.	Verifica
ini.	3	416	-875.08	-608			3466	1210	SLU 82	1.99	Si
fin.	3	-1102	-463.35	3595			3907	1525	SLU 82	0.42	No
ini.	3	422	-870.54	-623			3466	1209	SLU 81	1.94	Si
fin.	3	-1071	-467.6	3543			3894	1519	SLU 81	0.43	No
ini.	3	416	-875.08	-608			3466	1210	SLU 84	1.99	Si
fin.	3	-1102	-463.35	3595			3907	1525	SLU 84	0.42	No
ini.	3	422	-870.54	-623			3466	1209	SLU 83	1.94	Si
fin.	3	-1071	-467.6	3543			3894	1519	SLU 83	0.43	No
ini.	3	275	-782.78	-631			3466	1243	SLU 76	1.97	Si
fin.	3	-1115	-417.02	3319			3912	1528	SLU 76	0.46	No
ini.	3	293	-783.02	-630			3466	1239	SLU 61	1.97	Si
fin.	3	-1090	-419.78	3301			3902	1523	SLU 61	0.46	No
ini.	3	279	-779.76	-641			3466	1242	SLU 78	1.94	Si
fin.	3	-1094	-419.85	3285			3904	1524	SLU 78	0.46	No
ini.	3	293	-783.02	-630			3466	1239	SLU 63	1.97	Si
fin.	3	-1090	-419.78	3301			3902	1523	SLU 63	0.46	No
ini.	3	279	-779.76	-641			3466	1242	SLU 80	1.94	Si
fin.	3	-1094	-419.85	3285			3904	1524	SLU 80	0.46	No
ini.	3	275	-782.78	-631			3466	1243	SLU 73	1.97	Si
fin.	3	-1115	-417.02	3319			3912	1528	SLU 73	0.46	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-533	-52.72	13698.53	SLV 16	259.84	Si
fin.	2	-15	-1001.06	13698.53	SLV 16	13.68	Si
ini.	2	-533	-52.72	13698.53	SLV 15	259.84	Si
fin.	2	-15	-1001.06	13698.53	SLV 15	13.68	Si
ini.	2	608	-884.41	13698.53	SLV 2	15.49	Si
fin.	2	-1594	465.93	13698.53	SLV 2	29.4	Si
ini.	2	-552	101.96	13698.53	SLV 13	134.35	Si
fin.	2	53	-1010.41	13698.53	SLV 13	13.56	Si
ini.	2	243	-874.32	13698.53	SLV 8	15.67	Si
fin.	2	-1165	-30.52	13698.53	SLV 8	448.88	Si
ini.	2	626	-1039.09	13698.53	SLV 4	13.18	Si
fin.	2	-1662	475.29	13698.53	SLV 4	28.82	Si
ini.	2	626	-1039.09	13698.53	SLV 3	13.18	Si
fin.	2	-1662	475.29	13698.53	SLV 3	28.82	Si
ini.	2	608	-884.41	13698.53	SLV 1	15.49	Si
fin.	2	-1594	465.93	13698.53	SLV 1	29.4	Si
ini.	2	243	-874.32	13698.53	SLV 7	15.67	Si
fin.	2	-1165	-30.52	13698.53	SLV 7	448.88	Si
ini.	2	-552	101.96	13698.53	SLV 14	134.35	Si
fin.	2	53	-1010.41	13698.53	SLV 14	13.56	Si



#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-533	-52.72	-3241			5412	2069	SLV 16	0.64	No
fin.	2	-15	-1001.06	-423			5205	1960	SLV 16	4.63	Si
ini.	2	608	-884.41	2146			5199	1820	SLV 1	0.85	No
fin.	2	-1594	465.93	4567			5837	2277	SLV 1	0.5	No
ini.	2	608	-884.41	2146			5199	1820	SLV 2	0.85	No
fin.	2	-1594	465.93	4567			5837	2277	SLV 2	0.5	No
ini.	2	243	-874.32	179			5199	1903	SLV 8	10.66	Si
fin.	2	-1165	-30.52	3168			5665	2195	SLV 8	0.69	No
ini.	2	-533	-52.72	-3241			5412	2069	SLV 15	0.64	No
fin.	2	-15	-1001.06	-423			5205	1960	SLV 15	4.63	Si
ini.	2	-552	101.96	-3196			5420	2073	SLV 14	0.65	No
fin.	2	53	-1010.41	-614			5199	1945	SLV 14	3.17	Si
ini.	2	243	-874.32	179			5199	1903	SLV 7	10.66	Si
fin.	2	-1165	-30.52	3168			5665	2195	SLV 7	0.69	No
ini.	2	-552	101.96	-3196			5420	2073	SLV 13	0.65	No
fin.	2	53	-1010.41	-614			5199	1945	SLV 13	3.17	Si
ini.	2	626	-1039.09	2101			5199	1815	SLV 4	0.86	No
fin.	2	-1662	475.29	4758			5864	2289	SLV 4	0.48	No
ini.	2	626	-1039.09	2101			5199	1815	SLV 3	0.86	No
fin.	2	-1662	475.29	4758			5864	2289	SLV 3	0.48	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	13.183	SLV 3	Si
V_SLV	0.481	SLV 3	No
PF_SLU	10.436	SLU 82	Si
V_SLU	0.424	SLU 82	No

#### Trave di accoppiamento 9

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

##### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-32.543	5.726	1.03	1.32	0.29	-31.543	5.726	1.03	1.32	0.29	1	0.45	30000

##### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	602	-52.79	192.01	SLU 77	3.64	Si
fin.	3	596	-104.1	192.01	SLU 77	1.84	Si
ini.	3	705	-59.13	192.01	SLU 82	3.25	Si
fin.	3	729	-111.26	192.01	SLU 82	1.73	Si
ini.	3	705	-59.13	192.01	SLU 84	3.25	Si
fin.	3	729	-111.26	192.01	SLU 84	1.73	Si
ini.	3	697	-59.21	192.01	SLU 81	3.24	Si
fin.	3	714	-112.27	192.01	SLU 81	1.71	Si
ini.	3	606	-53.36	192.01	SLU 62	3.6	Si
fin.	3	602	-104.35	192.01	SLU 62	1.84	Si
ini.	3	602	-52.79	192.01	SLU 74	3.64	Si
fin.	3	596	-104.1	192.01	SLU 74	1.84	Si
ini.	3	614	-53.27	192.01	SLU 63	3.6	Si
fin.	3	617	-103.33	192.01	SLU 63	1.86	Si
ini.	3	602	-52.79	192.01	SLU 79	3.64	Si
fin.	3	596	-104.1	192.01	SLU 79	1.84	Si
ini.	3	697	-59.21	192.01	SLU 83	3.24	Si
fin.	3	714	-112.27	192.01	SLU 83	1.71	Si
ini.	3	606	-53.36	192.01	SLU 60	3.6	Si
fin.	3	602	-104.35	192.01	SLU 60	1.84	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	655	-53.38	503			335	0	SLU 39	0	No
fin.	3	695	-96.57	-410			335	0	SLU 39	0	No
ini.	3	697	-59.21	573			335	0	SLU 83	0	No
fin.	3	714	-112.27	-488			335	0	SLU 83	0	No
ini.	3	663	-53.3	502			335	0	SLU 42	0	No
fin.	3	711	-95.56	-406			335	0	SLU 42	0	No
ini.	3	510	-46.94	475			335	0	SLU 53	0	No
fin.	3	484	-96.17	-434			335	0	SLU 53	0	No
ini.	3	560	-46.96	453			335	0	SLU 37	0	No
fin.	3	578	-88.4	-382			335	0	SLU 37	0	No
ini.	3	568	-46.88	451			335	0	SLU 38	0	No
fin.	3	593	-87.38	-378			335	0	SLU 38	0	No
ini.	3	655	-53.38	503			335	0	SLU 41	0	No
fin.	3	695	-96.57	-410			335	0	SLU 41	0	No
ini.	3	568	-46.88	451			335	0	SLU 36	0	No
fin.	3	593	-87.38	-378			335	0	SLU 36	0	No
ini.	3	663	-53.3	502			335	0	SLU 40	0	No
fin.	3	711	-95.56	-406			335	0	SLU 40	0	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	524	-46.79	472			335	0	SLU 52	0	No
fin.	3	509	-94.48	-427			335	0	SLU 52	0	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	129	-31.41	288.01	SLV 14	9.17	Si
fin.	2	-453	-232.58	288.01	SLV 14	1.24	Si
ini.	2	194	-31.47	288.01	SLV 16	9.15	Si
fin.	2	-341	-225.59	288.01	SLV 16	1.28	Si
ini.	2	129	-31.41	288.01	SLV 13	9.17	Si
fin.	2	-453	-232.58	288.01	SLV 13	1.24	Si
ini.	2	542	-32.75	288.01	SLV 4	8.79	Si
fin.	2	1055	94.35	288.01	SLV 4	3.05	Si
ini.	2	542	-32.75	288.01	SLV 3	8.79	Si
fin.	2	1055	94.35	288.01	SLV 3	3.05	Si
ini.	2	194	-31.47	288.01	SLV 15	9.15	Si
fin.	2	-341	-225.59	288.01	SLV 15	1.28	Si
ini.	2	174	-31.78	288.01	SLV 9	9.06	Si
fin.	2	-96	-128.75	288.01	SLV 9	2.24	Si
ini.	2	174	-31.78	288.01	SLV 10	9.06	Si
fin.	2	-96	-128.75	288.01	SLV 10	2.24	Si
ini.	2	392	-32	288.01	SLV 12	9	Si
fin.	2	279	-105.46	288.01	SLV 12	2.73	Si
ini.	2	392	-32	288.01	SLV 11	9	Si
fin.	2	279	-105.46	288.01	SLV 11	2.73	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	476	-32.69	129			503	98	SLV 1	0.77	No
fin.	2	943	87.37	203			503	0	SLV 1	0	No
ini.	2	129	-31.41	579			503	169	SLV 13	0.29	No
fin.	2	-453	-232.58	-879			623	246	SLV 13	0.28	No
ini.	2	476	-32.69	129			503	98	SLV 2	0.77	No
fin.	2	943	87.37	203			503	0	SLV 2	0	No
ini.	2	542	-32.75	90			503	78	SLV 4	0.87	No
fin.	2	1055	94.35	244			503	0	SLV 4	0	No
ini.	2	194	-31.47	540			503	158	SLV 16	0.29	No
fin.	2	-341	-225.59	-838			593	233	SLV 16	0.28	No
ini.	2	194	-31.47	540			503	158	SLV 15	0.29	No
fin.	2	-341	-225.59	-838			593	233	SLV 15	0.28	No
ini.	2	542	-32.75	90			503	78	SLV 3	0.87	No
fin.	2	1055	94.35	244			503	0	SLV 3	0	No
ini.	2	497	-32.38	202			503	92	SLV 7	0.46	No
fin.	2	698	-9.48	-87			503	0	SLV 7	0	No
ini.	2	129	-31.41	579			503	169	SLV 14	0.29	No
fin.	2	-453	-232.58	-879			623	246	SLV 14	0.28	No
ini.	2	497	-32.38	202			503	92	SLV 8	0.46	No
fin.	2	698	-9.48	-87			503	0	SLV 8	0	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.238	SLV 13	Si
V_SLV	0	SLV 1	No
PF_SLU	1.71	SLU 81	Si
V_SLU	0	SLU 10	No

### Trave di accoppiamento 10

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-27.338	5.726	-1.37	0.63	2	-26.338	5.726	-1.37	0.63	2	1	0.45	30000

