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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_17</b>		OGGETTO  TABULATI DI CALCOLO CIVICO 59 STATO DI FATTO			DATA  <b>Settembre 2022</b>	
SCALA					N. DISEGNO	
VERSIONE	DESCRIZIONE	DATA	REDATTO	VERIFICATO		APPROVATO
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01						
02						
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TABULATI DI CALCOLO  
CIVICO 59  
STATO DI FATTO



## Sommario

1 Risultati numerici.....	3
1.1 Sollecitazioni.....	3
1.1.1 Sollecitazioni aste.....	3
1.1.1.1 Convenzioni di segno aste.....	3
1.1.1.2 Sollecitazioni estreme aste.....	5
1.1.2 Sollecitazioni gusci.....	6
1.1.2.1 Convenzioni di segno gusci.....	6
1.1.2.2 Sollecitazioni estreme gusci.....	8
1.1.2.3 Sollecitazioni estreme gusci non verticali.....	9
1.1.2.4 Sollecitazioni estreme gusci verticali.....	11
1.1.3 Sollecitazioni gusci armati.....	12
1.1.3.1 Convenzioni di segno gusci.....	12
1.1.4 Sollecitazioni gusci muratura.....	14
1.1.4.1 Convenzioni di segno gusci muratura.....	14
1.1.5 Sollecitazioni aste in muratura.....	16
1.1.5.1 Convenzioni di segno aste.....	16
1.1.6 Sollecitazioni aste in muratura FRCM.....	18
1.1.6.1 Convenzioni di segno aste.....	18
1.1.7 Sollecitazioni aste in muratura armata.....	21
1.1.7.1 Convenzioni di segno aste.....	21
1.2 Reazioni nodali.....	23
1.2.1 Reazioni nodali estreme.....	23
1.2.2 Reazioni nodali in combinazioni di carico.....	24
1.3 Risposta modale.....	244
1.4 Equilibrio globale forze.....	245
1.5 Risposta di spettro.....	247
1.6 Annotazioni solutore.....	247
1.7 Statistiche soluzione.....	247
2 Verifiche.....	247
2.1 Verifica regolarità strutturale.....	247
2.2 Verifica sismica globale.....	249
2.3 Verifiche maschi in muratura.....	254
2.4 Verifiche travi di accoppiamento in muratura.....	291



# 1 Risultati numerici

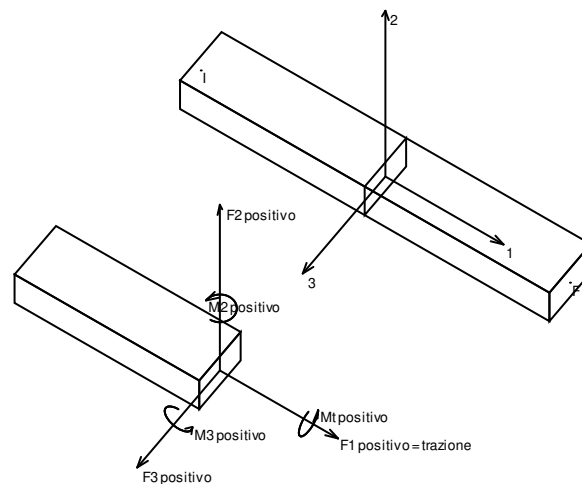
## 1.1 Sollecitazioni

### 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;
- $M1$  (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).

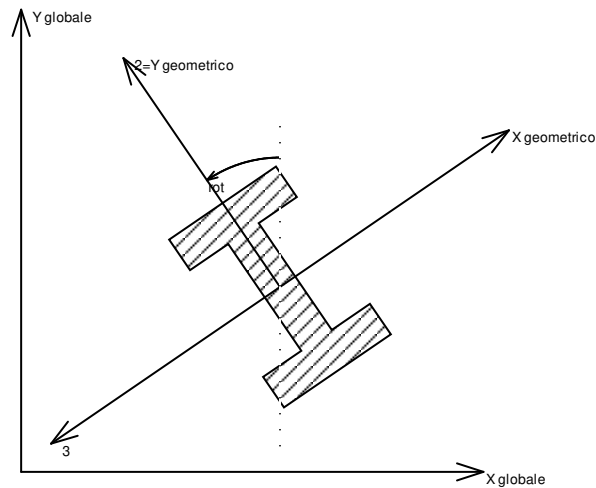
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- 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.

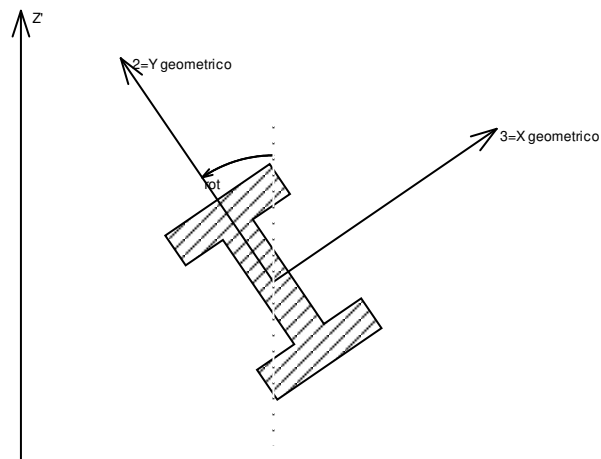


### Sistema locale aste verticali



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

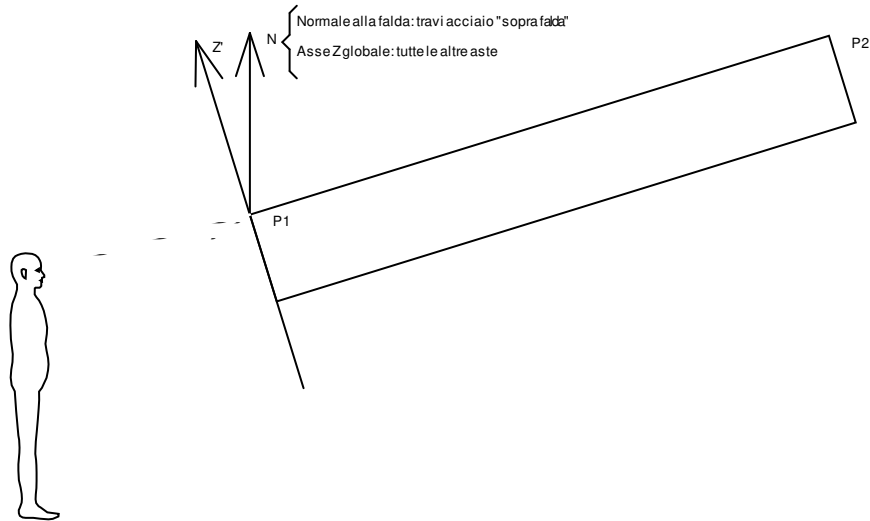
### Sistema locale aste non verticali



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

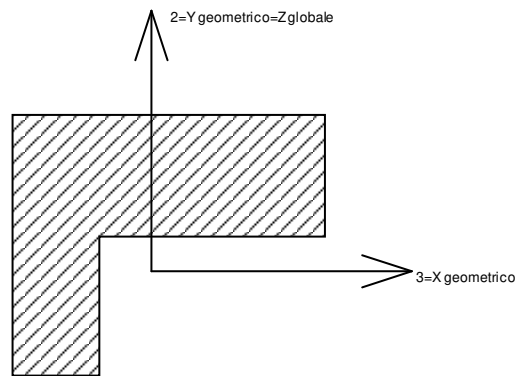
L'asse Z' è illustrato nella figura seguente dove:

- 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.

#### 1.1.1.2 Sollecitazioni estreme aste

**Asta:** elemento asta a cui si riferiscono le sollecitazioni.

**Ind.:** indice dell'asta.

**Cont.:** contesto a cui si riferisce la sollecitazione

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

**Pos.:** numero della sezione all'interno dell'asta (tra 1 e 31, dove 1 corrisponde alla sezione al nodo iniziale, 16 è la sezione in mezzzeria, 31 corrisponde alla sezione al nodo finale).

**Posizione:** posizione a cui si riferisce la sollecitazione dell'asta.

**X:** componente X della posizione a cui si riferisce la sollecitazione dell'asta. [m]

**Y:** componente Y della posizione a cui si riferisce la sollecitazione dell'asta. [m]

**Z:** componente Z della posizione a cui si riferisce la sollecitazione dell'asta. [m]

**Soll.traslazionale:** componente traslazionale della sollecitazione dell'asta.

**F1:** componente F1 della sollecitazione dell'asta. [daN]

**F2:** componente F2 della sollecitazione dell'asta. [daN]

**F3:** componente F3 della sollecitazione dell'asta. [daN]

**Soll.rotazionale:** componente rotazionale della sollecitazione dell'asta.

**M1:** componente M1 della sollecitazione dell'asta. [daN\*m]

**M2:** componente M2 della sollecitazione dell'asta. [daN\*m]

**M3:** componente M3 della sollecitazione dell'asta. [daN\*m]

#### Sollecitazioni con sforzo normale (N) minimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione	Soll.traslazionale	Soll.rotazionale
------	-------	------	-----------	--------------------	------------------



Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
10	SLU 82	1	-1.48	2.26	4.16	-27818	13832	22	1.06	-11.62	-3677.91
9	SLU 82	1	-1.48	2.26	3.75	-26658	7691	21	1	-20.24	-659.37
8	SLU 82	1	-1.48	2.26	3.35	-24352	3090	21	0.9	-28.76	191.77
7	SLU 82	1	-1.48	2.26	2.94	-22572	1108	21	0.76	-37.17	309.39
6	SLU 82	1	-1.48	2.26	2.54	-21437	439	20	0.62	-45.5	261.86

#### Sollecitazioni con sforzo normale (N) massimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
23	SLU 81	1	-1.48	2.77	4.56	12270	6933	-13	0.02	-45.82	60.02
22	SLU 81	1	-1.48	3.12	4.56	8598	682	-13	0	-41.31	196.23
1	SLV Y	1	-1.48	2.26	0.51	5908	350	-300	72.49	670.29	-392.14
21	SLU 81	1	-1.48	3.47	4.56	5684	-11	-13	-0.02	-36.8	59.42
2	SLV Y	1	-1.48	2.26	0.92	5107	-328	-218	65.24	606.43	-258.41

#### Sollecitazioni con momento M2 minimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
1	SLV 1	1	-1.48	2.26	0.51	-12739	-820	576	-125.08	-2183.03	-263.81
2	SLV 1	1	-1.48	2.26	0.92	-12078	-360	591	-90.53	-1990.32	-77.61
3	SLV 1	1	-1.48	2.26	1.32	-11435	-416	580	-67.79	-1765.76	3.22
4	SLV 1	1	-1.48	2.26	1.73	-11069	-314	613	-55.35	-1540.24	-5.19
5	SLV 1	1	-1.48	2.26	2.13	-11024	-91	624	-57.82	-1313.81	42.91

#### Sollecitazioni con momento M2 massimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
1	SLV 15	1	-1.48	2.26	0.51	-4897	1242	-550	126.82	2084.43	1145.14
2	SLV 15	1	-1.48	2.26	0.92	-5040	1075	-567	91.77	1902.34	717.88
3	SLV 15	1	-1.48	2.26	1.32	-5601	908	-556	68.82	1687.61	362.21
4	SLV 15	1	-1.48	2.26	1.73	-6243	659	-589	56.21	1471.78	250.2
5	SLV 15	1	-1.48	2.26	2.13	-6657	351	-601	58.54	1254.95	159.56

#### Sollecitazioni con momento M3 minimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
24	SLU 82	1	-1.48	2.41	4.56	-204	-15668	15	2.59	-63.35	-15933.87
10	SLU 81	31	-1.48	2.26	4.56	-27693	13836	27	0.12	-2.53	-9281.79
9	SLU 81	31	-1.48	2.26	4.16	-26524	7696	27	0.22	-13.36	-3775.92
23	SLU 82	31	-1.48	2.41	4.56	12269	6962	-7	-0.3	-61.16	-2401.48
8	SLU 81	31	-1.48	2.26	3.75	-24207	3095	27	0.34	-24.19	-1061.44

#### Sollecitazioni con momento M3 massimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
24	SLU 82	20	-1.48	-0.74	4.56	-204	262	15	2.59	-16.02	8337.71
1	SLV 13	1	-1.48	2.26	0.51	-8442	1032	-370	83.33	1682.26	1380.42
2	SLV 13	1	-1.48	2.26	0.92	-8104	1271	-436	52.63	1538.48	872.92
3	SLV 13	1	-1.48	2.26	1.32	-8387	654	-443	32.82	1366.89	441.67
7	SLU 81	1	-1.48	2.26	2.94	-22533	1115	27	0.48	-45.91	309.97

### 1.1.2 Sollecitazioni gusci

#### 1.1.2.1 Convenzioni di segno gusci

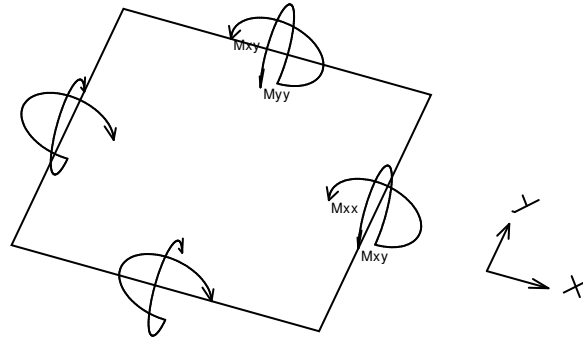
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- 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.

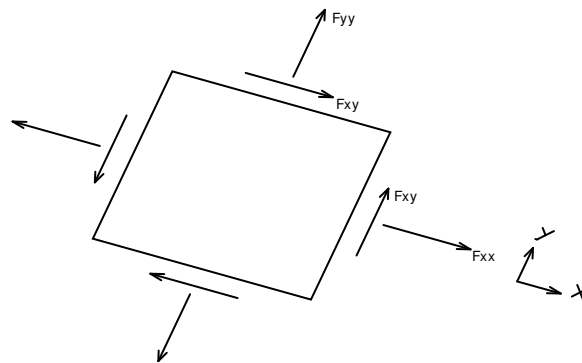
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione Mxx, Myy, Mxy.



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).

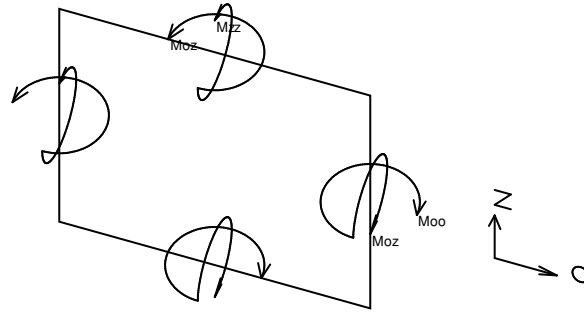
Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- $V_x$ : 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

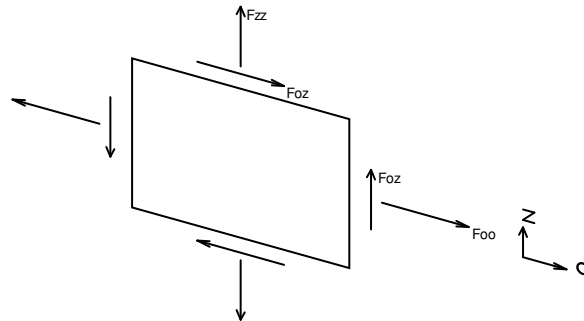
Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse O (ascisse) e z (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse O è orizzontale e l'asse z è 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  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ .





- 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
85	SLV 3	1034	-863	58	-180	1954	-646	-1446	1822	637
1928	SLV 9	991	-817	-134	-360	-2950	1233	-11730	-1792	1147
84	SLV 1	1034	-813	70	-167	1768	764	-1190	-1325	404
1475	SLV 5	2161	-810	0	1	-659	-1	-2275	779	-9
614	SLV 13	991	-798	0	-203	11991	1	-3520	1545	1487

#### 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
1175	SLV 9	2077	1313	0	-299	2843	83	-16524	-143	279
1174	SLV 5	2077	1072	0	-90	1964	48	-11745	2464	-300
85	SLV 13	1034	869	-58	189	2846	-347	-313	-1828	-663
1475	SLV 11	2161	832	0	-3	494	2	-284	-737	13
84	SLV 15	1034	817	-72	175	3798	514	-554	1330	-428

#### 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
1175	SLU 81	2077	968	0	-1960	114	41	-40685	-2993	3970
1174	SLU 81	2077	843	0	-1923	76	62	-30039	2705	3689
670	SLV 15	1051	-309	-292	-1417	-23222	-1363	-52261	4275	5816
626	SLV 15	1051	-526	216	-1321	1278	8320	-50886	-2132	5320
1610	SLV 7	1791	-327	0	-1148	-1070	12	-4376	1382	2571

#### 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
670	SLV 1	1051	297	283	1383	2860	-2845	7368	-4157	-5639
626	SLV 1	1051	535	-213	1294	-19771	-3557	-1239	2142	-5229
1610	SLV 9	1791	328	0	1149	1015	-13	1574	-1386	-2573
1124	SLV 11	1742	339	0	1130	765	-8	-3024	1424	-2662
1146	SLV 11	1742	339	0	1122	763	43	-2958	1424	3065

#### 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
767	SLV 1	1049	123	-45	-2	-225167	-166568	-44923	84	189
751	SLV 15	958	-6	19	0	-74339	-58675	-36797	461	-99
768	SLV 1	958	84	-25	39	-65863	-61343	-87771	-134	236
835	SLV 7	1316	96	0	-3	-54688	-8	93050	-200	-449
834	SLV 9	1316	-63	0	79	-52014	1	1355	74	-56

#### 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
767	SLV 15	1049	-123	48	-7	237242	160742	52933	-113	-131
751	SLV 1	958	6	-19	1	75310	56162	28378	-469	91
768	SLV 1	1048	90	-26	0	68465	53123	44949	-303	-16
835	SLV 9	1311	-78	0	4	53715	4	87163	137	-130
834	SLV 7	1316	62	0	-76	52973	-1	-6226	-74	55

#### 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
835	SLV 9	1417	12	0	3	7569	-176	-155110	-143	-119
913	SLV 9	1413	-23	0	147	-6759	-117	-138051	-149	11
767	SLV 1	1050	-12	-53	13	-11606	10901	-99081	100	-109
917	SLV 9	1730	-5	0	-75	-9553	-186	-94076	14	351
1560	SLV 13	1827	-39	0	1	12441	-33	-89817	202	14

#### 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
835	SLV Y	1417	-20	0	54	-8690	173	150237	98	66
913	SLV Y	1413	11	0	-54	6576	115	131106	73	-91
768	SLV 15	958	-84	25	-34	65849	62345	93365	133	-182
1560	SLV 3	1827	39	0	-1	-11916	32	86856	-202	-15
917	SLV Y	1730	21	0	123	10029	182	85135	-84	-227

#### 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
1795	SLV 9	997	-498	69	-170	3342	4055	-5785	-1364	-653
1788	SLV 13	1007	-176	4	-418	8514	205	-3187	424	857
1785	SLV 9	997	-131	19	-513	2825	-22	3456	-530	1242
1787	SLV 15	1144	-88	0	-80	-744	-108	110	226	161
1786	SLV 11	1143	-61	-12	95	968	-166	2087	248	40

#### 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
1795	SLV 7	997	452	-64	148	-3720	-3097	-258	1285	567
1788	SLV 3	1007	180	-4	402	-7781	-95	-2173	-430	-781
1785	SLV 7	997	119	-16	445	-2054	248	-7205	482	-1008
1787	SLV 1	1144	91	0	86	578	361	-5362	-214	-94
1786	SLV 5	1143	71	10	-66	-1073	547	-7153	-275	150

#### 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
1785	SLV 13	997	-106	29	-683	2244	280	-3474	-534	1685
1788	SLV 9	1007	-108	8	-538	6603	165	-1890	341	1260
1795	SLV 13	998	61	177	-335	5322	4757	619	-1144	-916
1786	SLV 13	998	56	23	-248	1745	274	-1993	118	-43
1787	SLV 13	1004	-33	10	-233	4056	353	-3330	27	213

#### 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
1785	SLV 3	997	94	-26	616	-1473	-54	-276	486	-1452
1788	SLV 7	1007	112	-7	522	-5871	-55	-3470	-347	-1184
1795	SLV 3	998	-69	-162	301	-5458	-3418	-6932	1062	909
1787	SLV 3	1004	36	-9	212	-3363	-70	-1719	-42	-147
1786	SLV 3	998	-56	-20	211	-1259	190	-3594	-120	104

#### 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
687	SLV 15	401	31	8	27	-9565	8172	-11492	49	74
1795	SLV 7	998	58	-127	232	-9214	-5695	-9487	1244	803
1788	SLV 3	1007	180	-4	402	-7781	-95	-2173	-430	-781
671	SLV 1	267	-5	-1	-2	-6595	6056	-13799	92	-1
1787	SLV 3	1001	-42	-11	177	-3381	35	-3869	-46	-69

#### 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
1795	SLV 9	998	-67	142	-266	9078	7034	3174	-1326	-810
687	SLV 1	404	-20	-2	-4	9070	6427	-2422	32	-25
1788	SLV 13	1007	-176	4	-418	8514	205	-3187	424	857
671	SLV 15	264	0	7	2	6288	7414	1434	8	-44
1787	SLV 13	1001	41	13	-227	4069	280	-1839	25	260

#### 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
687	SLU 82	404	-8	1	-1	54	157	-15896	75	-4
671	SLU 82	73	0	1	0	-3580	618	-14946	-14	8
1785	SLV 5	1141	-67	-1	-51	-841	728	-13798	-306	429
1795	SLV 9	837	-81	-19	-53	-3664	-1675	-10187	-24	-529
1786	SLV 11	1142	41	-1	52	924	623	-8290	265	-194

#### 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
1785	SLV Y	1141	47	-2	87	884	-489	9343	231	-727
671	SLV X	264	-8	4	-8	5654	5807	6290	-18	35
1795	SLV Y	837	102	36	48	3974	2348	6214	189	436
687	SLV X	264	6	3	-3	5343	6743	5701	8	-28
1786	SLV Y	1143	-53	-13	117	1150	-262	3697	225	-96

#### 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		
85	SLV 3	1034	-863	58	-180	1954	-646	-1446	1822	637		
1475	SLV 11	2161	-832	0	3	494	-2	-284	-737	-13		
84	SLV 1	1034	-813	70	-167	1768	764	-1190	-1325	404		
614	SLV 3	991	-794	0	-201	-6472	2	588	-1541	1496		
1175	SLV Y	2077	-788	0	-608	-1886	-45	-398	-1301	1633		

#### 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		
1175	SLV 9	2077	1313	0	-299	2843	83	-16524	-143	279		
1174	SLV 5	2077	1072	0	-90	1964	48	-11745	2464	-300		
85	SLV 13	1034	869	-58	189	2846	-347	-313	-1828	-663		
1928	SLV 9	991	817	-134	360	-2950	-1233	-11730	-1792	-1147		
84	SLV 15	1034	817	-72	175	3798	514	-554	1330	-428		

#### 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		
1175	SLU 81	2077	968	0	-1960	114	41	-40685	-2993	3970		
1174	SLU 81	2077	843	0	-1923	76	62	-30039	2705	3689		
670	SLV 1	1051	-297	283	-1383	2860	2845	7368	-4157	5639		
626	SLV 1	1051	-535	-213	-1294	-19771	3557	-1239	2142	5229		
1610	SLV 9	1791	-328	0	-1149	1015	13	1574	-1386	2573		

#### 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		
670	SLV 15	1051	309	-292	1417	-23222	1363	-52261	4275	-5816		
626	SLV 15	1051	526	216	1321	1278	-8320	-50886	-2132	-5320		
1610	SLV 7	1791	327	0	1148	-1070	-12	-4376	1382	-2571		
1124	SLV 11	1742	339	0	1130	765	-8	-3024	1424	-2662		
1146	SLV 11	1742	339	0	1122	763	43	-2958	1424	3065		

#### 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		
767	SLV 1	1049	123	-45	-2	-225167	-166568	-44923	84	189		
751	SLV 15	958	-6	19	0	-74339	-58675	-36797	461	-99		
768	SLV 1	958	84	-25	39	-65863	-61343	-87771	-134	236		
835	SLV 7	1316	96	0	-3	-54688	-8	93050	-200	-449		
834	SLV 9	1316	-63	0	79	-52014	1	1355	74	-56		

#### 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		
767	SLV 15	1049	-123	48	-7	237242	160742	52933	-113	-131		
751	SLV 1	958	6	-19	1	75310	56162	28378	-469	91		
768	SLV 1	1048	90	-26	0	68465	53123	44949	-303	-16		
835	SLV 9	1311	-78	0	4	53715	4	87163	137	-130		



Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
834	SLV 7	1316	62	0	-76	52973	-1	-6226	-74	55

#### 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
835	SLV 9	1417	12	0	3	7569	-176	-155110	-143	-119
913	SLV 9	1413	-23	0	147	-6759	-117	-138051	-149	11
767	SLV 1	1050	-12	-53	13	-11606	10901	-99081	100	-109
917	SLV 9	1730	-5	0	-75	-9553	-186	-94076	14	351
1560	SLV 13	1827	39	0	-1	12441	33	-89817	202	-14

#### 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
835	SLV Y	1417	-20	0	54	-8690	173	150237	98	66
913	SLV Y	1413	11	0	-54	6576	115	131106	73	-91
768	SLV 15	958	-84	25	-34	65849	62345	93365	133	-182
1560	SLV 3	1827	-39	0	1	-11916	-32	86856	-202	15
917	SLV Y	1730	21	0	123	10029	182	85135	-84	-227

### 1.1.3 Sollecitazioni gusci armati

#### 1.1.3.1 Convenzioni di segno gusci

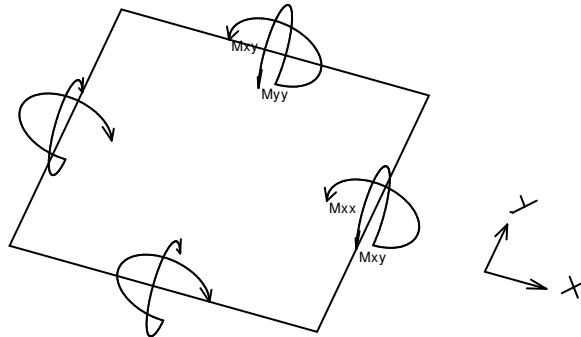
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- 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 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.

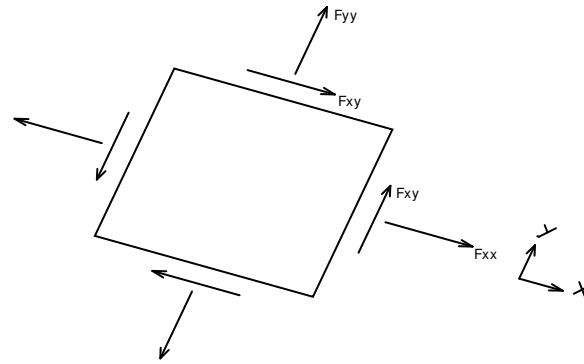
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ .



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:

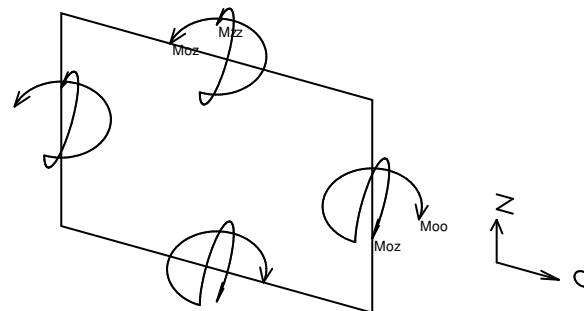
- $F_{xx}$ : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale  $x$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{yy}$ : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse  $y$  (verso positivo indicato dalla freccia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

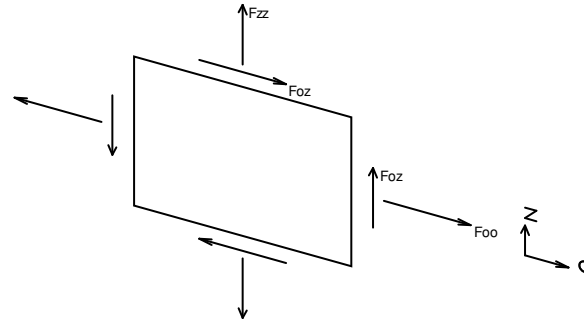
#### Convenzione di segno per gusci verticali

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  $M_{oo}$ ,  $M_{zz}$ ,  $M_{oz}$ .



- $M_{oo}$ : 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

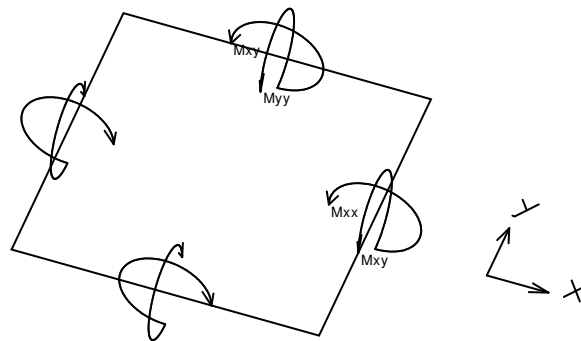
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio muratura si riferisce:

- 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.

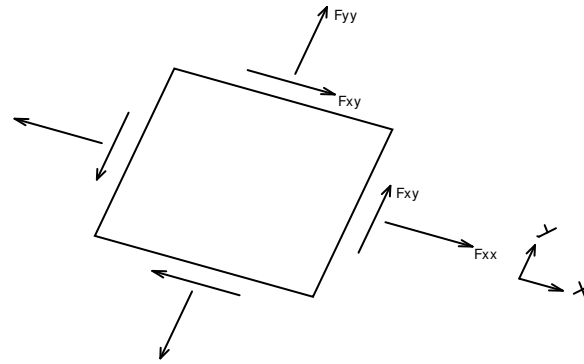
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ .



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  $F_{xx}$ ,  $F_{yy}$ ,  $F_{xy}$ .

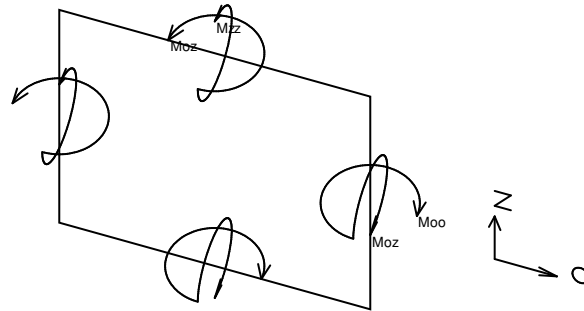


Si definiscono:

- $F_{xx}$ : 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).

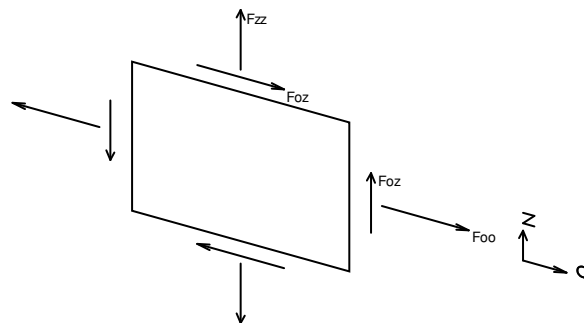
#### Convenzione di segno per gusci verticali

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  $z$  è 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);





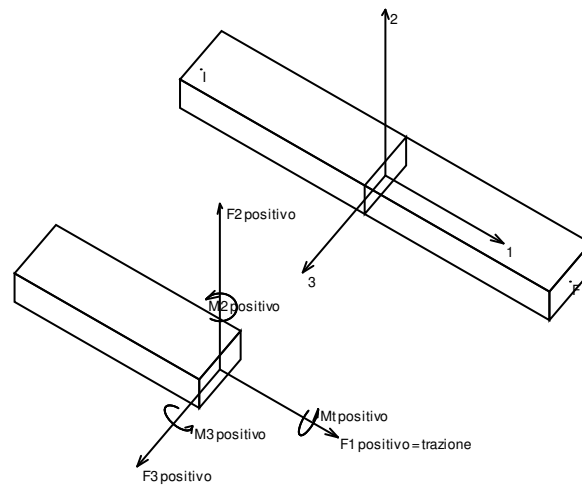
- $F_{oo}$ : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{oz}$ : sforzo tagliante distribuito [Forza/Lunghezza] applicato sui bordi (verso positivo indicato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

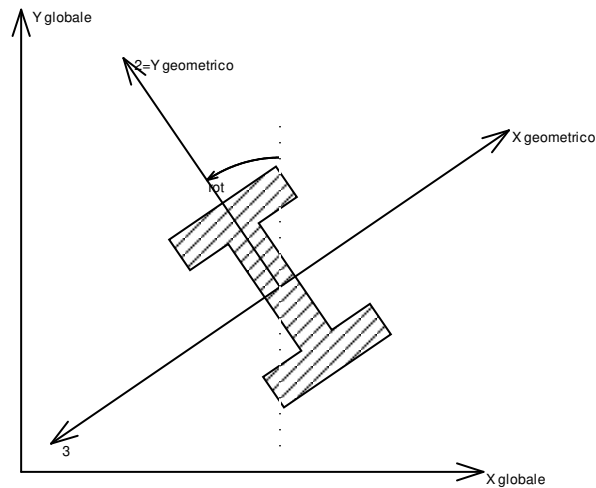
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- 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.

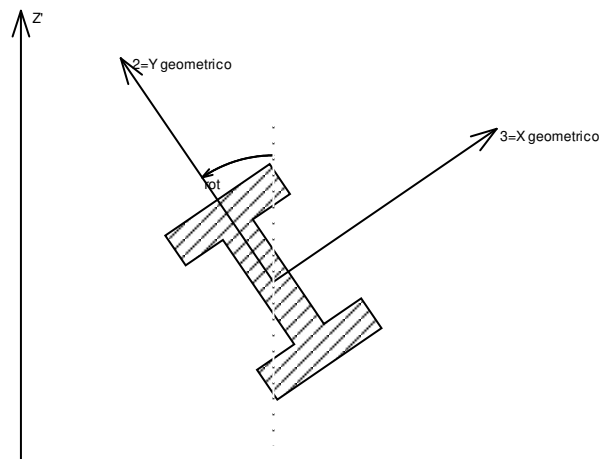


### Sistema locale aste verticali



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

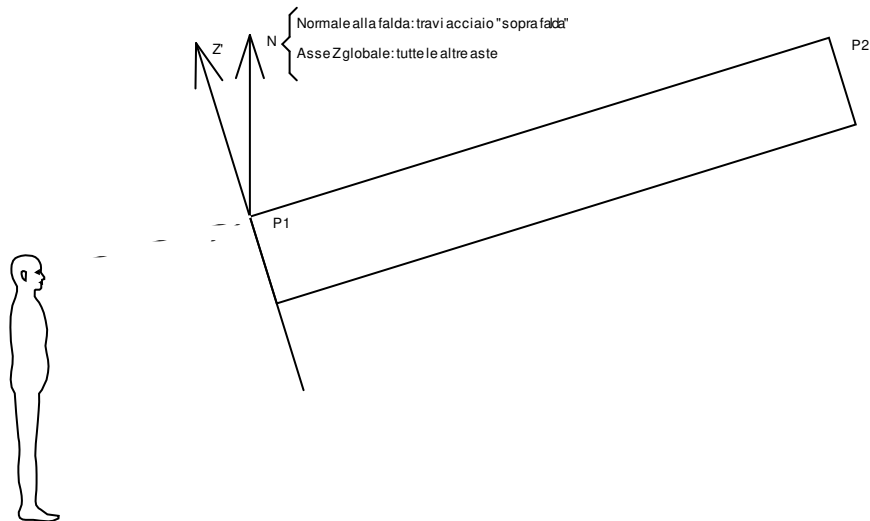
### Sistema locale aste non verticali



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

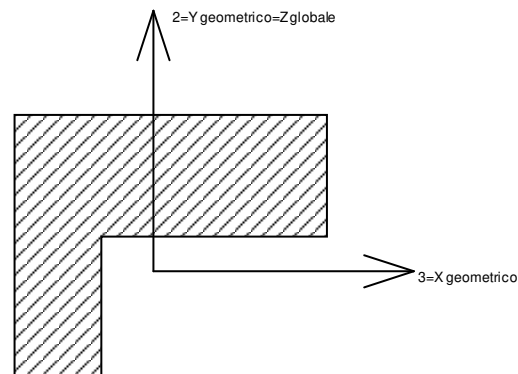
L'asse Z' è illustrato nella figura seguente dove:

- 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.**



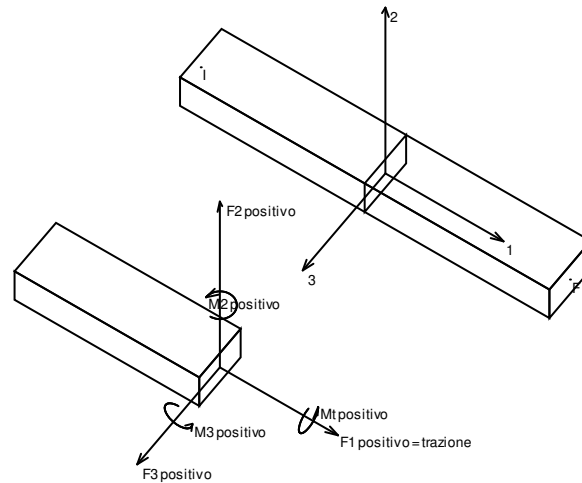
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse  $Z$  globale nonché con l'asse  $y$  geometrico. L'asse 3 coincide con l'asse  $x$  geometrico. Si sottolinea il fatto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

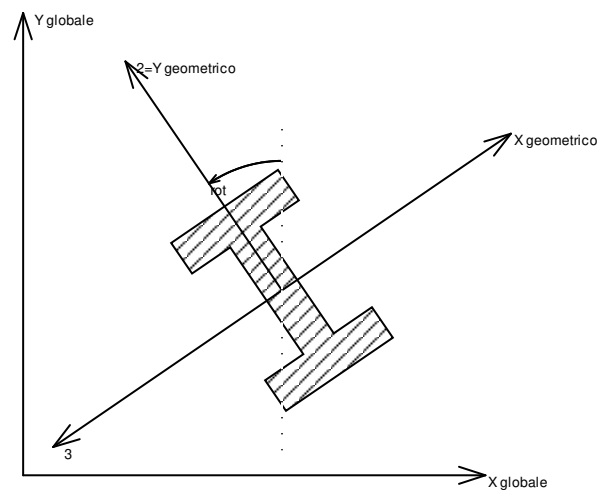
presa un'asta con nodo iniziale  $i$  e nodo finale  $f$ , asse 1 che va da  $i$  a  $f$ , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il vettore 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.

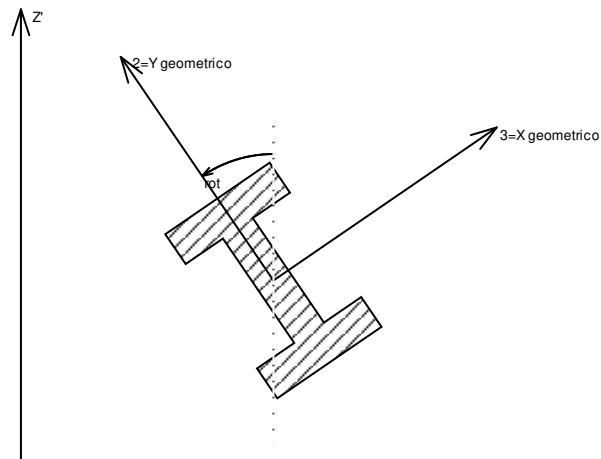
#### Sistema locale aste verticali



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



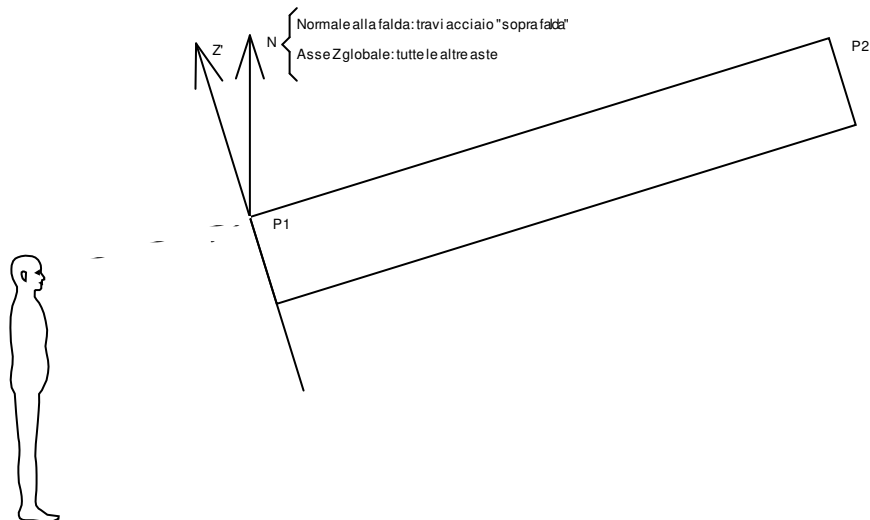
## Sistema locale aste non verticali



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:

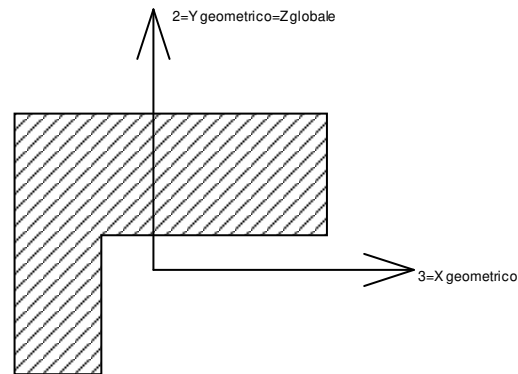
- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



$Z'$  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.



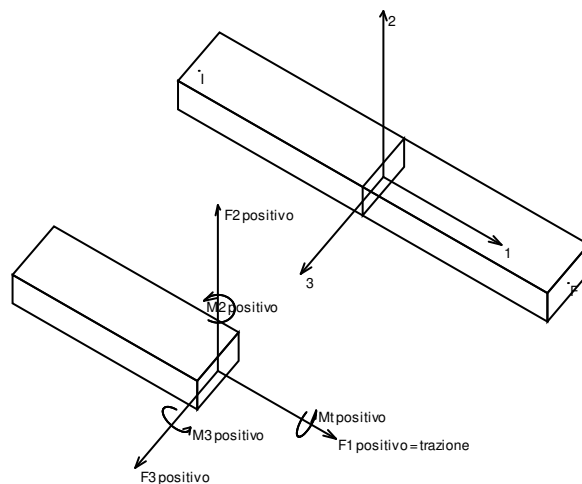
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli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

### 1.1.7 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).

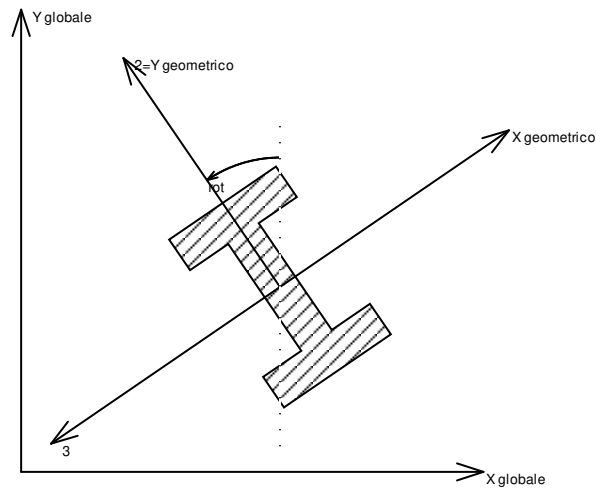
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- 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.

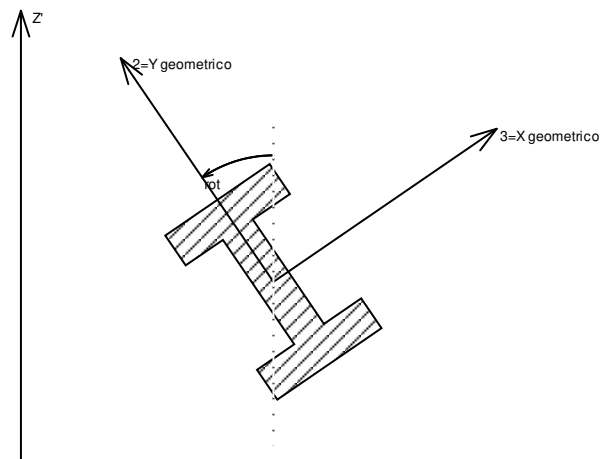


### Sistema locale aste verticali



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

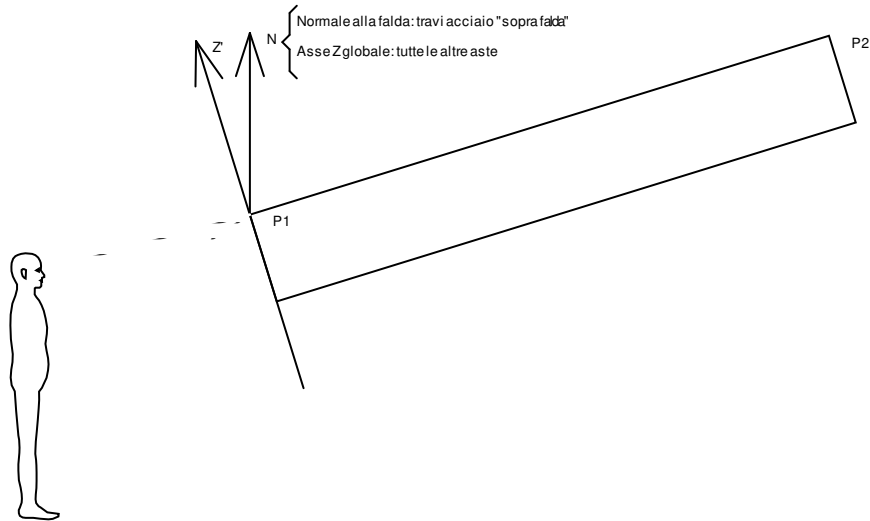
### Sistema locale aste non verticali



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

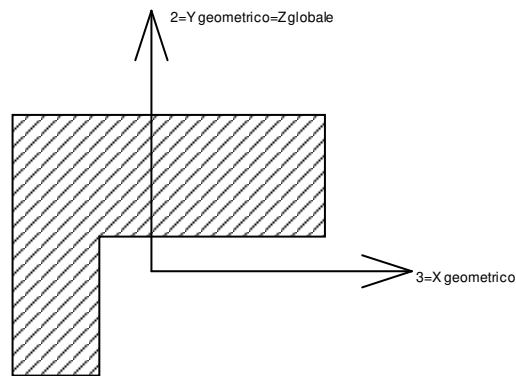
L'asse Z' è illustrato nella figura seguente dove:

- 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
72	SLV 15	-1483	-15	1897	5.85	-172.21	-1.31
71	SLV 3	-1294	13	2282	4.77	-122.14	0.04
73	SLV 1	-1078	134	4125	9.05	-91.86	8.23
70	SLV 15	-1059	-10	1455	17.58	-130.4	0.04
68	SLV 15	-897	-14	1172	22.55	-94.31	0.01

#### 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
71	SLV 13	1327	-22	2262	-2.94	122.81	-0.1
70	SLV 1	1112	13	2444	-17.81	127.8	0
72	SLV 1	1063	46	3104	-12.22	147.19	3.31
69	SLV 13	889	16	1587	-24.73	86.54	0
68	SLV 1	845	14	1872	-22.6	89.74	-0.01

#### 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
111	SLV 11	0	-1316	2248	50.62	-2.45	0
107	SLV 11	-1	-1188	2251	44.94	-6.33	0
103	SLV 11	-2	-1072	2306	41	-12.39	0
99	SLV 11	-15	-976	2290	37.82	-19.15	0
128	SLV 7	-183	-910	5110	33.7	-5.71	-0.03

#### 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
50	SLV 9	-45	1180	3343	-41.66	-29.58	0.46
47	SLV 9	-36	1122	2595	-39.17	-35.38	0.36
44	SLV 9	-34	963	2064	-35.95	-39.19	0.27
53	SLV 9	-48	926	4101	-30.68	-19.1	0.32
41	SLV 9	-39	793	1797	-30.97	-41.76	0.44

#### 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
84	SLV Y	-19	-408	-1444	21.12	-15.48	-0.07
73	SLV Y	233	-318	-1274	13.7	24.1	-1.85
24	SLV X	-174	-242	-1265	8.26	5.69	0.07
81	SLV Y	-15	-386	-1242	11.89	-8.3	1.28
53	SLV Y	44	-562	-1018	20.67	16.36	-0.32

#### 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
73	SLU 82	-646	272	8549	16.9	-13.94	4.21
53	SLU 82	2	754	5921	-20.41	-0.22	-0.05
128	SLV 7	-183	-910	5110	33.7	-5.71	-0.03
18	SLU 81	-233	-9	5047	3.66	-6.63	0
72	SLU 82	-318	34	4914	-6.47	-23.12	2.17

### 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	385	355	2780	-9.47	10.49	-0.01
2	SLU 2	384	365	2815	-9.75	10.4	-0.01
2	SLU 3	385	355	2780	-9.47	10.49	-0.01
2	SLU 4	385	361	2801	-9.64	10.44	-0.01
2	SLU 5	384	365	2815	-9.75	10.4	-0.01
2	SLU 6	385	355	2780	-9.47	10.49	-0.01
2	SLU 7	385	361	2801	-9.64	10.44	-0.01
2	SLU 8	385	355	2780	-9.47	10.49	-0.01
2	SLU 9	385	361	2801	-9.64	10.44	-0.01
2	SLU 10	436	475	3394	-12.98	11.63	0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
2	SLU 11	436	464	3359	-12.7	11.72	0.01
2	SLU 12	436	471	3380	-12.87	11.67	0.01
2	SLU 13	436	475	3394	-12.98	11.63	0.01
2	SLU 14	436	464	3359	-12.7	11.72	0.01
2	SLU 15	436	471	3380	-12.87	11.67	0.01
2	SLU 16	436	464	3359	-12.7	11.72	0.01
2	SLU 17	436	471	3380	-12.87	11.67	0.01
2	SLU 18	458	511	3607	-14.08	12.25	0.02
2	SLU 19	458	518	3628	-14.25	12.19	0.02
2	SLU 20	458	511	3607	-14.08	12.25	0.02
2	SLU 21	458	518	3628	-14.25	12.19	0.02
2	SLU 22	419	400	3065	-10.75	11.41	-0.01
2	SLU 23	419	410	3099	-11.03	11.32	0
2	SLU 24	419	400	3065	-10.75	11.41	-0.01
2	SLU 25	419	406	3085	-10.92	11.36	0
2	SLU 26	419	410	3099	-11.03	11.32	0
2	SLU 27	419	400	3065	-10.75	11.41	-0.01
2	SLU 28	419	406	3085	-10.92	11.36	0
2	SLU 29	419	400	3065	-10.75	11.41	-0.01
2	SLU 30	419	406	3085	-10.92	11.36	0
2	SLU 31	470	520	3679	-14.26	12.55	0.02
2	SLU 32	471	509	3644	-13.98	12.64	0.01
2	SLU 33	470	515	3665	-14.15	12.58	0.02
2	SLU 34	470	520	3679	-14.26	12.55	0.02
2	SLU 35	471	509	3644	-13.98	12.64	0.01
2	SLU 36	470	515	3665	-14.15	12.58	0.02
2	SLU 37	471	509	3644	-13.98	12.64	0.01
2	SLU 38	470	515	3665	-14.15	12.58	0.02
2	SLU 39	493	556	3892	-15.36	13.16	0.02
2	SLU 40	492	562	3913	-15.53	13.11	0.03
2	SLU 41	493	556	3892	-15.36	13.16	0.02
2	SLU 42	492	562	3913	-15.53	13.11	0.03
2	SLU 43	488	446	3516	-11.87	13.32	-0.01
2	SLU 44	488	456	3551	-12.15	13.23	-0.01
2	SLU 45	488	446	3516	-11.87	13.32	-0.01
2	SLU 46	488	452	3537	-12.04	13.27	-0.01
2	SLU 47	488	456	3551	-12.15	13.23	-0.01
2	SLU 48	488	446	3516	-11.87	13.32	-0.01
2	SLU 49	488	452	3537	-12.04	13.27	-0.01
2	SLU 50	488	446	3516	-11.87	13.32	-0.01
2	SLU 51	488	452	3537	-12.04	13.27	-0.01
2	SLU 52	539	566	4130	-15.38	14.46	0.01
2	SLU 53	540	555	4096	-15.1	14.55	0.01
2	SLU 54	540	562	4116	-15.27	14.5	0.01
2	SLU 55	539	566	4130	-15.38	14.46	0.01
2	SLU 56	540	555	4096	-15.1	14.55	0.01
2	SLU 57	540	562	4116	-15.27	14.5	0.01
2	SLU 58	540	555	4096	-15.1	14.55	0.01
2	SLU 59	540	562	4116	-15.27	14.5	0.01
2	SLU 60	562	602	4344	-16.49	15.08	0.02
2	SLU 61	562	609	4365	-16.66	15.02	0.02
2	SLU 62	562	602	4344	-16.49	15.08	0.02
2	SLU 63	562	609	4365	-16.66	15.02	0.02
2	SLU 64	523	491	3801	-13.15	14.24	-0.01
2	SLU 65	522	501	3836	-13.43	14.15	-0.01
2	SLU 66	523	491	3801	-13.15	14.24	-0.01
2	SLU 67	523	497	3822	-13.32	14.19	-0.01
2	SLU 68	522	501	3836	-13.43	14.15	-0.01
2	SLU 69	523	491	3801	-13.15	14.24	-0.01
2	SLU 70	523	497	3822	-13.32	14.19	-0.01
2	SLU 71	523	491	3801	-13.15	14.24	-0.01
2	SLU 72	523	497	3822	-13.32	14.19	-0.01
2	SLU 73	574	611	4415	-16.66	15.38	0.01
2	SLU 74	574	600	4380	-16.38	15.47	0.01
2	SLU 75	574	607	4401	-16.55	15.42	0.01
2	SLU 76	574	611	4415	-16.66	15.38	0.01
2	SLU 77	574	600	4380	-16.38	15.47	0.01
2	SLU 78	574	607	4401	-16.55	15.42	0.01
2	SLU 79	574	600	4380	-16.38	15.47	0.01
2	SLU 80	574	607	4401	-16.55	15.42	0.01
2	SLU 81	596	647	4629	-17.77	16	0.02
2	SLU 82	596	654	4649	-17.93	15.94	0.02
2	SLU 83	596	647	4629	-17.77	16	0.02
2	SLU 84	596	654	4649	-17.93	15.94	0.02
2	SLE RA 1	394	367	2861	-9.83	10.75	-0.01
2	SLE RA 2	394	374	2884	-10.02	10.69	-0.01
2	SLE RA 3	394	367	2861	-9.83	10.75	-0.01
2	SLE RA 4	394	372	2875	-9.95	10.72	-0.01
2	SLE RA 5	394	374	2884	-10.02	10.69	-0.01
2	SLE RA 6	394	367	2861	-9.83	10.75	-0.01
2	SLE RA 7	394	372	2875	-9.95	10.72	-0.01
2	SLE RA 8	394	367	2861	-9.83	10.75	-0.01
2	SLE RA 9	394	372	2875	-9.95	10.72	-0.01
2	SLE RA 10	429	448	3271	-12.18	11.51	0.01
2	SLE RA 11	429	441	3247	-11.99	11.57	0.01
2	SLE RA 12	429	445	3261	-12.1	11.54	0.01
2	SLE RA 13	429	448	3271	-12.18	11.51	0.01
2	SLE RA 14	429	441	3247	-11.99	11.57	0.01
2	SLE RA 15	429	445	3261	-12.1	11.54	0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
2	SLE RA 16	429	441	3247	-11.99	11.57	0.01
2	SLE RA 17	429	445	3261	-12.1	11.54	0.01
2	SLE RA 18	443	472	3413	-12.91	11.92	0.01
2	SLE RA 19	443	476	3427	-13.02	11.89	0.01
2	SLE RA 20	443	472	3413	-12.91	11.92	0.01
2	SLE RA 21	443	476	3427	-13.02	11.89	0.01
2	SLE FR 1	394	367	2861	-9.83	10.75	-0.01
2	SLE FR 2	394	369	2866	-9.87	10.74	-0.01
2	SLE FR 3	394	367	2861	-9.83	10.75	-0.01
2	SLE FR 4	409	400	3031	-10.79	11.09	0
2	SLE FR 5	409	399	3027	-10.76	11.1	0
2	SLE FR 6	419	420	3137	-11.37	11.34	0
2	SLE QP 1	394	367	2861	-9.83	10.75	-0.01
2	SLE QP 2	409	399	3027	-10.76	11.1	0
2	SLD 1	356	434	3318	-11.99	8.61	-0.02
2	SLD 2	356	434	3318	-11.99	8.61	-0.02
2	SLD 3	342	398	3181	-10.6	9.27	-0.03
2	SLD 4	342	398	3181	-10.6	9.27	-0.03
2	SLD 5	415	464	3322	-13.24	9.35	0.01
2	SLD 6	415	464	3322	-13.24	9.35	0.01
2	SLD 7	367	344	2866	-8.6	11.56	-0.03
2	SLD 8	367	344	2866	-8.6	11.56	-0.03
2	SLD 9	451	454	3188	-12.92	10.65	0.03
2	SLD 10	451	454	3188	-12.92	10.65	0.03
2	SLD 11	403	333	2732	-8.28	12.86	-0.02
2	SLD 12	403	333	2732	-8.28	12.86	-0.02
2	SLD 13	476	400	2872	-10.92	12.94	0.03
2	SLD 14	476	400	2872	-10.92	12.94	0.03
2	SLD 15	462	364	2735	-9.52	13.6	0.01
2	SLD 16	462	364	2735	-9.52	13.6	0.01
2	SLV 1	285	487	3740	-13.84	5.05	-0.04
2	SLV 2	285	487	3740	-13.84	5.05	-0.04
2	SLV 3	250	394	3388	-10.28	6.74	-0.07
2	SLV 4	250	394	3388	-10.28	6.74	-0.07
2	SLV 5	426	567	3774	-17.08	6.73	0.04
2	SLV 6	426	567	3774	-17.08	6.73	0.04
2	SLV 7	308	256	2601	-5.22	12.35	-0.07
2	SLV 8	308	256	2601	-5.22	12.35	-0.07
2	SLV 9	511	542	3452	-16.3	9.86	0.07
2	SLV 10	511	542	3452	-16.3	9.86	0.07
2	SLV 11	393	230	2279	-4.43	15.48	-0.04
2	SLV 12	393	230	2279	-4.43	15.48	-0.04
2	SLV 13	569	404	2666	-11.23	15.47	0.07
2	SLV 14	569	404	2666	-11.23	15.47	0.07
2	SLV 15	533	310	2314	-7.67	17.16	0.04
2	SLV 16	533	310	2314	-7.67	17.16	0.04
3	SLU 1	342	3	2224	-1.16	14.02	-0.01
3	SLU 2	341	3	2243	-1.01	14.19	-0.02
3	SLU 3	342	3	2224	-1.16	14.02	-0.01
3	SLU 4	341	3	2235	-1.07	14.12	-0.01
3	SLU 5	341	3	2243	-1.01	14.19	-0.02
3	SLU 6	342	3	2224	-1.16	14.02	-0.01
3	SLU 7	341	3	2235	-1.07	14.12	-0.01
3	SLU 8	342	3	2224	-1.16	14.02	-0.01
3	SLU 9	341	3	2235	-1.07	14.12	-0.01
3	SLU 10	357	4	2642	-1.55	15.31	-0.02
3	SLU 11	358	4	2623	-1.7	15.14	-0.02
3	SLU 12	357	4	2634	-1.61	15.24	-0.02
3	SLU 13	357	4	2642	-1.55	15.31	-0.02
3	SLU 14	358	4	2623	-1.7	15.14	-0.02
3	SLU 15	357	4	2634	-1.61	15.24	-0.02
3	SLU 16	358	4	2623	-1.7	15.14	-0.02
3	SLU 17	357	4	2634	-1.61	15.24	-0.02
3	SLU 18	365	4	2794	-1.93	15.62	-0.02
3	SLU 19	364	4	2805	-1.84	15.72	-0.02
3	SLU 20	365	4	2794	-1.93	15.62	-0.02
3	SLU 21	364	4	2805	-1.84	15.72	-0.02
3	SLU 22	367	3	2434	-1.38	15.16	-0.02
3	SLU 23	366	3	2452	-1.24	15.33	-0.02
3	SLU 24	367	3	2434	-1.38	15.16	-0.02
3	SLU 25	367	3	2445	-1.29	15.26	-0.02
3	SLU 26	366	3	2452	-1.24	15.33	-0.02
3	SLU 27	367	3	2434	-1.38	15.16	-0.02
3	SLU 28	367	3	2445	-1.29	15.26	-0.02
3	SLU 29	367	3	2434	-1.38	15.16	-0.02
3	SLU 30	367	3	2445	-1.29	15.26	-0.02
3	SLU 31	382	4	2852	-1.78	16.45	-0.02
3	SLU 32	383	4	2833	-1.92	16.28	-0.02
3	SLU 33	382	4	2844	-1.84	16.38	-0.02
3	SLU 34	382	4	2852	-1.78	16.45	-0.02
3	SLU 35	383	4	2833	-1.92	16.28	-0.02
3	SLU 36	382	4	2844	-1.84	16.38	-0.02
3	SLU 37	383	4	2833	-1.92	16.28	-0.02
3	SLU 38	382	4	2844	-1.84	16.38	-0.02
3	SLU 39	390	4	3004	-2.16	16.76	-0.02
3	SLU 40	389	4	3015	-2.07	16.86	-0.02
3	SLU 41	390	4	3004	-2.16	16.76	-0.02
3	SLU 42	389	4	3015	-2.07	16.86	-0.02
3	SLU 43	436	4	2819	-1.43	17.83	-0.02



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
3	SLU 44	435	4	2838	-1.28	18	-0.02
3	SLU 45	436	4	2819	-1.43	17.83	-0.02
3	SLU 46	435	4	2830	-1.34	17.93	-0.02
3	SLU 47	435	4	2838	-1.28	18	-0.02
3	SLU 48	436	4	2819	-1.43	17.83	-0.02
3	SLU 49	435	4	2830	-1.34	17.93	-0.02
3	SLU 50	436	4	2819	-1.43	17.83	-0.02
3	SLU 51	435	4	2830	-1.34	17.93	-0.02
3	SLU 52	451	5	3237	-1.82	19.12	-0.02
3	SLU 53	452	5	3218	-1.97	18.95	-0.02
3	SLU 54	451	5	3230	-1.88	19.06	-0.02
3	SLU 55	451	5	3237	-1.82	19.12	-0.02
3	SLU 56	452	5	3218	-1.97	18.95	-0.02
3	SLU 57	451	5	3230	-1.88	19.06	-0.02
3	SLU 58	452	5	3218	-1.97	18.95	-0.02
3	SLU 59	451	5	3230	-1.88	19.06	-0.02
3	SLU 60	458	5	3389	-2.2	19.44	-0.02
3	SLU 61	458	5	3401	-2.11	19.54	-0.02
3	SLU 62	458	5	3389	-2.2	19.44	-0.02
3	SLU 63	458	5	3401	-2.11	19.54	-0.02
3	SLU 64	461	4	3029	-1.65	18.97	-0.02
3	SLU 65	460	4	3048	-1.51	19.14	-0.02
3	SLU 66	461	4	3029	-1.65	18.97	-0.02
3	SLU 67	461	4	3040	-1.56	19.07	-0.02
3	SLU 68	460	4	3048	-1.51	19.14	-0.02
3	SLU 69	461	4	3029	-1.65	18.97	-0.02
3	SLU 70	461	4	3040	-1.56	19.07	-0.02
3	SLU 71	461	4	3029	-1.65	18.97	-0.02
3	SLU 72	461	4	3040	-1.56	19.07	-0.02
3	SLU 73	476	5	3447	-2.05	20.26	-0.02
3	SLU 74	477	5	3428	-2.19	20.1	-0.02
3	SLU 75	476	5	3439	-2.11	20.2	-0.02
3	SLU 76	476	5	3447	-2.05	20.26	-0.02
3	SLU 77	477	5	3428	-2.19	20.1	-0.02
3	SLU 78	476	5	3439	-2.11	20.2	-0.02
3	SLU 79	477	5	3428	-2.19	20.1	-0.02
3	SLU 80	476	5	3439	-2.11	20.2	-0.02
3	SLU 81	484	5	3599	-2.43	20.58	-0.02
3	SLU 82	483	5	3610	-2.34	20.68	-0.03
3	SLU 83	484	5	3599	-2.43	20.58	-0.02
3	SLU 84	483	5	3610	-2.34	20.68	-0.03
3	SLE RA 1	349	3	2284	-1.22	14.34	-0.01
3	SLE RA 2	349	3	2296	-1.12	14.46	-0.02
3	SLE RA 3	349	3	2284	-1.22	14.34	-0.01
3	SLE RA 4	349	3	2291	-1.16	14.41	-0.02
3	SLE RA 5	349	3	2296	-1.12	14.46	-0.02
3	SLE RA 6	349	3	2284	-1.22	14.34	-0.01
3	SLE RA 7	349	3	2291	-1.16	14.41	-0.02
3	SLE RA 8	349	3	2284	-1.22	14.34	-0.01
3	SLE RA 9	349	3	2291	-1.16	14.41	-0.02
3	SLE RA 10	359	4	2562	-1.48	15.2	-0.02
3	SLE RA 11	360	4	2550	-1.58	15.09	-0.02
3	SLE RA 12	359	4	2557	-1.52	15.16	-0.02
3	SLE RA 13	359	4	2562	-1.48	15.2	-0.02
3	SLE RA 14	360	4	2550	-1.58	15.09	-0.02
3	SLE RA 15	359	4	2557	-1.52	15.16	-0.02
3	SLE RA 16	360	4	2550	-1.58	15.09	-0.02
3	SLE RA 17	359	4	2557	-1.52	15.16	-0.02
3	SLE RA 18	364	4	2664	-1.74	15.41	-0.02
3	SLE RA 19	364	4	2672	-1.68	15.48	-0.02
3	SLE RA 20	364	4	2664	-1.74	15.41	-0.02
3	SLE RA 21	364	4	2672	-1.68	15.48	-0.02
3	SLE FR 1	349	3	2284	-1.22	14.34	-0.01
3	SLE FR 2	349	3	2286	-1.2	14.37	-0.01
3	SLE FR 3	349	3	2284	-1.22	14.34	-0.01
3	SLE FR 4	354	3	2400	-1.36	14.69	-0.02
3	SLE FR 5	354	3	2398	-1.38	14.66	-0.02
3	SLE FR 6	357	4	2474	-1.48	14.88	-0.02
3	SLE QP 1	349	3	2284	-1.22	14.34	-0.01
3	SLE QP 2	354	3	2398	-1.38	14.66	-0.02
3	SLD 1	435	-5	2571	0.32	19.51	-0.03
3	SLD 2	435	-5	2571	0.32	19.51	-0.03
3	SLD 3	455	-2	2493	5.22	18.4	-0.02
3	SLD 4	455	-2	2493	5.22	18.4	-0.02
3	SLD 5	348	-3	2568	-8.3	17.8	-0.03
3	SLD 6	348	-3	2568	-8.3	17.8	-0.03
3	SLD 7	415	5	2308	8.03	14.11	-0.01
3	SLD 8	415	5	2308	8.03	14.11	-0.01
3	SLD 9	293	1	2487	-10.78	15.22	-0.03
3	SLD 10	293	1	2487	-10.78	15.22	-0.03
3	SLD 11	360	10	2228	5.54	11.53	0
3	SLD 12	360	10	2228	5.54	11.53	0
3	SLD 13	252	9	2303	-7.97	10.93	-0.01
3	SLD 14	252	9	2303	-7.97	10.93	-0.01
3	SLD 15	272	12	2225	-3.07	9.82	0
3	SLD 16	272	12	2225	-3.07	9.82	0
3	SLV 1	547	-18	2823	2.84	26.72	-0.06
3	SLV 2	547	-18	2823	2.84	26.72	-0.06
3	SLV 3	596	-11	2623	15.33	23.95	-0.04



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
3	SLV 4	596	-11	2623	15.33	23.95	-0.04
3	SLV 5	338	-13	2828	-19.06	22.47	-0.06
3	SLV 6	338	-13	2828	-19.06	22.47	-0.06
3	SLV 7	500	9	2163	22.58	13.26	0.01
3	SLV 8	500	9	2163	22.58	13.26	0.01
3	SLV 9	207	-2	2632	-25.33	16.07	-0.04
3	SLV 10	207	-2	2632	-25.33	16.07	-0.04
3	SLV 11	369	20	1968	16.31	6.85	0.03
3	SLV 12	369	20	1968	16.31	6.85	0.03
3	SLV 13	111	18	2172	-18.08	5.37	0
3	SLV 14	111	18	2172	-18.08	5.37	0
3	SLV 15	160	24	1973	-5.59	2.61	0.03
3	SLV 16	160	24	1973	-5.59	2.61	0.03
4	SLU 1	270	0	2071	-0.78	9.93	0.01
4	SLU 2	266	0	2081	-0.45	9.68	0.01
4	SLU 3	270	0	2071	-0.78	9.93	0.01
4	SLU 4	268	0	2077	-0.58	9.78	0.01
4	SLU 5	266	0	2081	-0.45	9.68	0.01
4	SLU 6	270	0	2071	-0.78	9.93	0.01
4	SLU 7	268	0	2077	-0.58	9.78	0.01
4	SLU 8	270	0	2071	-0.78	9.93	0.01
4	SLU 9	268	0	2077	-0.58	9.78	0.01
4	SLU 10	279	-1	2396	-1.12	10.39	0.01
4	SLU 11	282	0	2386	-1.44	10.63	0.01
4	SLU 12	280	0	2392	-1.25	10.48	0.01
4	SLU 13	279	-1	2396	-1.12	10.39	0.01
4	SLU 14	282	0	2386	-1.44	10.63	0.01
4	SLU 15	280	0	2392	-1.25	10.48	0.01
4	SLU 16	282	0	2386	-1.44	10.63	0.01
4	SLU 17	280	0	2392	-1.25	10.48	0.01
4	SLU 18	287	0	2521	-1.73	10.93	0.01
4	SLU 19	285	0	2527	-1.53	10.79	0.01
4	SLU 20	287	0	2521	-1.73	10.93	0.01
4	SLU 21	285	0	2527	-1.53	10.79	0.01
4	SLU 22	291	0	2251	-1.05	10.77	0.01
4	SLU 23	288	0	2261	-0.72	10.52	0.01
4	SLU 24	291	0	2251	-1.05	10.77	0.01
4	SLU 25	289	0	2257	-0.85	10.62	0.01
4	SLU 26	288	0	2261	-0.72	10.52	0.01
4	SLU 27	291	0	2251	-1.05	10.77	0.01
4	SLU 28	289	0	2257	-0.85	10.62	0.01
4	SLU 29	291	0	2251	-1.05	10.77	0.01
4	SLU 30	289	0	2257	-0.85	10.62	0.01
4	SLU 31	300	-1	2577	-1.39	11.23	0.01
4	SLU 32	303	0	2567	-1.71	11.47	0.01
4	SLU 33	301	0	2573	-1.52	11.32	0.01
4	SLU 34	300	-1	2577	-1.39	11.23	0.01
4	SLU 35	303	0	2567	-1.71	11.47	0.01
4	SLU 36	301	0	2573	-1.52	11.32	0.01
4	SLU 37	303	0	2567	-1.71	11.47	0.01
4	SLU 38	301	0	2573	-1.52	11.32	0.01
4	SLU 39	308	0	2702	-2	11.77	0.01
4	SLU 40	306	0	2708	-1.8	11.63	0.01
4	SLU 41	308	0	2702	-2	11.77	0.01
4	SLU 42	306	0	2708	-1.8	11.63	0.01
4	SLU 43	344	0	2630	-0.92	12.62	0.01
4	SLU 44	340	0	2640	-0.59	12.38	0.01
4	SLU 45	344	0	2630	-0.92	12.62	0.01
4	SLU 46	342	0	2636	-0.72	12.47	0.01
4	SLU 47	340	0	2640	-0.59	12.38	0.01
4	SLU 48	344	0	2630	-0.92	12.62	0.01
4	SLU 49	342	0	2636	-0.72	12.47	0.01
4	SLU 50	344	0	2630	-0.92	12.62	0.01
4	SLU 51	342	0	2636	-0.72	12.47	0.01
4	SLU 52	352	0	2955	-1.26	13.08	0.01
4	SLU 53	356	0	2945	-1.58	13.32	0.01
4	SLU 54	354	0	2951	-1.39	13.18	0.01
4	SLU 55	352	0	2955	-1.26	13.08	0.01
4	SLU 56	356	0	2945	-1.58	13.32	0.01
4	SLU 57	354	0	2951	-1.39	13.18	0.01
4	SLU 58	356	0	2945	-1.58	13.32	0.01
4	SLU 59	354	0	2951	-1.39	13.18	0.01
4	SLU 60	361	0	3080	-1.87	13.62	0.01
4	SLU 61	359	0	3086	-1.67	13.48	0.01
4	SLU 62	361	0	3080	-1.87	13.62	0.01
4	SLU 63	359	0	3086	-1.67	13.48	0.01
4	SLU 64	365	0	2811	-1.19	13.46	0.01
4	SLU 65	361	0	2821	-0.86	13.21	0.01
4	SLU 66	365	0	2811	-1.19	13.46	0.01
4	SLU 67	363	0	2817	-0.99	13.31	0.01
4	SLU 68	361	0	2821	-0.86	13.21	0.01
4	SLU 69	365	0	2811	-1.19	13.46	0.01
4	SLU 70	363	0	2817	-0.99	13.31	0.01
4	SLU 71	365	0	2811	-1.19	13.46	0.01
4	SLU 72	363	0	2817	-0.99	13.31	0.01
4	SLU 73	373	0	3136	-1.53	13.92	0.01
4	SLU 74	377	0	3126	-1.85	14.16	0.01
4	SLU 75	375	0	3132	-1.66	14.01	0.01
4	SLU 76	373	0	3136	-1.53	13.92	0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
4	SLU 77	377	0	3126	-1.85	14.16	0.01
4	SLU 78	375	0	3132	-1.66	14.01	0.01
4	SLU 79	377	0	3126	-1.85	14.16	0.01
4	SLU 80	375	0	3132	-1.66	14.01	0.01
4	SLU 81	382	0	3261	-2.14	14.46	0.01
4	SLU 82	380	0	3267	-1.94	14.32	0.01
4	SLU 83	382	0	3261	-2.14	14.46	0.01
4	SLU 84	380	0	3267	-1.94	14.32	0.01
4	SLE RA 1	276	0	2122	-0.85	10.17	0.01
4	SLE RA 2	274	0	2129	-0.64	10.01	0.01
4	SLE RA 3	276	0	2122	-0.85	10.17	0.01
4	SLE RA 4	275	0	2126	-0.72	10.07	0.01
4	SLE RA 5	274	0	2129	-0.64	10.01	0.01
4	SLE RA 6	276	0	2122	-0.85	10.17	0.01
4	SLE RA 7	275	0	2126	-0.72	10.07	0.01
4	SLE RA 8	276	0	2122	-0.85	10.17	0.01
4	SLE RA 9	275	0	2126	-0.72	10.07	0.01
4	SLE RA 10	282	0	2339	-1.08	10.47	0.01
4	SLE RA 11	284	0	2333	-1.3	10.64	0.01
4	SLE RA 12	283	0	2337	-1.17	10.54	0.01
4	SLE RA 13	282	0	2339	-1.08	10.47	0.01
4	SLE RA 14	284	0	2333	-1.3	10.64	0.01
4	SLE RA 15	283	0	2337	-1.17	10.54	0.01
4	SLE RA 16	284	0	2333	-1.3	10.64	0.01
4	SLE RA 17	283	0	2337	-1.17	10.54	0.01
4	SLE RA 18	288	0	2423	-1.49	10.84	0.01
4	SLE RA 19	286	0	2427	-1.36	10.74	0.01
4	SLE RA 20	288	0	2423	-1.49	10.84	0.01
4	SLE RA 21	286	0	2427	-1.36	10.74	0.01
4	SLE FR 1	276	0	2122	-0.85	10.17	0.01
4	SLE FR 2	276	0	2124	-0.81	10.14	0.01
4	SLE FR 3	276	0	2122	-0.85	10.17	0.01
4	SLE FR 4	279	0	2214	-1	10.34	0.01
4	SLE FR 5	280	0	2213	-1.04	10.37	0.01
4	SLE FR 6	282	0	2273	-1.17	10.5	0.01
4	SLE QP 1	276	0	2122	-0.85	10.17	0.01
4	SLE QP 2	280	0	2213	-1.04	10.37	0.01
4	SLD 1	176	-13	2308	1.19	6	0
4	SLD 2	176	-13	2308	1.19	6	0
4	SLD 3	193	-8	2265	11.97	6.78	0
4	SLD 4	193	-8	2265	11.97	6.78	0
4	SLD 5	223	-12	2307	-16.71	7.87	0.02
4	SLD 6	223	-12	2307	-16.71	7.87	0.02
4	SLD 7	279	6	2162	19.2	10.47	-0.01
4	SLD 8	279	6	2162	19.2	10.47	-0.01
4	SLD 9	280	-6	2263	-21.29	10.26	0.02
4	SLD 10	280	-6	2263	-21.29	10.26	0.02
4	SLD 11	336	12	2118	14.62	12.86	0
4	SLD 12	336	12	2118	14.62	12.86	0
4	SLD 13	366	8	2160	-14.06	13.96	0.02
4	SLD 14	366	8	2160	-14.06	13.96	0.02
4	SLD 15	383	13	2117	-3.28	14.74	0.01
4	SLD 16	383	13	2117	-3.28	14.74	0.01
4	SLV 1	35	-33	2448	4.52	-0.34	0
4	SLV 2	35	-33	2448	4.52	-0.34	0
4	SLV 3	75	-19	2336	32	1.65	-0.02
4	SLV 4	75	-19	2336	32	1.65	-0.02
4	SLV 5	145	-30	2452	-41.05	4.13	0.03
4	SLV 6	145	-30	2452	-41.05	4.13	0.03
4	SLV 7	280	15	2081	50.54	10.78	-0.03
4	SLV 8	280	15	2081	50.54	10.78	-0.03
4	SLV 9	280	-15	2344	-52.63	9.96	0.04
4	SLV 10	280	-15	2344	-52.63	9.96	0.04
4	SLV 11	414	31	1973	38.96	16.61	-0.02
4	SLV 12	414	31	1973	38.96	16.61	-0.02
4	SLV 13	484	20	2089	-34.08	19.08	0.03
4	SLV 14	484	20	2089	-34.08	19.08	0.03
4	SLV 15	524	34	1977	-6.61	21.08	0.01
4	SLV 16	524	34	1977	-6.61	21.08	0.01
5	SLU 1	209	0	2043	-0.81	7.6	0
5	SLU 2	210	-1	2048	-0.42	7.76	0
5	SLU 3	209	0	2043	-0.81	7.6	0
5	SLU 4	210	0	2046	-0.58	7.69	0
5	SLU 5	210	-1	2048	-0.42	7.76	0
5	SLU 6	209	0	2043	-0.81	7.6	0
5	SLU 7	210	0	2046	-0.58	7.69	0
5	SLU 8	209	0	2043	-0.81	7.6	0
5	SLU 9	210	0	2046	-0.58	7.69	0
5	SLU 10	220	-1	2320	-1.4	8.2	0
5	SLU 11	219	0	2316	-1.79	8.05	0
5	SLU 12	220	0	2318	-1.55	8.14	0
5	SLU 13	220	-1	2320	-1.4	8.2	0
5	SLU 14	219	0	2316	-1.79	8.05	0
5	SLU 15	220	0	2318	-1.55	8.14	0
5	SLU 16	219	0	2316	-1.79	8.05	0
5	SLU 17	220	0	2318	-1.55	8.14	0
5	SLU 18	223	0	2432	-2.2	8.24	0
5	SLU 19	224	0	2435	-1.97	8.33	0
5	SLU 20	223	0	2432	-2.2	8.24	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
5	SLU 21	224	0	2435	-1.97	8.33	0
5	SLU 22	227	0	2213	-1.2	8.24	0
5	SLU 23	227	-1	2217	-0.81	8.4	0
5	SLU 24	227	0	2213	-1.2	8.24	0
5	SLU 25	227	0	2215	-0.97	8.33	0
5	SLU 26	227	-1	2217	-0.81	8.4	0
5	SLU 27	227	0	2213	-1.2	8.24	0
5	SLU 28	227	0	2215	-0.97	8.33	0
5	SLU 29	227	0	2213	-1.2	8.24	0
5	SLU 30	227	0	2215	-0.97	8.33	0
5	SLU 31	237	-1	2489	-1.79	8.84	0
5	SLU 32	236	0	2485	-2.18	8.68	0
5	SLU 33	237	0	2488	-1.94	8.78	0
5	SLU 34	237	-1	2489	-1.79	8.84	0
5	SLU 35	236	0	2485	-2.18	8.68	0
5	SLU 36	237	0	2488	-1.94	8.78	0
5	SLU 37	236	0	2485	-2.18	8.68	0
5	SLU 38	237	0	2488	-1.94	8.78	0
5	SLU 39	241	0	2601	-2.6	8.88	0
5	SLU 40	241	0	2604	-2.36	8.97	0
5	SLU 41	241	0	2601	-2.6	8.88	0
5	SLU 42	241	0	2604	-2.36	8.97	0
5	SLU 43	266	0	2599	-0.92	9.66	0
5	SLU 44	267	-1	2603	-0.53	9.82	0
5	SLU 45	266	0	2599	-0.92	9.66	0
5	SLU 46	267	0	2601	-0.69	9.75	0
5	SLU 47	267	-1	2603	-0.53	9.82	0
5	SLU 48	266	0	2599	-0.92	9.66	0
5	SLU 49	267	0	2601	-0.69	9.75	0
5	SLU 50	266	0	2599	-0.92	9.66	0
5	SLU 51	267	0	2601	-0.69	9.75	0
5	SLU 52	277	-1	2875	-1.51	10.27	0
5	SLU 53	276	0	2871	-1.9	10.11	0
5	SLU 54	276	0	2873	-1.66	10.2	0
5	SLU 55	277	-1	2875	-1.51	10.27	0
5	SLU 56	276	0	2871	-1.9	10.11	0
5	SLU 57	276	0	2873	-1.66	10.2	0
5	SLU 58	276	0	2871	-1.9	10.11	0
5	SLU 59	276	0	2873	-1.66	10.2	0
5	SLU 60	280	0	2987	-2.31	10.3	0
5	SLU 61	281	0	2990	-2.08	10.39	0
5	SLU 62	280	0	2987	-2.31	10.3	0
5	SLU 63	281	0	2990	-2.08	10.39	0
5	SLU 64	283	0	2768	-1.31	10.3	0
5	SLU 65	284	-1	2772	-0.92	10.46	0
5	SLU 66	283	0	2768	-1.31	10.3	0
5	SLU 67	284	0	2770	-1.08	10.39	0
5	SLU 68	284	-1	2772	-0.92	10.46	0
5	SLU 69	283	0	2768	-1.31	10.3	0
5	SLU 70	284	0	2770	-1.08	10.39	0
5	SLU 71	283	0	2768	-1.31	10.3	0
5	SLU 72	284	0	2770	-1.08	10.39	0
5	SLU 73	294	-1	3044	-1.9	10.9	0
5	SLU 74	293	0	3040	-2.29	10.74	0
5	SLU 75	294	0	3043	-2.05	10.84	0
5	SLU 76	294	-1	3044	-1.9	10.9	0
5	SLU 77	293	0	3040	-2.29	10.74	0
5	SLU 78	294	0	3043	-2.05	10.84	0
5	SLU 79	293	0	3040	-2.29	10.74	0
5	SLU 80	294	0	3043	-2.05	10.84	0
5	SLU 81	297	0	3156	-2.71	10.94	0
5	SLU 82	298	0	3159	-2.47	11.03	0
5	SLU 83	297	0	3156	-2.71	10.94	0
5	SLU 84	298	0	3159	-2.47	11.03	0
5	SLE RA 1	214	0	2092	-0.92	7.78	0
5	SLE RA 2	215	0	2095	-0.66	7.89	0
5	SLE RA 3	214	0	2092	-0.92	7.78	0
5	SLE RA 4	214	0	2094	-0.77	7.84	0
5	SLE RA 5	215	0	2095	-0.66	7.89	0
5	SLE RA 6	214	0	2092	-0.92	7.78	0
5	SLE RA 7	214	0	2094	-0.77	7.84	0
5	SLE RA 8	214	0	2092	-0.92	7.78	0
5	SLE RA 9	214	0	2094	-0.77	7.84	0
5	SLE RA 10	221	0	2276	-1.31	8.18	0
5	SLE RA 11	221	0	2273	-1.57	8.08	0
5	SLE RA 12	221	0	2275	-1.42	8.14	0
5	SLE RA 13	221	0	2276	-1.31	8.18	0
5	SLE RA 14	221	0	2273	-1.57	8.08	0
5	SLE RA 15	221	0	2275	-1.42	8.14	0
5	SLE RA 16	221	0	2273	-1.57	8.08	0
5	SLE RA 17	221	0	2275	-1.42	8.14	0
5	SLE RA 18	224	0	2351	-1.85	8.21	0
5	SLE RA 19	224	0	2353	-1.7	8.27	0
5	SLE RA 20	224	0	2351	-1.85	8.21	0
5	SLE RA 21	224	0	2353	-1.7	8.27	0
5	SLE FR 1	214	0	2092	-0.92	7.78	0
5	SLE FR 2	214	0	2092	-0.87	7.8	0
5	SLE FR 3	214	0	2092	-0.92	7.78	0
5	SLE FR 4	217	0	2170	-1.15	7.93	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
5	SLE FR 5	217	0	2170	-1.2	7.91	0
5	SLE FR 6	219	0	2221	-1.39	7.99	0
5	SLE QP 1	214	0	2092	-0.92	7.78	0
5	SLE QP 2	217	0	2170	-1.2	7.91	0
5	SLD 1	328	-16	2222	0.49	12.71	0.01
5	SLD 2	328	-16	2222	0.49	12.71	0.01
5	SLD 3	309	-5	2197	17.9	11.72	0
5	SLD 4	309	-5	2197	17.9	11.72	0
5	SLD 5	279	-22	2222	-27.09	10.85	0.01
5	SLD 6	279	-22	2222	-27.09	10.85	0.01
5	SLD 7	216	16	2141	30.92	7.55	-0.01
5	SLD 8	216	16	2141	30.92	7.55	-0.01
5	SLD 9	218	-15	2198	-33.33	8.27	0.01
5	SLD 10	218	-15	2198	-33.33	8.27	0.01
5	SLD 11	155	22	2117	24.69	4.96	-0.01
5	SLD 12	155	22	2117	24.69	4.96	-0.01
5	SLD 13	125	5	2142	-20.3	4.1	0
5	SLD 14	125	5	2142	-20.3	4.1	0
5	SLD 15	106	17	2117	-2.9	3.11	-0.01
5	SLD 16	106	17	2117	-2.9	3.11	-0.01
5	SLV 1	482	-41	2296	3.02	19.73	0.02
5	SLV 2	482	-41	2296	3.02	19.73	0.02
5	SLV 3	437	-13	2234	47.46	17.29	0.01
5	SLV 4	437	-13	2234	47.46	17.29	0.01
5	SLV 5	365	-55	2303	-67.34	15.17	0.03
5	SLV 6	365	-55	2303	-67.34	15.17	0.03
5	SLV 7	215	39	2094	80.8	7.01	-0.02
5	SLV 8	215	39	2094	80.8	7.01	-0.02
5	SLV 9	219	-39	2245	-83.21	8.81	0.02
5	SLV 10	219	-39	2245	-83.21	8.81	0.02
5	SLV 11	69	56	2037	64.93	0.65	-0.03
5	SLV 12	69	56	2037	64.93	0.65	-0.03
5	SLV 13	-3	13	2105	-49.87	-1.47	-0.01
5	SLV 14	-3	13	2105	-49.87	-1.47	-0.01
5	SLV 15	-48	42	2043	-5.43	-3.92	-0.02
5	SLV 16	-48	42	2043	-5.43	-3.92	-0.02
6	SLU 1	169	0	2030	-0.98	6.19	0
6	SLU 2	168	-1	2031	-0.65	6.05	0
6	SLU 3	169	0	2030	-0.98	6.19	0
6	SLU 4	168	0	2030	-0.78	6.11	0
6	SLU 5	168	-1	2031	-0.65	6.05	0
6	SLU 6	169	0	2030	-0.98	6.19	0
6	SLU 7	168	0	2030	-0.78	6.11	0
6	SLU 8	169	0	2030	-0.98	6.19	0
6	SLU 9	168	0	2030	-0.78	6.11	0
6	SLU 10	182	0	2274	-2.01	6.72	0
6	SLU 11	183	1	2273	-2.34	6.86	0
6	SLU 12	183	0	2274	-2.14	6.77	0
6	SLU 13	182	0	2274	-2.01	6.72	0
6	SLU 14	183	1	2273	-2.34	6.86	0
6	SLU 15	183	0	2274	-2.14	6.77	0
6	SLU 16	183	1	2273	-2.34	6.86	0
6	SLU 17	183	0	2274	-2.14	6.77	0
6	SLU 18	190	1	2377	-2.92	7.14	0
6	SLU 19	189	0	2378	-2.72	7.06	0
6	SLU 20	190	1	2377	-2.92	7.14	0
6	SLU 21	189	0	2378	-2.72	7.06	0
6	SLU 22	185	0	2192	-1.52	6.81	0
6	SLU 23	184	0	2193	-1.19	6.67	0
6	SLU 24	185	0	2192	-1.52	6.81	0
6	SLU 25	184	0	2193	-1.32	6.73	0
6	SLU 26	184	0	2193	-1.19	6.67	0
6	SLU 27	185	0	2192	-1.52	6.81	0
6	SLU 28	184	0	2193	-1.32	6.73	0
6	SLU 29	185	0	2192	-1.52	6.81	0
6	SLU 30	184	0	2193	-1.32	6.73	0
6	SLU 31	198	0	2436	-2.55	7.34	0
6	SLU 32	199	1	2435	-2.88	7.48	0
6	SLU 33	199	0	2436	-2.68	7.39	0
6	SLU 34	198	0	2436	-2.55	7.34	0
6	SLU 35	199	1	2435	-2.88	7.48	0
6	SLU 36	199	0	2436	-2.68	7.39	0
6	SLU 37	199	1	2435	-2.88	7.48	0
6	SLU 38	199	0	2436	-2.68	7.39	0
6	SLU 39	206	1	2539	-3.46	7.76	0
6	SLU 40	205	0	2540	-3.26	7.68	0
6	SLU 41	206	1	2539	-3.46	7.76	0
6	SLU 42	205	0	2540	-3.26	7.68	0
6	SLU 43	214	0	2583	-1.08	7.83	0
6	SLU 44	213	0	2584	-0.76	7.7	0
6	SLU 45	214	0	2583	-1.08	7.83	0
6	SLU 46	213	0	2584	-0.89	7.75	0
6	SLU 47	213	0	2584	-0.76	7.7	0
6	SLU 48	214	0	2583	-1.08	7.83	0
6	SLU 49	213	0	2584	-0.89	7.75	0
6	SLU 50	214	0	2583	-1.08	7.83	0
6	SLU 51	213	0	2584	-0.89	7.75	0
6	SLU 52	227	0	2827	-2.11	8.36	0
6	SLU 53	229	1	2826	-2.44	8.5	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
6	SLU 54	228	0	2827	-2.25	8.42	0
6	SLU 55	227	0	2827	-2.11	8.36	0
6	SLU 56	229	1	2826	-2.44	8.5	0
6	SLU 57	228	0	2827	-2.25	8.42	0
6	SLU 58	229	1	2826	-2.44	8.5	0
6	SLU 59	228	0	2827	-2.25	8.42	0
6	SLU 60	235	1	2930	-3.02	8.79	0
6	SLU 61	234	0	2931	-2.83	8.71	0
6	SLU 62	235	1	2930	-3.02	8.79	0
6	SLU 63	234	0	2931	-2.83	8.71	0
6	SLU 64	230	0	2745	-1.63	8.45	0
6	SLU 65	229	0	2746	-1.3	8.32	0
6	SLU 66	230	0	2745	-1.63	8.45	0
6	SLU 67	229	0	2746	-1.43	8.37	0
6	SLU 68	229	0	2746	-1.3	8.32	0
6	SLU 69	230	0	2745	-1.63	8.45	0
6	SLU 70	229	0	2746	-1.43	8.37	0
6	SLU 71	230	0	2745	-1.63	8.45	0
6	SLU 72	229	0	2746	-1.43	8.37	0
6	SLU 73	243	0	2990	-2.66	8.98	0
6	SLU 74	245	1	2988	-2.99	9.12	0
6	SLU 75	244	0	2989	-2.79	9.04	0
6	SLU 76	243	0	2990	-2.66	8.98	0
6	SLU 77	245	1	2988	-2.99	9.12	0
6	SLU 78	244	0	2989	-2.79	9.04	0
6	SLU 79	245	1	2988	-2.99	9.12	0
6	SLU 80	244	0	2989	-2.79	9.04	0
6	SLU 81	251	1	3092	-3.57	9.41	0
6	SLU 82	250	0	3093	-3.37	9.32	0
6	SLU 83	251	1	3092	-3.57	9.41	0
6	SLU 84	250	0	3093	-3.37	9.32	0
6	SLE RA 1	174	0	2076	-1.13	6.37	0
6	SLE RA 2	173	0	2077	-0.91	6.27	0
6	SLE RA 3	174	0	2076	-1.13	6.37	0
6	SLE RA 4	173	0	2076	-1	6.31	0
6	SLE RA 5	173	0	2077	-0.91	6.27	0
6	SLE RA 6	174	0	2076	-1.13	6.37	0
6	SLE RA 7	173	0	2076	-1	6.31	0
6	SLE RA 8	174	0	2076	-1.13	6.37	0
6	SLE RA 9	173	0	2076	-1	6.31	0
6	SLE RA 10	182	0	2239	-1.82	6.72	0
6	SLE RA 11	183	1	2238	-2.04	6.81	0
6	SLE RA 12	183	0	2239	-1.91	6.76	0
6	SLE RA 13	182	0	2239	-1.82	6.72	0
6	SLE RA 14	183	1	2238	-2.04	6.81	0
6	SLE RA 15	183	0	2239	-1.91	6.76	0
6	SLE RA 16	183	1	2238	-2.04	6.81	0
6	SLE RA 17	183	0	2239	-1.91	6.76	0
6	SLE RA 18	187	1	2307	-2.43	7	0
6	SLE RA 19	187	0	2308	-2.29	6.95	0
6	SLE RA 20	187	1	2307	-2.43	7	0
6	SLE RA 21	187	0	2308	-2.29	6.95	0
6	SLE FR 1	174	0	2076	-1.13	6.37	0
6	SLE FR 2	173	0	2076	-1.09	6.35	0
6	SLE FR 3	174	0	2076	-1.13	6.37	0
6	SLE FR 4	177	0	2146	-1.48	6.54	0
6	SLE FR 5	178	0	2145	-1.52	6.56	0
6	SLE FR 6	180	0	2192	-1.78	6.68	0
6	SLE QP 1	174	0	2076	-1.13	6.37	0
6	SLE QP 2	178	0	2145	-1.52	6.56	0
6	SLD 1	66	-2	2128	-0.71	2.31	0.01
6	SLD 2	66	-2	2128	-0.71	2.31	0.01
6	SLD 3	83	-19	2115	23.23	2.95	0
6	SLD 4	83	-19	2115	23.23	2.95	0
6	SLD 5	119	27	2160	-37.57	4.31	0.01
6	SLD 6	119	27	2160	-37.57	4.31	0.01
6	SLD 7	174	-32	2116	42.2	6.45	-0.01
6	SLD 8	174	-32	2116	42.2	6.45	-0.01
6	SLD 9	181	33	2174	-45.24	6.66	0.01
6	SLD 10	181	33	2174	-45.24	6.66	0.01
6	SLD 11	236	-26	2130	34.53	8.81	-0.01
6	SLD 12	236	-26	2130	34.53	8.81	-0.01
6	SLD 13	273	20	2175	-26.27	10.17	0
6	SLD 14	273	20	2175	-26.27	10.17	0
6	SLD 15	289	3	2162	-2.33	10.81	-0.01
6	SLD 16	289	3	2162	-2.33	10.81	-0.01
6	SLV 1	-86	-5	2106	0.55	-3.61	0.02
6	SLV 2	-86	-5	2106	0.55	-3.61	0.02
6	SLV 3	-47	-50	2072	61.77	-2.04	0.01
6	SLV 4	-47	-50	2072	61.77	-2.04	0.01
6	SLV 5	40	66	2184	-93.75	1.13	0.02
6	SLV 6	40	66	2184	-93.75	1.13	0.02
6	SLV 7	169	-82	2073	110.32	6.36	-0.02
6	SLV 8	169	-82	2073	110.32	6.36	-0.02
6	SLV 9	187	83	2218	-113.36	6.76	0.02
6	SLV 10	187	83	2218	-113.36	6.76	0.02
6	SLV 11	315	-66	2107	90.71	11.98	-0.02
6	SLV 12	315	-66	2107	90.71	11.98	-0.02
6	SLV 13	402	50	2218	-64.81	15.16	-0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
6	SLV 14	402	50	2218	-64.81	15.16	-0.01
6	SLV 15	441	6	2185	-3.59	16.72	-0.02
6	SLV 16	441	6	2185	-3.59	16.72	-0.02
7	SLU 1	135	0	2023	-1.18	4.85	0
7	SLU 2	137	0	2023	-0.99	5.01	0
7	SLU 3	135	0	2023	-1.18	4.85	0
7	SLU 4	136	0	2023	-1.07	4.95	0
7	SLU 5	137	0	2023	-0.99	5.01	0
7	SLU 6	135	0	2023	-1.18	4.85	0
7	SLU 7	136	0	2023	-1.07	4.95	0
7	SLU 8	135	0	2023	-1.18	4.85	0
7	SLU 9	136	0	2023	-1.07	4.95	0
7	SLU 10	155	0	2248	-2.76	5.66	0
7	SLU 11	153	1	2249	-2.95	5.5	0
7	SLU 12	154	1	2249	-2.84	5.6	0
7	SLU 13	155	0	2248	-2.76	5.66	0
7	SLU 14	153	1	2249	-2.95	5.5	0
7	SLU 15	154	1	2249	-2.84	5.6	0
7	SLU 16	153	1	2249	-2.95	5.5	0
7	SLU 17	154	1	2249	-2.84	5.6	0
7	SLU 18	161	1	2346	-3.71	5.78	0
7	SLU 19	162	1	2345	-3.59	5.87	0
7	SLU 20	161	1	2346	-3.71	5.78	0
7	SLU 21	162	1	2345	-3.59	5.87	0
7	SLU 22	150	1	2182	-1.89	5.38	0
7	SLU 23	152	0	2181	-1.7	5.54	0
7	SLU 24	150	1	2182	-1.89	5.38	0
7	SLU 25	151	0	2181	-1.77	5.47	0
7	SLU 26	152	0	2181	-1.7	5.54	0
7	SLU 27	150	1	2182	-1.89	5.38	0
7	SLU 28	151	0	2181	-1.77	5.47	0
7	SLU 29	150	1	2182	-1.89	5.38	0
7	SLU 30	151	0	2181	-1.77	5.47	0
7	SLU 31	170	1	2407	-3.47	6.19	0
7	SLU 32	168	1	2407	-3.65	6.03	0
7	SLU 33	169	1	2407	-3.54	6.12	0
7	SLU 34	170	1	2407	-3.47	6.19	0
7	SLU 35	168	1	2407	-3.65	6.03	0
7	SLU 36	169	1	2407	-3.54	6.12	0
7	SLU 37	168	1	2407	-3.65	6.03	0
7	SLU 38	169	1	2407	-3.54	6.12	0
7	SLU 39	176	1	2504	-4.41	6.3	0
7	SLU 40	177	1	2504	-4.3	6.4	0
7	SLU 41	176	1	2504	-4.41	6.3	0
7	SLU 42	177	1	2504	-4.3	6.4	0
7	SLU 43	171	0	2576	-1.29	6.13	0
7	SLU 44	173	0	2575	-1.11	6.29	0
7	SLU 45	171	0	2576	-1.29	6.13	0
7	SLU 46	172	0	2576	-1.18	6.22	0
7	SLU 47	173	0	2575	-1.11	6.29	0
7	SLU 48	171	0	2576	-1.29	6.13	0
7	SLU 49	172	0	2576	-1.18	6.22	0
7	SLU 50	171	0	2576	-1.29	6.13	0
7	SLU 51	172	0	2576	-1.18	6.22	0
7	SLU 52	190	1	2801	-2.87	6.93	0
7	SLU 53	189	1	2802	-3.06	6.78	0
7	SLU 54	190	1	2801	-2.95	6.87	0
7	SLU 55	190	1	2801	-2.87	6.93	0
7	SLU 56	189	1	2802	-3.06	6.78	0
7	SLU 57	190	1	2801	-2.95	6.87	0
7	SLU 58	189	1	2802	-3.06	6.78	0
7	SLU 59	190	1	2801	-2.95	6.87	0
7	SLU 60	196	1	2899	-3.82	7.05	0
7	SLU 61	197	1	2898	-3.71	7.15	0
7	SLU 62	196	1	2899	-3.82	7.05	0
7	SLU 63	197	1	2898	-3.71	7.15	0
7	SLU 64	185	1	2735	-2	6.65	0
7	SLU 65	187	0	2734	-1.81	6.81	0
7	SLU 66	185	1	2735	-2	6.65	0
7	SLU 67	187	0	2734	-1.89	6.75	0
7	SLU 68	187	0	2734	-1.81	6.81	0
7	SLU 69	185	1	2735	-2	6.65	0
7	SLU 70	187	0	2734	-1.89	6.75	0
7	SLU 71	185	1	2735	-2	6.65	0
7	SLU 72	187	0	2734	-1.89	6.75	0
7	SLU 73	205	1	2959	-3.58	7.46	0
7	SLU 74	203	1	2960	-3.77	7.3	0
7	SLU 75	204	1	2960	-3.65	7.4	0
7	SLU 76	205	1	2959	-3.58	7.46	0
7	SLU 77	203	1	2960	-3.77	7.3	0
7	SLU 78	204	1	2960	-3.65	7.4	0
7	SLU 79	203	1	2960	-3.77	7.3	0
7	SLU 80	204	1	2960	-3.65	7.4	0
7	SLU 81	211	1	3057	-4.52	7.58	0
7	SLU 82	212	1	3056	-4.41	7.68	0
7	SLU 83	211	1	3057	-4.52	7.58	0
7	SLU 84	212	1	3056	-4.41	7.68	0
7	SLE RA 1	139	0	2069	-1.38	5	0
7	SLE RA 2	141	0	2068	-1.26	5.11	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
7	SLE RA 3	139	0	2069	-1.38	5	0
7	SLE RA 4	140	0	2068	-1.31	5.07	0
7	SLE RA 5	141	0	2068	-1.26	5.11	0
7	SLE RA 6	139	0	2069	-1.38	5	0
7	SLE RA 7	140	0	2068	-1.31	5.07	0
7	SLE RA 8	139	0	2069	-1.38	5	0
7	SLE RA 9	140	0	2068	-1.31	5.07	0
7	SLE RA 10	153	1	2219	-2.44	5.54	0
7	SLE RA 11	151	1	2219	-2.56	5.43	0
7	SLE RA 12	152	1	2219	-2.49	5.5	0
7	SLE RA 13	153	1	2219	-2.44	5.54	0
7	SLE RA 14	151	1	2219	-2.56	5.43	0
7	SLE RA 15	152	1	2219	-2.49	5.5	0
7	SLE RA 16	151	1	2219	-2.56	5.43	0
7	SLE RA 17	152	1	2219	-2.49	5.5	0
7	SLE RA 18	156	1	2284	-3.07	5.62	0
7	SLE RA 19	157	1	2283	-2.99	5.68	0
7	SLE RA 20	156	1	2284	-3.07	5.62	0
7	SLE RA 21	157	1	2283	-2.99	5.68	0
7	SLE FR 1	139	0	2069	-1.38	5	0
7	SLE FR 2	140	0	2069	-1.36	5.02	0
7	SLE FR 3	139	0	2069	-1.38	5	0
7	SLE FR 4	145	1	2133	-1.86	5.21	0
7	SLE FR 5	145	1	2133	-1.89	5.19	0
7	SLE FR 6	148	1	2176	-2.22	5.31	0
7	SLE QP 1	139	0	2069	-1.38	5	0
7	SLE QP 2	145	1	2133	-1.89	5.19	0
7	SLD 1	266	0	2107	-1.84	10.1	0.01
7	SLD 2	266	0	2107	-1.84	10.1	0.01
7	SLD 3	246	-23	2115	27.77	9.14	0
7	SLD 4	246	-23	2115	27.77	9.14	0
7	SLD 5	213	36	2114	-46.78	8.11	0.01
7	SLD 6	213	36	2114	-46.78	8.11	0.01
7	SLD 7	143	-42	2139	51.91	4.92	-0.01
7	SLD 8	143	-42	2139	51.91	4.92	-0.01
7	SLD 9	146	43	2127	-55.69	5.45	0.01
7	SLD 10	146	43	2127	-55.69	5.45	0.01
7	SLD 11	76	-34	2153	43	2.26	-0.01
7	SLD 12	76	-34	2153	43	2.26	-0.01
7	SLD 13	44	24	2152	-31.55	1.23	0
7	SLD 14	44	24	2152	-31.55	1.23	0
7	SLD 15	23	1	2159	-1.94	0.28	-0.01
7	SLD 16	23	1	2159	-1.94	0.28	-0.01
7	SLV 1	436	0	2067	-1.63	17.19	0.02
7	SLV 2	436	0	2067	-1.63	17.19	0.02
7	SLV 3	386	-59	2086	74.24	14.84	0.01
7	SLV 4	386	-59	2086	74.24	14.84	0.01
7	SLV 5	307	90	2084	-116.9	12.35	0.03
7	SLV 6	307	90	2084	-116.9	12.35	0.03
7	SLV 7	142	-106	2148	136.04	4.52	-0.02
7	SLV 8	142	-106	2148	136.04	4.52	-0.02
7	SLV 9	147	108	2118	-139.81	5.85	0.02
7	SLV 10	147	108	2118	-139.81	5.85	0.02
7	SLV 11	-18	-88	2182	113.12	-1.98	-0.02
7	SLV 12	-18	-88	2182	113.12	-1.98	-0.02
7	SLV 13	-97	60	2180	-78.02	-4.46	-0.01
7	SLV 14	-97	60	2180	-78.02	-4.46	-0.01
7	SLV 15	-147	1	2199	-2.14	-6.81	-0.02
7	SLV 16	-147	1	2199	-2.14	-6.81	-0.02
8	SLU 1	111	1	2021	-1.4	4.06	0
8	SLU 2	112	0	2019	-1.36	4.01	0
8	SLU 3	111	1	2021	-1.4	4.06	0
8	SLU 4	111	0	2020	-1.37	4.03	0
8	SLU 5	112	0	2019	-1.36	4.01	0
8	SLU 6	111	1	2021	-1.4	4.06	0
8	SLU 7	111	0	2020	-1.37	4.03	0
8	SLU 8	111	1	2021	-1.4	4.06	0
8	SLU 9	111	0	2020	-1.37	4.03	0
8	SLU 10	136	1	2236	-3.52	4.97	0
8	SLU 11	136	1	2238	-3.56	5.02	0
8	SLU 12	136	1	2237	-3.53	4.99	0
8	SLU 13	136	1	2236	-3.52	4.97	0
8	SLU 14	136	1	2238	-3.56	5.02	0
8	SLU 15	136	1	2237	-3.53	4.99	0
8	SLU 16	136	1	2238	-3.56	5.02	0
8	SLU 17	136	1	2237	-3.53	4.99	0
8	SLU 18	146	2	2331	-4.48	5.43	0
8	SLU 19	147	2	2330	-4.46	5.4	0
8	SLU 20	146	2	2331	-4.48	5.43	0
8	SLU 21	147	2	2330	-4.46	5.4	0
8	SLU 22	126	1	2178	-2.26	4.63	0
8	SLU 23	127	1	2176	-2.22	4.58	0
8	SLU 24	126	1	2178	-2.26	4.63	0
8	SLU 25	127	1	2177	-2.24	4.6	0
8	SLU 26	127	1	2176	-2.22	4.58	0
8	SLU 27	126	1	2178	-2.26	4.63	0
8	SLU 28	127	1	2177	-2.24	4.6	0
8	SLU 29	126	1	2178	-2.26	4.63	0
8	SLU 30	127	1	2177	-2.24	4.6	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
8	SLU 31	151	2	2393	-4.38	5.54	0
8	SLU 32	151	2	2395	-4.42	5.59	0
8	SLU 33	151	2	2394	-4.4	5.56	0
8	SLU 34	151	2	2393	-4.38	5.54	0
8	SLU 35	151	2	2395	-4.42	5.59	0
8	SLU 36	151	2	2394	-4.4	5.56	0
8	SLU 37	151	2	2395	-4.42	5.59	0
8	SLU 38	151	2	2394	-4.4	5.56	0
8	SLU 39	162	2	2488	-5.34	6	0
8	SLU 40	162	2	2487	-5.32	5.97	0
8	SLU 41	162	2	2488	-5.34	6	0
8	SLU 42	162	2	2487	-5.32	5.97	0
8	SLU 43	139	1	2573	-1.52	5.08	0
8	SLU 44	140	0	2572	-1.48	5.04	0
8	SLU 45	139	1	2573	-1.52	5.08	0
8	SLU 46	139	0	2572	-1.5	5.06	0
8	SLU 47	140	0	2572	-1.48	5.04	0
8	SLU 48	139	1	2573	-1.52	5.08	0
8	SLU 49	139	0	2572	-1.5	5.06	0
8	SLU 50	139	1	2573	-1.52	5.08	0
8	SLU 51	139	0	2572	-1.5	5.06	0
8	SLU 52	164	1	2789	-3.64	6	0
8	SLU 53	164	1	2791	-3.68	6.04	0
8	SLU 54	164	1	2790	-3.66	6.01	0
8	SLU 55	164	1	2789	-3.64	6	0
8	SLU 56	164	1	2791	-3.68	6.04	0
8	SLU 57	164	1	2790	-3.66	6.01	0
8	SLU 58	164	1	2791	-3.68	6.04	0
8	SLU 59	164	1	2790	-3.66	6.01	0
8	SLU 60	174	2	2884	-4.61	6.45	0
8	SLU 61	175	2	2883	-4.58	6.43	0
8	SLU 62	174	2	2884	-4.61	6.45	0
8	SLU 63	175	2	2883	-4.58	6.43	0
8	SLU 64	154	1	2730	-2.38	5.65	0
8	SLU 65	155	1	2729	-2.34	5.61	0
8	SLU 66	154	1	2730	-2.38	5.65	0
8	SLU 67	155	1	2729	-2.36	5.63	0
8	SLU 68	155	1	2729	-2.34	5.61	0
8	SLU 69	154	1	2730	-2.38	5.65	0
8	SLU 70	155	1	2729	-2.36	5.63	0
8	SLU 71	154	1	2730	-2.38	5.65	0
8	SLU 72	155	1	2729	-2.36	5.63	0
8	SLU 73	180	2	2946	-4.51	6.57	0
8	SLU 74	179	2	2948	-4.54	6.61	0
8	SLU 75	179	2	2947	-4.52	6.58	0
8	SLU 76	180	2	2946	-4.51	6.57	0
8	SLU 77	179	2	2948	-4.54	6.61	0
8	SLU 78	179	2	2947	-4.52	6.58	0
8	SLU 79	179	2	2948	-4.54	6.61	0
8	SLU 80	179	2	2947	-4.52	6.58	0
8	SLU 81	190	2	3041	-5.47	7.02	0
8	SLU 82	190	2	3040	-5.45	7	0
8	SLU 83	190	2	3041	-5.47	7.02	0
8	SLU 84	190	2	3040	-5.45	7	0
8	SLE RA 1	115	1	2066	-1.64	4.22	0
8	SLE RA 2	116	1	2065	-1.62	4.19	0
8	SLE RA 3	115	1	2066	-1.64	4.22	0
8	SLE RA 4	116	1	2065	-1.63	4.21	0
8	SLE RA 5	116	1	2065	-1.62	4.19	0
8	SLE RA 6	115	1	2066	-1.64	4.22	0
8	SLE RA 7	116	1	2065	-1.63	4.21	0
8	SLE RA 8	115	1	2066	-1.64	4.22	0
8	SLE RA 9	116	1	2065	-1.63	4.21	0
8	SLE RA 10	132	1	2209	-3.06	4.83	0
8	SLE RA 11	132	1	2211	-3.08	4.86	0
8	SLE RA 12	132	1	2210	-3.07	4.84	0
8	SLE RA 13	132	1	2209	-3.06	4.83	0
8	SLE RA 14	132	1	2211	-3.08	4.86	0
8	SLE RA 15	132	1	2210	-3.07	4.84	0
8	SLE RA 16	132	1	2211	-3.08	4.86	0
8	SLE RA 17	132	1	2210	-3.07	4.84	0
8	SLE RA 18	139	1	2273	-3.7	5.14	0
8	SLE RA 19	139	1	2272	-3.69	5.12	0
8	SLE RA 20	139	1	2273	-3.7	5.14	0
8	SLE RA 21	139	1	2272	-3.69	5.12	0
8	SLE FR 1	115	1	2066	-1.64	4.22	0
8	SLE FR 2	115	1	2066	-1.64	4.22	0
8	SLE FR 3	115	1	2066	-1.64	4.22	0
8	SLE FR 4	123	1	2128	-2.25	4.49	0
8	SLE FR 5	122	1	2128	-2.26	4.5	0
8	SLE FR 6	127	1	2169	-2.67	4.68	0
8	SLE QP 1	115	1	2066	-1.64	4.22	0
8	SLE QP 2	122	1	2128	-2.26	4.5	0
8	SLD 1	223	2	2104	-2.72	0.2	0.01
8	SLD 2	223	2	2104	-2.72	0.2	0.01
8	SLD 3	242	-26	2110	31.2	0.83	0
8	SLD 4	242	-26	2110	31.2	0.83	0
8	SLD 5	124	43	2111	-53.84	2.25	0.01
8	SLD 6	124	43	2111	-53.84	2.25	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
8	SLD 7	187	-48	2132	59.22	4.36	-0.01
8	SLD 8	187	-48	2132	59.22	4.36	-0.01
8	SLD 9	58	50	2124	-63.74	4.64	0.01
8	SLD 10	58	50	2124	-63.74	4.64	0.01
8	SLD 11	121	-41	2144	49.32	6.75	-0.01
8	SLD 12	121	-41	2144	49.32	6.75	-0.01
8	SLD 13	3	27	2145	-35.72	8.16	0
8	SLD 14	3	27	2145	-35.72	8.16	0
8	SLD 15	22	0	2152	-1.8	8.8	-0.01
8	SLD 16	22	0	2152	-1.8	8.8	-0.01
8	SLV 1	361	3	2067	-3.17	-5.65	0.02
8	SLV 2	361	3	2067	-3.17	-5.65	0.02
8	SLV 3	405	-66	2083	83.9	-4.17	0
8	SLV 4	405	-66	2083	83.9	-4.17	0
8	SLV 5	127	107	2085	-134.58	-0.79	0.02
8	SLV 6	127	107	2085	-134.58	-0.79	0.02
8	SLV 7	274	-125	2139	155.64	4.14	-0.02
8	SLV 8	274	-125	2139	155.64	4.14	-0.02
8	SLV 9	-29	126	2117	-160.16	4.86	0.02
8	SLV 10	-29	126	2117	-160.16	4.86	0.02
8	SLV 11	118	-105	2170	130.06	9.79	-0.02
8	SLV 12	118	-105	2170	130.06	9.79	-0.02
8	SLV 13	-160	68	2173	-88.42	13.17	0
8	SLV 14	-160	68	2173	-88.42	13.17	0
8	SLV 15	-116	-1	2189	-1.35	14.65	-0.02
8	SLV 16	-116	-1	2189	-1.35	14.65	-0.02
9	SLU 1	90	1	2022	-1.59	3.19	0
9	SLU 2	92	1	2019	-1.66	3.32	0
9	SLU 3	90	1	2022	-1.59	3.19	0
9	SLU 4	91	1	2020	-1.63	3.26	0
9	SLU 5	92	1	2019	-1.66	3.32	0
9	SLU 6	90	1	2022	-1.59	3.19	0
9	SLU 7	91	1	2020	-1.63	3.26	0
9	SLU 8	90	1	2022	-1.59	3.19	0
9	SLU 9	91	1	2020	-1.63	3.26	0
9	SLU 10	122	2	2236	-4.15	4.34	0
9	SLU 11	120	2	2239	-4.07	4.21	0
9	SLU 12	121	2	2237	-4.12	4.29	0
9	SLU 13	122	2	2236	-4.15	4.34	0
9	SLU 14	120	2	2239	-4.07	4.21	0
9	SLU 15	121	2	2237	-4.12	4.29	0
9	SLU 16	120	2	2239	-4.07	4.21	0
9	SLU 17	121	2	2237	-4.12	4.29	0
9	SLU 18	133	2	2332	-5.14	4.65	0
9	SLU 19	134	2	2330	-5.19	4.73	0
9	SLU 20	133	2	2332	-5.14	4.65	0
9	SLU 21	134	2	2330	-5.19	4.73	0
9	SLU 22	105	1	2180	-2.58	3.72	0
9	SLU 23	107	1	2177	-2.66	3.85	0
9	SLU 24	105	1	2180	-2.58	3.72	0
9	SLU 25	107	1	2178	-2.63	3.8	0
9	SLU 26	107	1	2177	-2.66	3.85	0
9	SLU 27	105	1	2180	-2.58	3.72	0
9	SLU 28	107	1	2178	-2.63	3.8	0
9	SLU 29	105	1	2180	-2.58	3.72	0
9	SLU 30	107	1	2178	-2.63	3.8	0
9	SLU 31	138	2	2394	-5.15	4.88	0
9	SLU 32	136	2	2397	-5.07	4.75	0
9	SLU 33	137	2	2395	-5.12	4.83	0
9	SLU 34	138	2	2394	-5.15	4.88	0
9	SLU 35	136	2	2397	-5.07	4.75	0
9	SLU 36	137	2	2395	-5.12	4.83	0
9	SLU 37	136	2	2397	-5.07	4.75	0
9	SLU 38	137	2	2395	-5.12	4.83	0
9	SLU 39	149	3	2489	-6.14	5.19	0
9	SLU 40	150	3	2488	-6.18	5.27	0
9	SLU 41	149	3	2489	-6.14	5.19	0
9	SLU 42	150	3	2488	-6.18	5.27	0
9	SLU 43	111	1	2574	-1.72	3.96	0
9	SLU 44	113	1	2572	-1.8	4.09	0
9	SLU 45	111	1	2574	-1.72	3.96	0
9	SLU 46	113	1	2573	-1.77	4.04	0
9	SLU 47	113	1	2572	-1.8	4.09	0
9	SLU 48	111	1	2574	-1.72	3.96	0
9	SLU 49	113	1	2573	-1.77	4.04	0
9	SLU 50	111	1	2574	-1.72	3.96	0
9	SLU 51	113	1	2573	-1.77	4.04	0
9	SLU 52	144	2	2789	-4.29	5.12	0
9	SLU 53	141	2	2791	-4.21	4.98	0
9	SLU 54	143	2	2790	-4.26	5.06	0
9	SLU 55	144	2	2789	-4.29	5.12	0
9	SLU 56	141	2	2791	-4.21	4.98	0
9	SLU 57	143	2	2790	-4.26	5.06	0
9	SLU 58	141	2	2791	-4.21	4.98	0
9	SLU 59	143	2	2790	-4.26	5.06	0
9	SLU 60	154	2	2884	-5.28	5.42	0
9	SLU 61	156	2	2883	-5.32	5.5	0
9	SLU 62	154	2	2884	-5.28	5.42	0
9	SLU 63	156	2	2883	-5.32	5.5	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
9	SLU 64	127	1	2732	-2.71	4.49	0
9	SLU 65	129	1	2730	-2.79	4.63	0
9	SLU 66	127	1	2732	-2.71	4.49	0
9	SLU 67	128	1	2731	-2.76	4.57	0
9	SLU 68	129	1	2730	-2.79	4.63	0
9	SLU 69	127	1	2732	-2.71	4.49	0
9	SLU 70	128	1	2731	-2.76	4.57	0
9	SLU 71	127	1	2732	-2.71	4.49	0
9	SLU 72	128	1	2731	-2.76	4.57	0
9	SLU 73	159	2	2947	-5.28	5.65	0
9	SLU 74	157	2	2949	-5.2	5.52	0
9	SLU 75	158	2	2948	-5.25	5.6	0
9	SLU 76	159	2	2947	-5.28	5.65	0
9	SLU 77	157	2	2949	-5.2	5.52	0
9	SLU 78	158	2	2948	-5.25	5.6	0
9	SLU 79	157	2	2949	-5.2	5.52	0
9	SLU 80	158	2	2948	-5.25	5.6	0
9	SLU 81	170	3	3042	-6.27	5.96	0
9	SLU 82	171	3	3040	-6.32	6.04	0
9	SLU 83	170	3	3042	-6.27	5.96	0
9	SLU 84	171	3	3040	-6.32	6.04	0
9	SLE RA 1	94	1	2067	-1.87	3.34	0
9	SLE RA 2	96	1	2065	-1.92	3.43	0
9	SLE RA 3	94	1	2067	-1.87	3.34	0
9	SLE RA 4	95	1	2066	-1.9	3.39	0
9	SLE RA 5	96	1	2065	-1.92	3.43	0
9	SLE RA 6	94	1	2067	-1.87	3.34	0
9	SLE RA 7	95	1	2066	-1.9	3.39	0
9	SLE RA 8	94	1	2067	-1.87	3.34	0
9	SLE RA 9	95	1	2066	-1.9	3.39	0
9	SLE RA 10	116	2	2210	-3.58	4.11	0
9	SLE RA 11	114	2	2211	-3.53	4.02	0
9	SLE RA 12	115	2	2211	-3.56	4.08	0
9	SLE RA 13	116	2	2210	-3.58	4.11	0
9	SLE RA 14	114	2	2211	-3.53	4.02	0
9	SLE RA 15	115	2	2211	-3.56	4.08	0
9	SLE RA 16	114	2	2211	-3.53	4.02	0
9	SLE RA 17	115	2	2211	-3.56	4.08	0
9	SLE RA 18	123	2	2273	-4.24	4.32	0
9	SLE RA 19	124	2	2273	-4.27	4.37	0
9	SLE RA 20	123	2	2273	-4.24	4.32	0
9	SLE RA 21	124	2	2273	-4.27	4.37	0
9	SLE FR 1	94	1	2067	-1.87	3.34	0
9	SLE FR 2	94	1	2067	-1.88	3.36	0
9	SLE FR 3	94	1	2067	-1.87	3.34	0
9	SLE FR 4	103	1	2129	-2.59	3.65	0
9	SLE FR 5	103	1	2129	-2.58	3.63	0
9	SLE FR 6	109	1	2170	-3.05	3.83	0
9	SLE QP 1	94	1	2067	-1.87	3.34	0
9	SLE QP 2	103	1	2129	-2.58	3.63	0
9	SLD 1	228	2	2103	-3.3	8.46	0
9	SLD 2	228	2	2103	-3.3	8.46	0
9	SLD 3	206	-27	2110	33.23	7.53	0
9	SLD 4	206	-27	2110	33.23	7.53	0
9	SLD 5	174	47	2110	-58.2	6.49	0
9	SLD 6	174	47	2110	-58.2	6.49	0
9	SLD 7	100	-53	2134	63.56	3.39	0
9	SLD 8	100	-53	2134	63.56	3.39	0
9	SLD 9	105	55	2124	-68.72	3.87	0.01
9	SLD 10	105	55	2124	-68.72	3.87	0.01
9	SLD 11	32	-44	2147	53.03	0.77	0
9	SLD 12	32	-44	2147	53.03	0.77	0
9	SLD 13	0	30	2148	-38.39	-0.26	0
9	SLD 14	0	30	2148	-38.39	-0.26	0
9	SLD 15	-23	0	2155	-1.86	-1.19	0
9	SLD 16	-23	0	2155	-1.86	-1.19	0
9	SLV 1	402	4	2062	-4.03	15.33	0
9	SLV 2	402	4	2062	-4.03	15.33	0
9	SLV 3	350	-72	2080	89.85	13.07	-0.01
9	SLV 4	350	-72	2080	89.85	13.07	-0.01
9	SLV 5	272	117	2081	-145.41	10.57	0.01
9	SLV 6	272	117	2081	-145.41	10.57	0.01
9	SLV 7	97	-136	2142	167.54	3.04	-0.01
9	SLV 8	97	-136	2142	167.54	3.04	-0.01
9	SLV 9	109	138	2115	-172.7	4.23	0.01
9	SLV 10	109	138	2115	-172.7	4.23	0.01
9	SLV 11	-67	-115	2177	140.25	-3.3	-0.01
9	SLV 12	-67	-115	2177	140.25	-3.3	-0.01
9	SLV 13	-144	74	2177	-95.01	-5.81	0.01
9	SLV 14	-144	74	2177	-95.01	-5.81	0.01
9	SLV 15	-197	-2	2196	-1.13	-8.07	0
9	SLV 16	-197	-2	2196	-1.13	-8.07	0
10	SLU 1	74	1	2026	-1.71	2.7	0
10	SLU 2	75	1	2024	-1.84	2.69	0
10	SLU 3	74	1	2026	-1.71	2.7	0
10	SLU 4	75	1	2025	-1.79	2.69	0
10	SLU 5	75	1	2024	-1.84	2.69	0
10	SLU 6	74	1	2026	-1.71	2.7	0
10	SLU 7	75	1	2025	-1.79	2.69	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
10	SLU 8	74	1	2026	-1.71	2.7	0
10	SLU 9	75	1	2025	-1.79	2.69	0
10	SLU 10	115	2	2249	-4.54	4.14	0
10	SLU 11	114	2	2251	-4.41	4.15	0
10	SLU 12	115	2	2249	-4.48	4.15	0
10	SLU 13	115	2	2249	-4.54	4.14	0
10	SLU 14	114	2	2251	-4.41	4.15	0
10	SLU 15	115	2	2249	-4.48	4.15	0
10	SLU 16	114	2	2251	-4.41	4.15	0
10	SLU 17	115	2	2249	-4.48	4.15	0
10	SLU 18	131	3	2347	-5.56	4.77	0
10	SLU 19	132	3	2346	-5.64	4.77	0
10	SLU 20	131	3	2347	-5.56	4.77	0
10	SLU 21	132	3	2346	-5.64	4.77	0
10	SLU 22	92	1	2187	-2.79	3.34	0
10	SLU 23	93	1	2185	-2.92	3.34	0
10	SLU 24	92	1	2187	-2.79	3.34	0
10	SLU 25	92	1	2186	-2.87	3.34	0
10	SLU 26	93	1	2185	-2.92	3.34	0
10	SLU 27	92	1	2187	-2.79	3.34	0
10	SLU 28	92	1	2186	-2.87	3.34	0
10	SLU 29	92	1	2187	-2.79	3.34	0
10	SLU 30	92	1	2186	-2.87	3.34	0
10	SLU 31	133	3	2410	-5.61	4.79	0
10	SLU 32	132	3	2412	-5.48	4.8	0
10	SLU 33	132	3	2411	-5.56	4.79	0
10	SLU 34	133	3	2410	-5.61	4.79	0
10	SLU 35	132	3	2412	-5.48	4.8	0
10	SLU 36	132	3	2411	-5.56	4.79	0
10	SLU 37	132	3	2412	-5.48	4.8	0
10	SLU 38	132	3	2411	-5.56	4.79	0
10	SLU 39	149	3	2509	-6.64	5.42	0
10	SLU 40	150	3	2507	-6.72	5.42	0
10	SLU 41	149	3	2509	-6.64	5.42	0
10	SLU 42	150	3	2507	-6.72	5.42	0
10	SLU 43	90	1	2579	-1.86	3.29	0
10	SLU 44	91	1	2576	-1.99	3.28	0
10	SLU 45	90	1	2579	-1.86	3.29	0
10	SLU 46	91	1	2577	-1.94	3.28	0
10	SLU 47	91	1	2576	-1.99	3.28	0
10	SLU 48	90	1	2579	-1.86	3.29	0
10	SLU 49	91	1	2577	-1.94	3.28	0
10	SLU 50	90	1	2579	-1.86	3.29	0
10	SLU 51	91	1	2577	-1.94	3.28	0
10	SLU 52	131	2	2801	-4.68	4.73	0
10	SLU 53	130	2	2803	-4.55	4.74	0
10	SLU 54	131	2	2802	-4.63	4.74	0
10	SLU 55	131	2	2801	-4.68	4.73	0
10	SLU 56	130	2	2803	-4.55	4.74	0
10	SLU 57	131	2	2802	-4.63	4.74	0
10	SLU 58	130	2	2803	-4.55	4.74	0
10	SLU 59	131	2	2802	-4.63	4.74	0
10	SLU 60	147	3	2900	-5.71	5.36	0
10	SLU 61	148	3	2898	-5.78	5.36	0
10	SLU 62	147	3	2900	-5.71	5.36	0
10	SLU 63	148	3	2898	-5.78	5.36	0
10	SLU 64	108	1	2740	-2.94	3.93	0
10	SLU 65	109	2	2737	-3.06	3.93	0
10	SLU 66	108	1	2740	-2.94	3.93	0
10	SLU 67	109	1	2738	-3.01	3.93	0
10	SLU 68	109	2	2737	-3.06	3.93	0
10	SLU 69	108	1	2740	-2.94	3.93	0
10	SLU 70	109	1	2738	-3.01	3.93	0
10	SLU 71	108	1	2740	-2.94	3.93	0
10	SLU 72	109	1	2738	-3.01	3.93	0
10	SLU 73	149	3	2962	-5.76	5.38	0
10	SLU 74	148	3	2965	-5.63	5.39	0
10	SLU 75	149	3	2963	-5.71	5.38	0
10	SLU 76	149	3	2962	-5.76	5.38	0
10	SLU 77	148	3	2965	-5.63	5.39	0
10	SLU 78	149	3	2963	-5.71	5.38	0
10	SLU 79	148	3	2965	-5.63	5.39	0
10	SLU 80	149	3	2963	-5.71	5.38	0
10	SLU 81	165	3	3061	-6.78	6.01	0
10	SLU 82	166	3	3060	-6.86	6	0
10	SLU 83	165	3	3061	-6.78	6.01	0
10	SLU 84	166	3	3060	-6.86	6	0
10	SLE RA 1	79	1	2072	-2.02	2.88	0
10	SLE RA 2	80	1	2071	-2.11	2.88	0
10	SLE RA 3	79	1	2072	-2.02	2.88	0
10	SLE RA 4	80	1	2071	-2.07	2.88	0
10	SLE RA 5	80	1	2071	-2.11	2.88	0
10	SLE RA 6	79	1	2072	-2.02	2.88	0
10	SLE RA 7	80	1	2071	-2.07	2.88	0
10	SLE RA 8	79	1	2072	-2.02	2.88	0
10	SLE RA 9	80	1	2071	-2.07	2.88	0
10	SLE RA 10	106	2	2220	-3.9	3.85	0
10	SLE RA 11	106	2	2222	-3.82	3.85	0
10	SLE RA 12	106	2	2221	-3.87	3.85	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
10	SLE RA 13	106	2	2220	-3.9	3.85	0
10	SLE RA 14	106	2	2222	-3.82	3.85	0
10	SLE RA 15	106	2	2221	-3.87	3.85	0
10	SLE RA 16	106	2	2222	-3.82	3.85	0
10	SLE RA 17	106	2	2221	-3.87	3.85	0
10	SLE RA 18	117	2	2286	-4.59	4.27	0
10	SLE RA 19	118	2	2285	-4.64	4.26	0
10	SLE RA 20	117	2	2286	-4.59	4.27	0
10	SLE RA 21	118	2	2285	-4.64	4.26	0
10	SLE FR 1	79	1	2072	-2.02	2.88	0
10	SLE FR 2	79	1	2072	-2.04	2.88	0
10	SLE FR 3	79	1	2072	-2.02	2.88	0
10	SLE FR 4	91	1	2136	-2.81	3.3	0
10	SLE FR 5	91	1	2136	-2.79	3.3	0
10	SLE FR 6	98	2	2179	-3.3	3.58	0
10	SLE QP 1	79	1	2072	-2.02	2.88	0
10	SLE QP 2	91	1	2136	-2.79	3.3	0
10	SLD 1	212	3	2112	-3.56	-1.02	0
10	SLD 2	212	3	2112	-3.56	-1.02	0
10	SLD 3	191	-28	2119	33.69	-0.34	0
10	SLD 4	191	-28	2119	33.69	-0.34	0
10	SLD 5	158	48	2118	-59.51	0.97	0
10	SLD 6	158	48	2118	-59.51	0.97	0
10	SLD 7	90	-53	2142	64.64	3.24	-0.01
10	SLD 8	90	-53	2142	64.64	3.24	-0.01
10	SLD 9	91	56	2131	-70.23	3.36	0.01
10	SLD 10	91	56	2131	-70.23	3.36	0.01
10	SLD 11	23	-45	2154	53.93	5.63	0
10	SLD 12	23	-45	2154	53.93	5.63	0
10	SLD 13	-10	31	2153	-39.27	6.94	0
10	SLD 14	-10	31	2153	-39.27	6.94	0
10	SLD 15	-30	0	2161	-2.02	7.62	0
10	SLD 16	-30	0	2161	-2.02	7.62	0
10	SLV 1	377	4	2075	-4.3	-6.89	0
10	SLV 2	377	4	2075	-4.3	-6.89	0
10	SLV 3	329	-73	2094	91.53	-5.3	-0.01
10	SLV 4	329	-73	2094	91.53	-5.3	-0.01
10	SLV 5	249	120	2090	-148.58	-2.16	0.01
10	SLV 6	249	120	2090	-148.58	-2.16	0.01
10	SLV 7	90	-139	2152	170.84	3.12	-0.01
10	SLV 8	90	-139	2152	170.84	3.12	-0.01
10	SLV 9	92	141	2121	-176.42	3.47	0.01
10	SLV 10	92	141	2121	-176.42	3.47	0.01
10	SLV 11	-68	-117	2183	143	8.76	-0.01
10	SLV 12	-68	-117	2183	143	8.76	-0.01
10	SLV 13	-148	76	2179	-97.11	11.9	0.01
10	SLV 14	-148	76	2179	-97.11	11.9	0.01
10	SLV 15	-196	-2	2198	-1.28	13.49	0
10	SLV 16	-196	-2	2198	-1.28	13.49	0
11	SLU 1	59	1	2034	-1.74	2.03	0
11	SLU 2	60	1	2031	-1.86	2.12	0
11	SLU 3	59	1	2034	-1.74	2.03	0
11	SLU 4	60	1	2032	-1.81	2.08	0
11	SLU 5	60	1	2031	-1.86	2.12	0
11	SLU 6	59	1	2034	-1.74	2.03	0
11	SLU 7	60	1	2032	-1.81	2.08	0
11	SLU 8	59	1	2034	-1.74	2.03	0
11	SLU 9	60	1	2032	-1.81	2.08	0
11	SLU 10	110	2	2274	-4.56	3.74	0
11	SLU 11	108	2	2276	-4.45	3.66	0
11	SLU 12	109	2	2275	-4.52	3.71	0
11	SLU 13	110	2	2274	-4.56	3.74	0
11	SLU 14	108	2	2276	-4.45	3.66	0
11	SLU 15	109	2	2275	-4.52	3.71	0
11	SLU 16	108	2	2276	-4.45	3.66	0
11	SLU 17	109	2	2275	-4.52	3.71	0
11	SLU 18	130	3	2380	-5.61	4.35	0
11	SLU 19	130	3	2378	-5.68	4.4	0
11	SLU 20	130	3	2380	-5.61	4.35	0
11	SLU 21	130	3	2378	-5.68	4.4	0
11	SLU 22	79	1	2202	-2.83	2.69	0
11	SLU 23	80	1	2199	-2.94	2.77	0
11	SLU 24	79	1	2202	-2.83	2.69	0
11	SLU 25	80	1	2200	-2.9	2.74	0
11	SLU 26	80	1	2199	-2.94	2.77	0
11	SLU 27	79	1	2202	-2.83	2.69	0
11	SLU 28	80	1	2200	-2.9	2.74	0
11	SLU 29	79	1	2202	-2.83	2.69	0
11	SLU 30	80	1	2200	-2.9	2.74	0
11	SLU 31	130	3	2441	-5.65	4.4	0
11	SLU 32	128	3	2444	-5.54	4.31	0
11	SLU 33	129	3	2442	-5.61	4.36	0
11	SLU 34	130	3	2441	-5.65	4.4	0
11	SLU 35	128	3	2444	-5.54	4.31	0
11	SLU 36	129	3	2442	-5.61	4.36	0
11	SLU 37	128	3	2444	-5.54	4.31	0
11	SLU 38	129	3	2442	-5.61	4.36	0
11	SLU 39	150	3	2548	-6.7	5.01	0
11	SLU 40	150	3	2546	-6.77	5.06	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
11	SLU 41	150	3	2548	-6.7	5.01	0
11	SLU 42	150	3	2546	-6.77	5.06	0
11	SLU 43	70	1	2587	-1.89	2.42	0
11	SLU 44	71	1	2584	-2	2.5	0
11	SLU 45	70	1	2587	-1.89	2.42	0
11	SLU 46	71	1	2585	-1.96	2.47	0
11	SLU 47	71	1	2584	-2	2.5	0
11	SLU 48	70	1	2587	-1.89	2.42	0
11	SLU 49	71	1	2585	-1.96	2.47	0
11	SLU 50	70	1	2587	-1.89	2.42	0
11	SLU 51	71	1	2585	-1.96	2.47	0
11	SLU 52	121	2	2826	-4.71	4.12	0
11	SLU 53	119	2	2829	-4.6	4.04	0
11	SLU 54	120	2	2827	-4.67	4.09	0
11	SLU 55	121	2	2826	-4.71	4.12	0
11	SLU 56	119	2	2829	-4.6	4.04	0
11	SLU 57	120	2	2827	-4.67	4.09	0
11	SLU 58	119	2	2829	-4.6	4.04	0
11	SLU 59	120	2	2827	-4.67	4.09	0
11	SLU 60	140	3	2933	-5.76	4.74	0
11	SLU 61	141	3	2931	-5.83	4.79	0
11	SLU 62	140	3	2933	-5.76	4.74	0
11	SLU 63	141	3	2931	-5.83	4.79	0
11	SLU 64	90	1	2754	-2.98	3.08	0
11	SLU 65	91	2	2752	-3.09	3.16	0
11	SLU 66	90	1	2754	-2.98	3.08	0
11	SLU 67	90	2	2753	-3.05	3.13	0
11	SLU 68	91	2	2752	-3.09	3.16	0
11	SLU 69	90	1	2754	-2.98	3.08	0
11	SLU 70	90	2	2753	-3.05	3.13	0
11	SLU 71	90	1	2754	-2.98	3.08	0
11	SLU 72	90	2	2753	-3.05	3.13	0
11	SLU 73	141	3	2994	-5.8	4.78	0
11	SLU 74	139	3	2997	-5.68	4.7	0
11	SLU 75	140	3	2995	-5.75	4.75	0
11	SLU 76	141	3	2994	-5.8	4.78	0
11	SLU 77	139	3	2997	-5.68	4.7	0
11	SLU 78	140	3	2995	-5.75	4.75	0
11	SLU 79	139	3	2997	-5.68	4.7	0
11	SLU 80	140	3	2995	-5.75	4.75	0
11	SLU 81	160	3	3100	-6.84	5.39	0
11	SLU 82	161	3	3099	-6.92	5.44	0
11	SLU 83	160	3	3100	-6.84	5.39	0
11	SLU 84	161	3	3099	-6.92	5.44	0
11	SLE RA 1	65	1	2082	-2.05	2.22	0
11	SLE RA 2	66	1	2080	-2.13	2.28	0
11	SLE RA 3	65	1	2082	-2.05	2.22	0
11	SLE RA 4	65	1	2081	-2.1	2.26	0
11	SLE RA 5	66	1	2080	-2.13	2.28	0
11	SLE RA 6	65	1	2082	-2.05	2.22	0
11	SLE RA 7	65	1	2081	-2.1	2.26	0
11	SLE RA 8	65	1	2082	-2.05	2.22	0
11	SLE RA 9	65	1	2081	-2.1	2.26	0
11	SLE RA 10	99	2	2242	-3.93	3.36	0
11	SLE RA 11	98	2	2243	-3.86	3.3	0
11	SLE RA 12	98	2	2242	-3.9	3.34	0
11	SLE RA 13	99	2	2242	-3.93	3.36	0
11	SLE RA 14	98	2	2243	-3.86	3.3	0
11	SLE RA 15	98	2	2242	-3.9	3.34	0
11	SLE RA 16	98	2	2243	-3.86	3.3	0
11	SLE RA 17	98	2	2242	-3.9	3.34	0
11	SLE RA 18	112	2	2313	-4.63	3.77	0
11	SLE RA 19	112	2	2312	-4.68	3.8	0
11	SLE RA 20	112	2	2313	-4.63	3.77	0
11	SLE RA 21	112	2	2312	-4.68	3.8	0
11	SLE FR 1	65	1	2082	-2.05	2.22	0
11	SLE FR 2	65	1	2081	-2.07	2.23	0
11	SLE FR 3	65	1	2082	-2.05	2.22	0
11	SLE FR 4	79	1	2151	-2.84	2.7	0
11	SLE FR 5	79	1	2151	-2.82	2.69	0
11	SLE FR 6	88	2	2197	-3.34	3	0
11	SLE QP 1	65	1	2082	-2.05	2.22	0
11	SLE QP 2	79	1	2151	-2.82	2.69	0
11	SLD 1	202	2	2126	-3.49	7.31	0
11	SLD 2	202	2	2126	-3.49	7.31	0
11	SLD 3	179	-27	2134	32.52	6.43	0
11	SLD 4	179	-27	2134	32.52	6.43	0
11	SLD 5	149	46	2132	-57.65	5.42	-0.01
11	SLD 6	149	46	2132	-57.65	5.42	-0.01
11	SLD 7	75	-51	2158	62.4	2.46	0.01
11	SLD 8	75	-51	2158	62.4	2.46	0.01
11	SLD 9	82	54	2144	-68.05	2.91	-0.01
11	SLD 10	82	54	2144	-68.05	2.91	-0.01
11	SLD 11	8	-43	2170	52	-0.05	0.01
11	SLD 12	8	-43	2170	52	-0.05	0.01
11	SLD 13	-22	29	2168	-38.17	-1.05	0
11	SLD 14	-22	29	2168	-38.17	-1.05	0
11	SLD 15	-44	0	2176	-2.15	-1.94	0.01
11	SLD 16	-44	0	2176	-2.15	-1.94	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
11	SLV 1	372	4	2088	-4.05	13.83	-0.01
11	SLV 2	372	4	2088	-4.05	13.83	-0.01
11	SLV 3	319	-70	2109	88.67	11.69	0
11	SLV 4	319	-70	2109	88.67	11.69	0
11	SLV 5	247	115	2102	-143.81	9.27	-0.02
11	SLV 6	247	115	2102	-143.81	9.27	-0.02
11	SLV 7	70	-133	2169	165.24	2.14	0.01
11	SLV 8	70	-133	2169	165.24	2.14	0.01
11	SLV 9	87	136	2133	-170.89	3.23	-0.01
11	SLV 10	87	136	2133	-170.89	3.23	-0.01
11	SLV 11	-90	-112	2201	138.16	-3.9	0.02
11	SLV 12	-90	-112	2201	138.16	-3.9	0.02
11	SLV 13	-161	73	2194	-94.31	-6.32	0
11	SLV 14	-161	73	2194	-94.31	-6.32	0
11	SLV 15	-215	-1	2214	-1.6	-8.46	0.01
11	SLV 16	-215	-1	2214	-1.6	-8.46	0.01
12	SLU 1	47	1	2046	-1.63	1.71	0
12	SLU 2	48	1	2044	-1.69	1.71	0
12	SLU 3	47	1	2046	-1.63	1.71	0
12	SLU 4	48	1	2045	-1.67	1.71	0
12	SLU 5	48	1	2044	-1.69	1.71	0
12	SLU 6	47	1	2046	-1.63	1.71	0
12	SLU 7	48	1	2045	-1.67	1.71	0
12	SLU 8	47	1	2046	-1.63	1.71	0
12	SLU 9	48	1	2045	-1.67	1.71	0
12	SLU 10	113	2	2316	-4.17	4	0
12	SLU 11	112	2	2319	-4.11	4	0
12	SLU 12	112	2	2317	-4.15	4	0
12	SLU 13	113	2	2316	-4.17	4	0
12	SLU 14	112	2	2319	-4.11	4	0
12	SLU 15	112	2	2317	-4.15	4	0
12	SLU 16	112	2	2319	-4.11	4	0
12	SLU 17	112	2	2317	-4.15	4	0
12	SLU 18	140	2	2436	-5.17	4.98	0
12	SLU 19	140	2	2434	-5.21	4.98	0
12	SLU 20	140	2	2436	-5.17	4.98	0
12	SLU 21	140	2	2434	-5.21	4.98	0
12	SLU 22	71	1	2225	-2.64	2.57	0
12	SLU 23	72	1	2222	-2.7	2.57	0
12	SLU 24	71	1	2225	-2.64	2.57	0
12	SLU 25	72	1	2223	-2.67	2.57	0
12	SLU 26	72	1	2222	-2.7	2.57	0
12	SLU 27	71	1	2225	-2.64	2.57	0
12	SLU 28	72	1	2223	-2.67	2.57	0
12	SLU 29	71	1	2225	-2.64	2.57	0
12	SLU 30	72	1	2223	-2.67	2.57	0
12	SLU 31	137	2	2495	-5.18	4.85	0
12	SLU 32	136	2	2497	-5.12	4.85	0
12	SLU 33	136	2	2496	-5.15	4.85	0
12	SLU 34	137	2	2495	-5.18	4.85	0
12	SLU 35	136	2	2497	-5.12	4.85	0
12	SLU 36	136	2	2496	-5.15	4.85	0
12	SLU 37	136	2	2497	-5.12	4.85	0
12	SLU 38	136	2	2496	-5.15	4.85	0
12	SLU 39	164	3	2614	-6.18	5.83	0
12	SLU 40	164	3	2613	-6.22	5.83	0
12	SLU 41	164	3	2614	-6.18	5.83	0
12	SLU 42	164	3	2613	-6.22	5.83	0
12	SLU 43	53	1	2599	-1.78	1.93	0
12	SLU 44	54	1	2596	-1.84	1.93	0
12	SLU 45	53	1	2599	-1.78	1.93	0
12	SLU 46	53	1	2597	-1.81	1.93	0
12	SLU 47	54	1	2596	-1.84	1.93	0
12	SLU 48	53	1	2599	-1.78	1.93	0
12	SLU 49	53	1	2597	-1.81	1.93	0
12	SLU 50	53	1	2599	-1.78	1.93	0
12	SLU 51	53	1	2597	-1.81	1.93	0
12	SLU 52	118	2	2869	-4.32	4.22	0
12	SLU 53	118	2	2871	-4.26	4.22	0
12	SLU 54	118	2	2870	-4.29	4.22	0
12	SLU 55	118	2	2869	-4.32	4.22	0
12	SLU 56	118	2	2871	-4.26	4.22	0
12	SLU 57	118	2	2870	-4.29	4.22	0
12	SLU 58	118	2	2871	-4.26	4.22	0
12	SLU 59	118	2	2870	-4.29	4.22	0
12	SLU 60	146	2	2988	-5.32	5.2	0
12	SLU 61	146	2	2987	-5.35	5.2	0
12	SLU 62	146	2	2988	-5.32	5.2	0
12	SLU 63	146	2	2987	-5.35	5.2	0
12	SLU 64	77	1	2777	-2.78	2.79	0
12	SLU 65	78	1	2775	-2.84	2.79	0
12	SLU 66	77	1	2777	-2.78	2.79	0
12	SLU 67	78	1	2776	-2.82	2.79	0
12	SLU 68	78	1	2775	-2.84	2.79	0
12	SLU 69	77	1	2777	-2.78	2.79	0
12	SLU 70	78	1	2776	-2.82	2.79	0
12	SLU 71	77	1	2777	-2.78	2.79	0
12	SLU 72	78	1	2776	-2.82	2.79	0
12	SLU 73	143	2	3047	-5.32	5.07	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
12	SLU 74	142	2	3050	-5.26	5.07	0
12	SLU 75	142	2	3048	-5.3	5.07	0
12	SLU 76	143	2	3047	-5.32	5.07	0
12	SLU 77	142	2	3050	-5.26	5.07	0
12	SLU 78	142	2	3048	-5.3	5.07	0
12	SLU 79	142	2	3050	-5.26	5.07	0
12	SLU 80	142	2	3048	-5.3	5.07	0
12	SLU 81	170	3	3167	-6.32	6.05	0
12	SLU 82	170	3	3165	-6.36	6.05	0
12	SLU 83	170	3	3167	-6.32	6.05	0
12	SLU 84	170	3	3165	-6.36	6.05	0
12	SLE RA 1	54	1	2097	-1.92	1.96	0
12	SLE RA 2	54	1	2095	-1.96	1.96	0
12	SLE RA 3	54	1	2097	-1.92	1.96	0
12	SLE RA 4	54	1	2096	-1.94	1.96	0
12	SLE RA 5	54	1	2095	-1.96	1.96	0
12	SLE RA 6	54	1	2097	-1.92	1.96	0
12	SLE RA 7	54	1	2096	-1.94	1.96	0
12	SLE RA 8	54	1	2097	-1.92	1.96	0
12	SLE RA 9	54	1	2096	-1.94	1.96	0
12	SLE RA 10	98	2	2277	-3.61	3.48	0
12	SLE RA 11	97	2	2279	-3.57	3.48	0
12	SLE RA 12	98	2	2278	-3.6	3.48	0
12	SLE RA 13	98	2	2277	-3.61	3.48	0
12	SLE RA 14	97	2	2279	-3.57	3.48	0
12	SLE RA 15	98	2	2278	-3.6	3.48	0
12	SLE RA 16	97	2	2279	-3.57	3.48	0
12	SLE RA 17	98	2	2278	-3.6	3.48	0
12	SLE RA 18	116	2	2357	-4.28	4.13	0
12	SLE RA 19	116	2	2356	-4.3	4.13	0
12	SLE RA 20	116	2	2357	-4.28	4.13	0
12	SLE RA 21	116	2	2356	-4.3	4.13	0
12	SLE FR 1	54	1	2097	-1.92	1.96	0
12	SLE FR 2	54	1	2097	-1.93	1.96	0
12	SLE FR 3	54	1	2097	-1.92	1.96	0
12	SLE FR 4	73	1	2175	-2.64	2.61	0
12	SLE FR 5	73	1	2175	-2.63	2.61	0
12	SLE FR 6	85	1	2227	-3.1	3.05	0
12	SLE QP 1	54	1	2097	-1.92	1.96	0
12	SLE QP 2	73	1	2175	-2.63	2.61	0
12	SLD 1	170	2	2150	-3.08	-1.61	0
12	SLD 2	170	2	2150	-3.08	-1.61	0
12	SLD 3	191	-24	2158	29.82	-0.91	0.01
12	SLD 4	191	-24	2158	29.82	-0.91	0.01
12	SLD 5	70	41	2155	-52.66	0.28	-0.01
12	SLD 6	70	41	2155	-52.66	0.28	-0.01
12	SLD 7	140	-46	2182	57.01	2.62	0.01
12	SLD 8	140	-46	2182	57.01	2.62	0.01
12	SLD 9	6	48	2168	-62.26	2.6	-0.01
12	SLD 10	6	48	2168	-62.26	2.6	-0.01
12	SLD 11	75	-38	2195	47.41	4.94	0.01
12	SLD 12	75	-38	2195	47.41	4.94	0.01
12	SLD 13	-45	26	2192	-35.08	6.13	-0.01
12	SLD 14	-45	26	2192	-35.08	6.13	-0.01
12	SLD 15	-25	0	2200	-2.18	6.83	0
12	SLD 16	-25	0	2200	-2.18	6.83	0
12	SLV 1	303	3	2113	-3.32	-7.35	0.01
12	SLV 2	303	3	2113	-3.32	-7.35	0.01
12	SLV 3	353	-64	2134	81.39	-5.7	0.02
12	SLV 4	353	-64	2134	81.39	-5.7	0.02
12	SLV 5	67	102	2125	-131.32	-2.88	-0.02
12	SLV 6	67	102	2125	-131.32	-2.88	-0.02
12	SLV 7	231	-119	2195	151.06	2.62	0.03
12	SLV 8	231	-119	2195	151.06	2.62	0.03
12	SLV 9	-86	121	2156	-156.32	2.6	-0.03
12	SLV 10	-86	121	2156	-156.32	2.6	-0.03
12	SLV 11	78	-100	2225	126.07	8.1	0.02
12	SLV 12	78	-100	2225	126.07	8.1	0.02
12	SLV 13	-207	66	2216	-86.64	10.92	-0.02
12	SLV 14	-207	66	2216	-86.64	10.92	-0.02
12	SLV 15	-158	0	2237	-1.93	12.58	-0.01
12	SLV 16	-158	0	2237	-1.93	12.58	-0.01
13	SLU 1	32	0	2062	-1.38	0.99	0
13	SLU 2	32	0	2060	-1.36	1.02	0
13	SLU 3	32	0	2062	-1.38	0.99	0
13	SLU 4	32	0	2061	-1.37	1.01	0
13	SLU 5	32	0	2060	-1.36	1.02	0
13	SLU 6	32	0	2062	-1.38	0.99	0
13	SLU 7	32	0	2061	-1.37	1.01	0
13	SLU 8	32	0	2062	-1.38	0.99	0
13	SLU 9	32	0	2061	-1.37	1.01	0
13	SLU 10	108	1	2377	-3.34	3.42	0
13	SLU 11	108	1	2379	-3.36	3.39	0
13	SLU 12	108	1	2378	-3.35	3.41	0
13	SLU 13	108	1	2377	-3.34	3.42	0
13	SLU 14	108	1	2379	-3.36	3.39	0
13	SLU 15	108	1	2378	-3.35	3.41	0
13	SLU 16	108	1	2379	-3.36	3.39	0
13	SLU 17	108	1	2378	-3.35	3.41	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
13	SLU 18	141	1	2515	-4.21	4.42	0
13	SLU 19	141	1	2514	-4.2	4.44	0
13	SLU 20	141	1	2515	-4.21	4.42	0
13	SLU 21	141	1	2514	-4.2	4.44	0
13	SLU 22	58	1	2256	-2.2	1.83	0
13	SLU 23	59	1	2253	-2.18	1.86	0
13	SLU 24	58	1	2256	-2.2	1.83	0
13	SLU 25	59	1	2254	-2.19	1.84	0
13	SLU 26	59	1	2253	-2.18	1.86	0
13	SLU 27	58	1	2256	-2.2	1.83	0
13	SLU 28	59	1	2254	-2.19	1.84	0
13	SLU 29	58	1	2256	-2.2	1.83	0
13	SLU 30	59	1	2254	-2.19	1.84	0
13	SLU 31	135	1	2570	-4.16	4.25	0
13	SLU 32	135	1	2573	-4.19	4.23	0
13	SLU 33	135	1	2571	-4.17	4.24	0
13	SLU 34	135	1	2570	-4.16	4.25	0
13	SLU 35	135	1	2573	-4.19	4.23	0
13	SLU 36	135	1	2571	-4.17	4.24	0
13	SLU 37	135	1	2573	-4.19	4.23	0
13	SLU 38	135	1	2571	-4.17	4.24	0
13	SLU 39	167	1	2709	-5.03	5.25	0
13	SLU 40	167	1	2707	-5.02	5.27	0
13	SLU 41	167	1	2709	-5.03	5.25	0
13	SLU 42	167	1	2707	-5.02	5.27	0
13	SLU 43	32	0	2615	-1.52	1.01	0
13	SLU 44	33	0	2612	-1.49	1.03	0
13	SLU 45	32	0	2615	-1.52	1.01	0
13	SLU 46	33	0	2613	-1.5	1.02	0
13	SLU 47	33	0	2612	-1.49	1.03	0
13	SLU 48	32	0	2615	-1.52	1.01	0
13	SLU 49	33	0	2613	-1.5	1.02	0
13	SLU 50	32	0	2615	-1.52	1.01	0
13	SLU 51	33	0	2613	-1.5	1.02	0
13	SLU 52	109	1	2929	-3.47	3.43	0
13	SLU 53	108	1	2932	-3.5	3.41	0
13	SLU 54	109	1	2930	-3.48	3.42	0
13	SLU 55	109	1	2929	-3.47	3.43	0
13	SLU 56	108	1	2932	-3.5	3.41	0
13	SLU 57	109	1	2930	-3.48	3.42	0
13	SLU 58	108	1	2932	-3.5	3.41	0
13	SLU 59	109	1	2930	-3.48	3.42	0
13	SLU 60	141	1	3067	-4.35	4.43	0
13	SLU 61	141	1	3066	-4.33	4.45	0
13	SLU 62	141	1	3067	-4.35	4.43	0
13	SLU 63	141	1	3066	-4.33	4.45	0
13	SLU 64	59	1	2808	-2.34	1.84	0
13	SLU 65	59	1	2806	-2.32	1.87	0
13	SLU 66	59	1	2808	-2.34	1.84	0
13	SLU 67	59	1	2807	-2.32	1.86	0
13	SLU 68	59	1	2806	-2.32	1.87	0
13	SLU 69	59	1	2808	-2.34	1.84	0
13	SLU 70	59	1	2807	-2.32	1.86	0
13	SLU 71	59	1	2808	-2.34	1.84	0
13	SLU 72	59	1	2807	-2.32	1.86	0
13	SLU 73	135	1	3123	-4.3	4.27	0
13	SLU 74	135	1	3125	-4.32	4.24	0
13	SLU 75	135	1	3124	-4.31	4.25	0
13	SLU 76	135	1	3123	-4.3	4.27	0
13	SLU 77	135	1	3125	-4.32	4.24	0
13	SLU 78	135	1	3124	-4.31	4.25	0
13	SLU 79	135	1	3125	-4.32	4.24	0
13	SLU 80	135	1	3124	-4.31	4.25	0
13	SLU 81	168	1	3261	-5.17	5.27	0
13	SLU 82	168	1	3260	-5.15	5.28	0
13	SLU 83	168	1	3261	-5.17	5.27	0
13	SLU 84	168	1	3260	-5.15	5.28	0
13	SLE RA 1	40	0	2118	-1.62	1.23	0
13	SLE RA 2	40	0	2116	-1.6	1.25	0
13	SLE RA 3	40	0	2118	-1.62	1.23	0
13	SLE RA 4	40	0	2117	-1.61	1.24	0
13	SLE RA 5	40	0	2116	-1.6	1.25	0
13	SLE RA 6	40	0	2118	-1.62	1.23	0
13	SLE RA 7	40	0	2117	-1.61	1.24	0
13	SLE RA 8	40	0	2118	-1.62	1.23	0
13	SLE RA 9	40	0	2117	-1.61	1.24	0
13	SLE RA 10	90	1	2327	-2.92	2.85	0
13	SLE RA 11	90	1	2329	-2.94	2.83	0
13	SLE RA 12	90	1	2328	-2.93	2.84	0
13	SLE RA 13	90	1	2327	-2.92	2.85	0
13	SLE RA 14	90	1	2329	-2.94	2.83	0
13	SLE RA 15	90	1	2328	-2.93	2.84	0
13	SLE RA 16	90	1	2329	-2.94	2.83	0
13	SLE RA 17	90	1	2328	-2.93	2.84	0
13	SLE RA 18	112	1	2420	-3.5	3.52	0
13	SLE RA 19	112	1	2418	-3.5	3.53	0
13	SLE RA 20	112	1	2420	-3.5	3.52	0
13	SLE RA 21	112	1	2418	-3.5	3.53	0
13	SLE FR 1	40	0	2118	-1.62	1.23	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
13	SLE FR 2	40	0	2117	-1.61	1.24	0
13	SLE FR 3	40	0	2118	-1.62	1.23	0
13	SLE FR 4	61	1	2208	-2.18	1.92	0
13	SLE FR 5	61	1	2208	-2.18	1.92	0
13	SLE FR 6	76	1	2269	-2.56	2.37	0
13	SLE QP 1	40	0	2118	-1.62	1.23	0
13	SLE QP 2	61	1	2208	-2.18	1.92	0
13	SLD 1	157	1	2181	-2.33	5.46	0
13	SLD 2	157	1	2181	-2.33	5.46	0
13	SLD 3	179	-21	2190	25.77	6.33	0.01
13	SLD 4	179	-21	2190	25.77	6.33	0.01
13	SLD 5	56	33	2187	-44.84	1.66	-0.01
13	SLD 6	56	33	2187	-44.84	1.66	-0.01
13	SLD 7	130	-38	2217	48.81	4.56	0.01
13	SLD 8	130	-38	2217	48.81	4.56	0.01
13	SLD 9	-8	39	2200	-53.18	-0.73	-0.01
13	SLD 10	-8	39	2200	-53.18	-0.73	-0.01
13	SLD 11	66	-31	2230	40.47	2.18	0.01
13	SLD 12	66	-31	2230	40.47	2.18	0.01
13	SLD 13	-57	22	2226	-30.13	-2.49	-0.01
13	SLD 14	-57	22	2226	-30.13	-2.49	-0.01
13	SLD 15	-34	1	2235	-2.04	-1.62	0
13	SLD 16	-34	1	2235	-2.04	-1.62	0
13	SLV 1	289	1	2142	-2.19	10.42	0.01
13	SLV 2	289	1	2142	-2.19	10.42	0.01
13	SLV 3	343	-53	2166	70.12	12.53	0.02
13	SLV 4	343	-53	2166	70.12	12.53	0.02
13	SLV 5	49	82	2153	-111.86	1.28	-0.02
13	SLV 6	49	82	2153	-111.86	1.28	-0.02
13	SLV 7	227	-97	2231	129.19	8.29	0.03
13	SLV 8	227	-97	2231	129.19	8.29	0.03
13	SLV 9	-104	98	2186	-133.55	-4.46	-0.03
13	SLV 10	-104	98	2186	-133.55	-4.46	-0.03
13	SLV 11	74	-81	2264	107.5	2.56	0.02
13	SLV 12	74	-81	2264	107.5	2.56	0.02
13	SLV 13	-220	54	2251	-74.49	-8.69	-0.02
13	SLV 14	-220	54	2251	-74.49	-8.69	-0.02
13	SLV 15	-167	1	2274	-2.17	-6.59	-0.01
13	SLV 16	-167	1	2274	-2.17	-6.59	-0.01
14	SLU 1	17	0	2082	-1.02	0.66	0
14	SLU 2	17	0	2080	-0.91	0.64	0
14	SLU 3	17	0	2082	-1.02	0.66	0
14	SLU 4	17	0	2081	-0.95	0.65	0
14	SLU 5	17	0	2080	-0.91	0.64	0
14	SLU 6	17	0	2082	-1.02	0.66	0
14	SLU 7	17	0	2081	-0.95	0.65	0
14	SLU 8	17	0	2082	-1.02	0.66	0
14	SLU 9	17	0	2081	-0.95	0.65	0
14	SLU 10	106	-1	2459	-2.15	3.79	0
14	SLU 11	107	-1	2461	-2.26	3.81	0
14	SLU 12	106	-1	2460	-2.19	3.8	0
14	SLU 13	106	-1	2459	-2.15	3.79	0
14	SLU 14	107	-1	2461	-2.26	3.81	0
14	SLU 15	106	-1	2460	-2.19	3.8	0
14	SLU 16	107	-1	2461	-2.26	3.81	0
14	SLU 17	106	-1	2460	-2.19	3.8	0
14	SLU 18	145	-1	2624	-2.79	5.16	0
14	SLU 19	145	-1	2622	-2.73	5.15	0
14	SLU 20	145	-1	2624	-2.79	5.16	0
14	SLU 21	145	-1	2622	-2.73	5.15	0
14	SLU 22	47	0	2297	-1.56	1.71	0
14	SLU 23	46	0	2294	-1.46	1.69	0
14	SLU 24	47	0	2297	-1.56	1.71	0
14	SLU 25	46	0	2295	-1.5	1.7	0
14	SLU 26	46	0	2294	-1.46	1.69	0
14	SLU 27	47	0	2297	-1.56	1.71	0
14	SLU 28	46	0	2295	-1.5	1.7	0
14	SLU 29	47	0	2297	-1.56	1.71	0
14	SLU 30	46	0	2295	-1.5	1.7	0
14	SLU 31	136	-1	2673	-2.7	4.84	0
14	SLU 32	136	-1	2676	-2.81	4.85	0
14	SLU 33	136	-1	2674	-2.74	4.85	0
14	SLU 34	136	-1	2673	-2.7	4.84	0
14	SLU 35	136	-1	2676	-2.81	4.85	0
14	SLU 36	136	-1	2674	-2.74	4.85	0
14	SLU 37	136	-1	2676	-2.81	4.85	0
14	SLU 38	136	-1	2674	-2.74	4.85	0
14	SLU 39	174	-1	2838	-3.34	6.2	0
14	SLU 40	174	-1	2837	-3.28	6.2	0
14	SLU 41	174	-1	2838	-3.34	6.2	0
14	SLU 42	174	-1	2837	-3.28	6.2	0
14	SLU 43	12	0	2634	-1.13	0.5	0
14	SLU 44	12	0	2631	-1.03	0.48	0
14	SLU 45	12	0	2634	-1.13	0.5	0
14	SLU 46	12	0	2632	-1.07	0.49	0
14	SLU 47	12	0	2631	-1.03	0.48	0
14	SLU 48	12	0	2634	-1.13	0.5	0
14	SLU 49	12	0	2632	-1.07	0.49	0
14	SLU 50	12	0	2634	-1.13	0.5	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
14	SLU 51	12	0	2632	-1.07	0.49	0
14	SLU 52	101	-1	3010	-2.27	3.63	0
14	SLU 53	102	-1	3013	-2.37	3.64	0
14	SLU 54	101	-1	3011	-2.31	3.63	0
14	SLU 55	101	-1	3010	-2.27	3.63	0
14	SLU 56	102	-1	3013	-2.37	3.64	0
14	SLU 57	101	-1	3011	-2.31	3.63	0
14	SLU 58	102	-1	3013	-2.37	3.64	0
14	SLU 59	101	-1	3011	-2.31	3.63	0
14	SLU 60	140	-1	3175	-2.91	4.99	0
14	SLU 61	140	-1	3173	-2.84	4.98	0
14	SLU 62	140	-1	3175	-2.91	4.99	0
14	SLU 63	140	-1	3173	-2.84	4.98	0
14	SLU 64	42	0	2848	-1.68	1.54	0
14	SLU 65	41	0	2845	-1.58	1.53	0
14	SLU 66	42	0	2848	-1.68	1.54	0
14	SLU 67	41	0	2846	-1.62	1.54	0
14	SLU 68	41	0	2845	-1.58	1.53	0
14	SLU 69	42	0	2848	-1.68	1.54	0
14	SLU 70	41	0	2846	-1.62	1.54	0
14	SLU 71	42	0	2848	-1.68	1.54	0
14	SLU 72	41	0	2846	-1.62	1.54	0
14	SLU 73	131	-1	3224	-2.82	4.68	0
14	SLU 74	131	-1	3227	-2.92	4.69	0
14	SLU 75	131	-1	3225	-2.86	4.68	0
14	SLU 76	131	-1	3224	-2.82	4.68	0
14	SLU 77	131	-1	3227	-2.92	4.69	0
14	SLU 78	131	-1	3225	-2.86	4.68	0
14	SLU 79	131	-1	3227	-2.92	4.69	0
14	SLU 80	131	-1	3225	-2.86	4.68	0
14	SLU 81	169	-1	3390	-3.45	6.04	0
14	SLU 82	169	-1	3388	-3.39	6.03	0
14	SLU 83	169	-1	3390	-3.45	6.04	0
14	SLU 84	169	-1	3388	-3.39	6.03	0
14	SLE RA 1	26	0	2144	-1.17	0.96	0
14	SLE RA 2	25	0	2142	-1.1	0.95	0
14	SLE RA 3	26	0	2144	-1.17	0.96	0
14	SLE RA 4	25	0	2143	-1.13	0.95	0
14	SLE RA 5	25	0	2142	-1.1	0.95	0
14	SLE RA 6	26	0	2144	-1.17	0.96	0
14	SLE RA 7	25	0	2143	-1.13	0.95	0
14	SLE RA 8	26	0	2144	-1.17	0.96	0
14	SLE RA 9	25	0	2143	-1.13	0.95	0
14	SLE RA 10	85	-1	2395	-1.93	3.05	0
14	SLE RA 11	85	0	2396	-2	3.06	0
14	SLE RA 12	85	-1	2395	-1.96	3.05	0
14	SLE RA 13	85	-1	2395	-1.93	3.05	0
14	SLE RA 14	85	0	2396	-2	3.06	0
14	SLE RA 15	85	-1	2395	-1.96	3.05	0
14	SLE RA 16	85	0	2396	-2	3.06	0
14	SLE RA 17	85	-1	2395	-1.96	3.05	0
14	SLE RA 18	111	-1	2505	-2.36	3.96	0
14	SLE RA 19	111	-1	2504	-2.31	3.95	0
14	SLE RA 20	111	-1	2505	-2.36	3.96	0
14	SLE RA 21	111	-1	2504	-2.31	3.95	0
14	SLE FR 1	26	0	2144	-1.17	0.96	0
14	SLE FR 2	26	0	2143	-1.16	0.96	0
14	SLE FR 3	26	0	2144	-1.17	0.96	0
14	SLE FR 4	51	0	2252	-1.51	1.85	0
14	SLE FR 5	51	0	2252	-1.53	1.86	0
14	SLE FR 6	68	0	2324	-1.76	2.46	0
14	SLE QP 1	26	0	2144	-1.17	0.96	0
14	SLE QP 2	51	0	2252	-1.53	1.86	0
14	SLD 1	143	16	2223	-1.32	-2.2	0
14	SLD 2	143	16	2223	-1.32	-2.2	0
14	SLD 3	164	1	2233	20.62	-1.49	0.01
14	SLD 4	164	1	2233	20.62	-1.49	0.01
14	SLD 5	47	27	2228	-34.74	-0.44	-0.01
14	SLD 6	47	27	2228	-34.74	-0.44	-0.01
14	SLD 7	117	-22	2261	38.39	1.93	0.01
14	SLD 8	117	-22	2261	38.39	1.93	0.01
14	SLD 9	-15	22	2243	-41.45	1.78	-0.01
14	SLD 10	-15	22	2243	-41.45	1.78	-0.01
14	SLD 11	56	-27	2276	31.69	4.15	0.01
14	SLD 12	56	-27	2276	31.69	4.15	0.01
14	SLD 13	-62	-1	2271	-23.67	5.2	-0.01
14	SLD 14	-62	-1	2271	-23.67	5.2	-0.01
14	SLD 15	-41	-16	2281	-1.73	5.91	0
14	SLD 16	-41	-16	2281	-1.73	5.91	0
14	SLV 1	269	40	2180	-0.79	-7.73	0
14	SLV 2	269	40	2180	-0.79	-7.73	0
14	SLV 3	320	2	2206	55.62	-6.05	0.02
14	SLV 4	320	2	2206	55.62	-6.05	0.02
14	SLV 5	40	69	2192	-86.86	-3.56	-0.02
14	SLV 6	40	69	2192	-86.86	-3.56	-0.02
14	SLV 7	208	-56	2277	101.17	2.02	0.03
14	SLV 8	208	-56	2277	101.17	2.02	0.03
14	SLV 9	-106	56	2227	-104.23	1.69	-0.03
14	SLV 10	-106	56	2227	-104.23	1.69	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
14	SLV 11	62	-69	2312	83.8	7.27	0.02
14	SLV 12	62	-69	2312	83.8	7.27	0.02
14	SLV 13	-217	-3	2298	-58.68	9.77	-0.02
14	SLV 14	-217	-3	2298	-58.68	9.77	-0.02
14	SLV 15	-167	-40	2324	-2.27	11.44	0
14	SLV 16	-167	-40	2324	-2.27	11.44	0
15	SLU 1	-11	-1	2100	-0.59	-0.62	0
15	SLU 2	-12	-1	2097	-0.42	-0.65	0
15	SLU 3	-11	-1	2100	-0.59	-0.62	0
15	SLU 4	-11	-1	2098	-0.49	-0.64	0
15	SLU 5	-12	-1	2097	-0.42	-0.65	0
15	SLU 6	-11	-1	2100	-0.59	-0.62	0
15	SLU 7	-11	-1	2098	-0.49	-0.64	0
15	SLU 8	-11	-1	2100	-0.59	-0.62	0
15	SLU 9	-11	-1	2098	-0.49	-0.64	0
15	SLU 10	70	-2	2547	-0.77	1.74	0
15	SLU 11	71	-2	2550	-0.94	1.77	0
15	SLU 12	70	-2	2548	-0.84	1.75	0
15	SLU 13	70	-2	2547	-0.77	1.74	0
15	SLU 14	71	-2	2550	-0.94	1.77	0
15	SLU 15	70	-2	2548	-0.84	1.75	0
15	SLU 16	71	-2	2550	-0.94	1.77	0
15	SLU 17	70	-2	2548	-0.84	1.75	0
15	SLU 18	106	-3	2743	-1.09	2.79	0
15	SLU 19	105	-3	2741	-0.99	2.77	0
15	SLU 20	106	-3	2743	-1.09	2.79	0
15	SLU 21	105	-3	2741	-0.99	2.77	0
15	SLU 22	13	-1	2338	-0.81	0.05	0
15	SLU 23	12	-1	2334	-0.64	0.02	0
15	SLU 24	13	-1	2338	-0.81	0.05	0
15	SLU 25	13	-1	2336	-0.71	0.03	0
15	SLU 26	12	-1	2334	-0.64	0.02	0
15	SLU 27	13	-1	2338	-0.81	0.05	0
15	SLU 28	13	-1	2336	-0.71	0.03	0
15	SLU 29	13	-1	2338	-0.81	0.05	0
15	SLU 30	13	-1	2336	-0.71	0.03	0
15	SLU 31	94	-3	2784	-0.99	2.41	0
15	SLU 32	95	-3	2787	-1.16	2.44	0
15	SLU 33	94	-3	2786	-1.06	2.42	0
15	SLU 34	94	-3	2784	-0.99	2.41	0
15	SLU 35	95	-3	2787	-1.16	2.44	0
15	SLU 36	94	-3	2786	-1.06	2.42	0
15	SLU 37	95	-3	2787	-1.16	2.44	0
15	SLU 38	94	-3	2786	-1.06	2.42	0
15	SLU 39	130	-3	2980	-1.31	3.46	0
15	SLU 40	129	-4	2978	-1.21	3.44	0
15	SLU 41	130	-3	2980	-1.31	3.46	0
15	SLU 42	129	-4	2978	-1.21	3.44	0
15	SLU 43	-22	-1	2649	-0.69	-1.04	0
15	SLU 44	-23	-1	2646	-0.52	-1.06	0
15	SLU 45	-22	-1	2649	-0.69	-1.04	0
15	SLU 46	-23	-1	2647	-0.59	-1.05	0
15	SLU 47	-23	-1	2646	-0.52	-1.06	0
15	SLU 48	-22	-1	2649	-0.69	-1.04	0
15	SLU 49	-23	-1	2647	-0.59	-1.05	0
15	SLU 50	-22	-1	2649	-0.69	-1.04	0
15	SLU 51	-23	-1	2647	-0.59	-1.05	0
15	SLU 52	59	-2	3096	-0.87	1.32	0
15	SLU 53	59	-2	3099	-1.04	1.35	0
15	SLU 54	59	-2	3097	-0.94	1.33	0
15	SLU 55	59	-2	3096	-0.87	1.32	0
15	SLU 56	59	-2	3099	-1.04	1.35	0
15	SLU 57	59	-2	3097	-0.94	1.33	0
15	SLU 58	59	-2	3099	-1.04	1.35	0
15	SLU 59	59	-2	3097	-0.94	1.33	0
15	SLU 60	94	-3	3292	-1.19	2.37	0
15	SLU 61	94	-3	3290	-1.09	2.36	0
15	SLU 62	94	-3	3292	-1.19	2.37	0
15	SLU 63	94	-3	3290	-1.09	2.36	0
15	SLU 64	2	-1	2886	-0.91	-0.37	0
15	SLU 65	1	-1	2883	-0.74	-0.39	0
15	SLU 66	2	-1	2886	-0.91	-0.37	0
15	SLU 67	1	-1	2884	-0.81	-0.38	0
15	SLU 68	1	-1	2883	-0.74	-0.39	0
15	SLU 69	2	-1	2886	-0.91	-0.37	0
15	SLU 70	1	-1	2884	-0.81	-0.38	0
15	SLU 71	2	-1	2886	-0.91	-0.37	0
15	SLU 72	1	-1	2884	-0.81	-0.38	0
15	SLU 73	83	-3	3333	-1.09	1.99	0
15	SLU 74	83	-3	3336	-1.26	2.02	0
15	SLU 75	83	-3	3334	-1.16	2	0
15	SLU 76	83	-3	3333	-1.09	1.99	0
15	SLU 77	83	-3	3336	-1.26	2.02	0
15	SLU 78	83	-3	3334	-1.16	2	0
15	SLU 79	83	-3	3336	-1.26	2.02	0
15	SLU 80	83	-3	3334	-1.16	2	0
15	SLU 81	118	-3	3529	-1.41	3.04	0
15	SLU 82	118	-4	3527	-1.31	3.03	0
15	SLU 83	118	-3	3529	-1.41	3.04	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
15	SLU 84	118	-4	3527	-1.31	3.03	0
15	SLE RA 1	-4	-1	2168	-0.65	-0.43	0
15	SLE RA 2	-5	-1	2166	-0.54	-0.45	0
15	SLE RA 3	-4	-1	2168	-0.65	-0.43	0
15	SLE RA 4	-4	-1	2167	-0.58	-0.44	0
15	SLE RA 5	-5	-1	2166	-0.54	-0.45	0
15	SLE RA 6	-4	-1	2168	-0.65	-0.43	0
15	SLE RA 7	-4	-1	2167	-0.58	-0.44	0
15	SLE RA 8	-4	-1	2168	-0.65	-0.43	0
15	SLE RA 9	-4	-1	2167	-0.58	-0.44	0
15	SLE RA 10	50	-2	2466	-0.77	1.14	0
15	SLE RA 11	50	-2	2468	-0.89	1.16	0
15	SLE RA 12	50	-2	2467	-0.82	1.15	0
15	SLE RA 13	50	-2	2466	-0.77	1.14	0
15	SLE RA 14	50	-2	2468	-0.89	1.16	0
15	SLE RA 15	50	-2	2467	-0.82	1.15	0
15	SLE RA 16	50	-2	2468	-0.89	1.16	0
15	SLE RA 17	50	-2	2467	-0.82	1.15	0
15	SLE RA 18	74	-2	2597	-0.99	1.84	0
15	SLE RA 19	73	-2	2595	-0.92	1.83	0
15	SLE RA 20	74	-2	2597	-0.99	1.84	0
15	SLE RA 21	73	-2	2595	-0.92	1.83	0
15	SLE FR 1	-4	-1	2168	-0.65	-0.43	0
15	SLE FR 2	-4	-1	2168	-0.63	-0.43	0
15	SLE FR 3	-4	-1	2168	-0.65	-0.43	0
15	SLE FR 4	19	-1	2296	-0.73	0.25	0
15	SLE FR 5	19	-1	2297	-0.75	0.25	0
15	SLE FR 6	35	-2	2382	-0.82	0.71	0
15	SLE QP 1	-4	-1	2168	-0.65	-0.43	0
15	SLE QP 2	19	-1	2297	-0.75	0.25	0
15	SLD 1	110	2	2265	-0.23	3.61	0
15	SLD 2	110	2	2265	-0.23	3.61	0
15	SLD 3	132	9	2276	14.77	4.51	0.01
15	SLD 4	132	9	2276	14.77	4.51	0.01
15	SLD 5	12	-12	2270	-23.34	-0.11	-0.01
15	SLD 6	12	-12	2270	-23.34	-0.11	-0.01
15	SLD 7	88	14	2307	26.65	2.89	0.01
15	SLD 8	88	14	2307	26.65	2.89	0.01
15	SLD 9	-49	-16	2286	-28.15	-2.39	-0.01
15	SLD 10	-49	-16	2286	-28.15	-2.39	-0.01
15	SLD 11	27	10	2323	21.83	0.61	0.01
15	SLD 12	27	10	2323	21.83	0.61	0.01
15	SLD 13	-94	-12	2317	-16.27	-4.01	-0.01
15	SLD 14	-94	-12	2317	-16.27	-4.01	-0.01
15	SLD 15	-71	-4	2329	-1.28	-3.11	0
15	SLD 16	-71	-4	2329	-1.28	-3.11	0
15	SLV 1	235	6	2218	0.66	8.33	0
15	SLV 2	235	6	2218	0.66	8.33	0
15	SLV 3	290	25	2248	39.13	10.52	0.02
15	SLV 4	290	25	2248	39.13	10.52	0.02
15	SLV 5	0	-28	2229	-58.67	-0.65	-0.02
15	SLV 6	0	-28	2229	-58.67	-0.65	-0.02
15	SLV 7	184	36	2326	69.55	6.66	0.03
15	SLV 8	184	36	2326	69.55	6.66	0.03
15	SLV 9	-145	-38	2267	-71.06	-6.15	-0.03
15	SLV 10	-145	-38	2267	-71.06	-6.15	-0.03
15	SLV 11	38	26	2364	57.16	1.15	0.02
15	SLV 12	38	26	2364	57.16	1.15	0.02
15	SLV 13	-251	-27	2346	-40.64	-10.02	-0.02
15	SLV 14	-251	-27	2346	-40.64	-10.02	-0.02
15	SLV 15	-196	-8	2375	-2.17	-7.83	0
15	SLV 16	-196	-8	2375	-2.17	-7.83	0
16	SLU 1	-41	-1	2111	-0.17	-1.25	0
16	SLU 2	-42	-1	2108	0.04	-1.28	0
16	SLU 3	-41	-1	2111	-0.17	-1.25	0
16	SLU 4	-41	-1	2109	-0.04	-1.27	0
16	SLU 5	-42	-1	2108	0.04	-1.28	0
16	SLU 6	-41	-1	2111	-0.17	-1.25	0
16	SLU 7	-41	-1	2109	-0.04	-1.27	0
16	SLU 8	-41	-1	2111	-0.17	-1.25	0
16	SLU 9	-41	-1	2109	-0.04	-1.27	0
16	SLU 10	27	-4	2629	0.59	1.3	0
16	SLU 11	28	-4	2633	0.38	1.33	0
16	SLU 12	27	-4	2631	0.51	1.31	0
16	SLU 13	27	-4	2629	0.59	1.3	0
16	SLU 14	28	-4	2633	0.38	1.33	0
16	SLU 15	27	-4	2631	0.51	1.31	0
16	SLU 16	28	-4	2633	0.38	1.33	0
16	SLU 17	27	-4	2631	0.51	1.31	0
16	SLU 18	57	-5	2856	0.62	2.43	0
16	SLU 19	56	-5	2854	0.74	2.42	0
16	SLU 20	57	-5	2856	0.62	2.43	0
16	SLU 21	56	-5	2854	0.74	2.42	0
16	SLU 22	-24	-2	2370	-0.07	-0.58	0
16	SLU 23	-25	-2	2366	0.15	-0.6	0
16	SLU 24	-24	-2	2370	-0.07	-0.58	0
16	SLU 25	-25	-2	2368	0.06	-0.59	0
16	SLU 26	-25	-2	2366	0.15	-0.6	0
16	SLU 27	-24	-2	2370	-0.07	-0.58	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
16	SLU 28	-25	-2	2368	0.06	-0.59	0
16	SLU 29	-24	-2	2370	-0.07	-0.58	0
16	SLU 30	-25	-2	2368	0.06	-0.59	0
16	SLU 31	43	-5	2888	0.7	1.98	0
16	SLU 32	44	-5	2891	0.49	2	0
16	SLU 33	44	-5	2889	0.61	1.99	0
16	SLU 34	43	-5	2888	0.7	1.98	0
16	SLU 35	44	-5	2891	0.49	2	0
16	SLU 36	44	-5	2889	0.61	1.99	0
16	SLU 37	44	-5	2891	0.49	2	0
16	SLU 38	44	-5	2889	0.61	1.99	0
16	SLU 39	74	-6	3114	0.72	3.11	0
16	SLU 40	73	-6	3112	0.85	3.09	0
16	SLU 41	74	-6	3114	0.72	3.11	0
16	SLU 42	73	-6	3112	0.85	3.09	0
16	SLU 43	-58	-1	2656	-0.26	-1.86	0
16	SLU 44	-59	-1	2653	-0.05	-1.89	0
16	SLU 45	-58	-1	2656	-0.26	-1.86	0
16	SLU 46	-59	-1	2654	-0.13	-1.88	0
16	SLU 47	-59	-1	2653	-0.05	-1.89	0
16	SLU 48	-58	-1	2656	-0.26	-1.86	0
16	SLU 49	-59	-1	2654	-0.13	-1.88	0
16	SLU 50	-58	-1	2656	-0.26	-1.86	0
16	SLU 51	-59	-1	2654	-0.13	-1.88	0
16	SLU 52	9	-4	3174	0.5	0.69	0
16	SLU 53	10	-4	3178	0.29	0.72	0
16	SLU 54	9	-4	3176	0.42	0.7	0
16	SLU 55	9	-4	3174	0.5	0.69	0
16	SLU 56	10	-4	3178	0.29	0.72	0
16	SLU 57	9	-4	3176	0.42	0.7	0
16	SLU 58	10	-4	3178	0.29	0.72	0
16	SLU 59	9	-4	3176	0.42	0.7	0
16	SLU 60	39	-5	3401	0.53	1.82	0
16	SLU 61	39	-5	3399	0.66	1.81	0
16	SLU 62	39	-5	3401	0.53	1.82	0
16	SLU 63	39	-5	3399	0.66	1.81	0
16	SLU 64	-42	-2	2914	-0.15	-1.19	0
16	SLU 65	-43	-2	2911	0.06	-1.21	0
16	SLU 66	-42	-2	2914	-0.15	-1.19	0
16	SLU 67	-42	-2	2912	-0.02	-1.2	0
16	SLU 68	-43	-2	2911	0.06	-1.21	0
16	SLU 69	-42	-2	2914	-0.15	-1.19	0
16	SLU 70	-42	-2	2912	-0.02	-1.2	0
16	SLU 71	-42	-2	2914	-0.15	-1.19	0
16	SLU 72	-42	-2	2912	-0.02	-1.2	0
16	SLU 73	26	-5	3432	0.61	1.37	0
16	SLU 74	26	-5	3436	0.4	1.39	0
16	SLU 75	26	-5	3434	0.53	1.38	0
16	SLU 76	26	-5	3432	0.61	1.37	0
16	SLU 77	26	-5	3436	0.4	1.39	0
16	SLU 78	26	-5	3434	0.53	1.38	0
16	SLU 79	26	-5	3436	0.4	1.39	0
16	SLU 80	26	-5	3434	0.53	1.38	0
16	SLU 81	56	-6	3659	0.63	2.5	0
16	SLU 82	55	-6	3657	0.76	2.48	0
16	SLU 83	56	-6	3659	0.63	2.5	0
16	SLU 84	55	-6	3657	0.76	2.48	0
16	SLE RA 1	-36	-1	2185	-0.14	-1.06	0
16	SLE RA 2	-36	-2	2183	0	-1.08	0
16	SLE RA 3	-36	-1	2185	-0.14	-1.06	0
16	SLE RA 4	-36	-1	2184	-0.06	-1.07	0
16	SLE RA 5	-36	-2	2183	0	-1.08	0
16	SLE RA 6	-36	-1	2185	-0.14	-1.06	0
16	SLE RA 7	-36	-1	2184	-0.06	-1.07	0
16	SLE RA 8	-36	-1	2185	-0.14	-1.06	0
16	SLE RA 9	-36	-1	2184	-0.06	-1.07	0
16	SLE RA 10	9	-3	2530	0.37	0.64	0
16	SLE RA 11	10	-3	2533	0.23	0.66	0
16	SLE RA 12	9	-3	2531	0.31	0.65	0
16	SLE RA 13	9	-3	2530	0.37	0.64	0
16	SLE RA 14	10	-3	2533	0.23	0.66	0
16	SLE RA 15	9	-3	2531	0.31	0.65	0
16	SLE RA 16	10	-3	2533	0.23	0.66	0
16	SLE RA 17	9	-3	2531	0.31	0.65	0
16	SLE RA 18	29	-4	2682	0.38	1.4	0
16	SLE RA 19	29	-4	2680	0.47	1.39	0
16	SLE RA 20	29	-4	2682	0.38	1.4	0
16	SLE RA 21	29	-4	2680	0.47	1.39	0
16	SLE FR 1	-36	-1	2185	-0.14	-1.06	0
16	SLE FR 2	-36	-1	2185	-0.11	-1.07	0
16	SLE FR 3	-36	-1	2185	-0.14	-1.06	0
16	SLE FR 4	-16	-2	2334	0.05	-0.33	0
16	SLE FR 5	-16	-2	2334	0.02	-0.32	0
16	SLE FR 6	-3	-3	2433	0.12	0.17	0
16	SLE QP 1	-36	-1	2185	-0.14	-1.06	0
16	SLE QP 2	-16	-2	2334	0.02	-0.32	0
16	SLD 1	71	1	2300	0.74	-4.21	0
16	SLD 2	71	1	2300	0.74	-4.21	0
16	SLD 3	92	6	2312	8.81	-3.49	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
16	SLD 4	92	6	2312	8.81	-3.49	0.01
16	SLD 5	-23	-8	2305	-12.01	-2.59	-0.01
16	SLD 6	-23	-8	2305	-12.01	-2.59	-0.01
16	SLD 7	49	7	2346	14.89	-0.18	0.01
16	SLD 8	49	7	2346	14.89	-0.18	0.01
16	SLD 9	-81	-11	2322	-14.86	-0.47	-0.01
16	SLD 10	-81	-11	2322	-14.86	-0.47	-0.01
16	SLD 11	-10	4	2363	12.04	1.94	0.01
16	SLD 12	-10	4	2363	12.04	1.94	0.01
16	SLD 13	-125	-10	2356	-8.78	2.84	-0.01
16	SLD 14	-125	-10	2356	-8.78	2.84	-0.01
16	SLD 15	-103	-5	2369	-0.71	3.56	0
16	SLD 16	-103	-5	2369	-0.71	3.56	0
16	SLV 1	190	6	2250	1.82	-9.51	0
16	SLV 2	190	6	2250	1.82	-9.51	0
16	SLV 3	241	18	2281	22.42	-7.81	0.02
16	SLV 4	241	18	2281	22.42	-7.81	0.02
16	SLV 5	-32	-18	2261	-30.69	-5.66	-0.03
16	SLV 6	-32	-18	2261	-30.69	-5.66	-0.03
16	SLV 7	138	22	2366	37.99	0.01	0.03
16	SLV 8	138	22	2366	37.99	0.01	0.03
16	SLV 9	-171	-26	2302	-37.95	-0.66	-0.04
16	SLV 10	-171	-26	2302	-37.95	-0.66	-0.04
16	SLV 11	-1	14	2407	30.73	5.01	0.03
16	SLV 12	-1	14	2407	30.73	5.01	0.03
16	SLV 13	-273	-22	2387	-22.39	7.16	-0.02
16	SLV 14	-273	-22	2387	-22.39	7.16	-0.02
16	SLV 15	-222	-10	2418	-1.79	8.86	0
16	SLV 16	-222	-10	2418	-1.79	8.86	0
17	SLU 1	-91	-1	2104	0.18	-3.5	0
17	SLU 2	-92	-2	2100	0.41	-3.56	0
17	SLU 3	-91	-1	2104	0.18	-3.5	0
17	SLU 4	-92	-2	2102	0.32	-3.54	0
17	SLU 5	-92	-2	2100	0.41	-3.56	0
17	SLU 6	-91	-1	2104	0.18	-3.5	0
17	SLU 7	-92	-2	2102	0.32	-3.54	0
17	SLU 8	-91	-1	2104	0.18	-3.5	0
17	SLU 9	-92	-2	2102	0.32	-3.54	0
17	SLU 10	-76	-5	2669	1.73	-3.55	0
17	SLU 11	-74	-5	2673	1.51	-3.49	0
17	SLU 12	-75	-5	2671	1.64	-3.52	0
17	SLU 13	-76	-5	2669	1.73	-3.55	0
17	SLU 14	-74	-5	2673	1.51	-3.49	0
17	SLU 15	-75	-5	2671	1.64	-3.52	0
17	SLU 16	-74	-5	2673	1.51	-3.49	0
17	SLU 17	-75	-5	2671	1.64	-3.52	0
17	SLU 18	-67	-6	2917	2.07	-3.48	0
17	SLU 19	-68	-7	2915	2.21	-3.52	0
17	SLU 20	-67	-6	2917	2.07	-3.48	0
17	SLU 21	-68	-7	2915	2.21	-3.52	0
17	SLU 22	-96	-2	2372	0.57	-3.88	0
17	SLU 23	-97	-3	2369	0.8	-3.94	0
17	SLU 24	-96	-2	2372	0.57	-3.88	0
17	SLU 25	-97	-3	2370	0.71	-3.92	0
17	SLU 26	-97	-3	2369	0.8	-3.94	0
17	SLU 27	-96	-2	2372	0.57	-3.88	0
17	SLU 28	-97	-3	2370	0.71	-3.92	0
17	SLU 29	-96	-2	2372	0.57	-3.88	0
17	SLU 30	-97	-3	2370	0.71	-3.92	0
17	SLU 31	-81	-6	2938	2.12	-3.93	0
17	SLU 32	-79	-6	2941	1.89	-3.87	0
17	SLU 33	-80	-6	2939	2.03	-3.9	0
17	SLU 34	-81	-6	2938	2.12	-3.93	0
17	SLU 35	-79	-6	2941	1.89	-3.87	0
17	SLU 36	-80	-6	2939	2.03	-3.9	0
17	SLU 37	-79	-6	2941	1.89	-3.87	0
17	SLU 38	-80	-6	2939	2.03	-3.9	0
17	SLU 39	-72	-8	3185	2.46	-3.86	0
17	SLU 40	-73	-8	3183	2.59	-3.9	0
17	SLU 41	-72	-8	3185	2.46	-3.86	0
17	SLU 42	-73	-8	3183	2.59	-3.9	0
17	SLU 43	-116	-1	2643	0.11	-4.42	0
17	SLU 44	-118	-2	2639	0.33	-4.48	0
17	SLU 45	-116	-1	2643	0.11	-4.42	0
17	SLU 46	-117	-1	2641	0.24	-4.46	0
17	SLU 47	-118	-2	2639	0.33	-4.48	0
17	SLU 48	-116	-1	2643	0.11	-4.42	0
17	SLU 49	-117	-1	2641	0.24	-4.46	0
17	SLU 50	-116	-1	2643	0.11	-4.42	0
17	SLU 51	-117	-1	2641	0.24	-4.46	0
17	SLU 52	-101	-5	3208	1.65	-4.47	0
17	SLU 53	-100	-5	3212	1.43	-4.4	0
17	SLU 54	-100	-5	3210	1.56	-4.44	0
17	SLU 55	-101	-5	3208	1.65	-4.47	0
17	SLU 56	-100	-5	3212	1.43	-4.4	0
17	SLU 57	-100	-5	3210	1.56	-4.44	0
17	SLU 58	-100	-5	3212	1.43	-4.4	0
17	SLU 59	-100	-5	3210	1.56	-4.44	0
17	SLU 60	-93	-6	3456	1.99	-4.4	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
17	SLU 61	-93	-7	3454	2.13	-4.44	0
17	SLU 62	-93	-6	3456	1.99	-4.4	0
17	SLU 63	-93	-7	3454	2.13	-4.44	0
17	SLU 64	-121	-2	2912	0.49	-4.8	0
17	SLU 65	-123	-3	2908	0.72	-4.86	0
17	SLU 66	-121	-2	2912	0.49	-4.8	0
17	SLU 67	-122	-3	2909	0.63	-4.84	0
17	SLU 68	-123	-3	2908	0.72	-4.86	0
17	SLU 69	-121	-2	2912	0.49	-4.8	0
17	SLU 70	-122	-3	2909	0.63	-4.84	0
17	SLU 71	-121	-2	2912	0.49	-4.8	0
17	SLU 72	-122	-3	2909	0.63	-4.84	0
17	SLU 73	-106	-6	3477	2.04	-4.85	0
17	SLU 74	-105	-6	3481	1.82	-4.79	0
17	SLU 75	-106	-6	3478	1.95	-4.82	0
17	SLU 76	-106	-6	3477	2.04	-4.85	0
17	SLU 77	-105	-6	3481	1.82	-4.79	0
17	SLU 78	-106	-6	3478	1.95	-4.82	0
17	SLU 79	-105	-6	3481	1.82	-4.79	0
17	SLU 80	-106	-6	3478	1.95	-4.82	0
17	SLU 81	-98	-8	3724	2.38	-4.78	0
17	SLU 82	-98	-8	3722	2.52	-4.82	0
17	SLU 83	-98	-8	3724	2.38	-4.78	0
17	SLU 84	-98	-8	3722	2.52	-4.82	0
17	SLE RA 1	-92	-2	2181	0.3	-3.61	0
17	SLE RA 2	-93	-2	2178	0.44	-3.65	0
17	SLE RA 3	-92	-2	2181	0.3	-3.61	0
17	SLE RA 4	-93	-2	2179	0.38	-3.63	0
17	SLE RA 5	-93	-2	2178	0.44	-3.65	0
17	SLE RA 6	-92	-2	2181	0.3	-3.61	0
17	SLE RA 7	-93	-2	2179	0.38	-3.63	0
17	SLE RA 8	-92	-2	2181	0.3	-3.61	0
17	SLE RA 9	-93	-2	2179	0.38	-3.63	0
17	SLE RA 10	-82	-4	2558	1.32	-3.64	0
17	SLE RA 11	-81	-4	2560	1.18	-3.6	0
17	SLE RA 12	-82	-4	2559	1.26	-3.62	0
17	SLE RA 13	-82	-4	2558	1.32	-3.64	0
17	SLE RA 14	-81	-4	2560	1.18	-3.6	0
17	SLE RA 15	-82	-4	2559	1.26	-3.62	0
17	SLE RA 16	-81	-4	2560	1.18	-3.6	0
17	SLE RA 17	-82	-4	2559	1.26	-3.62	0
17	SLE RA 18	-76	-5	2723	1.55	-3.6	0
17	SLE RA 19	-77	-5	2721	1.64	-3.62	0
17	SLE RA 20	-76	-5	2723	1.55	-3.6	0
17	SLE RA 21	-77	-5	2721	1.64	-3.62	0
17	SLE FR 1	-92	-2	2181	0.3	-3.61	0
17	SLE FR 2	-92	-2	2180	0.32	-3.62	0
17	SLE FR 3	-92	-2	2181	0.3	-3.61	0
17	SLE FR 4	-88	-3	2343	0.7	-3.61	0
17	SLE FR 5	-88	-3	2343	0.67	-3.6	0
17	SLE FR 6	-84	-3	2452	0.92	-3.6	0
17	SLE QP 1	-92	-2	2181	0.3	-3.61	0
17	SLE QP 2	-88	-3	2343	0.67	-3.6	0
17	SLD 1	-1	-1	2367	-0.14	-0.36	0
17	SLD 2	-1	-1	2367	-0.14	-0.36	0
17	SLD 3	22	8	2379	-2.61	0.61	0.01
17	SLD 4	22	8	2379	-2.61	0.61	0.01
17	SLD 5	-97	-17	2331	4.18	-4.1	-0.01
17	SLD 6	-97	-17	2331	4.18	-4.1	-0.01
17	SLD 7	-19	15	2373	-4.06	-0.87	0.01
17	SLD 8	-19	15	2373	-4.06	-0.87	0.01
17	SLD 9	-156	-20	2313	5.41	-6.34	-0.01
17	SLD 10	-156	-20	2313	5.41	-6.34	-0.01
17	SLD 11	-78	11	2356	-2.83	-3.11	0.01
17	SLD 12	-78	11	2356	-2.83	-3.11	0.01
17	SLD 13	-197	-14	2307	3.96	-7.82	-0.01
17	SLD 14	-197	-14	2307	3.96	-7.82	-0.01
17	SLD 15	-174	-4	2320	1.48	-6.85	0
17	SLD 16	-174	-4	2320	1.48	-6.85	0
17	SLV 1	118	1	2398	-1.34	4.26	0
17	SLV 2	118	1	2398	-1.34	4.26	0
17	SLV 3	175	26	2431	-7.6	6.63	0.02
17	SLV 4	175	26	2431	-7.6	6.63	0.02
17	SLV 5	-112	-39	2309	9.57	-4.84	-0.02
17	SLV 6	-112	-39	2309	9.57	-4.84	-0.02
17	SLV 7	77	44	2420	-11.31	3.06	0.02
17	SLV 8	77	44	2420	-11.31	3.06	0.02
17	SLV 9	-252	-49	2267	12.66	-10.27	-0.02
17	SLV 10	-252	-49	2267	12.66	-10.27	-0.02
17	SLV 11	-63	34	2377	-8.22	-2.37	0.02
17	SLV 12	-63	34	2377	-8.22	-2.37	0.02
17	SLV 13	-350	-31	2255	8.95	-13.84	-0.02
17	SLV 14	-350	-31	2255	8.95	-13.84	-0.02
17	SLV 15	-293	-6	2289	2.68	-11.47	0
17	SLV 16	-293	-6	2289	2.68	-11.47	0
18	SLU 1	-136	-2	2815	0.46	-4.37	0
18	SLU 2	-136	-2	2812	0.67	-4.38	0
18	SLU 3	-136	-2	2815	0.46	-4.37	0
18	SLU 4	-136	-2	2813	0.59	-4.38	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
18	SLU 5	-136	-2	2812	0.67	-4.38	0
18	SLU 6	-136	-2	2815	0.46	-4.37	0
18	SLU 7	-136	-2	2813	0.59	-4.38	0
18	SLU 8	-136	-2	2815	0.46	-4.37	0
18	SLU 9	-136	-2	2813	0.59	-4.38	0
18	SLU 10	-165	-6	3603	2.55	-4.79	0
18	SLU 11	-164	-6	3606	2.33	-4.78	0
18	SLU 12	-165	-6	3604	2.46	-4.78	0
18	SLU 13	-165	-6	3603	2.55	-4.79	0
18	SLU 14	-164	-6	3606	2.33	-4.78	0
18	SLU 15	-165	-6	3604	2.46	-4.78	0
18	SLU 16	-164	-6	3606	2.33	-4.78	0
18	SLU 17	-165	-6	3604	2.46	-4.78	0
18	SLU 18	-177	-8	3945	3.13	-4.95	0
18	SLU 19	-177	-8	3944	3.26	-4.96	0
18	SLU 20	-177	-8	3945	3.13	-4.95	0
18	SLU 21	-177	-8	3944	3.26	-4.96	0
18	SLU 22	-159	-3	3206	1.05	-4.93	0
18	SLU 23	-160	-3	3203	1.27	-4.94	0
18	SLU 24	-159	-3	3206	1.05	-4.93	0
18	SLU 25	-159	-3	3204	1.18	-4.94	0
18	SLU 26	-160	-3	3203	1.27	-4.94	0
18	SLU 27	-159	-3	3206	1.05	-4.93	0
18	SLU 28	-159	-3	3204	1.18	-4.94	0
18	SLU 29	-159	-3	3206	1.05	-4.93	0
18	SLU 30	-159	-3	3204	1.18	-4.94	0
18	SLU 31	-189	-8	3994	3.14	-5.35	0
18	SLU 32	-188	-7	3997	2.93	-5.34	0
18	SLU 33	-188	-8	3995	3.06	-5.34	0
18	SLU 34	-189	-8	3994	3.14	-5.35	0
18	SLU 35	-188	-7	3997	2.93	-5.34	0
18	SLU 36	-188	-8	3995	3.06	-5.34	0
18	SLU 37	-188	-7	3997	2.93	-5.34	0
18	SLU 38	-188	-8	3995	3.06	-5.34	0
18	SLU 39	-200	-9	4336	3.73	-5.51	0
18	SLU 40	-201	-9	4334	3.86	-5.52	0
18	SLU 41	-200	-9	4336	3.73	-5.51	0
18	SLU 42	-201	-9	4334	3.86	-5.52	0
18	SLU 43	-168	-2	3526	0.39	-5.49	0
18	SLU 44	-169	-2	3523	0.61	-5.5	0
18	SLU 45	-168	-2	3526	0.39	-5.49	0
18	SLU 46	-169	-2	3524	0.52	-5.49	0
18	SLU 47	-169	-2	3523	0.61	-5.5	0
18	SLU 48	-168	-2	3526	0.39	-5.49	0
18	SLU 49	-169	-2	3524	0.52	-5.49	0
18	SLU 50	-168	-2	3526	0.39	-5.49	0
18	SLU 51	-169	-2	3524	0.52	-5.49	0
18	SLU 52	-198	-6	4314	2.48	-5.9	0
18	SLU 53	-197	-6	4317	2.26	-5.9	0
18	SLU 54	-197	-6	4315	2.39	-5.9	0
18	SLU 55	-198	-6	4314	2.48	-5.9	0
18	SLU 56	-197	-6	4317	2.26	-5.9	0
18	SLU 57	-197	-6	4315	2.39	-5.9	0
18	SLU 58	-197	-6	4317	2.26	-5.9	0
18	SLU 59	-197	-6	4315	2.39	-5.9	0
18	SLU 60	-209	-8	4656	3.06	-6.07	0
18	SLU 61	-210	-8	4654	3.19	-6.08	0
18	SLU 62	-209	-8	4656	3.06	-6.07	0
18	SLU 63	-210	-8	4654	3.19	-6.08	0
18	SLU 64	-192	-3	3917	0.99	-6.05	0
18	SLU 65	-192	-3	3913	1.2	-6.06	0
18	SLU 66	-192	-3	3917	0.99	-6.05	0
18	SLU 67	-192	-3	3915	1.12	-6.06	0
18	SLU 68	-192	-3	3913	1.2	-6.06	0
18	SLU 69	-192	-3	3917	0.99	-6.05	0
18	SLU 70	-192	-3	3915	1.12	-6.06	0
18	SLU 71	-192	-3	3917	0.99	-6.05	0
18	SLU 72	-192	-3	3915	1.12	-6.06	0
18	SLU 73	-221	-8	4705	3.08	-6.47	0
18	SLU 74	-220	-7	4708	2.86	-6.46	0
18	SLU 75	-221	-8	4706	2.99	-6.46	0
18	SLU 76	-221	-8	4705	3.08	-6.47	0
18	SLU 77	-220	-7	4708	2.86	-6.46	0
18	SLU 78	-221	-8	4706	2.99	-6.46	0
18	SLU 79	-220	-7	4708	2.86	-6.46	0
18	SLU 80	-221	-8	4706	2.99	-6.46	0
18	SLU 81	-233	-9	5047	3.66	-6.63	0
18	SLU 82	-233	-9	5045	3.79	-6.64	0
18	SLU 83	-233	-9	5047	3.66	-6.63	0
18	SLU 84	-233	-9	5045	3.79	-6.64	0
18	SLE RA 1	-142	-2	2927	0.63	-4.53	0
18	SLE RA 2	-143	-2	2925	0.77	-4.54	0
18	SLE RA 3	-142	-2	2927	0.63	-4.53	0
18	SLE RA 4	-143	-2	2926	0.71	-4.53	0
18	SLE RA 5	-143	-2	2925	0.77	-4.54	0
18	SLE RA 6	-142	-2	2927	0.63	-4.53	0
18	SLE RA 7	-143	-2	2926	0.71	-4.53	0
18	SLE RA 8	-142	-2	2927	0.63	-4.53	0
18	SLE RA 9	-143	-2	2926	0.71	-4.53	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
18	SLE RA 10	-162	-5	3452	2.02	-4.81	0
18	SLE RA 11	-161	-5	3454		-4.8	0
18	SLE RA 12	-162	-5	3453	1.96	-4.81	0
18	SLE RA 13	-162	-5	3452	2.02	-4.81	0
18	SLE RA 14	-161	-5	3454	1.88	-4.8	0
18	SLE RA 15	-162	-5	3453	1.96	-4.81	0
18	SLE RA 16	-161	-5	3454	1.88	-4.8	0
18	SLE RA 17	-162	-5	3453	1.96	-4.81	0
18	SLE RA 18	-170	-6	3680	2.41	-4.92	0
18	SLE RA 19	-170	-6	3679	2.5	-4.92	0
18	SLE RA 20	-170	-6	3680	2.41	-4.92	0
18	SLE RA 21	-170	-6	3679	2.5	-4.92	0
18	SLE FR 1	-142	-2	2927	0.63	-4.53	0
18	SLE FR 2	-142	-2	2926	0.66	-4.53	0
18	SLE FR 3	-142	-2	2927	0.63	-4.53	0
18	SLE FR 4	-151	-3	3152	1.19	-4.65	0
18	SLE FR 5	-150	-3	3153	1.16	-4.65	0
18	SLE FR 6	-156	-4	3304	1.52	-4.72	0
18	SLE QP 1	-142	-2	2927	0.63	-4.53	0
18	SLE QP 2	-150	-3	3153	1.16	-4.65	0
18	SLD 1	-67	-2	3196	0.66	-7.7	0.01
18	SLD 2	-67	-2	3196	0.66	-7.7	0.01
18	SLD 3	-46	11	3183	-2.71	-8.42	0.01
18	SLD 4	-46	11	3183	-2.71	-8.42	0.01
18	SLD 5	-157	-24	3186	6.12	-4.46	0
18	SLD 6	-157	-24	3186	6.12	-4.46	0
18	SLD 7	-87	22	3142	-5.11	-6.89	0
18	SLD 8	-87	22	3142	-5.11	-6.89	0
18	SLD 9	-214	-28	3164	7.43	-2.41	-0.01
18	SLD 10	-214	-28	3164	7.43	-2.41	-0.01
18	SLD 11	-144	17	3120	-3.79	-4.84	0
18	SLD 12	-144	17	3120	-3.79	-4.84	0
18	SLD 13	-255	-18	3123	5.04	-0.87	-0.01
18	SLD 14	-255	-18	3123	5.04	-0.87	-0.01
18	SLD 15	-234	-4	3110	1.67	-1.6	-0.01
18	SLD 16	-234	-4	3110	1.67	-1.6	-0.01
18	SLV 1	48	-1	3258	-0.2	-11.86	0.02
18	SLV 2	48	-1	3258	-0.2	-11.86	0.02
18	SLV 3	97	35	3224	-9.04	-13.57	0.03
18	SLV 4	97	35	3224	-9.04	-13.57	0.03
18	SLV 5	-166	-56	3235	14.15	-4.22	0
18	SLV 6	-166	-56	3235	14.15	-4.22	0
18	SLV 7	-2	62	3124	-15.29	-9.92	0.01
18	SLV 8	-2	62	3124	-15.29	-9.92	0.01
18	SLV 9	-299	-68	3182	17.62	0.62	-0.02
18	SLV 10	-299	-68	3182	17.62	0.62	-0.02
18	SLV 11	-135	50	3071	-11.82	-5.08	0
18	SLV 12	-135	50	3071	-11.82	-5.08	0
18	SLV 13	-398	-41	3081	11.36	4.28	-0.03
18	SLV 14	-398	-41	3081	11.36	4.28	-0.03
18	SLV 15	-349	-6	3048	2.53	2.57	-0.03
18	SLV 16	-349	-6	3048	2.53	2.57	-0.03
19	SLU 1	-193	-2	2046	0.63	-6.99	0
19	SLU 2	-194	-2	2043	0.83	-7.04	0
19	SLU 3	-193	-2	2046	0.63	-6.99	0
19	SLU 4	-194	-2	2044	0.75	-7.02	0
19	SLU 5	-194	-2	2043	0.83	-7.04	0
19	SLU 6	-193	-2	2046	0.63	-6.99	0
19	SLU 7	-194	-2	2044	0.75	-7.02	0
19	SLU 8	-193	-2	2046	0.63	-6.99	0
19	SLU 9	-194	-2	2044	0.75	-7.02	0
19	SLU 10	-292	-6	2577	2.94	-10.81	0
19	SLU 11	-291	-6	2580	2.74	-10.76	0
19	SLU 12	-291	-6	2578	2.86	-10.79	0
19	SLU 13	-292	-6	2577	2.94	-10.81	0
19	SLU 14	-291	-6	2580	2.74	-10.76	0
19	SLU 15	-291	-6	2578	2.86	-10.79	0
19	SLU 16	-291	-6	2580	2.74	-10.76	0
19	SLU 17	-291	-6	2578	2.86	-10.79	0
19	SLU 18	-333	-8	2809	3.64	-12.37	0
19	SLU 19	-333	-8	2807	3.76	-12.41	0
19	SLU 20	-333	-8	2809	3.64	-12.37	0
19	SLU 21	-333	-8	2807	3.76	-12.41	0
19	SLU 22	-243	-3	2284	1.33	-8.85	0
19	SLU 23	-244	-4	2280	1.53	-8.9	0
19	SLU 24	-243	-3	2284	1.33	-8.85	0
19	SLU 25	-243	-3	2282	1.45	-8.88	0
19	SLU 26	-244	-4	2280	1.53	-8.9	0
19	SLU 27	-243	-3	2284	1.33	-8.85	0
19	SLU 28	-243	-3	2282	1.45	-8.88	0
19	SLU 29	-243	-3	2284	1.33	-8.85	0
19	SLU 30	-243	-3	2282	1.45	-8.88	0
19	SLU 31	-341	-8	2815	3.65	-12.67	0
19	SLU 32	-341	-7	2818	3.45	-12.62	0
19	SLU 33	-341	-8	2816	3.57	-12.65	0
19	SLU 34	-341	-8	2815	3.65	-12.67	0
19	SLU 35	-341	-7	2818	3.45	-12.62	0
19	SLU 36	-341	-8	2816	3.57	-12.65	0
19	SLU 37	-341	-7	2818	3.45	-12.62	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
19	SLU 38	-341	-8	2816	3.57	-12.65	0
19	SLU 39	-382	-9	3047	4.35	-14.23	0
19	SLU 40	-383	-9	3045	4.47	-14.26	0
19	SLU 41	-382	-9	3047	4.35	-14.23	0
19	SLU 42	-383	-9	3045	4.47	-14.26	0
19	SLU 43	-234	-2	2579	0.57	-8.45	0
19	SLU 44	-235	-2	2575	0.77	-8.5	0
19	SLU 45	-234	-2	2579	0.57	-8.45	0
19	SLU 46	-235	-2	2577	0.69	-8.48	0
19	SLU 47	-235	-2	2575	0.77	-8.5	0
19	SLU 48	-234	-2	2579	0.57	-8.45	0
19	SLU 49	-235	-2	2577	0.69	-8.48	0
19	SLU 50	-234	-2	2579	0.57	-8.45	0
19	SLU 51	-235	-2	2577	0.69	-8.48	0
19	SLU 52	-332	-6	3110	2.88	-12.27	0
19	SLU 53	-332	-6	3113	2.68	-12.22	0
19	SLU 54	-332	-6	3111	2.8	-12.25	0
19	SLU 55	-332	-6	3110	2.88	-12.27	0
19	SLU 56	-332	-6	3113	2.68	-12.22	0
19	SLU 57	-332	-6	3111	2.8	-12.25	0
19	SLU 58	-332	-6	3113	2.68	-12.22	0
19	SLU 59	-332	-6	3111	2.8	-12.25	0
19	SLU 60	-374	-8	3342	3.59	-13.83	0
19	SLU 61	-374	-8	3340	3.71	-13.87	0
19	SLU 62	-374	-8	3342	3.59	-13.83	0
19	SLU 63	-374	-8	3340	3.71	-13.87	0
19	SLU 64	-284	-3	2816	1.28	-10.31	0
19	SLU 65	-285	-4	2813	1.48	-10.36	0
19	SLU 66	-284	-3	2816	1.28	-10.31	0
19	SLU 67	-284	-3	2814	1.4	-10.34	0
19	SLU 68	-285	-4	2813	1.48	-10.36	0
19	SLU 69	-284	-3	2816	1.28	-10.31	0
19	SLU 70	-284	-3	2814	1.4	-10.34	0
19	SLU 71	-284	-3	2816	1.28	-10.31	0
19	SLU 72	-284	-3	2814	1.4	-10.34	0
19	SLU 73	-382	-8	3347	3.59	-14.13	0
19	SLU 74	-381	-7	3350	3.39	-14.07	0
19	SLU 75	-382	-8	3348	3.51	-14.11	0
19	SLU 76	-382	-8	3347	3.59	-14.13	0
19	SLU 77	-381	-7	3350	3.39	-14.07	0
19	SLU 78	-382	-8	3348	3.51	-14.11	0
19	SLU 79	-381	-7	3350	3.39	-14.07	0
19	SLU 80	-382	-8	3348	3.51	-14.11	0
19	SLU 81	-423	-9	3579	4.3	-15.69	0
19	SLU 82	-424	-9	3577	4.42	-15.72	0
19	SLU 83	-423	-9	3579	4.3	-15.69	0
19	SLU 84	-424	-9	3577	4.42	-15.72	0
19	SLE RA 1	-207	-2	2114	0.83	-7.52	0
19	SLE RA 2	-208	-2	2112	0.96	-7.56	0
19	SLE RA 3	-207	-2	2114	0.83	-7.52	0
19	SLE RA 4	-208	-2	2113	0.91	-7.54	0
19	SLE RA 5	-208	-2	2112	0.96	-7.56	0
19	SLE RA 6	-207	-2	2114	0.83	-7.52	0
19	SLE RA 7	-208	-2	2113	0.91	-7.54	0
19	SLE RA 8	-207	-2	2114	0.83	-7.52	0
19	SLE RA 9	-208	-2	2113	0.91	-7.54	0
19	SLE RA 10	-273	-5	2468	2.37	-10.07	0
19	SLE RA 11	-273	-5	2470	2.24	-10.03	0
19	SLE RA 12	-273	-5	2469	2.32	-10.05	0
19	SLE RA 13	-273	-5	2468	2.37	-10.07	0
19	SLE RA 14	-273	-5	2470	2.24	-10.03	0
19	SLE RA 15	-273	-5	2469	2.32	-10.05	0
19	SLE RA 16	-273	-5	2470	2.24	-10.03	0
19	SLE RA 17	-273	-5	2469	2.32	-10.05	0
19	SLE RA 18	-300	-6	2623	2.84	-11.11	0
19	SLE RA 19	-301	-6	2622	2.92	-11.13	0
19	SLE RA 20	-300	-6	2623	2.84	-11.11	0
19	SLE RA 21	-301	-6	2622	2.92	-11.13	0
19	SLE FR 1	-207	-2	2114	0.83	-7.52	0
19	SLE FR 2	-208	-2	2114	0.85	-7.53	0
19	SLE FR 3	-207	-2	2114	0.83	-7.52	0
19	SLE FR 4	-235	-3	2266	1.46	-8.6	0
19	SLE FR 5	-235	-3	2267	1.43	-8.6	0
19	SLE FR 6	-254	-4	2368	1.83	-9.31	0
19	SLE QP 1	-207	-2	2114	0.83	-7.52	0
19	SLE QP 2	-235	-3	2267	1.43	-8.6	0
19	SLD 1	-149	-2	2302	0.52	-5.23	0
19	SLD 2	-149	-2	2302	0.52	-5.23	0
19	SLD 3	-126	13	2312	-5.16	-4.24	0
19	SLD 4	-126	13	2312	-5.16	-4.24	0
19	SLD 5	-244	-25	2261	9.78	-9.1	0
19	SLD 6	-244	-25	2261	9.78	-9.1	0
19	SLD 7	-168	24	2296	-9.16	-5.78	-0.01
19	SLD 8	-168	24	2296	-9.16	-5.78	-0.01
19	SLD 9	-303	-30	2237	12.03	-11.41	0.01
19	SLD 10	-303	-30	2237	12.03	-11.41	0.01
19	SLD 11	-226	19	2272	-6.91	-8.1	0
19	SLD 12	-226	19	2272	-6.91	-8.1	0
19	SLD 13	-345	-19	2221	8.02	-12.95	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
19	SLD 14	-345	-19	2221	8.02	-12.95	0
19	SLD 15	-321	-5	2232	2.34	-11.96	0
19	SLD 16	-321	-5	2232	2.34	-11.96	0
19	SLV 1	-28	0	2351	-0.97	-0.35	0
19	SLV 2	-28	0	2351	-0.97	-0.35	0
19	SLV 3	26	38	2377	-15.71	2.08	-0.01
19	SLV 4	26	38	2377	-15.71	2.08	-0.01
19	SLV 5	-256	-60	2253	23.07	-9.81	0.01
19	SLV 6	-256	-60	2253	23.07	-9.81	0.01
19	SLV 7	-74	67	2339	-26.07	-1.71	-0.01
19	SLV 8	-74	67	2339	-26.07	-1.71	-0.01
19	SLV 9	-397	-73	2194	28.94	-15.48	0.01
19	SLV 10	-397	-73	2194	28.94	-15.48	0.01
19	SLV 11	-214	53	2281	-20.21	-7.39	-0.01
19	SLV 12	-214	53	2281	-20.21	-7.39	-0.01
19	SLV 13	-497	-45	2156	18.58	-19.27	0.01
19	SLV 14	-497	-45	2156	18.58	-19.27	0.01
19	SLV 15	-442	-7	2182	3.83	-16.84	0
19	SLV 16	-442	-7	2182	3.83	-16.84	0
20	SLU 1	-220	-2	1968	0.63	-7.21	0
20	SLU 2	-219	-2	1966	0.81	-7.15	0
20	SLU 3	-220	-2	1968	0.63	-7.21	0
20	SLU 4	-219	-2	1967	0.74	-7.17	0
20	SLU 5	-219	-2	1966	0.81	-7.15	0
20	SLU 6	-220	-2	1968	0.63	-7.21	0
20	SLU 7	-219	-2	1967	0.74	-7.17	0
20	SLU 8	-220	-2	1968	0.63	-7.21	0
20	SLU 9	-219	-2	1967	0.74	-7.17	0
20	SLU 10	-335	-6	2411	2.83	-10.32	0
20	SLU 11	-336	-5	2413	2.65	-10.37	0
20	SLU 12	-335	-6	2412	2.76	-10.34	0
20	SLU 13	-335	-6	2411	2.83	-10.32	0
20	SLU 14	-336	-5	2413	2.65	-10.37	0
20	SLU 15	-335	-6	2412	2.76	-10.34	0
20	SLU 16	-336	-5	2413	2.65	-10.37	0
20	SLU 17	-335	-6	2412	2.76	-10.34	0
20	SLU 18	-385	-7	2604	3.51	-11.73	0
20	SLU 19	-385	-7	2603	3.62	-11.7	0
20	SLU 20	-385	-7	2604	3.51	-11.73	0
20	SLU 21	-385	-7	2603	3.62	-11.7	0
20	SLU 22	-275	-3	2163	1.34	-8.77	0
20	SLU 23	-274	-3	2161	1.51	-8.71	0
20	SLU 24	-275	-3	2163	1.34	-8.77	0
20	SLU 25	-274	-3	2162	1.44	-8.73	0
20	SLU 26	-274	-3	2161	1.51	-8.71	0
20	SLU 27	-275	-3	2163	1.34	-8.77	0
20	SLU 28	-274	-3	2162	1.44	-8.73	0
20	SLU 29	-275	-3	2163	1.34	-8.77	0
20	SLU 30	-274	-3	2162	1.44	-8.73	0
20	SLU 31	-390	-7	2606	3.53	-11.88	0
20	SLU 32	-391	-7	2608	3.35	-11.93	0
20	SLU 33	-390	-7	2607	3.46	-11.9	0
20	SLU 34	-390	-7	2606	3.53	-11.88	0
20	SLU 35	-391	-7	2608	3.35	-11.93	0
20	SLU 36	-390	-7	2607	3.46	-11.9	0
20	SLU 37	-391	-7	2608	3.35	-11.93	0
20	SLU 38	-390	-7	2607	3.46	-11.9	0
20	SLU 39	-440	-8	2799	4.22	-13.29	0
20	SLU 40	-440	-9	2798	4.32	-13.26	0
20	SLU 41	-440	-8	2799	4.22	-13.29	0
20	SLU 42	-440	-9	2798	4.32	-13.26	0
20	SLU 43	-267	-2	2491	0.58	-8.83	0
20	SLU 44	-266	-2	2490	0.76	-8.78	0
20	SLU 45	-267	-2	2491	0.58	-8.83	0
20	SLU 46	-266	-2	2490	0.69	-8.8	0
20	SLU 47	-266	-2	2490	0.76	-8.78	0
20	SLU 48	-267	-2	2491	0.58	-8.83	0
20	SLU 49	-266	-2	2490	0.69	-8.8	0
20	SLU 50	-267	-2	2491	0.58	-8.83	0
20	SLU 51	-266	-2	2490	0.69	-8.8	0
20	SLU 52	-382	-6	2935	2.78	-11.95	0
20	SLU 53	-383	-5	2936	2.6	-12	0
20	SLU 54	-382	-6	2936	2.7	-11.97	0
20	SLU 55	-382	-6	2935	2.78	-11.95	0
20	SLU 56	-383	-5	2936	2.6	-12	0
20	SLU 57	-382	-6	2936	2.7	-11.97	0
20	SLU 58	-383	-5	2936	2.6	-12	0
20	SLU 59	-382	-6	2936	2.7	-11.97	0
20	SLU 60	-432	-7	3127	3.46	-13.36	0
20	SLU 61	-432	-7	3126	3.57	-13.33	0
20	SLU 62	-432	-7	3127	3.46	-13.36	0
20	SLU 63	-432	-7	3126	3.57	-13.33	0
20	SLU 64	-322	-3	2686	1.28	-10.39	0
20	SLU 65	-321	-3	2685	1.46	-10.34	0
20	SLU 66	-322	-3	2686	1.28	-10.39	0
20	SLU 67	-321	-3	2685	1.39	-10.36	0
20	SLU 68	-321	-3	2685	1.46	-10.34	0
20	SLU 69	-322	-3	2686	1.28	-10.39	0
20	SLU 70	-321	-3	2685	1.39	-10.36	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
20	SLU 71	-322	-3	2686	1.28	-10.39	0
20	SLU 72	-321	-3	2685	1.39	-10.36	0
20	SLU 73	-437	-7	3130	3.48	-13.51	0
20	SLU 74	-438	-7	3131	3.3	-13.56	0
20	SLU 75	-437	-7	3130	3.41	-13.53	0
20	SLU 76	-437	-7	3130	3.48	-13.51	0
20	SLU 77	-438	-7	3131	3.3	-13.56	0
20	SLU 78	-437	-7	3130	3.41	-13.53	0
20	SLU 79	-438	-7	3131	3.3	-13.56	0
20	SLU 80	-437	-7	3130	3.41	-13.53	0
20	SLU 81	-487	-8	3322	4.16	-14.92	0
20	SLU 82	-487	-9	3321	4.27	-14.89	0
20	SLU 83	-487	-8	3322	4.16	-14.92	0
20	SLU 84	-487	-9	3321	4.27	-14.89	0
20	SLE RA 1	-236	-2	2023	0.83	-7.65	0
20	SLE RA 2	-235	-2	2022	0.95	-7.62	0
20	SLE RA 3	-236	-2	2023	0.83	-7.65	0
20	SLE RA 4	-235	-2	2023	0.91	-7.63	0
20	SLE RA 5	-235	-2	2022	0.95	-7.62	0
20	SLE RA 6	-236	-2	2023	0.83	-7.65	0
20	SLE RA 7	-235	-2	2023	0.91	-7.63	0
20	SLE RA 8	-236	-2	2023	0.83	-7.65	0
20	SLE RA 9	-235	-2	2023	0.91	-7.63	0
20	SLE RA 10	-312	-5	2319	2.3	-9.73	0
20	SLE RA 11	-313	-4	2320	2.18	-9.76	0
20	SLE RA 12	-312	-5	2320	2.25	-9.74	0
20	SLE RA 13	-312	-5	2319	2.3	-9.73	0
20	SLE RA 14	-313	-4	2320	2.18	-9.76	0
20	SLE RA 15	-312	-5	2320	2.25	-9.74	0
20	SLE RA 16	-313	-4	2320	2.18	-9.76	0
20	SLE RA 17	-312	-5	2320	2.25	-9.74	0
20	SLE RA 18	-346	-6	2447	2.75	-10.67	0
20	SLE RA 19	-345	-6	2447	2.83	-10.65	0
20	SLE RA 20	-346	-6	2447	2.75	-10.67	0
20	SLE RA 21	-345	-6	2447	2.83	-10.65	0
20	SLE FR 1	-236	-2	2023	0.83	-7.65	0
20	SLE FR 2	-235	-2	2023	0.86	-7.65	0
20	SLE FR 3	-236	-2	2023	0.83	-7.65	0
20	SLE FR 4	-268	-3	2150	1.43	-8.55	0
20	SLE FR 5	-269	-3	2151	1.41	-8.56	0
20	SLE FR 6	-291	-4	2235	1.79	-9.16	0
20	SLE QP 1	-236	-2	2023	0.83	-7.65	0
20	SLE QP 2	-269	-3	2151	1.41	-8.56	0
20	SLD 1	-167	-1	2220	-0.07	-11.48	0
20	SLD 2	-167	-1	2220	-0.07	-11.48	0
20	SLD 3	-188	12	2206	-6.22	-12.2	-0.01
20	SLD 4	-188	12	2206	-6.22	-12.2	-0.01
20	SLD 5	-208	-22	2192	10.3	-8.34	0.01
20	SLD 6	-208	-22	2192	10.3	-8.34	0.01
20	SLD 7	-275	21	2146	-10.21	-10.74	-0.01
20	SLD 8	-275	21	2146	-10.21	-10.74	-0.01
20	SLD 9	-262	-27	2155	13.03	-6.37	0.01
20	SLD 10	-262	-27	2155	13.03	-6.37	0.01
20	SLD 11	-330	16	2109	-7.48	-8.77	-0.01
20	SLD 12	-330	16	2109	-7.48	-8.77	-0.01
20	SLD 13	-350	-18	2095	9.04	-4.91	0.01
20	SLD 14	-350	-18	2095	9.04	-4.91	0.01
20	SLD 15	-370	-5	2081	2.89	-5.63	0
20	SLD 16	-370	-5	2081	2.89	-5.63	0
20	SLV 1	-30	3	2322	-2.41	-15.52	0
20	SLV 2	-30	3	2322	-2.41	-15.52	0
20	SLV 3	-77	36	2288	-18.3	-17.22	-0.02
20	SLV 4	-77	36	2288	-18.3	-17.22	-0.02
20	SLV 5	-126	-51	2253	24.38	-8.07	0.02
20	SLV 6	-126	-51	2253	24.38	-8.07	0.02
20	SLV 7	-282	58	2141	-28.62	-13.73	-0.02
20	SLV 8	-282	58	2141	-28.62	-13.73	-0.02
20	SLV 9	-255	-65	2160	31.44	-3.38	0.02
20	SLV 10	-255	-65	2160	31.44	-3.38	0.02
20	SLV 11	-412	45	2049	-21.56	-9.05	-0.02
20	SLV 12	-412	45	2049	-21.56	-9.05	-0.02
20	SLV 13	-461	-42	2013	21.12	0.11	0.02
20	SLV 14	-461	-42	2013	21.12	0.11	0.02
20	SLV 15	-508	-9	1980	5.23	-1.59	0
20	SLV 16	-508	-9	1980	5.23	-1.59	0
21	SLU 1	-259	-1	1898	0.46	-9.46	0
21	SLU 2	-259	-2	1899	0.6	-9.46	0
21	SLU 3	-259	-1	1898	0.46	-9.46	0
21	SLU 4	-259	-2	1898	0.55	-9.46	0
21	SLU 5	-259	-2	1899	0.6	-9.46	0
21	SLU 6	-259	-1	1898	0.46	-9.46	0
21	SLU 7	-259	-2	1898	0.55	-9.46	0
21	SLU 8	-259	-1	1898	0.46	-9.46	0
21	SLU 9	-259	-2	1898	0.55	-9.46	0
21	SLU 10	-399	-5	2246	2.23	-14.75	0
21	SLU 11	-400	-4	2245	2.09	-14.75	0
21	SLU 12	-400	-4	2246	2.18	-14.75	0
21	SLU 13	-399	-5	2246	2.23	-14.75	0
21	SLU 14	-400	-4	2245	2.09	-14.75	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
21	SLU 15	-400	-4	2246	2.18	-14.75	0
21	SLU 16	-400	-4	2245	2.09	-14.75	0
21	SLU 17	-400	-4	2246	2.18	-14.75	0
21	SLU 18	-461	-5	2394	2.79	-17.01	0
21	SLU 19	-460	-6	2394	2.87	-17.02	0
21	SLU 20	-461	-5	2394	2.79	-17.01	0
21	SLU 21	-460	-6	2394	2.87	-17.02	0
21	SLU 22	-322	-2	2049	1.05	-11.79	0
21	SLU 23	-321	-3	2050	1.19	-11.79	0
21	SLU 24	-322	-2	2049	1.05	-11.79	0
21	SLU 25	-322	-3	2049	1.13	-11.79	0
21	SLU 26	-321	-3	2050	1.19	-11.79	0
21	SLU 27	-322	-2	2049	1.05	-11.79	0
21	SLU 28	-322	-3	2049	1.13	-11.79	0
21	SLU 29	-322	-2	2049	1.05	-11.79	0
21	SLU 30	-322	-3	2049	1.13	-11.79	0
21	SLU 31	-462	-6	2397	2.82	-17.08	0
21	SLU 32	-463	-5	2396	2.68	-17.07	0
21	SLU 33	-462	-5	2397	2.76	-17.08	0
21	SLU 34	-462	-6	2397	2.82	-17.08	0
21	SLU 35	-463	-5	2396	2.68	-17.07	0
21	SLU 36	-462	-5	2397	2.76	-17.08	0
21	SLU 37	-463	-5	2396	2.68	-17.07	0
21	SLU 38	-462	-5	2397	2.76	-17.08	0
21	SLU 39	-523	-6	2545	3.38	-19.34	0
21	SLU 40	-523	-7	2546	3.46	-19.34	0
21	SLU 41	-523	-6	2545	3.38	-19.34	0
21	SLU 42	-523	-7	2546	3.46	-19.34	0
21	SLU 43	-316	-1	2415	0.4	-11.5	0
21	SLU 44	-315	-2	2416	0.54	-11.5	0
21	SLU 45	-316	-1	2415	0.4	-11.5	0
21	SLU 46	-315	-2	2416	0.48	-11.5	0
21	SLU 47	-315	-2	2416	0.54	-11.5	0
21	SLU 48	-316	-1	2415	0.4	-11.5	0
21	SLU 49	-315	-2	2416	0.48	-11.5	0
21	SLU 50	-316	-1	2415	0.4	-11.5	0
21	SLU 51	-315	-2	2416	0.48	-11.5	0
21	SLU 52	-456	-5	2763	2.17	-16.79	0
21	SLU 53	-457	-4	2762	2.03	-16.78	0
21	SLU 54	-456	-4	2763	2.11	-16.79	0
21	SLU 55	-456	-5	2763	2.17	-16.79	0
21	SLU 56	-457	-4	2762	2.03	-16.78	0
21	SLU 57	-456	-4	2763	2.11	-16.79	0
21	SLU 58	-457	-4	2762	2.03	-16.78	0
21	SLU 59	-456	-4	2763	2.11	-16.79	0
21	SLU 60	-517	-5	2911	2.73	-19.05	0
21	SLU 61	-516	-6	2912	2.81	-19.05	0
21	SLU 62	-517	-5	2911	2.73	-19.05	0
21	SLU 63	-516	-6	2912	2.81	-19.05	0
21	SLU 64	-379	-2	2566	0.98	-13.82	0
21	SLU 65	-378	-3	2567	1.13	-13.83	0
21	SLU 66	-379	-2	2566	0.98	-13.82	0
21	SLU 67	-378	-3	2567	1.07	-13.83	0
21	SLU 68	-378	-3	2567	1.13	-13.83	0
21	SLU 69	-379	-2	2566	0.98	-13.82	0
21	SLU 70	-378	-3	2567	1.07	-13.83	0
21	SLU 71	-379	-2	2566	0.98	-13.82	0
21	SLU 72	-378	-3	2567	1.07	-13.83	0
21	SLU 73	-518	-6	2915	2.76	-19.12	0
21	SLU 74	-519	-5	2913	2.61	-19.11	0
21	SLU 75	-519	-5	2914	2.7	-19.12	0
21	SLU 76	-518	-6	2915	2.76	-19.12	0
21	SLU 77	-519	-5	2913	2.61	-19.11	0
21	SLU 78	-519	-5	2914	2.7	-19.12	0
21	SLU 79	-519	-5	2913	2.61	-19.11	0
21	SLU 80	-519	-5	2914	2.7	-19.12	0
21	SLU 81	-580	-6	3062	3.31	-21.38	0
21	SLU 82	-579	-7	3063	3.4	-21.38	0
21	SLU 83	-580	-6	3062	3.31	-21.38	0
21	SLU 84	-579	-7	3063	3.4	-21.38	0
21	SLE RA 1	-277	-2	1941	0.63	-10.12	0
21	SLE RA 2	-277	-2	1941	0.72	-10.13	0
21	SLE RA 3	-277	-2	1941	0.63	-10.12	0
21	SLE RA 4	-277	-2	1941	0.68	-10.13	0
21	SLE RA 5	-277	-2	1941	0.72	-10.13	0
21	SLE RA 6	-277	-2	1941	0.63	-10.12	0
21	SLE RA 7	-277	-2	1941	0.68	-10.13	0
21	SLE RA 8	-277	-2	1941	0.63	-10.12	0
21	SLE RA 9	-277	-2	1941	0.68	-10.13	0
21	SLE RA 10	-371	-4	2173	1.81	-13.65	0
21	SLE RA 11	-371	-3	2172	1.71	-13.65	0
21	SLE RA 12	-371	-4	2173	1.77	-13.65	0
21	SLE RA 13	-371	-4	2173	1.81	-13.65	0
21	SLE RA 14	-371	-3	2172	1.71	-13.65	0
21	SLE RA 15	-371	-4	2173	1.77	-13.65	0
21	SLE RA 16	-371	-3	2172	1.71	-13.65	0
21	SLE RA 17	-371	-4	2173	1.77	-13.65	0
21	SLE RA 18	-412	-4	2271	2.18	-15.16	0
21	SLE RA 19	-411	-4	2272	2.24	-15.16	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
21	SLE RA 20	-412	-4	2271	2.18	-15.16	0
21	SLE RA 21	-411	-4	2272	2.24	-15.16	0
21	SLE FR 1	-277	-2	1941	0.63	-10.12	0
21	SLE FR 2	-277	-2	1941	0.65	-10.12	0
21	SLE FR 3	-277	-2	1941	0.63	-10.12	0
21	SLE FR 4	-318	-2	2040	1.11	-11.63	0
21	SLE FR 5	-318	-2	2040	1.09	-11.63	0
21	SLE FR 6	-344	-3	2106	1.4	-12.64	0
21	SLE QP 1	-277	-2	1941	0.63	-10.12	0
21	SLE QP 2	-318	-2	2040	1.09	-11.63	0
21	SLD 1	-205	-15	2167	8.12	-6.94	0
21	SLD 2	-205	-15	2167	8.12	-6.94	0
21	SLD 3	-228	-6	2137	2.97	-7.95	-0.01
21	SLD 4	-228	-6	2137	2.97	-7.95	-0.01
21	SLD 5	-248	-20	2124	11.01	-8.69	0.01
21	SLD 6	-248	-20	2124	11.01	-8.69	0.01
21	SLD 7	-326	10	2024	-6.15	-12.06	-0.01
21	SLD 8	-326	10	2024	-6.15	-12.06	-0.01
21	SLD 9	-309	-15	2056	8.34	-11.2	0.01
21	SLD 10	-309	-15	2056	8.34	-11.2	0.01
21	SLD 11	-387	15	1956	-8.83	-14.58	-0.01
21	SLD 12	-387	15	1956	-8.83	-14.58	-0.01
21	SLD 13	-407	1	1943	-0.79	-15.32	0.01
21	SLD 14	-407	1	1943	-0.79	-15.32	0.01
21	SLD 15	-431	10	1913	-5.94	-16.33	0
21	SLD 16	-431	10	1913	-5.94	-16.33	0
21	SLV 1	-46	-34	2357	19.16	-0.01	0
21	SLV 2	-46	-34	2357	19.16	-0.01	0
21	SLV 3	-100	-11	2282	5.91	-2.45	-0.02
21	SLV 4	-100	-11	2282	5.91	-2.45	-0.02
21	SLV 5	-153	-47	2249	26.62	-4.44	0.02
21	SLV 6	-153	-47	2249	26.62	-4.44	0.02
21	SLV 7	-335	30	1999	-17.56	-12.59	-0.02
21	SLV 8	-335	30	1999	-17.56	-12.59	-0.02
21	SLV 9	-300	-35	2081	19.75	-10.68	0.02
21	SLV 10	-300	-35	2081	19.75	-10.68	0.02
21	SLV 11	-482	42	1831	-24.43	-18.83	-0.02
21	SLV 12	-482	42	1831	-24.43	-18.83	-0.02
21	SLV 13	-535	6	1798	-3.72	-20.81	0.02
21	SLV 14	-535	6	1798	-3.72	-20.81	0.02
21	SLV 15	-590	29	1723	-16.97	-23.26	0
21	SLV 16	-590	29	1723	-16.97	-23.26	0
22	SLU 1	-289	-1	1846	0.02	-9.82	-0.01
22	SLU 2	-288	-1	1850	0.1	-9.76	-0.01
22	SLU 3	-289	-1	1846	0.02	-9.82	-0.01
22	SLU 4	-288	-1	1849	0.07	-9.78	-0.01
22	SLU 5	-288	-1	1850	0.1	-9.76	-0.01
22	SLU 6	-289	-1	1846	0.02	-9.82	-0.01
22	SLU 7	-288	-1	1849	0.07	-9.78	-0.01
22	SLU 8	-289	-1	1846	0.02	-9.82	-0.01
22	SLU 9	-288	-1	1849	0.07	-9.78	-0.01
22	SLU 10	-407	-2	2112	1.12	-13.14	-0.01
22	SLU 11	-408	-2	2108	1.04	-13.21	-0.01
22	SLU 12	-407	-2	2110	1.09	-13.17	-0.01
22	SLU 13	-407	-2	2112	1.12	-13.14	-0.01
22	SLU 14	-408	-2	2108	1.04	-13.21	-0.01
22	SLU 15	-407	-2	2110	1.09	-13.17	-0.01
22	SLU 16	-408	-2	2108	1.04	-13.21	-0.01
22	SLU 17	-407	-2	2110	1.09	-13.17	-0.01
22	SLU 18	-459	-3	2220	1.48	-14.66	-0.01
22	SLU 19	-459	-3	2222	1.52	-14.62	-0.01
22	SLU 20	-459	-3	2220	1.48	-14.66	-0.01
22	SLU 21	-459	-3	2222	1.52	-14.62	-0.01
22	SLU 22	-342	-1	1961	0.4	-11.34	-0.01
22	SLU 23	-340	-1	1965	0.47	-11.27	-0.01
22	SLU 24	-342	-1	1961	0.4	-11.34	-0.01
22	SLU 25	-341	-1	1963	0.44	-11.3	-0.01
22	SLU 26	-340	-1	1965	0.47	-11.27	-0.01
22	SLU 27	-342	-1	1961	0.4	-11.34	-0.01
22	SLU 28	-341	-1	1963	0.44	-11.3	-0.01
22	SLU 29	-342	-1	1961	0.4	-11.34	-0.01
22	SLU 30	-341	-1	1963	0.44	-11.3	-0.01
22	SLU 31	-459	-3	2226	1.49	-14.66	-0.01
22	SLU 32	-461	-3	2222	1.42	-14.72	-0.01
22	SLU 33	-460	-3	2225	1.46	-14.68	-0.01
22	SLU 34	-459	-3	2226	1.49	-14.66	-0.01
22	SLU 35	-461	-3	2222	1.42	-14.72	-0.01
22	SLU 36	-460	-3	2225	1.46	-14.68	-0.01
22	SLU 37	-461	-3	2222	1.42	-14.72	-0.01
22	SLU 38	-460	-3	2225	1.46	-14.68	-0.01
22	SLU 39	-512	-4	2334	1.86	-16.17	-0.01
22	SLU 40	-511	-4	2337	1.9	-16.13	-0.01
22	SLU 41	-512	-4	2334	1.86	-16.17	-0.01
22	SLU 42	-511	-4	2337	1.9	-16.13	-0.01
22	SLU 43	-358	-1	2361	-0.1	-12.25	-0.01
22	SLU 44	-357	-1	2365	-0.03	-12.18	-0.01
22	SLU 45	-358	-1	2361	-0.1	-12.25	-0.01
22	SLU 46	-357	-1	2363	-0.06	-12.21	-0.01
22	SLU 47	-357	-1	2365	-0.03	-12.18	-0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
22	SLU 48	-358	-1	2361	-0.1	-12.25	-0.01
22	SLU 49	-357	-1	2363	-0.06	-12.21	-0.01
22	SLU 50	-358	-1	2361	-0.1	-12.25	-0.01
22	SLU 51	-357	-1	2363	-0.06	-12.21	-0.01
22	SLU 52	-476	-2	2627	0.99	-15.57	-0.01
22	SLU 53	-477	-2	2623	0.92	-15.63	-0.01
22	SLU 54	-476	-2	2625	0.96	-15.59	-0.01
22	SLU 55	-476	-2	2627	0.99	-15.57	-0.01
22	SLU 56	-477	-2	2623	0.92	-15.63	-0.01
22	SLU 57	-476	-2	2625	0.96	-15.59	-0.01
22	SLU 58	-477	-2	2623	0.92	-15.63	-0.01
22	SLU 59	-476	-2	2625	0.96	-15.59	-0.01
22	SLU 60	-528	-3	2735	1.36	-17.09	-0.01
22	SLU 61	-527	-3	2737	1.4	-17.05	-0.01
22	SLU 62	-528	-3	2735	1.36	-17.09	-0.01
22	SLU 63	-527	-3	2737	1.4	-17.05	-0.01
22	SLU 64	-411	-1	2475	0.28	-13.77	-0.01
22	SLU 65	-409	-1	2479	0.35	-13.7	-0.01
22	SLU 66	-411	-1	2475	0.28	-13.77	-0.01
22	SLU 67	-410	-1	2478	0.32	-13.73	-0.01
22	SLU 68	-409	-1	2479	0.35	-13.7	-0.01
22	SLU 69	-411	-1	2475	0.28	-13.77	-0.01
22	SLU 70	-410	-1	2478	0.32	-13.73	-0.01
22	SLU 71	-411	-1	2475	0.28	-13.77	-0.01
22	SLU 72	-410	-1	2478	0.32	-13.73	-0.01
22	SLU 73	-528	-3	2741	1.37	-17.08	-0.01
22	SLU 74	-530	-3	2737	1.3	-17.15	-0.01
22	SLU 75	-529	-3	2739	1.34	-17.11	-0.01
22	SLU 76	-528	-3	2741	1.37	-17.08	-0.01
22	SLU 77	-530	-3	2737	1.3	-17.15	-0.01
22	SLU 78	-529	-3	2739	1.34	-17.11	-0.01
22	SLU 79	-530	-3	2737	1.3	-17.15	-0.01
22	SLU 80	-529	-3	2739	1.34	-17.11	-0.01
22	SLU 81	-581	-3	2849	1.73	-18.6	-0.01
22	SLU 82	-580	-4	2851	1.78	-18.56	-0.01
22	SLU 83	-581	-3	2849	1.73	-18.6	-0.01
22	SLU 84	-580	-4	2851	1.78	-18.56	-0.01
22	SLE RA 1	-304	-1	1879	0.13	-10.26	-0.01
22	SLE RA 2	-303	-1	1882	0.18	-10.21	-0.01
22	SLE RA 3	-304	-1	1879	0.13	-10.26	-0.01
22	SLE RA 4	-304	-1	1881	0.16	-10.23	-0.01
22	SLE RA 5	-303	-1	1882	0.18	-10.21	-0.01
22	SLE RA 6	-304	-1	1879	0.13	-10.26	-0.01
22	SLE RA 7	-304	-1	1881	0.16	-10.23	-0.01
22	SLE RA 8	-304	-1	1879	0.13	-10.26	-0.01
22	SLE RA 9	-304	-1	1881	0.16	-10.23	-0.01
22	SLE RA 10	-383	-2	2056	0.86	-12.47	-0.01
22	SLE RA 11	-384	-2	2053	0.81	-12.51	-0.01
22	SLE RA 12	-383	-2	2055	0.84	-12.49	-0.01
22	SLE RA 13	-383	-2	2056	0.86	-12.47	-0.01
22	SLE RA 14	-384	-2	2053	0.81	-12.51	-0.01
22	SLE RA 15	-383	-2	2055	0.84	-12.49	-0.01
22	SLE RA 16	-384	-2	2053	0.81	-12.51	-0.01
22	SLE RA 17	-383	-2	2055	0.84	-12.49	-0.01
22	SLE RA 18	-418	-2	2128	1.1	-13.48	-0.01
22	SLE RA 19	-417	-2	2130	1.13	-13.45	-0.01
22	SLE RA 20	-418	-2	2128	1.1	-13.48	-0.01
22	SLE RA 21	-417	-2	2130	1.13	-13.45	-0.01
22	SLE FR 1	-304	-1	1879	0.13	-10.26	-0.01
22	SLE FR 2	-304	-1	1879	0.14	-10.25	-0.01
22	SLE FR 3	-304	-1	1879	0.13	-10.26	-0.01
22	SLE FR 4	-338	-1	1954	0.43	-11.21	-0.01
22	SLE FR 5	-338	-1	1954	0.42	-11.22	-0.01
22	SLE FR 6	-361	-2	2004	0.62	-11.87	-0.01
22	SLE QP 1	-304	-1	1879	0.13	-10.26	-0.01
22	SLE QP 2	-338	-1	1954	0.42	-11.22	-0.01
22	SLD 1	-233	-10	2175	5.62	-14.01	-0.01
22	SLD 2	-233	-10	2175	5.62	-14.01	-0.01
22	SLD 3	-256	-6	2117	2.3	-14.9	-0.02
22	SLD 4	-256	-6	2117	2.3	-14.9	-0.02
22	SLD 5	-270	-11	2107	7.03	-10.72	0
22	SLD 6	-270	-11	2107	7.03	-10.72	0
22	SLD 7	-350	4	1916	-4.07	-13.67	-0.02
22	SLD 8	-350	4	1916	-4.07	-13.67	-0.02
22	SLD 9	-327	-7	1992	4.91	-8.78	0
22	SLD 10	-327	-7	1992	4.91	-8.78	0
22	SLD 11	-406	8	1800	-6.19	-11.73	-0.02
22	SLD 12	-406	8	1800	-6.19	-11.73	-0.02
22	SLD 13	-420	3	1790	-1.45	-7.55	0
22	SLD 14	-420	3	1790	-1.45	-7.55	0
22	SLD 15	-444	8	1733	-4.78	-8.43	0
22	SLD 16	-444	8	1733	-4.78	-8.43	0
22	SLV 1	-86	-24	2506	13.74	-17.95	-0.01
22	SLV 2	-86	-24	2506	13.74	-17.95	-0.01
22	SLV 3	-143	-12	2361	5.2	-20.1	-0.03
22	SLV 4	-143	-12	2361	5.2	-20.1	-0.03
22	SLV 5	-177	-26	2339	17.36	-9.97	0.01
22	SLV 6	-177	-26	2339	17.36	-9.97	0.01
22	SLV 7	-365	13	1856	-11.09	-17.15	-0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
22	SLV 8	-365	13	1856	-11.09	-17.15	-0.04
22	SLV 9	-311	-15	2051	11.94	-5.29	0.02
22	SLV 10	-311	-15	2051	11.94	-5.29	0.02
22	SLV 11	-500	23	1569	-16.52	-12.47	-0.03
22	SLV 12	-500	23	1569	-16.52	-12.47	-0.03
22	SLV 13	-534	10	1546	-4.36	-2.34	0.01
22	SLV 14	-534	10	1546	-4.36	-2.34	0.01
22	SLV 15	-591	21	1402	-12.9	-4.5	0
22	SLV 16	-591	21	1402	-12.9	-4.5	0
23	SLU 1	-353	4	1896	-1.01	-14.04	0.02
23	SLU 2	-352	4	1903	-1.01	-14.04	0.02
23	SLU 3	-353	4	1896	-1.01	-14.04	0.02
23	SLU 4	-353	4	1900	-1.01	-14.04	0.02
23	SLU 5	-352	4	1903	-1.01	-14.04	0.02
23	SLU 6	-353	4	1896	-1.01	-14.04	0.02
23	SLU 7	-353	4	1900	-1.01	-14.04	0.02
23	SLU 8	-353	4	1896	-1.01	-14.04	0.02
23	SLU 9	-353	4	1900	-1.01	-14.04	0.02
23	SLU 10	-470	5	2122	-0.74	-18.85	0.03
23	SLU 11	-470	4	2116	-0.74	-18.85	0.03
23	SLU 12	-470	5	2120	-0.74	-18.85	0.03
23	SLU 13	-470	5	2122	-0.74	-18.85	0.03
23	SLU 14	-470	4	2116	-0.74	-18.85	0.03
23	SLU 15	-470	5	2120	-0.74	-18.85	0.03
23	SLU 16	-470	4	2116	-0.74	-18.85	0.03
23	SLU 17	-470	5	2120	-0.74	-18.85	0.03
23	SLU 18	-520	5	2210	-0.62	-20.91	0.03
23	SLU 19	-520	5	2214	-0.62	-20.91	0.03
23	SLU 20	-520	5	2210	-0.62	-20.91	0.03
23	SLU 21	-520	5	2214	-0.62	-20.91	0.03
23	SLU 22	-403	4	1993	-0.92	-16.09	0.02
23	SLU 23	-403	4	2000	-0.92	-16.09	0.02
23	SLU 24	-403	4	1993	-0.92	-16.09	0.02
23	SLU 25	-403	4	1997	-0.92	-16.09	0.02
23	SLU 26	-403	4	2000	-0.92	-16.09	0.02
23	SLU 27	-403	4	1993	-0.92	-16.09	0.02
23	SLU 28	-403	4	1997	-0.92	-16.09	0.02
23	SLU 29	-403	4	1993	-0.92	-16.09	0.02
23	SLU 30	-403	4	1997	-0.92	-16.09	0.02
23	SLU 31	-520	5	2219	-0.64	-20.9	0.03
23	SLU 32	-520	5	2213	-0.64	-20.9	0.03
23	SLU 33	-520	5	2217	-0.64	-20.9	0.03
23	SLU 34	-520	5	2219	-0.64	-20.9	0.03
23	SLU 35	-520	5	2213	-0.64	-20.9	0.03
23	SLU 36	-520	5	2217	-0.64	-20.9	0.03
23	SLU 37	-520	5	2213	-0.64	-20.9	0.03
23	SLU 38	-520	5	2217	-0.64	-20.9	0.03
23	SLU 39	-571	5	2307	-0.52	-22.96	0.03
23	SLU 40	-570	5	2311	-0.52	-22.96	0.03
23	SLU 41	-571	5	2307	-0.52	-22.96	0.03
23	SLU 42	-570	5	2311	-0.52	-22.96	0.03
23	SLU 43	-441	5	2432	-1.35	-17.55	0.03
23	SLU 44	-441	5	2438	-1.35	-17.55	0.03
23	SLU 45	-441	5	2432	-1.35	-17.55	0.03
23	SLU 46	-441	5	2435	-1.35	-17.55	0.03
23	SLU 47	-441	5	2438	-1.35	-17.55	0.03
23	SLU 48	-441	5	2432	-1.35	-17.55	0.03
23	SLU 49	-441	5	2435	-1.35	-17.55	0.03
23	SLU 50	-441	5	2432	-1.35	-17.55	0.03
23	SLU 51	-441	5	2435	-1.35	-17.55	0.03
23	SLU 52	-558	6	2658	-1.07	-22.36	0.03
23	SLU 53	-559	6	2651	-1.07	-22.36	0.03
23	SLU 54	-558	6	2655	-1.07	-22.36	0.03
23	SLU 55	-558	6	2658	-1.07	-22.36	0.03
23	SLU 56	-559	6	2651	-1.07	-22.36	0.03
23	SLU 57	-558	6	2655	-1.07	-22.36	0.03
23	SLU 58	-559	6	2651	-1.07	-22.36	0.03
23	SLU 59	-558	6	2655	-1.07	-22.36	0.03
23	SLU 60	-609	6	2745	-0.96	-24.42	0.03
23	SLU 61	-609	6	2749	-0.95	-24.42	0.03
23	SLU 62	-609	6	2745	-0.96	-24.42	0.03
23	SLU 63	-609	6	2749	-0.95	-24.42	0.03
23	SLU 64	-492	5	2529	-1.25	-19.6	0.03
23	SLU 65	-491	5	2535	-1.25	-19.6	0.03
23	SLU 66	-492	5	2529	-1.25	-19.6	0.03
23	SLU 67	-491	5	2533	-1.25	-19.6	0.03
23	SLU 68	-491	5	2535	-1.25	-19.6	0.03
23	SLU 69	-492	5	2529	-1.25	-19.6	0.03
23	SLU 70	-491	5	2533	-1.25	-19.6	0.03
23	SLU 71	-492	5	2529	-1.25	-19.6	0.03
23	SLU 72	-491	5	2533	-1.25	-19.6	0.03
23	SLU 73	-609	6	2755	-0.98	-24.41	0.03
23	SLU 74	-609	6	2748	-0.98	-24.41	0.03
23	SLU 75	-609	6	2752	-0.98	-24.41	0.03
23	SLU 76	-609	6	2755	-0.98	-24.41	0.03
23	SLU 77	-609	6	2748	-0.98	-24.41	0.03
23	SLU 78	-609	6	2752	-0.98	-24.41	0.03
23	SLU 79	-609	6	2748	-0.98	-24.41	0.03
23	SLU 80	-609	6	2752	-0.98	-24.41	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
23	SLU 81	-659	6	2842	-0.86	-26.47	0.04
23	SLU 82	-659	6	2846	-0.86	-26.47	0.04
23	SLU 83	-659	6	2842	-0.86	-26.47	0.04
23	SLU 84	-659	6	2846	-0.86	-26.47	0.04
23	SLE RA 1	-367	4	1924	-0.99	-14.63	0.02
23	SLE RA 2	-367	4	1928	-0.98	-14.63	0.02
23	SLE RA 3	-367	4	1924	-0.99	-14.63	0.02
23	SLE RA 4	-367	4	1926	-0.99	-14.63	0.02
23	SLE RA 5	-367	4	1928	-0.98	-14.63	0.02
23	SLE RA 6	-367	4	1924	-0.99	-14.63	0.02
23	SLE RA 7	-367	4	1926	-0.99	-14.63	0.02
23	SLE RA 8	-367	4	1924	-0.99	-14.63	0.02
23	SLE RA 9	-367	4	1926	-0.99	-14.63	0.02
23	SLE RA 10	-445	4	2075	-0.8	-17.83	0.03
23	SLE RA 11	-445	4	2070	-0.8	-17.83	0.02
23	SLE RA 12	-445	4	2073	-0.8	-17.83	0.02
23	SLE RA 13	-445	4	2075	-0.8	-17.83	0.03
23	SLE RA 14	-445	4	2070	-0.8	-17.83	0.02
23	SLE RA 15	-445	4	2073	-0.8	-17.83	0.02
23	SLE RA 16	-445	4	2070	-0.8	-17.83	0.02
23	SLE RA 17	-445	4	2073	-0.8	-17.83	0.02
23	SLE RA 18	-479	4	2133	-0.72	-19.21	0.03
23	SLE RA 19	-479	5	2136	-0.72	-19.21	0.03
23	SLE RA 20	-479	4	2133	-0.72	-19.21	0.03
23	SLE RA 21	-479	5	2136	-0.72	-19.21	0.03
23	SLE FR 1	-367	4	1924	-0.99	-14.63	0.02
23	SLE FR 2	-367	4	1925	-0.99	-14.63	0.02
23	SLE FR 3	-367	4	1924	-0.99	-14.63	0.02
23	SLE FR 4	-401	4	1987	-0.91	-16	0.02
23	SLE FR 5	-401	4	1987	-0.91	-16	0.02
23	SLE FR 6	-423	4	2028	-0.85	-16.92	0.02
23	SLE QP 1	-367	4	1924	-0.99	-14.63	0.02
23	SLE QP 2	-401	4	1987	-0.91	-16	0.02
23	SLD 1	-276	0	2379	1.62	-11	0.03
23	SLD 2	-276	0	2379	1.62	-11	0.03
23	SLD 3	-302	1	2275	0.18	-12.06	0.03
23	SLD 4	-302	1	2275	0.18	-12.06	0.03
23	SLD 5	-323	2	2262	2.05	-12.88	0.03
23	SLD 6	-323	2	2262	2.05	-12.88	0.03
23	SLD 7	-412	5	1915	-2.78	-16.44	0.02
23	SLD 8	-412	5	1915	-2.78	-16.44	0.02
23	SLD 9	-390	4	2058	0.96	-15.56	0.03
23	SLD 10	-390	4	2058	0.96	-15.56	0.03
23	SLD 11	-479	7	1711	-3.86	-19.12	0.02
23	SLD 12	-479	7	1711	-3.86	-19.12	0.02
23	SLD 13	-499	8	1698	-1.99	-19.94	0.02
23	SLD 14	-499	8	1698	-1.99	-19.94	0.02
23	SLD 15	-525	9	1594	-3.44	-21.01	0.02
23	SLD 16	-525	9	1594	-3.44	-21.01	0.02
23	SLV 1	-96	-7	2967	5.53	-3.49	0.04
23	SLV 2	-96	-7	2967	5.53	-3.49	0.04
23	SLV 3	-159	-5	2706	1.84	-6.08	0.03
23	SLV 4	-159	-5	2706	1.84	-6.08	0.03
23	SLV 5	-214	-3	2676	6.62	-8.31	0.04
23	SLV 6	-214	-3	2676	6.62	-8.31	0.04
23	SLV 7	-423	5	1807	-5.68	-16.96	0.01
23	SLV 8	-423	5	1807	-5.68	-16.96	0.01
23	SLV 9	-378	4	2166	3.86	-15.04	0.03
23	SLV 10	-378	4	2166	3.86	-15.04	0.03
23	SLV 11	-587	11	1297	-8.44	-23.69	0.01
23	SLV 12	-587	11	1297	-8.44	-23.69	0.01
23	SLV 13	-642	13	1267	-3.66	-25.92	0.02
23	SLV 14	-642	13	1267	-3.66	-25.92	0.02
23	SLV 15	-705	15	1006	-7.35	-28.51	0.01
23	SLV 16	-705	15	1006	-7.35	-28.51	0.01
24	SLU 1	-222	202	2184	-5.41	-7.14	0.02
24	SLU 2	-222	202	2193	-5.27	-7.27	0.02
24	SLU 3	-222	202	2184	-5.41	-7.14	0.02
24	SLU 4	-222	202	2190	-5.33	-7.22	0.02
24	SLU 5	-222	202	2193	-5.27	-7.27	0.02
24	SLU 6	-222	202	2184	-5.41	-7.14	0.02
24	SLU 7	-222	202	2190	-5.33	-7.22	0.02
24	SLU 8	-222	202	2184	-5.41	-7.14	0.02
24	SLU 9	-222	202	2190	-5.33	-7.22	0.02
24	SLU 10	-271	230	2455	-6.1	-8.79	0.03
24	SLU 11	-270	230	2447	-6.24	-8.67	0.03
24	SLU 12	-271	230	2452	-6.16	-8.74	0.03
24	SLU 13	-271	230	2455	-6.1	-8.79	0.03
24	SLU 14	-270	230	2447	-6.24	-8.67	0.03
24	SLU 15	-271	230	2452	-6.16	-8.74	0.03
24	SLU 16	-270	230	2447	-6.24	-8.67	0.03
24	SLU 17	-271	230	2452	-6.16	-8.74	0.03
24	SLU 18	-291	242	2559	-6.6	-9.32	0.03
24	SLU 19	-292	242	2564	-6.51	-9.4	0.03
24	SLU 20	-291	242	2559	-6.6	-9.32	0.03
24	SLU 21	-292	242	2564	-6.51	-9.4	0.03
24	SLU 22	-242	215	2303	-5.8	-7.79	0.02
24	SLU 23	-243	215	2312	-5.66	-7.92	0.02
24	SLU 24	-242	215	2303	-5.8	-7.79	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
24	SLU 25	-243	215	2309	-5.72	-7.87	0.02
24	SLU 26	-243	215	2312	-5.66	-7.92	0.02
24	SLU 27	-242	215	2303	-5.8	-7.79	0.02
24	SLU 28	-243	215	2309	-5.72	-7.87	0.02
24	SLU 29	-242	215	2303	-5.8	-7.79	0.02
24	SLU 30	-243	215	2309	-5.72	-7.87	0.02
24	SLU 31	-292	243	2574	-6.49	-9.45	0.03
24	SLU 32	-291	243	2566	-6.63	-9.32	0.03
24	SLU 33	-291	243	2571	-6.55	-9.4	0.03
24	SLU 34	-292	243	2574	-6.49	-9.45	0.03
24	SLU 35	-291	243	2566	-6.63	-9.32	0.03
24	SLU 36	-291	243	2571	-6.55	-9.4	0.03
24	SLU 37	-291	243	2566	-6.63	-9.32	0.03
24	SLU 38	-291	243	2571	-6.55	-9.4	0.03
24	SLU 39	-312	255	2678	-6.99	-9.97	0.03
24	SLU 40	-312	255	2683	-6.9	-10.05	0.03
24	SLU 41	-312	255	2678	-6.99	-9.97	0.03
24	SLU 42	-312	255	2683	-6.9	-10.05	0.03
24	SLU 43	-281	258	2799	-6.91	-9.06	0.02
24	SLU 44	-282	258	2808	-6.76	-9.18	0.02
24	SLU 45	-281	258	2799	-6.91	-9.06	0.02
24	SLU 46	-281	258	2804	-6.82	-9.13	0.02
24	SLU 47	-282	258	2808	-6.76	-9.18	0.02
24	SLU 48	-281	258	2799	-6.91	-9.06	0.02
24	SLU 49	-281	258	2804	-6.82	-9.13	0.02
24	SLU 50	-281	258	2799	-6.91	-9.06	0.02
24	SLU 51	-281	258	2804	-6.82	-9.13	0.02
24	SLU 52	-331	286	3070	-7.59	-10.71	0.03
24	SLU 53	-330	286	3061	-7.73	-10.58	0.03
24	SLU 54	-330	286	3066	-7.65	-10.66	0.03
24	SLU 55	-331	286	3070	-7.59	-10.71	0.03
24	SLU 56	-330	286	3061	-7.73	-10.58	0.03
24	SLU 57	-330	286	3066	-7.65	-10.66	0.03
24	SLU 58	-330	286	3061	-7.73	-10.58	0.03
24	SLU 59	-330	286	3066	-7.65	-10.66	0.03
24	SLU 60	-351	298	3174	-8.09	-11.24	0.03
24	SLU 61	-351	298	3179	-8.01	-11.31	0.03
24	SLU 62	-351	298	3174	-8.09	-11.24	0.03
24	SLU 63	-351	298	3179	-8.01	-11.31	0.03
24	SLU 64	-301	271	2918	-7.29	-9.71	0.03
24	SLU 65	-302	271	2927	-7.15	-9.84	0.03
24	SLU 66	-301	271	2918	-7.29	-9.71	0.03
24	SLU 67	-302	271	2923	-7.21	-9.79	0.03
24	SLU 68	-302	271	2927	-7.15	-9.84	0.03
24	SLU 69	-301	271	2918	-7.29	-9.71	0.03
24	SLU 70	-302	271	2923	-7.21	-9.79	0.03
24	SLU 71	-301	271	2918	-7.29	-9.71	0.03
24	SLU 72	-302	271	2923	-7.21	-9.79	0.03
24	SLU 73	-351	299	3189	-7.98	-11.37	0.03
24	SLU 74	-350	299	3180	-8.12	-11.24	0.03
24	SLU 75	-351	299	3185	-8.04	-11.31	0.03
24	SLU 76	-351	299	3189	-7.98	-11.37	0.03
24	SLU 77	-350	299	3180	-8.12	-11.24	0.03
24	SLU 78	-351	299	3185	-8.04	-11.31	0.03
24	SLU 79	-350	299	3180	-8.12	-11.24	0.03
24	SLU 80	-351	299	3185	-8.04	-11.31	0.03
24	SLU 81	-371	311	3293	-8.48	-11.89	0.04
24	SLU 82	-372	311	3298	-8.39	-11.97	0.04
24	SLU 83	-371	311	3293	-8.48	-11.89	0.04
24	SLU 84	-372	311	3298	-8.39	-11.97	0.04
24	SLE RA 1	-227	206	2218	-5.53	-7.33	0.02
24	SLE RA 2	-228	205	2224	-5.43	-7.41	0.02
24	SLE RA 3	-227	206	2218	-5.53	-7.33	0.02
24	SLE RA 4	-228	205	2222	-5.47	-7.38	0.02
24	SLE RA 5	-228	205	2224	-5.43	-7.41	0.02
24	SLE RA 6	-227	206	2218	-5.53	-7.33	0.02
24	SLE RA 7	-228	205	2222	-5.47	-7.38	0.02
24	SLE RA 8	-227	206	2218	-5.53	-7.33	0.02
24	SLE RA 9	-228	205	2222	-5.47	-7.38	0.02
24	SLE RA 10	-260	224	2399	-5.98	-8.43	0.02
24	SLE RA 11	-260	224	2393	-6.08	-8.34	0.02
24	SLE RA 12	-260	224	2397	-6.02	-8.39	0.02
24	SLE RA 13	-260	224	2399	-5.98	-8.43	0.02
24	SLE RA 14	-260	224	2393	-6.08	-8.34	0.02
24	SLE RA 15	-260	224	2397	-6.02	-8.39	0.02
24	SLE RA 16	-260	224	2393	-6.08	-8.34	0.02
24	SLE RA 17	-260	224	2397	-6.02	-8.39	0.02
24	SLE RA 18	-274	232	2468	-6.32	-8.78	0.03
24	SLE RA 19	-274	232	2472	-6.26	-8.83	0.03
24	SLE RA 20	-274	232	2468	-6.32	-8.78	0.03
24	SLE RA 21	-274	232	2472	-6.26	-8.83	0.03
24	SLE FR 1	-227	206	2218	-5.53	-7.33	0.02
24	SLE FR 2	-227	206	2220	-5.51	-7.34	0.02
24	SLE FR 3	-227	206	2218	-5.53	-7.33	0.02
24	SLE FR 4	-241	214	2295	-5.74	-7.78	0.02
24	SLE FR 5	-241	214	2293	-5.76	-7.76	0.02
24	SLE FR 6	-251	219	2343	-5.92	-8.05	0.02
24	SLE QP 1	-227	206	2218	-5.53	-7.33	0.02
24	SLE QP 2	-241	214	2293	-5.76	-7.76	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
24	SLD 1	-158	327	2880	-8.47	-10.55	-0.01
24	SLD 2	-158	327	2880	-8.47	-10.55	-0.01
24	SLD 3	-181	294	2720	-9.72	-9.67	0
24	SLD 4	-181	294	2720	-9.72	-9.67	0
24	SLD 5	-183	298	2713	-4.68	-9.92	0
24	SLD 6	-183	298	2713	-4.68	-9.92	0
24	SLD 7	-257	187	2178	-8.84	-7.01	0.03
24	SLD 8	-257	187	2178	-8.84	-7.01	0.03
24	SLD 9	-226	240	2409	-2.68	-8.52	0.01
24	SLD 10	-226	240	2409	-2.68	-8.52	0.01
24	SLD 11	-300	129	1874	-6.85	-5.6	0.05
24	SLD 12	-300	129	1874	-6.85	-5.6	0.05
24	SLD 13	-302	133	1867	-1.81	-5.85	0.04
24	SLD 14	-302	133	1867	-1.81	-5.85	0.04
24	SLD 15	-324	100	1706	-3.06	-4.98	0.05
24	SLD 16	-324	100	1706	-3.06	-4.98	0.05
24	SLV 1	-42	496	3757	-12.51	-14.49	-0.06
24	SLV 2	-42	496	3757	-12.51	-14.49	-0.06
24	SLV 3	-94	415	3359	-15.54	-12.4	-0.03
24	SLV 4	-94	415	3359	-15.54	-12.4	-0.03
24	SLV 5	-102	421	3338	-3.2	-12.96	-0.04
24	SLV 6	-102	421	3338	-3.2	-12.96	-0.04
24	SLV 7	-276	151	2008	-13.28	-5.98	0.04
24	SLV 8	-276	151	2008	-13.28	-5.98	0.04
24	SLV 9	-207	276	2579	1.76	-9.55	0
24	SLV 10	-207	276	2579	1.76	-9.55	0
24	SLV 11	-380	6	1249	-8.32	-2.57	0.08
24	SLV 12	-380	6	1249	-8.32	-2.57	0.08
24	SLV 13	-389	12	1228	4.01	-3.12	0.08
24	SLV 14	-389	12	1228	4.01	-3.12	0.08
24	SLV 15	-441	-69	829	0.99	-1.03	0.1
24	SLV 16	-441	-69	829	0.99	-1.03	0.1
25	SLU 1	60	102	1792	-5.18	1.46	-0.02
25	SLU 2	64	108	1804	-5.62	1.83	-0.02
25	SLU 3	60	102	1792	-5.18	1.46	-0.02
25	SLU 4	62	106	1799	-5.44	1.68	-0.02
25	SLU 5	64	108	1804	-5.62	1.83	-0.02
25	SLU 6	60	102	1792	-5.18	1.46	-0.02
25	SLU 7	62	106	1799	-5.44	1.68	-0.02
25	SLU 8	60	102	1792	-5.18	1.46	-0.02
25	SLU 9	62	106	1799	-5.44	1.68	-0.02
25	SLU 10	77	132	2025	-6.7	1.96	-0.03
25	SLU 11	74	126	2014	-6.26	1.58	-0.02
25	SLU 12	76	130	2021	-6.53	1.81	-0.03
25	SLU 13	77	132	2025	-6.7	1.96	-0.03
25	SLU 14	74	126	2014	-6.26	1.58	-0.02
25	SLU 15	76	130	2021	-6.53	1.81	-0.03
25	SLU 16	74	126	2014	-6.26	1.58	-0.02
25	SLU 17	76	130	2021	-6.53	1.81	-0.03
25	SLU 18	80	137	2109	-6.73	1.64	-0.03
25	SLU 19	82	140	2116	-6.99	1.86	-0.03
25	SLU 20	80	137	2109	-6.73	1.64	-0.03
25	SLU 21	82	140	2116	-6.99	1.86	-0.03
25	SLU 22	67	115	1900	-5.68	1.54	-0.02
25	SLU 23	71	120	1911	-6.12	1.91	-0.02
25	SLU 24	67	115	1900	-5.68	1.54	-0.02
25	SLU 25	69	118	1907	-5.95	1.76	-0.02
25	SLU 26	71	120	1911	-6.12	1.91	-0.02
25	SLU 27	67	115	1900	-5.68	1.54	-0.02
25	SLU 28	69	118	1907	-5.95	1.76	-0.02
25	SLU 29	67	115	1900	-5.68	1.54	-0.02
25	SLU 30	69	118	1907	-5.95	1.76	-0.02
25	SLU 31	85	144	2133	-7.21	2.04	-0.03
25	SLU 32	81	139	2121	-6.77	1.66	-0.03
25	SLU 33	83	142	2128	-7.03	1.89	-0.03
25	SLU 34	85	144	2133	-7.21	2.04	-0.03
25	SLU 35	81	139	2121	-6.77	1.66	-0.03
25	SLU 36	83	142	2128	-7.03	1.89	-0.03
25	SLU 37	81	139	2121	-6.77	1.66	-0.03
25	SLU 38	83	142	2128	-7.03	1.89	-0.03
25	SLU 39	87	149	2216	-7.24	1.72	-0.03
25	SLU 40	89	152	2223	-7.5	1.94	-0.03
25	SLU 41	87	149	2216	-7.24	1.72	-0.03
25	SLU 42	89	152	2223	-7.5	1.94	-0.03
25	SLU 43	76	129	2293	-6.56	1.86	-0.03
25	SLU 44	79	134	2305	-7	2.24	-0.03
25	SLU 45	76	129	2293	-6.56	1.86	-0.03
25	SLU 46	78	132	2300	-6.82	2.09	-0.03
25	SLU 47	79	134	2305	-7	2.24	-0.03
25	SLU 48	76	129	2293	-6.56	1.86	-0.03
25	SLU 49	78	132	2300	-6.82	2.09	-0.03
25	SLU 50	76	129	2293	-6.56	1.86	-0.03
25	SLU 51	78	132	2300	-6.82	2.09	-0.03
25	SLU 52	93	158	2526	-8.08	2.37	-0.03
25	SLU 53	89	153	2514	-7.64	1.99	-0.03
25	SLU 54	92	156	2521	-7.91	2.22	-0.03
25	SLU 55	93	158	2526	-8.08	2.37	-0.03
25	SLU 56	89	153	2514	-7.64	1.99	-0.03
25	SLU 57	92	156	2521	-7.91	2.22	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
25	SLU 58	89	153	2514	-7.64	1.99	-0.03
25	SLU 59	92	156	2521	-7.91	2.22	-0.03
25	SLU 60	95	163	2609	-8.11	2.05	-0.03
25	SLU 61	97	167	2616	-8.37	2.27	-0.03
25	SLU 62	95	163	2609	-8.11	2.05	-0.03
25	SLU 63	97	167	2616	-8.37	2.27	-0.03
25	SLU 64	83	141	2401	-7.06	1.95	-0.03
25	SLU 65	87	147	2412	-7.5	2.32	-0.03
25	SLU 66	83	141	2401	-7.06	1.95	-0.03
25	SLU 67	85	144	2408	-7.33	2.17	-0.03
25	SLU 68	87	147	2412	-7.5	2.32	-0.03
25	SLU 69	83	141	2401	-7.06	1.95	-0.03
25	SLU 70	85	144	2408	-7.33	2.17	-0.03
25	SLU 71	83	141	2401	-7.06	1.95	-0.03
25	SLU 72	85	144	2408	-7.33	2.17	-0.03
25	SLU 73	100	171	2634	-8.59	2.45	-0.03
25	SLU 74	97	165	2622	-8.15	2.07	-0.03
25	SLU 75	99	169	2629	-8.41	2.3	-0.03
25	SLU 76	100	171	2634	-8.59	2.45	-0.03
25	SLU 77	97	165	2622	-8.15	2.07	-0.03
25	SLU 78	99	169	2629	-8.41	2.3	-0.03
25	SLU 79	97	165	2622	-8.15	2.07	-0.03
25	SLU 80	99	169	2629	-8.41	2.3	-0.03
25	SLU 81	102	176	2717	-8.62	2.13	-0.03
25	SLU 82	105	179	2724	-8.88	2.35	-0.03
25	SLU 83	102	176	2717	-8.62	2.13	-0.03
25	SLU 84	105	179	2724	-8.88	2.35	-0.03
25	SLE RA 1	62	106	1823	-5.32	1.48	-0.02
25	SLE RA 2	65	109	1831	-5.61	1.73	-0.02
25	SLE RA 3	62	106	1823	-5.32	1.48	-0.02
25	SLE RA 4	64	108	1828	-5.5	1.63	-0.02
25	SLE RA 5	65	109	1831	-5.61	1.73	-0.02
25	SLE RA 6	62	106	1823	-5.32	1.48	-0.02
25	SLE RA 7	64	108	1828	-5.5	1.63	-0.02
25	SLE RA 8	62	106	1823	-5.32	1.48	-0.02
25	SLE RA 9	64	108	1828	-5.5	1.63	-0.02
25	SLE RA 10	74	126	1978	-6.34	1.81	-0.02
25	SLE RA 11	71	122	1971	-6.05	1.56	-0.02
25	SLE RA 12	73	124	1975	-6.22	1.71	-0.02
25	SLE RA 13	74	126	1978	-6.34	1.81	-0.02
25	SLE RA 14	71	122	1971	-6.05	1.56	-0.02
25	SLE RA 15	73	124	1975	-6.22	1.71	-0.02
25	SLE RA 16	71	122	1971	-6.05	1.56	-0.02
25	SLE RA 17	73	124	1975	-6.22	1.71	-0.02
25	SLE RA 18	75	129	2034	-6.36	1.6	-0.02
25	SLE RA 19	77	131	2039	-6.53	1.75	-0.03
25	SLE RA 20	75	129	2034	-6.36	1.6	-0.02
25	SLE RA 21	77	131	2039	-6.53	1.75	-0.03
25	SLE FR 1	62	106	1823	-5.32	1.48	-0.02
25	SLE FR 2	63	107	1824	-5.38	1.53	-0.02
25	SLE FR 3	62	106	1823	-5.32	1.48	-0.02
25	SLE FR 4	67	113	1888	-5.69	1.57	-0.02
25	SLE FR 5	66	113	1886	-5.63	1.52	-0.02
25	SLE FR 6	69	117	1928	-5.84	1.54	-0.02
25	SLE QP 1	62	106	1823	-5.32	1.48	-0.02
25	SLE QP 2	66	113	1886	-5.63	1.52	-0.02
25	SLD 1	163	274	2136	-14.81	4.89	-0.01
25	SLD 2	163	274	2136	-14.81	4.89	-0.01
25	SLD 3	132	225	2051	-12.3	3.45	-0.01
25	SLD 4	132	225	2051	-12.3	3.45	-0.01
25	SLD 5	142	236	2091	-12.19	4.7	-0.02
25	SLD 6	142	236	2091	-12.19	4.7	-0.02
25	SLD 7	39	72	1806	-3.82	-0.08	-0.01
25	SLD 8	39	72	1806	-3.82	-0.08	-0.01
25	SLD 9	93	154	1966	-7.44	3.11	-0.03
25	SLD 10	93	154	1966	-7.44	3.11	-0.03
25	SLD 11	-10	-11	1682	0.93	-1.67	-0.02
25	SLD 12	-10	-11	1682	0.93	-1.67	-0.02
25	SLD 13	0	0	1722	1.04	-0.42	-0.03
25	SLD 14	0	0	1722	1.04	-0.42	-0.03
25	SLD 15	-31	-49	1636	3.55	-1.86	-0.03
25	SLD 16	-31	-49	1636	3.55	-1.86	-0.03
25	SLV 1	307	514	2512	-28.69	9.86	0
25	SLV 2	307	514	2512	-28.69	9.86	0
25	SLV 3	231	393	2296	-22.32	6.23	0
25	SLV 4	231	393	2296	-22.32	6.23	0
25	SLV 5	253	416	2400	-22.2	9.53	-0.03
25	SLV 6	253	416	2400	-22.2	9.53	-0.03
25	SLV 7	1	14	1683	-0.99	-2.58	0
25	SLV 8	1	14	1683	-0.99	-2.58	0
25	SLV 9	131	212	2089	-10.27	5.61	-0.04
25	SLV 10	131	212	2089	-10.27	5.61	-0.04
25	SLV 11	-121	-191	1372	10.93	-6.5	-0.02
25	SLV 12	-121	-191	1372	10.93	-6.5	-0.02
25	SLV 13	-99	-168	1476	11.06	-3.2	-0.05
25	SLV 14	-99	-168	1476	11.06	-3.2	-0.05
25	SLV 15	-174	-289	1261	17.42	-6.83	-0.04
25	SLV 16	-174	-289	1261	17.42	-6.83	-0.04
26	SLU 1	0	0	824	0	-0.02	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
26	SLU 2	0	0	826	0	-0.02	0
26	SLU 3	0	0	824	0	-0.02	0
26	SLU 4	0	0	825	0	-0.02	0
26	SLU 5	0	0	826	0	-0.02	0
26	SLU 6	0	0	824	0	-0.02	0
26	SLU 7	0	0	825	0	-0.02	0
26	SLU 8	0	0	824	0	-0.02	0
26	SLU 9	0	0	825	0	-0.02	0
26	SLU 10	0	0	1063	0	0.01	0
26	SLU 11	0	0	1061	0	0.01	0
26	SLU 12	0	0	1062	0	0.01	0
26	SLU 13	0	0	1063	0	0.01	0
26	SLU 14	0	0	1061	0	0.01	0
26	SLU 15	0	0	1062	0	0.01	0
26	SLU 16	0	0	1061	0	0.01	0
26	SLU 17	0	0	1062	0	0.01	0
26	SLU 18	0	0	1163	0	0.02	0
26	SLU 19	0	0	1164	0	0.02	0
26	SLU 20	0	0	1163	0	0.02	0
26	SLU 21	0	0	1164	0	0.02	0
26	SLU 22	0	0	995	0	-0.01	0
26	SLU 23	0	0	997	0	-0.01	0
26	SLU 24	0	0	995	0	-0.01	0
26	SLU 25	0	0	996	0	-0.01	0
26	SLU 26	0	0	997	0	-0.01	0
26	SLU 27	0	0	995	0	-0.01	0
26	SLU 28	0	0	996	0	-0.01	0
26	SLU 29	0	0	995	0	-0.01	0
26	SLU 30	0	0	996	0	-0.01	0
26	SLU 31	0	0	1234	0	0.01	0
26	SLU 32	0	0	1232	0	0.01	0
26	SLU 33	0	0	1233	0	0.01	0
26	SLU 34	0	0	1234	0	0.01	0
26	SLU 35	0	0	1232	0	0.01	0
26	SLU 36	0	0	1233	0	0.01	0
26	SLU 37	0	0	1232	0	0.01	0
26	SLU 38	0	0	1233	0	0.01	0
26	SLU 39	0	0	1333	0	0.02	0
26	SLU 40	0	0	1334	0	0.02	0
26	SLU 41	0	0	1333	0	0.02	0
26	SLU 42	0	0	1334	0	0.02	0
26	SLU 43	0	0	1013	0	-0.02	0
26	SLU 44	0	0	1015	0	-0.02	0
26	SLU 45	0	0	1013	0	-0.02	0
26	SLU 46	0	0	1014	0	-0.02	0
26	SLU 47	0	0	1015	0	-0.02	0
26	SLU 48	0	0	1013	0	-0.02	0
26	SLU 49	0	0	1014	0	-0.02	0
26	SLU 50	0	0	1013	0	-0.02	0
26	SLU 51	0	0	1014	0	-0.02	0
26	SLU 52	0	0	1252	0	0	0
26	SLU 53	0	0	1250	0	0	0
26	SLU 54	0	0	1251	0	0	0
26	SLU 55	0	0	1252	0	0	0
26	SLU 56	0	0	1250	0	0	0
26	SLU 57	0	0	1251	0	0	0
26	SLU 58	0	0	1250	0	0	0
26	SLU 59	0	0	1251	0	0	0
26	SLU 60	0	0	1352	0	0.01	0
26	SLU 61	0	0	1353	0	0.01	0
26	SLU 62	0	0	1352	0	0.01	0
26	SLU 63	0	0	1353	0	0.01	0
26	SLU 64	0	0	1183	0	-0.02	0
26	SLU 65	0	0	1186	0	-0.02	0
26	SLU 66	0	0	1183	0	-0.02	0
26	SLU 67	0	0	1185	0	-0.02	0
26	SLU 68	0	0	1186	0	-0.02	0
26	SLU 69	0	0	1183	0	-0.02	0
26	SLU 70	0	0	1185	0	-0.02	0
26	SLU 71	0	0	1183	0	-0.02	0
26	SLU 72	0	0	1185	0	-0.02	0
26	SLU 73	0	0	1423	0	0.01	0
26	SLU 74	0	0	1420	0	0.01	0
26	SLU 75	0	0	1422	0	0.01	0
26	SLU 76	0	0	1423	0	0.01	0
26	SLU 77	0	0	1420	0	0.01	0
26	SLU 78	0	0	1422	0	0.01	0
26	SLU 79	0	0	1420	0	0.01	0
26	SLU 80	0	0	1422	0	0.01	0
26	SLU 81	0	0	1522	0	0.02	0
26	SLU 82	0	0	1523	0	0.02	0
26	SLU 83	0	0	1522	0	0.02	0
26	SLU 84	0	0	1523	0	0.02	0
26	SLE RA 1	0	0	873	0	-0.01	0
26	SLE RA 2	0	0	874	0	-0.01	0
26	SLE RA 3	0	0	873	0	-0.01	0
26	SLE RA 4	0	0	874	0	-0.01	0
26	SLE RA 5	0	0	874	0	-0.01	0
26	SLE RA 6	0	0	873	0	-0.01	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
26	SLE RA 7	0	0	874	0	-0.01	0
26	SLE RA 8	0	0	873	0	-0.01	0
26	SLE RA 9	0	0	874	0	-0.01	0
26	SLE RA 10	0	0	1032	0	0	0
26	SLE RA 11	0	0	1031	0	0	0
26	SLE RA 12	0	0	1032	0	0	0
26	SLE RA 13	0	0	1032	0	0	0
26	SLE RA 14	0	0	1031	0	0	0
26	SLE RA 15	0	0	1032	0	0	0
26	SLE RA 16	0	0	1031	0	0	0
26	SLE RA 17	0	0	1032	0	0	0
26	SLE RA 18	0	0	1099	0	0.01	0
26	SLE RA 19	0	0	1099	0	0.01	0
26	SLE RA 20	0	0	1099	0	0.01	0
26	SLE RA 21	0	0	1099	0	0.01	0
26	SLE FR 1	0	0	873	0	-0.01	0
26	SLE FR 2	0	0	873	0	-0.01	0
26	SLE FR 3	0	0	873	0	-0.01	0
26	SLE FR 4	0	0	941	0	-0.01	0
26	SLE FR 5	0	0	941	0	-0.01	0
26	SLE FR 6	0	0	986	0	0	0
26	SLE QP 1	0	0	873	0	-0.01	0
26	SLE QP 2	0	0	941	0	-0.01	0
26	SLD 1	0	0	938	0	-0.16	-0.01
26	SLD 2	0	0	938	0	-0.16	-0.01
26	SLD 3	0	0	904	0.01	-0.44	-0.01
26	SLD 4	0	0	904	0.01	-0.44	-0.01
26	SLD 5	0	0	991	0	0.37	0
26	SLD 6	0	0	991	0	0.37	0
26	SLD 7	0	0	878	0.01	-0.56	0
26	SLD 8	0	0	878	0.01	-0.56	0
26	SLD 9	0	0	1003	-0.01	0.54	0
26	SLD 10	0	0	1003	-0.01	0.54	0
26	SLD 11	0	0	890	0.01	-0.38	0
26	SLD 12	0	0	890	0.01	-0.38	0
26	SLD 13	0	0	977	0	0.42	0.01
26	SLD 14	0	0	977	0	0.42	0.01
26	SLD 15	-1	0	943	0	0.15	0.01
26	SLD 16	-1	0	943	0	0.15	0.01
26	SLV 1	1	0	933	0	-0.4	-0.02
26	SLV 2	1	0	933	0	-0.4	-0.02
26	SLV 3	1	0	847	0.02	-1.11	-0.02
26	SLV 4	1	0	847	0.02	-1.11	-0.02
26	SLV 5	1	0	1068	-0.01	0.96	0
26	SLV 6	1	0	1068	-0.01	0.96	0
26	SLV 7	0	0	783	0.02	-1.42	-0.01
26	SLV 8	0	0	783	0.02	-1.42	-0.01
26	SLV 9	0	1	1099	-0.02	1.4	0.01
26	SLV 10	0	1	1099	-0.02	1.4	0.01
26	SLV 11	-1	0	813	0.02	-0.97	0
26	SLV 12	-1	0	813	0.02	-0.97	0
26	SLV 13	-1	0	1034	-0.01	1.09	0.02
26	SLV 14	-1	0	1034	-0.01	1.09	0.02
26	SLV 15	-1	0	948	0	0.38	0.02
26	SLV 16	-1	0	948	0	0.38	0.02
27	SLU 1	3	282	2199	-12.33	0.87	0.01
27	SLU 2	3	299	2228	-13.03	0.93	0.01
27	SLU 3	3	282	2199	-12.33	0.87	0.01
27	SLU 4	3	292	2216	-12.75	0.9	0.01
27	SLU 5	3	299	2228	-13.03	0.93	0.01
27	SLU 6	3	282	2199	-12.33	0.87	0.01
27	SLU 7	3	292	2216	-12.75	0.9	0.01
27	SLU 8	3	282	2199	-12.33	0.87	0.01
27	SLU 9	3	292	2216	-12.75	0.9	0.01
27	SLU 10	4	429	2717	-18.19	0.85	0.02
27	SLU 11	3	412	2688	-17.49	0.8	0.02
27	SLU 12	4	423	2705	-17.91	0.83	0.02
27	SLU 13	4	429	2717	-18.19	0.85	0.02
27	SLU 14	3	412	2688	-17.49	0.8	0.02
27	SLU 15	4	423	2705	-17.91	0.83	0.02
27	SLU 16	3	412	2688	-17.49	0.8	0.02
27	SLU 17	4	423	2705	-17.91	0.83	0.02
27	SLU 18	4	468	2898	-19.7	0.76	0.02
27	SLU 19	4	478	2915	-20.12	0.8	0.02
27	SLU 20	4	468	2898	-19.7	0.76	0.02
27	SLU 21	4	478	2915	-20.12	0.8	0.02
27	SLU 22	3	329	2426	-14.27	0.88	0.02
27	SLU 23	3	346	2454	-14.97	0.93	0.02
27	SLU 24	3	329	2426	-14.27	0.88	0.02
27	SLU 25	3	339	2443	-14.69	0.91	0.02
27	SLU 26	3	346	2454	-14.97	0.93	0.02
27	SLU 27	3	329	2426	-14.27	0.88	0.02
27	SLU 28	3	339	2443	-14.69	0.91	0.02
27	SLU 29	3	329	2426	-14.27	0.88	0.02
27	SLU 30	3	339	2443	-14.69	0.91	0.02
27	SLU 31	4	476	2943	-20.13	0.86	0.02
27	SLU 32	4	459	2915	-19.43	0.8	0.02
27	SLU 33	4	469	2932	-19.85	0.83	0.02
27	SLU 34	4	476	2943	-20.13	0.86	0.02