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fkhmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1909	-239.17	9132.35	SLU 73	38.18	Si
fin.	3	-412	-760.25	9132.35	SLU 73	12.01	Si
ini.	3	-2002	-227.38	9132.35	SLU 83	40.16	Si
fin.	3	-387	-824.62	9132.35	SLU 83	11.07	Si
ini.	3	-1890	-237.5	9132.35	SLU 78	38.45	Si
fin.	3	-409	-756.21	9132.35	SLU 78	12.08	Si
ini.	3	-2002	-227.38	9132.35	SLU 81	40.16	Si
fin.	3	-387	-824.62	9132.35	SLU 81	11.07	Si
ini.	3	-1909	-239.17	9132.35	SLU 76	38.18	Si
fin.	3	-412	-760.25	9132.35	SLU 76	12.01	Si
ini.	3	-1895	-234.97	9132.35	SLU 63	38.87	Si
fin.	3	-403	-759.83	9132.35	SLU 63	12.02	Si
ini.	3	-2031	-229.88	9132.35	SLU 82	39.73	Si
fin.	3	-390	-830.69	9132.35	SLU 82	10.99	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1890	-237.5	9132.35	SLU 75	38.45	Si
fin.	3	-409	-756.21	9132.35	SLU 75	12.08	Si
ini.	3	-1895	-234.97	9132.35	SLU 61	38.87	Si
fin.	3	-403	-759.83	9132.35	SLU 61	12.02	Si
ini.	3	-2031	-229.88	9132.35	SLU 84	39.73	Si
fin.	3	-390	-830.69	9132.35	SLU 84	10.99	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-1895	-234.97	-4825			4224	1666	SLU 61	0.35	No
fin.	3	-403	-759.83	98			3627	1389	SLU 61	14.22	Si
ini.	3	-1909	-239.17	-4833			4230	1669	SLU 76	0.35	No
fin.	3	-412	-760.25	100			3631	1391	SLU 76	13.89	Si
ini.	3	-2002	-227.38	-5195			4267	1684	SLU 83	0.32	No
fin.	3	-387	-824.62	35			3621	1386	SLU 83	39.77	Si
ini.	3	-2002	-227.38	-5195			4267	1684	SLU 81	0.32	No
fin.	3	-387	-824.62	35			3621	1386	SLU 81	39.77	Si
ini.	3	-2031	-229.88	-5244			4278	1689	SLU 84	0.32	No
fin.	3	-390	-830.69	20			3622	1387	SLU 84	70.8	Si
ini.	3	-1895	-234.97	-4825			4224	1666	SLU 63	0.35	No
fin.	3	-403	-759.83	98			3627	1389	SLU 63	14.22	Si
ini.	3	-2031	-229.88	-5244			4278	1689	SLU 82	0.32	No
fin.	3	-390	-830.69	20			3622	1387	SLU 82	70.8	Si
ini.	3	-1890	-237.5	-4800			4222	1665	SLU 75	0.35	No
fin.	3	-409	-756.21	110			3630	1391	SLU 75	12.6	Si
ini.	3	-1890	-237.5	-4800			4222	1665	SLU 78	0.35	No
fin.	3	-409	-756.21	110			3630	1391	SLU 78	12.6	Si
ini.	3	-1909	-239.17	-4833			4230	1669	SLU 73	0.35	No
fin.	3	-412	-760.25	100			3631	1391	SLU 73	13.89	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1354	-107.23	13698.53	SLV 10	127.75	Si
fin.	2	-65	-575.13	13698.53	SLV 10	23.82	Si
ini.	2	-1825	177.68	13698.53	SLV 14	77.1	Si
fin.	2	499	-1109.26	13698.53	SLV 14	12.35	Si
ini.	2	-1494	-47.47	13698.53	SLV 12	288.55	Si
fin.	2	-111	-776.99	13698.53	SLV 12	17.63	Si
ini.	2	-618	-576.58	13698.53	SLV 1	23.76	Si
fin.	2	-1159	214.96	13698.53	SLV 1	63.72	Si
ini.	2	-1354	-107.23	13698.53	SLV 9	127.75	Si
fin.	2	-65	-575.13	13698.53	SLV 9	23.82	Si
ini.	2	-1867	195.6	13698.53	SLV 16	70.03	Si
fin.	2	485	-1169.82	13698.53	SLV 16	11.71	Si
ini.	2	-1825	177.68	13698.53	SLV 13	77.1	Si
fin.	2	499	-1109.26	13698.53	SLV 13	12.35	Si
ini.	2	-1867	195.6	13698.53	SLV 15	70.03	Si
fin.	2	485	-1169.82	13698.53	SLV 15	11.71	Si
ini.	2	-1494	-47.47	13698.53	SLV 11	288.55	Si
fin.	2	-111	-776.99	13698.53	SLV 11	17.63	Si
ini.	2	-618	-576.58	13698.53	SLV 2	23.76	Si
fin.	2	-1159	214.96	13698.53	SLV 2	63.72	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1494	-47.47	-3897			5796	2258	SLV 11	0.58	No
fin.	2	-111	-776.99	-252			5244	1981	SLV 11	7.86	Si
ini.	2	-660	-558.66	-638			5463	2095	SLV 3	3.28	Si
fin.	2	-1173	154.4	2706			5668	2197	SLV 3	0.81	No
ini.	2	-1494	-47.47	-3897			5796	2258	SLV 12	0.58	No
fin.	2	-111	-776.99	-252			5244	1981	SLV 12	7.86	Si
ini.	2	-660	-558.66	-638			5463	2095	SLV 4	3.28	Si
fin.	2	-1173	154.4	2706			5668	2197	SLV 4	0.81	No
ini.	2	-1354	-107.23	-3695			5741	2232	SLV 9	0.6	No
fin.	2	-65	-575.13	-763			5225	1971	SLV 9	2.58	Si
ini.	2	-1867	195.6	-5543			5946	2327	SLV 16	0.42	No
fin.	2	485	-1169.82	-2120			5199	1848	SLV 16	0.87	No
ini.	2	-1867	195.6	-5543			5946	2327	SLV 15	0.42	No
fin.	2	485	-1169.82	-2120			5199	1848	SLV 15	0.87	No
ini.	2	-1825	177.68	-5482			5929	2320	SLV 13	0.42	No
fin.	2	499	-1109.26	-2273			5199	1845	SLV 13	0.81	No
ini.	2	-1354	-107.23	-3695			5741	2232	SLV 10	0.6	No
fin.	2	-65	-575.13	-763			5225	1971	SLV 10	2.58	Si
ini.	2	-1825	177.68	-5482			5929	2320	SLV 14	0.42	No
fin.	2	499	-1109.26	-2273			5199	1845	SLV 14	0.81	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	11.71	SLV 15	Si
V_SLV	0.42	SLV 15	No
PF_SLU	10.994	SLU 82	Si
V_SLU	0.322	SLU 82	No

## Trave di accoppiamento 11

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)





## Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-27.338	5.726	1.03	1.32	0.29	-26.338	5.726	1.03	1.32	0.29	1	0.45	30000

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

## Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	387	-20.87	192.01	SLU 61	9.2	Si
fin.	3	-31	-135.57	192.01	SLU 61	1.42	Si
ini.	3	388	-21.02	192.01	SLU 76	9.14	Si
fin.	3	-26	-134.84	192.01	SLU 76	1.42	Si
ini.	3	388	-21.02	192.01	SLU 73	9.14	Si
fin.	3	-26	-134.84	192.01	SLU 73	1.42	Si
ini.	3	387	-20.87	192.01	SLU 63	9.2	Si
fin.	3	-31	-135.57	192.01	SLU 63	1.42	Si
ini.	3	426	-19.29	192.01	SLU 81	9.95	Si
fin.	3	-46	-148.73	192.01	SLU 81	1.29	Si
ini.	3	426	-19.29	192.01	SLU 83	9.95	Si
fin.	3	-46	-148.73	192.01	SLU 83	1.29	Si
ini.	3	432	-18.9	192.01	SLU 82	10.16	Si
fin.	3	-43	-149.41	192.01	SLU 82	1.29	Si
ini.	3	432	-18.9	192.01	SLU 84	10.16	Si
fin.	3	-43	-149.41	192.01	SLU 84	1.29	Si
ini.	3	381	-21.25	192.01	SLU 60	9.03	Si
fin.	3	-33	-134.88	192.01	SLU 60	1.42	Si
ini.	3	381	-21.25	192.01	SLU 62	9.03	Si
fin.	3	-33	-134.88	192.01	SLU 62	1.42	Si

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	426	-19.29	277			335	18	SLU 83	0.07	No
fin.	3	-46	-148.73	-680			347	133	SLU 83	0.19	No
ini.	3	388	-21.02	272			335	41	SLU 76	0.15	No
fin.	3	-26	-134.84	-627			342	130	SLU 76	0.21	No
ini.	3	388	-21.02	272			335	41	SLU 73	0.15	No
fin.	3	-26	-134.84	-627			342	130	SLU 73	0.21	No
ini.	3	426	-19.29	277			335	18	SLU 81	0.07	No
fin.	3	-46	-148.73	-680			347	133	SLU 81	0.19	No
ini.	3	384	-21.27	273			335	43	SLU 78	0.16	No
fin.	3	-28	-134.39	-625			342	130	SLU 78	0.21	No
ini.	3	432	-18.9	276			335	10	SLU 82	0.04	No
fin.	3	-43	-149.41	-683			347	132	SLU 82	0.19	No
ini.	3	384	-21.27	273			335	43	SLU 75	0.16	No
fin.	3	-28	-134.39	-625			342	130	SLU 75	0.21	No
ini.	3	387	-20.87	272			335	42	SLU 63	0.15	No
fin.	3	-31	-135.57	-630			343	130	SLU 63	0.21	No
ini.	3	432	-18.9	276			335	10	SLU 84	0.04	No
fin.	3	-43	-149.41	-683			347	132	SLU 84	0.19	No
ini.	3	387	-20.87	272			335	42	SLU 61	0.15	No
fin.	3	-31	-135.57	-630			343	130	SLU 61	0.21	No

## Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	720	93.09	288.01	SLV 15	3.09	Si
fin.	2	-336	-198.61	288.01	SLV 15	1.45	Si
ini.	2	720	93.09	288.01	SLV 16	3.09	Si
fin.	2	-336	-198.61	288.01	SLV 16	1.45	Si
ini.	2	-210	-129.91	288.01	SLV 3	2.22	Si
fin.	2	386	34.62	288.01	SLV 3	8.32	Si
ini.	2	273	9.14	288.01	SLV 9	31.51	Si
fin.	2	-202	-120.7	288.01	SLV 9	2.39	Si
ini.	2	664	90.37	288.01	SLV 13	3.19	Si
fin.	2	-391	-200.33	288.01	SLV 13	1.44	Si
ini.	2	-210	-129.91	288.01	SLV 4	2.22	Si
fin.	2	386	34.62	288.01	SLV 4	8.32	Si
ini.	2	-266	-132.63	288.01	SLV 1	2.17	Si
fin.	2	331	32.9	288.01	SLV 1	8.75	Si
ini.	2	664	90.37	288.01	SLV 14	3.19	Si
fin.	2	-391	-200.33	288.01	SLV 14	1.44	Si
ini.	2	-266	-132.63	288.01	SLV 2	2.17	Si
fin.	2	331	32.9	288.01	SLV 2	8.75	Si
ini.	2	273	9.14	288.01	SLV 10	31.51	Si
fin.	2	-202	-120.7	288.01	SLV 10	2.39	Si

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	460	18.22	130			503	103	SLV 12	0.79	No
fin.	2	-20	-114.98	-531			508	192	SLV 12	0.36	No
ini.	2	-210	-129.91	568			559	217	SLV 3	0.38	No
fin.	2	386	34.62	-19			503	121	SLV 3	6.39	Si
ini.	2	-210	-129.91	568			559	217	SLV 4	0.38	No
fin.	2	386	34.62	-19			503	121	SLV 4	6.39	Si
ini.	2	-266	-132.63	550			573	224	SLV 2	0.41	No
fin.	2	331	32.9	-12			503	133	SLV 2	11.25	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	720	93.09	-138			503	0	SLV 15	0	No
fin.	2	-336	-198.61	-793			592	233	SLV 15	0.29	No
ini.	2	-266	-132.63	550			573	224	SLV 1	0.41	No
fin.	2	331	32.9	-12			503	133	SLV 1	11.25	Si
ini.	2	460	18.22	130			503	103	SLV 11	0.79	No
fin.	2	-20	-114.98	-531			508	192	SLV 11	0.36	No
ini.	2	720	93.09	-138			503	0	SLV 16	0	No
fin.	2	-336	-198.61	-793			592	233	SLV 16	0.29	No
ini.	2	664	90.37	-157			503	0	SLV 13	0	No
fin.	2	-391	-200.33	-786			607	239	SLV 13	0.3	No
ini.	2	664	90.37	-157			503	0	SLV 14	0	No
fin.	2	-391	-200.33	-786			607	239	SLV 14	0.3	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.438	SLV 13	Si
V_SLV	0	SLV 13	No
PF_SLU	1.285	SLU 82	Si
V_SLU	0.037	SLU 82	No

## Trave di accoppiamento 12

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-28.073	-1.549	0.8	1.32	0.52	-28.073	0.331	0.8	1.32	0.52	1.88	0.3	30000

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb <sub>m</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1101	-482.45	411.56	SLU 83	0.85	No
fin.	3	-1439	-561.26	411.56	SLU 83	0.73	No
ini.	3	-1002	-443.55	411.56	SLU 77	0.93	No
fin.	3	-1318	-518.64	411.56	SLU 77	0.79	No
ini.	3	-1107	-483.11	411.56	SLU 84	0.85	No
fin.	3	-1444	-560.4	411.56	SLU 84	0.73	No
ini.	3	-1002	-443.55	411.56	SLU 74	0.93	No
fin.	3	-1318	-518.64	411.56	SLU 74	0.79	No
ini.	3	-1101	-482.45	411.56	SLU 81	0.85	No
fin.	3	-1439	-561.26	411.56	SLU 81	0.73	No
ini.	3	-1002	-443.55	411.56	SLU 79	0.93	No
fin.	3	-1318	-518.64	411.56	SLU 79	0.79	No
ini.	3	-1008	-444.21	411.56	SLU 80	0.93	No
fin.	3	-1323	-517.79	411.56	SLU 80	0.79	No
ini.	3	-1107	-483.11	411.56	SLU 82	0.85	No
fin.	3	-1444	-560.4	411.56	SLU 82	0.73	No
ini.	3	-1008	-444.21	411.56	SLU 78	0.93	No
fin.	3	-1323	-517.79	411.56	SLU 78	0.79	No
ini.	3	-1008	-444.21	411.56	SLU 75	0.93	No
fin.	3	-1323	-517.79	411.56	SLU 75	0.79	No

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-1002	-443.55	2470			668	258	SLU 74	0.1	No
fin.	3	-1318	-518.64	-3670			752	283	SLU 74	0.08	No
ini.	3	-1002	-443.55	2470			668	258	SLU 77	0.1	No
fin.	3	-1318	-518.64	-3670			752	283	SLU 77	0.08	No
ini.	3	-1008	-444.21	2471			669	258	SLU 80	0.1	No
fin.	3	-1323	-517.79	-3667			753	284	SLU 80	0.08	No
ini.	3	-1101	-482.45	2676			694	266	SLU 83	0.1	No
fin.	3	-1439	-561.26	-3982			784	293	SLU 83	0.07	No
ini.	3	-1002	-443.55	2470			668	258	SLU 79	0.1	No
fin.	3	-1318	-518.64	-3670			752	283	SLU 79	0.08	No
ini.	3	-1107	-483.11	2677			696	267	SLU 82	0.1	No
fin.	3	-1444	-560.4	-3979			786	293	SLU 82	0.07	No
ini.	3	-1008	-444.21	2471			669	258	SLU 78	0.1	No
fin.	3	-1323	-517.79	-3667			753	284	SLU 78	0.08	No
ini.	3	-1101	-482.45	2676			694	266	SLU 81	0.1	No
fin.	3	-1439	-561.26	-3982			784	293	SLU 81	0.07	No
ini.	3	-1107	-483.11	2677			696	267	SLU 84	0.1	No
fin.	3	-1444	-560.4	-3979			786	293	SLU 84	0.07	No
ini.	3	-1008	-444.21	2471			669	258	SLU 75	0.1	No
fin.	3	-1323	-517.79	-3667			753	284	SLU 75	0.08	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1001	73.98	617.35	SLV 7	8.34	Si
fin.	2	-1307	-945.15	617.35	SLV 7	0.65	No
ini.	2	-2249	-642.46	617.35	SLV 10	0.96	No
fin.	2	-361	269.83	617.35	SLV 10	2.29	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-692	-231.94	617.35	SLV 3	2.66	Si
fin.	2	-1115	-613.37	617.35	SLV 3	1.01	Si
ini.	2	-2249	-642.46	617.35	SLV 9	0.96	No
fin.	2	-361	269.83	617.35	SLV 9	2.29	Si
ini.	2	-692	-231.94	617.35	SLV 4	2.66	Si
fin.	2	-1115	-613.37	617.35	SLV 4	1.01	Si
ini.	2	1368	110.35	617.35	SLV 11	5.59	Si
fin.	2	-1214	-883.53	617.35	SLV 11	0.7	No
ini.	2	-2615	-678.83	617.35	SLV 5	0.91	No
fin.	2	-453	208.21	617.35	SLV 5	2.97	Si
ini.	2	1001	73.98	617.35	SLV 8	8.34	Si
fin.	2	-1307	-945.15	617.35	SLV 8	0.65	No
ini.	2	1368	110.35	617.35	SLV 12	5.59	Si
fin.	2	-1214	-883.53	617.35	SLV 12	0.7	No
ini.	2	-2615	-678.83	617.35	SLV 6	0.91	No
fin.	2	-453	208.21	617.35	SLV 6	2.97	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-555	-336.54	1825			749	296	SLV 13	0.16	No
fin.	2	-552	-61.96	-1870			748	295	SLV 13	0.16	No
ini.	2	-692	-231.94	1372			785	311	SLV 3	0.23	No
fin.	2	-1115	-613.37	-2855			898	352	SLV 3	0.12	No
ini.	2	1001	73.98	639			601	0	SLV 8	0	No
fin.	2	-1307	-945.15	-4064			949	370	SLV 8	0.09	No
ini.	2	-555	-336.54	1825			749	296	SLV 14	0.16	No
fin.	2	-552	-61.96	-1870			748	295	SLV 14	0.16	No
ini.	2	530	-110.69	1237			601	128	SLV 16	0.1	No
fin.	2	-808	-407.97	-2895			816	323	SLV 16	0.11	No
ini.	2	1368	110.35	599			601	0	SLV 11	0	No
fin.	2	-1214	-883.53	-4076			925	362	SLV 11	0.09	No
ini.	2	1368	110.35	599			601	0	SLV 12	0	No
fin.	2	-1214	-883.53	-4076			925	362	SLV 12	0.09	No
ini.	2	1001	73.98	639			601	0	SLV 7	0	No
fin.	2	-1307	-945.15	-4064			949	370	SLV 7	0.09	No
ini.	2	-692	-231.94	1372			785	311	SLV 4	0.23	No
fin.	2	-1115	-613.37	-2855			898	352	SLV 4	0.12	No
ini.	2	530	-110.69	1237			601	128	SLV 15	0.1	No
fin.	2	-808	-407.97	-2895			816	323	SLV 15	0.11	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.653	SLV 7	No
V_SLV	0	SLV 7	No
PF_SLU	0.733	SLU 81	No
V_SLU	0.073	SLU 81	No

## Trave di accoppiamento 13

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-32.708	-3.274	1.32	2.32	1	-31.708	-3.274	1.32	2.32	1	1	0.3	30000

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	268	-300.53	1522.06	SLU 73	5.06	Si
fin.	3	-426	345.35	1522.06	SLU 73	4.41	Si
ini.	3	266	-299.99	1522.06	SLU 78	5.07	Si
fin.	3	-426	345.12	1522.06	SLU 78	4.41	Si
ini.	3	401	-354.59	1522.06	SLU 82	4.29	Si
fin.	3	-414	374.34	1522.06	SLU 82	4.07	Si
ini.	3	268	-300.53	1522.06	SLU 76	5.06	Si
fin.	3	-426	345.35	1522.06	SLU 76	4.41	Si
ini.	3	266	-299.99	1522.06	SLU 75	5.07	Si
fin.	3	-426	345.12	1522.06	SLU 75	4.41	Si
ini.	3	399	-353.78	1522.06	SLU 81	4.3	Si
fin.	3	-413	373.99	1522.06	SLU 81	4.07	Si
ini.	3	401	-354.59	1522.06	SLU 84	4.29	Si
fin.	3	-414	374.34	1522.06	SLU 84	4.07	Si
ini.	3	399	-353.78	1522.06	SLU 83	4.3	Si
fin.	3	-413	373.99	1522.06	SLU 83	4.07	Si
ini.	3	266	-299.99	1522.06	SLU 80	5.07	Si
fin.	3	-426	345.12	1522.06	SLU 80	4.41	Si
ini.	3	280	-304.12	1522.06	SLU 63	5	Si
fin.	3	-421	344.96	1522.06	SLU 63	4.41	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
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Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	399	-353.78	949			1155	337	SLU 83	0.36	No
fin.	3	-413	373.99	2328			1320	517	SLU 83	0.22	No
ini.	3	401	-354.59	952			1155	337	SLU 82	0.35	No
fin.	3	-414	374.34	2330			1321	517	SLU 82	0.22	No
ini.	3	399	-353.78	949			1155	337	SLU 81	0.36	No
fin.	3	-413	373.99	2328			1320	517	SLU 81	0.22	No
ini.	3	470	-339.1	836			1155	317	SLU 41	0.38	No
fin.	3	-305	324.69	2158			1277	497	SLU 41	0.23	No
ini.	3	470	-339.1	836			1155	317	SLU 39	0.38	No
fin.	3	-305	324.69	2158			1277	497	SLU 39	0.23	No
ini.	3	280	-304.12	871			1155	369	SLU 63	0.42	No
fin.	3	-421	344.96	2048			1324	518	SLU 63	0.25	No
ini.	3	280	-304.12	871			1155	369	SLU 61	0.42	No
fin.	3	-421	344.96	2048			1324	518	SLU 61	0.25	No
ini.	3	472	-339.92	839			1155	316	SLU 40	0.38	No
fin.	3	-306	325.03	2160			1278	497	SLU 40	0.23	No
ini.	3	401	-354.59	952			1155	337	SLU 84	0.35	No
fin.	3	-414	374.34	2330			1321	517	SLU 84	0.22	No
ini.	3	472	-339.92	839			1155	316	SLU 42	0.38	No
fin.	3	-306	325.03	2160			1278	497	SLU 42	0.23	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	564	-600.3	2283.09	SLV 4	3.8	Si
fin.	2	-1155	659.14	2283.09	SLV 4	3.46	Si
ini.	2	597	-639.06	2283.09	SLV 1	3.57	Si
fin.	2	-1237	712.24	2283.09	SLV 1	3.21	Si
ini.	2	564	-600.3	2283.09	SLV 3	3.8	Si
fin.	2	-1155	659.14	2283.09	SLV 3	3.46	Si
ini.	2	-513	285.44	2283.09	SLV 13	8	Si
fin.	2	472	-207.57	2283.09	SLV 13	11	Si
ini.	2	247	-360.71	2283.09	SLV 5	6.33	Si
fin.	2	-735	452.26	2283.09	SLV 5	5.05	Si
ini.	2	597	-639.06	2283.09	SLV 2	3.57	Si
fin.	2	-1237	712.24	2283.09	SLV 2	3.21	Si
ini.	2	-546	324.21	2283.09	SLV 16	7.04	Si
fin.	2	554	-260.67	2283.09	SLV 16	8.76	Si
ini.	2	247	-360.71	2283.09	SLV 6	6.33	Si
fin.	2	-735	452.26	2283.09	SLV 6	5.05	Si
ini.	2	-513	285.44	2283.09	SLV 14	8	Si
fin.	2	472	-207.57	2283.09	SLV 14	11	Si
ini.	2	-546	324.21	2283.09	SLV 15	7.04	Si
fin.	2	554	-260.67	2283.09	SLV 15	8.76	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	597	-639.06	2206			1733	506	SLV 2	0.23	No
fin.	2	-1237	712.24	2769			2228	881	SLV 2	0.32	No
ini.	2	137	-231.49	847			1733	622	SLV 7	0.73	No
fin.	2	-461	275.26	1460			1918	746	SLV 7	0.51	No
ini.	2	-546	324.21	-1109			1952	762	SLV 16	0.69	No
fin.	2	554	-260.67	-433			1733	518	SLV 16	1.2	Si
ini.	2	137	-231.49	847			1733	622	SLV 8	0.73	No
fin.	2	-461	275.26	1460			1918	746	SLV 8	0.51	No
ini.	2	-546	324.21	-1109			1952	762	SLV 15	0.69	No
fin.	2	554	-260.67	-433			1733	518	SLV 15	1.2	Si
ini.	2	247	-360.71	1212			1733	596	SLV 6	0.49	No
fin.	2	-735	452.26	1805			2027	796	SLV 6	0.44	No
ini.	2	247	-360.71	1212			1733	596	SLV 5	0.49	No
fin.	2	-735	452.26	1805			2027	796	SLV 5	0.44	No
ini.	2	564	-600.3	2097			1733	515	SLV 3	0.25	No
fin.	2	-1155	659.14	2665			2195	868	SLV 3	0.33	No
ini.	2	564	-600.3	2097			1733	515	SLV 4	0.25	No
fin.	2	-1155	659.14	2665			2195	868	SLV 4	0.33	No
ini.	2	597	-639.06	2206			1733	506	SLV 1	0.23	No
fin.	2	-1237	712.24	2769			2228	881	SLV 1	0.32	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.205	SLV 1	Si
V_SLV	0.229	SLV 1	No
PF_SLU	4.066	SLU 82	Si
V_SLU	0.222	SLU 82	No

### Trave di accoppiamento 14

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-32.708	-3.274	4.22	5.08	0.86	-31.708	-3.274	4.22	5.08	0.86	1	0.3	30000

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2



#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2582	134.36	1125.71	SLU 83	8.38	Si
fin.	3	-2582	273.71	1125.71	SLU 83	4.11	Si
ini.	3	-2426	126.65	1125.71	SLU 41	8.89	Si
fin.	3	-2426	261.26	1125.71	SLU 41	4.31	Si
ini.	3	-2581	133.48	1125.71	SLU 84	8.43	Si
fin.	3	-2581	274.26	1125.71	SLU 84	4.1	Si
ini.	3	-2253	114.99	1125.71	SLU 61	9.79	Si
fin.	3	-2253	237.12	1125.71	SLU 61	4.75	Si
ini.	3	-2425	125.78	1125.71	SLU 40	8.95	Si
fin.	3	-2425	261.81	1125.71	SLU 40	4.3	Si
ini.	3	-2581	133.48	1125.71	SLU 82	8.43	Si
fin.	3	-2581	274.26	1125.71	SLU 82	4.1	Si
ini.	3	-2425	125.78	1125.71	SLU 42	8.95	Si
fin.	3	-2425	261.81	1125.71	SLU 42	4.3	Si
ini.	3	-2253	114.99	1125.71	SLU 63	9.79	Si
fin.	3	-2253	237.12	1125.71	SLU 63	4.75	Si
ini.	3	-2426	126.65	1125.71	SLU 39	8.89	Si
fin.	3	-2426	261.26	1125.71	SLU 39	4.31	Si
ini.	3	-2582	134.36	1125.71	SLU 81	8.38	Si
fin.	3	-2582	273.71	1125.71	SLU 81	4.11	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-2581	133.48	2793			1742	643	SLU 84	0.23	No
fin.	3	-2581	274.26	-1835			1742	643	SLU 84	0.35	No
ini.	3	-2425	125.78	2664			1689	628	SLU 40	0.24	No
fin.	3	-2425	261.81	-1723			1689	628	SLU 40	0.36	No
ini.	3	-2582	134.36	2792			1743	643	SLU 81	0.23	No
fin.	3	-2582	273.71	-1836			1743	643	SLU 81	0.35	No
ini.	3	-2426	126.65	2662			1689	629	SLU 41	0.24	No
fin.	3	-2426	261.26	-1724			1689	629	SLU 41	0.36	No
ini.	3	-2425	125.78	2664			1689	628	SLU 42	0.24	No
fin.	3	-2425	261.81	-1723			1689	628	SLU 42	0.36	No
ini.	3	-2426	126.65	2662			1689	629	SLU 39	0.24	No
fin.	3	-2426	261.26	-1724			1689	629	SLU 39	0.36	No
ini.	3	-2582	134.36	2792			1743	643	SLU 83	0.23	No
fin.	3	-2582	273.71	-1836			1743	643	SLU 83	0.35	No
ini.	3	-2253	114.99	2407			1629	612	SLU 63	0.25	No
fin.	3	-2253	237.12	-1598			1629	612	SLU 63	0.38	No
ini.	3	-2253	114.99	2407			1629	612	SLU 61	0.25	No
fin.	3	-2253	237.12	-1598			1629	612	SLU 61	0.38	No
ini.	3	-2581	133.48	2793			1742	643	SLU 82	0.23	No
fin.	3	-2581	274.26	-1835			1742	643	SLU 82	0.35	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1366	485.08	1688.57	SLV 16	3.48	Si
fin.	2	-2094	-301.79	1688.57	SLV 16	5.6	Si
ini.	2	-1215	493.21	1688.57	SLV 14	3.42	Si
fin.	2	-1924	-295.85	1688.57	SLV 14	5.71	Si
ini.	2	-1215	493.21	1688.57	SLV 13	3.42	Si
fin.	2	-1924	-295.85	1688.57	SLV 13	5.71	Si
ini.	2	-1089	-356.33	1688.57	SLV 2	4.74	Si
fin.	2	-361	547	1688.57	SLV 2	3.09	Si
ini.	2	-957	-49.5	1688.57	SLV 6	34.11	Si
fin.	2	-710	258.93	1688.57	SLV 6	6.52	Si
ini.	2	-957	-49.5	1688.57	SLV 5	34.11	Si
fin.	2	-710	258.93	1688.57	SLV 5	6.52	Si
ini.	2	-1366	485.08	1688.57	SLV 15	3.48	Si
fin.	2	-2094	-301.79	1688.57	SLV 15	5.6	Si
ini.	2	-1089	-356.33	1688.57	SLV 1	4.74	Si
fin.	2	-361	547	1688.57	SLV 1	3.09	Si
ini.	2	-1240	-364.46	1688.57	SLV 3	4.63	Si
fin.	2	-531	541.06	1688.57	SLV 3	3.12	Si
ini.	2	-1240	-364.46	1688.57	SLV 4	4.63	Si
fin.	2	-531	541.06	1688.57	SLV 4	3.12	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1240	-364.46	2329			1708	675	SLV 3	0.29	No
fin.	2	-531	541.06	203			1464	573	SLV 3	2.83	Si
ini.	2	-1089	-356.33	2333			1656	655	SLV 1	0.28	No
fin.	2	-361	547	159			1406	546	SLV 1	3.44	Si
ini.	2	-1240	-364.46	2329			1708	675	SLV 4	0.29	No
fin.	2	-531	541.06	203			1464	573	SLV 4	2.83	Si
ini.	2	-957	-49.5	1591			1611	637	SLV 6	0.4	No
fin.	2	-710	258.93	-636			1526	601	SLV 6	0.94	No
ini.	2	-1089	-356.33	2333			1656	655	SLV 2	0.28	No
fin.	2	-361	547	159			1406	546	SLV 2	3.44	Si
ini.	2	-957	-49.5	1591			1611	637	SLV 5	0.4	No
fin.	2	-710	258.93	-636			1526	601	SLV 5	0.94	No
ini.	2	-1366	485.08	196			1752	692	SLV 16	3.54	Si
fin.	2	-2094	-301.79	-1920			2002	781	SLV 16	0.41	No
ini.	2	-1215	493.21	200			1700	672	SLV 14	3.37	Si
fin.	2	-1924	-295.85	-1964			1944	761	SLV 14	0.39	No
ini.	2	-1366	485.08	196			1752	692	SLV 15	3.54	Si
fin.	2	-2094	-301.79	-1920			2002	781	SLV 15	0.41	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1215	493.21	200			1700	672	SLV 13	3.37	Si
fin.	2	-1924	-295.85	-1964			1944	761	SLV 13	0.39	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.087	SLV 1	Si
V_SLV	0.281	SLV 1	No
PF_SLU	4.105	SLU 82	Si
V_SLU	0.23	SLU 82	No