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
27	SLU 35	4	459	2915	-19.43	0.8	0.02
27	SLU 36	4	469	2932	-19.85	0.83	0.02
27	SLU 37	4	459	2915	-19.43	0.8	0.02
27	SLU 38	4	469	2932	-19.85	0.83	0.02
27	SLU 39	4	515	3124	-21.64	0.77	0.02
27	SLU 40	4	525	3141	-22.06	0.8	0.02
27	SLU 41	4	515	3124	-21.64	0.77	0.02
27	SLU 42	4	525	3141	-22.06	0.8	0.02
27	SLU 43	4	351	2781	-15.36	1.13	0.02
27	SLU 44	4	368	2810	-16.06	1.19	0.02
27	SLU 45	4	351	2781	-15.36	1.13	0.02
27	SLU 46	4	361	2798	-15.78	1.16	0.02
27	SLU 47	4	368	2810	-16.06	1.19	0.02
27	SLU 48	4	351	2781	-15.36	1.13	0.02
27	SLU 49	4	361	2798	-15.78	1.16	0.02
27	SLU 50	4	351	2781	-15.36	1.13	0.02
27	SLU 51	4	361	2798	-15.78	1.16	0.02
27	SLU 52	4	498	3299	-21.22	1.11	0.02
27	SLU 53	4	481	3270	-20.52	1.06	0.02
27	SLU 54	4	491	3287	-20.94	1.09	0.02
27	SLU 55	4	498	3299	-21.22	1.11	0.02
27	SLU 56	4	481	3270	-20.52	1.06	0.02
27	SLU 57	4	491	3287	-20.94	1.09	0.02
27	SLU 58	4	481	3270	-20.52	1.06	0.02
27	SLU 59	4	491	3287	-20.94	1.09	0.02
27	SLU 60	4	537	3480	-22.73	1.02	0.02
27	SLU 61	5	547	3497	-23.15	1.06	0.02
27	SLU 62	4	537	3480	-22.73	1.02	0.02
27	SLU 63	5	547	3497	-23.15	1.06	0.02
27	SLU 64	4	398	3008	-17.3	1.14	0.02
27	SLU 65	4	414	3036	-18	1.19	0.02
27	SLU 66	4	398	3008	-17.3	1.14	0.02
27	SLU 67	4	408	3025	-17.72	1.17	0.02
27	SLU 68	4	414	3036	-18	1.19	0.02
27	SLU 69	4	398	3008	-17.3	1.14	0.02
27	SLU 70	4	408	3025	-17.72	1.17	0.02
27	SLU 71	4	398	3008	-17.3	1.14	0.02
27	SLU 72	4	408	3025	-17.72	1.17	0.02
27	SLU 73	5	545	3525	-23.16	1.12	0.02
27	SLU 74	5	528	3497	-22.46	1.06	0.02
27	SLU 75	5	538	3514	-22.88	1.09	0.02
27	SLU 76	5	545	3525	-23.16	1.12	0.02
27	SLU 77	5	528	3497	-22.46	1.06	0.02
27	SLU 78	5	538	3514	-22.88	1.09	0.02
27	SLU 79	5	528	3497	-22.46	1.06	0.02
27	SLU 80	5	538	3514	-22.88	1.09	0.02
27	SLU 81	5	583	3706	-24.67	1.03	0.02
27	SLU 82	5	594	3724	-25.09	1.06	0.02
27	SLU 83	5	583	3706	-24.67	1.03	0.02
27	SLU 84	5	594	3724	-25.09	1.06	0.02
27	SLE RA 1	3	296	2264	-12.88	0.87	0.01
27	SLE RA 2	3	307	2283	-13.35	0.91	0.01
27	SLE RA 3	3	296	2264	-12.88	0.87	0.01
27	SLE RA 4	3	302	2275	-13.16	0.9	0.01
27	SLE RA 5	3	307	2283	-13.35	0.91	0.01
27	SLE RA 6	3	296	2264	-12.88	0.87	0.01
27	SLE RA 7	3	302	2275	-13.16	0.9	0.01
27	SLE RA 8	3	296	2264	-12.88	0.87	0.01
27	SLE RA 9	3	302	2275	-13.16	0.9	0.01
27	SLE RA 10	3	394	2609	-16.79	0.86	0.02
27	SLE RA 11	3	382	2590	-16.32	0.82	0.02
27	SLE RA 12	3	389	2601	-16.6	0.85	0.02
27	SLE RA 13	3	394	2609	-16.79	0.86	0.02
27	SLE RA 14	3	382	2590	-16.32	0.82	0.02
27	SLE RA 15	3	389	2601	-16.6	0.85	0.02
27	SLE RA 16	3	382	2590	-16.32	0.82	0.02
27	SLE RA 17	3	389	2601	-16.6	0.85	0.02
27	SLE RA 18	3	419	2730	-17.8	0.8	0.02
27	SLE RA 19	4	426	2741	-18.08	0.82	0.02
27	SLE RA 20	3	419	2730	-17.8	0.8	0.02
27	SLE RA 21	4	426	2741	-18.08	0.82	0.02
27	SLE FR 1	3	296	2264	-12.88	0.87	0.01
27	SLE FR 2	3	298	2268	-12.98	0.88	0.01
27	SLE FR 3	3	296	2264	-12.88	0.87	0.01
27	SLE FR 4	3	335	2408	-14.45	0.86	0.02
27	SLE FR 5	3	333	2404	-14.36	0.85	0.02
27	SLE FR 6	3	358	2497	-15.34	0.84	0.02
27	SLE QP 1	3	296	2264	-12.88	0.87	0.01
27	SLE QP 2	3	333	2404	-14.36	0.85	0.02
27	SLD 1	-5	334	2589	-14.72	2.76	0.03
27	SLD 2	-5	334	2589	-14.72	2.76	0.03
27	SLD 3	3	278	2493	-12.44	7.29	0.02
27	SLD 4	3	278	2493	-12.44	7.29	0.02
27	SLD 5	-12	418	2605	-17.92	-5.44	0.04
27	SLD 6	-12	418	2605	-17.92	-5.44	0.04
27	SLD 7	16	232	2285	-10.33	9.65	0
27	SLD 8	16	232	2285	-10.33	9.65	0
27	SLD 9	-9	434	2522	-18.39	-7.94	0.03
27	SLD 10	-9	434	2522	-18.39	-7.94	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
27	SLD 11	18	248	2203	-10.8	7.15	-0.01
27	SLD 12	18	248	2203	-10.8	7.15	-0.01
27	SLD 13	4	387	2315	-16.27	-5.58	0.01
27	SLD 14	4	387	2315	-16.27	-5.58	0.01
27	SLD 15	12	331	2219	-14	-1.06	0
27	SLD 16	12	331	2219	-14	-1.06	0
27	SLV 1	-18	343	2866	-15.47	5.52	0.05
27	SLV 2	-18	343	2866	-15.47	5.52	0.05
27	SLV 3	3	195	2610	-9.44	17.11	0.02
27	SLV 4	3	195	2610	-9.44	17.11	0.02
27	SLV 5	-35	559	2931	-23.84	-15.33	0.07
27	SLV 6	-35	559	2931	-23.84	-15.33	0.07
27	SLV 7	35	68	2077	-3.73	23.31	-0.03
27	SLV 8	35	68	2077	-3.73	23.31	-0.03
27	SLV 9	-28	598	2730	-24.99	-21.61	0.06
27	SLV 10	-28	598	2730	-24.99	-21.61	0.06
27	SLV 11	42	106	1877	-4.87	17.04	-0.04
27	SLV 12	42	106	1877	-4.87	17.04	-0.04
27	SLV 13	4	470	2198	-19.28	-15.41	0.01
27	SLV 14	4	470	2198	-19.28	-15.41	0.01
27	SLV 15	25	323	1942	-13.24	-3.81	-0.02
27	SLV 16	25	323	1942	-13.24	-3.81	-0.02
28	SLU 1	15	25	1796	-1.29	-0.7	-0.01
28	SLU 2	14	23	1812	-0.82	-0.84	-0.01
28	SLU 3	15	25	1796	-1.29	-0.7	-0.01
28	SLU 4	14	23	1806	-1.01	-0.78	-0.01
28	SLU 5	14	23	1812	-0.82	-0.84	-0.01
28	SLU 6	15	25	1796	-1.29	-0.7	-0.01
28	SLU 7	14	23	1806	-1.01	-0.78	-0.01
28	SLU 8	15	25	1796	-1.29	-0.7	-0.01
28	SLU 9	14	23	1806	-1.01	-0.78	-0.01
28	SLU 10	26	42	2079	-1.53	-0.93	-0.01
28	SLU 11	27	44	2063	-2	-0.79	-0.01
28	SLU 12	26	43	2072	-1.72	-0.88	-0.01
28	SLU 13	26	42	2079	-1.53	-0.93	-0.01
28	SLU 14	27	44	2063	-2	-0.79	-0.01
28	SLU 15	26	43	2072	-1.72	-0.88	-0.01
28	SLU 16	27	44	2063	-2	-0.79	-0.01
28	SLU 17	26	43	2072	-1.72	-0.88	-0.01
28	SLU 18	32	53	2177	-2.3	-0.83	-0.01
28	SLU 19	31	51	2187	-2.02	-0.91	-0.01
28	SLU 20	32	53	2177	-2.3	-0.83	-0.01
28	SLU 21	31	51	2187	-2.02	-0.91	-0.01
28	SLU 22	21	34	1932	-1.6	-0.74	-0.01
28	SLU 23	20	32	1947	-1.14	-0.88	-0.01
28	SLU 24	21	34	1932	-1.6	-0.74	-0.01
28	SLU 25	20	33	1941	-1.32	-0.83	-0.01
28	SLU 26	20	32	1947	-1.14	-0.88	-0.01
28	SLU 27	21	34	1932	-1.6	-0.74	-0.01
28	SLU 28	20	33	1941	-1.32	-0.83	-0.01
28	SLU 29	21	34	1932	-1.6	-0.74	-0.01
28	SLU 30	20	33	1941	-1.32	-0.83	-0.01
28	SLU 31	31	51	2214	-1.85	-0.97	-0.01
28	SLU 32	32	54	2199	-2.31	-0.83	-0.01
28	SLU 33	32	52	2208	-2.03	-0.92	-0.01
28	SLU 34	31	51	2214	-1.85	-0.97	-0.01
28	SLU 35	32	54	2199	-2.31	-0.83	-0.01
28	SLU 36	32	52	2208	-2.03	-0.92	-0.01
28	SLU 37	32	54	2199	-2.31	-0.83	-0.01
28	SLU 38	32	52	2208	-2.03	-0.92	-0.01
28	SLU 39	37	62	2313	-2.62	-0.87	-0.01
28	SLU 40	37	61	2322	-2.34	-0.96	-0.01
28	SLU 41	37	62	2313	-2.62	-0.87	-0.01
28	SLU 42	37	61	2322	-2.34	-0.96	-0.01
28	SLU 43	18	29	2289	-1.56	-0.9	-0.01
28	SLU 44	16	27	2304	-1.1	-1.04	-0.01
28	SLU 45	18	29	2289	-1.56	-0.9	-0.01
28	SLU 46	17	28	2298	-1.28	-0.98	-0.01
28	SLU 47	16	27	2304	-1.1	-1.04	-0.01
28	SLU 48	18	29	2289	-1.56	-0.9	-0.01
28	SLU 49	17	28	2298	-1.28	-0.98	-0.01
28	SLU 50	18	29	2289	-1.56	-0.9	-0.01
28	SLU 51	17	28	2298	-1.28	-0.98	-0.01
28	SLU 52	28	46	2571	-1.81	-1.13	-0.01
28	SLU 53	29	49	2555	-2.27	-0.99	-0.01
28	SLU 54	29	47	2565	-1.99	-1.07	-0.01
28	SLU 55	28	46	2571	-1.81	-1.13	-0.01
28	SLU 56	29	49	2555	-2.27	-0.99	-0.01
28	SLU 57	29	47	2565	-1.99	-1.07	-0.01
28	SLU 58	29	49	2555	-2.27	-0.99	-0.01
28	SLU 59	29	47	2565	-1.99	-1.07	-0.01
28	SLU 60	34	57	2670	-2.58	-1.03	-0.01
28	SLU 61	34	56	2679	-2.3	-1.11	-0.01
28	SLU 62	34	57	2670	-2.58	-1.03	-0.01
28	SLU 63	34	56	2679	-2.3	-1.11	-0.01
28	SLU 64	23	39	2424	-1.88	-0.94	-0.01
28	SLU 65	22	36	2440	-1.41	-1.08	-0.01
28	SLU 66	23	39	2424	-1.88	-0.94	-0.01
28	SLU 67	23	37	2434	-1.6	-1.02	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
28	SLU 68	22	36	2440	-1.41	-1.08	-0.01
28	SLU 69	23	39	2424	-1.88	-0.94	-0.01
28	SLU 70	23	37	2434	-1.6	-1.02	-0.01
28	SLU 71	23	39	2424	-1.88	-0.94	-0.01
28	SLU 72	23	37	2434	-1.6	-1.02	-0.01
28	SLU 73	34	56	2706	-2.12	-1.17	-0.01
28	SLU 74	35	58	2691	-2.59	-1.03	-0.01
28	SLU 75	34	57	2700	-2.31	-1.11	-0.01
28	SLU 76	34	56	2706	-2.12	-1.17	-0.01
28	SLU 77	35	58	2691	-2.59	-1.03	-0.01
28	SLU 78	34	57	2700	-2.31	-1.11	-0.01
28	SLU 79	35	58	2691	-2.59	-1.03	-0.01
28	SLU 80	34	57	2700	-2.31	-1.11	-0.01
28	SLU 81	40	66	2805	-2.9	-1.07	-0.01
28	SLU 82	39	65	2815	-2.62	-1.15	-0.01
28	SLU 83	40	66	2805	-2.9	-1.07	-0.01
28	SLU 84	39	65	2815	-2.62	-1.15	-0.01
28	SLE RA 1	17	28	1835	-1.38	-0.71	-0.01
28	SLE RA 2	16	26	1845	-1.07	-0.81	-0.01
28	SLE RA 3	17	28	1835	-1.38	-0.71	-0.01
28	SLE RA 4	16	27	1841	-1.19	-0.77	-0.01
28	SLE RA 5	16	26	1845	-1.07	-0.81	-0.01
28	SLE RA 6	17	28	1835	-1.38	-0.71	-0.01
28	SLE RA 7	16	27	1841	-1.19	-0.77	-0.01
28	SLE RA 8	17	28	1835	-1.38	-0.71	-0.01
28	SLE RA 9	16	27	1841	-1.19	-0.77	-0.01
28	SLE RA 10	24	39	2023	-1.54	-0.87	-0.01
28	SLE RA 11	24	41	2013	-1.85	-0.77	-0.01
28	SLE RA 12	24	40	2019	-1.66	-0.83	-0.01
28	SLE RA 13	24	39	2023	-1.54	-0.87	-0.01
28	SLE RA 14	24	41	2013	-1.85	-0.77	-0.01
28	SLE RA 15	24	40	2019	-1.66	-0.83	-0.01
28	SLE RA 16	24	41	2013	-1.85	-0.77	-0.01
28	SLE RA 17	24	40	2019	-1.66	-0.83	-0.01
28	SLE RA 18	28	46	2089	-2.05	-0.8	-0.01
28	SLE RA 19	27	45	2095	-1.87	-0.86	-0.01
28	SLE RA 20	28	46	2089	-2.05	-0.8	-0.01
28	SLE RA 21	27	45	2095	-1.87	-0.86	-0.01
28	SLE FR 1	17	28	1835	-1.38	-0.71	-0.01
28	SLE FR 2	16	27	1837	-1.31	-0.73	-0.01
28	SLE FR 3	17	28	1835	-1.38	-0.71	-0.01
28	SLE FR 4	20	33	1913	-1.52	-0.76	-0.01
28	SLE FR 5	20	33	1911	-1.58	-0.74	-0.01
28	SLE FR 6	22	37	1962	-1.72	-0.76	-0.01
28	SLE QP 1	17	28	1835	-1.38	-0.71	-0.01
28	SLE QP 2	20	33	1911	-1.58	-0.74	-0.01
28	SLD 1	72	132	1847	-7.09	0.35	0.01
28	SLD 2	72	132	1847	-7.09	0.35	0.01
28	SLD 3	102	178	1802	-9.18	1.74	0.01
28	SLD 4	102	178	1802	-9.18	1.74	0.01
28	SLD 5	-9	-8	1959	-0.05	-2.51	-0.01
28	SLD 6	-9	-8	1959	-0.05	-2.51	-0.01
28	SLD 7	89	147	1811	-7.04	2.1	0.01
28	SLD 8	89	147	1811	-7.04	2.1	0.01
28	SLD 9	-49	-81	2011	3.88	-3.58	-0.02
28	SLD 10	-49	-81	2011	3.88	-3.58	-0.02
28	SLD 11	49	74	1864	-3.1	1.03	0
28	SLD 12	49	74	1864	-3.1	1.03	0
28	SLD 13	-62	-112	2020	6.02	-3.22	-0.02
28	SLD 14	-62	-112	2020	6.02	-3.22	-0.02
28	SLD 15	-32	-65	1976	3.93	-1.83	-0.02
28	SLD 16	-32	-65	1976	3.93	-1.83	-0.02
28	SLV 1	150	280	1752	-15.41	1.84	0.03
28	SLV 2	150	280	1752	-15.41	1.84	0.03
28	SLV 3	220	390	1636	-20.52	5.23	0.04
28	SLV 4	220	390	1636	-20.52	5.23	0.04
28	SLV 5	-47	-61	2038	2.01	-5.1	-0.01
28	SLV 6	-47	-61	2038	2.01	-5.1	-0.01
28	SLV 7	186	309	1654	-15	6.18	0.02
28	SLV 8	186	309	1654	-15	6.18	0.02
28	SLV 9	-146	-242	2169	11.84	-7.66	-0.04
28	SLV 10	-146	-242	2169	11.84	-7.66	-0.04
28	SLV 11	87	127	1784	-5.17	3.62	0
28	SLV 12	87	127	1784	-5.17	3.62	0
28	SLV 13	-180	-324	2186	17.36	-6.7	-0.05
28	SLV 14	-180	-324	2186	17.36	-6.7	-0.05
28	SLV 15	-110	-213	2071	12.25	-3.32	-0.04
28	SLV 16	-110	-213	2071	12.25	-3.32	-0.04
29	SLU 1	0	193	1986	-7.22	0.11	-0.01
29	SLU 2	0	208	2014	-7.67	0.14	-0.01
29	SLU 3	0	193	1986	-7.22	0.11	-0.01
29	SLU 4	0	202	2003	-7.49	0.13	-0.01
29	SLU 5	0	208	2014	-7.67	0.14	-0.01
29	SLU 6	0	193	1986	-7.22	0.11	-0.01
29	SLU 7	0	202	2003	-7.49	0.13	-0.01
29	SLU 8	0	193	1986	-7.22	0.11	-0.01
29	SLU 9	0	202	2003	-7.49	0.13	-0.01
29	SLU 10	-1	311	2490	-11.19	-0.21	-0.01
29	SLU 11	0	296	2462	-10.74	-0.25	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
29	SLU 12	0	305	2479	-11.01	-0.23	-0.01
29	SLU 13	-1	311	2490	-11.19	-0.21	-0.01
29	SLU 14	0	296	2462	-10.74	-0.25	-0.01
29	SLU 15	0	305	2479	-11.01	-0.23	-0.01
29	SLU 16	0	296	2462	-10.74	-0.25	-0.01
29	SLU 17	0	305	2479	-11.01	-0.23	-0.01
29	SLU 18	-1	340	2666	-12.24	-0.4	-0.01
29	SLU 19	-1	349	2683	-12.51	-0.38	-0.01
29	SLU 20	-1	340	2666	-12.24	-0.4	-0.01
29	SLU 21	-1	349	2683	-12.51	-0.38	-0.01
29	SLU 22	0	229	2194	-8.49	-0.02	-0.01
29	SLU 23	0	244	2222	-8.93	0.01	-0.01
29	SLU 24	0	229	2194	-8.49	-0.02	-0.01
29	SLU 25	0	238	2211	-8.75	0	-0.01
29	SLU 26	0	244	2222	-8.93	0.01	-0.01
29	SLU 27	0	229	2194	-8.49	-0.02	-0.01
29	SLU 28	0	238	2211	-8.75	0	-0.01
29	SLU 29	0	229	2194	-8.49	-0.02	-0.01
29	SLU 30	0	238	2211	-8.75	0	-0.01
29	SLU 31	-1	347	2698	-12.45	-0.34	-0.01
29	SLU 32	-1	332	2670	-12	-0.38	-0.01
29	SLU 33	-1	341	2687	-12.27	-0.35	-0.01
29	SLU 34	-1	347	2698	-12.45	-0.34	-0.01
29	SLU 35	-1	332	2670	-12	-0.38	-0.01
29	SLU 36	-1	341	2687	-12.27	-0.35	-0.01
29	SLU 37	-1	332	2670	-12	-0.38	-0.01
29	SLU 38	-1	341	2687	-12.27	-0.35	-0.01
29	SLU 39	-1	377	2874	-13.51	-0.53	-0.01
29	SLU 40	-1	385	2891	-13.78	-0.51	-0.01
29	SLU 41	-1	377	2874	-13.51	-0.53	-0.01
29	SLU 42	-1	385	2891	-13.78	-0.51	-0.01
29	SLU 43	0	238	2510	-8.95	0.18	-0.01
29	SLU 44	0	253	2538	-9.4	0.22	-0.01
29	SLU 45	0	238	2510	-8.95	0.18	-0.01
29	SLU 46	0	247	2527	-9.22	0.21	-0.01
29	SLU 47	0	253	2538	-9.4	0.22	-0.01
29	SLU 48	0	238	2510	-8.95	0.18	-0.01
29	SLU 49	0	247	2527	-9.22	0.21	-0.01
29	SLU 50	0	238	2510	-8.95	0.18	-0.01
29	SLU 51	0	247	2527	-9.22	0.21	-0.01
29	SLU 52	-1	356	3014	-12.92	-0.13	-0.01
29	SLU 53	0	342	2986	-12.47	-0.17	-0.01
29	SLU 54	0	350	3003	-12.74	-0.15	-0.01
29	SLU 55	-1	356	3014	-12.92	-0.13	-0.01
29	SLU 56	0	342	2986	-12.47	-0.17	-0.01
29	SLU 57	0	350	3003	-12.74	-0.15	-0.01
29	SLU 58	0	342	2986	-12.47	-0.17	-0.01
29	SLU 59	0	350	3003	-12.74	-0.15	-0.01
29	SLU 60	0	386	3190	-13.98	-0.32	-0.01
29	SLU 61	-1	395	3207	-14.24	-0.3	-0.01
29	SLU 62	0	386	3190	-13.98	-0.32	-0.01
29	SLU 63	-1	395	3207	-14.24	-0.3	-0.01
29	SLU 64	0	275	2718	-10.22	0.05	-0.01
29	SLU 65	0	289	2746	-10.67	0.09	-0.01
29	SLU 66	0	275	2718	-10.22	0.05	-0.01
29	SLU 67	0	283	2735	-10.49	0.08	-0.01
29	SLU 68	0	289	2746	-10.67	0.09	-0.01
29	SLU 69	0	275	2718	-10.22	0.05	-0.01
29	SLU 70	0	283	2735	-10.49	0.08	-0.01
29	SLU 71	0	275	2718	-10.22	0.05	-0.01
29	SLU 72	0	283	2735	-10.49	0.08	-0.01
29	SLU 73	-1	393	3223	-14.18	-0.26	-0.01
29	SLU 74	0	378	3194	-13.73	-0.3	-0.01
29	SLU 75	-1	387	3211	-14	-0.28	-0.01
29	SLU 76	-1	393	3223	-14.18	-0.26	-0.01
29	SLU 77	0	378	3194	-13.73	-0.3	-0.01
29	SLU 78	-1	387	3211	-14	-0.28	-0.01
29	SLU 79	0	378	3194	-13.73	-0.3	-0.01
29	SLU 80	-1	387	3211	-14	-0.28	-0.01
29	SLU 81	-1	422	3398	-15.24	-0.45	-0.01
29	SLU 82	-1	431	3415	-15.51	-0.43	-0.01
29	SLU 83	-1	422	3398	-15.24	-0.45	-0.01
29	SLU 84	-1	431	3415	-15.51	-0.43	-0.01
29	SLE RA 1	0	203	2045	-7.58	0.07	-0.01
29	SLE RA 2	0	213	2064	-7.88	0.09	-0.01
29	SLE RA 3	0	203	2045	-7.58	0.07	-0.01
29	SLE RA 4	0	209	2056	-7.76	0.08	-0.01
29	SLE RA 5	0	213	2064	-7.88	0.09	-0.01
29	SLE RA 6	0	203	2045	-7.58	0.07	-0.01
29	SLE RA 7	0	209	2056	-7.76	0.08	-0.01
29	SLE RA 8	0	203	2045	-7.58	0.07	-0.01
29	SLE RA 9	0	209	2056	-7.76	0.08	-0.01
29	SLE RA 10	0	282	2381	-10.22	-0.14	-0.01
29	SLE RA 11	0	272	2362	-9.93	-0.17	-0.01
29	SLE RA 12	0	278	2374	-10.11	-0.15	-0.01
29	SLE RA 13	0	282	2381	-10.22	-0.14	-0.01
29	SLE RA 14	0	272	2362	-9.93	-0.17	-0.01
29	SLE RA 15	0	278	2374	-10.11	-0.15	-0.01
29	SLE RA 16	0	272	2362	-9.93	-0.17	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
29	SLE RA 17	0	278	2374	-10.11	-0.15	-0.01
29	SLE RA 18	0	302	2498	-10.93	-0.27	-0.01
29	SLE RA 19	0	307	2510	-11.11	-0.25	-0.01
29	SLE RA 20	0	302	2498	-10.93	-0.27	-0.01
29	SLE RA 21	0	307	2510	-11.11	-0.25	-0.01
29	SLE FR 1	0	203	2045	-7.58	0.07	-0.01
29	SLE FR 2	0	205	2049	-7.64	0.08	-0.01
29	SLE FR 3	0	203	2045	-7.58	0.07	-0.01
29	SLE FR 4	0	235	2185	-8.65	-0.03	-0.01
29	SLE FR 5	0	233	2181	-8.59	-0.03	-0.01
29	SLE FR 6	0	252	2272	-9.26	-0.1	-0.01
29	SLE QP 1	0	203	2045	-7.58	0.07	-0.01
29	SLE QP 2	0	233	2181	-8.59	-0.03	-0.01
29	SLD 1	-12	236	2298	-10.39	4.82	0
29	SLD 2	-12	236	2298	-10.39	4.82	0
29	SLD 3	-1	182	2219	-8.44	12.45	0
29	SLD 4	-1	182	2219	-8.44	12.45	0
29	SLD 5	-21	316	2336	-12.09	-10.15	0
29	SLD 6	-21	316	2336	-12.09	-10.15	0
29	SLD 7	17	136	2073	-5.58	15.28	-0.01
29	SLD 8	17	136	2073	-5.58	15.28	-0.01
29	SLD 9	-17	330	2289	-11.6	-15.34	0
29	SLD 10	-17	330	2289	-11.6	-15.34	0
29	SLD 11	21	150	2026	-5.08	10.08	-0.01
29	SLD 12	21	150	2026	-5.08	10.08	-0.01
29	SLD 13	0	283	2143	-8.73	-12.51	-0.01
29	SLD 14	0	283	2143	-8.73	-12.51	-0.01
29	SLD 15	12	229	2064	-6.78	-4.88	-0.02
29	SLD 16	12	229	2064	-6.78	-4.88	-0.02
29	SLV 1	-31	247	2484	-13.02	11.82	0.02
29	SLV 2	-31	247	2484	-13.02	11.82	0.02
29	SLV 3	-2	107	2261	-8.09	31.39	0.01
29	SLV 4	-2	107	2261	-8.09	31.39	0.01
29	SLV 5	-54	449	2609	-17.39	-26.17	0.01
29	SLV 6	-54	449	2609	-17.39	-26.17	0.01
29	SLV 7	44	-17	1868	-0.96	39.08	-0.01
29	SLV 8	44	-17	1868	-0.96	39.08	-0.01
29	SLV 9	-44	483	2494	-16.21	-39.15	0
29	SLV 10	-44	483	2494	-16.21	-39.15	0
29	SLV 11	54	16	1753	0.22	26.1	-0.03
29	SLV 12	54	16	1753	0.22	26.1	-0.03
29	SLV 13	1	359	2101	-9.08	-31.45	-0.03
29	SLV 14	1	359	2101	-9.08	-31.45	-0.03
29	SLV 15	31	219	1879	-4.15	-11.88	-0.03
29	SLV 16	31	219	1879	-4.15	-11.88	-0.03
30	SLU 1	-40	-46	1961	1.77	-4.18	0.03
30	SLU 2	-37	-42	1980	1.38	-3.83	0.03
30	SLU 3	-40	-46	1961	1.77	-4.18	0.03
30	SLU 4	-38	-44	1973	1.54	-3.97	0.03
30	SLU 5	-37	-42	1980	1.38	-3.83	0.03
30	SLU 6	-40	-46	1961	1.77	-4.18	0.03
30	SLU 7	-38	-44	1973	1.54	-3.97	0.03
30	SLU 8	-40	-46	1961	1.77	-4.18	0.03
30	SLU 9	-38	-44	1973	1.54	-3.97	0.03
30	SLU 10	-33	-33	2334	1.18	-4.49	0.04
30	SLU 11	-36	-37	2314	1.58	-4.84	0.04
30	SLU 12	-35	-35	2326	1.34	-4.63	0.04
30	SLU 13	-33	-33	2334	1.18	-4.49	0.04
30	SLU 14	-36	-37	2314	1.58	-4.84	0.04
30	SLU 15	-35	-35	2326	1.34	-4.63	0.04
30	SLU 16	-36	-37	2314	1.58	-4.84	0.04
30	SLU 17	-35	-35	2326	1.34	-4.63	0.04
30	SLU 18	-35	-34	2466	1.49	-5.12	0.04
30	SLU 19	-33	-31	2478	1.25	-4.91	0.04
30	SLU 20	-35	-34	2466	1.49	-5.12	0.04
30	SLU 21	-33	-31	2478	1.25	-4.91	0.04
30	SLU 22	-39	-43	2144	1.72	-4.54	0.04
30	SLU 23	-36	-38	2163	1.33	-4.19	0.04
30	SLU 24	-39	-43	2144	1.72	-4.54	0.04
30	SLU 25	-37	-40	2156	1.48	-4.33	0.04
30	SLU 26	-36	-38	2163	1.33	-4.19	0.04
30	SLU 27	-39	-43	2144	1.72	-4.54	0.04
30	SLU 28	-37	-40	2156	1.48	-4.33	0.04
30	SLU 29	-39	-43	2144	1.72	-4.54	0.04
30	SLU 30	-37	-40	2156	1.48	-4.33	0.04
30	SLU 31	-32	-29	2517	1.13	-4.85	0.04
30	SLU 32	-35	-34	2498	1.53	-5.2	0.04
30	SLU 33	-33	-31	2509	1.29	-4.99	0.04
30	SLU 34	-32	-29	2517	1.13	-4.85	0.04
30	SLU 35	-35	-34	2498	1.53	-5.2	0.04
30	SLU 36	-33	-31	2509	1.29	-4.99	0.04
30	SLU 37	-35	-34	2498	1.53	-5.2	0.04
30	SLU 38	-33	-31	2509	1.29	-4.99	0.04
30	SLU 39	-34	-30	2649	1.44	-5.48	0.05
30	SLU 40	-32	-27	2661	1.2	-5.27	0.05
30	SLU 41	-34	-30	2649	1.44	-5.48	0.05
30	SLU 42	-32	-27	2661	1.2	-5.27	0.05
30	SLU 43	-52	-62	2486	2.32	-5.31	0.04
30	SLU 44	-49	-57	2506	1.93	-4.96	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
30	SLU 45	-52	-62	2486	2.32	-5.31	0.04
30	SLU 46	-50	-59	2498	2.09	-5.1	0.04
30	SLU 47	-49	-57	2506	1.93	-4.96	0.04
30	SLU 48	-52	-62	2486	2.32	-5.31	0.04
30	SLU 49	-50	-59	2498	2.09	-5.1	0.04
30	SLU 50	-52	-62	2486	2.32	-5.31	0.04
30	SLU 51	-50	-59	2498	2.09	-5.1	0.04
30	SLU 52	-46	-48	2860	1.73	-5.62	0.05
30	SLU 53	-49	-53	2840	2.13	-5.97	0.05
30	SLU 54	-47	-50	2852	1.89	-5.76	0.05
30	SLU 55	-46	-48	2860	1.73	-5.62	0.05
30	SLU 56	-49	-53	2840	2.13	-5.97	0.05
30	SLU 57	-47	-50	2852	1.89	-5.76	0.05
30	SLU 58	-49	-53	2840	2.13	-5.97	0.05
30	SLU 59	-47	-50	2852	1.89	-5.76	0.05
30	SLU 60	-47	-49	2992	2.04	-6.25	0.05
30	SLU 61	-46	-46	3003	1.8	-6.04	0.05
30	SLU 62	-47	-49	2992	2.04	-6.25	0.05
30	SLU 63	-46	-46	3003	1.8	-6.04	0.05
30	SLU 64	-51	-58	2670	2.27	-5.67	0.05
30	SLU 65	-48	-53	2689	1.88	-5.32	0.05
30	SLU 66	-51	-58	2670	2.27	-5.67	0.05
30	SLU 67	-49	-55	2681	2.03	-5.46	0.05
30	SLU 68	-48	-53	2689	1.88	-5.32	0.05
30	SLU 69	-51	-58	2670	2.27	-5.67	0.05
30	SLU 70	-49	-55	2681	2.03	-5.46	0.05
30	SLU 71	-51	-58	2670	2.27	-5.67	0.05
30	SLU 72	-49	-55	2681	2.03	-5.46	0.05
30	SLU 73	-45	-45	3043	1.68	-5.98	0.05
30	SLU 74	-48	-49	3023	2.08	-6.33	0.05
30	SLU 75	-46	-46	3035	1.84	-6.12	0.05
30	SLU 76	-45	-45	3043	1.68	-5.98	0.05
30	SLU 77	-48	-49	3023	2.08	-6.33	0.05
30	SLU 78	-46	-46	3035	1.84	-6.12	0.05
30	SLU 79	-48	-49	3023	2.08	-6.33	0.05
30	SLU 80	-46	-46	3035	1.84	-6.12	0.05
30	SLU 81	-46	-45	3175	1.99	-6.61	0.05
30	SLU 82	-44	-42	3186	1.75	-6.4	0.06
30	SLU 83	-46	-45	3175	1.99	-6.61	0.05
30	SLU 84	-44	-42	3186	1.75	-6.4	0.06
30	SLE RA 1	-39	-45	2013	1.76	-4.29	0.03
30	SLE RA 2	-38	-42	2026	1.49	-4.05	0.04
30	SLE RA 3	-39	-45	2013	1.76	-4.29	0.03
30	SLE RA 4	-38	-44	2021	1.6	-4.14	0.03
30	SLE RA 5	-38	-42	2026	1.49	-4.05	0.04
30	SLE RA 6	-39	-45	2013	1.76	-4.29	0.03
30	SLE RA 7	-38	-44	2021	1.6	-4.14	0.03
30	SLE RA 8	-39	-45	2013	1.76	-4.29	0.03
30	SLE RA 9	-38	-44	2021	1.6	-4.14	0.03
30	SLE RA 10	-35	-36	2262	1.36	-4.49	0.04
30	SLE RA 11	-37	-39	2249	1.63	-4.72	0.04
30	SLE RA 12	-36	-38	2257	1.47	-4.58	0.04
30	SLE RA 13	-35	-36	2262	1.36	-4.49	0.04
30	SLE RA 14	-37	-39	2249	1.63	-4.72	0.04
30	SLE RA 15	-36	-38	2257	1.47	-4.58	0.04
30	SLE RA 16	-37	-39	2249	1.63	-4.72	0.04
30	SLE RA 17	-36	-38	2257	1.47	-4.58	0.04
30	SLE RA 18	-36	-37	2350	1.57	-4.91	0.04
30	SLE RA 19	-35	-35	2358	1.41	-4.77	0.04
30	SLE RA 20	-36	-37	2350	1.57	-4.91	0.04
30	SLE RA 21	-35	-35	2358	1.41	-4.77	0.04
30	SLE FR 1	-39	-45	2013	1.76	-4.29	0.03
30	SLE FR 2	-39	-45	2016	1.71	-4.24	0.03
30	SLE FR 3	-39	-45	2013	1.76	-4.29	0.03
30	SLE FR 4	-38	-42	2117	1.65	-4.43	0.04
30	SLE FR 5	-39	-43	2114	1.7	-4.47	0.04
30	SLE FR 6	-38	-41	2182	1.67	-4.6	0.04
30	SLE QP 1	-39	-45	2013	1.76	-4.29	0.03
30	SLE QP 2	-39	-43	2114	1.7	-4.47	0.04
30	SLD 1	52	110	1803	-6.82	-0.95	0.01
30	SLD 2	52	110	1803	-6.82	-0.95	0.01
30	SLD 3	20	60	1731	-4.46	-2.42	0.01
30	SLD 4	20	60	1731	-4.46	-2.42	0.01
30	SLD 5	36	78	2129	-4.43	-1.18	0.04
30	SLD 6	36	78	2129	-4.43	-1.18	0.04
30	SLD 7	-68	-87	1891	3.43	-6.09	0.02
30	SLD 8	-68	-87	1891	3.43	-6.09	0.02
30	SLD 9	-9	1	2337	-0.02	-2.86	0.05
30	SLD 10	-9	1	2337	-0.02	-2.86	0.05
30	SLD 11	-113	-163	2100	7.83	-7.76	0.04
30	SLD 12	-113	-163	2100	7.83	-7.76	0.04
30	SLD 13	-98	-146	2497	7.87	-6.53	0.06
30	SLD 14	-98	-146	2497	7.87	-6.53	0.06
30	SLD 15	-129	-195	2426	10.23	-8	0.06
30	SLD 16	-129	-195	2426	10.23	-8	0.06
30	SLV 1	184	334	1338	-19.68	4.23	-0.02
30	SLV 2	184	334	1338	-19.68	4.23	-0.02
30	SLV 3	109	215	1157	-13.75	0.53	-0.03
30	SLV 4	109	215	1157	-13.75	0.53	-0.03





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
30	SLV 5	143	251	2155	-13.7	3.75	0.03
30	SLV 6	143	251	2155	-13.7	3.75	0.03
30	SLV 7	-109	-146	1554	6.06	-8.58	0
30	SLV 8	-109	-146	1554	6.06	-8.58	0
30	SLV 9	32	61	2675	-2.65	-0.37	0.07
30	SLV 10	32	61	2675	-2.65	-0.37	0.07
30	SLV 11	-220	-337	2074	17.11	-12.69	0.04
30	SLV 12	-220	-337	2074	17.11	-12.69	0.04
30	SLV 13	-186	-301	3071	17.16	-9.48	0.1
30	SLV 14	-186	-301	3071	17.16	-9.48	0.1
30	SLV 15	-261	-420	2891	23.09	-13.18	0.09
30	SLV 16	-261	-420	2891	23.09	-13.18	0.09
31	SLU 1	0	120	1883	-5.08	-0.19	0
31	SLU 2	-1	135	1913	-5.71	-0.19	0
31	SLU 3	0	120	1883	-5.08	-0.19	0
31	SLU 4	0	129	1901	-5.46	-0.19	0
31	SLU 5	-1	135	1913	-5.71	-0.19	0
31	SLU 6	0	120	1883	-5.08	-0.19	0
31	SLU 7	0	129	1901	-5.46	-0.19	0
31	SLU 8	0	120	1883	-5.08	-0.19	0
31	SLU 9	0	129	1901	-5.46	-0.19	0
31	SLU 10	-1	216	2397	-8.88	-0.7	0
31	SLU 11	-1	201	2367	-8.25	-0.69	0
31	SLU 12	-1	210	2385	-8.63	-0.7	0
31	SLU 13	-1	216	2397	-8.88	-0.7	0
31	SLU 14	-1	201	2367	-8.25	-0.69	0
31	SLU 15	-1	210	2385	-8.63	-0.7	0
31	SLU 16	-1	201	2367	-8.25	-0.69	0
31	SLU 17	-1	210	2385	-8.63	-0.7	0
31	SLU 18	-1	236	2574	-9.61	-0.91	0
31	SLU 19	-1	245	2592	-9.99	-0.91	0
31	SLU 20	-1	236	2574	-9.61	-0.91	0
31	SLU 21	-1	245	2592	-9.99	-0.91	0
31	SLU 22	0	149	2086	-6.24	-0.38	0
31	SLU 23	-1	164	2116	-6.87	-0.39	0
31	SLU 24	0	149	2086	-6.24	-0.38	0
31	SLU 25	-1	158	2104	-6.62	-0.39	0
31	SLU 26	-1	164	2116	-6.87	-0.39	0
31	SLU 27	0	149	2086	-6.24	-0.38	0
31	SLU 28	-1	158	2104	-6.62	-0.39	0
31	SLU 29	0	149	2086	-6.24	-0.38	0
31	SLU 30	-1	158	2104	-6.62	-0.39	0
31	SLU 31	-1	245	2600	-10.04	-0.9	0
31	SLU 32	-1	230	2570	-9.41	-0.89	0
31	SLU 33	-1	239	2588	-9.79	-0.89	0
31	SLU 34	-1	245	2600	-10.04	-0.9	0
31	SLU 35	-1	230	2570	-9.41	-0.89	0
31	SLU 36	-1	239	2588	-9.79	-0.89	0
31	SLU 37	-1	230	2570	-9.41	-0.89	0
31	SLU 38	-1	239	2588	-9.79	-0.89	0
31	SLU 39	-1	264	2777	-10.77	-1.1	0
31	SLU 40	-1	273	2795	-11.15	-1.11	0
31	SLU 41	-1	264	2777	-10.77	-1.1	0
31	SLU 42	-1	273	2795	-11.15	-1.11	0
31	SLU 43	0	146	2378	-6.21	-0.17	0
31	SLU 44	-1	161	2409	-6.84	-0.18	0
31	SLU 45	0	146	2378	-6.21	-0.17	0
31	SLU 46	0	155	2396	-6.58	-0.18	0
31	SLU 47	-1	161	2409	-6.84	-0.18	0
31	SLU 48	0	146	2378	-6.21	-0.17	0
31	SLU 49	0	155	2396	-6.58	-0.18	0
31	SLU 50	0	146	2378	-6.21	-0.17	0
31	SLU 51	0	155	2396	-6.58	-0.18	0
31	SLU 52	-1	242	2892	-10.01	-0.69	0
31	SLU 53	-1	227	2862	-9.38	-0.68	0
31	SLU 54	-1	236	2880	-9.76	-0.69	0
31	SLU 55	-1	242	2892	-10.01	-0.69	0
31	SLU 56	-1	227	2862	-9.38	-0.68	0
31	SLU 57	-1	236	2880	-9.76	-0.69	0
31	SLU 58	-1	227	2862	-9.38	-0.68	0
31	SLU 59	-1	236	2880	-9.76	-0.69	0
31	SLU 60	-1	262	3069	-10.74	-0.9	0
31	SLU 61	-1	271	3088	-11.11	-0.9	0
31	SLU 62	-1	262	3069	-10.74	-0.9	0
31	SLU 63	-1	271	3088	-11.11	-0.9	0
31	SLU 64	0	175	2581	-7.37	-0.37	0
31	SLU 65	-1	190	2612	-8	-0.38	0
31	SLU 66	0	175	2581	-7.37	-0.37	0
31	SLU 67	-1	184	2599	-7.74	-0.38	0
31	SLU 68	-1	190	2612	-8	-0.38	0
31	SLU 69	0	175	2581	-7.37	-0.37	0
31	SLU 70	-1	184	2599	-7.74	-0.38	0
31	SLU 71	0	175	2581	-7.37	-0.37	0
31	SLU 72	-1	184	2599	-7.74	-0.38	0
31	SLU 73	-1	271	3095	-11.17	-0.89	0
31	SLU 74	-1	256	3065	-10.54	-0.88	0
31	SLU 75	-1	265	3083	-10.91	-0.88	0
31	SLU 76	-1	271	3095	-11.17	-0.89	0
31	SLU 77	-1	256	3065	-10.54	-0.88	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
31	SLU 78	-1	265	3083	-10.91	-0.88	0
31	SLU 79	-1	256	3065	-10.54	-0.88	0
31	SLU 80	-1	265	3083	-10.91	-0.88	0
31	SLU 81	-1	291	3272	-11.9	-1.09	0
31	SLU 82	-1	300	3291	-12.27	-1.1	0
31	SLU 83	-1	291	3272	-11.9	-1.09	0
31	SLU 84	-1	300	3291	-12.27	-1.1	0
31	SLE RA 1	0	128	1941	-5.41	-0.24	0
31	SLE RA 2	0	138	1961	-5.83	-0.25	0
31	SLE RA 3	0	128	1941	-5.41	-0.24	0
31	SLE RA 4	0	134	1953	-5.66	-0.25	0
31	SLE RA 5	0	138	1961	-5.83	-0.25	0
31	SLE RA 6	0	128	1941	-5.41	-0.24	0
31	SLE RA 7	0	134	1953	-5.66	-0.25	0
31	SLE RA 8	0	128	1941	-5.41	-0.24	0
31	SLE RA 9	0	134	1953	-5.66	-0.25	0
31	SLE RA 10	-1	192	2284	-7.94	-0.59	0
31	SLE RA 11	-1	182	2263	-7.53	-0.58	0
31	SLE RA 12	-1	188	2276	-7.78	-0.58	0
31	SLE RA 13	-1	192	2284	-7.94	-0.59	0
31	SLE RA 14	-1	182	2263	-7.53	-0.58	0
31	SLE RA 15	-1	188	2276	-7.78	-0.58	0
31	SLE RA 16	-1	182	2263	-7.53	-0.58	0
31	SLE RA 17	-1	188	2276	-7.78	-0.58	0
31	SLE RA 18	-1	205	2402	-8.43	-0.72	0
31	SLE RA 19	-1	211	2414	-8.68	-0.73	0
31	SLE RA 20	-1	205	2402	-8.43	-0.72	0
31	SLE RA 21	-1	211	2414	-8.68	-0.73	0
31	SLE FR 1	0	128	1941	-5.41	-0.24	0
31	SLE FR 2	0	130	1945	-5.5	-0.24	0
31	SLE FR 3	0	128	1941	-5.41	-0.24	0
31	SLE FR 4	0	153	2083	-6.4	-0.39	0
31	SLE FR 5	0	151	2079	-6.32	-0.39	0
31	SLE FR 6	0	167	2171	-6.92	-0.48	0
31	SLE QP 1	0	128	1941	-5.41	-0.24	0
31	SLE QP 2	0	151	2079	-6.32	-0.39	0
31	SLD 1	-16	157	2161	-6.58	8.45	-0.01
31	SLD 2	-16	157	2161	-6.58	8.45	-0.01
31	SLD 3	-5	104	2081	-4.48	17.65	-0.02
31	SLD 4	-5	104	2081	-4.48	17.65	-0.02
31	SLD 5	-22	233	2225	-9.58	-11.7	0.01
31	SLD 6	-22	233	2225	-9.58	-11.7	0.01
31	SLD 7	15	57	1958	-2.58	18.99	-0.02
31	SLD 8	15	57	1958	-2.58	18.99	-0.02
31	SLD 9	-16	246	2200	-10.06	-19.76	0.02
31	SLD 10	-16	246	2200	-10.06	-19.76	0.02
31	SLD 11	21	69	1933	-3.05	10.93	-0.01
31	SLD 12	21	69	1933	-3.05	10.93	-0.01
31	SLD 13	4	199	2077	-8.16	-18.43	0.02
31	SLD 14	4	199	2077	-8.16	-18.43	0.02
31	SLD 15	15	146	1997	-6.06	-9.22	0.01
31	SLD 16	15	146	1997	-6.06	-9.22	0.01
31	SLV 1	-39	169	2297	-7.12	21.22	-0.03
31	SLV 2	-39	169	2297	-7.12	21.22	-0.03
31	SLV 3	-10	30	2067	-1.57	44.88	-0.05
31	SLV 4	-10	30	2067	-1.57	44.88	-0.05
31	SLV 5	-55	367	2493	-14.98	-29.78	0.02
31	SLV 6	-55	367	2493	-14.98	-29.78	0.02
31	SLV 7	40	-95	1726	3.53	49.07	-0.05
31	SLV 8	40	-95	1726	3.53	49.07	-0.05
31	SLV 9	-40	398	2432	-16.16	-49.84	0.05
31	SLV 10	-40	398	2432	-16.16	-49.84	0.05
31	SLV 11	54	-64	1665	2.34	29	-0.02
31	SLV 12	54	-64	1665	2.34	29	-0.02
31	SLV 13	10	272	2091	-11.06	-45.65	0.05
31	SLV 14	10	272	2091	-11.06	-45.65	0.05
31	SLV 15	38	134	1861	-5.51	-21.99	0.03
31	SLV 16	38	134	1861	-5.51	-21.99	0.03
32	SLU 1	-147	186	2486	-6.83	-5.97	-0.01
32	SLU 2	-150	185	2511	-6.46	-6.15	-0.01
32	SLU 3	-147	186	2486	-6.83	-5.97	-0.01
32	SLU 4	-149	185	2501	-6.61	-6.08	-0.01
32	SLU 5	-150	185	2511	-6.46	-6.15	-0.01
32	SLU 6	-147	186	2486	-6.83	-5.97	-0.01
32	SLU 7	-149	185	2501	-6.61	-6.08	-0.01
32	SLU 8	-147	186	2486	-6.83	-5.97	-0.01
32	SLU 9	-149	185	2501	-6.61	-6.08	-0.01
32	SLU 10	-174	241	3020	-8.45	-7.29	-0.01
32	SLU 11	-172	242	2995	-8.82	-7.11	-0.01
32	SLU 12	-173	242	3010	-8.6	-7.22	-0.01
32	SLU 13	-174	241	3020	-8.45	-7.29	-0.01
32	SLU 14	-172	242	2995	-8.82	-7.11	-0.01
32	SLU 15	-173	242	3010	-8.6	-7.22	-0.01
32	SLU 16	-172	242	2995	-8.82	-7.11	-0.01
32	SLU 17	-173	242	3010	-8.6	-7.22	-0.01
32	SLU 18	-183	267	3213	-9.67	-7.6	-0.01
32	SLU 19	-184	266	3228	-9.45	-7.7	-0.01
32	SLU 20	-183	267	3213	-9.67	-7.6	-0.01
32	SLU 21	-184	266	3228	-9.45	-7.7	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
32	SLU 22	-161	214	2752	-7.83	-6.58	-0.01
32	SLU 23	-163	213	2776	-7.46	-6.76	-0.01
32	SLU 24	-161	214	2752	-7.83	-6.58	-0.01
32	SLU 25	-162	213	2766	-7.6	-6.69	-0.01
32	SLU 26	-163	213	2776	-7.46	-6.76	-0.01
32	SLU 27	-161	214	2752	-7.83	-6.58	-0.01
32	SLU 28	-162	213	2766	-7.6	-6.69	-0.01
32	SLU 29	-161	214	2752	-7.83	-6.58	-0.01
32	SLU 30	-162	213	2766	-7.6	-6.69	-0.01
32	SLU 31	-188	270	3285	-9.44	-7.9	-0.01
32	SLU 32	-185	271	3260	-9.82	-7.71	-0.01
32	SLU 33	-187	270	3275	-9.59	-7.82	-0.01
32	SLU 34	-188	270	3285	-9.44	-7.9	-0.01
32	SLU 35	-185	271	3260	-9.82	-7.71	-0.01
32	SLU 36	-187	270	3275	-9.59	-7.82	-0.01
32	SLU 37	-185	271	3260	-9.82	-7.71	-0.01
32	SLU 38	-187	270	3275	-9.59	-7.82	-0.01
32	SLU 39	-196	295	3478	-10.67	-8.2	-0.02
32	SLU 40	-197	294	3493	-10.45	-8.31	-0.02
32	SLU 41	-196	295	3478	-10.67	-8.2	-0.02
32	SLU 42	-197	294	3493	-10.45	-8.31	-0.02
32	SLU 43	-187	232	3141	-8.54	-7.56	-0.01
32	SLU 44	-189	231	3166	-8.17	-7.74	-0.01
32	SLU 45	-187	232	3141	-8.54	-7.56	-0.01
32	SLU 46	-188	231	3156	-8.31	-7.67	-0.01
32	SLU 47	-189	231	3166	-8.17	-7.74	-0.01
32	SLU 48	-187	232	3141	-8.54	-7.56	-0.01
32	SLU 49	-188	231	3156	-8.31	-7.67	-0.01
32	SLU 50	-187	232	3141	-8.54	-7.56	-0.01
32	SLU 51	-188	231	3156	-8.31	-7.67	-0.01
32	SLU 52	-214	287	3674	-10.15	-8.88	-0.02
32	SLU 53	-212	288	3650	-10.53	-8.69	-0.01
32	SLU 54	-213	288	3665	-10.3	-8.8	-0.02
32	SLU 55	-214	287	3674	-10.15	-8.88	-0.02
32	SLU 56	-212	288	3650	-10.53	-8.69	-0.01
32	SLU 57	-213	288	3665	-10.3	-8.8	-0.02
32	SLU 58	-212	288	3650	-10.53	-8.69	-0.01
32	SLU 59	-213	288	3665	-10.3	-8.8	-0.02
32	SLU 60	-222	313	3868	-11.38	-9.18	-0.02
32	SLU 61	-224	312	3883	-11.15	-9.29	-0.02
32	SLU 62	-222	313	3868	-11.38	-9.18	-0.02
32	SLU 63	-224	312	3883	-11.15	-9.29	-0.02
32	SLU 64	-200	260	3407	-9.53	-8.16	-0.01
32	SLU 65	-202	259	3431	-9.16	-8.34	-0.01
32	SLU 66	-200	260	3407	-9.53	-8.16	-0.01
32	SLU 67	-202	259	3421	-9.31	-8.27	-0.01
32	SLU 68	-202	259	3431	-9.16	-8.34	-0.01
32	SLU 69	-200	260	3407	-9.53	-8.16	-0.01
32	SLU 70	-202	259	3421	-9.31	-8.27	-0.01
32	SLU 71	-200	260	3407	-9.53	-8.16	-0.01
32	SLU 72	-202	259	3421	-9.31	-8.27	-0.01
32	SLU 73	-227	316	3940	-11.15	-9.48	-0.02
32	SLU 74	-225	317	3915	-11.52	-9.3	-0.02
32	SLU 75	-226	316	3930	-11.3	-9.41	-0.02
32	SLU 76	-227	316	3940	-11.15	-9.48	-0.02
32	SLU 77	-225	317	3915	-11.52	-9.3	-0.02
32	SLU 78	-226	316	3930	-11.3	-9.41	-0.02
32	SLU 79	-225	317	3915	-11.52	-9.3	-0.02
32	SLU 80	-226	316	3930	-11.3	-9.41	-0.02
32	SLU 81	-236	341	4133	-12.38	-9.79	-0.02
32	SLU 82	-237	340	4148	-12.15	-9.89	-0.02
32	SLU 83	-236	341	4133	-12.38	-9.79	-0.02
32	SLU 84	-237	340	4148	-12.15	-9.89	-0.02
32	SLE RA 1	-151	194	2562	-7.11	-6.15	-0.01
32	SLE RA 2	-153	193	2579	-6.87	-6.27	-0.01
32	SLE RA 3	-151	194	2562	-7.11	-6.15	-0.01
32	SLE RA 4	-152	193	2572	-6.97	-6.22	-0.01
32	SLE RA 5	-153	193	2579	-6.87	-6.27	-0.01
32	SLE RA 6	-151	194	2562	-7.11	-6.15	-0.01
32	SLE RA 7	-152	193	2572	-6.97	-6.22	-0.01
32	SLE RA 8	-151	194	2562	-7.11	-6.15	-0.01
32	SLE RA 9	-152	193	2572	-6.97	-6.22	-0.01
32	SLE RA 10	-169	231	2918	-8.19	-7.02	-0.01
32	SLE RA 11	-168	232	2901	-8.44	-6.9	-0.01
32	SLE RA 12	-169	231	2911	-8.29	-6.98	-0.01
32	SLE RA 13	-169	231	2918	-8.19	-7.02	-0.01
32	SLE RA 14	-168	232	2901	-8.44	-6.9	-0.01
32	SLE RA 15	-169	231	2911	-8.29	-6.98	-0.01
32	SLE RA 16	-168	232	2901	-8.44	-6.9	-0.01
32	SLE RA 17	-169	231	2911	-8.29	-6.98	-0.01
32	SLE RA 18	-175	248	3046	-9.01	-7.23	-0.01
32	SLE RA 19	-176	247	3056	-8.86	-7.3	-0.01
32	SLE RA 20	-175	248	3046	-9.01	-7.23	-0.01
32	SLE RA 21	-176	247	3056	-8.86	-7.3	-0.01
32	SLE FR 1	-151	194	2562	-7.11	-6.15	-0.01
32	SLE FR 2	-151	194	2565	-7.06	-6.17	-0.01
32	SLE FR 3	-151	194	2562	-7.11	-6.15	-0.01
32	SLE FR 4	-158	210	2711	-7.63	-6.49	-0.01
32	SLE FR 5	-158	210	2707	-7.68	-6.47	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
32	SLE FR 6	-163	221	2804	-8.06	-6.69	-0.01
32	SLE QP 1	-151	194	2562	-7.11	-6.15	-0.01
32	SLE QP 2	-158	210	2707	-7.68	-6.47	-0.01
32	SLD 1	-100	258	2133	-9.34	-3.71	-0.03
32	SLD 2	-100	258	2133	-9.34	-3.71	-0.03
32	SLD 3	-80	310	1999	-11.38	-2.83	-0.02
32	SLD 4	-80	310	1999	-11.38	-2.83	-0.02
32	SLD 5	-170	145	2737	-5.09	-6.98	-0.03
32	SLD 6	-170	145	2737	-5.09	-6.98	-0.03
32	SLD 7	-106	319	2293	-11.88	-4.04	0
32	SLD 8	-106	319	2293	-11.88	-4.04	0
32	SLD 9	-211	101	3122	-3.48	-8.9	-0.02
32	SLD 10	-211	101	3122	-3.48	-8.9	-0.02
32	SLD 11	-147	275	2678	-10.28	-5.96	0.01
32	SLD 12	-147	275	2678	-10.28	-5.96	0.01
32	SLD 13	-236	111	3415	-3.99	-10.11	0
32	SLD 14	-236	111	3415	-3.99	-10.11	0
32	SLD 15	-217	163	3282	-6.03	-9.23	0.01
32	SLD 16	-217	163	3282	-6.03	-9.23	0.01
32	SLV 1	-12	332	1276	-11.88	0.38	-0.06
32	SLV 2	-12	332	1276	-11.88	0.38	-0.06
32	SLV 3	34	454	943	-16.79	2.56	-0.04
32	SLV 4	34	454	943	-16.79	2.56	-0.04
32	SLV 5	-185	61	2784	-1.5	-7.72	-0.05
32	SLV 6	-185	61	2784	-1.5	-7.72	-0.05
32	SLV 7	-30	469	1672	-17.86	-0.46	0.01
32	SLV 8	-30	469	1672	-17.86	-0.46	0.01
32	SLV 9	-287	-49	3743	2.49	-12.48	-0.03
32	SLV 10	-287	-49	3743	2.49	-12.48	-0.03
32	SLV 11	-131	359	2631	-13.86	-5.22	0.03
32	SLV 12	-131	359	2631	-13.86	-5.22	0.03
32	SLV 13	-351	-34	4472	1.43	-15.5	0.02
32	SLV 14	-351	-34	4472	1.43	-15.5	0.02
32	SLV 15	-304	89	4139	-3.48	-13.32	0.03
32	SLV 16	-304	89	4139	-3.48	-13.32	0.03
33	SLU 1	0	52	1768	-2.05	-0.32	0
33	SLU 2	-1	62	1799	-2.34	-0.43	0
33	SLU 3	0	52	1768	-2.05	-0.32	0
33	SLU 4	0	58	1787	-2.22	-0.39	0
33	SLU 5	-1	62	1799	-2.34	-0.43	0
33	SLU 6	0	52	1768	-2.05	-0.32	0
33	SLU 7	0	58	1787	-2.22	-0.39	0
33	SLU 8	0	52	1768	-2.05	-0.32	0
33	SLU 9	0	58	1787	-2.22	-0.39	0
33	SLU 10	-1	112	2277	-3.95	-1.01	0
33	SLU 11	-1	102	2247	-3.66	-0.9	0
33	SLU 12	-1	108	2265	-3.83	-0.97	0
33	SLU 13	-1	112	2277	-3.95	-1.01	0
33	SLU 14	-1	102	2247	-3.66	-0.9	0
33	SLU 15	-1	108	2265	-3.83	-0.97	0
33	SLU 16	-1	102	2247	-3.66	-0.9	0
33	SLU 17	-1	108	2265	-3.83	-0.97	0
33	SLU 18	-1	124	2452	-4.35	-1.15	0
33	SLU 19	-1	130	2470	-4.52	-1.21	0
33	SLU 20	-1	124	2452	-4.35	-1.15	0
33	SLU 21	-1	130	2470	-4.52	-1.21	0
33	SLU 22	0	70	1963	-2.65	-0.55	0
33	SLU 23	-1	80	1994	-2.94	-0.66	0
33	SLU 24	0	70	1963	-2.65	-0.55	0
33	SLU 25	-1	76	1982	-2.82	-0.61	0
33	SLU 26	-1	80	1994	-2.94	-0.66	0
33	SLU 27	0	70	1963	-2.65	-0.55	0
33	SLU 28	-1	76	1982	-2.82	-0.61	0
33	SLU 29	0	70	1963	-2.65	-0.55	0
33	SLU 30	-1	76	1982	-2.82	-0.61	0
33	SLU 31	-1	130	2472	-4.54	-1.24	0
33	SLU 32	-1	120	2442	-4.25	-1.13	0
33	SLU 33	-1	126	2460	-4.43	-1.19	0
33	SLU 34	-1	130	2472	-4.54	-1.24	0
33	SLU 35	-1	120	2442	-4.25	-1.13	0
33	SLU 36	-1	126	2460	-4.43	-1.19	0
33	SLU 37	-1	120	2442	-4.25	-1.13	0
33	SLU 38	-1	126	2460	-4.43	-1.19	0
33	SLU 39	-1	142	2647	-4.94	-1.37	0
33	SLU 40	-1	148	2665	-5.12	-1.44	0
33	SLU 41	-1	142	2647	-4.94	-1.37	0
33	SLU 42	-1	148	2665	-5.12	-1.44	0
33	SLU 43	0	61	2232	-2.46	-0.34	0
33	SLU 44	-1	71	2263	-2.75	-0.45	0
33	SLU 45	0	61	2232	-2.46	-0.34	0
33	SLU 46	-1	67	2250	-2.64	-0.4	0
33	SLU 47	-1	71	2263	-2.75	-0.45	0
33	SLU 48	0	61	2232	-2.46	-0.34	0
33	SLU 49	-1	67	2250	-2.64	-0.4	0
33	SLU 50	0	61	2232	-2.46	-0.34	0
33	SLU 51	-1	67	2250	-2.64	-0.4	0
33	SLU 52	-1	122	2741	-4.36	-1.03	0
33	SLU 53	-1	111	2711	-4.07	-0.91	0
33	SLU 54	-1	118	2729	-4.24	-0.98	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
33	SLU 55	-1	122	2741	-4.36	-1.03	0
33	SLU 56	-1	111	2711	-4.07	-0.91	0
33	SLU 57	-1	118	2729	-4.24	-0.98	0
33	SLU 58	-1	111	2711	-4.07	-0.91	0
33	SLU 59	-1	118	2729	-4.24	-0.98	0
33	SLU 60	-1	133	2916	-4.76	-1.16	0
33	SLU 61	-1	139	2934	-4.93	-1.23	0
33	SLU 62	-1	133	2916	-4.76	-1.16	0
33	SLU 63	-1	139	2934	-4.93	-1.23	0
33	SLU 64	0	79	2427	-3.06	-0.56	0
33	SLU 65	-1	90	2458	-3.35	-0.68	0
33	SLU 66	0	79	2427	-3.06	-0.56	0
33	SLU 67	-1	86	2445	-3.23	-0.63	0
33	SLU 68	-1	90	2458	-3.35	-0.68	0
33	SLU 69	0	79	2427	-3.06	-0.56	0
33	SLU 70	-1	86	2445	-3.23	-0.63	0
33	SLU 71	0	79	2427	-3.06	-0.56	0
33	SLU 72	-1	86	2445	-3.23	-0.63	0
33	SLU 73	-1	140	2936	-4.95	-1.26	0
33	SLU 74	-1	130	2905	-4.67	-1.14	0
33	SLU 75	-1	136	2924	-4.84	-1.21	0
33	SLU 76	-1	140	2936	-4.95	-1.26	0
33	SLU 77	-1	130	2905	-4.67	-1.14	0
33	SLU 78	-1	136	2924	-4.84	-1.21	0
33	SLU 79	-1	130	2905	-4.67	-1.14	0
33	SLU 80	-1	136	2924	-4.84	-1.21	0
33	SLU 81	-1	151	3110	-5.35	-1.39	0
33	SLU 82	-1	157	3129	-5.53	-1.46	0
33	SLU 83	-1	151	3110	-5.35	-1.39	0
33	SLU 84	-1	157	3129	-5.53	-1.46	0
33	SLE RA 1	0	57	1824	-2.22	-0.38	0
33	SLE RA 2	-1	64	1844	-2.41	-0.46	0
33	SLE RA 3	0	57	1824	-2.22	-0.38	0
33	SLE RA 4	0	61	1836	-2.34	-0.43	0
33	SLE RA 5	-1	64	1844	-2.41	-0.46	0
33	SLE RA 6	0	57	1824	-2.22	-0.38	0
33	SLE RA 7	0	61	1836	-2.34	-0.43	0
33	SLE RA 8	0	57	1824	-2.22	-0.38	0
33	SLE RA 9	0	61	1836	-2.34	-0.43	0
33	SLE RA 10	-1	97	2163	-3.48	-0.85	0
33	SLE RA 11	-1	91	2143	-3.29	-0.77	0
33	SLE RA 12	-1	95	2155	-3.41	-0.81	0
33	SLE RA 13	-1	97	2163	-3.48	-0.85	0
33	SLE RA 14	-1	91	2143	-3.29	-0.77	0
33	SLE RA 15	-1	95	2155	-3.41	-0.81	0
33	SLE RA 16	-1	91	2143	-3.29	-0.77	0
33	SLE RA 17	-1	95	2155	-3.41	-0.81	0
33	SLE RA 18	-1	105	2280	-3.75	-0.94	0
33	SLE RA 19	-1	109	2292	-3.87	-0.98	0
33	SLE RA 20	-1	105	2280	-3.75	-0.94	0
33	SLE RA 21	-1	109	2292	-3.87	-0.98	0
33	SLE FR 1	0	57	1824	-2.22	-0.38	0
33	SLE FR 2	0	58	1828	-2.26	-0.4	0
33	SLE FR 3	0	57	1824	-2.22	-0.38	0
33	SLE FR 4	0	73	1965	-2.72	-0.56	0
33	SLE FR 5	0	71	1961	-2.68	-0.55	0
33	SLE FR 6	-1	81	2052	-2.99	-0.66	0
33	SLE QP 1	0	57	1824	-2.22	-0.38	0
33	SLE QP 2	0	71	1961	-2.68	-0.55	0
33	SLD 1	10	77	2021	-4.22	12.13	-0.03
33	SLD 2	10	77	2021	-4.22	12.13	-0.03
33	SLD 3	20	32	1939	-2.54	21.97	-0.04
33	SLD 4	20	32	1939	-2.54	21.97	-0.04
33	SLD 5	-12	141	2103	-5.7	-11.67	0.02
33	SLD 6	-12	141	2103	-5.7	-11.67	0.02
33	SLD 7	21	-8	1830	-0.09	21.14	-0.04
33	SLD 8	21	-8	1830	-0.09	21.14	-0.04
33	SLD 9	-22	151	2092	-5.27	-22.23	0.04
33	SLD 10	-22	151	2092	-5.27	-22.23	0.04
33	SLD 11	12	2	1818	0.33	10.58	-0.02
33	SLD 12	12	2	1818	0.33	10.58	-0.02
33	SLD 13	-21	110	1983	-2.82	-23.07	0.05
33	SLD 14	-21	110	1983	-2.82	-23.07	0.05
33	SLD 15	-11	66	1901	-1.14	-13.23	0.03
33	SLD 16	-11	66	1901	-1.14	-13.23	0.03
33	SLV 1	24	88	2124	-6.4	30.53	-0.06
33	SLV 2	24	88	2124	-6.4	30.53	-0.06
33	SLV 3	49	-24	1889	-2.3	55.81	-0.11
33	SLV 4	49	-24	1889	-2.3	55.81	-0.11
33	SLV 5	-32	246	2367	-10.03	-29.57	0.05
33	SLV 6	-32	246	2367	-10.03	-29.57	0.05
33	SLV 7	53	-127	1582	3.66	54.7	-0.1
33	SLV 8	53	-127	1582	3.66	54.7	-0.1
33	SLV 9	-54	270	2339	-9.03	-55.8	0.1
33	SLV 10	-54	270	2339	-9.03	-55.8	0.1
33	SLV 11	31	-103	1555	4.67	28.47	-0.05
33	SLV 12	31	-103	1555	4.67	28.47	-0.05
33	SLV 13	-50	167	2033	-3.06	-56.91	0.11
33	SLV 14	-50	167	2033	-3.06	-56.91	0.11