## Trave di accoppiamento 15

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-29.878	-3.274	3.35	5.08	1.73	-28.478	-3.274	3.35	5.08	1.73	1.4	0.3	30000

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fmk	fvk0	fmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2492	34.34	4555.37	SLU 39	132.64	Si
fin.	3	-2492	-475.97	4555.37	SLU 39	9.57	Si
ini.	3	-2734	42.37	4555.37	SLU 84	107.52	Si
fin.	3	-2734	-454.24	4555.37	SLU 84	10.03	Si
ini.	3	-2492	34.01	4555.37	SLU 40	133.95	Si
fin.	3	-2492	-475.36	4555.37	SLU 40	9.58	Si
ini.	3	-2492	34.34	4555.37	SLU 41	132.64	Si
fin.	3	-2492	-475.97	4555.37	SLU 41	9.57	Si
ini.	3	-2733	42.71	4555.37	SLU 81	106.67	Si
fin.	3	-2733	-454.85	4555.37	SLU 81	10.02	Si
ini.	3	-2492	34.01	4555.37	SLU 42	133.95	Si
fin.	3	-2492	-475.36	4555.37	SLU 42	9.58	Si
ini.	3	-2191	44.25	4555.37	SLU 20	102.95	Si
fin.	3	-2191	-395	4555.37	SLU 20	11.53	Si
ini.	3	-2733	42.71	4555.37	SLU 83	106.67	Si
fin.	3	-2733	-454.85	4555.37	SLU 83	10.02	Si
ini.	3	-2734	42.37	4555.37	SLU 82	107.52	Si
fin.	3	-2734	-454.24	4555.37	SLU 82	10.03	Si
ini.	3	-2191	44.25	4555.37	SLU 18	102.95	Si
fin.	3	-2191	-395	4555.37	SLU 18	11.53	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-2492	34.34	1809			2995	1175	SLU 41	0.65	No
fin.	3	-2492	-475.97	-2224			2995	1175	SLU 41	0.53	No
ini.	3	-2433	52.61	1795			2972	1167	SLU 62	0.65	No
fin.	3	-2433	-373.88	-2181			2972	1167	SLU 62	0.54	No
ini.	3	-2734	42.37	2011			3092	1208	SLU 82	0.6	No
fin.	3	-2734	-454.24	-2430			3092	1208	SLU 82	0.5	No
ini.	3	-2492	34.34	1809			2995	1175	SLU 39	0.65	No
fin.	3	-2492	-475.97	-2224			2995	1175	SLU 39	0.53	No
ini.	3	-2733	42.71	2011			3092	1208	SLU 83	0.6	No
fin.	3	-2733	-454.85	-2430			3092	1208	SLU 83	0.5	No
ini.	3	-2433	52.61	1795			2972	1167	SLU 60	0.65	No
fin.	3	-2433	-373.88	-2181			2972	1167	SLU 60	0.54	No
ini.	3	-2733	42.71	2011			3092	1208	SLU 81	0.6	No
fin.	3	-2733	-454.85	-2430			3092	1208	SLU 81	0.5	No
ini.	3	-2492	34.01	1810			2996	1175	SLU 42	0.65	No
fin.	3	-2492	-475.36	-2224			2996	1175	SLU 42	0.53	No
ini.	3	-2734	42.37	2011			3092	1208	SLU 84	0.6	No
fin.	3	-2734	-454.24	-2430			3092	1208	SLU 84	0.5	No
ini.	3	-2492	34.01	1810			2996	1175	SLU 40	0.65	No
fin.	3	-2492	-475.36	-2224			2996	1175	SLU 40	0.53	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1132	-1042.9	6833.05	SLV 3	6.55	Si
fin.	2	-608	856.13	6833.05	SLV 3	7.98	Si
ini.	2	-1656	1219.81	6833.05	SLV 15	5.6	Si
fin.	2	-2148	-1249.18	6833.05	SLV 15	5.47	Si
ini.	2	-1230	-1181.29	6833.05	SLV 1	5.78	Si
fin.	2	-738	1009.52	6833.05	SLV 1	6.77	Si
ini.	2	-1656	1219.81	6833.05	SLV 16	5.6	Si
fin.	2	-2148	-1249.18	6833.05	SLV 16	5.47	Si
ini.	2	-1132	-1042.9	6833.05	SLV 4	6.55	Si
fin.	2	-608	856.13	6833.05	SLV 4	7.98	Si
ini.	2	-1358	589.31	6833.05	SLV 11	11.6	Si
fin.	2	-1458	-691.27	6833.05	SLV 11	9.88	Si
ini.	2	-1358	589.31	6833.05	SLV 12	11.6	Si
fin.	2	-1458	-691.27	6833.05	SLV 12	9.88	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1754	1081.42	6833.05	SLV 14	6.32	Si
fin.	2	-2278	-1095.79	6833.05	SLV 14	6.24	Si
ini.	2	-1230	-1181.29	6833.05	SLV 2	5.78	Si
fin.	2	-738	1009.52	6833.05	SLV 2	6.77	Si
ini.	2	-1754	1081.42	6833.05	SLV 13	6.32	Si
fin.	2	-2278	-1095.79	6833.05	SLV 13	6.24	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1358	589.31	263			3541	1392	SLV 11	5.29	Si
fin.	2	-1458	-691.27	-2151			3581	1410	SLV 11	0.66	No
ini.	2	-1656	1219.81	-756			3661	1444	SLV 15	1.91	Si
fin.	2	-2148	-1249.18	-3173			3857	1525	SLV 15	0.48	No
ini.	2	-1230	-1181.29	2986			3490	1370	SLV 1	0.46	No
fin.	2	-738	1009.52	685			3293	1279	SLV 1	1.87	Si
ini.	2	-1132	-1042.9	2795			3451	1352	SLV 4	0.48	No
fin.	2	-608	856.13	469			3241	1254	SLV 4	2.67	Si
ini.	2	-1656	1219.81	-756			3661	1444	SLV 16	1.91	Si
fin.	2	-2148	-1249.18	-3173			3857	1525	SLV 16	0.48	No
ini.	2	-1132	-1042.9	2795			3451	1352	SLV 3	0.48	No
fin.	2	-608	856.13	469			3241	1254	SLV 3	2.67	Si
ini.	2	-1754	1081.42	-564			3700	1461	SLV 13	2.59	Si
fin.	2	-2278	-1095.79	-2957			3909	1546	SLV 13	0.52	No
ini.	2	-1754	1081.42	-564			3700	1461	SLV 14	2.59	Si
fin.	2	-2278	-1095.79	-2957			3909	1546	SLV 14	0.52	No
ini.	2	-1230	-1181.29	2986			3490	1370	SLV 2	0.46	No
fin.	2	-738	1009.52	685			3293	1279	SLV 2	1.87	Si
ini.	2	-1358	589.31	263			3541	1392	SLV 12	5.29	Si
fin.	2	-1458	-691.27	-2151			3581	1410	SLV 12	0.66	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	5.47	SLV 15	Si
V_SLV	0.459	SLV 1	No
PF_SLU	9.571	SLU 39	Si
V_SLU	0.497	SLU 81	No

## Trave di accoppiamento 16

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-26.647	-3.274	1.32	2.32	1	-25.647	-3.274	1.32	2.32	1	1	0.3	30000

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1224	422.33	1522.06	SLU 73	3.6	Si
fin.	3	178	-134.89	1522.06	SLU 73	11.28	Si
ini.	3	-1224	422.33	1522.06	SLU 76	3.6	Si
fin.	3	178	-134.89	1522.06	SLU 76	11.28	Si
ini.	3	-1323	465.81	1522.06	SLU 84	3.27	Si
fin.	3	244	-159.58	1522.06	SLU 84	9.54	Si
ini.	3	-1323	465.52	1522.06	SLU 81	3.27	Si
fin.	3	241	-158.91	1522.06	SLU 81	9.58	Si
ini.	3	-1224	423.37	1522.06	SLU 61	3.6	Si
fin.	3	178	-134.48	1522.06	SLU 61	11.32	Si
ini.	3	-1224	423.08	1522.06	SLU 62	3.6	Si
fin.	3	175	-133.82	1522.06	SLU 62	11.37	Si
ini.	3	-1224	423.37	1522.06	SLU 63	3.6	Si
fin.	3	178	-134.48	1522.06	SLU 63	11.32	Si
ini.	3	-1224	423.08	1522.06	SLU 60	3.6	Si
fin.	3	175	-133.82	1522.06	SLU 60	11.37	Si
ini.	3	-1323	465.81	1522.06	SLU 82	3.27	Si
fin.	3	244	-159.58	1522.06	SLU 82	9.54	Si
ini.	3	-1323	465.52	1522.06	SLU 83	3.27	Si
fin.	3	241	-158.91	1522.06	SLU 83	9.58	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-1323	465.81	-1732			1685	663	SLU 84	0.38	No
fin.	3	244	-159.58	-423			1155	378	SLU 84	0.89	No
ini.	3	-1224	423.37	-1531			1645	648	SLU 63	0.42	No
fin.	3	178	-134.48	-379			1155	394	SLU 63	1.04	Si
ini.	3	-1143	412.67	-1586			1612	636	SLU 39	0.4	No
fin.	3	270	-153.98	-381			1155	371	SLU 39	0.97	No
ini.	3	-1323	465.81	-1732			1685	663	SLU 82	0.38	No
fin.	3	244	-159.58	-423			1155	378	SLU 82	0.89	No
ini.	3	-1143	412.96	-1588			1612	636	SLU 40	0.4	No
fin.	3	273	-154.64	-384			1155	371	SLU 40	0.96	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-1323	465.52	-1730			1684	663	SLU 83	0.38	No
fin.	3	241	-158.91	-420			1155	379	SLU 83	0.9	No
ini.	3	-1143	412.96	-1588			1612	636	SLU 42	0.4	No
fin.	3	273	-154.64	-384			1155	371	SLU 42	0.96	No
ini.	3	-1224	423.37	-1531			1645	648	SLU 61	0.42	No
fin.	3	178	-134.48	-379			1155	394	SLU 61	1.04	Si
ini.	3	-1323	465.52	-1730			1684	663	SLU 81	0.38	No
fin.	3	241	-158.91	-420			1155	379	SLU 81	0.9	No
ini.	3	-1143	412.67	-1586			1612	636	SLU 41	0.4	No
fin.	3	270	-153.98	-381			1155	371	SLU 41	0.97	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1797	742	2283.09	SLV 16	3.08	Si
fin.	2	587	-388.81	2283.09	SLV 16	5.87	Si
ini.	2	-1869	771.53	2283.09	SLV 14	2.96	Si
fin.	2	663	-438.94	2283.09	SLV 14	5.2	Si
ini.	2	-1797	742	2283.09	SLV 15	3.08	Si
fin.	2	587	-388.81	2283.09	SLV 15	5.87	Si
ini.	2	-1235	462.38	2283.09	SLV 9	4.94	Si
fin.	2	342	-256.04	2283.09	SLV 9	8.92	Si
ini.	2	-1235	462.38	2283.09	SLV 10	4.94	Si
fin.	2	342	-256.04	2283.09	SLV 10	8.92	Si
ini.	2	-996	363.95	2283.09	SLV 11	6.27	Si
fin.	2	91	-88.95	2283.09	SLV 11	25.67	Si
ini.	2	-996	363.95	2283.09	SLV 12	6.27	Si
fin.	2	91	-88.95	2283.09	SLV 12	25.67	Si
ini.	2	253	-239.73	2283.09	SLV 3	9.52	Si
fin.	2	-579	300.84	2283.09	SLV 3	7.59	Si
ini.	2	253	-239.73	2283.09	SLV 4	9.52	Si
fin.	2	-579	300.84	2283.09	SLV 4	7.59	Si
ini.	2	-1869	771.53	2283.09	SLV 13	2.96	Si
fin.	2	663	-438.94	2283.09	SLV 13	5.2	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1797	742	-2438			2452	967	SLV 15	0.4	No
fin.	2	587	-388.81	-1557			1733	509	SLV 15	0.33	No
ini.	2	182	-210.2	636			1733	611	SLV 1	0.96	No
fin.	2	-503	250.71	1111			1934	754	SLV 1	0.68	No
ini.	2	-1235	462.38	-1627			2227	881	SLV 9	0.54	No
fin.	2	342	-256.04	-659			1733	573	SLV 9	0.87	No
ini.	2	-1797	742	-2438			2452	967	SLV 16	0.4	No
fin.	2	587	-388.81	-1557			1733	509	SLV 16	0.33	No
ini.	2	253	-239.73	782			1733	595	SLV 3	0.76	No
fin.	2	-579	300.84	1131			1965	768	SLV 3	0.68	No
ini.	2	-1869	771.53	-2584			2480	977	SLV 13	0.38	No
fin.	2	663	-438.94	-1577			1733	487	SLV 13	0.31	No
ini.	2	-1235	462.38	-1627			2227	881	SLV 10	0.54	No
fin.	2	342	-256.04	-659			1733	573	SLV 10	0.87	No
ini.	2	253	-239.73	782			1733	595	SLV 4	0.76	No
fin.	2	-579	300.84	1131			1965	768	SLV 4	0.68	No
ini.	2	-1869	771.53	-2584			2480	977	SLV 14	0.38	No
fin.	2	663	-438.94	-1577			1733	487	SLV 14	0.31	No
ini.	2	182	-210.2	636			1733	611	SLV 2	0.96	No
fin.	2	-503	250.71	1111			1934	754	SLV 2	0.68	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.959	SLV 13	Si
V_SLV	0.309	SLV 13	No
PF_SLU	3.268	SLU 82	Si
V_SLU	0.383	SLU 82	No