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
33	SLV 15	-25	55	1798	1.04	-31.63	0.07
33	SLV 16	-25	55	1798	1.04	-31.63	0.07
34	SLU 1	-9	345	2185	-13.82	-2.64	-0.04
34	SLU 2	-9	353	2202	-14.49	-2.76	-0.04
34	SLU 3	-9	345	2185	-13.82	-2.64	-0.04
34	SLU 4	-9	350	2195	-14.22	-2.72	-0.04
34	SLU 5	-9	353	2202	-14.49	-2.76	-0.04
34	SLU 6	-9	345	2185	-13.82	-2.64	-0.04
34	SLU 7	-9	350	2195	-14.22	-2.72	-0.04
34	SLU 8	-9	345	2185	-13.82	-2.64	-0.04
34	SLU 9	-9	350	2195	-14.22	-2.72	-0.04
34	SLU 10	-11	441	2654	-17.99	-3.34	-0.04
34	SLU 11	-11	433	2637	-17.31	-3.22	-0.04
34	SLU 12	-11	438	2647	-17.72	-3.29	-0.04
34	SLU 13	-11	441	2654	-17.99	-3.34	-0.04
34	SLU 14	-11	433	2637	-17.31	-3.22	-0.04
34	SLU 15	-11	438	2647	-17.72	-3.29	-0.04
34	SLU 16	-11	433	2637	-17.31	-3.22	-0.04
34	SLU 17	-11	438	2647	-17.72	-3.29	-0.04
34	SLU 18	-12	471	2831	-18.81	-3.46	-0.05
34	SLU 19	-11	476	2841	-19.22	-3.53	-0.05
34	SLU 20	-12	471	2831	-18.81	-3.46	-0.05
34	SLU 21	-11	476	2841	-19.22	-3.53	-0.05
34	SLU 22	-10	389	2420	-15.59	-2.95	-0.04
34	SLU 23	-10	398	2437	-16.27	-3.07	-0.04
34	SLU 24	-10	389	2420	-15.59	-2.95	-0.04
34	SLU 25	-10	394	2430	-16	-3.02	-0.04
34	SLU 26	-10	398	2437	-16.27	-3.07	-0.04
34	SLU 27	-10	389	2420	-15.59	-2.95	-0.04
34	SLU 28	-10	394	2430	-16	-3.02	-0.04
34	SLU 29	-10	389	2420	-15.59	-2.95	-0.04
34	SLU 30	-10	394	2430	-16	-3.02	-0.04
34	SLU 31	-12	486	2889	-19.76	-3.64	-0.05
34	SLU 32	-12	478	2872	-19.09	-3.52	-0.05
34	SLU 33	-12	483	2882	-19.49	-3.6	-0.05
34	SLU 34	-12	486	2889	-19.76	-3.64	-0.05
34	SLU 35	-12	478	2872	-19.09	-3.52	-0.05
34	SLU 36	-12	483	2882	-19.49	-3.6	-0.05
34	SLU 37	-12	478	2872	-19.09	-3.52	-0.05
34	SLU 38	-12	483	2882	-19.49	-3.6	-0.05
34	SLU 39	-13	516	3066	-20.59	-3.77	-0.05
34	SLU 40	-13	520	3076	-20.99	-3.84	-0.05
34	SLU 41	-13	516	3066	-20.59	-3.77	-0.05
34	SLU 42	-13	520	3076	-20.99	-3.84	-0.05
34	SLU 43	-11	433	2760	-17.35	-3.33	-0.05
34	SLU 44	-11	441	2776	-18.03	-3.45	-0.05
34	SLU 45	-11	433	2760	-17.35	-3.33	-0.05
34	SLU 46	-11	438	2770	-17.76	-3.4	-0.05
34	SLU 47	-11	441	2776	-18.03	-3.45	-0.05
34	SLU 48	-11	433	2760	-17.35	-3.33	-0.05
34	SLU 49	-11	438	2770	-17.76	-3.4	-0.05
34	SLU 50	-11	433	2760	-17.35	-3.33	-0.05
34	SLU 51	-11	438	2770	-17.76	-3.4	-0.05
34	SLU 52	-13	529	3229	-21.52	-4.02	-0.05
34	SLU 53	-13	521	3212	-20.85	-3.91	-0.05
34	SLU 54	-13	526	3222	-21.25	-3.98	-0.05
34	SLU 55	-13	529	3229	-21.52	-4.02	-0.05
34	SLU 56	-13	521	3212	-20.85	-3.91	-0.05
34	SLU 57	-13	526	3222	-21.25	-3.98	-0.05
34	SLU 58	-13	521	3212	-20.85	-3.91	-0.05
34	SLU 59	-13	526	3222	-21.25	-3.98	-0.05
34	SLU 60	-14	559	3406	-22.35	-4.15	-0.05
34	SLU 61	-14	564	3416	-22.75	-4.22	-0.06
34	SLU 62	-14	559	3406	-22.35	-4.15	-0.05
34	SLU 63	-14	564	3416	-22.75	-4.22	-0.06
34	SLU 64	-12	478	2995	-19.13	-3.64	-0.05
34	SLU 65	-12	486	3011	-19.8	-3.76	-0.05
34	SLU 66	-12	478	2995	-19.13	-3.64	-0.05
34	SLU 67	-12	482	3005	-19.53	-3.71	-0.05
34	SLU 68	-12	486	3011	-19.8	-3.76	-0.05
34	SLU 69	-12	478	2995	-19.13	-3.64	-0.05
34	SLU 70	-12	482	3005	-19.53	-3.71	-0.05
34	SLU 71	-12	478	2995	-19.13	-3.64	-0.05
34	SLU 72	-12	482	3005	-19.53	-3.71	-0.05
34	SLU 73	-14	574	3464	-23.3	-4.33	-0.06
34	SLU 74	-14	566	3447	-22.62	-4.21	-0.06
34	SLU 75	-14	571	3457	-23.03	-4.28	-0.06
34	SLU 76	-14	574	3464	-23.3	-4.33	-0.06
34	SLU 77	-14	566	3447	-22.62	-4.21	-0.06
34	SLU 78	-14	571	3457	-23.03	-4.28	-0.06
34	SLU 79	-14	566	3447	-22.62	-4.21	-0.06
34	SLU 80	-14	571	3457	-23.03	-4.28	-0.06
34	SLU 81	-15	604	3641	-24.12	-4.46	-0.06
34	SLU 82	-15	609	3651	-24.53	-4.53	-0.06
34	SLU 83	-15	604	3641	-24.12	-4.46	-0.06
34	SLU 84	-15	609	3651	-24.53	-4.53	-0.06
34	SLE RA 1	-9	357	2252	-14.32	-2.73	-0.04
34	SLE RA 2	-9	363	2263	-14.77	-2.81	-0.04
34	SLE RA 3	-9	357	2252	-14.32	-2.73	-0.04



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
34	SLE RA 4	-9	361	2259	-14.59	-2.78	-0.04
34	SLE RA 5	-9	363	2263	-14.77	-2.81	-0.04
34	SLE RA 6	-9	357	2252	-14.32	-2.73	-0.04
34	SLE RA 7	-9	361	2259	-14.59	-2.78	-0.04
34	SLE RA 8	-9	357	2252	-14.32	-2.73	-0.04
34	SLE RA 9	-9	361	2259	-14.59	-2.78	-0.04
34	SLE RA 10	-10	422	2565	-17.1	-3.19	-0.04
34	SLE RA 11	-10	416	2553	-16.65	-3.11	-0.04
34	SLE RA 12	-10	420	2560	-16.92	-3.16	-0.04
34	SLE RA 13	-10	422	2565	-17.1	-3.19	-0.04
34	SLE RA 14	-10	416	2553	-16.65	-3.11	-0.04
34	SLE RA 15	-10	420	2560	-16.92	-3.16	-0.04
34	SLE RA 16	-10	416	2553	-16.65	-3.11	-0.04
34	SLE RA 17	-10	420	2560	-16.92	-3.16	-0.04
34	SLE RA 18	-11	442	2683	-17.65	-3.28	-0.04
34	SLE RA 19	-11	445	2689	-17.92	-3.33	-0.04
34	SLE RA 20	-11	442	2683	-17.65	-3.28	-0.04
34	SLE RA 21	-11	445	2689	-17.92	-3.33	-0.04
34	SLE FR 1	-9	357	2252	-14.32	-2.73	-0.04
34	SLE FR 2	-9	359	2254	-14.41	-2.75	-0.04
34	SLE FR 3	-9	357	2252	-14.32	-2.73	-0.04
34	SLE FR 4	-10	384	2383	-15.41	-2.91	-0.04
34	SLE FR 5	-10	383	2381	-15.32	-2.9	-0.04
34	SLE FR 6	-10	400	2467	-15.99	-3.01	-0.04
34	SLE QP 1	-9	357	2252	-14.32	-2.73	-0.04
34	SLE QP 2	-10	383	2381	-15.32	-2.9	-0.04
34	SLD 1	-17	473	1989	-18.07	2.13	-0.01
34	SLD 2	-17	473	1989	-18.07	2.13	-0.01
34	SLD 3	-17	409	1902	-15.52	3.3	-0.01
34	SLD 4	-17	409	1902	-15.52	3.3	-0.01
34	SLD 5	-11	506	2396	-20.02	-3.17	-0.04
34	SLD 6	-11	506	2396	-20.02	-3.17	-0.04
34	SLD 7	-13	295	2105	-11.51	0.74	-0.03
34	SLD 8	-13	295	2105	-11.51	0.74	-0.03
34	SLD 9	-6	471	2657	-19.13	-6.54	-0.05
34	SLD 10	-6	471	2657	-19.13	-6.54	-0.05
34	SLD 11	-9	260	2367	-10.63	-2.62	-0.04
34	SLD 12	-9	260	2367	-10.63	-2.62	-0.04
34	SLD 13	-2	356	2861	-15.12	-9.1	-0.07
34	SLD 14	-2	356	2861	-15.12	-9.1	-0.07
34	SLD 15	-3	293	2774	-12.57	-7.92	-0.06
34	SLD 16	-3	293	2774	-12.57	-7.92	-0.06
34	SLV 1	-27	604	1402	-22.14	9.79	0.02
34	SLV 2	-27	604	1402	-22.14	9.79	0.02
34	SLV 3	-29	453	1183	-15.8	12.68	0.03
34	SLV 4	-29	453	1183	-15.8	12.68	0.03
34	SLV 5	-12	678	2419	-26.99	-3.47	-0.03
34	SLV 6	-12	678	2419	-26.99	-3.47	-0.03
34	SLV 7	-18	175	1690	-5.84	6.16	0
34	SLV 8	-18	175	1690	-5.84	6.16	0
34	SLV 9	-1	591	3072	-24.8	-11.95	-0.07
34	SLV 10	-1	591	3072	-24.8	-11.95	-0.07
34	SLV 11	-7	87	2344	-3.65	-2.32	-0.04
34	SLV 12	-7	87	2344	-3.65	-2.32	-0.04
34	SLV 13	10	312	3579	-14.85	-18.48	-0.11
34	SLV 14	10	312	3579	-14.85	-18.48	-0.11
34	SLV 15	8	161	3361	-8.5	-15.58	-0.1
34	SLV 16	8	161	3361	-8.5	-15.58	-0.1
35	SLU 1	0	173	614	-5.39	0.05	-0.01
35	SLU 2	0	189	651	-6.04	0.04	0
35	SLU 3	0	173	614	-5.39	0.05	-0.01
35	SLU 4	0	183	636	-5.78	0.04	-0.01
35	SLU 5	0	189	651	-6.04	0.04	0
35	SLU 6	0	173	614	-5.39	0.05	-0.01
35	SLU 7	0	183	636	-5.78	0.04	-0.01
35	SLU 8	0	173	614	-5.39	0.05	-0.01
35	SLU 9	0	183	636	-5.78	0.04	-0.01
35	SLU 10	0	239	717	-8.12	0.12	-0.02
35	SLU 11	0	222	680	-7.46	0.13	-0.02
35	SLU 12	0	232	702	-7.86	0.13	-0.02
35	SLU 13	0	239	717	-8.12	0.12	-0.02
35	SLU 14	0	222	680	-7.46	0.13	-0.02
35	SLU 15	0	232	702	-7.86	0.13	-0.02
35	SLU 16	0	222	680	-7.46	0.13	-0.02
35	SLU 17	0	232	702	-7.86	0.13	-0.02
35	SLU 18	0	243	709	-8.36	0.17	-0.03
35	SLU 19	0	253	731	-8.75	0.16	-0.02
35	SLU 20	0	243	709	-8.36	0.17	-0.03
35	SLU 21	0	253	731	-8.75	0.16	-0.02
35	SLU 22	0	205	694	-6.54	0.08	-0.01
35	SLU 23	0	221	731	-7.19	0.07	-0.01
35	SLU 24	0	205	694	-6.54	0.08	-0.01
35	SLU 25	0	215	716	-6.93	0.08	-0.01
35	SLU 26	0	221	731	-7.19	0.07	-0.01
35	SLU 27	0	205	694	-6.54	0.08	-0.01
35	SLU 28	0	215	716	-6.93	0.08	-0.01
35	SLU 29	0	205	694	-6.54	0.08	-0.01
35	SLU 30	0	215	716	-6.93	0.08	-0.01
35	SLU 31	0	271	798	-9.27	0.16	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
35	SLU 32	0	254	761	-8.62	0.17	-0.03
35	SLU 33	0	264	783	-9.01	0.16	-0.02
35	SLU 34	0	271	798	-9.27	0.16	-0.02
35	SLU 35	0	254	761	-8.62	0.17	-0.03
35	SLU 36	0	264	783	-9.01	0.16	-0.02
35	SLU 37	0	254	761	-8.62	0.17	-0.03
35	SLU 38	0	264	783	-9.01	0.16	-0.02
35	SLU 39	1	275	789	-9.51	0.2	-0.03
35	SLU 40	0	285	811	-9.9	0.2	-0.03
35	SLU 41	1	275	789	-9.51	0.2	-0.03
35	SLU 42	0	285	811	-9.9	0.2	-0.03
35	SLU 43	0	213	770	-6.61	0.05	-0.01
35	SLU 44	0	230	807	-7.26	0.04	-0.01
35	SLU 45	0	213	770	-6.61	0.05	-0.01
35	SLU 46	0	223	792	-7	0.04	-0.01
35	SLU 47	0	230	807	-7.26	0.04	-0.01
35	SLU 48	0	213	770	-6.61	0.05	-0.01
35	SLU 49	0	223	792	-7	0.04	-0.01
35	SLU 50	0	213	770	-6.61	0.05	-0.01
35	SLU 51	0	223	792	-7	0.04	-0.01
35	SLU 52	0	280	873	-9.34	0.13	-0.02
35	SLU 53	0	263	837	-8.69	0.14	-0.02
35	SLU 54	0	273	859	-9.08	0.13	-0.02
35	SLU 55	0	280	873	-9.34	0.13	-0.02
35	SLU 56	0	263	837	-8.69	0.14	-0.02
35	SLU 57	0	273	859	-9.08	0.13	-0.02
35	SLU 58	0	263	837	-8.69	0.14	-0.02
35	SLU 59	0	273	859	-9.08	0.13	-0.02
35	SLU 60	0	284	865	-9.58	0.17	-0.03
35	SLU 61	0	294	887	-9.97	0.17	-0.02
35	SLU 62	0	284	865	-9.58	0.17	-0.03
35	SLU 63	0	294	887	-9.97	0.17	-0.02
35	SLU 64	0	245	851	-7.76	0.08	-0.01
35	SLU 65	0	262	888	-8.41	0.08	-0.01
35	SLU 66	0	245	851	-7.76	0.08	-0.01
35	SLU 67	0	255	873	-8.15	0.08	-0.01
35	SLU 68	0	262	888	-8.41	0.08	-0.01
35	SLU 69	0	245	851	-7.76	0.08	-0.01
35	SLU 70	0	255	873	-8.15	0.08	-0.01
35	SLU 71	0	245	851	-7.76	0.08	-0.01
35	SLU 72	0	255	873	-8.15	0.08	-0.01
35	SLU 73	0	312	954	-10.49	0.16	-0.02
35	SLU 74	0	295	917	-9.84	0.17	-0.03
35	SLU 75	0	305	939	-10.23	0.16	-0.02
35	SLU 76	0	312	954	-10.49	0.16	-0.02
35	SLU 77	0	295	917	-9.84	0.17	-0.03
35	SLU 78	0	305	939	-10.23	0.16	-0.02
35	SLU 79	0	295	917	-9.84	0.17	-0.03
35	SLU 80	0	305	939	-10.23	0.16	-0.02
35	SLU 81	1	316	946	-10.73	0.21	-0.03
35	SLU 82	0	326	968	-11.12	0.2	-0.03
35	SLU 83	1	316	946	-10.73	0.21	-0.03
35	SLU 84	0	326	968	-11.12	0.2	-0.03
35	SLE RA 1	0	182	637	-5.71	0.06	-0.01
35	SLE RA 2	0	193	661	-6.15	0.05	-0.01
35	SLE RA 3	0	182	637	-5.71	0.06	-0.01
35	SLE RA 4	0	188	651	-5.98	0.05	-0.01
35	SLE RA 5	0	193	661	-6.15	0.05	-0.01
35	SLE RA 6	0	182	637	-5.71	0.06	-0.01
35	SLE RA 7	0	188	651	-5.98	0.05	-0.01
35	SLE RA 8	0	182	637	-5.71	0.06	-0.01
35	SLE RA 9	0	188	651	-5.98	0.05	-0.01
35	SLE RA 10	0	226	706	-7.54	0.11	-0.02
35	SLE RA 11	0	215	681	-7.1	0.11	-0.02
35	SLE RA 12	0	221	696	-7.36	0.11	-0.02
35	SLE RA 13	0	226	706	-7.54	0.11	-0.02
35	SLE RA 14	0	215	681	-7.1	0.11	-0.02
35	SLE RA 15	0	221	696	-7.36	0.11	-0.02
35	SLE RA 16	0	215	681	-7.1	0.11	-0.02
35	SLE RA 17	0	221	696	-7.36	0.11	-0.02
35	SLE RA 18	0	229	700	-7.7	0.14	-0.02
35	SLE RA 19	0	236	715	-7.96	0.14	-0.02
35	SLE RA 20	0	229	700	-7.7	0.14	-0.02
35	SLE RA 21	0	236	715	-7.96	0.14	-0.02
35	SLE FR 1	0	182	637	-5.71	0.06	-0.01
35	SLE FR 2	0	184	642	-5.8	0.06	-0.01
35	SLE FR 3	0	182	637	-5.71	0.06	-0.01
35	SLE FR 4	0	198	661	-6.4	0.08	-0.01
35	SLE FR 5	0	196	656	-6.31	0.08	-0.01
35	SLE FR 6	0	205	668	-6.7	0.1	-0.02
35	SLE QP 1	0	182	637	-5.71	0.06	-0.01
35	SLE QP 2	0	196	656	-6.31	0.08	-0.01
35	SLD 1	-3	223	719	-7.28	16.95	-2.33
35	SLD 2	-3	223	719	-7.28	16.95	-2.33
35	SLD 3	-7	144	519	-4.34	15.52	-2.13
35	SLD 4	-7	144	519	-4.34	15.52	-2.13
35	SLD 5	6	323	979	-11.06	7.31	-1.01
35	SLD 6	6	323	979	-11.06	7.31	-1.01
35	SLD 7	-8	61	310	-1.25	2.54	-0.34