## Trave di accoppiamento 17

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-26.647	-3.274	4.22	5.08	0.86	-25.647	-3.274	4.22	5.08	0.86	1	0.3	30000

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1266	114.8	1125.71	SLU 78	9.81	Si
fin.	3	-1266	73.44	1125.71	SLU 78	15.33	Si
ini.	3	-1430	118.94	1125.71	SLU 82	9.46	Si
fin.	3	-1430	88.22	1125.71	SLU 82	12.76	Si
ini.	3	-1431	118.31	1125.71	SLU 81	9.52	Si
fin.	3	-1431	89.2	1125.71	SLU 81	12.62	Si





Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1267	114.16	1125.71	SLU 77	9.86	Si
fin.	3	-1267	74.41	1125.71	SLU 77	15.13	Si
ini.	3	-1430	118.94	1125.71	SLU 84	9.46	Si
fin.	3	-1430	88.22	1125.71	SLU 84	12.76	Si
ini.	3	-1431	118.31	1125.71	SLU 83	9.52	Si
fin.	3	-1431	89.2	1125.71	SLU 83	12.62	Si
ini.	3	-1266	115.22	1125.71	SLU 76	9.77	Si
fin.	3	-1266	72.78	1125.71	SLU 76	15.47	Si
ini.	3	-1266	114.8	1125.71	SLU 80	9.81	Si
fin.	3	-1266	73.44	1125.71	SLU 80	15.33	Si
ini.	3	-1266	114.8	1125.71	SLU 75	9.81	Si
fin.	3	-1266	73.44	1125.71	SLU 75	15.33	Si
ini.	3	-1266	115.22	1125.71	SLU 73	9.77	Si
fin.	3	-1266	72.78	1125.71	SLU 73	15.47	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-1302	97.99	1323			1302	510	SLU 39	0.39	No
fin.	3	-1302	85.95	-1006			1302	510	SLU 39	0.51	No
ini.	3	-1431	118.31	1383			1347	525	SLU 83	0.38	No
fin.	3	-1431	89.2	-1106			1347	525	SLU 83	0.47	No
ini.	3	-1302	98.62	1321			1302	510	SLU 42	0.39	No
fin.	3	-1302	84.97	-1008			1302	510	SLU 42	0.51	No
ini.	3	-1430	118.94	1381			1347	525	SLU 84	0.38	No
fin.	3	-1430	88.22	-1108			1347	525	SLU 84	0.47	No
ini.	3	-1430	118.94	1381			1347	525	SLU 82	0.38	No
fin.	3	-1430	88.22	-1108			1347	525	SLU 82	0.47	No
ini.	3	-1279	110.63	1190			1295	507	SLU 62	0.43	No
fin.	3	-1279	77.15	-985			1295	507	SLU 62	0.51	No
ini.	3	-1431	118.31	1383			1347	525	SLU 81	0.38	No
fin.	3	-1431	89.2	-1106			1347	525	SLU 81	0.47	No
ini.	3	-1302	98.62	1321			1302	510	SLU 40	0.39	No
fin.	3	-1302	84.97	-1008			1302	510	SLU 40	0.51	No
ini.	3	-1279	110.63	1190			1295	507	SLU 60	0.43	No
fin.	3	-1279	77.15	-985			1295	507	SLU 60	0.51	No
ini.	3	-1302	97.99	1323			1302	510	SLU 41	0.39	No
fin.	3	-1302	85.95	-1006			1302	510	SLU 41	0.51	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-500	362.69	1688.57	SLV 15	4.66	Si
fin.	2	-729	-350.29	1688.57	SLV 15	4.82	Si
ini.	2	-1012	-199.78	1688.57	SLV 2	8.45	Si
fin.	2	-783	426.11	1688.57	SLV 2	3.96	Si
ini.	2	-651	275.75	1688.57	SLV 9	6.12	Si
fin.	2	-779	-166.72	1688.57	SLV 9	10.13	Si
ini.	2	-1028	-260.29	1688.57	SLV 3	6.49	Si
fin.	2	-766	474.65	1688.57	SLV 3	3.56	Si
ini.	2	-1012	-199.78	1688.57	SLV 1	8.45	Si
fin.	2	-783	426.11	1688.57	SLV 1	3.96	Si
ini.	2	-485	423.2	1688.57	SLV 13	3.99	Si
fin.	2	-746	-398.82	1688.57	SLV 13	4.23	Si
ini.	2	-651	275.75	1688.57	SLV 10	6.12	Si
fin.	2	-779	-166.72	1688.57	SLV 10	10.13	Si
ini.	2	-1028	-260.29	1688.57	SLV 4	6.49	Si
fin.	2	-766	474.65	1688.57	SLV 4	3.56	Si
ini.	2	-485	423.2	1688.57	SLV 14	3.99	Si
fin.	2	-746	-398.82	1688.57	SLV 14	4.23	Si
ini.	2	-500	362.69	1688.57	SLV 16	4.66	Si
fin.	2	-729	-350.29	1688.57	SLV 16	4.82	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1012	-199.78	1346			1630	644	SLV 1	0.48	No
fin.	2	-783	426.11	156			1551	611	SLV 1	3.92	Si
ini.	2	-861	-112.84	989			1578	623	SLV 8	0.63	No
fin.	2	-733	242.54	-210			1534	604	SLV 8	2.88	Si
ini.	2	-485	423.2	-199			1448	566	SLV 14	2.84	Si
fin.	2	-746	-398.82	-1417			1538	606	SLV 14	0.43	No
ini.	2	-861	-112.84	989			1578	623	SLV 7	0.63	No
fin.	2	-733	242.54	-210			1534	604	SLV 7	2.88	Si
ini.	2	-1028	-260.29	1431			1635	647	SLV 3	0.45	No
fin.	2	-766	474.65	241			1545	609	SLV 3	2.52	Si
ini.	2	-485	423.2	-199			1448	566	SLV 13	2.84	Si
fin.	2	-746	-398.82	-1417			1538	606	SLV 13	0.43	No
ini.	2	-1028	-260.29	1431			1635	647	SLV 4	0.45	No
fin.	2	-766	474.65	241			1545	609	SLV 4	2.52	Si
ini.	2	-500	362.69	-114			1454	568	SLV 16	4.97	Si
fin.	2	-729	-350.29	-1332			1533	603	SLV 16	0.45	No
ini.	2	-1012	-199.78	1346			1630	644	SLV 2	0.48	No
fin.	2	-783	426.11	156			1551	611	SLV 2	3.92	Si
ini.	2	-500	362.69	-114			1454	568	SLV 15	4.97	Si
fin.	2	-729	-350.29	-1332			1533	603	SLV 15	0.45	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.558	SLV 3	Si
V_SLV	0.428	SLV 13	No
PF_SLU	9.465	SLU 82	Si



Stato limite	Coeff.s.	Comb.	Verifica
V_SLU	0.38	SLU 81	No

## Trave di accoppiamento 18

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-32.168	5.726	4.22	5.08	0.86	-30.968	5.726	4.22	5.08	0.86	1.2	0.3	30000

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb <sub>m</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-3059	131.58	1125.71	SLU 42	8.56	Si
fin.	3	-3059	-141.43	1125.71	SLU 42	7.96	Si
ini.	3	-3272	136.73	1125.71	SLU 84	8.23	Si
fin.	3	-3272	-150.56	1125.71	SLU 84	7.48	Si
ini.	3	-3272	136.73	1125.71	SLU 82	8.23	Si
fin.	3	-3272	-150.56	1125.71	SLU 82	7.48	Si
ini.	3	-3083	135.67	1125.71	SLU 39	8.3	Si
fin.	3	-3083	-148.89	1125.71	SLU 39	7.56	Si
ini.	3	-3296	140.82	1125.71	SLU 81	7.99	Si
fin.	3	-3296	-158.03	1125.71	SLU 81	7.12	Si
ini.	3	-3296	140.82	1125.71	SLU 83	7.99	Si
fin.	3	-3296	-158.03	1125.71	SLU 83	7.12	Si
ini.	3	-3083	135.67	1125.71	SLU 41	8.3	Si
fin.	3	-3083	-148.89	1125.71	SLU 41	7.56	Si
ini.	3	-2887	119.67	1125.71	SLU 60	9.41	Si
fin.	3	-2887	-137.45	1125.71	SLU 60	8.19	Si
ini.	3	-2887	119.67	1125.71	SLU 62	9.41	Si
fin.	3	-2887	-137.45	1125.71	SLU 62	8.19	Si
ini.	3	-3059	131.58	1125.71	SLU 40	8.56	Si
fin.	3	-3059	-141.43	1125.71	SLU 40	7.96	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-3083	135.67	3465			1596	574	SLU 41	0.17	No
fin.	3	-3083	-148.89	-2843			1596	574	SLU 41	0.2	No
ini.	3	-3059	131.58	3475			1589	572	SLU 42	0.16	No
fin.	3	-3059	-141.43	-2834			1589	572	SLU 42	0.2	No
ini.	3	-3272	136.73	3606			1650	587	SLU 82	0.16	No
fin.	3	-3272	-150.56	-2979			1650	587	SLU 82	0.2	No
ini.	3	-3296	140.82	3596			1657	589	SLU 83	0.16	No
fin.	3	-3296	-158.03	-2989			1657	589	SLU 83	0.2	No
ini.	3	-2863	115.58	3079			1533	558	SLU 61	0.18	No
fin.	3	-2863	-129.98	-2568			1533	558	SLU 61	0.22	No
ini.	3	-3296	140.82	3596			1657	589	SLU 81	0.16	No
fin.	3	-3296	-158.03	-2989			1657	589	SLU 81	0.2	No
ini.	3	-2863	115.58	3079			1533	558	SLU 63	0.18	No
fin.	3	-2863	-129.98	-2568			1533	558	SLU 63	0.22	No
ini.	3	-3272	136.73	3606			1650	587	SLU 84	0.16	No
fin.	3	-3272	-150.56	-2979			1650	587	SLU 84	0.2	No
ini.	3	-3059	131.58	3475			1589	572	SLU 40	0.16	No
fin.	3	-3059	-141.43	-2834			1589	572	SLU 40	0.2	No
ini.	3	-3083	135.67	3465			1596	574	SLU 39	0.17	No
fin.	3	-3083	-148.89	-2843			1596	574	SLU 39	0.2	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1982	558.13	1688.57	SLV 15	3.03	Si
fin.	2	-2842	-633.14	1688.57	SLV 15	2.67	Si
ini.	2	-1038	-441.64	1688.57	SLV 4	3.82	Si
fin.	2	-174	510.64	1688.57	SLV 4	3.31	Si
ini.	2	-1206	-434.1	1688.57	SLV 1	3.89	Si
fin.	2	-346	483.69	1688.57	SLV 1	3.49	Si
ini.	2	-1206	-434.1	1688.57	SLV 2	3.89	Si
fin.	2	-346	483.69	1688.57	SLV 2	3.49	Si
ini.	2	-1038	-441.64	1688.57	SLV 3	3.82	Si
fin.	2	-174	510.64	1688.57	SLV 3	3.31	Si
ini.	2	-2015	224.54	1688.57	SLV 10	7.52	Si
fin.	2	-2282	-291.22	1688.57	SLV 10	5.8	Si
ini.	2	-2015	224.54	1688.57	SLV 9	7.52	Si
fin.	2	-2282	-291.22	1688.57	SLV 9	5.8	Si
ini.	2	-2150	565.67	1688.57	SLV 13	2.99	Si
fin.	2	-3014	-660.09	1688.57	SLV 13	2.56	Si
ini.	2	-1982	558.13	1688.57	SLV 16	3.03	Si
fin.	2	-2842	-633.14	1688.57	SLV 16	2.67	Si
ini.	2	-2150	565.67	1688.57	SLV 14	2.99	Si
fin.	2	-3014	-660.09	1688.57	SLV 14	2.56	Si



#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1038	-441.64	2753			1366	540	SLV 4	0.2	No
fin.	2	-174	510.64	-160			1118	428	SLV 4	2.68	Si
ini.	2	-1982	558.13	436			1636	640	SLV 16	1.47	Si
fin.	2	-2842	-633.14	-2526			1883	719	SLV 16	0.28	No
ini.	2	-1982	558.13	436			1636	640	SLV 15	1.47	Si
fin.	2	-2842	-633.14	-2526			1883	719	SLV 15	0.28	No
ini.	2	-1206	-434.1	2702			1414	559	SLV 1	0.21	No
fin.	2	-346	483.69	-209			1167	453	SLV 1	2.17	Si
ini.	2	-2150	565.67	385			1684	656	SLV 13	1.71	Si
fin.	2	-3014	-660.09	-2576			1932	734	SLV 13	0.29	No
ini.	2	-1038	-441.64	2753			1366	540	SLV 3	0.2	No
fin.	2	-174	510.64	-160			1118	428	SLV 3	2.68	Si
ini.	2	-2150	565.67	385			1684	656	SLV 14	1.71	Si
fin.	2	-3014	-660.09	-2576			1932	734	SLV 14	0.29	No
ini.	2	-1206	-434.1	2702			1414	559	SLV 2	0.21	No
fin.	2	-346	483.69	-209			1167	453	SLV 2	2.17	Si
ini.	2	-1173	-100.51	2001			1404	555	SLV 8	0.28	No
fin.	2	-906	141.76	-931			1328	524	SLV 8	0.56	No
ini.	2	-1173	-100.51	2001			1404	555	SLV 7	0.28	No
fin.	2	-906	141.76	-931			1328	524	SLV 7	0.56	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.558	SLV 13	Si
V_SLV	0.196	SLV 3	No
PF_SLU	7.124	SLU 81	Si
V_SLU	0.163	SLU 82	No

#### Trave di accoppiamento 19

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-30.088	5.726	1.32	3.32	2	-29.588	5.726	1.32	3.32	2	0.5	0.3	30000

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2157	654.28	6088.24	SLU 84	9.31	Si
fin.	3	-2069	255.26	6088.24	SLU 84	23.85	Si
ini.	3	-2157	654.28	6088.24	SLU 82	9.31	Si
fin.	3	-2069	255.26	6088.24	SLU 82	23.85	Si
ini.	3	-1961	665.08	6088.24	SLU 41	9.15	Si
fin.	3	-1870	250.12	6088.24	SLU 41	24.34	Si
ini.	3	-2000	646.42	6088.24	SLU 42	9.42	Si
fin.	3	-1907	245.15	6088.24	SLU 42	24.83	Si
ini.	3	-1961	665.08	6088.24	SLU 39	9.15	Si
fin.	3	-1870	250.12	6088.24	SLU 39	24.34	Si
ini.	3	-2000	646.42	6088.24	SLU 40	9.42	Si
fin.	3	-1907	245.15	6088.24	SLU 40	24.83	Si
ini.	3	-1864	562.98	6088.24	SLU 60	10.81	Si
fin.	3	-1798	223.49	6088.24	SLU 60	27.24	Si
ini.	3	-2118	672.94	6088.24	SLU 81	9.05	Si
fin.	3	-2032	260.23	6088.24	SLU 81	23.4	Si
ini.	3	-1864	562.98	6088.24	SLU 62	10.81	Si
fin.	3	-1798	223.49	6088.24	SLU 62	27.24	Si
ini.	3	-2118	672.94	6088.24	SLU 83	9.05	Si
fin.	3	-2032	260.23	6088.24	SLU 83	23.4	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-1961	665.08	-1503			3095	1224	SLU 41	0.81	No
fin.	3	-1870	250.12	359			3059	1210	SLU 41	3.37	Si
ini.	3	-1707	555.12	-1237			2994	1184	SLU 20	0.96	No
fin.	3	-1635	213.38	387			2965	1172	SLU 20	3.03	Si
ini.	3	-2000	646.42	-1434			3111	1230	SLU 42	0.86	No
fin.	3	-1907	245.15	291			3073	1215	SLU 42	4.17	Si
ini.	3	-2118	672.94	-1491			3158	1248	SLU 81	0.84	No
fin.	3	-2032	260.23	505			3123	1235	SLU 81	2.44	Si
ini.	3	-2000	646.42	-1434			3111	1230	SLU 40	0.86	No
fin.	3	-1907	245.15	291			3073	1215	SLU 40	4.17	Si
ini.	3	-2157	654.28	-1421			3173	1254	SLU 84	0.88	No
fin.	3	-2069	255.26	437			3138	1240	SLU 84	2.84	Si
ini.	3	-2118	672.94	-1491			3158	1248	SLU 83	0.84	No
fin.	3	-2032	260.23	505			3123	1235	SLU 83	2.44	Si
ini.	3	-1707	555.12	-1237			2994	1184	SLU 18	0.96	No
fin.	3	-1635	213.38	387			2965	1172	SLU 18	3.03	Si
ini.	3	-1961	665.08	-1503			3095	1224	SLU 39	0.81	No
fin.	3	-1870	250.12	359			3059	1210	SLU 39	3.37	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-2157	654.28	-1421			3173	1254	SLU 82	0.88	No
fin.	3	-2069	255.26	437			3138	1240	SLU 82	2.84	Si

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-909	-768.55	9132.35	SLV 3	11.88	Si
fin.	2	-1226	-32.3	9132.35	SLV 3	282.7	Si
ini.	2	-1219	1296.4	9132.35	SLV 13	7.04	Si
fin.	2	-855	259.78	9132.35	SLV 13	35.15	Si
ini.	2	-986	651.43	9132.35	SLV 10	14.02	Si
fin.	2	-863	142.34	9132.35	SLV 10	64.16	Si
ini.	2	-827	-717.28	9132.35	SLV 2	12.73	Si
fin.	2	-1146	-42.33	9132.35	SLV 2	215.75	Si
ini.	2	-1219	1296.4	9132.35	SLV 14	7.04	Si
fin.	2	-855	259.78	9132.35	SLV 14	35.15	Si
ini.	2	-1302	1245.13	9132.35	SLV 15	7.33	Si
fin.	2	-935	269.8	9132.35	SLV 15	33.85	Si
ini.	2	-909	-768.55	9132.35	SLV 4	11.88	Si
fin.	2	-1226	-32.3	9132.35	SLV 4	282.7	Si
ini.	2	-1302	1245.13	9132.35	SLV 16	7.33	Si
fin.	2	-935	269.8	9132.35	SLV 16	33.85	Si
ini.	2	-986	651.43	9132.35	SLV 9	14.02	Si
fin.	2	-863	142.34	9132.35	SLV 9	64.16	Si
ini.	2	-827	-717.28	9132.35	SLV 1	12.73	Si
fin.	2	-1146	-42.33	9132.35	SLV 1	215.75	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1302	1245.13	-2939			3987	1562	SLV 16	0.53	No
fin.	2	-935	269.8	-2256			3840	1494	SLV 16	0.66	No
ini.	2	-909	-768.55	1981			3830	1489	SLV 3	0.75	No
fin.	2	-1226	-32.3	3014			3957	1548	SLV 3	0.51	No
ini.	2	-1219	1296.4	-3048			3954	1547	SLV 13	0.51	No
fin.	2	-855	259.78	-2147			3808	1479	SLV 13	0.69	No
ini.	2	-1302	1245.13	-2939			3987	1562	SLV 15	0.53	No
fin.	2	-935	269.8	-2256			3840	1494	SLV 15	0.66	No
ini.	2	-1219	1296.4	-3048			3954	1547	SLV 14	0.51	No
fin.	2	-855	259.78	-2147			3808	1479	SLV 14	0.69	No
ini.	2	-827	-717.28	1872			3797	1473	SLV 1	0.79	No
fin.	2	-1146	-42.33	3123			3925	1533	SLV 1	0.49	No
ini.	2	-909	-768.55	1981			3830	1489	SLV 4	0.75	No
fin.	2	-1226	-32.3	3014			3957	1548	SLV 4	0.51	No
ini.	2	-827	-717.28	1872			3797	1473	SLV 2	0.79	No
fin.	2	-1146	-42.33	3123			3925	1533	SLV 2	0.49	No
ini.	2	-986	651.43	-1454			3860	1503	SLV 9	1.03	Si
fin.	2	-863	142.34	-174			3811	1480	SLV 9	8.49	Si
ini.	2	-986	651.43	-1454			3860	1503	SLV 10	1.03	Si
fin.	2	-863	142.34	-174			3811	1480	SLV 10	8.49	Si

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV		SLV 13	Si
V_SLV	0.491	SLV 1	No
PF_SLU	9.047	SLU 81	Si
V_SLU	0.814	SLU 39	No

#### Trave di accoppiamento 20

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-30.088	5.726	4.12	5.08	0.96	-29.588	5.726	4.12	5.08	0.96	0.5	0.3	30000

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fkhmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1642	-134.98	1402.73	SLU 42	10.39	Si
fin.	3	-1642	-433.94	1402.73	SLU 42	3.23	Si
ini.	3	-1607	-114.24	1402.73	SLU 62	12.28	Si
fin.	3	-1607	-380.78	1402.73	SLU 62	3.68	Si
ini.	3	-1658	-136.9	1402.73	SLU 41	10.25	Si
fin.	3	-1658	-434.71	1402.73	SLU 41	3.23	Si
ini.	3	-1642	-134.98	1402.73	SLU 40	10.39	Si
fin.	3	-1642	-433.94	1402.73	SLU 40	3.23	Si
ini.	3	-1607	-114.24	1402.73	SLU 60	12.28	Si
fin.	3	-1607	-380.78	1402.73	SLU 60	3.68	Si
ini.	3	-1806	-137.74	1402.73	SLU 81	10.18	Si
fin.	3	-1806	-448.58	1402.73	SLU 81	3.13	Si
ini.	3	-1658	-136.9	1402.73	SLU 39	10.25	Si
fin.	3	-1658	-434.71	1402.73	SLU 39	3.23	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1806	-137.74	1402.73	SLU 83	10.18	Si
fin.	3	-1806	-448.58	1402.73	SLU 83	3.13	Si
ini.	3	-1790	-135.82	1402.73	SLU 84	10.33	Si
fin.	3	-1790	-447.81	1402.73	SLU 84	3.13	Si
ini.	3	-1790	-135.82	1402.73	SLU 82	10.33	Si
fin.	3	-1790	-447.81	1402.73	SLU 82	3.13	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-1790	-135.82	716			1825	706	SLU 84	0.99	No
fin.	3	-1790	-447.81	-1668			1825	706	SLU 84	0.42	No
ini.	3	-1642	-134.98	683			1766	687	SLU 40	1.01	Si
fin.	3	-1642	-433.94	-1593			1766	687	SLU 40	0.43	No
ini.	3	-1658	-136.9	686			1773	689	SLU 39	1.01	Si
fin.	3	-1658	-434.71	-1591			1773	689	SLU 39	0.43	No
ini.	3	-1806	-137.74	718			1831	708	SLU 83	0.99	No
fin.	3	-1806	-448.58	-1665			1831	708	SLU 83	0.43	No
ini.	3	-1658	-136.9	686			1773	689	SLU 41	1.01	Si
fin.	3	-1658	-434.71	-1591			1773	689	SLU 41	0.43	No
ini.	3	-1591	-112.32	616			1745	680	SLU 63	1.11	Si
fin.	3	-1591	-380.01	-1434			1745	680	SLU 63	0.47	No
ini.	3	-1790	-135.82	716			1825	706	SLU 82	0.99	No
fin.	3	-1790	-447.81	-1668			1825	706	SLU 82	0.42	No
ini.	3	-1591	-112.32	616			1745	680	SLU 61	1.11	Si
fin.	3	-1591	-380.01	-1434			1745	680	SLU 61	0.47	No
ini.	3	-1806	-137.74	718			1831	708	SLU 81	0.99	No
fin.	3	-1806	-448.58	-1665			1831	708	SLU 81	0.43	No
ini.	3	-1642	-134.98	683			1766	687	SLU 42	1.01	Si
fin.	3	-1642	-433.94	-1593			1766	687	SLU 42	0.43	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1841	-127.81	2104.09	SLV 15	16.46	Si
fin.	2	-2213	-438.38	2104.09	SLV 15	4.8	Si
ini.	2	-992	-71.31	2104.09	SLV 12	29.51	Si
fin.	2	-1110	-248.89	2104.09	SLV 12	8.45	Si
ini.	2	-1978	-130.59	2104.09	SLV 14	16.11	Si
fin.	2	-2345	-449.49	2104.09	SLV 14	4.68	Si
ini.	2	-1447	-80.56	2104.09	SLV 10	26.12	Si
fin.	2	-1551	-285.91	2104.09	SLV 10	7.36	Si
ini.	2	-855	-34.91	2104.09	SLV 5	60.28	Si
fin.	2	-738	-134.6	2104.09	SLV 5	15.63	Si
ini.	2	-855	-34.91	2104.09	SLV 6	60.28	Si
fin.	2	-738	-134.6	2104.09	SLV 6	15.63	Si
ini.	2	-1978	-130.59	2104.09	SLV 13	16.11	Si
fin.	2	-2345	-449.49	2104.09	SLV 13	4.68	Si
ini.	2	-1447	-80.56	2104.09	SLV 9	26.12	Si
fin.	2	-1551	-285.91	2104.09	SLV 9	7.36	Si
ini.	2	-1841	-127.81	2104.09	SLV 16	16.46	Si
fin.	2	-2213	-438.38	2104.09	SLV 16	4.8	Si
ini.	2	-992	-71.31	2104.09	SLV 11	29.51	Si
fin.	2	-1110	-248.89	2104.09	SLV 11	8.45	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1978	-130.59	-342			2455	965	SLV 14	2.82	Si
fin.	2	-2345	-449.49	-1412			2602	1015	SLV 14	0.72	No
ini.	2	-992	-71.31	164			2061	814	SLV 12	4.95	Si
fin.	2	-1110	-248.89	-956			2108	833	SLV 12	0.87	No
ini.	2	-6	21.6	969			1666	627	SLV 1	0.65	No
fin.	2	366	54.89	-86			1664	541	SLV 1	6.3	Si
ini.	2	-1978	-130.59	-342			2455	965	SLV 13	2.82	Si
fin.	2	-2345	-449.49	-1412			2602	1015	SLV 13	0.72	No
ini.	2	-1841	-127.81	-320			2400	945	SLV 16	2.95	Si
fin.	2	-2213	-438.38	-1416			2549	997	SLV 16	0.7	No
ini.	2	-6	21.6	969			1666	627	SLV 2	0.65	No
fin.	2	366	54.89	-86			1664	541	SLV 2	6.3	Si
ini.	2	130	24.37	991			1664	597	SLV 4	0.6	No
fin.	2	498	66	-90			1664	506	SLV 4	5.65	Si
ini.	2	-1841	-127.81	-320			2400	945	SLV 15	2.95	Si
fin.	2	-2213	-438.38	-1416			2549	997	SLV 15	0.7	No
ini.	2	-992	-71.31	164			2061	814	SLV 11	4.95	Si
fin.	2	-1110	-248.89	-956			2108	833	SLV 11	0.87	No
ini.	2	130	24.37	991			1664	597	SLV 3	0.6	No
fin.	2	498	66	-90			1664	506	SLV 3	5.65	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.681	SLV 13	Si
V_SLV	0.603	SLV 3	No
PF_SLU	3.127	SLU 81	Si
V_SLU	0.424	SLU 82	No