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
35	SLD 8	-8	61	310	-1.25	2.54	-0.34
35	SLD 9	9	330	1001	-11.36	-2.38	0.32
35	SLD 10	9	330	1001	-11.36	-2.38	0.32
35	SLD 11	-5	69	332	-1.55	-7.15	0.99
35	SLD 12	-5	69	332	-1.55	-7.15	0.99
35	SLD 13	8	248	793	-8.28	-15.35	2.1
35	SLD 14	8	248	793	-8.28	-15.35	2.1
35	SLD 15	3	169	592	-5.34	-16.78	2.31
35	SLD 16	3	169	592	-5.34	-16.78	2.31
35	SLV 1	-7	256	796	-8.48	43.39	-5.96
35	SLV 2	-7	256	796	-8.48	43.39	-5.96
35	SLV 3	-19	73	324	-1.61	39.62	-5.44
35	SLV 4	-19	73	324	-1.61	39.62	-5.44
35	SLV 5	16	492	1414	-17.38	18.8	-2.59
35	SLV 6	16	492	1414	-17.38	18.8	-2.59
35	SLV 7	-23	-119	-160	5.52	6.22	-0.85
35	SLV 8	-23	-119	-160	5.52	6.22	-0.85
35	SLV 9	24	511	1471	-18.14	-6.05	0.83
35	SLV 10	24	511	1471	-18.14	-6.05	0.83
35	SLV 11	-15	-100	-103	4.76	-18.63	2.56
35	SLV 12	-15	-100	-103	4.76	-18.63	2.56
35	SLV 13	20	319	987	-11	-39.45	5.41
35	SLV 14	20	319	987	-11	-39.45	5.41
35	SLV 15	8	135	515	-4.13	-43.23	5.94
35	SLV 16	8	135	515	-4.13	-43.23	5.94
36	SLU 1	0	2	1634	-1.17	-0.36	0
36	SLU 2	-1	10	1659	-1.62	-0.74	0.01
36	SLU 3	0	2	1634	-1.17	-0.36	0
36	SLU 4	-1	7	1649	-1.44	-0.59	0.01
36	SLU 5	-1	10	1659	-1.62	-0.74	0.01
36	SLU 6	0	2	1634	-1.17	-0.36	0
36	SLU 7	-1	7	1649	-1.44	-0.59	0.01
36	SLU 8	0	2	1634	-1.17	-0.36	0
36	SLU 9	-1	7	1649	-1.44	-0.59	0.01
36	SLU 10	-2	41	2111	-3.3	-1.32	0.01
36	SLU 11	-1	33	2086	-2.85	-0.94	0
36	SLU 12	-1	38	2101	-3.12	-1.17	0.01
36	SLU 13	-2	41	2111	-3.3	-1.32	0.01
36	SLU 14	-1	33	2086	-2.85	-0.94	0
36	SLU 15	-1	38	2101	-3.12	-1.17	0.01
36	SLU 16	-1	33	2086	-2.85	-0.94	0
36	SLU 17	-1	38	2101	-3.12	-1.17	0.01
36	SLU 18	-1	46	2280	-3.57	-1.19	0
36	SLU 19	-2	51	2295	-3.84	-1.42	0.01
36	SLU 20	-1	46	2280	-3.57	-1.19	0
36	SLU 21	-2	51	2295	-3.84	-1.42	0.01
36	SLU 22	0	14	1814	-1.86	-0.59	0
36	SLU 23	-1	22	1839	-2.3	-0.97	0.01
36	SLU 24	0	14	1814	-1.86	-0.59	0
36	SLU 25	-1	19	1829	-2.12	-0.82	0.01
36	SLU 26	-1	22	1839	-2.3	-0.97	0.01
36	SLU 27	0	14	1814	-1.86	-0.59	0
36	SLU 28	-1	19	1829	-2.12	-0.82	0.01
36	SLU 29	0	14	1814	-1.86	-0.59	0
36	SLU 30	-1	19	1829	-2.12	-0.82	0.01
36	SLU 31	-2	53	2291	-3.99	-1.55	0.01
36	SLU 32	-1	45	2266	-3.54	-1.17	0
36	SLU 33	-2	50	2281	-3.81	-1.4	0.01
36	SLU 34	-2	53	2291	-3.99	-1.55	0.01
36	SLU 35	-1	45	2266	-3.54	-1.17	0
36	SLU 36	-2	50	2281	-3.81	-1.4	0.01
36	SLU 37	-1	45	2266	-3.54	-1.17	0
36	SLU 38	-2	50	2281	-3.81	-1.4	0.01
36	SLU 39	-1	58	2459	-4.26	-1.42	0.01
36	SLU 40	-2	63	2474	-4.53	-1.65	0.01
36	SLU 41	-1	58	2459	-4.26	-1.42	0.01
36	SLU 42	-2	63	2474	-4.53	-1.65	0.01
36	SLU 43	0	-2	2063	-1.29	-0.39	0
36	SLU 44	-1	6	2088	-1.73	-0.77	0.01
36	SLU 45	0	-2	2063	-1.29	-0.39	0
36	SLU 46	-1	3	2078	-1.55	-0.62	0.01
36	SLU 47	-1	6	2088	-1.73	-0.77	0.01
36	SLU 48	0	-2	2063	-1.29	-0.39	0
36	SLU 49	-1	3	2078	-1.55	-0.62	0.01
36	SLU 50	0	-2	2063	-1.29	-0.39	0
36	SLU 51	-1	3	2078	-1.55	-0.62	0.01
36	SLU 52	-2	38	2540	-3.42	-1.35	0.01
36	SLU 53	-1	29	2514	-2.97	-0.97	0
36	SLU 54	-1	34	2530	-3.24	-1.2	0.01
36	SLU 55	-2	38	2540	-3.42	-1.35	0.01
36	SLU 56	-1	29	2514	-2.97	-0.97	0
36	SLU 57	-1	34	2530	-3.24	-1.2	0.01
36	SLU 58	-1	29	2514	-2.97	-0.97	0
36	SLU 59	-1	34	2530	-3.24	-1.2	0.01
36	SLU 60	-1	42	2708	-3.69	-1.22	0
36	SLU 61	-2	47	2723	-3.96	-1.45	0.01
36	SLU 62	-1	42	2708	-3.69	-1.22	0
36	SLU 63	-2	47	2723	-3.96	-1.45	0.01
36	SLU 64	-1	10	2242	-1.97	-0.62	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
36	SLU 65	-2	19	2268	-2.42	-1	0.01
36	SLU 66	-1	10	2242	-1.97	-0.62	0
36	SLU 67	-1	15	2257	-2.24	-0.85	0.01
36	SLU 68	-2	19	2268	-2.42	-1	0.01
36	SLU 69	-1	10	2242	-1.97	-0.62	0
36	SLU 70	-1	15	2257	-2.24	-0.85	0.01
36	SLU 71	-1	10	2242	-1.97	-0.62	0
36	SLU 72	-1	15	2257	-2.24	-0.85	0.01
36	SLU 73	-2	50	2719	-4.1	-1.58	0.01
36	SLU 74	-1	41	2694	-3.65	-1.2	0
36	SLU 75	-2	46	2709	-3.92	-1.43	0.01
36	SLU 76	-2	50	2719	-4.1	-1.58	0.01
36	SLU 77	-1	41	2694	-3.65	-1.2	0
36	SLU 78	-2	46	2709	-3.92	-1.43	0.01
36	SLU 79	-1	41	2694	-3.65	-1.2	0
36	SLU 80	-2	46	2709	-3.92	-1.43	0.01
36	SLU 81	-1	55	2888	-4.38	-1.45	0.01
36	SLU 82	-2	60	2903	-4.64	-1.68	0.01
36	SLU 83	-1	55	2888	-4.38	-1.45	0.01
36	SLU 84	-2	60	2903	-4.64	-1.68	0.01
36	SLE RA 1	0	5	1685	-1.37	-0.43	0
36	SLE RA 2	-1	11	1702	-1.66	-0.68	0.01
36	SLE RA 3	0	5	1685	-1.37	-0.43	0
36	SLE RA 4	-1	9	1695	-1.54	-0.58	0
36	SLE RA 5	-1	11	1702	-1.66	-0.68	0.01
36	SLE RA 6	0	5	1685	-1.37	-0.43	0
36	SLE RA 7	-1	9	1695	-1.54	-0.58	0
36	SLE RA 8	0	5	1685	-1.37	-0.43	0
36	SLE RA 9	-1	9	1695	-1.54	-0.58	0
36	SLE RA 10	-1	32	2003	-2.79	-1.07	0.01
36	SLE RA 11	-1	26	1987	-2.49	-0.81	0
36	SLE RA 12	-1	29	1997	-2.67	-0.97	0.01
36	SLE RA 13	-1	32	2003	-2.79	-1.07	0.01
36	SLE RA 14	-1	26	1987	-2.49	-0.81	0
36	SLE RA 15	-1	29	1997	-2.67	-0.97	0.01
36	SLE RA 16	-1	26	1987	-2.49	-0.81	0
36	SLE RA 17	-1	29	1997	-2.67	-0.97	0.01
36	SLE RA 18	-1	35	2116	-2.97	-0.98	0
36	SLE RA 19	-1	38	2126	-3.15	-1.13	0.01
36	SLE RA 20	-1	35	2116	-2.97	-0.98	0
36	SLE RA 21	-1	38	2126	-3.15	-1.13	0.01
36	SLE FR 1	0	5	1685	-1.37	-0.43	0
36	SLE FR 2	0	6	1689	-1.43	-0.48	0
36	SLE FR 3	0	5	1685	-1.37	-0.43	0
36	SLE FR 4	-1	15	1818	-1.91	-0.64	0
36	SLE FR 5	0	14	1814	-1.85	-0.59	0
36	SLE FR 6	-1	20	1901	-2.17	-0.7	0
36	SLE QP 1	0	5	1685	-1.37	-0.43	0
36	SLE QP 2	0	14	1814	-1.85	-0.59	0
36	SLD 1	15	19	1834	-2.1	14.25	-0.07
36	SLD 2	15	19	1834	-2.1	14.25	-0.07
36	SLD 3	25	-17	1747	-0.43	24.02	-0.12
36	SLD 4	25	-17	1747	-0.43	24.02	-0.12
36	SLD 5	-11	71	1952	-4.46	-10.97	0.05
36	SLD 6	-11	71	1952	-4.46	-10.97	0.05
36	SLD 7	22	-51	1662	1.12	21.62	-0.11
36	SLD 8	22	-51	1662	1.12	21.62	-0.11
36	SLD 9	-23	79	1967	-4.81	-22.81	0.11
36	SLD 10	-23	79	1967	-4.81	-22.81	0.11
36	SLD 11	10	-43	1677	0.77	9.78	-0.05
36	SLD 12	10	-43	1677	0.77	9.78	-0.05
36	SLD 13	-26	46	1882	-3.27	-25.21	0.13
36	SLD 14	-26	46	1882	-3.27	-25.21	0.13
36	SLD 15	-16	9	1795	-1.59	-15.43	0.08
36	SLD 16	-16	9	1795	-1.59	-15.43	0.08
36	SLV 1	37	28	1874	-2.58	35.8	-0.18
36	SLV 2	37	28	1874	-2.58	35.8	-0.18
36	SLV 3	62	-63	1637	1.68	60.9	-0.3
36	SLV 4	62	-63	1637	1.68	60.9	-0.3
36	SLV 5	-28	156	2191	-8.52	-27.75	0.13
36	SLV 6	-28	156	2191	-8.52	-27.75	0.13
36	SLV 7	56	-147	1403	5.67	55.93	-0.28
36	SLV 8	56	-147	1403	5.67	55.93	-0.28
36	SLV 9	-57	175	2226	-9.36	-57.12	0.28
36	SLV 10	-57	175	2226	-9.36	-57.12	0.28
36	SLV 11	27	-128	1438	4.83	26.56	-0.13
36	SLV 12	27	-128	1438	4.83	26.56	-0.13
36	SLV 13	-63	91	1992	-5.37	-62.09	0.31
36	SLV 14	-63	91	1992	-5.37	-62.09	0.31
36	SLV 15	-38	0	1755	-1.12	-36.99	0.18
36	SLV 16	-38	0	1755	-1.12	-36.99	0.18
37	SLU 1	-1	267	2084	-9.6	-1.16	0.01
37	SLU 2	-1	267	2093	-9.31	-1.39	0.01
37	SLU 3	-1	267	2084	-9.6	-1.16	0.01
37	SLU 4	-1	267	2089	-9.43	-1.3	0.01
37	SLU 5	-1	267	2093	-9.31	-1.39	0.01
37	SLU 6	-1	267	2084	-9.6	-1.16	0.01
37	SLU 7	-1	267	2089	-9.43	-1.3	0.01
37	SLU 8	-1	267	2084	-9.6	-1.16	0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
37	SLU 9	-1	267	2089	-9.43	-1.3	0.01
37	SLU 10	-1	337	2524	-11.85	-1.6	0.02
37	SLU 11	-2	337	2514	-12.13	-1.38	0.02
37	SLU 12	-2	337	2520	-11.96	-1.51	0.02
37	SLU 13	-1	337	2524	-11.85	-1.6	0.02
37	SLU 14	-2	337	2514	-12.13	-1.38	0.02
37	SLU 15	-2	337	2520	-11.96	-1.51	0.02
37	SLU 16	-2	337	2514	-12.13	-1.38	0.02
37	SLU 17	-2	337	2520	-11.96	-1.51	0.02
37	SLU 18	-2	368	2699	-13.22	-1.47	0.02
37	SLU 19	-2	368	2704	-13.05	-1.61	0.02
37	SLU 20	-2	368	2699	-13.22	-1.47	0.02
37	SLU 21	-2	368	2704	-13.05	-1.61	0.02
37	SLU 22	-2	302	2306	-10.89	-1.29	0.02
37	SLU 23	-1	302	2316	-10.6	-1.52	0.02
37	SLU 24	-2	302	2306	-10.89	-1.29	0.02
37	SLU 25	-1	302	2312	-10.72	-1.43	0.02
37	SLU 26	-1	302	2316	-10.6	-1.52	0.02
37	SLU 27	-2	302	2306	-10.89	-1.29	0.02
37	SLU 28	-1	302	2312	-10.72	-1.43	0.02
37	SLU 29	-2	302	2306	-10.89	-1.29	0.02
37	SLU 30	-1	302	2312	-10.72	-1.43	0.02
37	SLU 31	-2	373	2746	-13.14	-1.73	0.02
37	SLU 32	-2	373	2736	-13.42	-1.51	0.02
37	SLU 33	-2	373	2742	-13.25	-1.64	0.02
37	SLU 34	-2	373	2746	-13.14	-1.73	0.02
37	SLU 35	-2	373	2736	-13.42	-1.51	0.02
37	SLU 36	-2	373	2742	-13.25	-1.64	0.02
37	SLU 37	-2	373	2736	-13.42	-1.51	0.02
37	SLU 38	-2	373	2742	-13.25	-1.64	0.02
37	SLU 39	-3	403	2921	-14.51	-1.6	0.02
37	SLU 40	-2	403	2927	-14.34	-1.74	0.02
37	SLU 41	-3	403	2921	-14.51	-1.6	0.02
37	SLU 42	-2	403	2927	-14.34	-1.74	0.02
37	SLU 43	-2	334	2633	-12.04	-1.46	0.02
37	SLU 44	-1	334	2642	-11.75	-1.69	0.02
37	SLU 45	-2	334	2633	-12.04	-1.46	0.02
37	SLU 46	-1	334	2638	-11.87	-1.6	0.02
37	SLU 47	-1	334	2642	-11.75	-1.69	0.02
37	SLU 48	-2	334	2633	-12.04	-1.46	0.02
37	SLU 49	-1	334	2638	-11.87	-1.6	0.02
37	SLU 50	-2	334	2633	-12.04	-1.46	0.02
37	SLU 51	-1	334	2638	-11.87	-1.6	0.02
37	SLU 52	-2	405	3072	-14.29	-1.91	0.02
37	SLU 53	-2	405	3063	-14.57	-1.68	0.02
37	SLU 54	-2	405	3069	-14.4	-1.82	0.02
37	SLU 55	-2	405	3072	-14.29	-1.91	0.02
37	SLU 56	-2	405	3063	-14.57	-1.68	0.02
37	SLU 57	-2	405	3069	-14.4	-1.82	0.02
37	SLU 58	-2	405	3063	-14.57	-1.68	0.02
37	SLU 59	-2	405	3069	-14.4	-1.82	0.02
37	SLU 60	-3	435	3247	-15.66	-1.77	0.02
37	SLU 61	-2	435	3253	-15.49	-1.91	0.02
37	SLU 62	-3	435	3247	-15.66	-1.77	0.02
37	SLU 63	-2	435	3253	-15.49	-1.91	0.02
37	SLU 64	-2	370	2855	-13.32	-1.59	0.02
37	SLU 65	-1	370	2864	-13.04	-1.82	0.02
37	SLU 66	-2	370	2855	-13.32	-1.59	0.02
37	SLU 67	-2	370	2861	-13.15	-1.73	0.02
37	SLU 68	-1	370	2864	-13.04	-1.82	0.02
37	SLU 69	-2	370	2855	-13.32	-1.59	0.02
37	SLU 70	-2	370	2861	-13.15	-1.73	0.02
37	SLU 71	-2	370	2855	-13.32	-1.59	0.02
37	SLU 72	-2	370	2861	-13.15	-1.73	0.02
37	SLU 73	-2	441	3295	-15.58	-2.04	0.02
37	SLU 74	-3	441	3285	-15.86	-1.81	0.02
37	SLU 75	-2	441	3291	-15.69	-1.95	0.02
37	SLU 76	-2	441	3295	-15.58	-2.04	0.02
37	SLU 77	-3	441	3285	-15.86	-1.81	0.02
37	SLU 78	-2	441	3291	-15.69	-1.95	0.02
37	SLU 79	-3	441	3285	-15.86	-1.81	0.02
37	SLU 80	-2	441	3291	-15.69	-1.95	0.02
37	SLU 81	-3	471	3470	-16.95	-1.9	0.02
37	SLU 82	-3	471	3475	-16.78	-2.04	0.02
37	SLU 83	-3	471	3470	-16.95	-1.9	0.02
37	SLU 84	-3	471	3475	-16.78	-2.04	0.02
37	SLE RA 1	-1	277	2147	-9.97	-1.2	0.01
37	SLE RA 2	-1	277	2154	-9.78	-1.35	0.01
37	SLE RA 3	-1	277	2147	-9.97	-1.2	0.01
37	SLE RA 4	-1	277	2151	-9.85	-1.29	0.01
37	SLE RA 5	-1	277	2154	-9.78	-1.35	0.01
37	SLE RA 6	-1	277	2147	-9.97	-1.2	0.01
37	SLE RA 7	-1	277	2151	-9.85	-1.29	0.01
37	SLE RA 8	-1	277	2147	-9.97	-1.2	0.01
37	SLE RA 9	-1	277	2151	-9.85	-1.29	0.01
37	SLE RA 10	-2	324	2440	-11.47	-1.49	0.02
37	SLE RA 11	-2	324	2434	-11.66	-1.34	0.02
37	SLE RA 12	-2	324	2438	-11.54	-1.43	0.02
37	SLE RA 13	-2	324	2440	-11.47	-1.49	0.02



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
37	SLE RA 14	-2	324	2434	-11.66	-1.34	0.02
37	SLE RA 15	-2	324	2438	-11.54	-1.43	0.02
37	SLE RA 16	-2	324	2434	-11.66	-1.34	0.02
37	SLE RA 17	-2	324	2438	-11.54	-1.43	0.02
37	SLE RA 18	-2	344	2557	-12.38	-1.4	0.02
37	SLE RA 19	-2	344	2561	-12.27	-1.49	0.02
37	SLE RA 20	-2	344	2557	-12.38	-1.4	0.02
37	SLE RA 21	-2	344	2561	-12.27	-1.49	0.02
37	SLE FR 1	-1	277	2147	-9.97	-1.2	0.01
37	SLE FR 2	-1	277	2149	-9.93	-1.23	0.01
37	SLE FR 3	-1	277	2147	-9.97	-1.2	0.01
37	SLE FR 4	-1	297	2271	-10.65	-1.29	0.01
37	SLE FR 5	-2	297	2270	-10.69	-1.26	0.01
37	SLE FR 6	-2	311	2352	-11.17	-1.3	0.02
37	SLE QP 1	-1	277	2147	-9.97	-1.2	0.01
37	SLE QP 2	-2	297	2270	-10.69	-1.26	0.01
37	SLD 1	-10	373	2057	-10.88	10.28	0
37	SLD 2	-10	373	2057	-10.88	10.28	0
37	SLD 3	-12	312	2011	-13.17	12.75	0
37	SLD 4	-12	312	2011	-13.17	12.75	0
37	SLD 5	-2	413	2277	-7.26	-1.55	0
37	SLD 6	-2	413	2277	-7.26	-1.55	0
37	SLD 7	-7	208	2122	-14.92	6.7	0.02
37	SLD 8	-7	208	2122	-14.92	6.7	0.02
37	SLD 9	4	386	2418	-6.46	-9.22	0.01
37	SLD 10	4	386	2418	-6.46	-9.22	0.01
37	SLD 11	-1	181	2264	-14.12	-0.96	0.03
37	SLD 12	-1	181	2264	-14.12	-0.96	0.03
37	SLD 13	9	283	2530	-8.21	-15.27	0.03
37	SLD 14	9	283	2530	-8.21	-15.27	0.03
37	SLD 15	7	221	2483	-10.5	-12.79	0.03
37	SLD 16	7	221	2483	-10.5	-12.79	0.03
37	SLV 1	-23	483	1737	-11.26	27.99	-0.03
37	SLV 2	-23	483	1737	-11.26	27.99	-0.03
37	SLV 3	-27	338	1620	-16.73	34.08	-0.02
37	SLV 4	-27	338	1620	-16.73	34.08	-0.02
37	SLV 5	-2	572	2287	-2.56	-1.73	-0.02
37	SLV 6	-2	572	2287	-2.56	-1.73	-0.02
37	SLV 7	-15	90	1898	-20.8	18.59	0.02
37	SLV 8	-15	90	1898	-20.8	18.59	0.02
37	SLV 9	12	504	2642	-0.58	-21.11	0.01
37	SLV 10	12	504	2642	-0.58	-21.11	0.01
37	SLV 11	-1	22	2253	-18.82	-0.79	0.04
37	SLV 12	-1	22	2253	-18.82	-0.79	0.04
37	SLV 13	24	256	2920	-4.65	-36.6	0.05
37	SLV 14	24	256	2920	-4.65	-36.6	0.05
37	SLV 15	20	112	2803	-10.12	-30.5	0.06
37	SLV 16	20	112	2803	-10.12	-30.5	0.06
38	SLU 1	0	173	1078	-7.7	0.06	0
38	SLU 2	0	196	1119	-9.04	0.09	0
38	SLU 3	0	173	1078	-7.7	0.06	0
38	SLU 4	0	187	1103	-8.5	0.08	0
38	SLU 5	0	196	1119	-9.04	0.09	0
38	SLU 6	0	173	1078	-7.7	0.06	0
38	SLU 7	0	187	1103	-8.5	0.08	0
38	SLU 8	0	173	1078	-7.7	0.06	0
38	SLU 9	0	187	1103	-8.5	0.08	0
38	SLU 10	0	308	1271	-12.82	0.22	0
38	SLU 11	0	284	1230	-11.49	0.19	0
38	SLU 12	0	299	1254	-12.29	0.21	0
38	SLU 13	0	308	1271	-12.82	0.22	0
38	SLU 14	0	284	1230	-11.49	0.19	0
38	SLU 15	0	299	1254	-12.29	0.21	0
38	SLU 16	0	284	1230	-11.49	0.19	0
38	SLU 17	0	299	1254	-12.29	0.21	0
38	SLU 18	0	332	1295	-13.11	0.24	0
38	SLU 19	0	346	1320	-13.91	0.27	0
38	SLU 20	0	332	1295	-13.11	0.24	0
38	SLU 21	0	346	1320	-13.91	0.27	0
38	SLU 22	0	223	1228	-9.59	0.11	0
38	SLU 23	0	247	1269	-10.93	0.14	0
38	SLU 24	0	223	1228	-9.59	0.11	0
38	SLU 25	0	237	1253	-10.39	0.13	0
38	SLU 26	0	247	1269	-10.93	0.14	0
38	SLU 27	0	223	1228	-9.59	0.11	0
38	SLU 28	0	237	1253	-10.39	0.13	0
38	SLU 29	0	223	1228	-9.59	0.11	0
38	SLU 30	0	237	1253	-10.39	0.13	0
38	SLU 31	0	358	1421	-14.71	0.27	0
38	SLU 32	0	335	1380	-13.38	0.24	0
38	SLU 33	0	349	1405	-14.18	0.26	0
38	SLU 34	0	358	1421	-14.71	0.27	0
38	SLU 35	0	335	1380	-13.38	0.24	0
38	SLU 36	0	349	1405	-14.18	0.26	0
38	SLU 37	0	335	1380	-13.38	0.24	0
38	SLU 38	0	349	1405	-14.18	0.26	0
38	SLU 39	0	382	1445	-15	0.29	0
38	SLU 40	0	397	1470	-15.8	0.31	0
38	SLU 41	0	382	1445	-15	0.29	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
38	SLU 42	0	397	1470	-15.8	0.31	0
38	SLU 43	0	208	1350	-9.37	0.06	0
38	SLU 44	0	231	1391	-10.7	0.09	0
38	SLU 45	0	208	1350	-9.37	0.06	0
38	SLU 46	0	222	1374	-10.17	0.08	0
38	SLU 47	0	231	1391	-10.7	0.09	0
38	SLU 48	0	208	1350	-9.37	0.06	0
38	SLU 49	0	222	1374	-10.17	0.08	0
38	SLU 50	0	208	1350	-9.37	0.06	0
38	SLU 51	0	222	1374	-10.17	0.08	0
38	SLU 52	0	343	1543	-14.48	0.22	0
38	SLU 53	0	319	1502	-13.15	0.19	0
38	SLU 54	0	333	1526	-13.95	0.21	0
38	SLU 55	0	343	1543	-14.48	0.22	0
38	SLU 56	0	319	1502	-13.15	0.19	0
38	SLU 57	0	333	1526	-13.95	0.21	0
38	SLU 58	0	319	1502	-13.15	0.19	0
38	SLU 59	0	333	1526	-13.95	0.21	0
38	SLU 60	0	367	1567	-14.78	0.24	0
38	SLU 61	0	381	1591	-15.57	0.27	0
38	SLU 62	0	367	1567	-14.78	0.24	0
38	SLU 63	0	381	1591	-15.57	0.27	0
38	SLU 64	0	258	1500	-11.26	0.11	0
38	SLU 65	0	281	1541	-12.59	0.14	0
38	SLU 66	0	258	1500	-11.26	0.11	0
38	SLU 67	0	272	1525	-12.06	0.13	0
38	SLU 68	0	281	1541	-12.59	0.14	0
38	SLU 69	0	258	1500	-11.26	0.11	0
38	SLU 70	0	272	1525	-12.06	0.13	0
38	SLU 71	0	258	1500	-11.26	0.11	0
38	SLU 72	0	272	1525	-12.06	0.13	0
38	SLU 73	0	393	1693	-16.37	0.27	0
38	SLU 74	0	369	1652	-15.04	0.24	0
38	SLU 75	0	383	1677	-15.84	0.26	0
38	SLU 76	0	393	1693	-16.37	0.27	0
38	SLU 77	0	369	1652	-15.04	0.24	0
38	SLU 78	0	383	1677	-15.84	0.26	0
38	SLU 79	0	369	1652	-15.04	0.24	0
38	SLU 80	0	383	1677	-15.84	0.26	0
38	SLU 81	0	417	1717	-16.67	0.29	0
38	SLU 82	0	431	1742	-17.46	0.32	0
38	SLU 83	0	417	1717	-16.67	0.29	0
38	SLU 84	0	431	1742	-17.46	0.32	0
38	SLE RA 1	0	187	1121	-8.24	0.07	0
38	SLE RA 2	0	203	1148	-9.13	0.1	0
38	SLE RA 3	0	187	1121	-8.24	0.07	0
38	SLE RA 4	0	197	1137	-8.78	0.09	0
38	SLE RA 5	0	203	1148	-9.13	0.1	0
38	SLE RA 6	0	187	1121	-8.24	0.07	0
38	SLE RA 7	0	197	1137	-8.78	0.09	0
38	SLE RA 8	0	187	1121	-8.24	0.07	0
38	SLE RA 9	0	197	1137	-8.78	0.09	0
38	SLE RA 10	0	277	1249	-11.66	0.18	0
38	SLE RA 11	0	262	1222	-10.77	0.16	0
38	SLE RA 12	0	271	1238	-11.3	0.17	0
38	SLE RA 13	0	277	1249	-11.66	0.18	0
38	SLE RA 14	0	262	1222	-10.77	0.16	0
38	SLE RA 15	0	271	1238	-11.3	0.17	0
38	SLE RA 16	0	262	1222	-10.77	0.16	0
38	SLE RA 17	0	271	1238	-11.3	0.17	0
38	SLE RA 18	0	293	1265	-11.85	0.2	0
38	SLE RA 19	0	303	1282	-12.38	0.21	0
38	SLE RA 20	0	293	1265	-11.85	0.2	0
38	SLE RA 21	0	303	1282	-12.38	0.21	0
38	SLE FR 1	0	187	1121	-8.24	0.07	0
38	SLE FR 2	0	190	1126	-8.42	0.08	0
38	SLE FR 3	0	187	1121	-8.24	0.07	0
38	SLE FR 4	0	222	1170	-9.5	0.11	0
38	SLE FR 5	0	219	1164	-9.33	0.11	0
38	SLE FR 6	0	240	1193	-10.05	0.13	0
38	SLE QP 1	0	187	1121	-8.24	0.07	0
38	SLE QP 2	0	219	1164	-9.33	0.11	0
38	SLD 1	36	254	1321	-11.48	32.78	-0.19
38	SLD 2	36	254	1321	-11.48	32.78	-0.19
38	SLD 3	40	152	1092	-5.23	35.99	-0.17
38	SLD 4	40	152	1092	-5.23	35.99	-0.17
38	SLD 5	6	383	1558	-19.46	5.03	-0.09
38	SLD 6	6	383	1558	-19.46	5.03	-0.09
38	SLD 7	17	45	796	1.39	15.76	-0.03
38	SLD 8	17	45	796	1.39	15.76	-0.03
38	SLD 9	-17	393	1532	-20.04	-15.54	0.02
38	SLD 10	-17	393	1532	-20.04	-15.54	0.02
38	SLD 11	-6	55	771	0.8	-4.81	0.08
38	SLD 12	-6	55	771	0.8	-4.81	0.08
38	SLD 13	-39	286	1236	-13.42	-35.77	0.17
38	SLD 14	-39	286	1236	-13.42	-35.77	0.17
38	SLD 15	-36	184	1007	-7.17	-32.56	0.19
38	SLD 16	-36	184	1007	-7.17	-32.56	0.19
38	SLV 1	92	297	1545	-14.17	83.54	-0.49



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
38	SLV 2	92	297	1545	-14.17	83.54	-0.49
38	SLV 3	101	61	1007	0.43	92.51	-0.45
38	SLV 4	101	61	1007	0.43	92.51	-0.45
38	SLV 5	14	600	2093	-32.92	11.53	-0.22
38	SLV 6	14	600	2093	-32.92	11.53	-0.22
38	SLV 7	45	-186	302	15.75	41.44	-0.06
38	SLV 8	45	-186	302	15.75	41.44	-0.06
38	SLV 9	-44	624	2026	-34.4	-41.22	0.06
38	SLV 10	-44	624	2026	-34.4	-41.22	0.06
38	SLV 11	-13	-162	235	14.27	-11.31	0.22
38	SLV 12	-13	-162	235	14.27	-11.31	0.22
38	SLV 13	-101	377	1321	-19.09	-92.29	0.44
38	SLV 14	-101	377	1321	-19.09	-92.29	0.44
38	SLV 15	-92	141	784	-4.48	-83.32	0.49
38	SLV 16	-92	141	784	-4.48	-83.32	0.49
39	SLU 1	0	-114	1541	0.75	-0.31	-0.02
39	SLU 2	-2	-113	1552	0.71	-1.07	-0.07
39	SLU 3	0	-114	1541	0.75	-0.31	-0.02
39	SLU 4	-1	-114	1548	0.73	-0.77	-0.05
39	SLU 5	-2	-113	1552	0.71	-1.07	-0.07
39	SLU 6	0	-114	1541	0.75	-0.31	-0.02
39	SLU 7	-1	-114	1548	0.73	-0.77	-0.05
39	SLU 8	0	-114	1541	0.75	-0.31	-0.02
39	SLU 9	-1	-114	1548	0.73	-0.77	-0.05
39	SLU 10	-2	-134	1987	0.56	-1.56	-0.1
39	SLU 11	0	-135	1975	0.6	-0.8	-0.05
39	SLU 12	-1	-135	1982	0.58	-1.25	-0.08
39	SLU 13	-2	-134	1987	0.56	-1.56	-0.1
39	SLU 14	0	-135	1975	0.6	-0.8	-0.05
39	SLU 15	-1	-135	1982	0.58	-1.25	-0.08
39	SLU 16	0	-135	1975	0.6	-0.8	-0.05
39	SLU 17	-1	-135	1982	0.58	-1.25	-0.08
39	SLU 18	0	-144	2161	0.53	-1.01	-0.07
39	SLU 19	-1	-144	2168	0.51	-1.46	-0.1
39	SLU 20	0	-144	2161	0.53	-1.01	-0.07
39	SLU 21	-1	-144	2168	0.51	-1.46	-0.1
39	SLU 22	0	-122	1711	0.65	-0.5	-0.03
39	SLU 23	-2	-121	1722	0.62	-1.26	-0.08
39	SLU 24	0	-122	1711	0.65	-0.5	-0.03
39	SLU 25	-1	-121	1718	0.63	-0.96	-0.06
39	SLU 26	-2	-121	1722	0.62	-1.26	-0.08
39	SLU 27	0	-122	1711	0.65	-0.5	-0.03
39	SLU 28	-1	-121	1718	0.63	-0.96	-0.06
39	SLU 29	0	-122	1711	0.65	-0.5	-0.03
39	SLU 30	-1	-121	1718	0.63	-0.96	-0.06
39	SLU 31	-2	-142	2157	0.47	-1.75	-0.11
39	SLU 32	0	-143	2145	0.5	-0.99	-0.07
39	SLU 33	-1	-142	2152	0.48	-1.44	-0.09
39	SLU 34	-2	-142	2157	0.47	-1.75	-0.11
39	SLU 35	0	-143	2145	0.5	-0.99	-0.07
39	SLU 36	-1	-142	2152	0.48	-1.44	-0.09
39	SLU 37	0	-143	2145	0.5	-0.99	-0.07
39	SLU 38	-1	-142	2152	0.48	-1.44	-0.09
39	SLU 39	0	-152	2331	0.44	-1.2	-0.08
39	SLU 40	-1	-152	2338	0.42	-1.65	-0.11
39	SLU 41	0	-152	2331	0.44	-1.2	-0.08
39	SLU 42	-1	-152	2338	0.42	-1.65	-0.11
39	SLU 43	0	-146	1944	1.01	-0.34	-0.02
39	SLU 44	-2	-145	1956	0.97	-1.1	-0.07
39	SLU 45	0	-146	1944	1.01	-0.34	-0.02
39	SLU 46	-1	-145	1951	0.99	-0.8	-0.05
39	SLU 47	-2	-145	1956	0.97	-1.1	-0.07
39	SLU 48	0	-146	1944	1.01	-0.34	-0.02
39	SLU 49	-1	-145	1951	0.99	-0.8	-0.05
39	SLU 50	0	-146	1944	1.01	-0.34	-0.02
39	SLU 51	-1	-145	1951	0.99	-0.8	-0.05
39	SLU 52	-2	-166	2391	0.82	-1.58	-0.1
39	SLU 53	0	-167	2379	0.86	-0.83	-0.06
39	SLU 54	-1	-166	2386	0.84	-1.28	-0.08
39	SLU 55	-2	-166	2391	0.82	-1.58	-0.1
39	SLU 56	0	-167	2379	0.86	-0.83	-0.06
39	SLU 57	-1	-166	2386	0.84	-1.28	-0.08
39	SLU 58	0	-167	2379	0.86	-0.83	-0.06
39	SLU 59	-1	-166	2386	0.84	-1.28	-0.08
39	SLU 60	0	-176	2565	0.79	-1.04	-0.07
39	SLU 61	-1	-175	2572	0.77	-1.49	-0.1
39	SLU 62	0	-176	2565	0.79	-1.04	-0.07
39	SLU 63	-1	-175	2572	0.77	-1.49	-0.1
39	SLU 64	0	-153	2114	0.91	-0.53	-0.04
39	SLU 65	-2	-152	2126	0.87	-1.29	-0.08
39	SLU 66	0	-153	2114	0.91	-0.53	-0.04
39	SLU 67	-1	-153	2121	0.89	-0.99	-0.06
39	SLU 68	-2	-152	2126	0.87	-1.29	-0.08
39	SLU 69	0	-153	2114	0.91	-0.53	-0.04
39	SLU 70	-1	-153	2121	0.89	-0.99	-0.06
39	SLU 71	0	-153	2114	0.91	-0.53	-0.04
39	SLU 72	-1	-153	2121	0.89	-0.99	-0.06
39	SLU 73	-2	-174	2561	0.72	-1.78	-0.11
39	SLU 74	0	-175	2549	0.76	-1.02	-0.07



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
39	SLU 75	-1	-174	2556	0.74	-1.47	-0.1
39	SLU 76	-2	-174	2561	0.72	-1.78	-0.11
39	SLU 77	0	-175	2549	0.76	-1.02	-0.07
39	SLU 78	-1	-174	2556	0.74	-1.47	-0.1
39	SLU 79	0	-175	2549	0.76	-1.02	-0.07
39	SLU 80	-1	-174	2556	0.74	-1.47	-0.1
39	SLU 81	0	-184	2735	0.7	-1.23	-0.08
39	SLU 82	-1	-183	2742	0.67	-1.68	-0.11
39	SLU 83	0	-184	2735	0.7	-1.23	-0.08
39	SLU 84	-1	-183	2742	0.67	-1.68	-0.11
39	SLE RA 1	0	-116	1589	0.72	-0.37	-0.03
39	SLE RA 2	-1	-116	1597	0.7	-0.87	-0.05
39	SLE RA 3	0	-116	1589	0.72	-0.37	-0.03
39	SLE RA 4	-1	-116	1594	0.71	-0.67	-0.04
39	SLE RA 5	-1	-116	1597	0.7	-0.87	-0.05
39	SLE RA 6	0	-116	1589	0.72	-0.37	-0.03
39	SLE RA 7	-1	-116	1594	0.71	-0.67	-0.04
39	SLE RA 8	0	-116	1589	0.72	-0.37	-0.03
39	SLE RA 9	-1	-116	1594	0.71	-0.67	-0.04
39	SLE RA 10	-1	-130	1887	0.6	-1.2	-0.08
39	SLE RA 11	0	-130	1879	0.62	-0.69	-0.05
39	SLE RA 12	-1	-130	1883	0.61	-0.99	-0.06
39	SLE RA 13	-1	-130	1887	0.6	-1.2	-0.08
39	SLE RA 14	0	-130	1879	0.62	-0.69	-0.05
39	SLE RA 15	-1	-130	1883	0.61	-0.99	-0.06
39	SLE RA 16	0	-130	1879	0.62	-0.69	-0.05
39	SLE RA 17	-1	-130	1883	0.61	-0.99	-0.06
39	SLE RA 18	0	-136	2003	0.58	-0.83	-0.06
39	SLE RA 19	-1	-136	2008	0.56	-1.13	-0.07
39	SLE RA 20	0	-136	2003	0.58	-0.83	-0.06
39	SLE RA 21	-1	-136	2008	0.56	-1.13	-0.07
39	SLE FR 1	0	-116	1589	0.72	-0.37	-0.03
39	SLE FR 2	0	-116	1591	0.72	-0.47	-0.03
39	SLE FR 3	0	-116	1589	0.72	-0.37	-0.03
39	SLE FR 4	0	-122	1715	0.67	-0.61	-0.04
39	SLE FR 5	0	-122	1713	0.68	-0.51	-0.03
39	SLE FR 6	0	-126	1796	0.65	-0.6	-0.04
39	SLE QP 1	0	-116	1589	0.72	-0.37	-0.03
39	SLE QP 2	0	-122	1713	0.68	-0.51	-0.03
39	SLD 1	-7	-124	1720	0.69	13.11	0.9
39	SLD 2	-7	-124	1720	0.69	13.11	0.9
39	SLD 3	-12	-101	1628	-0.23	21.69	1.47
39	SLD 4	-12	-101	1628	-0.23	21.69	1.47
39	SLD 5	4	-158	1855	2.07	-9.43	-0.62
39	SLD 6	4	-158	1855	2.07	-9.43	-0.62
39	SLD 7	-10	-81	1548	-0.99	19.16	1.28
39	SLD 8	-10	-81	1548	-0.99	19.16	1.28
39	SLD 9	10	-164	1878	2.34	-20.17	-1.35
39	SLD 10	10	-164	1878	2.34	-20.17	-1.35
39	SLD 11	-4	-87	1571	-0.72	8.41	0.55
39	SLD 12	-4	-87	1571	-0.72	8.41	0.55
39	SLD 13	12	-144	1798	1.59	-22.7	-1.54
39	SLD 14	12	-144	1798	1.59	-22.7	-1.54
39	SLD 15	8	-121	1706	0.67	-14.13	-0.97
39	SLD 16	8	-121	1706	0.67	-14.13	-0.97
39	SLV 1	-18	-126	1732	0.67	32.83	2.26
39	SLV 2	-18	-126	1732	0.67	32.83	2.26
39	SLV 3	-29	-71	1505	-1.51	54.88	3.73
39	SLV 4	-29	-71	1505	-1.51	54.88	3.73
39	SLV 5	12	-207	2064	3.98	-23.94	-1.57
39	SLV 6	12	-207	2064	3.98	-23.94	-1.57
39	SLV 7	-26	-23	1306	-3.28	49.55	3.32
39	SLV 8	-26	-23	1306	-3.28	49.55	3.32
39	SLV 9	26	-221	2121	4.64	-50.56	-3.39
39	SLV 10	26	-221	2121	4.64	-50.56	-3.39
39	SLV 11	-12	-38	1363	-2.63	22.93	1.5
39	SLV 12	-12	-38	1363	-2.63	22.93	1.5
39	SLV 13	29	-174	1922	2.87	-55.9	-3.8
39	SLV 14	29	-174	1922	2.87	-55.9	-3.8
39	SLV 15	18	-119	1694	0.69	-33.85	-2.33
39	SLV 16	18	-119	1694	0.69	-33.85	-2.33
40	SLU 1	-1	204	2071	-7.47	-0.58	0
40	SLU 2	0	213	2073	-8.08	-1.01	0
40	SLU 3	-1	204	2071	-7.47	-0.58	0
40	SLU 4	0	210	2072	-7.84	-0.84	0
40	SLU 5	0	213	2073	-8.08	-1.01	0
40	SLU 6	-1	204	2071	-7.47	-0.58	0
40	SLU 7	0	210	2072	-7.84	-0.84	0
40	SLU 8	-1	204	2071	-7.47	-0.58	0
40	SLU 9	0	210	2072	-7.84	-0.84	0
40	SLU 10	-1	269	2502	-10.12	-0.99	0
40	SLU 11	-1	261	2500	-9.52	-0.56	0
40	SLU 12	-1	266	2501	-9.88	-0.82	0
40	SLU 13	-1	269	2502	-10.12	-0.99	0
40	SLU 14	-1	261	2500	-9.52	-0.56	0
40	SLU 15	-1	266	2501	-9.88	-0.82	0
40	SLU 16	-1	261	2500	-9.52	-0.56	0
40	SLU 17	-1	266	2501	-9.88	-0.82	0
40	SLU 18	-1	285	2684	-10.4	-0.55	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
40	SLU 19	-1	290	2685	-10.76	-0.81	0
40	SLU 20	-1	285	2684	-10.4	-0.55	0
40	SLU 21	-1	290	2685	-10.76	-0.81	0
40	SLU 22	-1	233	2292	-8.51	-0.6	0
40	SLU 23	-1	241	2294	-9.11	-1.03	0
40	SLU 24	-1	233	2292	-8.51	-0.6	0
40	SLU 25	-1	238	2293	-8.87	-0.86	0
40	SLU 26	-1	241	2294	-9.11	-1.03	0
40	SLU 27	-1	233	2292	-8.51	-0.6	0
40	SLU 28	-1	238	2293	-8.87	-0.86	0
40	SLU 29	-1	233	2292	-8.51	-0.6	0
40	SLU 30	-1	238	2293	-8.87	-0.86	0
40	SLU 31	-1	298	2723	-11.16	-1.01	0
40	SLU 32	-1	289	2721	-10.56	-0.58	0
40	SLU 33	-1	294	2722	-10.92	-0.84	0
40	SLU 34	-1	298	2723	-11.16	-1.01	0
40	SLU 35	-1	289	2721	-10.56	-0.58	0
40	SLU 36	-1	294	2722	-10.92	-0.84	0
40	SLU 37	-1	289	2721	-10.56	-0.58	0
40	SLU 38	-1	294	2722	-10.92	-0.84	0
40	SLU 39	-2	313	2904	-11.44	-0.57	0
40	SLU 40	-1	318	2906	-11.8	-0.83	0
40	SLU 41	-2	313	2904	-11.44	-0.57	0
40	SLU 42	-1	318	2906	-11.8	-0.83	0
40	SLU 43	-1	256	2617	-9.36	-0.75	0
40	SLU 44	0	265	2619	-9.96	-1.18	0
40	SLU 45	-1	256	2617	-9.36	-0.75	0
40	SLU 46	-1	261	2618	-9.72	-1	0
40	SLU 47	0	265	2619	-9.96	-1.18	0
40	SLU 48	-1	256	2617	-9.36	-0.75	0
40	SLU 49	-1	261	2618	-9.72	-1	0
40	SLU 50	-1	256	2617	-9.36	-0.75	0
40	SLU 51	-1	261	2618	-9.72	-1	0
40	SLU 52	-1	321	3048	-12.01	-1.15	0
40	SLU 53	-1	312	3045	-11.41	-0.73	0
40	SLU 54	-1	317	3047	-11.77	-0.98	0
40	SLU 55	-1	321	3048	-12.01	-1.15	0
40	SLU 56	-1	312	3045	-11.41	-0.73	0
40	SLU 57	-1	317	3047	-11.77	-0.98	0
40	SLU 58	-1	312	3045	-11.41	-0.73	0
40	SLU 59	-1	317	3047	-11.77	-0.98	0
40	SLU 60	-2	336	3229	-12.28	-0.72	0
40	SLU 61	-1	341	3231	-12.64	-0.97	0
40	SLU 62	-2	336	3229	-12.28	-0.72	0
40	SLU 63	-1	341	3231	-12.64	-0.97	0
40	SLU 64	-1	284	2837	-10.4	-0.77	0
40	SLU 65	-1	293	2840	-11	-1.2	0
40	SLU 66	-1	284	2837	-10.4	-0.77	0
40	SLU 67	-1	290	2839	-10.76	-1.03	0
40	SLU 68	-1	293	2840	-11	-1.2	0
40	SLU 69	-1	284	2837	-10.4	-0.77	0
40	SLU 70	-1	290	2839	-10.76	-1.03	0
40	SLU 71	-1	284	2837	-10.4	-0.77	0
40	SLU 72	-1	290	2839	-10.76	-1.03	0
40	SLU 73	-1	349	3269	-13.05	-1.18	0
40	SLU 74	-2	341	3266	-12.45	-0.75	0
40	SLU 75	-1	346	3268	-12.81	-1.01	0
40	SLU 76	-1	349	3269	-13.05	-1.18	0
40	SLU 77	-2	341	3266	-12.45	-0.75	0
40	SLU 78	-1	346	3268	-12.81	-1.01	0
40	SLU 79	-2	341	3266	-12.45	-0.75	0
40	SLU 80	-1	346	3268	-12.81	-1.01	0
40	SLU 81	-2	365	3450	-13.32	-0.74	0
40	SLU 82	-2	370	3451	-13.68	-1	0
40	SLU 83	-2	365	3450	-13.32	-0.74	0
40	SLU 84	-2	370	3451	-13.68	-1	0
40	SLE RA 1	-1	213	2134	-7.77	-0.59	0
40	SLE RA 2	-1	218	2136	-8.17	-0.87	0
40	SLE RA 3	-1	213	2134	-7.77	-0.59	0
40	SLE RA 4	-1	216	2135	-8.01	-0.76	0
40	SLE RA 5	-1	218	2136	-8.17	-0.87	0
40	SLE RA 6	-1	213	2134	-7.77	-0.59	0
40	SLE RA 7	-1	216	2135	-8.01	-0.76	0
40	SLE RA 8	-1	213	2134	-7.77	-0.59	0
40	SLE RA 9	-1	216	2135	-8.01	-0.76	0
40	SLE RA 10	-1	256	2422	-9.54	-0.86	0
40	SLE RA 11	-1	250	2420	-9.14	-0.57	0
40	SLE RA 12	-1	253	2421	-9.38	-0.74	0
40	SLE RA 13	-1	256	2422	-9.54	-0.86	0
40	SLE RA 14	-1	250	2420	-9.14	-0.57	0
40	SLE RA 15	-1	253	2421	-9.38	-0.74	0
40	SLE RA 16	-1	250	2420	-9.14	-0.57	0
40	SLE RA 17	-1	253	2421	-9.38	-0.74	0
40	SLE RA 18	-1	266	2542	-9.72	-0.57	0
40	SLE RA 19	-1	270	2543	-9.96	-0.74	0
40	SLE RA 20	-1	266	2542	-9.72	-0.57	0
40	SLE RA 21	-1	270	2543	-9.96	-0.74	0
40	SLE FR 1	-1	213	2134	-7.77	-0.59	0
40	SLE FR 2	-1	214	2134	-7.85	-0.64	0





Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
40	SLE FR 3	-1	213	2134	-7.77	-0.59	0
40	SLE FR 4	-1	230	2257	-8.44	-0.64	0
40	SLE FR 5	-1	229	2257	-8.36	-0.58	0
40	SLE FR 6	-1	239	2338	-8.75	-0.58	0
40	SLE QP 1	-1	213	2134	-7.77	-0.59	0
40	SLE QP 2	-1	229	2257	-8.36	-0.58	0
40	SLD 1	-9	291	2134	-10.79	20.31	-0.01
40	SLD 2	-9	291	2134	-10.79	20.31	-0.01
40	SLD 3	-13	227	2158	-8.31	24.24	-0.01
40	SLD 4	-13	227	2158	-8.31	24.24	-0.01
40	SLD 5	2	344	2185	-12.85	-0.26	0
40	SLD 6	2	344	2185	-12.85	-0.26	0
40	SLD 7	-10	132	2262	-4.58	12.82	-0.01
40	SLD 8	-10	132	2262	-4.58	12.82	-0.01
40	SLD 9	8	326	2251	-12.13	-13.98	0.01
40	SLD 10	8	326	2251	-12.13	-13.98	0.01
40	SLD 11	-4	113	2328	-3.86	-0.9	0
40	SLD 12	-4	113	2328	-3.86	-0.9	0
40	SLD 13	11	230	2355	-8.4	-25.4	0.01
40	SLD 14	11	230	2355	-8.4	-25.4	0.01
40	SLD 15	7	166	2379	-5.92	-21.48	0.01
40	SLD 16	7	166	2379	-5.92	-21.48	0.01
40	SLV 1	-21	377	1950	-14.26	52.51	-0.03
40	SLV 2	-21	377	1950	-14.26	52.51	-0.03
40	SLV 3	-30	226	2009	-8.17	62.21	-0.03
40	SLV 4	-30	226	2009	-8.17	62.21	-0.03
40	SLV 5	6	502	2077	-19.35	0.64	0
40	SLV 6	6	502	2077	-19.35	0.64	0
40	SLV 7	-22	-1	2270	0.92	32.97	-0.02
40	SLV 8	-22	-1	2270	0.92	32.97	-0.02
40	SLV 9	20	458	2243	-17.63	-34.13	0.02
40	SLV 10	20	458	2243	-17.63	-34.13	0.02
40	SLV 11	-8	-45	2437	2.64	-1.8	0
40	SLV 12	-8	-45	2437	2.64	-1.8	0
40	SLV 13	28	231	2505	-8.54	-63.37	0.03
40	SLV 14	28	231	2505	-8.54	-63.37	0.03
40	SLV 15	19	80	2563	-2.46	-53.68	0.03
40	SLV 16	19	80	2563	-2.46	-53.68	0.03
41	SLU 1	0	174	1129	-6.25	0.01	0
41	SLU 2	0	206	1158	-7.55	0.11	0
41	SLU 3	0	174	1129	-6.25	0.01	0
41	SLU 4	0	193	1146	-7.03	0.07	0
41	SLU 5	0	206	1158	-7.55	0.11	0
41	SLU 6	0	174	1129	-6.25	0.01	0
41	SLU 7	0	193	1146	-7.03	0.07	0
41	SLU 8	0	174	1129	-6.25	0.01	0
41	SLU 9	0	193	1146	-7.03	0.07	0
41	SLU 10	0	367	1455	-13.14	0.18	0
41	SLU 11	0	334	1426	-11.84	0.09	0
41	SLU 12	0	354	1443	-12.62	0.14	0
41	SLU 13	0	367	1455	-13.14	0.18	0
41	SLU 14	0	334	1426	-11.84	0.09	0
41	SLU 15	0	354	1443	-12.62	0.14	0
41	SLU 16	0	334	1426	-11.84	0.09	0
41	SLU 17	0	354	1443	-12.62	0.14	0
41	SLU 18	0	403	1553	-14.23	0.12	0
41	SLU 19	0	422	1570	-15.01	0.18	0
41	SLU 20	0	403	1553	-14.23	0.12	0
41	SLU 21	0	422	1570	-15.01	0.18	0
41	SLU 22	0	240	1326	-8.58	0.04	0
41	SLU 23	0	272	1355	-9.88	0.13	0
41	SLU 24	0	240	1326	-8.58	0.04	0
41	SLU 25	0	259	1343	-9.36	0.09	0
41	SLU 26	0	272	1355	-9.88	0.13	0
41	SLU 27	0	240	1326	-8.58	0.04	0
41	SLU 28	0	259	1343	-9.36	0.09	0
41	SLU 29	0	240	1326	-8.58	0.04	0
41	SLU 30	0	259	1343	-9.36	0.09	0
41	SLU 31	0	433	1652	-15.46	0.21	0
41	SLU 32	0	400	1623	-14.16	0.11	0
41	SLU 33	0	420	1640	-14.94	0.17	0
41	SLU 34	0	433	1652	-15.46	0.21	0
41	SLU 35	0	400	1623	-14.16	0.11	0
41	SLU 36	0	420	1640	-14.94	0.17	0
41	SLU 37	0	400	1623	-14.16	0.11	0
41	SLU 38	0	420	1640	-14.94	0.17	0
41	SLU 39	0	469	1750	-16.56	0.15	0
41	SLU 40	0	488	1767	-17.34	0.2	0
41	SLU 41	0	469	1750	-16.56	0.15	0
41	SLU 42	0	488	1767	-17.34	0.2	0
41	SLU 43	0	204	1400	-7.33	0.01	0
41	SLU 44	0	236	1429	-8.63	0.1	0
41	SLU 45	0	204	1400	-7.33	0.01	0
41	SLU 46	0	223	1418	-8.11	0.06	0
41	SLU 47	0	236	1429	-8.63	0.1	0
41	SLU 48	0	204	1400	-7.33	0.01	0
41	SLU 49	0	223	1418	-8.11	0.06	0
41	SLU 50	0	204	1400	-7.33	0.01	0
41	SLU 51	0	223	1418	-8.11	0.06	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
41	SLU 52	0	396	1726	-14.22	0.18	0
41	SLU 53	0	364	1697	-12.92	0.08	0
41	SLU 54	0	383	1714	-13.7	0.14	0
41	SLU 55	0	396	1726	-14.22	0.18	0
41	SLU 56	0	364	1697	-12.92	0.08	0
41	SLU 57	0	383	1714	-13.7	0.14	0
41	SLU 58	0	364	1697	-12.92	0.08	0
41	SLU 59	0	383	1714	-13.7	0.14	0
41	SLU 60	0	433	1824	-15.31	0.12	0
41	SLU 61	0	452	1841	-16.09	0.17	0
41	SLU 62	0	433	1824	-15.31	0.12	0
41	SLU 63	0	452	1841	-16.09	0.17	0
41	SLU 64	0	270	1597	-9.66	0.03	0
41	SLU 65	0	302	1626	-10.96	0.13	0
41	SLU 66	0	270	1597	-9.66	0.03	0
41	SLU 67	0	289	1615	-10.44	0.09	0
41	SLU 68	0	302	1626	-10.96	0.13	0
41	SLU 69	0	270	1597	-9.66	0.03	0
41	SLU 70	0	289	1615	-10.44	0.09	0
41	SLU 71	0	270	1597	-9.66	0.03	0
41	SLU 72	0	289	1615	-10.44	0.09	0
41	SLU 73	0	462	1923	-16.54	0.2	0
41	SLU 74	0	430	1894	-15.24	0.11	0
41	SLU 75	0	449	1911	-16.02	0.16	0
41	SLU 76	0	462	1923	-16.54	0.2	0
41	SLU 77	0	430	1894	-15.24	0.11	0
41	SLU 78	0	449	1911	-16.02	0.16	0
41	SLU 79	0	430	1894	-15.24	0.11	0
41	SLU 80	0	449	1911	-16.02	0.16	0
41	SLU 81	0	499	2021	-17.63	0.14	0
41	SLU 82	0	518	2038	-18.41	0.2	0
41	SLU 83	0	499	2021	-17.63	0.14	0
41	SLU 84	0	518	2038	-18.41	0.2	0
41	SLE RA 1	0	193	1185	-6.92	0.02	0
41	SLE RA 2	0	214	1205	-7.78	0.08	0
41	SLE RA 3	0	193	1185	-6.92	0.02	0
41	SLE RA 4	0	206	1197	-7.44	0.06	0
41	SLE RA 5	0	214	1205	-7.78	0.08	0
41	SLE RA 6	0	193	1185	-6.92	0.02	0
41	SLE RA 7	0	206	1197	-7.44	0.06	0
41	SLE RA 8	0	193	1185	-6.92	0.02	0
41	SLE RA 9	0	206	1197	-7.44	0.06	0
41	SLE RA 10	0	321	1403	-11.51	0.13	0
41	SLE RA 11	0	300	1383	-10.64	0.07	0
41	SLE RA 12	0	313	1395	-11.16	0.11	0
41	SLE RA 13	0	321	1403	-11.51	0.13	0
41	SLE RA 14	0	300	1383	-10.64	0.07	0
41	SLE RA 15	0	313	1395	-11.16	0.11	0
41	SLE RA 16	0	300	1383	-10.64	0.07	0
41	SLE RA 17	0	313	1395	-11.16	0.11	0
41	SLE RA 18	0	345	1468	-12.24	0.09	0
41	SLE RA 19	0	358	1479	-12.76	0.13	0
41	SLE RA 20	0	345	1468	-12.24	0.09	0
41	SLE RA 21	0	358	1479	-12.76	0.13	0
41	SLE FR 1	0	193	1185	-6.92	0.02	0
41	SLE FR 2	0	197	1189	-7.09	0.03	0
41	SLE FR 3	0	193	1185	-6.92	0.02	0
41	SLE FR 4	0	243	1274	-8.69	0.05	0
41	SLE FR 5	0	239	1270	-8.51	0.04	0
41	SLE FR 6	0	269	1326	-9.58	0.06	0
41	SLE QP 1	0	193	1185	-6.92	0.02	0
41	SLE QP 2	0	239	1270	-8.51	0.04	0
41	SLD 1	25	280	1359	-10.13	29.14	-0.29
41	SLD 2	25	280	1359	-10.13	29.14	-0.29
41	SLD 3	29	142	1219	-4.57	32.87	-0.33
41	SLD 4	29	142	1219	-4.57	32.87	-0.33
41	SLD 5	2	460	1509	-17.43	3.12	-0.02
41	SLD 6	2	460	1509	-17.43	3.12	-0.02
41	SLD 7	14	1	1042	1.1	15.54	-0.16
41	SLD 8	14	1	1042	1.1	15.54	-0.16
41	SLD 9	-14	476	1497	-18.13	-15.46	0.16
41	SLD 10	-14	476	1497	-18.13	-15.46	0.16
41	SLD 11	-2	18	1031	0.41	-3.04	0.02
41	SLD 12	-2	18	1031	0.41	-3.04	0.02
41	SLD 13	-29	335	1321	-12.45	-32.78	0.33
41	SLD 14	-29	335	1321	-12.45	-32.78	0.33
41	SLD 15	-25	198	1181	-6.89	-29.06	0.29
41	SLD 16	-25	198	1181	-6.89	-29.06	0.29
41	SLV 1	63	326	1481	-11.94	74.08	-0.73
41	SLV 2	63	326	1481	-11.94	74.08	-0.73
41	SLV 3	74	7	1156	0.99	84.86	-0.86
41	SLV 4	74	7	1156	0.99	84.86	-0.86
41	SLV 5	3	750	1826	-29.15	5.9	-0.03
41	SLV 6	3	750	1826	-29.15	5.9	-0.03
41	SLV 7	39	-316	743	13.95	41.84	-0.44
41	SLV 8	39	-316	743	13.95	41.84	-0.44
41	SLV 9	-39	793	1797	-30.97	-41.76	0.44
41	SLV 10	-39	793	1797	-30.97	-41.76	0.44
41	SLV 11	-3	-272	714	12.12	-5.81	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
41	SLV 12	-3	-272	714	12.12	-5.81	0.03
41	SLV 13	-74	471	1384	-18.02	-84.78	0.85
41	SLV 14	-74	471	1384	-18.02	-84.78	0.85
41	SLV 15	-63	151	1059	-5.09	-73.99	0.73
41	SLV 16	-63	151	1059	-5.09	-73.99	0.73
42	SLU 1	0	187	1807	-3.16	-0.28	0.02
42	SLU 2	-1	191	1808	-3.34	-1.39	0.1
42	SLU 3	0	187	1807	-3.16	-0.28	0.02
42	SLU 4	-1	190	1808	-3.27	-0.94	0.07
42	SLU 5	-1	191	1808	-3.34	-1.39	0.1
42	SLU 6	0	187	1807	-3.16	-0.28	0.02
42	SLU 7	-1	190	1808	-3.27	-0.94	0.07
42	SLU 8	0	187	1807	-3.16	-0.28	0.02
42	SLU 9	-1	190	1808	-3.27	-0.94	0.07
42	SLU 10	-1	268	2434	-4.94	-1.82	0.13
42	SLU 11	0	265	2432	-4.76	-0.71	0.05
42	SLU 12	-1	267	2433	-4.87	-1.38	0.1
42	SLU 13	-1	268	2434	-4.94	-1.82	0.13
42	SLU 14	0	265	2432	-4.76	-0.71	0.05
42	SLU 15	-1	267	2433	-4.87	-1.38	0.1
42	SLU 16	0	265	2432	-4.76	-0.71	0.05
42	SLU 17	-1	267	2433	-4.87	-1.38	0.1
42	SLU 18	0	298	2700	-5.44	-0.9	0.07
42	SLU 19	-1	300	2701	-5.55	-1.56	0.11
42	SLU 20	0	298	2700	-5.44	-0.9	0.07
42	SLU 21	-1	300	2701	-5.55	-1.56	0.11
42	SLU 22	0	221	2065	-3.88	-0.44	0.03
42	SLU 23	-1	225	2067	-4.06	-1.56	0.11
42	SLU 24	0	221	2065	-3.88	-0.44	0.03
42	SLU 25	-1	223	2066	-3.99	-1.11	0.08
42	SLU 26	-1	225	2067	-4.06	-1.56	0.11
42	SLU 27	0	221	2065	-3.88	-0.44	0.03
42	SLU 28	-1	223	2066	-3.99	-1.11	0.08
42	SLU 29	0	221	2065	-3.88	-0.44	0.03
42	SLU 30	-1	223	2066	-3.99	-1.11	0.08
42	SLU 31	-1	302	2692	-5.66	-1.99	0.14
42	SLU 32	0	298	2690	-5.48	-0.88	0.07
42	SLU 33	-1	301	2691	-5.59	-1.54	0.11
42	SLU 34	-1	302	2692	-5.66	-1.99	0.14
42	SLU 35	0	298	2690	-5.48	-0.88	0.07
42	SLU 36	-1	301	2691	-5.59	-1.54	0.11
42	SLU 37	0	298	2690	-5.48	-0.88	0.07
42	SLU 38	-1	301	2691	-5.59	-1.54	0.11
42	SLU 39	-1	332	2958	-6.16	-1.06	0.08
42	SLU 40	-1	334	2959	-6.27	-1.73	0.12
42	SLU 41	-1	332	2958	-6.16	-1.06	0.08
42	SLU 42	-1	334	2959	-6.27	-1.73	0.12
42	SLU 43	0	232	2260	-3.86	-0.3	0.02
42	SLU 44	-1	236	2262	-4.04	-1.41	0.1
42	SLU 45	0	232	2260	-3.86	-0.3	0.02
42	SLU 46	-1	234	2261	-3.97	-0.97	0.07
42	SLU 47	-1	236	2262	-4.04	-1.41	0.1
42	SLU 48	0	232	2260	-3.86	-0.3	0.02
42	SLU 49	-1	234	2261	-3.97	-0.97	0.07
42	SLU 50	0	232	2260	-3.86	-0.3	0.02
42	SLU 51	-1	234	2261	-3.97	-0.97	0.07
42	SLU 52	-1	313	2887	-5.64	-1.85	0.13
42	SLU 53	0	309	2885	-5.46	-0.74	0.05
42	SLU 54	-1	311	2886	-5.57	-1.4	0.1
42	SLU 55	-1	313	2887	-5.64	-1.85	0.13
42	SLU 56	0	309	2885	-5.46	-0.74	0.05
42	SLU 57	-1	311	2886	-5.57	-1.4	0.1
42	SLU 58	0	309	2885	-5.46	-0.74	0.05
42	SLU 59	-1	311	2886	-5.57	-1.4	0.1
42	SLU 60	0	342	3153	-6.14	-0.92	0.07
42	SLU 61	-1	345	3154	-6.25	-1.59	0.11
42	SLU 62	0	342	3153	-6.14	-0.92	0.07
42	SLU 63	-1	345	3154	-6.25	-1.59	0.11
42	SLU 64	0	266	2519	-4.58	-0.47	0.04
42	SLU 65	-1	270	2520	-4.76	-1.58	0.11
42	SLU 66	0	266	2519	-4.58	-0.47	0.04
42	SLU 67	-1	268	2520	-4.69	-1.14	0.08
42	SLU 68	-1	270	2520	-4.76	-1.58	0.11
42	SLU 69	0	266	2519	-4.58	-0.47	0.04
42	SLU 70	-1	268	2520	-4.69	-1.14	0.08
42	SLU 71	0	266	2519	-4.58	-0.47	0.04
42	SLU 72	-1	268	2520	-4.69	-1.14	0.08
42	SLU 73	-1	347	3145	-6.36	-2.01	0.14
42	SLU 74	0	343	3144	-6.18	-0.9	0.07
42	SLU 75	-1	345	3145	-6.29	-1.57	0.11
42	SLU 76	-1	347	3145	-6.36	-2.01	0.14
42	SLU 77	0	343	3144	-6.18	-0.9	0.07
42	SLU 78	-1	345	3145	-6.29	-1.57	0.11
42	SLU 79	0	343	3144	-6.18	-0.9	0.07
42	SLU 80	-1	345	3145	-6.29	-1.57	0.11
42	SLU 81	-1	376	3412	-6.87	-1.09	0.08
42	SLU 82	-1	378	3413	-6.97	-1.76	0.13
42	SLU 83	-1	376	3412	-6.87	-1.09	0.08
42	SLU 84	-1	378	3413	-6.97	-1.76	0.13