## Trave di accoppiamento 21

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



## Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-27.338	5.726	1.32	2.32	1	-26.338	5.726	1.32	2.32	1	1	0.3	30000

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

## Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-809	260.79	1522.06	SLU 82	5.84	Si
fin.	3	-333	-283.46	1522.06	SLU 82	5.37	Si
ini.	3	-809	260.79	1522.06	SLU 84	5.84	Si
fin.	3	-333	-283.46	1522.06	SLU 84	5.37	Si
ini.	3	-730	226.35	1522.06	SLU 73	6.72	Si
fin.	3	-315	-251.84	1522.06	SLU 73	6.04	Si
ini.	3	-716	242.48	1522.06	SLU 39	6.28	Si
fin.	3	-276	-257.06	1522.06	SLU 39	5.92	Si
ini.	3	-716	242.48	1522.06	SLU 41	6.28	Si
fin.	3	-276	-257.06	1522.06	SLU 41	5.92	Si
ini.	3	-730	226.35	1522.06	SLU 76	6.72	Si
fin.	3	-315	-251.84	1522.06	SLU 76	6.04	Si
ini.	3	-825	260.65	1522.06	SLU 83	5.84	Si
fin.	3	-354	-278.24	1522.06	SLU 83	5.47	Si
ini.	3	-699	242.62	1522.06	SLU 40	6.27	Si
fin.	3	-255	-262.28	1522.06	SLU 40	5.8	Si
ini.	3	-699	242.62	1522.06	SLU 42	6.27	Si
fin.	3	-255	-262.28	1522.06	SLU 42	5.8	Si
ini.	3	-825	260.65	1522.06	SLU 81	5.84	Si
fin.	3	-354	-278.24	1522.06	SLU 81	5.47	Si

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-825	260.65	-755			1485	587	SLU 83	0.78	No
fin.	3	-354	-278.24	-785			1297	506	SLU 83	0.64	No
ini.	3	-741	226.26	-632			1452	574	SLU 78	0.91	No
fin.	3	-329	-248.36	-721			1287	501	SLU 78	0.7	No
ini.	3	-741	226.26	-632			1452	574	SLU 80	0.91	No
fin.	3	-329	-248.36	-721			1287	501	SLU 80	0.7	No
ini.	3	-750	229.62	-643			1455	575	SLU 63	0.9	No
fin.	3	-332	-251.07	-728			1288	502	SLU 63	0.69	No
ini.	3	-730	226.35	-637			1447	572	SLU 73	0.9	No
fin.	3	-315	-251.84	-725			1281	499	SLU 73	0.69	No
ini.	3	-750	229.62	-643			1455	575	SLU 61	0.9	No
fin.	3	-332	-251.07	-728			1288	502	SLU 61	0.69	No
ini.	3	-809	260.79	-763			1479	585	SLU 82	0.77	No
fin.	3	-333	-283.46	-791			1289	502	SLU 82	0.63	No
ini.	3	-730	226.35	-637			1447	572	SLU 76	0.9	No
fin.	3	-315	-251.84	-725			1281	499	SLU 76	0.69	No
ini.	3	-825	260.65	-755			1485	587	SLU 81	0.78	No
fin.	3	-354	-278.24	-785			1297	506	SLU 81	0.64	No
ini.	3	-809	260.79	-763			1479	585	SLU 84	0.77	No
fin.	3	-333	-283.46	-791			1289	502	SLU 84	0.63	No

## Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-145	-449.07	2283.09	SLV 2	5.08	Si
fin.	2	-773	417.85	2283.09	SLV 2	5.46	Si
ini.	2	-31	-455.72	2283.09	SLV 3	5.01	Si
fin.	2	-650	408.23	2283.09	SLV 3	5.59	Si
ini.	2	-424	291.19	2283.09	SLV 12	7.84	Si
fin.	2	75	-322.34	2283.09	SLV 12	7.08	Si
ini.	2	-31	-455.72	2283.09	SLV 4	5.01	Si
fin.	2	-650	408.23	2283.09	SLV 4	5.59	Si
ini.	2	-145	-449.07	2283.09	SLV 1	5.08	Si
fin.	2	-773	417.85	2283.09	SLV 1	5.46	Si
ini.	2	-957	711.97	2283.09	SLV 14	3.21	Si
fin.	2	122	-688.84	2283.09	SLV 14	3.31	Si
ini.	2	-424	291.19	2283.09	SLV 11	7.84	Si
fin.	2	75	-322.34	2283.09	SLV 11	7.08	Si
ini.	2	-957	711.97	2283.09	SLV 13	3.21	Si
fin.	2	122	-688.84	2283.09	SLV 13	3.31	Si
ini.	2	-843	705.31	2283.09	SLV 15	3.24	Si
fin.	2	245	-698.46	2283.09	SLV 15	3.27	Si
ini.	2	-843	705.31	2283.09	SLV 16	3.24	Si
fin.	2	245	-698.46	2283.09	SLV 16	3.27	Si

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-424	291.19	-793			1903	739	SLV 12	0.93	No
fin.	2	75	-322.34	-959			1733	636	SLV 12	0.66	No
ini.	2	-424	291.19	-793			1903	739	SLV 11	0.93	No
fin.	2	75	-322.34	-959			1733	636	SLV 11	0.66	No
ini.	2	-31	-455.72	1279			1745	659	SLV 4	0.52	No
fin.	2	-650	408.23	1056			1993	781	SLV 4	0.74	No
ini.	2	-145	-449.07	1285			1791	683	SLV 1	0.53	No
fin.	2	-773	417.85	1083			2042	803	SLV 1	0.74	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-957	711.97	-1890			2116	835	SLV 13	0.44	No
fin.	2	122	-688.84	-1968			1733	625	SLV 13	0.32	No
ini.	2	-843	705.31	-1896			2070	815	SLV 15	0.43	No
fin.	2	245	-698.46	-1995			1733	597	SLV 15	0.3	No
ini.	2	-957	711.97	-1890			2116	835	SLV 14	0.44	No
fin.	2	122	-688.84	-1968			1733	625	SLV 14	0.32	No
ini.	2	-31	-455.72	1279			1745	659	SLV 3	0.52	No
fin.	2	-650	408.23	1056			1993	781	SLV 3	0.74	No
ini.	2	-843	705.31	-1896			2070	815	SLV 16	0.43	No
fin.	2	245	-698.46	-1995			1733	597	SLV 16	0.3	No
ini.	2	-145	-449.07	1285			1791	683	SLV 2	0.53	No
fin.	2	-773	417.85	1083			2042	803	SLV 2	0.74	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.207	SLV 13	Si
V_SLV	0.299	SLV 15	No
PF_SLU	5.37	SLU 82	Si
V_SLU	0.635	SLU 82	No

## Trave di accoppiamento 22

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-27.338	5.726	4.22	5.08	0.86	-26.338	5.726	4.22	5.08	0.86	1	0.3	30000

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb <sub>m</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1782	-23.94	1125.71	SLU 41	47.03	Si
fin.	3	-1782	20.19	1125.71	SLU 41	55.75	Si
ini.	3	-1928	-18.51	1125.71	SLU 82	60.81	Si
fin.	3	-1928	23.03	1125.71	SLU 82	48.88	Si
ini.	3	-1962	-21.65	1125.71	SLU 81	51.98	Si
fin.	3	-1962	22.17	1125.71	SLU 81	50.78	Si
ini.	3	-1928	-18.51	1125.71	SLU 84	60.81	Si
fin.	3	-1928	23.03	1125.71	SLU 84	48.88	Si
ini.	3	-1680	-10.47	1125.71	SLU 76	107.5	Si
fin.	3	-1680	21.46	1125.71	SLU 76	52.45	Si
ini.	3	-1962	-21.65	1125.71	SLU 83	51.98	Si
fin.	3	-1962	22.17	1125.71	SLU 83	50.78	Si
ini.	3	-1748	-20.79	1125.71	SLU 42	54.14	Si
fin.	3	-1748	21.05	1125.71	SLU 42	53.47	Si
ini.	3	-1748	-20.79	1125.71	SLU 40	54.14	Si
fin.	3	-1748	21.05	1125.71	SLU 40	53.47	Si
ini.	3	-1680	-10.47	1125.71	SLU 73	107.5	Si
fin.	3	-1680	21.46	1125.71	SLU 73	52.45	Si
ini.	3	-1782	-23.94	1125.71	SLU 39	47.03	Si
fin.	3	-1782	20.19	1125.71	SLU 39	55.75	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-1728	-13.04	1633			1449	558	SLU 63	0.34	No
fin.	3	-1728	20.01	-1530			1449	558	SLU 63	0.36	No
ini.	3	-1782	-23.94	1806			1468	564	SLU 39	0.31	No
fin.	3	-1782	20.19	-1677			1468	564	SLU 39	0.34	No
ini.	3	-1928	-18.51	1895			1518	579	SLU 82	0.31	No
fin.	3	-1928	23.03	-1769			1518	579	SLU 82	0.33	No
ini.	3	-1748	-20.79	1804			1456	560	SLU 40	0.31	No
fin.	3	-1748	21.05	-1679			1456	560	SLU 40	0.33	No
ini.	3	-1782	-23.94	1806			1468	564	SLU 41	0.31	No
fin.	3	-1782	20.19	-1677			1468	564	SLU 41	0.34	No
ini.	3	-1748	-20.79	1804			1456	560	SLU 42	0.31	No
fin.	3	-1748	21.05	-1679			1456	560	SLU 42	0.33	No
ini.	3	-1962	-21.65	1897			1529	583	SLU 81	0.31	No
fin.	3	-1962	22.17	-1767			1529	583	SLU 81	0.33	No
ini.	3	-1928	-18.51	1895			1518	579	SLU 84	0.31	No
fin.	3	-1928	23.03	-1769			1518	579	SLU 84	0.33	No
ini.	3	-1728	-13.04	1633			1449	558	SLU 61	0.34	No
fin.	3	-1728	20.01	-1530			1449	558	SLU 61	0.36	No
ini.	3	-1962	-21.65	1897			1529	583	SLU 83	0.31	No
fin.	3	-1962	22.17	-1767			1529	583	SLU 83	0.33	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1234	392.52	1688.57	SLV 14	4.3	Si
fin.	2	-1726	-391.98	1688.57	SLV 14	4.31	Si
ini.	2	-839	-400.86	1688.57	SLV 4	4.21	Si
fin.	2	-347	416.64	1688.57	SLV 4	4.05	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1085	399.14	1688.57	SLV 15	4.23	Si
fin.	2	-1585	-383.38	1688.57	SLV 15	4.4	Si
ini.	2	-1085	399.14	1688.57	SLV 16	4.23	Si
fin.	2	-1585	-383.38	1688.57	SLV 16	4.4	Si
ini.	2	-839	-400.86	1688.57	SLV 3	4.21	Si
fin.	2	-347	416.64	1688.57	SLV 3	4.05	Si
ini.	2	-751	-113.14	1688.57	SLV 8	14.92	Si
fin.	2	-616	146.67	1688.57	SLV 8	11.51	Si
ini.	2	-751	-113.14	1688.57	SLV 7	14.92	Si
fin.	2	-616	146.67	1688.57	SLV 7	11.51	Si
ini.	2	-988	-407.48	1688.57	SLV 1	4.14	Si
fin.	2	-488	408.03	1688.57	SLV 1	4.14	Si
ini.	2	-988	-407.48	1688.57	SLV 2	4.14	Si
fin.	2	-488	408.03	1688.57	SLV 2	4.14	Si
ini.	2	-1234	392.52	1688.57	SLV 13	4.3	Si
fin.	2	-1726	-391.98	1688.57	SLV 13	4.31	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1234	392.52	-51			1706	675	SLV 14	13.32	Si
fin.	2	-1726	-391.98	-1776			1875	737	SLV 14	0.42	No
ini.	2	-1085	399.14	-74			1655	654	SLV 15	8.89	Si
fin.	2	-1585	-383.38	-1808			1827	720	SLV 15	0.4	No
ini.	2	-1234	392.52	-51			1706	675	SLV 13	13.32	Si
fin.	2	-1726	-391.98	-1776			1875	737	SLV 13	0.42	No
ini.	2	-988	-407.48	1806			1622	641	SLV 1	0.35	No
fin.	2	-488	408.03	178			1450	566	SLV 1	3.18	Si
ini.	2	-839	-400.86	1783			1570	620	SLV 4	0.35	No
fin.	2	-347	416.64	146			1401	543	SLV 4	3.71	Si
ini.	2	-751	-113.14	1107			1540	607	SLV 8	0.55	No
fin.	2	-616	146.67	-575			1494	586	SLV 8	1.02	Si
ini.	2	-839	-400.86	1783			1570	620	SLV 3	0.35	No
fin.	2	-347	416.64	146			1401	543	SLV 3	3.71	Si
ini.	2	-988	-407.48	1806			1622	641	SLV 2	0.35	No
fin.	2	-488	408.03	178			1450	566	SLV 2	3.18	Si
ini.	2	-1085	399.14	-74			1655	654	SLV 16	8.89	Si
fin.	2	-1585	-383.38	-1808			1827	720	SLV 16	0.4	No
ini.	2	-751	-113.14	1107			1540	607	SLV 7	0.55	No
fin.	2	-616	146.67	-575			1494	586	SLV 7	1.02	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.053	SLV 3	Si
V_SLV	0.348	SLV 3	No
PF_SLU	47.03	SLU 39	Si
V_SLU	0.306	SLU 82	No

## Trave di accoppiamento 23

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-28.073	-0.094	3.42	5.08	1.66	-28.073	0.706	3.42	5.08	1.66	0.8	0.15	30000

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-248	916.41	2097.09	SLU 65	2.29	Si
fin.	3	-248	-40.75	2097.09	SLU 65	51.46	Si
ini.	3	-238	920.87	2097.09	SLU 64	2.28	Si
fin.	3	-238	-39.29	2097.09	SLU 64	53.37	Si
ini.	3	-244	918.19	2097.09	SLU 70	2.28	Si
fin.	3	-244	-40.17	2097.09	SLU 70	52.21	Si
ini.	3	-248	916.41	2097.09	SLU 68	2.29	Si
fin.	3	-248	-40.75	2097.09	SLU 68	51.46	Si
ini.	3	-244	918.19	2097.09	SLU 67	2.28	Si
fin.	3	-244	-40.17	2097.09	SLU 67	52.21	Si
ini.	3	-238	920.87	2097.09	SLU 71	2.28	Si
fin.	3	-238	-39.29	2097.09	SLU 71	53.37	Si
ini.	3	-238	920.87	2097.09	SLU 69	2.28	Si
fin.	3	-238	-39.29	2097.09	SLU 69	53.37	Si
ini.	3	-238	920.87	2097.09	SLU 66	2.28	Si
fin.	3	-238	-39.29	2097.09	SLU 66	53.37	Si
ini.	3	-275	871.04	2097.09	SLU 77	2.41	Si
fin.	3	-275	-147.91	2097.09	SLU 77	14.18	Si
ini.	3	-244	918.19	2097.09	SLU 72	2.28	Si
fin.	3	-244	-40.17	2097.09	SLU 72	52.21	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
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Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-275	871.04	-1031			1069	416	SLU 77	0.4	No
fin.	3	-275	-147.91	-1489			1069	416	SLU 77	0.28	No
ini.	3	-281	868.36	-1028			1071	418	SLU 80	0.41	No
fin.	3	-281	-148.79	-1487			1071	418	SLU 80	0.28	No
ini.	3	-281	868.36	-1028			1071	418	SLU 78	0.41	No
fin.	3	-281	-148.79	-1487			1071	418	SLU 78	0.28	No
ini.	3	-297	847	-1060			1078	421	SLU 82	0.4	No
fin.	3	-297	-195.35	-1518			1078	421	SLU 82	0.28	No
ini.	3	-275	871.04	-1031			1069	416	SLU 79	0.4	No
fin.	3	-275	-147.91	-1489			1069	416	SLU 79	0.28	No
ini.	3	-297	847	-1060			1078	421	SLU 84	0.4	No
fin.	3	-297	-195.35	-1518			1078	421	SLU 84	0.28	No
ini.	3	-275	871.04	-1031			1069	416	SLU 74	0.4	No
fin.	3	-275	-147.91	-1489			1069	416	SLU 74	0.28	No
ini.	3	-291	849.68	-1062			1075	419	SLU 83	0.39	No
fin.	3	-291	-194.47	-1521			1075	419	SLU 83	0.28	No
ini.	3	-291	849.68	-1062			1075	419	SLU 81	0.39	No
fin.	3	-291	-194.47	-1521			1075	419	SLU 81	0.28	No
ini.	3	-281	868.36	-1028			1071	418	SLU 75	0.41	No
fin.	3	-281	-148.79	-1487			1071	418	SLU 75	0.28	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1471	1927.59	3145.64	SLV 7	1.63	Si
fin.	2	2010	-1173.62	3145.64	SLV 7	2.68	Si
ini.	2	999	1446.57	3145.64	SLV 3	2.17	Si
fin.	2	512	-413.76	3145.64	SLV 3	7.6	Si
ini.	2	1018	1666.63	3145.64	SLV 11	1.89	Si
fin.	2	1985	-1157.16	3145.64	SLV 11	2.72	Si
ini.	2	-1388	-316.65	3145.64	SLV 6	9.93	Si
fin.	2	-2355	1052.27	3145.64	SLV 6	2.99	Si
ini.	2	-1388	-316.65	3145.64	SLV 5	9.93	Si
fin.	2	-2355	1052.27	3145.64	SLV 5	2.99	Si
ini.	2	1471	1927.59	3145.64	SLV 8	1.63	Si
fin.	2	2010	-1173.62	3145.64	SLV 8	2.68	Si
ini.	2	1018	1666.63	3145.64	SLV 12	1.89	Si
fin.	2	1985	-1157.16	3145.64	SLV 12	2.72	Si
ini.	2	-1841	-577.62	3145.64	SLV 10	5.45	Si
fin.	2	-2380	1068.72	3145.64	SLV 10	2.94	Si
ini.	2	-1841	-577.62	3145.64	SLV 9	5.45	Si
fin.	2	-2380	1068.72	3145.64	SLV 9	2.94	Si
ini.	2	999	1446.57	3145.64	SLV 4	2.17	Si
fin.	2	512	-413.76	3145.64	SLV 4	7.6	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-1388	-316.65	835			1993	787	SLV 6	0.94	No
fin.	2	-2355	1052.27	1293			2380	920	SLV 6	0.71	No
ini.	2	1018	1666.63	-2279			1438	231	SLV 11	0.1	No
fin.	2	1985	-1157.16	-3443			1438	0	SLV 11	0	No
ini.	2	999	1446.57	-1223			1438	240	SLV 4	0.2	No
fin.	2	512	-413.76	-1610			1438	415	SLV 4	0.26	No
ini.	2	999	1446.57	-1223			1438	240	SLV 3	0.2	No
fin.	2	512	-413.76	-1610			1438	415	SLV 3	0.26	No
ini.	2	1471	1927.59	-2298			1438	0	SLV 8	0	No
fin.	2	2010	-1173.62	-3347			1438	0	SLV 8	0	No
ini.	2	-1388	-316.65	835			1993	787	SLV 5	0.94	No
fin.	2	-2355	1052.27	1293			2380	920	SLV 5	0.71	No
ini.	2	1018	1666.63	-2279			1438	231	SLV 12	0.1	No
fin.	2	1985	-1157.16	-3443			1438	0	SLV 12	0	No
ini.	2	1471	1927.59	-2298			1438	0	SLV 7	0	No
fin.	2	2010	-1173.62	-3347			1438	0	SLV 7	0	No
ini.	2	-512	576.69	-1161			1643	643	SLV 15	0.55	No
fin.	2	427	-358.9	-1932			1438	439	SLV 15	0.23	No
ini.	2	-512	576.69	-1161			1643	643	SLV 16	0.55	No
fin.	2	427	-358.9	-1932			1438	439	SLV 16	0.23	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.632	SLV 7	Si
V_SLV	0	SLV 7	No
PF_SLU	2.277	SLU 64	Si
V_SLU	0.276	SLU 81	No

#### Trave di accoppiamento 24

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-29.008	1.056	3.42	5.08	1.66	-28.208	1.056	3.42	5.08	1.66	0.8	0.3	30000

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fkhmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2



#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-805	120.57	4194.19	SLU 73	34.79	Si
fin.	3	-805	483.04	4194.19	SLU 73	8.68	Si
ini.	3	-920	146.69	4194.19	SLU 83	28.59	Si
fin.	3	-920	532.68	4194.19	SLU 83	7.87	Si
ini.	3	-805	120.57	4194.19	SLU 76	34.79	Si
fin.	3	-805	483.04	4194.19	SLU 76	8.68	Si
ini.	3	-930	139.78	4194.19	SLU 82	30.01	Si
fin.	3	-930	534.45	4194.19	SLU 82	7.85	Si
ini.	3	-877	128.3	4194.19	SLU 39	32.69	Si
fin.	3	-877	484.05	4194.19	SLU 39	8.66	Si
ini.	3	-930	139.78	4194.19	SLU 84	30.01	Si
fin.	3	-930	534.45	4194.19	SLU 84	7.85	Si
ini.	3	-886	121.39	4194.19	SLU 42	34.55	Si
fin.	3	-886	485.82	4194.19	SLU 42	8.63	Si
ini.	3	-877	128.3	4194.19	SLU 41	32.69	Si
fin.	3	-877	484.05	4194.19	SLU 41	8.66	Si
ini.	3	-886	121.39	4194.19	SLU 40	34.55	Si
fin.	3	-886	485.82	4194.19	SLU 40	8.63	Si
ini.	3	-920	146.69	4194.19	SLU 81	28.59	Si
fin.	3	-920	532.68	4194.19	SLU 81	7.87	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-877	128.3	3064			2268	892	SLU 39	0.29	No
fin.	3	-877	484.05	-1468			2268	892	SLU 39	0.61	No
ini.	3	-886	121.39	3075			2272	894	SLU 40	0.29	No
fin.	3	-886	485.82	-1457			2272	894	SLU 40	0.61	No
ini.	3	-793	131.2	2796			2235	877	SLU 61	0.31	No
fin.	3	-793	466	-1405			2235	877	SLU 61	0.62	No
ini.	3	-930	139.78	3248			2290	901	SLU 82	0.28	No
fin.	3	-930	534.45	-1574			2290	901	SLU 82	0.57	No
ini.	3	-930	139.78	3248			2290	901	SLU 84	0.28	No
fin.	3	-930	534.45	-1574			2290	901	SLU 84	0.57	No
ini.	3	-920	146.69	3238			2286	900	SLU 81	0.28	No
fin.	3	-920	532.68	-1584			2286	900	SLU 81	0.57	No
ini.	3	-886	121.39	3075			2272	894	SLU 42	0.29	No
fin.	3	-886	485.82	-1457			2272	894	SLU 42	0.61	No
ini.	3	-793	131.2	2796			2235	877	SLU 63	0.31	No
fin.	3	-793	466	-1405			2235	877	SLU 63	0.62	No
ini.	3	-877	128.3	3064			2268	892	SLU 41	0.29	No
fin.	3	-877	484.05	-1468			2268	892	SLU 41	0.61	No
ini.	3	-920	146.69	3238			2286	900	SLU 83	0.28	No
fin.	3	-920	532.68	-1584			2286	900	SLU 83	0.57	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-26	-640.69	6291.28	SLV 2	9.82	Si
fin.	2	530	641.46	6291.28	SLV 2	9.81	Si
ini.	2	-191	-695.4	6291.28	SLV 4	9.05	Si
fin.	2	366	805.2	6291.28	SLV 4	7.81	Si
ini.	2	-832	807.2	6291.28	SLV 15	7.79	Si
fin.	2	-1388	-51.59	6291.28	SLV 15	121.96	Si
ini.	2	-26	-640.69	6291.28	SLV 1	9.82	Si
fin.	2	530	641.46	6291.28	SLV 1	9.81	Si
ini.	2	-191	-695.4	6291.28	SLV 3	9.05	Si
fin.	2	366	805.2	6291.28	SLV 3	7.81	Si
ini.	2	-607	-233.32	6291.28	SLV 8	26.96	Si
fin.	2	-439	696.36	6291.28	SLV 8	9.03	Si
ini.	2	-832	807.2	6291.28	SLV 16	7.79	Si
fin.	2	-1388	-51.59	6291.28	SLV 16	121.96	Si
ini.	2	-607	-233.32	6291.28	SLV 7	26.96	Si
fin.	2	-439	696.36	6291.28	SLV 7	9.03	Si
ini.	2	-667	861.91	6291.28	SLV 14	7.3	Si
fin.	2	-1225	-215.33	6291.28	SLV 14	29.22	Si
ini.	2	-667	861.91	6291.28	SLV 13	7.3	Si
fin.	2	-1225	-215.33	6291.28	SLV 13	29.22	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-191	-695.4	3713			2953	1123	SLV 4	0.3	No
fin.	2	366	805.2	1183			2877	1000	SLV 4	0.84	No
ini.	2	-667	861.91	-659			3144	1219	SLV 13	1.85	Si
fin.	2	-1225	-215.33	-2728			3367	1322	SLV 13	0.48	No
ini.	2	-832	807.2	-353			3210	1250	SLV 16	3.54	Si
fin.	2	-1388	-51.59	-2320			3432	1351	SLV 16	0.58	No
ini.	2	-832	807.2	-353			3210	1250	SLV 15	3.54	Si
fin.	2	-1388	-51.59	-2320			3432	1351	SLV 15	0.58	No
ini.	2	-26	-640.69	3408			2887	1088	SLV 2	0.32	No
fin.	2	530	641.46	775			2877	960	SLV 2	1.24	Si
ini.	2	-26	-640.69	3408			2887	1088	SLV 1	0.32	No
fin.	2	530	641.46	775			2877	960	SLV 1	1.24	Si
ini.	2	-191	-695.4	3713			2953	1123	SLV 3	0.3	No
fin.	2	366	805.2	1183			2877	1000	SLV 3	0.84	No
ini.	2	-667	861.91	-659			3144	1219	SLV 14	1.85	Si
fin.	2	-1225	-215.33	-2728			3367	1322	SLV 14	0.48	No
ini.	2	-607	-233.32	2647			3120	1207	SLV 7	0.46	No
fin.	2	-439	696.36	433			3053	1174	SLV 7	2.71	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-607	-233.32	2647			3120	1207	SLV 8	0.46	No
fin.	2	-439	696.36	433			3053	1174	SLV 8	2.71	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	7.299	SLV 13	Si
V_SLV	0.303	SLV 3	No
PF_SLU	7.848	SLU 82	Si
V_SLU	0.278	SLU 82	No