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
42	SLE RA 1	0	197	1881	-3.37	-0.32	0.02
42	SLE RA 2	-1	199	1882	-3.49	-1.07	0.08
42	SLE RA 3	0	197	1881	-3.37	-0.32	0.02
42	SLE RA 4	-1	198	1881	-3.44	-0.77	0.06
42	SLE RA 5	-1	199	1882	-3.49	-1.07	0.08
42	SLE RA 6	0	197	1881	-3.37	-0.32	0.02
42	SLE RA 7	-1	198	1881	-3.44	-0.77	0.06
42	SLE RA 8	0	197	1881	-3.37	-0.32	0.02
42	SLE RA 9	-1	198	1881	-3.44	-0.77	0.06
42	SLE RA 10	-1	251	2298	-4.55	-1.35	0.1
42	SLE RA 11	0	248	2297	-4.43	-0.61	0.05
42	SLE RA 12	-1	250	2298	-4.5	-1.06	0.08
42	SLE RA 13	-1	251	2298	-4.55	-1.35	0.1
42	SLE RA 14	0	248	2297	-4.43	-0.61	0.05
42	SLE RA 15	-1	250	2298	-4.5	-1.06	0.08
42	SLE RA 16	0	248	2297	-4.43	-0.61	0.05
42	SLE RA 17	-1	250	2298	-4.5	-1.06	0.08
42	SLE RA 18	0	271	2476	-4.89	-0.74	0.05
42	SLE RA 19	-1	272	2477	-4.96	-1.18	0.09
42	SLE RA 20	0	271	2476	-4.89	-0.74	0.05
42	SLE RA 21	-1	272	2477	-4.96	-1.18	0.09
42	SLE FR 1	0	197	1881	-3.37	-0.32	0.02
42	SLE FR 2	0	197	1881	-3.39	-0.47	0.03
42	SLE FR 3	0	197	1881	-3.37	-0.32	0.02
42	SLE FR 4	0	219	2060	-3.85	-0.6	0.04
42	SLE FR 5	0	219	2059	-3.82	-0.45	0.03
42	SLE FR 6	0	234	2178	-4.13	-0.53	0.04
42	SLE QP 1	0	197	1881	-3.37	-0.32	0.02
42	SLE QP 2	0	219	2059	-3.82	-0.45	0.03
42	SLD 1	-16	244	2064	-4.58	11.9	-0.9
42	SLD 2	-16	244	2064	-4.58	11.9	-0.9
42	SLD 3	-11	220	2133	-3.8	20.01	-1.49
42	SLD 4	-11	220	2133	-3.8	20.01	-1.49
42	SLD 5	-13	264	1956	-5.22	-9.05	0.65
42	SLD 6	-13	264	1956	-5.22	-9.05	0.65
42	SLD 7	5	182	2186	-2.65	18	-1.32
42	SLD 8	5	182	2186	-2.65	18	-1.32
42	SLD 9	-5	256	1932	-5	-18.9	1.39
42	SLD 10	-5	256	1932	-5	-18.9	1.39
42	SLD 11	13	174	2163	-2.43	8.16	-0.58
42	SLD 12	13	174	2163	-2.43	8.16	-0.58
42	SLD 13	10	218	1985	-3.84	-20.91	1.55
42	SLD 14	10	218	1985	-3.84	-20.91	1.55
42	SLD 15	15	194	2055	-3.07	-12.79	0.96
42	SLD 16	15	194	2055	-3.07	-12.79	0.96
42	SLV 1	-39	279	2071	-5.63	29.71	-2.24
42	SLV 2	-39	279	2071	-5.63	29.71	-2.24
42	SLV 3	-25	221	2236	-3.76	50.64	-3.76
42	SLV 4	-25	221	2236	-3.76	50.64	-3.76
42	SLV 5	-33	326	1813	-7.19	-23.15	1.66
42	SLV 6	-33	326	1813	-7.19	-23.15	1.66
42	SLV 7	13	131	2362	-0.98	46.63	-3.41
42	SLV 8	13	131	2362	-0.98	46.63	-3.41
42	SLV 9	-14	307	1756	-6.67	-47.52	3.48
42	SLV 10	-14	307	1756	-6.67	-47.52	3.48
42	SLV 11	32	112	2306	-0.46	22.25	-1.59
42	SLV 12	32	112	2306	-0.46	22.25	-1.59
42	SLV 13	24	217	1883	-3.88	-51.54	3.83
42	SLV 14	24	217	1883	-3.88	-51.54	3.83
42	SLV 15	38	159	2048	-2.02	-30.61	2.31
42	SLV 16	38	159	2048	-2.02	-30.61	2.31
43	SLU 1	0	159	2063	-5.72	-0.25	0
43	SLU 2	0	163	2062	-5.67	-0.94	0
43	SLU 3	0	159	2063	-5.72	-0.25	0
43	SLU 4	0	162	2062	-5.69	-0.67	0
43	SLU 5	0	163	2062	-5.67	-0.94	0
43	SLU 6	0	159	2063	-5.72	-0.25	0
43	SLU 7	0	162	2062	-5.69	-0.67	0
43	SLU 8	0	159	2063	-5.72	-0.25	0
43	SLU 9	0	162	2062	-5.69	-0.67	0
43	SLU 10	0	208	2491	-7.28	-0.7	0
43	SLU 11	-1	204	2492	-7.33	0	0
43	SLU 12	-1	207	2492	-7.3	-0.42	0
43	SLU 13	0	208	2491	-7.28	-0.7	0
43	SLU 14	-1	204	2492	-7.33	0	0
43	SLU 15	-1	207	2492	-7.3	-0.42	0
43	SLU 16	-1	204	2492	-7.33	0	0
43	SLU 17	-1	207	2492	-7.3	-0.42	0
43	SLU 18	-1	223	2676	-8.02	0.11	0
43	SLU 19	-1	226	2675	-7.99	-0.31	0
43	SLU 20	-1	223	2676	-8.02	0.11	0
43	SLU 21	-1	226	2675	-7.99	-0.31	0
43	SLU 22	-1	182	2284	-6.54	-0.17	0
43	SLU 23	0	186	2282	-6.5	-0.87	0
43	SLU 24	-1	182	2284	-6.54	-0.17	0
43	SLU 25	0	184	2283	-6.51	-0.59	0
43	SLU 26	0	186	2282	-6.5	-0.87	0
43	SLU 27	-1	182	2284	-6.54	-0.17	0
43	SLU 28	0	184	2283	-6.51	-0.59	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
43	SLU 29	-1	182	2284	-6.54	-0.17	0
43	SLU 30	0	184	2283	-6.51	-0.59	0
43	SLU 31	-1	231	2711	-8.11	-0.62	0
43	SLU 32	-1	227	2713	-8.15	0.07	0
43	SLU 33	-1	229	2712	-8.13	-0.34	0
43	SLU 34	-1	231	2711	-8.11	-0.62	0
43	SLU 35	-1	227	2713	-8.15	0.07	0
43	SLU 36	-1	229	2712	-8.13	-0.34	0
43	SLU 37	-1	227	2713	-8.15	0.07	0
43	SLU 38	-1	229	2712	-8.13	-0.34	0
43	SLU 39	-1	246	2896	-8.85	0.18	0
43	SLU 40	-1	249	2896	-8.82	-0.24	0
43	SLU 41	-1	246	2896	-8.85	0.18	0
43	SLU 42	-1	249	2896	-8.82	-0.24	0
43	SLU 43	0	199	2607	-7.15	-0.35	0
43	SLU 44	0	203	2605	-7.1	-1.04	0
43	SLU 45	0	199	2607	-7.15	-0.35	0
43	SLU 46	0	201	2606	-7.12	-0.77	0
43	SLU 47	0	203	2605	-7.1	-1.04	0
43	SLU 48	0	199	2607	-7.15	-0.35	0
43	SLU 49	0	201	2606	-7.12	-0.77	0
43	SLU 50	0	199	2607	-7.15	-0.35	0
43	SLU 51	0	201	2606	-7.12	-0.77	0
43	SLU 52	-1	248	3035	-8.72	-0.8	0
43	SLU 53	-1	244	3036	-8.76	-0.1	0
43	SLU 54	-1	246	3035	-8.73	-0.52	0
43	SLU 55	-1	248	3035	-8.72	-0.8	0
43	SLU 56	-1	244	3036	-8.76	-0.1	0
43	SLU 57	-1	246	3035	-8.73	-0.52	0
43	SLU 58	-1	244	3036	-8.76	-0.1	0
43	SLU 59	-1	246	3035	-8.73	-0.52	0
43	SLU 60	-1	263	3220	-9.45	0.01	0
43	SLU 61	-1	266	3219	-9.43	-0.41	0
43	SLU 62	-1	263	3220	-9.45	0.01	0
43	SLU 63	-1	266	3219	-9.43	-0.41	0
43	SLU 64	-1	222	2827	-7.97	-0.27	0
43	SLU 65	0	226	2826	-7.93	-0.97	0
43	SLU 66	-1	222	2827	-7.97	-0.27	0
43	SLU 67	0	224	2826	-7.95	-0.69	0
43	SLU 68	0	226	2826	-7.93	-0.97	0
43	SLU 69	-1	222	2827	-7.97	-0.27	0
43	SLU 70	0	224	2826	-7.95	-0.69	0
43	SLU 71	-1	222	2827	-7.97	-0.27	0
43	SLU 72	0	224	2826	-7.95	-0.69	0
43	SLU 73	-1	271	3255	-9.54	-0.72	0
43	SLU 74	-1	267	3256	-9.59	-0.03	0
43	SLU 75	-1	269	3255	-9.56	-0.44	0
43	SLU 76	-1	271	3255	-9.54	-0.72	0
43	SLU 77	-1	267	3256	-9.59	-0.03	0
43	SLU 78	-1	269	3255	-9.56	-0.44	0
43	SLU 79	-1	267	3256	-9.59	-0.03	0
43	SLU 80	-1	269	3255	-9.56	-0.44	0
43	SLU 81	-1	286	3440	-10.28	0.08	0
43	SLU 82	-1	289	3439	-10.25	-0.34	0
43	SLU 83	-1	286	3440	-10.28	0.08	0
43	SLU 84	-1	289	3439	-10.25	-0.34	0
43	SLE RA 1	0	165	2126	-5.95	-0.23	0
43	SLE RA 2	0	168	2125	-5.92	-0.69	0
43	SLE RA 3	0	165	2126	-5.95	-0.23	0
43	SLE RA 4	0	167	2126	-5.93	-0.51	0
43	SLE RA 5	0	168	2125	-5.92	-0.69	0
43	SLE RA 6	0	165	2126	-5.95	-0.23	0
43	SLE RA 7	0	167	2126	-5.93	-0.51	0
43	SLE RA 8	0	165	2126	-5.95	-0.23	0
43	SLE RA 9	0	167	2126	-5.93	-0.51	0
43	SLE RA 10	0	198	2411	-7	-0.53	0
43	SLE RA 11	-1	195	2412	-7.03	-0.06	0
43	SLE RA 12	-1	197	2412	-7.01	-0.34	0
43	SLE RA 13	0	198	2411	-7	-0.53	0
43	SLE RA 14	-1	195	2412	-7.03	-0.06	0
43	SLE RA 15	-1	197	2412	-7.01	-0.34	0
43	SLE RA 16	-1	195	2412	-7.03	-0.06	0
43	SLE RA 17	-1	197	2412	-7.01	-0.34	0
43	SLE RA 18	-1	208	2535	-7.49	0.01	0
43	SLE RA 19	-1	210	2534	-7.47	-0.27	0
43	SLE RA 20	-1	208	2535	-7.49	0.01	0
43	SLE RA 21	-1	210	2534	-7.47	-0.27	0
43	SLE FR 1	0	165	2126	-5.95	-0.23	0
43	SLE FR 2	0	166	2126	-5.95	-0.32	0
43	SLE FR 3	0	165	2126	-5.95	-0.23	0
43	SLE FR 4	0	179	2249	-6.41	-0.25	0
43	SLE FR 5	-1	178	2249	-6.41	-0.16	0
43	SLE FR 6	-1	187	2331	-6.72	-0.11	0
43	SLE QP 1	0	165	2126	-5.95	-0.23	0
43	SLE QP 2	-1	178	2249	-6.41	-0.16	0
43	SLD 1	-16	243	2214	-6.63	31.42	-0.01
43	SLD 2	-16	243	2214	-6.63	31.42	-0.01
43	SLD 3	-21	181	2225	-8.88	36.51	-0.01
43	SLD 4	-21	181	2225	-8.88	36.51	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
43	SLD 5	3	292	2221	-3.05	1.6	0
43	SLD 6	3	292	2221	-3.05	1.6	0
43	SLD 7	-15	84	2259	-10.58	18.56	-0.01
43	SLD 8	-15	84	2259	-10.58	18.56	-0.01
43	SLD 9	13	272	2239	-2.25	-18.87	0.01
43	SLD 10	13	272	2239	-2.25	-18.87	0.01
43	SLD 11	-4	64	2276	-9.77	-1.91	0
43	SLD 12	-4	64	2276	-9.77	-1.91	0
43	SLD 13	20	176	2272	-3.94	-36.82	0.01
43	SLD 14	20	176	2272	-3.94	-36.82	0.01
43	SLD 15	15	114	2284	-6.2	-31.73	0.01
43	SLD 16	15	114	2284	-6.2	-31.73	0.01
43	SLV 1	-39	331	2162	-6.99	80.21	-0.02
43	SLV 2	-39	331	2162	-6.99	80.21	-0.02
43	SLV 3	-52	185	2190	-12.3	92.84	-0.02
43	SLV 4	-52	185	2190	-12.3	92.84	-0.02
43	SLV 5	7	447	2180	1.48	4.81	0
43	SLV 6	7	447	2180	1.48	4.81	0
43	SLV 7	-35	-42	2274	-16.24	46.89	-0.01
43	SLV 8	-35	-42	2274	-16.24	46.89	-0.01
43	SLV 9	34	399	2224	3.41	-47.2	0.01
43	SLV 10	34	399	2224	3.41	-47.2	0.01
43	SLV 11	-8	-90	2318	-14.3	-5.12	0
43	SLV 12	-8	-90	2318	-14.3	-5.12	0
43	SLV 13	50	172	2308	-0.53	-93.15	0.02
43	SLV 14	50	172	2308	-0.53	-93.15	0.02
43	SLV 15	38	25	2336	-5.84	-80.53	0.02
43	SLV 16	38	25	2336	-5.84	-80.53	0.02
44	SLU 1	0	223	1284	-7.97	-0.02	0
44	SLU 2	0	260	1317	-9.34	0.11	0
44	SLU 3	0	223	1284	-7.97	-0.02	0
44	SLU 4	0	245	1304	-8.79	0.06	0
44	SLU 5	0	260	1317	-9.34	0.11	0
44	SLU 6	0	223	1284	-7.97	-0.02	0
44	SLU 7	0	245	1304	-8.79	0.06	0
44	SLU 8	0	223	1284	-7.97	-0.02	0
44	SLU 9	0	245	1304	-8.79	0.06	0
44	SLU 10	0	499	1844	-17.78	0.15	0
44	SLU 11	0	463	1811	-16.41	0.01	0
44	SLU 12	0	485	1831	-17.23	0.09	0
44	SLU 13	0	499	1844	-17.78	0.15	0
44	SLU 14	0	463	1811	-16.41	0.01	0
44	SLU 15	0	485	1831	-17.23	0.09	0
44	SLU 16	0	463	1811	-16.41	0.01	0
44	SLU 17	0	485	1831	-17.23	0.09	0
44	SLU 18	0	566	2037	-20.03	0.03	0
44	SLU 19	0	588	2057	-20.85	0.11	0
44	SLU 20	0	566	2037	-20.03	0.03	0
44	SLU 21	0	588	2057	-20.85	0.11	0
44	SLU 22	0	321	1565	-11.44	-0.02	0
44	SLU 23	0	358	1599	-12.81	0.12	0
44	SLU 24	0	321	1565	-11.44	-0.02	0
44	SLU 25	0	343	1585	-12.26	0.06	0
44	SLU 26	0	358	1599	-12.81	0.12	0
44	SLU 27	0	321	1565	-11.44	-0.02	0
44	SLU 28	0	343	1585	-12.26	0.06	0
44	SLU 29	0	321	1565	-11.44	-0.02	0
44	SLU 30	0	343	1585	-12.26	0.06	0
44	SLU 31	0	597	2126	-21.25	0.15	0
44	SLU 32	0	561	2092	-19.88	0.02	0
44	SLU 33	0	583	2112	-20.7	0.1	0
44	SLU 34	0	597	2126	-21.25	0.15	0
44	SLU 35	0	561	2092	-19.88	0.02	0
44	SLU 36	0	583	2112	-20.7	0.1	0
44	SLU 37	0	561	2092	-19.88	0.02	0
44	SLU 38	0	583	2112	-20.7	0.1	0
44	SLU 39	0	663	2318	-23.49	0.03	0
44	SLU 40	0	685	2338	-24.32	0.11	0
44	SLU 41	0	663	2318	-23.49	0.03	0
44	SLU 42	0	685	2338	-24.32	0.11	0
44	SLU 43	0	257	1572	-9.17	-0.03	0
44	SLU 44	0	293	1606	-10.54	0.1	0
44	SLU 45	0	257	1572	-9.17	-0.03	0
44	SLU 46	0	279	1592	-10	0.05	0
44	SLU 47	0	293	1606	-10.54	0.1	0
44	SLU 48	0	257	1572	-9.17	-0.03	0
44	SLU 49	0	279	1592	-10	0.05	0
44	SLU 50	0	257	1572	-9.17	-0.03	0
44	SLU 51	0	279	1592	-10	0.05	0
44	SLU 52	0	533	2133	-18.98	0.14	0
44	SLU 53	0	496	2099	-17.61	0	0
44	SLU 54	0	518	2119	-18.43	0.08	0
44	SLU 55	0	533	2133	-18.98	0.14	0
44	SLU 56	0	496	2099	-17.61	0	0
44	SLU 57	0	518	2119	-18.43	0.08	0
44	SLU 58	0	496	2099	-17.61	0	0
44	SLU 59	0	518	2119	-18.43	0.08	0
44	SLU 60	0	599	2325	-21.23	0.02	0
44	SLU 61	0	621	2345	-22.05	0.1	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
44	SLU 62	0	599	2325	-21.23	0.02	0
44	SLU 63	0	621	2345	-22.05	0.1	0
44	SLU 64	0	355	1854	-12.64	-0.03	0
44	SLU 65	0	391	1887	-14.01	0.11	0
44	SLU 66	0	355	1854	-12.64	-0.03	0
44	SLU 67	0	376	1874	-13.46	0.05	0
44	SLU 68	0	391	1887	-14.01	0.11	0
44	SLU 69	0	355	1854	-12.64	-0.03	0
44	SLU 70	0	376	1874	-13.46	0.05	0
44	SLU 71	0	355	1854	-12.64	-0.03	0
44	SLU 72	0	376	1874	-13.46	0.05	0
44	SLU 73	0	631	2414	-22.45	0.14	0
44	SLU 74	0	594	2381	-21.08	0.01	0
44	SLU 75	0	616	2401	-21.9	0.09	0
44	SLU 76	0	631	2414	-22.45	0.14	0
44	SLU 77	0	594	2381	-21.08	0.01	0
44	SLU 78	0	616	2401	-21.9	0.09	0
44	SLU 79	0	594	2381	-21.08	0.01	0
44	SLU 80	0	616	2401	-21.9	0.09	0
44	SLU 81	0	697	2607	-24.69	0.02	0
44	SLU 82	0	719	2627	-25.52	0.1	0
44	SLU 83	0	697	2607	-24.69	0.02	0
44	SLU 84	0	719	2627	-25.52	0.1	0
44	SLE RA 1	0	251	1364	-8.96	-0.02	0
44	SLE RA 2	0	276	1386	-9.87	0.07	0
44	SLE RA 3	0	251	1364	-8.96	-0.02	0
44	SLE RA 4	0	266	1378	-9.51	0.03	0
44	SLE RA 5	0	276	1386	-9.87	0.07	0
44	SLE RA 6	0	251	1364	-8.96	-0.02	0
44	SLE RA 7	0	266	1378	-9.51	0.03	0
44	SLE RA 8	0	251	1364	-8.96	-0.02	0
44	SLE RA 9	0	266	1378	-9.51	0.03	0
44	SLE RA 10	0	435	1738	-15.5	0.09	0
44	SLE RA 11	0	411	1716	-14.59	0	0
44	SLE RA 12	0	426	1729	-15.14	0.06	0
44	SLE RA 13	0	435	1738	-15.5	0.09	0
44	SLE RA 14	0	411	1716	-14.59	0	0
44	SLE RA 15	0	426	1729	-15.14	0.06	0
44	SLE RA 16	0	411	1716	-14.59	0	0
44	SLE RA 17	0	426	1729	-15.14	0.06	0
44	SLE RA 18	0	479	1866	-17	0.01	0
44	SLE RA 19	0	494	1879	-17.55	0.07	0
44	SLE RA 20	0	479	1866	-17	0.01	0
44	SLE RA 21	0	494	1879	-17.55	0.07	0
44	SLE FR 1	0	251	1364	-8.96	-0.02	0
44	SLE FR 2	0	256	1369	-9.14	0	0
44	SLE FR 3	0	251	1364	-8.96	-0.02	0
44	SLE FR 4	0	325	1519	-11.55	0.01	0
44	SLE FR 5	0	320	1515	-11.37	-0.01	0
44	SLE FR 6	0	365	1615	-12.98	-0.01	0
44	SLE QP 1	0	251	1364	-8.96	-0.02	0
44	SLE QP 2	0	320	1515	-11.37	-0.01	0
44	SLD 1	14	365	1561	-13.28	22.06	-0.1
44	SLD 2	14	365	1561	-13.28	22.06	-0.1
44	SLD 3	18	205	1422	-7.17	26.25	-0.13
44	SLD 4	18	205	1422	-7.17	26.25	-0.13
44	SLD 5	-3	575	1740	-21.23	0.25	0.03
44	SLD 6	-3	575	1740	-21.23	0.25	0.03
44	SLD 7	12	44	1276	-0.83	14.22	-0.1
44	SLD 8	12	44	1276	-0.83	14.22	-0.1
44	SLD 9	-12	596	1753	-21.91	-14.25	0.1
44	SLD 10	-12	596	1753	-21.91	-14.25	0.1
44	SLD 11	3	65	1290	-1.52	-0.28	-0.03
44	SLD 12	3	65	1290	-1.52	-0.28	-0.03
44	SLD 13	-18	434	1607	-15.58	-26.28	0.13
44	SLD 14	-18	434	1607	-15.58	-26.28	0.13
44	SLD 15	-14	275	1468	-9.46	-22.09	0.1
44	SLD 16	-14	275	1468	-9.46	-22.09	0.1
44	SLV 1	34	413	1618	-15.52	55.82	-0.24
44	SLV 2	34	413	1618	-15.52	55.82	-0.24
44	SLV 3	47	43	1299	-1.31	68.17	-0.35
44	SLV 4	47	43	1299	-1.31	68.17	-0.35
44	SLV 5	-10	908	2030	-34.17	-1.98	0.1
44	SLV 6	-10	908	2030	-34.17	-1.98	0.1
44	SLV 7	34	-324	966	13.2	39.16	-0.27
44	SLV 8	34	-324	966	13.2	39.16	-0.27
44	SLV 9	-34	963	2064	-35.95	-39.19	0.27
44	SLV 10	-34	963	2064	-35.95	-39.19	0.27
44	SLV 11	10	-269	999	11.43	1.96	-0.1
44	SLV 12	10	-269	999	11.43	1.96	-0.1
44	SLV 13	-47	596	1731	-21.43	-68.19	0.35
44	SLV 14	-47	596	1731	-21.43	-68.19	0.35
44	SLV 15	-34	226	1412	-7.22	-55.85	0.24
44	SLV 16	-34	226	1412	-7.22	-55.85	0.24
45	SLU 1	0	94	1817	-3.19	-0.21	0
45	SLU 2	-3	105	1805	-3.61	-1.93	0.02
45	SLU 3	0	94	1817	-3.19	-0.21	0
45	SLU 4	-2	101	1810	-3.44	-1.24	0.01
45	SLU 5	-3	105	1805	-3.61	-1.93	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
45	SLU 6	0	94	1817	-3.19	-0.21	0
45	SLU 7	-2	101	1810	-3.44	-1.24	0.01
45	SLU 8	0	94	1817	-3.19	-0.21	0
45	SLU 9	-2	101	1810	-3.44	-1.24	0.01
45	SLU 10	-4	149	2446	-4.89	-2.31	0.01
45	SLU 11	-1	138	2458	-4.47	-0.59	0
45	SLU 12	-2	145	2451	-4.73	-1.62	0.01
45	SLU 13	-4	149	2446	-4.89	-2.31	0.01
45	SLU 14	-1	138	2458	-4.47	-0.59	0
45	SLU 15	-2	145	2451	-4.73	-1.62	0.01
45	SLU 16	-1	138	2458	-4.47	-0.59	0
45	SLU 17	-2	145	2451	-4.73	-1.62	0.01
45	SLU 18	-1	157	2733	-5.02	-0.75	0
45	SLU 19	-3	164	2726	-5.28	-1.78	0.01
45	SLU 20	-1	157	2733	-5.02	-0.75	0
45	SLU 21	-3	164	2726	-5.28	-1.78	0.01
45	SLU 22	0	117	2084	-3.89	-0.35	0
45	SLU 23	-3	128	2073	-4.31	-2.07	0.02
45	SLU 24	0	117	2084	-3.89	-0.35	0
45	SLU 25	-2	124	2078	-4.14	-1.38	0.01
45	SLU 26	-3	128	2073	-4.31	-2.07	0.02
45	SLU 27	0	117	2084	-3.89	-0.35	0
45	SLU 28	-2	124	2078	-4.14	-1.38	0.01
45	SLU 29	0	117	2084	-3.89	-0.35	0
45	SLU 30	-2	124	2078	-4.14	-1.38	0.01
45	SLU 31	-4	172	2714	-5.59	-2.45	0.01
45	SLU 32	-1	161	2725	-5.17	-0.73	0
45	SLU 33	-2	168	2719	-5.43	-1.76	0.01
45	SLU 34	-4	172	2714	-5.59	-2.45	0.01
45	SLU 35	-1	161	2725	-5.17	-0.73	0
45	SLU 36	-2	168	2719	-5.43	-1.76	0.01
45	SLU 37	-1	161	2725	-5.17	-0.73	0
45	SLU 38	-2	168	2719	-5.43	-1.76	0.01
45	SLU 39	-1	180	3000	-5.72	-0.89	0
45	SLU 40	-3	187	2993	-5.98	-1.92	0.01
45	SLU 41	-1	180	3000	-5.72	-0.89	0
45	SLU 42	-3	187	2993	-5.98	-1.92	0.01
45	SLU 43	0	115	2270	-3.91	-0.22	0
45	SLU 44	-3	126	2259	-4.33	-1.95	0.02
45	SLU 45	0	115	2270	-3.91	-0.22	0
45	SLU 46	-2	121	2263	-4.16	-1.26	0.01
45	SLU 47	-3	126	2259	-4.33	-1.95	0.02
45	SLU 48	0	115	2270	-3.91	-0.22	0
45	SLU 49	-2	121	2263	-4.16	-1.26	0.01
45	SLU 50	0	115	2270	-3.91	-0.22	0
45	SLU 51	-2	121	2263	-4.16	-1.26	0.01
45	SLU 52	-4	170	2900	-5.61	-2.32	0.01
45	SLU 53	-1	159	2911	-5.19	-0.6	0
45	SLU 54	-2	165	2904	-5.44	-1.63	0.01
45	SLU 55	-4	170	2900	-5.61	-2.32	0.01
45	SLU 56	-1	159	2911	-5.19	-0.6	0
45	SLU 57	-2	165	2904	-5.44	-1.63	0.01
45	SLU 58	-1	159	2911	-5.19	-0.6	0
45	SLU 59	-2	165	2904	-5.44	-1.63	0.01
45	SLU 60	-1	178	3186	-5.74	-0.76	0
45	SLU 61	-3	184	3179	-5.99	-1.8	0.01
45	SLU 62	-1	178	3186	-5.74	-0.76	0
45	SLU 63	-3	184	3179	-5.99	-1.8	0.01
45	SLU 64	0	138	2538	-4.6	-0.36	0
45	SLU 65	-3	149	2526	-5.02	-2.09	0.02
45	SLU 66	0	138	2538	-4.6	-0.36	0
45	SLU 67	-2	144	2531	-4.86	-1.4	0.01
45	SLU 68	-3	149	2526	-5.02	-2.09	0.02
45	SLU 69	0	138	2538	-4.6	-0.36	0
45	SLU 70	-2	144	2531	-4.86	-1.4	0.01
45	SLU 71	0	138	2538	-4.6	-0.36	0
45	SLU 72	-2	144	2531	-4.86	-1.4	0.01
45	SLU 73	-4	193	3167	-6.31	-2.46	0.01
45	SLU 74	-1	182	3179	-5.89	-0.74	0
45	SLU 75	-3	188	3172	-6.14	-1.77	0.01
45	SLU 76	-4	193	3167	-6.31	-2.46	0.01
45	SLU 77	-1	182	3179	-5.89	-0.74	0
45	SLU 78	-3	188	3172	-6.14	-1.77	0.01
45	SLU 79	-1	182	3179	-5.89	-0.74	0
45	SLU 80	-3	188	3172	-6.14	-1.77	0.01
45	SLU 81	-1	200	3453	-6.44	-0.9	0
45	SLU 82	-3	207	3447	-6.69	-1.94	0.01
45	SLU 83	-1	200	3453	-6.44	-0.9	0
45	SLU 84	-3	207	3447	-6.69	-1.94	0.01
45	SLE RA 1	0	101	1893	-3.39	-0.25	0
45	SLE RA 2	-2	108	1886	-3.67	-1.4	0.01
45	SLE RA 3	0	101	1893	-3.39	-0.25	0
45	SLE RA 4	-1	105	1889	-3.56	-0.94	0.01
45	SLE RA 5	-2	108	1886	-3.67	-1.4	0.01
45	SLE RA 6	0	101	1893	-3.39	-0.25	0
45	SLE RA 7	-1	105	1889	-3.56	-0.94	0.01
45	SLE RA 8	0	101	1893	-3.39	-0.25	0
45	SLE RA 9	-1	105	1889	-3.56	-0.94	0.01
45	SLE RA 10	-3	138	2313	-4.53	-1.65	0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
45	SLE RA 11	0	130	2321	-4.25	-0.5	0
45	SLE RA 12	-2	135	2316	-4.41	-1.19	0.01
45	SLE RA 13	-3	138	2313	-4.53	-1.65	0.01
45	SLE RA 14	0	130	2321	-4.25	-0.5	0
45	SLE RA 15	-2	135	2316	-4.41	-1.19	0.01
45	SLE RA 16	0	130	2321	-4.25	-0.5	0
45	SLE RA 17	-2	135	2316	-4.41	-1.19	0.01
45	SLE RA 18	-1	143	2504	-4.61	-0.61	0
45	SLE RA 19	-2	147	2499	-4.78	-1.3	0.01
45	SLE RA 20	-1	143	2504	-4.61	-0.61	0
45	SLE RA 21	-2	147	2499	-4.78	-1.3	0.01
45	SLE FR 1	0	101	1893	-3.39	-0.25	0
45	SLE FR 2	-1	102	1892	-3.44	-0.48	0
45	SLE FR 3	0	101	1893	-3.39	-0.25	0
45	SLE FR 4	-1	115	2075	-3.81	-0.59	0
45	SLE FR 5	0	113	2076	-3.76	-0.36	0
45	SLE FR 6	0	122	2199	-4	-0.43	0
45	SLE QP 1	0	101	1893	-3.39	-0.25	0
45	SLE QP 2	0	113	2076	-3.76	-0.36	0
45	SLD 1	-21	153	2081	-5.38	9.89	0.03
45	SLD 2	-21	153	2081	-5.38	9.89	0.03
45	SLD 3	-12	114	2157	-3.72	17.98	0.06
45	SLD 4	-12	114	2157	-3.72	17.98	0.06
45	SLD 5	-21	185	1964	-6.76	-9.56	-0.03
45	SLD 6	-21	185	1964	-6.76	-9.56	-0.03
45	SLD 7	10	54	2214	-1.23	17.42	0.05
45	SLD 8	10	54	2214	-1.23	17.42	0.05
45	SLD 9	-11	173	1938	-6.29	-18.13	-0.05
45	SLD 10	-11	173	1938	-6.29	-18.13	-0.05
45	SLD 11	20	42	2189	-0.75	8.85	0.02
45	SLD 12	20	42	2189	-0.75	8.85	0.02
45	SLD 13	11	113	1996	-3.79	-18.69	-0.06
45	SLD 14	11	113	1996	-3.79	-18.69	-0.06
45	SLD 15	21	74	2071	-2.13	-10.6	-0.03
45	SLD 16	21	74	2071	-2.13	-10.6	-0.03
45	SLV 1	-52	210	2081	-7.7	24.53	0.08
45	SLV 2	-52	210	2081	-7.7	24.53	0.08
45	SLV 3	-28	113	2277	-3.6	45.6	0.14
45	SLV 4	-28	113	2277	-3.6	45.6	0.14
45	SLV 5	-53	289	1781	-11.15	-24.85	-0.07
45	SLV 6	-53	289	1781	-11.15	-24.85	-0.07
45	SLV 7	28	-33	2433	2.5	45.39	0.14
45	SLV 8	28	-33	2433	2.5	45.39	0.14
45	SLV 9	-29	260	1720	-10.01	-46.1	-0.14
45	SLV 10	-29	260	1720	-10.01	-46.1	-0.14
45	SLV 11	52	-62	2372	3.64	24.13	0.07
45	SLV 12	52	-62	2372	3.64	24.13	0.07
45	SLV 13	27	114	1876	-3.91	-46.32	-0.14
45	SLV 14	27	114	1876	-3.91	-46.32	-0.14
45	SLV 15	52	17	2072	0.19	-25.24	-0.08
45	SLV 16	52	17	2072	0.19	-25.24	-0.08
46	SLU 1	0	125	2059	-4.55	0.01	0
46	SLU 2	0	136	2055	-5.15	-0.98	0
46	SLU 3	0	125	2059	-4.55	0.01	0
46	SLU 4	0	132	2057	-4.91	-0.59	0
46	SLU 5	0	136	2055	-5.15	-0.98	0
46	SLU 6	0	125	2059	-4.55	0.01	0
46	SLU 7	0	132	2057	-4.91	-0.59	0
46	SLU 8	0	125	2059	-4.55	0.01	0
46	SLU 9	0	132	2057	-4.91	-0.59	0
46	SLU 10	0	173	2485	-6.46	-0.52	0
46	SLU 11	0	161	2489	-5.86	0.46	0
46	SLU 12	0	168	2487	-6.22	-0.13	0
46	SLU 13	0	173	2485	-6.46	-0.52	0
46	SLU 14	0	161	2489	-5.86	0.46	0
46	SLU 15	0	168	2487	-6.22	-0.13	0
46	SLU 16	0	161	2489	-5.86	0.46	0
46	SLU 17	0	168	2487	-6.22	-0.13	0
46	SLU 18	0	177	2673	-6.42	0.66	0
46	SLU 19	0	184	2671	-6.78	0.07	0
46	SLU 20	0	177	2673	-6.42	0.66	0
46	SLU 21	0	184	2671	-6.78	0.07	0
46	SLU 22	0	144	2280	-5.22	0.17	0
46	SLU 23	0	155	2275	-5.82	-0.82	0
46	SLU 24	0	144	2280	-5.22	0.17	0
46	SLU 25	0	150	2277	-5.58	-0.42	0
46	SLU 26	0	155	2275	-5.82	-0.82	0
46	SLU 27	0	144	2280	-5.22	0.17	0
46	SLU 28	0	150	2277	-5.58	-0.42	0
46	SLU 29	0	144	2280	-5.22	0.17	0
46	SLU 30	0	150	2277	-5.58	-0.42	0
46	SLU 31	0	191	2705	-7.13	-0.36	0
46	SLU 32	0	180	2709	-6.53	0.63	0
46	SLU 33	0	187	2707	-6.89	0.04	0
46	SLU 34	0	191	2705	-7.13	-0.36	0
46	SLU 35	0	180	2709	-6.53	0.63	0
46	SLU 36	0	187	2707	-6.89	0.04	0
46	SLU 37	0	180	2709	-6.53	0.63	0
46	SLU 38	0	187	2707	-6.89	0.04	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
46	SLU 39	0	195	2893	-7.09	0.82	0
46	SLU 40	0	202	2891	-7.45	0.23	0
46	SLU 41	0	195	2893	-7.09	0.82	0
46	SLU 42	0	202	2891	-7.45	0.23	0
46	SLU 43	0	156	2602	-5.68	-0.05	0
46	SLU 44	0	168	2597	-6.28	-1.04	0
46	SLU 45	0	156	2602	-5.68	-0.05	0
46	SLU 46	0	163	2599	-6.04	-0.64	0
46	SLU 47	0	168	2597	-6.28	-1.04	0
46	SLU 48	0	156	2602	-5.68	-0.05	0
46	SLU 49	0	163	2599	-6.04	-0.64	0
46	SLU 50	0	156	2602	-5.68	-0.05	0
46	SLU 51	0	163	2599	-6.04	-0.64	0
46	SLU 52	0	204	3027	-7.59	-0.58	0
46	SLU 53	0	192	3032	-6.99	0.41	0
46	SLU 54	0	199	3029	-7.35	-0.18	0
46	SLU 55	0	204	3027	-7.59	-0.58	0
46	SLU 56	0	192	3032	-6.99	0.41	0
46	SLU 57	0	199	3029	-7.35	-0.18	0
46	SLU 58	0	192	3032	-6.99	0.41	0
46	SLU 59	0	199	3029	-7.35	-0.18	0
46	SLU 60	0	208	3216	-7.55	0.61	0
46	SLU 61	0	215	3213	-7.91	0.01	0
46	SLU 62	0	208	3216	-7.55	0.61	0
46	SLU 63	0	215	3213	-7.91	0.01	0
46	SLU 64	0	175	2822	-6.36	0.11	0
46	SLU 65	0	186	2817	-6.96	-0.87	0
46	SLU 66	0	175	2822	-6.36	0.11	0
46	SLU 67	0	182	2819	-6.72	-0.48	0
46	SLU 68	0	186	2817	-6.96	-0.87	0
46	SLU 69	0	175	2822	-6.36	0.11	0
46	SLU 70	0	182	2819	-6.72	-0.48	0
46	SLU 71	0	175	2822	-6.36	0.11	0
46	SLU 72	0	182	2819	-6.72	-0.48	0
46	SLU 73	0	222	3247	-8.26	-0.41	0
46	SLU 74	0	211	3252	-7.67	0.57	0
46	SLU 75	0	218	3249	-8.03	-0.02	0
46	SLU 76	0	222	3247	-8.26	-0.41	0
46	SLU 77	0	211	3252	-7.67	0.57	0
46	SLU 78	0	218	3249	-8.03	-0.02	0
46	SLU 79	0	211	3252	-7.67	0.57	0
46	SLU 80	0	218	3249	-8.03	-0.02	0
46	SLU 81	0	226	3436	-8.23	0.77	0
46	SLU 82	0	233	3433	-8.59	0.18	0
46	SLU 83	0	226	3436	-8.23	0.77	0
46	SLU 84	0	233	3433	-8.59	0.18	0
46	SLE RA 1	0	130	2122	-4.74	0.05	0
46	SLE RA 2	0	138	2119	-5.14	-0.61	0
46	SLE RA 3	0	130	2122	-4.74	0.05	0
46	SLE RA 4	0	135	2121	-4.98	-0.34	0
46	SLE RA 5	0	138	2119	-5.14	-0.61	0
46	SLE RA 6	0	130	2122	-4.74	0.05	0
46	SLE RA 7	0	135	2121	-4.98	-0.34	0
46	SLE RA 8	0	130	2122	-4.74	0.05	0
46	SLE RA 9	0	135	2121	-4.98	-0.34	0
46	SLE RA 10	0	162	2406	-6.01	-0.3	0
46	SLE RA 11	0	154	2409	-5.62	0.36	0
46	SLE RA 12	0	159	2407	-5.85	-0.04	0
46	SLE RA 13	0	162	2406	-6.01	-0.3	0
46	SLE RA 14	0	154	2409	-5.62	0.36	0
46	SLE RA 15	0	159	2407	-5.85	-0.04	0
46	SLE RA 16	0	154	2409	-5.62	0.36	0
46	SLE RA 17	0	159	2407	-5.85	-0.04	0
46	SLE RA 18	0	165	2532	-5.99	0.49	0
46	SLE RA 19	0	169	2530	-6.23	0.09	0
46	SLE RA 20	0	165	2532	-5.99	0.49	0
46	SLE RA 21	0	169	2530	-6.23	0.09	0
46	SLE FR 1	0	130	2122	-4.74	0.05	0
46	SLE FR 2	0	132	2122	-4.82	-0.08	0
46	SLE FR 3	0	130	2122	-4.74	0.05	0
46	SLE FR 4	0	142	2245	-5.2	0.05	0
46	SLE FR 5	0	141	2245	-5.12	0.18	0
46	SLE FR 6	0	148	2327	-5.37	0.27	0
46	SLE QP 1	0	130	2122	-4.74	0.05	0
46	SLE QP 2	0	141	2245	-5.12	0.18	0
46	SLD 1	-24	123	2264	-4.29	42.51	0
46	SLD 2	-24	123	2264	-4.29	42.51	0
46	SLD 3	-30	58	2275	-1.83	48.21	-0.01
46	SLD 4	-30	58	2275	-1.83	48.21	-0.01
46	SLD 5	2	234	2233	-8.6	4.23	0
46	SLD 6	2	234	2233	-8.6	4.23	0
46	SLD 7	-18	17	2271	-0.39	23.24	0
46	SLD 8	-18	17	2271	-0.39	23.24	0
46	SLD 9	18	264	2219	-9.84	-22.87	0
46	SLD 10	18	264	2219	-9.84	-22.87	0
46	SLD 11	-2	47	2257	-1.63	-3.87	0
46	SLD 12	-2	47	2257	-1.63	-3.87	0
46	SLD 13	30	223	2215	-8.41	-47.84	0.01
46	SLD 14	30	223	2215	-8.41	-47.84	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
46	SLD 15	24	158	2227	-5.94	-42.14	0
46	SLD 16	24	158	2227	-5.94	-42.14	0
46	SLV 1	-60	97	2290	-3.09	108.01	-0.01
46	SLV 2	-60	97	2290	-3.09	108.01	-0.01
46	SLV 3	-75	-58	2320	2.91	122.2	-0.01
46	SLV 4	-75	-58	2320	2.91	122.2	-0.01
46	SLV 5	4	364	2213	-13.62	11.01	0
46	SLV 6	4	364	2213	-13.62	11.01	0
46	SLV 7	-45	-155	2313	6.4	58.31	-0.01
46	SLV 8	-45	-155	2313	6.4	58.31	-0.01
46	SLV 9	45	436	2177	-16.63	-57.95	0.01
46	SLV 10	45	436	2177	-16.63	-57.95	0.01
46	SLV 11	-5	-82	2277	3.39	-10.64	0
46	SLV 12	-5	-82	2277	3.39	-10.64	0
46	SLV 13	75	339	2170	-13.15	-121.84	0.01
46	SLV 14	75	339	2170	-13.15	-121.84	0.01
46	SLV 15	60	184	2200	-7.14	-107.64	0.01
46	SLV 16	60	184	2200	-7.14	-107.64	0.01
47	SLU 1	0	285	1528	-9.19	-0.06	0
47	SLU 2	0	325	1570	-10.64	0.1	0
47	SLU 3	0	285	1528	-9.19	-0.06	0
47	SLU 4	0	309	1553	-10.06	0.04	0
47	SLU 5	0	325	1570	-10.64	0.1	0
47	SLU 6	0	285	1528	-9.19	-0.06	0
47	SLU 7	0	309	1553	-10.06	0.04	0
47	SLU 8	0	285	1528	-9.19	-0.06	0
47	SLU 9	0	309	1553	-10.06	0.04	0
47	SLU 10	0	639	2413	-20.59	0.12	0
47	SLU 11	0	599	2371	-19.14	-0.04	0
47	SLU 12	0	623	2396	-20.01	0.06	0
47	SLU 13	0	639	2413	-20.59	0.12	0
47	SLU 14	0	599	2371	-19.14	-0.04	0
47	SLU 15	0	623	2396	-20.01	0.06	0
47	SLU 16	0	599	2371	-19.14	-0.04	0
47	SLU 17	0	623	2396	-20.01	0.06	0
47	SLU 18	0	734	2732	-23.4	-0.03	0
47	SLU 19	0	757	2757	-24.27	0.06	0
47	SLU 20	0	734	2732	-23.4	-0.03	0
47	SLU 21	0	757	2757	-24.27	0.06	0
47	SLU 22	0	415	1934	-13.34	-0.06	0
47	SLU 23	0	455	1975	-14.79	0.09	0
47	SLU 24	0	415	1934	-13.34	-0.06	0
47	SLU 25	0	439	1959	-14.21	0.03	0
47	SLU 26	0	455	1975	-14.79	0.09	0
47	SLU 27	0	415	1934	-13.34	-0.06	0
47	SLU 28	0	439	1959	-14.21	0.03	0
47	SLU 29	0	415	1934	-13.34	-0.06	0
47	SLU 30	0	439	1959	-14.21	0.03	0
47	SLU 31	0	769	2818	-24.73	0.11	0
47	SLU 32	0	729	2776	-23.28	-0.04	0
47	SLU 33	0	753	2801	-24.15	0.05	0
47	SLU 34	0	769	2818	-24.73	0.11	0
47	SLU 35	0	729	2776	-23.28	-0.04	0
47	SLU 36	0	753	2801	-24.15	0.05	0
47	SLU 37	0	729	2776	-23.28	-0.04	0
47	SLU 38	0	753	2801	-24.15	0.05	0
47	SLU 39	0	864	3137	-27.54	-0.04	0
47	SLU 40	0	887	3162	-28.42	0.06	0
47	SLU 41	0	864	3137	-27.54	-0.04	0
47	SLU 42	0	887	3162	-28.42	0.06	0
47	SLU 43	0	326	1848	-10.53	-0.07	0
47	SLU 44	0	366	1890	-11.98	0.08	0
47	SLU 45	0	326	1848	-10.53	-0.07	0
47	SLU 46	0	350	1873	-11.4	0.02	0
47	SLU 47	0	366	1890	-11.98	0.08	0
47	SLU 48	0	326	1848	-10.53	-0.07	0
47	SLU 49	0	350	1873	-11.4	0.02	0
47	SLU 50	0	326	1848	-10.53	-0.07	0
47	SLU 51	0	350	1873	-11.4	0.02	0
47	SLU 52	0	680	2732	-21.92	0.1	0
47	SLU 53	0	640	2690	-20.47	-0.05	0
47	SLU 54	0	664	2715	-21.34	0.04	0
47	SLU 55	0	680	2732	-21.92	0.1	0
47	SLU 56	0	640	2690	-20.47	-0.05	0
47	SLU 57	0	664	2715	-21.34	0.04	0
47	SLU 58	0	640	2690	-20.47	-0.05	0
47	SLU 59	0	664	2715	-21.34	0.04	0
47	SLU 60	0	775	3051	-24.73	-0.04	0
47	SLU 61	0	798	3076	-25.6	0.05	0
47	SLU 62	0	775	3051	-24.73	-0.04	0
47	SLU 63	0	798	3076	-25.6	0.05	0
47	SLU 64	0	456	2253	-14.67	-0.08	0
47	SLU 65	0	496	2295	-16.12	0.08	0
47	SLU 66	0	456	2253	-14.67	-0.08	0
47	SLU 67	0	480	2278	-15.54	0.01	0
47	SLU 68	0	496	2295	-16.12	0.08	0
47	SLU 69	0	456	2253	-14.67	-0.08	0
47	SLU 70	0	480	2278	-15.54	0.01	0
47	SLU 71	0	456	2253	-14.67	-0.08	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
47	SLU 72	0	480	2278	-15.54	0.01	0
47	SLU 73	0	810	3137	-26.07	0.1	0
47	SLU 74	0	770	3096	-24.62	-0.06	0
47	SLU 75	0	794	3121	-25.49	0.03	0
47	SLU 76	0	810	3137	-26.07	0.1	0
47	SLU 77	0	770	3096	-24.62	-0.06	0
47	SLU 78	0	794	3121	-25.49	0.03	0
47	SLU 79	0	770	3096	-24.62	-0.06	0
47	SLU 80	0	794	3121	-25.49	0.03	0
47	SLU 81	0	905	3457	-28.88	-0.05	0
47	SLU 82	0	928	3482	-29.75	0.04	0
47	SLU 83	0	905	3457	-28.88	-0.05	0
47	SLU 84	0	928	3482	-29.75	0.04	0
47	SLE RA 1	0	323	1644	-10.38	-0.06	0
47	SLE RA 2	0	349	1672	-11.34	0.05	0
47	SLE RA 3	0	323	1644	-10.38	-0.06	0
47	SLE RA 4	0	338	1661	-10.96	0	0
47	SLE RA 5	0	349	1672	-11.34	0.05	0
47	SLE RA 6	0	323	1644	-10.38	-0.06	0
47	SLE RA 7	0	338	1661	-10.96	0	0
47	SLE RA 8	0	323	1644	-10.38	-0.06	0
47	SLE RA 9	0	338	1661	-10.96	0	0
47	SLE RA 10	0	558	2234	-17.97	0.06	0
47	SLE RA 11	0	532	2206	-17.01	-0.05	0
47	SLE RA 12	0	548	2223	-17.59	0.02	0
47	SLE RA 13	0	558	2234	-17.97	0.06	0
47	SLE RA 14	0	532	2206	-17.01	-0.05	0
47	SLE RA 15	0	548	2223	-17.59	0.02	0
47	SLE RA 16	0	532	2206	-17.01	-0.05	0
47	SLE RA 17	0	548	2223	-17.59	0.02	0
47	SLE RA 18	0	621	2447	-19.85	-0.04	0
47	SLE RA 19	0	637	2463	-20.43	0.02	0
47	SLE RA 20	0	621	2447	-19.85	-0.04	0
47	SLE RA 21	0	637	2463	-20.43	0.02	0
47	SLE FR 1	0	323	1644	-10.38	-0.06	0
47	SLE FR 2	0	328	1650	-10.57	-0.04	0
47	SLE FR 3	0	323	1644	-10.38	-0.06	0
47	SLE FR 4	0	417	1891	-13.41	-0.03	0
47	SLE FR 5	0	412	1885	-13.22	-0.05	0
47	SLE FR 6	0	472	2045	-15.11	-0.05	0
47	SLE QP 1	0	323	1644	-10.38	-0.06	0
47	SLE QP 2	0	412	1885	-13.22	-0.05	0
47	SLD 1	4	451	1923	-14.52	14.13	-0.03
47	SLD 2	4	451	1923	-14.52	14.13	-0.03
47	SLD 3	11	277	1747	-8.21	18.7	-0.09
47	SLD 4	11	277	1747	-8.21	18.7	-0.09
47	SLD 5	-8	687	2163	-23.19	-2.74	0.09
47	SLD 6	-8	687	2163	-23.19	-2.74	0.09
47	SLD 7	13	108	1577	-2.14	12.51	-0.12
47	SLD 8	13	108	1577	-2.14	12.51	-0.12
47	SLD 9	-13	716	2193	-24.3	-12.62	0.12
47	SLD 10	-13	716	2193	-24.3	-12.62	0.12
47	SLD 11	8	137	1607	-3.25	2.63	-0.09
47	SLD 12	8	137	1607	-3.25	2.63	-0.09
47	SLD 13	-11	547	2023	-18.23	-18.81	0.09
47	SLD 14	-11	547	2023	-18.23	-18.81	0.09
47	SLD 15	-4	373	1847	-11.91	-14.24	0.03
47	SLD 16	-4	373	1847	-11.91	-14.24	0.03
47	SLV 1	10	484	1956	-15.53	35.4	-0.06
47	SLV 2	10	484	1956	-15.53	35.4	-0.06
47	SLV 3	28	82	1553	-0.86	49	-0.25
47	SLV 4	28	82	1553	-0.86	49	-0.25
47	SLV 5	-25	1045	2517	-36.16	-10.03	0.26
47	SLV 6	-25	1045	2517	-36.16	-10.03	0.26
47	SLV 7	36	-298	1175	12.74	35.27	-0.36
47	SLV 8	36	-298	1175	12.74	35.27	-0.36
47	SLV 9	-36	1122	2595	-39.17	-35.38	0.36
47	SLV 10	-36	1122	2595	-39.17	-35.38	0.36
47	SLV 11	25	-220	1253	9.73	9.92	-0.26
47	SLV 12	25	-220	1253	9.73	9.92	-0.26
47	SLV 13	-28	743	2217	-25.57	-49.1	0.25
47	SLV 14	-28	743	2217	-25.57	-49.1	0.25
47	SLV 15	-10	340	1814	-10.9	-35.51	0.07
47	SLV 16	-10	340	1814	-10.9	-35.51	0.07
48	SLU 1	0	62	1790	-2.88	-0.05	0
48	SLU 2	-4	81	1775	-3.59	-2.21	0.02
48	SLU 3	0	62	1790	-2.88	-0.05	0
48	SLU 4	-3	73	1781	-3.3	-1.34	0.01
48	SLU 5	-4	81	1775	-3.59	-2.21	0.02
48	SLU 6	0	62	1790	-2.88	-0.05	0
48	SLU 7	-3	73	1781	-3.3	-1.34	0.01
48	SLU 8	0	62	1790	-2.88	-0.05	0
48	SLU 9	-3	73	1781	-3.3	-1.34	0.01
48	SLU 10	-4	111	2406	-5.2	-2.44	0.02
48	SLU 11	0	92	2421	-4.49	-0.28	0
48	SLU 12	-3	104	2412	-4.92	-1.58	0.01
48	SLU 13	-4	111	2406	-5.2	-2.44	0.02
48	SLU 14	0	92	2421	-4.49	-0.28	0
48	SLU 15	-3	104	2412	-4.92	-1.58	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
48	SLU 16	0	92	2421	-4.49	-0.28	0
48	SLU 17	-3	104	2412	-4.92	-1.58	0.01
48	SLU 18	0	106	2692	-5.18	-0.38	0
48	SLU 19	-3	117	2683	-5.61	-1.68	0.01
48	SLU 20	0	106	2692	-5.18	-0.38	0
48	SLU 21	-3	117	2683	-5.61	-1.68	0.01
48	SLU 22	0	81	2057	-3.76	-0.12	0
48	SLU 23	-4	100	2042	-4.47	-2.28	0.02
48	SLU 24	0	81	2057	-3.76	-0.12	0
48	SLU 25	-3	92	2048	-4.19	-1.42	0.01
48	SLU 26	-4	100	2042	-4.47	-2.28	0.02
48	SLU 27	0	81	2057	-3.76	-0.12	0
48	SLU 28	-3	92	2048	-4.19	-1.42	0.01
48	SLU 29	0	81	2057	-3.76	-0.12	0
48	SLU 30	-3	92	2048	-4.19	-1.42	0.01
48	SLU 31	-4	130	2674	-6.08	-2.52	0.02
48	SLU 32	0	112	2689	-5.37	-0.36	0
48	SLU 33	-3	123	2680	-5.8	-1.65	0.01
48	SLU 34	-4	130	2674	-6.08	-2.52	0.02
48	SLU 35	0	112	2689	-5.37	-0.36	0
48	SLU 36	-3	123	2680	-5.8	-1.65	0.01
48	SLU 37	0	112	2689	-5.37	-0.36	0
48	SLU 38	-3	123	2680	-5.8	-1.65	0.01
48	SLU 39	0	125	2959	-6.07	-0.46	0
48	SLU 40	-3	136	2950	-6.49	-1.75	0.01
48	SLU 41	0	125	2959	-6.07	-0.46	0
48	SLU 42	-3	136	2950	-6.49	-1.75	0.01
48	SLU 43	0	74	2235	-3.44	-0.04	0
48	SLU 44	-4	93	2220	-4.15	-2.2	0.02
48	SLU 45	0	74	2235	-3.44	-0.04	0
48	SLU 46	-3	85	2226	-3.86	-1.33	0.01
48	SLU 47	-4	93	2220	-4.15	-2.2	0.02
48	SLU 48	0	74	2235	-3.44	-0.04	0
48	SLU 49	-3	85	2226	-3.86	-1.33	0.01
48	SLU 50	0	74	2235	-3.44	-0.04	0
48	SLU 51	-3	85	2226	-3.86	-1.33	0.01
48	SLU 52	-4	123	2852	-5.76	-2.43	0.02
48	SLU 53	0	104	2867	-5.05	-0.27	0
48	SLU 54	-3	116	2858	-5.48	-1.57	0.01
48	SLU 55	-4	123	2852	-5.76	-2.43	0.02
48	SLU 56	0	104	2867	-5.05	-0.27	0
48	SLU 57	-3	116	2858	-5.48	-1.57	0.01
48	SLU 58	0	104	2867	-5.05	-0.27	0
48	SLU 59	-3	116	2858	-5.48	-1.57	0.01
48	SLU 60	0	117	3137	-5.74	-0.37	0
48	SLU 61	-3	129	3128	-6.17	-1.67	0.01
48	SLU 62	0	117	3137	-5.74	-0.37	0
48	SLU 63	-3	129	3128	-6.17	-1.67	0.01
48	SLU 64	0	93	2503	-4.32	-0.11	0
48	SLU 65	-4	112	2487	-5.03	-2.27	0.02
48	SLU 66	0	93	2503	-4.32	-0.11	0
48	SLU 67	-3	104	2493	-4.75	-1.41	0.01
48	SLU 68	-4	112	2487	-5.03	-2.27	0.02
48	SLU 69	0	93	2503	-4.32	-0.11	0
48	SLU 70	-3	104	2493	-4.75	-1.41	0.01
48	SLU 71	0	93	2503	-4.32	-0.11	0
48	SLU 72	-3	104	2493	-4.75	-1.41	0.01
48	SLU 73	-4	142	3119	-6.64	-2.51	0.02
48	SLU 74	0	124	3134	-5.94	-0.35	0
48	SLU 75	-3	135	3125	-6.36	-1.64	0.01
48	SLU 76	-4	142	3119	-6.64	-2.51	0.02
48	SLU 77	0	124	3134	-5.94	-0.35	0
48	SLU 78	-3	135	3125	-6.36	-1.64	0.01
48	SLU 79	0	124	3134	-5.94	-0.35	0
48	SLU 80	-3	135	3125	-6.36	-1.64	0.01
48	SLU 81	0	137	3405	-6.63	-0.45	0
48	SLU 82	-3	148	3396	-7.05	-1.74	0.01
48	SLU 83	0	137	3405	-6.63	-0.45	0
48	SLU 84	-3	148	3396	-7.05	-1.74	0.01
48	SLE RA 1	0	67	1866	-3.13	-0.07	0
48	SLE RA 2	-3	80	1856	-3.6	-1.51	0.01
48	SLE RA 3	0	67	1866	-3.13	-0.07	0
48	SLE RA 4	-2	75	1860	-3.41	-0.93	0.01
48	SLE RA 5	-3	80	1856	-3.6	-1.51	0.01
48	SLE RA 6	0	67	1866	-3.13	-0.07	0
48	SLE RA 7	-2	75	1860	-3.41	-0.93	0.01
48	SLE RA 8	0	67	1866	-3.13	-0.07	0
48	SLE RA 9	-2	75	1860	-3.41	-0.93	0.01
48	SLE RA 10	-3	100	2277	-4.68	-1.67	0.01
48	SLE RA 11	0	88	2287	-4.21	-0.23	0
48	SLE RA 12	-2	95	2281	-4.49	-1.09	0.01
48	SLE RA 13	-3	100	2277	-4.68	-1.67	0.01
48	SLE RA 14	0	88	2287	-4.21	-0.23	0
48	SLE RA 15	-2	95	2281	-4.49	-1.09	0.01
48	SLE RA 16	0	88	2287	-4.21	-0.23	0
48	SLE RA 17	-2	95	2281	-4.49	-1.09	0.01
48	SLE RA 18	0	96	2468	-4.67	-0.29	0
48	SLE RA 19	-2	104	2462	-4.95	-1.16	0.01
48	SLE RA 20	0	96	2468	-4.67	-0.29	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
48	SLE RA 21	-2	104	2462	-4.95	-1.16	0.01
48	SLE FR 1	0	67	1866	-3.13	-0.07	0
48	SLE FR 2	-1	70	1864	-3.23	-0.36	0
48	SLE FR 3	0	67	1866	-3.13	-0.07	0
48	SLE FR 4	-1	79	2045	-3.69	-0.42	0
48	SLE FR 5	0	76	2047	-3.59	-0.14	0
48	SLE FR 6	0	82	2167	-3.9	-0.18	0
48	SLE QP 1	0	67	1866	-3.13	-0.07	0
48	SLE QP 2	0	76	2047	-3.59	-0.14	0
48	SLD 1	-6	126	2059	-5.47	5.47	0.03
48	SLD 2	-6	126	2059	-5.47	5.47	0.03
48	SLD 3	-13	74	2125	-3.48	12.4	0.07
48	SLD 4	-13	74	2125	-3.48	12.4	0.07
48	SLD 5	10	170	1950	-7.18	-8.96	-0.05
48	SLD 6	10	170	1950	-7.18	-8.96	-0.05
48	SLD 7	-16	-3	2170	-0.54	14.13	0.08
48	SLD 8	-16	-3	2170	-0.54	14.13	0.08
48	SLD 9	16	155	1923	-6.64	-14.4	-0.08
48	SLD 10	16	155	1923	-6.64	-14.4	-0.08
48	SLD 11	-10	-18	2143	-0.01	8.68	0.05
48	SLD 12	-10	-18	2143	-0.01	8.68	0.05
48	SLD 13	14	78	1969	-3.7	-12.67	-0.07
48	SLD 14	14	78	1969	-3.7	-12.67	-0.07
48	SLD 15	6	26	2035	-1.71	-5.75	-0.03
48	SLD 16	6	26	2035	-1.71	-5.75	-0.03
48	SLV 1	-13	201	2062	-8.25	13.22	0.07
48	SLV 2	-13	201	2062	-8.25	13.22	0.07
48	SLV 3	-34	67	2247	-3.15	31.6	0.18
48	SLV 4	-34	67	2247	-3.15	31.6	0.18
48	SLV 5	29	316	1771	-12.72	-24.01	-0.14
48	SLV 6	29	316	1771	-12.72	-24.01	-0.14
48	SLV 7	-43	-130	2388	4.27	37.26	0.22
48	SLV 8	-43	-130	2388	4.27	37.26	0.22
48	SLV 9	43	282	1706	-11.45	-37.53	-0.22
48	SLV 10	43	282	1706	-11.45	-37.53	-0.22
48	SLV 11	-29	-164	2323	5.53	23.73	0.14
48	SLV 12	-29	-164	2323	5.53	23.73	0.14
48	SLV 13	35	85	1846	-4.03	-31.87	-0.18
48	SLV 14	35	85	1846	-4.03	-31.87	-0.18
48	SLV 15	13	-49	2031	1.06	-13.49	-0.07
48	SLV 16	13	-49	2031	1.06	-13.49	-0.07
49	SLU 1	0	96	2057	-3.47	0.2	0
49	SLU 2	0	106	2053	-3.66	-1.06	0
49	SLU 3	0	96	2057	-3.47	0.2	0
49	SLU 4	0	102	2055	-3.59	-0.56	0
49	SLU 5	0	106	2053	-3.66	-1.06	0
49	SLU 6	0	96	2057	-3.47	0.2	0
49	SLU 7	0	102	2055	-3.59	-0.56	0
49	SLU 8	0	96	2057	-3.47	0.2	0
49	SLU 9	0	102	2055	-3.59	-0.56	0
49	SLU 10	0	135	2484	-4.7	-0.43	0
49	SLU 11	0	125	2488	-4.51	0.83	0
49	SLU 12	0	131	2485	-4.63	0.07	0
49	SLU 13	0	135	2484	-4.7	-0.43	0
49	SLU 14	0	125	2488	-4.51	0.83	0
49	SLU 15	0	131	2485	-4.63	0.07	0
49	SLU 16	0	125	2488	-4.51	0.83	0
49	SLU 17	0	131	2485	-4.63	0.07	0
49	SLU 18	0	138	2672	-4.95	1.1	0
49	SLU 19	0	143	2670	-5.07	0.34	0
49	SLU 20	0	138	2672	-4.95	1.1	0
49	SLU 21	0	143	2670	-5.07	0.34	0
49	SLU 22	0	111	2278	-4.01	0.43	0
49	SLU 23	0	121	2273	-4.2	-0.83	0
49	SLU 24	0	111	2278	-4.01	0.43	0
49	SLU 25	0	117	2275	-4.12	-0.32	0
49	SLU 26	0	121	2273	-4.2	-0.83	0
49	SLU 27	0	111	2278	-4.01	0.43	0
49	SLU 28	0	117	2275	-4.12	-0.32	0
49	SLU 29	0	111	2278	-4.01	0.43	0
49	SLU 30	0	117	2275	-4.12	-0.32	0
49	SLU 31	0	150	2704	-5.24	-0.19	0
49	SLU 32	0	140	2708	-5.05	1.06	0
49	SLU 33	0	146	2706	-5.16	0.31	0
49	SLU 34	0	150	2704	-5.24	-0.19	0
49	SLU 35	0	140	2708	-5.05	1.06	0
49	SLU 36	0	146	2706	-5.16	0.31	0
49	SLU 37	0	140	2708	-5.05	1.06	0
49	SLU 38	0	146	2706	-5.16	0.31	0
49	SLU 39	0	153	2892	-5.49	1.33	0
49	SLU 40	0	158	2890	-5.61	0.58	0
49	SLU 41	0	153	2892	-5.49	1.33	0
49	SLU 42	0	158	2890	-5.61	0.58	0
49	SLU 43	0	120	2599	-4.32	0.17	0
49	SLU 44	0	129	2595	-4.52	-1.08	0
49	SLU 45	0	120	2599	-4.32	0.17	0
49	SLU 46	0	126	2596	-4.44	-0.58	0
49	SLU 47	0	129	2595	-4.52	-1.08	0
49	SLU 48	0	120	2599	-4.32	0.17	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
49	SLU 49	0	126	2596	-4.44	-0.58	0
49	SLU 50	0	120	2599	-4.32	0.17	0
49	SLU 51	0	126	2596	-4.44	-0.58	0
49	SLU 52	0	158	3025	-5.56	-0.45	0
49	SLU 53	0	149	3029	-5.36	0.8	0
49	SLU 54	0	155	3027	-5.48	0.05	0
49	SLU 55	0	158	3025	-5.56	-0.45	0
49	SLU 56	0	149	3029	-5.36	0.8	0
49	SLU 57	0	155	3027	-5.48	0.05	0
49	SLU 58	0	149	3029	-5.36	0.8	0
49	SLU 59	0	155	3027	-5.48	0.05	0
49	SLU 60	0	162	3214	-5.81	1.08	0
49	SLU 61	0	167	3211	-5.93	0.32	0
49	SLU 62	0	162	3214	-5.81	1.08	0
49	SLU 63	0	167	3211	-5.93	0.32	0
49	SLU 64	0	135	2819	-4.86	0.41	0
49	SLU 65	0	144	2815	-5.06	-0.85	0
49	SLU 66	0	135	2819	-4.86	0.41	0
49	SLU 67	0	141	2817	-4.98	-0.35	0
49	SLU 68	0	144	2815	-5.06	-0.85	0
49	SLU 69	0	135	2819	-4.86	0.41	0
49	SLU 70	0	141	2817	-4.98	-0.35	0
49	SLU 71	0	135	2819	-4.86	0.41	0
49	SLU 72	0	141	2817	-4.98	-0.35	0
49	SLU 73	0	173	3245	-6.1	-0.22	0
49	SLU 74	0	164	3250	-5.9	1.04	0
49	SLU 75	0	170	3247	-6.02	0.29	0
49	SLU 76	0	173	3245	-6.1	-0.22	0
49	SLU 77	0	164	3250	-5.9	1.04	0
49	SLU 78	0	170	3247	-6.02	0.29	0
49	SLU 79	0	164	3250	-5.9	1.04	0
49	SLU 80	0	170	3247	-6.02	0.29	0
49	SLU 81	0	177	3434	-6.35	1.31	0
49	SLU 82	0	182	3432	-6.47	0.56	0
49	SLU 83	0	177	3434	-6.35	1.31	0
49	SLU 84	0	182	3432	-6.47	0.56	0
49	SLE RA 1	0	101	2120	-3.62	0.26	0
49	SLE RA 2	0	107	2117	-3.75	-0.58	0
49	SLE RA 3	0	101	2120	-3.62	0.26	0
49	SLE RA 4	0	104	2119	-3.7	-0.24	0
49	SLE RA 5	0	107	2117	-3.75	-0.58	0
49	SLE RA 6	0	101	2120	-3.62	0.26	0
49	SLE RA 7	0	104	2119	-3.7	-0.24	0
49	SLE RA 8	0	101	2120	-3.62	0.26	0
49	SLE RA 9	0	104	2119	-3.7	-0.24	0
49	SLE RA 10	0	126	2404	-4.45	-0.15	0
49	SLE RA 11	0	120	2407	-4.31	0.68	0
49	SLE RA 12	0	124	2406	-4.39	0.18	0
49	SLE RA 13	0	126	2404	-4.45	-0.15	0
49	SLE RA 14	0	120	2407	-4.31	0.68	0
49	SLE RA 15	0	124	2406	-4.39	0.18	0
49	SLE RA 16	0	120	2407	-4.31	0.68	0
49	SLE RA 17	0	124	2406	-4.39	0.18	0
49	SLE RA 18	0	128	2530	-4.61	0.86	0
49	SLE RA 19	0	132	2529	-4.69	0.36	0
49	SLE RA 20	0	128	2530	-4.61	0.86	0
49	SLE RA 21	0	132	2529	-4.69	0.36	0
49	SLE FR 1	0	101	2120	-3.62	0.26	0
49	SLE FR 2	0	102	2120	-3.65	0.1	0
49	SLE FR 3	0	101	2120	-3.62	0.26	0
49	SLE FR 4	0	110	2243	-3.94	0.28	0
49	SLE FR 5	0	109	2243	-3.92	0.44	0
49	SLE FR 6	0	115	2325	-4.12	0.56	0
49	SLE QP 1	0	101	2120	-3.62	0.26	0
49	SLE QP 2	0	109	2243	-3.92	0.44	0
49	SLD 1	32	83	2283	-3.01	52.77	0
49	SLD 2	32	83	2283	-3.01	52.77	0
49	SLD 3	38	19	2295	-0.72	58.44	-0.01
49	SLD 4	38	19	2295	-0.72	58.44	-0.01
49	SLD 5	0	199	2238	-7.12	7.55	0
49	SLD 6	0	199	2238	-7.12	7.55	0
49	SLD 7	21	-16	2276	0.52	26.43	0
49	SLD 8	21	-16	2276	0.52	26.43	0
49	SLD 9	-20	234	2210	-8.35	-25.55	0
49	SLD 10	-20	234	2210	-8.35	-25.55	0
49	SLD 11	0	19	2249	-0.72	-6.66	0
49	SLD 12	0	19	2249	-0.72	-6.66	0
49	SLD 13	-38	199	2192	-7.12	-57.55	0.01
49	SLD 14	-38	199	2192	-7.12	-57.55	0.01
49	SLD 15	-32	135	2203	-4.83	-51.89	0
49	SLD 16	-32	135	2203	-4.83	-51.89	0
49	SLV 1	80	44	2343	-1.6	133.85	-0.01
49	SLV 2	80	44	2343	-1.6	133.85	-0.01
49	SLV 3	95	-108	2373	3.8	148	-0.01
49	SLV 4	95	-108	2373	3.8	148	-0.01
49	SLV 5	1	321	2228	-11.41	19	0
49	SLV 6	1	321	2228	-11.41	19	0
49	SLV 7	52	-188	2327	6.58	66.18	-0.01
49	SLV 8	52	-188	2327	6.58	66.18	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
49	SLV 9	-51	406	2159	-14.42	-65.29	0.01
49	SLV 10	-51	406	2159	-14.42	-65.29	0.01
49	SLV 11	-1	-103	2258	3.57	-18.11	0
49	SLV 12	-1	-103	2258	3.57	-18.11	0
49	SLV 13	-95	326	2114	-11.63	-147.12	0.01
49	SLV 14	-95	326	2114	-11.63	-147.12	0.01
49	SLV 15	-80	174	2144	-6.24	-132.96	0.01
49	SLV 16	-80	174	2144	-6.24	-132.96	0.01
50	SLU 1	0	320	1882	-10.79	-0.09	0
50	SLU 2	0	359	1933	-12.19	0.06	0
50	SLU 3	0	320	1882	-10.79	-0.09	0
50	SLU 4	0	343	1912	-11.63	0	0
50	SLU 5	0	359	1933	-12.19	0.06	0
50	SLU 6	0	320	1882	-10.79	-0.09	0
50	SLU 7	0	343	1912	-11.63	0	0
50	SLU 8	0	320	1882	-10.79	-0.09	0
50	SLU 9	0	343	1912	-11.63	0	0
50	SLU 10	0	717	3190	-24.17	0.09	0
50	SLU 11	0	678	3140	-22.77	-0.06	0
50	SLU 12	0	701	3170	-23.61	0.03	0
50	SLU 13	0	717	3190	-24.17	0.09	0
50	SLU 14	0	678	3140	-22.77	-0.06	0
50	SLU 15	0	701	3170	-23.61	0.03	0
50	SLU 16	0	678	3140	-22.77	-0.06	0
50	SLU 17	0	701	3170	-23.61	0.03	0
50	SLU 18	0	831	3679	-27.9	-0.05	0
50	SLU 19	0	855	3709	-28.74	0.04	0
50	SLU 20	0	831	3679	-27.9	-0.05	0
50	SLU 21	0	855	3709	-28.74	0.04	0
50	SLU 22	0	470	2457	-15.82	-0.1	0
50	SLU 23	0	509	2508	-17.23	0.04	0
50	SLU 24	0	470	2457	-15.82	-0.1	0
50	SLU 25	0	493	2488	-16.67	-0.02	0
50	SLU 26	0	509	2508	-17.23	0.04	0
50	SLU 27	0	470	2457	-15.82	-0.1	0
50	SLU 28	0	493	2488	-16.67	-0.02	0
50	SLU 29	0	470	2457	-15.82	-0.1	0
50	SLU 30	0	493	2488	-16.67	-0.02	0
50	SLU 31	0	867	3766	-29.21	0.07	0
50	SLU 32	0	828	3715	-27.81	-0.07	0
50	SLU 33	0	851	3745	-28.65	0.01	0
50	SLU 34	0	867	3766	-29.21	0.07	0
50	SLU 35	0	828	3715	-27.81	-0.07	0
50	SLU 36	0	851	3745	-28.65	0.01	0
50	SLU 37	0	828	3715	-27.81	-0.07	0
50	SLU 38	0	851	3745	-28.65	0.01	0
50	SLU 39	0	982	4254	-32.94	-0.06	0
50	SLU 40	0	1005	4284	-33.78	0.03	0
50	SLU 41	0	982	4254	-32.94	-0.06	0
50	SLU 42	0	1005	4284	-33.78	0.03	0
50	SLU 43	0	364	2249	-12.29	-0.11	0
50	SLU 44	0	403	2300	-13.7	0.03	0
50	SLU 45	0	364	2249	-12.29	-0.11	0
50	SLU 46	0	387	2280	-13.13	-0.03	0
50	SLU 47	0	403	2300	-13.7	0.03	0
50	SLU 48	0	364	2249	-12.29	-0.11	0
50	SLU 49	0	387	2280	-13.13	-0.03	0
50	SLU 50	0	364	2249	-12.29	-0.11	0
50	SLU 51	0	387	2280	-13.13	-0.03	0
50	SLU 52	0	761	3558	-25.68	0.06	0
50	SLU 53	0	722	3507	-24.28	-0.08	0
50	SLU 54	0	746	3537	-25.12	0.01	0
50	SLU 55	0	761	3558	-25.68	0.06	0
50	SLU 56	0	722	3507	-24.28	-0.08	0
50	SLU 57	0	746	3537	-25.12	0.01	0
50	SLU 58	0	722	3507	-24.28	-0.08	0
50	SLU 59	0	746	3537	-25.12	0.01	0
50	SLU 60	0	876	4046	-29.41	-0.07	0
50	SLU 61	0	899	4076	-30.25	0.02	0
50	SLU 62	0	876	4046	-29.41	-0.07	0
50	SLU 63	0	899	4076	-30.25	0.02	0
50	SLU 64	0	514	2824	-17.33	-0.13	0
50	SLU 65	0	553	2875	-18.73	0.02	0
50	SLU 66	0	514	2824	-17.33	-0.13	0
50	SLU 67	0	538	2855	-18.17	-0.04	0
50	SLU 68	0	553	2875	-18.73	0.02	0
50	SLU 69	0	514	2824	-17.33	-0.13	0
50	SLU 70	0	538	2855	-18.17	-0.04	0
50	SLU 71	0	514	2824	-17.33	-0.13	0
50	SLU 72	0	538	2855	-18.17	-0.04	0
50	SLU 73	0	911	4133	-30.72	0.05	0
50	SLU 74	0	873	4082	-29.31	-0.1	0
50	SLU 75	0	896	4113	-30.16	-0.01	0
50	SLU 76	0	911	4133	-30.72	0.05	0
50	SLU 77	0	873	4082	-29.31	-0.1	0
50	SLU 78	0	896	4113	-30.16	-0.01	0
50	SLU 79	0	873	4082	-29.31	-0.1	0
50	SLU 80	0	896	4113	-30.16	-0.01	0
50	SLU 81	0	1026	4621	-34.45	-0.08	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
50	SLU 82	0	1049	4652	-35.29	0.01	0
50	SLU 83	0	1026	4621	-34.45	-0.08	0
50	SLU 84	0	1049	4652	-35.29	0.01	0
50	SLE RA 1	0	363	2046	-12.23	-0.09	0
50	SLE RA 2	0	388	2080	-13.16	0	0
50	SLE RA 3	0	363	2046	-12.23	-0.09	0
50	SLE RA 4	0	378	2067	-12.79	-0.04	0
50	SLE RA 5	0	388	2080	-13.16	0	0
50	SLE RA 6	0	363	2046	-12.23	-0.09	0
50	SLE RA 7	0	378	2067	-12.79	-0.04	0
50	SLE RA 8	0	363	2046	-12.23	-0.09	0
50	SLE RA 9	0	378	2067	-12.79	-0.04	0
50	SLE RA 10	0	627	2919	-21.15	0.02	0
50	SLE RA 11	0	601	2885	-20.21	-0.07	0
50	SLE RA 12	0	617	2905	-20.77	-0.02	0
50	SLE RA 13	0	627	2919	-21.15	0.02	0
50	SLE RA 14	0	601	2885	-20.21	-0.07	0
50	SLE RA 15	0	617	2905	-20.77	-0.02	0
50	SLE RA 16	0	601	2885	-20.21	-0.07	0
50	SLE RA 17	0	617	2905	-20.77	-0.02	0
50	SLE RA 18	0	704	3244	-23.64	-0.06	0
50	SLE RA 19	0	719	3264	-24.2	-0.01	0
50	SLE RA 20	0	704	3244	-23.64	-0.06	0
50	SLE RA 21	0	719	3264	-24.2	-0.01	0
50	SLE FR 1	0	363	2046	-12.23	-0.09	0
50	SLE FR 2	0	368	2053	-12.41	-0.07	0
50	SLE FR 3	0	363	2046	-12.23	-0.09	0
50	SLE FR 4	0	470	2412	-15.84	-0.07	0
50	SLE FR 5	0	465	2406	-15.65	-0.09	0
50	SLE FR 6	0	533	2645	-17.93	-0.08	0
50	SLE QP 1	0	363	2046	-12.23	-0.09	0
50	SLE QP 2	0	465	2406	-15.65	-0.09	0
50	SLD 1	0	504	2433	-17.32	6.48	0
50	SLD 2	0	504	2433	-17.32	6.48	0
50	SLD 3	8	329	2206	-10.91	11.05	-0.09
50	SLD 4	8	329	2206	-10.91	11.05	-0.09
50	SLD 5	-13	743	2759	-25.88	-5.04	0.13
50	SLD 6	-13	743	2759	-25.88	-5.04	0.13
50	SLD 7	15	158	2001	-4.49	10.18	-0.16
50	SLD 8	15	158	2001	-4.49	10.18	-0.16
50	SLD 9	-15	771	2810	-26.8	-10.35	0.16
50	SLD 10	-15	771	2810	-26.8	-10.35	0.16
50	SLD 11	13	187	2053	-5.41	4.87	-0.13
50	SLD 12	13	187	2053	-5.41	4.87	-0.13
50	SLD 13	-8	601	2605	-20.39	-11.22	0.09
50	SLD 14	-8	601	2605	-20.39	-11.22	0.09
50	SLD 15	0	425	2378	-13.97	-6.65	0.01
50	SLD 16	0	425	2378	-13.97	-6.65	0.01
50	SLV 1	-2	540	2442	-19.07	15.81	0
50	SLV 2	-2	540	2442	-19.07	15.81	0
50	SLV 3	23	134	1920	-4.18	29.42	-0.25
50	SLV 4	23	134	1920	-4.18	29.42	-0.25
50	SLV 5	-39	1104	3208	-39.25	-15.96	0.39
50	SLV 6	-39	1104	3208	-39.25	-15.96	0.39
50	SLV 7	45	-251	1468	10.36	29.41	-0.46
50	SLV 8	45	-251	1468	10.36	29.41	-0.46
50	SLV 9	-45	1180	3343	-41.66	-29.58	0.46
50	SLV 10	-45	1180	3343	-41.66	-29.58	0.46
50	SLV 11	39	-174	1603	7.95	15.79	-0.39
50	SLV 12	39	-174	1603	7.95	15.79	-0.39
50	SLV 13	-23	796	2891	-27.11	-29.59	0.25
50	SLV 14	-23	796	2891	-27.11	-29.59	0.25
50	SLV 15	2	390	2369	-12.23	-15.98	0
50	SLV 16	2	390	2369	-12.23	-15.98	0
51	SLU 1	0	73	2056	-2.66	0.33	0
51	SLU 2	0	86	2052	-3.21	-1.16	0
51	SLU 3	0	73	2056	-2.66	0.33	0
51	SLU 4	0	81	2054	-2.99	-0.56	0
51	SLU 5	0	86	2052	-3.21	-1.16	0
51	SLU 6	0	73	2056	-2.66	0.33	0
51	SLU 7	0	81	2054	-2.99	-0.56	0
51	SLU 8	0	73	2056	-2.66	0.33	0
51	SLU 9	0	81	2054	-2.99	-0.56	0
51	SLU 10	0	109	2483	-4.04	-0.4	0
51	SLU 11	0	96	2487	-3.49	1.09	0
51	SLU 12	0	104	2485	-3.82	0.19	0
51	SLU 13	0	109	2483	-4.04	-0.4	0
51	SLU 14	0	96	2487	-3.49	1.09	0
51	SLU 15	0	104	2485	-3.82	0.19	0
51	SLU 16	0	96	2487	-3.49	1.09	0
51	SLU 17	0	104	2485	-3.82	0.19	0
51	SLU 18	0	106	2672	-3.85	1.41	0
51	SLU 19	0	114	2670	-4.18	0.52	0
51	SLU 20	0	106	2672	-3.85	1.41	0
51	SLU 21	0	114	2670	-4.18	0.52	0
51	SLU 22	0	85	2277	-3.09	0.62	0
51	SLU 23	0	98	2273	-3.65	-0.87	0
51	SLU 24	0	85	2277	-3.09	0.62	0
51	SLU 25	0	93	2274	-3.42	-0.28	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
51	SLU 26	0	98	2273	-3.65	-0.87	0
51	SLU 27	0	85	2277	-3.09	0.62	0
51	SLU 28	0	93	2274	-3.42	-0.28	0
51	SLU 29	0	85	2277	-3.09	0.62	0
51	SLU 30	0	93	2274	-3.42	-0.28	0
51	SLU 31	0	121	2704	-4.47	-0.12	0
51	SLU 32	0	108	2708	-3.92	1.38	0
51	SLU 33	0	116	2705	-4.25	0.48	0
51	SLU 34	0	121	2704	-4.47	-0.12	0
51	SLU 35	0	108	2708	-3.92	1.38	0
51	SLU 36	0	116	2705	-4.25	0.48	0
51	SLU 37	0	108	2708	-3.92	1.38	0
51	SLU 38	0	116	2705	-4.25	0.48	0
51	SLU 39	1	118	2893	-4.28	1.7	0
51	SLU 40	0	126	2890	-4.61	0.81	0
51	SLU 41	1	118	2893	-4.28	1.7	0
51	SLU 42	0	126	2890	-4.61	0.81	0
51	SLU 43	0	91	2598	-3.31	0.33	0
51	SLU 44	0	104	2593	-3.86	-1.16	0
51	SLU 45	0	91	2598	-3.31	0.33	0
51	SLU 46	0	99	2595	-3.64	-0.56	0
51	SLU 47	0	104	2593	-3.86	-1.16	0
51	SLU 48	0	91	2598	-3.31	0.33	0
51	SLU 49	0	99	2595	-3.64	-0.56	0
51	SLU 50	0	91	2598	-3.31	0.33	0
51	SLU 51	0	99	2595	-3.64	-0.56	0
51	SLU 52	0	127	3024	-4.69	-0.4	0
51	SLU 53	0	114	3029	-4.14	1.09	0
51	SLU 54	0	122	3026	-4.47	0.19	0
51	SLU 55	0	127	3024	-4.69	-0.4	0
51	SLU 56	0	114	3029	-4.14	1.09	0
51	SLU 57	0	122	3026	-4.47	0.19	0
51	SLU 58	0	114	3029	-4.14	1.09	0
51	SLU 59	0	122	3026	-4.47	0.19	0
51	SLU 60	0	124	3213	-4.5	1.41	0
51	SLU 61	0	132	3211	-4.83	0.52	0
51	SLU 62	0	124	3213	-4.5	1.41	0
51	SLU 63	0	132	3211	-4.83	0.52	0
51	SLU 64	0	103	2818	-3.74	0.62	0
51	SLU 65	0	116	2814	-4.3	-0.87	0
51	SLU 66	0	103	2818	-3.74	0.62	0
51	SLU 67	0	111	2816	-4.08	-0.28	0
51	SLU 68	0	116	2814	-4.3	-0.87	0
51	SLU 69	0	103	2818	-3.74	0.62	0
51	SLU 70	0	111	2816	-4.08	-0.28	0
51	SLU 71	0	103	2818	-3.74	0.62	0
51	SLU 72	0	111	2816	-4.08	-0.28	0
51	SLU 73	0	139	3245	-5.12	-0.12	0
51	SLU 74	0	126	3249	-4.57	1.38	0
51	SLU 75	0	134	3247	-4.9	0.48	0
51	SLU 76	0	139	3245	-5.12	-0.12	0
51	SLU 77	0	126	3249	-4.57	1.38	0
51	SLU 78	0	134	3247	-4.9	0.48	0
51	SLU 79	0	126	3249	-4.57	1.38	0
51	SLU 80	0	134	3247	-4.9	0.48	0
51	SLU 81	1	136	3434	-4.93	1.7	0
51	SLU 82	0	144	3431	-5.26	0.81	0
51	SLU 83	1	136	3434	-4.93	1.7	0
51	SLU 84	0	144	3431	-5.26	0.81	0
51	SLE RA 1	0	77	2119	-2.79	0.41	0
51	SLE RA 2	0	85	2116	-3.15	-0.58	0
51	SLE RA 3	0	77	2119	-2.79	0.41	0
51	SLE RA 4	0	82	2118	-3.01	-0.18	0
51	SLE RA 5	0	85	2116	-3.15	-0.58	0
51	SLE RA 6	0	77	2119	-2.79	0.41	0
51	SLE RA 7	0	82	2118	-3.01	-0.18	0
51	SLE RA 8	0	77	2119	-2.79	0.41	0
51	SLE RA 9	0	82	2118	-3.01	-0.18	0
51	SLE RA 10	0	101	2404	-3.71	-0.08	0
51	SLE RA 11	0	92	2407	-3.34	0.92	0
51	SLE RA 12	0	97	2405	-3.56	0.32	0
51	SLE RA 13	0	101	2404	-3.71	-0.08	0
51	SLE RA 14	0	92	2407	-3.34	0.92	0
51	SLE RA 15	0	97	2405	-3.56	0.32	0
51	SLE RA 16	0	92	2407	-3.34	0.92	0
51	SLE RA 17	0	97	2405	-3.56	0.32	0
51	SLE RA 18	0	99	2530	-3.57	1.13	0
51	SLE RA 19	0	104	2528	-3.8	0.54	0
51	SLE RA 20	0	99	2530	-3.57	1.13	0
51	SLE RA 21	0	104	2528	-3.8	0.54	0
51	SLE FR 1	0	77	2119	-2.79	0.41	0
51	SLE FR 2	0	78	2119	-2.86	0.21	0
51	SLE FR 3	0	77	2119	-2.79	0.41	0
51	SLE FR 4	0	85	2242	-3.1	0.43	0
51	SLE FR 5	0	83	2242	-3.02	0.63	0
51	SLE FR 6	0	88	2325	-3.18	0.77	0
51	SLE QP 1	0	77	2119	-2.79	0.41	0
51	SLE QP 2	0	83	2242	-3.02	0.63	0
51	SID 1	39	51	2291	-1.79	61.73	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
51	SLD 2	39	51	2291	-1.79	61.73	-0.01
51	SLD 3	44	-15	2303	0.66	66.76	0
51	SLD 4	44	-15	2303	0.66	66.76	0
51	SLD 5	3	174	2239	-6.38	11.33	0
51	SLD 6	3	174	2239	-6.38	11.33	0
51	SLD 7	22	-47	2279	1.81	28.09	0
51	SLD 8	22	-47	2279	1.81	28.09	0
51	SLD 9	-21	213	2206	-7.85	-26.84	0
51	SLD 10	-21	213	2206	-7.85	-26.84	0
51	SLD 11	-3	-8	2246	0.33	-10.07	0
51	SLD 12	-3	-8	2246	0.33	-10.07	0
51	SLD 13	-44	182	2182	-6.71	-65.5	0
51	SLD 14	-44	182	2182	-6.71	-65.5	0
51	SLD 15	-38	115	2194	-4.25	-60.47	0.01
51	SLD 16	-38	115	2194	-4.25	-60.47	0.01
51	SLV 1	98	3	2363	0.06	156.44	-0.01
51	SLV 2	98	3	2363	0.06	156.44	-0.01
51	SLV 3	111	-156	2394	6	169.05	-0.01
51	SLV 4	111	-156	2394	6	169.05	-0.01
51	SLV 5	9	300	2231	-11.1	28.25	-0.01
51	SLV 6	9	300	2231	-11.1	28.25	-0.01
51	SLV 7	54	-230	2335	8.69	70.28	0
51	SLV 8	54	-230	2335	8.69	70.28	0
51	SLV 9	-54	396	2150	-14.73	-69.02	0
51	SLV 10	-54	396	2150	-14.73	-69.02	0
51	SLV 11	-9	-134	2253	5.05	-26.99	0.01
51	SLV 12	-9	-134	2253	5.05	-26.99	0.01
51	SLV 13	-111	323	2091	-12.04	-167.79	0.01
51	SLV 14	-111	323	2091	-12.04	-167.79	0.01
51	SLV 15	-97	164	2122	-6.11	-155.18	0.01
51	SLV 16	-97	164	2122	-6.11	-155.18	0.01
52	SLU 1	0	16	1774	-0.17	0.21	0
52	SLU 2	-4	40	1764	-1.01	-1.89	0.02
52	SLU 3	0	16	1774	-0.17	0.21	0
52	SLU 4	-2	30	1768	-0.68	-1.05	0.01
52	SLU 5	-4	40	1764	-1.01	-1.89	0.02
52	SLU 6	0	16	1774	-0.17	0.21	0
52	SLU 7	-2	30	1768	-0.68	-1.05	0.01
52	SLU 8	0	16	1774	-0.17	0.21	0
52	SLU 9	-2	30	1768	-0.68	-1.05	0.01
52	SLU 10	-4	37	2385	-0.53	-1.96	0.02
52	SLU 11	0	13	2396	0.3	0.13	0
52	SLU 12	-2	28	2389	-0.2	-1.13	0.01
52	SLU 13	-4	37	2385	-0.53	-1.96	0.02
52	SLU 14	0	13	2396	0.3	0.13	0
52	SLU 15	-2	28	2389	-0.2	-1.13	0.01
52	SLU 16	0	13	2396	0.3	0.13	0
52	SLU 17	-2	28	2389	-0.2	-1.13	0.01
52	SLU 18	1	12	2662	0.51	0.1	0
52	SLU 19	-2	26	2656	0.01	-1.16	0.01
52	SLU 20	1	12	2662	0.51	0.1	0
52	SLU 21	-2	26	2656	0.01	-1.16	0.01
52	SLU 22	0	22	2044	-0.22	0.22	0
52	SLU 23	-4	47	2034	-1.06	-1.88	0.02
52	SLU 24	0	22	2044	-0.22	0.22	0
52	SLU 25	-2	37	2038	-0.73	-1.04	0.01
52	SLU 26	-4	47	2034	-1.06	-1.88	0.02
52	SLU 27	0	22	2044	-0.22	0.22	0
52	SLU 28	-2	37	2038	-0.73	-1.04	0.01
52	SLU 29	0	22	2044	-0.22	0.22	0
52	SLU 30	-2	37	2038	-0.73	-1.04	0.01
52	SLU 31	-4	44	2655	-0.58	-1.95	0.02
52	SLU 32	1	20	2666	0.26	0.15	0
52	SLU 33	-2	34	2659	-0.25	-1.11	0.01
52	SLU 34	-4	44	2655	-0.58	-1.95	0.02
52	SLU 35	1	20	2666	0.26	0.15	0
52	SLU 36	-2	34	2659	-0.25	-1.11	0.01
52	SLU 37	1	20	2666	0.26	0.15	0
52	SLU 38	-2	34	2659	-0.25	-1.11	0.01
52	SLU 39	1	18	2932	0.46	0.12	0
52	SLU 40	-2	33	2926	-0.04	-1.14	0.01
52	SLU 41	1	18	2932	0.46	0.12	0
52	SLU 42	-2	33	2926	-0.04	-1.14	0.01
52	SLU 43	0	18	2214	-0.21	0.26	0
52	SLU 44	-4	43	2203	-1.05	-1.83	0.02
52	SLU 45	0	18	2214	-0.21	0.26	0
52	SLU 46	-2	33	2207	-0.71	-0.99	0.01
52	SLU 47	-4	43	2203	-1.05	-1.83	0.02
52	SLU 48	0	18	2214	-0.21	0.26	0
52	SLU 49	-2	33	2207	-0.71	-0.99	0.01
52	SLU 50	0	18	2214	-0.21	0.26	0
52	SLU 51	-2	33	2207	-0.71	-0.99	0.01
52	SLU 52	-4	40	2825	-0.57	-1.91	0.02
52	SLU 53	1	15	2835	0.27	0.19	0
52	SLU 54	-2	30	2829	-0.23	-1.07	0.01
52	SLU 55	-4	40	2825	-0.57	-1.91	0.02
52	SLU 56	1	15	2835	0.27	0.19	0
52	SLU 57	-2	30	2829	-0.23	-1.07	0.01
52	SLU 58	1	15	2835	0.27	0.19	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
52	SLU 59	-2	30	2829	-0.23	-1.07	0.01
52	SLU 60	1	14	3101	0.47	0.16	0
52	SLU 61	-2	29	3095	-0.03	-1.1	0.01
52	SLU 62	1	14	3101	0.47	0.16	0
52	SLU 63	-2	29	3095	-0.03	-1.1	0.01
52	SLU 64	0	25	2484	-0.26	0.28	0
52	SLU 65	-4	49	2473	-1.1	-1.82	0.02
52	SLU 66	0	25	2484	-0.26	0.28	0
52	SLU 67	-2	39	2478	-0.76	-0.98	0.01
52	SLU 68	-4	49	2473	-1.1	-1.82	0.02
52	SLU 69	0	25	2484	-0.26	0.28	0
52	SLU 70	-2	39	2478	-0.76	-0.98	0.01
52	SLU 71	0	25	2484	-0.26	0.28	0
52	SLU 72	-2	39	2478	-0.76	-0.98	0.01
52	SLU 73	-4	47	3095	-0.62	-1.89	0.02
52	SLU 74	1	22	3105	0.22	0.21	0
52	SLU 75	-2	37	3099	-0.28	-1.05	0.01
52	SLU 76	-4	47	3095	-0.62	-1.89	0.02
52	SLU 77	1	22	3105	0.22	0.21	0
52	SLU 78	-2	37	3099	-0.28	-1.05	0.01
52	SLU 79	1	22	3105	0.22	0.21	0
52	SLU 80	-2	37	3099	-0.28	-1.05	0.01
52	SLU 81	1	21	3372	0.43	0.17	0
52	SLU 82	-2	36	3365	-0.08	-1.08	0.01
52	SLU 83	1	21	3372	0.43	0.17	0
52	SLU 84	-2	36	3365	-0.08	-1.08	0.01
52	SLE RA 1	0	18	1851	-0.19	0.21	0
52	SLE RA 2	-3	34	1844	-0.75	-1.19	0.01
52	SLE RA 3	0	18	1851	-0.19	0.21	0
52	SLE RA 4	-2	27	1847	-0.52	-0.63	0.01
52	SLE RA 5	-3	34	1844	-0.75	-1.19	0.01
52	SLE RA 6	0	18	1851	-0.19	0.21	0
52	SLE RA 7	-2	27	1847	-0.52	-0.63	0.01
52	SLE RA 8	0	18	1851	-0.19	0.21	0
52	SLE RA 9	-2	27	1847	-0.52	-0.63	0.01
52	SLE RA 10	-3	32	2259	-0.43	-1.24	0.01
52	SLE RA 11	0	16	2266	0.13	0.16	0
52	SLE RA 12	-1	26	2261	-0.2	-0.68	0.01
52	SLE RA 13	-3	32	2259	-0.43	-1.24	0.01
52	SLE RA 14	0	16	2266	0.13	0.16	0
52	SLE RA 15	-1	26	2261	-0.2	-0.68	0.01
52	SLE RA 16	0	16	2266	0.13	0.16	0
52	SLE RA 17	-1	26	2261	-0.2	-0.68	0.01
52	SLE RA 18	0	15	2443	0.27	0.14	0
52	SLE RA 19	-1	25	2439	-0.07	-0.7	0.01
52	SLE RA 20	0	15	2443	0.27	0.14	0
52	SLE RA 21	-1	25	2439	-0.07	-0.7	0.01
52	SLE FR 1	0	18	1851	-0.19	0.21	0
52	SLE FR 2	0	21	1850	-0.3	-0.07	0.01
52	SLE FR 3	0	18	1851	-0.19	0.21	0
52	SLE FR 4	0	20	2028	-0.16	-0.09	0.01
52	SLE FR 5	0	17	2029	-0.05	0.19	0
52	SLE FR 6	0	16	2147	0.04	0.18	0
52	SLE QP 1	0	18	1851	-0.19	0.21	0
52	SLE QP 2	0	17	2029	-0.05	0.19	0
52	SLD 1	-7	76	2063	-2.13	-6.79	0.03
52	SLD 2	-7	76	2063	-2.13	-6.79	0.03
52	SLD 3	-15	13	2119	0.16	-1.48	0.06
52	SLD 4	-15	13	2119	0.16	-1.48	0.06
52	SLD 5	10	131	1954	-4.15	-9.97	-0.04
52	SLD 6	10	131	1954	-4.15	-9.97	-0.04
52	SLD 7	-16	-81	2141	3.49	7.76	0.07
52	SLD 8	-16	-81	2141	3.49	7.76	0.07
52	SLD 9	17	114	1917	-3.59	-7.38	-0.06
52	SLD 10	17	114	1917	-3.59	-7.38	-0.06
52	SLD 11	-9	-97	2104	4.05	10.35	0.04
52	SLD 12	-9	-97	2104	4.05	10.35	0.04
52	SLD 13	16	21	1939	-0.27	1.86	-0.06
52	SLD 14	16	21	1939	-0.27	1.86	-0.06
52	SLD 15	8	-42	1995	2.03	7.18	-0.03
52	SLD 16	8	-42	1995	2.03	7.18	-0.03
52	SLV 1	-18	165	2097	-5.26	-17.94	0.07
52	SLV 2	-18	165	2097	-5.26	-17.94	0.07
52	SLV 3	-40	-1	2257	0.72	-3.47	0.16
52	SLV 4	-40	-1	2257	0.72	-3.47	0.16
52	SLV 5	29	314	1807	-10.7	-27.2	-0.11
52	SLV 6	29	314	1807	-10.7	-27.2	-0.11
52	SLV 7	-46	-241	2340	9.26	21.04	0.19
52	SLV 8	-46	-241	2340	9.26	21.04	0.19
52	SLV 9	47	275	1718	-9.36	-20.66	-0.18
52	SLV 10	47	275	1718	-9.36	-20.66	-0.18
52	SLV 11	-28	-280	2251	10.59	27.58	0.12
52	SLV 12	-28	-280	2251	10.59	27.58	0.12
52	SLV 13	41	35	1801	-0.83	3.85	-0.16
52	SLV 14	41	35	1801	-0.83	3.85	-0.16
52	SLV 15	18	-132	1961	5.16	18.32	-0.07
52	SLV 16	18	-132	1961	5.16	18.32	-0.07
53	SLU 1	0	217	2284	-5.54	-0.2	-0.02
53	SLU 2	0	249	2337	-6.72	-0.11	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
53	SLU 3	0	217	2284	-5.54	-0.2	-0.02
53	SLU 4	0	236	2316	-6.25	-0.15	-0.02
53	SLU 5	0	249	2337	-6.72	-0.11	-0.02
53	SLU 6	0	217	2284	-5.54	-0.2	-0.02
53	SLU 7	0	236	2316	-6.25	-0.15	-0.02
53	SLU 8	0	217	2284	-5.54	-0.2	-0.02
53	SLU 9	0	236	2316	-6.25	-0.15	-0.02
53	SLU 10	1	514	4031	-14.06	-0.1	-0.04
53	SLU 11	1	483	3978	-12.87	-0.19	-0.03
53	SLU 12	1	502	4010	-13.59	-0.14	-0.04
53	SLU 13	1	514	4031	-14.06	-0.1	-0.04
53	SLU 14	1	483	3978	-12.87	-0.19	-0.03
53	SLU 15	1	502	4010	-13.59	-0.14	-0.04
53	SLU 16	1	483	3978	-12.87	-0.19	-0.03
53	SLU 17	1	502	4010	-13.59	-0.14	-0.04
53	SLU 18	2	596	4704	-16.02	-0.18	-0.04
53	SLU 19	2	615	4735	-16.73	-0.13	-0.04
53	SLU 20	2	596	4704	-16.02	-0.18	-0.04
53	SLU 21	2	615	4735	-16.73	-0.13	-0.04
53	SLU 22	1	330	3046	-8.61	-0.24	-0.02
53	SLU 23	1	362	3098	-9.79	-0.15	-0.02
53	SLU 24	1	330	3046	-8.61	-0.24	-0.02
53	SLU 25	1	349	3077	-9.32	-0.19	-0.02
53	SLU 26	1	362	3098	-9.79	-0.15	-0.02
53	SLU 27	1	330	3046	-8.61	-0.24	-0.02
53	SLU 28	1	349	3077	-9.32	-0.19	-0.02
53	SLU 29	1	330	3046	-8.61	-0.24	-0.02
53	SLU 30	1	349	3077	-9.32	-0.19	-0.02
53	SLU 31	2	627	4792	-17.13	-0.14	-0.04
53	SLU 32	1	595	4739	-15.94	-0.23	-0.04
53	SLU 33	1	614	4771	-16.66	-0.18	-0.04
53	SLU 34	2	627	4792	-17.13	-0.14	-0.04
53	SLU 35	1	595	4739	-15.94	-0.23	-0.04
53	SLU 36	1	614	4771	-16.66	-0.18	-0.04
53	SLU 37	1	595	4739	-15.94	-0.23	-0.04
53	SLU 38	1	614	4771	-16.66	-0.18	-0.04
53	SLU 39	2	709	5465	-19.09	-0.23	-0.05
53	SLU 40	2	728	5497	-19.8	-0.17	-0.05
53	SLU 41	2	709	5465	-19.09	-0.23	-0.05
53	SLU 42	2	728	5497	-19.8	-0.17	-0.05
53	SLU 43	0	244	2708	-6.15	-0.24	-0.02
53	SLU 44	0	276	2761	-7.33	-0.16	-0.02
53	SLU 45	0	244	2708	-6.15	-0.24	-0.02
53	SLU 46	0	263	2740	-6.86	-0.19	-0.02
53	SLU 47	0	276	2761	-7.33	-0.16	-0.02
53	SLU 48	0	244	2708	-6.15	-0.24	-0.02
53	SLU 49	0	263	2740	-6.86	-0.19	-0.02
53	SLU 50	0	244	2708	-6.15	-0.24	-0.02
53	SLU 51	0	263	2740	-6.86	-0.19	-0.02
53	SLU 52	1	541	4455	-14.67	-0.15	-0.04
53	SLU 53	1	509	4402	-13.48	-0.23	-0.04
53	SLU 54	1	528	4434	-14.2	-0.18	-0.04
53	SLU 55	1	541	4455	-14.67	-0.15	-0.04
53	SLU 56	1	509	4402	-13.48	-0.23	-0.04
53	SLU 57	1	528	4434	-14.2	-0.18	-0.04
53	SLU 58	1	509	4402	-13.48	-0.23	-0.04
53	SLU 59	1	528	4434	-14.2	-0.18	-0.04
53	SLU 60	2	623	5128	-16.63	-0.23	-0.05
53	SLU 61	2	642	5160	-17.34	-0.18	-0.05
53	SLU 62	2	623	5128	-16.63	-0.23	-0.05
53	SLU 63	2	642	5160	-17.34	-0.18	-0.05
53	SLU 64	1	356	3470	-9.22	-0.29	-0.03
53	SLU 65	1	388	3522	-10.4	-0.2	-0.03
53	SLU 66	1	356	3470	-9.22	-0.29	-0.03
53	SLU 67	1	376	3501	-9.93	-0.23	-0.03
53	SLU 68	1	388	3522	-10.4	-0.2	-0.03
53	SLU 69	1	356	3470	-9.22	-0.29	-0.03
53	SLU 70	1	376	3501	-9.93	-0.23	-0.03
53	SLU 71	1	356	3470	-9.22	-0.29	-0.03
53	SLU 72	1	376	3501	-9.93	-0.23	-0.03
53	SLU 73	2	653	5216	-17.74	-0.19	-0.04
53	SLU 74	1	622	5163	-16.55	-0.28	-0.04
53	SLU 75	2	641	5195	-17.26	-0.22	-0.04
53	SLU 76	2	653	5216	-17.74	-0.19	-0.04
53	SLU 77	1	622	5163	-16.55	-0.28	-0.04
53	SLU 78	2	641	5195	-17.26	-0.22	-0.04
53	SLU 79	1	622	5163	-16.55	-0.28	-0.04
53	SLU 80	2	641	5195	-17.26	-0.22	-0.04
53	SLU 81	2	735	5889	-19.7	-0.27	-0.05
53	SLU 82	2	754	5921	-20.41	-0.22	-0.05
53	SLU 83	2	735	5889	-19.7	-0.27	-0.05
53	SLU 84	2	754	5921	-20.41	-0.22	-0.05
53	SLE RA 1	0	249	2502	-6.41	-0.21	-0.02
53	SLE RA 2	0	271	2537	-7.21	-0.15	-0.02
53	SLE RA 3	0	249	2502	-6.41	-0.21	-0.02
53	SLE RA 4	0	262	2523	-6.89	-0.18	-0.02
53	SLE RA 5	0	271	2537	-7.21	-0.15	-0.02
53	SLE RA 6	0	249	2502	-6.41	-0.21	-0.02
53	SLE RA 7	0	262	2523	-6.89	-0.18	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
53	SLE RA 8	0	249	2502	-6.41	-0.21	-0.02
53	SLE RA 9	0	262	2523	-6.89	-0.18	-0.02
53	SLE RA 10	1	448	3666	-12.1	-0.15	-0.03
53	SLE RA 11	1	426	3631	-11.31	-0.2	-0.03
53	SLE RA 12	1	439	3652	-11.78	-0.17	-0.03
53	SLE RA 13	1	448	3666	-12.1	-0.15	-0.03
53	SLE RA 14	1	426	3631	-11.31	-0.2	-0.03
53	SLE RA 15	1	439	3652	-11.78	-0.17	-0.03
53	SLE RA 16	1	426	3631	-11.31	-0.2	-0.03
53	SLE RA 17	1	439	3652	-11.78	-0.17	-0.03
53	SLE RA 18	1	502	4115	-13.4	-0.2	-0.04
53	SLE RA 19	1	515	4136	-13.88	-0.17	-0.04
53	SLE RA 20	1	502	4115	-13.4	-0.2	-0.04
53	SLE RA 21	1	515	4136	-13.88	-0.17	-0.04
53	SLE FR 1	0	249	2502	-6.41	-0.21	-0.02
53	SLE FR 2	0	254	2509	-6.57	-0.2	-0.02
53	SLE FR 3	0	249	2502	-6.41	-0.21	-0.02
53	SLE FR 4	1	330	2993	-8.67	-0.2	-0.02
53	SLE FR 5	1	325	2986	-8.51	-0.21	-0.02
53	SLE FR 6	1	376	3308	-9.91	-0.21	-0.03
53	SLE QP 1	0	249	2502	-6.41	-0.21	-0.02
53	SLE QP 2	1	325	2986	-8.51	-0.21	-0.02
53	SLD 1	2	349	2989	-9.32	1.42	-0.02
53	SLD 2	2	349	2989	-9.32	1.42	-0.02
53	SLD 3	11	204	2725	-3.99	4.72	-0.09
53	SLD 4	11	204	2725	-3.99	4.72	-0.09
53	SLD 5	-12	553	3387	-16.84	-4.72	0.08
53	SLD 6	-12	553	3387	-16.84	-4.72	0.08
53	SLD 7	17	69	2507	0.93	6.27	-0.14
53	SLD 8	17	69	2507	0.93	6.27	-0.14
53	SLD 9	-16	582	3464	-17.95	-6.69	0.09
53	SLD 10	-16	582	3464	-17.95	-6.69	0.09
53	SLD 11	14	98	2584	-0.18	4.3	-0.12
53	SLD 12	14	98	2584	-0.18	4.3	-0.12
53	SLD 13	-10	446	3246	-13.03	-5.14	0.04
53	SLD 14	-10	446	3246	-13.03	-5.14	0.04
53	SLD 15	-1	301	2982	-7.7	-1.84	-0.03
53	SLD 16	-1	301	2982	-7.7	-1.84	-0.03
53	SLV 1	3	365	2966	-9.7	3.3	-0.01
53	SLV 2	3	365	2966	-9.7	3.3	-0.01
53	SLV 3	30	28	2355	2.7	13.12	-0.2
53	SLV 4	30	28	2355	2.7	13.12	-0.2
53	SLV 5	-38	848	3906	-27.67	-14.05	0.27
53	SLV 6	-38	848	3906	-27.67	-14.05	0.27
53	SLV 7	49	-275	1870	13.66	18.68	-0.37
53	SLV 8	49	-275	1870	13.66	18.68	-0.37
53	SLV 9	-48	926	4101	-30.68	-19.1	0.32
53	SLV 10	-48	926	4101	-30.68	-19.1	0.32
53	SLV 11	39	-198	2065	10.65	13.63	-0.32
53	SLV 12	39	-198	2065	10.65	13.63	-0.32
53	SLV 13	-28	622	3616	-19.73	-13.53	0.15
53	SLV 14	-28	622	3616	-19.73	-13.53	0.15
53	SLV 15	-2	285	3005	-7.33	-3.72	-0.04
53	SLV 16	-2	285	3005	-7.33	-3.72	-0.04
54	SLU 1	0	52	2056	-1.86	0.42	0
54	SLU 2	0	63	2054	-2.22	-1.27	0
54	SLU 3	0	52	2056	-1.86	0.42	0
54	SLU 4	0	59	2055	-2.08	-0.6	0
54	SLU 5	0	63	2054	-2.22	-1.27	0
54	SLU 6	0	52	2056	-1.86	0.42	0
54	SLU 7	0	59	2055	-2.08	-0.6	0
54	SLU 8	0	52	2056	-1.86	0.42	0
54	SLU 9	0	59	2055	-2.08	-0.6	0
54	SLU 10	0	81	2486	-2.86	-0.44	0
54	SLU 11	0	70	2488	-2.51	1.25	0
54	SLU 12	0	77	2487	-2.72	0.24	0
54	SLU 13	0	81	2486	-2.86	-0.44	0
54	SLU 14	0	70	2488	-2.51	1.25	0
54	SLU 15	0	77	2487	-2.72	0.24	0
54	SLU 16	0	70	2488	-2.51	1.25	0
54	SLU 17	0	77	2487	-2.72	0.24	0
54	SLU 18	1	78	2673	-2.78	1.61	0
54	SLU 19	0	84	2672	-3	0.6	0
54	SLU 20	1	78	2673	-2.78	1.61	0
54	SLU 21	0	84	2672	-3	0.6	0
54	SLU 22	0	61	2277	-2.2	0.74	0
54	SLU 23	0	73	2275	-2.55	-0.95	0
54	SLU 24	0	61	2277	-2.2	0.74	0
54	SLU 25	0	68	2276	-2.41	-0.27	0
54	SLU 26	0	73	2275	-2.55	-0.95	0
54	SLU 27	0	61	2277	-2.2	0.74	0
54	SLU 28	0	68	2276	-2.41	-0.27	0
54	SLU 29	0	61	2277	-2.2	0.74	0
54	SLU 30	0	68	2276	-2.41	-0.27	0
54	SLU 31	0	91	2707	-3.2	-0.11	0
54	SLU 32	1	79	2709	-2.85	1.58	0
54	SLU 33	0	86	2708	-3.06	0.56	0
54	SLU 34	0	91	2707	-3.2	-0.11	0
54	SLU 35	1	79	2709	-2.85	1.58	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
54	SLU 36	0	86	2708	-3.06	0.56	0
54	SLU 37	1	79	2709	-2.85	1.58	0
54	SLU 38	0	86	2708	-3.06	0.56	0
54	SLU 39	1	87	2894	-3.12	1.93	0
54	SLU 40	0	94	2893	-3.33	0.92	0
54	SLU 41	1	87	2894	-3.12	1.93	0
54	SLU 42	0	94	2893	-3.33	0.92	0
54	SLU 43	0	64	2597	-2.31	0.43	0
54	SLU 44	0	76	2595	-2.66	-1.26	0
54	SLU 45	0	64	2597	-2.31	0.43	0
54	SLU 46	0	71	2596	-2.52	-0.58	0
54	SLU 47	0	76	2595	-2.66	-1.26	0
54	SLU 48	0	64	2597	-2.31	0.43	0
54	SLU 49	0	71	2596	-2.52	-0.58	0
54	SLU 50	0	64	2597	-2.31	0.43	0
54	SLU 51	0	71	2596	-2.52	-0.58	0
54	SLU 52	0	94	3027	-3.3	-0.42	0
54	SLU 53	0	82	3029	-2.95	1.27	0
54	SLU 54	0	89	3028	-3.16	0.25	0
54	SLU 55	0	94	3027	-3.3	-0.42	0
54	SLU 56	0	82	3029	-2.95	1.27	0
54	SLU 57	0	89	3028	-3.16	0.25	0
54	SLU 58	0	82	3029	-2.95	1.27	0
54	SLU 59	0	89	3028	-3.16	0.25	0
54	SLU 60	1	90	3214	-3.23	1.63	0
54	SLU 61	0	97	3213	-3.44	0.61	0
54	SLU 62	1	90	3214	-3.23	1.63	0
54	SLU 63	0	97	3213	-3.44	0.61	0
54	SLU 64	0	74	2818	-2.65	0.76	0
54	SLU 65	0	85	2816	-3	-0.93	0
54	SLU 66	0	74	2818	-2.65	0.76	0
54	SLU 67	0	81	2817	-2.86	-0.26	0
54	SLU 68	0	85	2816	-3	-0.93	0
54	SLU 69	0	74	2818	-2.65	0.76	0
54	SLU 70	0	81	2817	-2.86	-0.26	0
54	SLU 71	0	74	2818	-2.65	0.76	0
54	SLU 72	0	81	2817	-2.86	-0.26	0
54	SLU 73	0	103	3248	-3.64	-0.1	0
54	SLU 74	1	92	3250	-3.29	1.59	0
54	SLU 75	0	98	3249	-3.5	0.58	0
54	SLU 76	0	103	3248	-3.64	-0.1	0
54	SLU 77	1	92	3250	-3.29	1.59	0
54	SLU 78	0	98	3249	-3.5	0.58	0
54	SLU 79	1	92	3250	-3.29	1.59	0
54	SLU 80	0	98	3249	-3.5	0.58	0
54	SLU 81	1	99	3435	-3.57	1.95	0
54	SLU 82	0	106	3434	-3.78	0.93	0
54	SLU 83	1	99	3435	-3.57	1.95	0
54	SLU 84	0	106	3434	-3.78	0.93	0
54	SLE RA 1	0	55	2119	-1.96	0.51	0
54	SLE RA 2	0	62	2118	-2.2	-0.62	0
54	SLE RA 3	0	55	2119	-1.96	0.51	0
54	SLE RA 4	0	59	2118	-2.1	-0.17	0
54	SLE RA 5	0	62	2118	-2.2	-0.62	0
54	SLE RA 6	0	55	2119	-1.96	0.51	0
54	SLE RA 7	0	59	2118	-2.1	-0.17	0
54	SLE RA 8	0	55	2119	-1.96	0.51	0
54	SLE RA 9	0	59	2118	-2.1	-0.17	0
54	SLE RA 10	0	74	2406	-2.62	-0.06	0
54	SLE RA 11	0	67	2407	-2.39	1.07	0
54	SLE RA 12	0	71	2406	-2.53	0.39	0
54	SLE RA 13	0	74	2406	-2.62	-0.06	0
54	SLE RA 14	0	67	2407	-2.39	1.07	0
54	SLE RA 15	0	71	2406	-2.53	0.39	0
54	SLE RA 16	0	67	2407	-2.39	1.07	0
54	SLE RA 17	0	71	2406	-2.53	0.39	0
54	SLE RA 18	0	72	2531	-2.57	1.31	0
54	SLE RA 19	0	76	2530	-2.71	0.63	0
54	SLE RA 20	0	72	2531	-2.57	1.31	0
54	SLE RA 21	0	76	2530	-2.71	0.63	0
54	SLE FR 1	0	55	2119	-1.96	0.51	0
54	SLE FR 2	0	56	2119	-2.01	0.29	0
54	SLE FR 3	0	55	2119	-1.96	0.51	0
54	SLE FR 4	0	61	2243	-2.19	0.52	0
54	SLE FR 5	0	60	2243	-2.14	0.75	0
54	SLE FR 6	0	63	2325	-2.27	0.91	0
54	SLE QP 1	0	55	2119	-1.96	0.51	0
54	SLE QP 2	0	60	2243	-2.14	0.75	0
54	SLD 1	44	30	2292	-1.14	69.02	0
54	SLD 2	44	30	2292	-1.14	69.02	0
54	SLD 3	48	-36	2302	1.22	72.98	0.01
54	SLD 4	48	-36	2302	1.22	72.98	0.01
54	SLD 5	7	151	2242	-5.42	15.22	0
54	SLD 6	7	151	2242	-5.42	15.22	0
54	SLD 7	21	-69	2276	2.44	28.42	0.01
54	SLD 8	21	-69	2276	2.44	28.42	0.01
54	SLD 9	-21	189	2210	-6.73	-26.92	-0.01
54	SLD 10	-21	189	2210	-6.73	-26.92	-0.01
54	SLD 11	-7	-31	2244	1.13	-13.73	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
54	SLD 12	-7	-31	2244	1.13	-13.73	0
54	SLD 13	-48	155	2184	-5.51	-71.48	-0.01
54	SLD 14	-48	155	2184	-5.51	-71.48	-0.01
54	SLD 15	-44	89	2194	-3.15	-67.52	0
54	SLD 16	-44	89	2194	-3.15	-67.52	0
54	SLV 1	112	-16	2365	0.42	174.83	0.01
54	SLV 2	112	-16	2365	0.42	174.83	0.01
54	SLV 3	123	-173	2390	6.01	184.79	0.01
54	SLV 4	123	-173	2390	6.01	184.79	0.01
54	SLV 5	18	276	2241	-9.86	37.87	-0.01
54	SLV 6	18	276	2241	-9.86	37.87	-0.01
54	SLV 7	53	-249	2326	8.79	71.07	0.01
54	SLV 8	53	-249	2326	8.79	71.07	0.01
54	SLV 9	-52	368	2160	-13.08	-69.57	-0.01
54	SLV 10	-52	368	2160	-13.08	-69.57	-0.01
54	SLV 11	-17	-156	2245	5.57	-36.37	0.01
54	SLV 12	-17	-156	2245	5.57	-36.37	0.01
54	SLV 13	-122	292	2096	-10.3	-183.29	-0.01
54	SLV 14	-122	292	2096	-10.3	-183.29	-0.01
54	SLV 15	-112	135	2121	-4.71	-173.33	-0.01
54	SLV 16	-112	135	2121	-4.71	-173.33	-0.01
55	SLU 1	3	9	1766	-0.71	0.79	-0.02
55	SLU 2	0	38	1764	-1.77	-0.52	-0.02
55	SLU 3	3	9	1766	-0.71	0.79	-0.02
55	SLU 4	1	27	1765	-1.34	0	-0.02
55	SLU 5	0	38	1764	-1.77	-0.52	-0.02
55	SLU 6	3	9	1766	-0.71	0.79	-0.02
55	SLU 7	1	27	1765	-1.34	0	-0.02
55	SLU 8	3	9	1766	-0.71	0.79	-0.02
55	SLU 9	1	27	1765	-1.34	0	-0.02
55	SLU 10	1	32	2364	-2.06	-0.38	-0.02
55	SLU 11	4	2	2365	-1	0.92	-0.02
55	SLU 12	2	20	2364	-1.63	0.14	-0.02
55	SLU 13	1	32	2364	-2.06	-0.38	-0.02
55	SLU 14	4	2	2365	-1	0.92	-0.02
55	SLU 15	2	20	2364	-1.63	0.14	-0.02
55	SLU 16	4	2	2365	-1	0.92	-0.02
55	SLU 17	2	20	2364	-1.63	0.14	-0.02
55	SLU 18	4	-1	2622	-1.12	0.98	-0.02
55	SLU 19	2	17	2621	-1.76	0.2	-0.02
55	SLU 20	4	-1	2622	-1.12	0.98	-0.02
55	SLU 21	2	17	2621	-1.76	0.2	-0.02
55	SLU 22	3	15	2040	-1.06	0.95	-0.02
55	SLU 23	1	44	2039	-2.13	-0.35	-0.02
55	SLU 24	3	15	2040	-1.06	0.95	-0.02
55	SLU 25	2	32	2039	-1.7	0.17	-0.02
55	SLU 26	1	44	2039	-2.13	-0.35	-0.02
55	SLU 27	3	15	2040	-1.06	0.95	-0.02
55	SLU 28	2	32	2039	-1.7	0.17	-0.02
55	SLU 29	3	15	2040	-1.06	0.95	-0.02
55	SLU 30	2	32	2039	-1.7	0.17	-0.02
55	SLU 31	1	37	2638	-2.42	-0.22	-0.03
55	SLU 32	4	8	2639	-1.35	1.08	-0.03
55	SLU 33	3	25	2639	-1.99	0.3	-0.03
55	SLU 34	1	37	2638	-2.42	-0.22	-0.03
55	SLU 35	4	8	2639	-1.35	1.08	-0.03
55	SLU 36	3	25	2639	-1.99	0.3	-0.03
55	SLU 37	4	8	2639	-1.35	1.08	-0.03
55	SLU 38	3	25	2639	-1.99	0.3	-0.03
55	SLU 39	5	5	2896	-1.48	1.14	-0.03
55	SLU 40	3	23	2895	-2.12	0.36	-0.03
55	SLU 41	5	5	2896	-1.48	1.14	-0.03
55	SLU 42	3	23	2895	-2.12	0.36	-0.03
55	SLU 43	3	10	2201	-0.8	0.97	-0.02
55	SLU 44	1	39	2200	-1.86	-0.34	-0.02
55	SLU 45	3	10	2201	-0.8	0.97	-0.02
55	SLU 46	2	27	2201	-1.43	0.18	-0.02
55	SLU 47	1	39	2200	-1.86	-0.34	-0.02
55	SLU 48	3	10	2201	-0.8	0.97	-0.02
55	SLU 49	2	27	2201	-1.43	0.18	-0.02
55	SLU 50	3	10	2201	-0.8	0.97	-0.02
55	SLU 51	2	27	2201	-1.43	0.18	-0.02
55	SLU 52	1	32	2799	-2.15	-0.2	-0.03
55	SLU 53	4	3	2801	-1.09	1.1	-0.03
55	SLU 54	3	21	2800	-1.72	0.32	-0.03
55	SLU 55	1	32	2799	-2.15	-0.2	-0.03
55	SLU 56	4	3	2801	-1.09	1.1	-0.03
55	SLU 57	3	21	2800	-1.72	0.32	-0.03
55	SLU 58	4	3	2801	-1.09	1.1	-0.03
55	SLU 59	3	21	2800	-1.72	0.32	-0.03
55	SLU 60	5	0	3057	-1.21	1.16	-0.03
55	SLU 61	3	18	3057	-1.85	0.38	-0.03
55	SLU 62	5	0	3057	-1.21	1.16	-0.03
55	SLU 63	3	18	3057	-1.85	0.38	-0.03
55	SLU 64	4	15	2476	-1.15	1.13	-0.03
55	SLU 65	1	45	2475	-2.21	-0.17	-0.03
55	SLU 66	4	15	2476	-1.15	1.13	-0.03
55	SLU 67	2	33	2475	-1.79	0.35	-0.03
55	SLU 68	1	45	2475	-2.21	-0.17	-0.03





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
55	SLU 69	4	15	2476	-1.15	1.13	-0.03
55	SLU 70	2	33	2475	-1.79	0.35	-0.03
55	SLU 71	4	15	2476	-1.15	1.13	-0.03
55	SLU 72	2	33	2475	-1.79	0.35	-0.03
55	SLU 73	2	38	3074	-2.51	-0.04	-0.03
55	SLU 74	5	9	3075	-1.44	1.26	-0.03
55	SLU 75	3	26	3074	-2.08	0.48	-0.03
55	SLU 76	2	38	3074	-2.51	-0.04	-0.03
55	SLU 77	5	9	3075	-1.44	1.26	-0.03
55	SLU 78	3	26	3074	-2.08	0.48	-0.03
55	SLU 79	5	9	3075	-1.44	1.26	-0.03
55	SLU 80	3	26	3074	-2.08	0.48	-0.03
55	SLU 81	5	6	3332	-1.57	1.32	-0.03
55	SLU 82	4	23	3331	-2.21	0.54	-0.03
55	SLU 83	5	6	3332	-1.57	1.32	-0.03
55	SLU 84	4	23	3331	-2.21	0.54	-0.03
55	SLE RA 1	3	11	1844	-0.81	0.83	-0.02
55	SLE RA 2	1	30	1843	-1.52	-0.04	-0.02
55	SLE RA 3	3	11	1844	-0.81	0.83	-0.02
55	SLE RA 4	2	22	1844	-1.23	0.31	-0.02
55	SLE RA 5	1	30	1843	-1.52	-0.04	-0.02
55	SLE RA 6	3	11	1844	-0.81	0.83	-0.02
55	SLE RA 7	2	22	1844	-1.23	0.31	-0.02
55	SLE RA 8	3	11	1844	-0.81	0.83	-0.02
55	SLE RA 9	2	22	1844	-1.23	0.31	-0.02
55	SLE RA 10	2	26	2243	-1.71	0.05	-0.02
55	SLE RA 11	4	6	2244	-1	0.92	-0.02
55	SLE RA 12	2	18	2243	-1.43	0.4	-0.02
55	SLE RA 13	2	26	2243	-1.71	0.05	-0.02
55	SLE RA 14	4	6	2244	-1	0.92	-0.02
55	SLE RA 15	2	18	2243	-1.43	0.4	-0.02
55	SLE RA 16	4	6	2244	-1	0.92	-0.02
55	SLE RA 17	2	18	2243	-1.43	0.4	-0.02
55	SLE RA 18	4	4	2415	-1.08	0.96	-0.02
55	SLE RA 19	3	16	2414	-1.51	0.44	-0.02
55	SLE RA 20	4	4	2415	-1.08	0.96	-0.02
55	SLE RA 21	3	16	2414	-1.51	0.44	-0.02
55	SLE FR 1	3	11	1844	-0.81	0.83	-0.02
55	SLE FR 2	3	15	1844	-0.95	0.66	-0.02
55	SLE FR 3	3	11	1844	-0.81	0.83	-0.02
55	SLE FR 4	3	13	2015	-1.03	0.7	-0.02
55	SLE FR 5	3	9	2015	-0.89	0.87	-0.02
55	SLE FR 6	3	7	2129	-0.95	0.9	-0.02
55	SLE QP 1	3	11	1844	-0.81	0.83	-0.02
55	SLE QP 2	3	9	2015	-0.89	0.87	-0.02
55	SLD 1	-3	75	2096	-3.16	0.7	-0.03
55	SLD 2	-3	75	2096	-3.16	0.7	-0.03
55	SLD 3	-9	3	2134	-0.54	-2.34	-0.03
55	SLD 4	-9	3	2134	-0.54	-2.34	-0.03
55	SLD 5	10	139	1982	-5.55	5.44	-0.01
55	SLD 6	10	139	1982	-5.55	5.44	-0.01
55	SLD 7	-9	-103	2109	3.2	-4.71	-0.03
55	SLD 8	-9	-103	2109	3.2	-4.71	-0.03
55	SLD 9	15	120	1922	-4.98	6.46	-0.01
55	SLD 10	15	120	1922	-4.98	6.46	-0.01
55	SLD 11	-3	-121	2049	3.77	-3.7	-0.03
55	SLD 12	-3	-121	2049	3.77	-3.7	-0.03
55	SLD 13	15	14	1896	-1.25	4.09	-0.01
55	SLD 14	15	14	1896	-1.25	4.09	-0.01
55	SLD 15	9	-58	1935	1.38	1.04	-0.01
55	SLD 16	9	-58	1935	1.38	1.04	-0.01
55	SLV 1	-11	177	2200	-6.62	0.72	-0.04
55	SLV 2	-11	177	2200	-6.62	0.72	-0.04
55	SLV 3	-27	-15	2308	0.3	-7.74	-0.05
55	SLV 4	-27	-15	2308	0.3	-7.74	-0.05
55	SLV 5	24	350	1906	-13.11	13.64	0
55	SLV 6	24	350	1906	-13.11	13.64	0
55	SLV 7	-31	-289	2267	9.97	-14.53	-0.05
55	SLV 8	-31	-289	2267	9.97	-14.53	-0.05
55	SLV 9	37	307	1763	-11.75	16.27	0.01
55	SLV 10	37	307	1763	-11.75	16.27	0.01
55	SLV 11	-17	-333	2124	11.33	-11.9	-0.04
55	SLV 12	-17	-333	2124	11.33	-11.9	-0.04
55	SLV 13	34	32	1723	-2.08	9.48	0.01
55	SLV 14	34	32	1723	-2.08	9.48	0.01
55	SLV 15	18	-160	1831	4.84	1.03	0
55	SLV 16	18	-160	1831	4.84	1.03	0
56	SLU 1	0	33	2057	-1.18	0.47	0
56	SLU 2	0	45	2055	-1.65	-1.39	0
56	SLU 3	0	33	2057	-1.18	0.47	0
56	SLU 4	0	40	2056	-1.47	-0.65	0
56	SLU 5	0	45	2055	-1.65	-1.39	0
56	SLU 6	0	33	2057	-1.18	0.47	0
56	SLU 7	0	40	2056	-1.47	-0.65	0
56	SLU 8	0	33	2057	-1.18	0.47	0
56	SLU 9	0	40	2056	-1.47	-0.65	0
56	SLU 10	0	58	2488	-2.12	-0.52	0
56	SLU 11	0	46	2489	-1.65	1.34	0
56	SLU 12	0	53	2489	-1.93	0.22	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
56	SLU 13	0	58	2488	-2.12	-0.52	0
56	SLU 14	0	46	2489	-1.65	1.34	0
56	SLU 15	0	53	2489	-1.93	0.22	0
56	SLU 16	0	46	2489	-1.65	1.34	0
56	SLU 17	0	53	2489	-1.93	0.22	0
56	SLU 18	1	51	2675	-1.85	1.71	0
56	SLU 19	0	59	2674	-2.13	0.59	0
56	SLU 20	1	51	2675	-1.85	1.71	0
56	SLU 21	0	59	2674	-2.13	0.59	0
56	SLU 22	0	40	2278	-1.43	0.81	0
56	SLU 23	0	52	2277	-1.9	-1.06	0
56	SLU 24	0	40	2278	-1.43	0.81	0
56	SLU 25	0	47	2277	-1.71	-0.31	0
56	SLU 26	0	52	2277	-1.9	-1.06	0
56	SLU 27	0	40	2278	-1.43	0.81	0
56	SLU 28	0	47	2277	-1.71	-0.31	0
56	SLU 29	0	40	2278	-1.43	0.81	0
56	SLU 30	0	47	2277	-1.71	-0.31	0
56	SLU 31	0	65	2709	-2.37	-0.19	0
56	SLU 32	1	53	2711	-1.9	1.68	0
56	SLU 33	0	60	2710	-2.18	0.56	0
56	SLU 34	0	65	2709	-2.37	-0.19	0
56	SLU 35	1	53	2711	-1.9	1.68	0
56	SLU 36	0	60	2710	-2.18	0.56	0
56	SLU 37	1	53	2711	-1.9	1.68	0
56	SLU 38	0	60	2710	-2.18	0.56	0
56	SLU 39	1	58	2896	-2.1	2.05	0
56	SLU 40	0	66	2895	-2.38	0.93	0
56	SLU 41	1	58	2896	-2.1	2.05	0
56	SLU 42	0	66	2895	-2.38	0.93	0
56	SLU 43	0	40	2598	-1.45	0.49	0
56	SLU 44	0	53	2596	-1.92	-1.37	0
56	SLU 45	0	40	2598	-1.45	0.49	0
56	SLU 46	0	48	2597	-1.74	-0.62	0
56	SLU 47	0	53	2596	-1.92	-1.37	0
56	SLU 48	0	40	2598	-1.45	0.49	0
56	SLU 49	0	48	2597	-1.74	-0.62	0
56	SLU 50	0	40	2598	-1.45	0.49	0
56	SLU 51	0	48	2597	-1.74	-0.62	0
56	SLU 52	0	66	3029	-2.39	-0.5	0
56	SLU 53	1	53	3031	-1.92	1.36	0
56	SLU 54	0	61	3030	-2.2	0.25	0
56	SLU 55	0	66	3029	-2.39	-0.5	0
56	SLU 56	1	53	3031	-1.92	1.36	0
56	SLU 57	0	61	3030	-2.2	0.25	0
56	SLU 58	1	53	3031	-1.92	1.36	0
56	SLU 59	0	61	3030	-2.2	0.25	0
56	SLU 60	1	59	3216	-2.12	1.74	0
56	SLU 61	0	66	3215	-2.4	0.62	0
56	SLU 62	1	59	3216	-2.12	1.74	0
56	SLU 63	0	66	3215	-2.4	0.62	0
56	SLU 64	0	47	2819	-1.7	0.83	0
56	SLU 65	0	60	2818	-2.17	-1.03	0
56	SLU 66	0	47	2819	-1.7	0.83	0
56	SLU 67	0	55	2818	-1.98	-0.29	0
56	SLU 68	0	60	2818	-2.17	-1.03	0
56	SLU 69	0	47	2819	-1.7	0.83	0
56	SLU 70	0	55	2818	-1.98	-0.29	0
56	SLU 71	0	47	2819	-1.7	0.83	0
56	SLU 72	0	55	2818	-1.98	-0.29	0
56	SLU 73	0	73	3251	-2.64	-0.16	0
56	SLU 74	1	60	3252	-2.17	1.7	0
56	SLU 75	0	68	3251	-2.45	0.58	0
56	SLU 76	0	73	3251	-2.64	-0.16	0
56	SLU 77	1	60	3252	-2.17	1.7	0
56	SLU 78	0	68	3251	-2.45	0.58	0
56	SLU 79	1	60	3252	-2.17	1.7	0
56	SLU 80	0	68	3251	-2.45	0.58	0
56	SLU 81	1	66	3437	-2.37	2.07	0
56	SLU 82	0	73	3437	-2.65	0.96	0
56	SLU 83	1	66	3437	-2.37	2.07	0
56	SLU 84	0	73	3437	-2.65	0.96	0
56	SLE RA 1	0	35	2120	-1.25	0.57	0
56	SLE RA 2	0	43	2119	-1.57	-0.68	0
56	SLE RA 3	0	35	2120	-1.25	0.57	0
56	SLE RA 4	0	40	2119	-1.44	-0.18	0
56	SLE RA 5	0	43	2119	-1.57	-0.68	0
56	SLE RA 6	0	35	2120	-1.25	0.57	0
56	SLE RA 7	0	40	2119	-1.44	-0.18	0
56	SLE RA 8	0	35	2120	-1.25	0.57	0
56	SLE RA 9	0	40	2119	-1.44	-0.18	0
56	SLE RA 10	0	52	2408	-1.88	-0.1	0
56	SLE RA 11	0	43	2408	-1.56	1.15	0
56	SLE RA 12	0	48	2408	-1.75	0.4	0
56	SLE RA 13	0	52	2408	-1.88	-0.1	0
56	SLE RA 14	0	43	2408	-1.56	1.15	0
56	SLE RA 15	0	48	2408	-1.75	0.4	0
56	SLE RA 16	0	43	2408	-1.56	1.15	0
56	SLE RA 17	0	48	2408	-1.75	0.4	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
56	SLE RA 18	1	47	2532	-1.7	1.39	0
56	SLE RA 19	0	52	2532	-1.89	0.65	0
56	SLE RA 20	1	47	2532	-1.7	1.39	0
56	SLE RA 21	0	52	2532	-1.89	0.65	0
56	SLE FR 1	0	35	2120	-1.25	0.57	0
56	SLE FR 2	0	36	2120	-1.32	0.32	0
56	SLE FR 3	0	35	2120	-1.25	0.57	0
56	SLE FR 4	0	40	2243	-1.45	0.57	0
56	SLE FR 5	0	38	2244	-1.39	0.81	0
56	SLE FR 6	0	41	2326	-1.47	0.98	0
56	SLE QP 1	0	35	2120	-1.25	0.57	0
56	SLE QP 2	0	38	2244	-1.39	0.81	0
56	SLD 1	49	11	2289	-0.34	74.24	0
56	SLD 2	49	11	2289	-0.34	74.24	0
56	SLD 3	52	-56	2298	2.08	77.07	0
56	SLD 4	52	-56	2298	2.08	77.07	0
56	SLD 5	10	131	2244	-4.74	18.55	0
56	SLD 6	10	131	2244	-4.74	18.55	0
56	SLD 7	20	-91	2274	3.32	27.98	0.01
56	SLD 8	20	-91	2274	3.32	27.98	0.01
56	SLD 9	-20	168	2214	-6.09	-26.35	-0.01
56	SLD 10	-20	168	2214	-6.09	-26.35	-0.01
56	SLD 11	-10	-54	2244	1.97	-16.93	0
56	SLD 12	-10	-54	2244	1.97	-16.93	0
56	SLD 13	-51	133	2189	-4.85	-75.44	0
56	SLD 14	-51	133	2189	-4.85	-75.44	0
56	SLD 15	-48	66	2198	-2.43	-72.61	0
56	SLD 16	-48	66	2198	-2.43	-72.61	0
56	SLV 1	123	-32	2357	1.27	188.04	0.01
56	SLV 2	123	-32	2357	1.27	188.04	0.01
56	SLV 3	131	-192	2379	7.05	195.15	0.01
56	SLV 4	131	-192	2379	7.05	195.15	0.01
56	SLV 5	26	259	2243	-9.36	46.21	-0.01
56	SLV 6	26	259	2243	-9.36	46.21	-0.01
56	SLV 7	51	-272	2318	9.92	69.89	0.01
56	SLV 8	51	-272	2318	9.92	69.89	0.01
56	SLV 9	-50	349	2169	-12.69	-68.26	-0.01
56	SLV 10	-50	349	2169	-12.69	-68.26	-0.01
56	SLV 11	-25	-182	2244	6.59	-44.58	0.01
56	SLV 12	-25	-182	2244	6.59	-44.58	0.01
56	SLV 13	-130	268	2108	-9.83	-193.52	-0.01
56	SLV 14	-130	268	2108	-9.83	-193.52	-0.01
56	SLV 15	-122	109	2130	-4.04	-186.41	-0.01
56	SLV 16	-122	109	2130	-4.04	-186.41	-0.01
57	SLU 1	195	-28	2305	1.24	6.18	0
57	SLU 2	195	3	2316	0.28	6.15	0
57	SLU 3	195	-28	2305	1.24	6.18	0
57	SLU 4	195	-9	2312	0.67	6.16	0
57	SLU 5	195	3	2316	0.28	6.15	0
57	SLU 6	195	-28	2305	1.24	6.18	0
57	SLU 7	195	-9	2312	0.67	6.16	0
57	SLU 8	195	-28	2305	1.24	6.18	0
57	SLU 9	195	-9	2312	0.67	6.16	0
57	SLU 10	243	-21	3055	1.46	7.56	0
57	SLU 11	243	-51	3044	2.42	7.59	0
57	SLU 12	243	-33	3050	1.84	7.57	0
57	SLU 13	243	-21	3055	1.46	7.56	0
57	SLU 14	243	-51	3044	2.42	7.59	0
57	SLU 15	243	-33	3050	1.84	7.57	0
57	SLU 16	243	-51	3044	2.42	7.59	0
57	SLU 17	243	-33	3050	1.84	7.57	0
57	SLU 18	264	-61	3360	2.92	8.2	0
57	SLU 19	264	-43	3367	2.34	8.18	0
57	SLU 20	264	-61	3360	2.92	8.2	0
57	SLU 21	264	-43	3367	2.34	8.18	0
57	SLU 22	237	-37	2677	1.71	7.58	0
57	SLU 23	237	-7	2688	0.75	7.55	0
57	SLU 24	237	-37	2677	1.71	7.58	0
57	SLU 25	237	-19	2683	1.13	7.56	0
57	SLU 26	237	-7	2688	0.75	7.55	0
57	SLU 27	237	-37	2677	1.71	7.58	0
57	SLU 28	237	-19	2683	1.13	7.56	0
57	SLU 29	237	-37	2677	1.71	7.58	0
57	SLU 30	237	-19	2683	1.13	7.56	0
57	SLU 31	285	-30	3427	1.92	8.96	0
57	SLU 32	285	-60	3415	2.88	9	0
57	SLU 33	285	-42	3422	2.31	8.98	0
57	SLU 34	285	-30	3427	1.92	8.96	0
57	SLU 35	285	-60	3415	2.88	9	0
57	SLU 36	285	-42	3422	2.31	8.98	0
57	SLU 37	285	-60	3415	2.88	9	0
57	SLU 38	285	-42	3422	2.31	8.98	0
57	SLU 39	306	-70	3732	3.38	9.6	0
57	SLU 40	306	-52	3739	2.81	9.58	0
57	SLU 41	306	-70	3732	3.38	9.6	0
57	SLU 42	306	-52	3739	2.81	9.58	0
57	SLU 43	239	-33	2869	1.46	7.56	0
57	SLU 44	239	-2	2880	0.5	7.52	0
57	SLU 45	239	-33	2869	1.46	7.56	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
57	SLU 46	239	-15	2876	0.88	7.54	0
57	SLU 47	239	-2	2880	0.5	7.52	0
57	SLU 48	239	-33	2869	1.46	7.56	0
57	SLU 49	239	-15	2876	0.88	7.54	0
57	SLU 50	239	-33	2869	1.46	7.56	0
57	SLU 51	239	-15	2876	0.88	7.54	0
57	SLU 52	287	-26	3619	1.67	8.93	0
57	SLU 53	287	-56	3608	2.63	8.97	0
57	SLU 54	287	-38	3614	2.05	8.95	0
57	SLU 55	287	-26	3619	1.67	8.93	0
57	SLU 56	287	-56	3608	2.63	8.97	0
57	SLU 57	287	-38	3614	2.05	8.95	0
57	SLU 58	287	-56	3608	2.63	8.97	0
57	SLU 59	287	-38	3614	2.05	8.95	0
57	SLU 60	308	-66	3924	3.13	9.57	0
57	SLU 61	308	-48	3931	2.56	9.55	0
57	SLU 62	308	-66	3924	3.13	9.57	0
57	SLU 63	308	-48	3931	2.56	9.55	0
57	SLU 64	281	-42	3241	1.92	8.96	0
57	SLU 65	281	-12	3252	0.96	8.92	0
57	SLU 66	281	-42	3241	1.92	8.96	0
57	SLU 67	281	-24	3247	1.35	8.94	0
57	SLU 68	281	-12	3252	0.96	8.92	0
57	SLU 69	281	-42	3241	1.92	8.96	0
57	SLU 70	281	-24	3247	1.35	8.94	0
57	SLU 71	281	-42	3241	1.92	8.96	0
57	SLU 72	281	-24	3247	1.35	8.94	0
57	SLU 73	329	-35	3991	2.14	10.34	0
57	SLU 74	329	-65	3979	3.1	10.37	0
57	SLU 75	329	-47	3986	2.52	10.35	0
57	SLU 76	329	-35	3991	2.14	10.34	0
57	SLU 77	329	-65	3979	3.1	10.37	0
57	SLU 78	329	-47	3986	2.52	10.35	0
57	SLU 79	329	-65	3979	3.1	10.37	0
57	SLU 80	329	-47	3986	2.52	10.35	0
57	SLU 81	350	-76	4296	3.6	10.98	0
57	SLU 82	350	-57	4303	3.02	10.95	0
57	SLU 83	350	-76	4296	3.6	10.98	0
57	SLU 84	350	-57	4303	3.02	10.95	0
57	SLE RA 1	207	-30	2411	1.38	6.58	0
57	SLE RA 2	207	-10	2419	0.74	6.56	0
57	SLE RA 3	207	-30	2411	1.38	6.58	0
57	SLE RA 4	207	-18	2416	0.99	6.57	0
57	SLE RA 5	207	-10	2419	0.74	6.56	0
57	SLE RA 6	207	-30	2411	1.38	6.58	0
57	SLE RA 7	207	-18	2416	0.99	6.57	0
57	SLE RA 8	207	-30	2411	1.38	6.58	0
57	SLE RA 9	207	-18	2416	0.99	6.57	0
57	SLE RA 10	239	-26	2911	1.52	7.5	0
57	SLE RA 11	239	-46	2904	2.16	7.52	0
57	SLE RA 12	239	-34	2908	1.77	7.51	0
57	SLE RA 13	239	-26	2911	1.52	7.5	0
57	SLE RA 14	239	-46	2904	2.16	7.52	0
57	SLE RA 15	239	-34	2908	1.77	7.51	0
57	SLE RA 16	239	-46	2904	2.16	7.52	0
57	SLE RA 17	239	-34	2908	1.77	7.51	0
57	SLE RA 18	253	-53	3115	2.49	7.93	0
57	SLE RA 19	253	-41	3119	2.11	7.91	0
57	SLE RA 20	253	-53	3115	2.49	7.93	0
57	SLE RA 21	253	-41	3119	2.11	7.91	0
57	SLE FR 1	207	-30	2411	1.38	6.58	0
57	SLE FR 2	207	-26	2413	1.25	6.58	0
57	SLE FR 3	207	-30	2411	1.38	6.58	0
57	SLE FR 4	221	-33	2624	1.58	6.98	0
57	SLE FR 5	221	-37	2622	1.71	6.99	0
57	SLE FR 6	230	-41	2763	1.94	7.26	0
57	SLE QP 1	207	-30	2411	1.38	6.58	0
57	SLE QP 2	221	-37	2622	1.71	6.99	0
57	SLD 1	288	20	2818	-0.35	3.88	0.01
57	SLD 2	288	20	2818	-0.35	3.88	0.01
57	SLD 3	294	-53	2843	2.23	4.16	0
57	SLD 4	294	-53	2843	2.23	4.16	0
57	SLD 5	231	92	2644	-2.83	5.62	0.01
57	SLD 6	231	92	2644	-2.83	5.62	0.01
57	SLD 7	252	-153	2726	5.79	6.57	-0.01
57	SLD 8	252	-153	2726	5.79	6.57	-0.01
57	SLD 9	189	79	2519	-2.36	7.4	0.01
57	SLD 10	189	79	2519	-2.36	7.4	0.01
57	SLD 11	210	-166	2601	6.25	8.35	-0.01
57	SLD 12	210	-166	2601	6.25	8.35	-0.01
57	SLD 13	147	-21	2401	1.19	9.81	0
57	SLD 14	147	-21	2401	1.19	9.81	0
57	SLD 15	153	-94	2426	3.78	10.09	-0.01
57	SLD 16	153	-94	2426	3.78	10.09	-0.01
57	SLV 1	380	108	3086	-3.5	-0.45	0.01
57	SLV 2	380	108	3086	-3.5	-0.45	0.01
57	SLV 3	395	-85	3150	3.26	0.24	0
57	SLV 4	395	-85	3150	3.26	0.24	0
57	SLV 5	245	300	2664	-10.11	3.7	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
57	SLV 6	245	300	2664	-10.11	3.7	0.03
57	SLV 7	296	-344	2878	12.43	6.01	-0.02
57	SLV 8	296	-344	2878	12.43	6.01	-0.02
57	SLV 9	145	271	2366	-9.01	7.96	0.02
57	SLV 10	145	271	2366	-9.01	7.96	0.02
57	SLV 11	196	-374	2581	13.53	10.27	-0.03
57	SLV 12	196	-374	2581	13.53	10.27	-0.03
57	SLV 13	46	11	2095	0.16	13.73	0
57	SLV 14	46	11	2095	0.16	13.73	0
57	SLV 15	61	-182	2159	6.92	14.42	-0.02
57	SLV 16	61	-182	2159	6.92	14.42	-0.02
58	SLU 1	207	0	965	0.01	7.53	0
58	SLU 2	202	0	967	0.22	7.18	0
58	SLU 3	207	0	965	0.01	7.53	0
58	SLU 4	204	0	966	0.14	7.32	0
58	SLU 5	202	0	967	0.22	7.18	0
58	SLU 6	207	0	965	0.01	7.53	0
58	SLU 7	204	0	966	0.14	7.32	0
58	SLU 8	207	0	965	0.01	7.53	0
58	SLU 9	204	0	966	0.14	7.32	0
58	SLU 10	239	0	1264	0.23	8.55	0
58	SLU 11	244	0	1263	0.03	8.9	0
58	SLU 12	241	0	1264	0.15	8.69	0
58	SLU 13	239	0	1264	0.23	8.55	0
58	SLU 14	244	0	1263	0.03	8.9	0
58	SLU 15	241	0	1264	0.15	8.69	0
58	SLU 16	244	0	1263	0.03	8.9	0
58	SLU 17	241	0	1264	0.15	8.69	0
58	SLU 18	260	0	1390	0.04	9.49	0
58	SLU 19	257	0	1391	0.16	9.27	0
58	SLU 20	260	0	1390	0.04	9.49	0
58	SLU 21	257	0	1391	0.16	9.27	0
58	SLU 22	259	0	1137	0.02	9.36	0
58	SLU 23	254	0	1139	0.22	9	0
58	SLU 24	259	0	1137	0.02	9.36	0
58	SLU 25	256	0	1138	0.14	9.15	0
58	SLU 26	254	0	1139	0.22	9	0
58	SLU 27	259	0	1137	0.02	9.36	0
58	SLU 28	256	0	1138	0.14	9.15	0
58	SLU 29	259	0	1137	0.02	9.36	0
58	SLU 30	256	0	1138	0.14	9.15	0
58	SLU 31	291	0	1436	0.24	10.37	0
58	SLU 32	296	0	1434	0.04	10.73	0
58	SLU 33	293	0	1435	0.16	10.51	0
58	SLU 34	291	0	1436	0.24	10.37	0
58	SLU 35	296	0	1434	0.04	10.73	0
58	SLU 36	293	0	1435	0.16	10.51	0
58	SLU 37	296	0	1434	0.04	10.73	0
58	SLU 38	293	0	1435	0.16	10.51	0
58	SLU 39	312	0	1562	0.04	11.31	0
58	SLU 40	309	0	1563	0.17	11.1	0
58	SLU 41	312	0	1562	0.04	11.31	0
58	SLU 42	309	0	1563	0.17	11.1	0
58	SLU 43	251	0	1196	0.02	9.17	0
58	SLU 44	246	0	1198	0.22	8.82	0
58	SLU 45	251	0	1196	0.02	9.17	0
58	SLU 46	248	0	1197	0.14	8.96	0
58	SLU 47	246	0	1198	0.22	8.82	0
58	SLU 48	251	0	1196	0.02	9.17	0
58	SLU 49	248	0	1197	0.14	8.96	0
58	SLU 50	251	0	1196	0.02	9.17	0
58	SLU 51	248	0	1197	0.14	8.96	0
58	SLU 52	283	0	1495	0.24	10.18	0
58	SLU 53	288	0	1493	0.03	10.54	0
58	SLU 54	285	0	1494	0.15	10.32	0
58	SLU 55	283	0	1495	0.24	10.18	0
58	SLU 56	288	0	1493	0.03	10.54	0
58	SLU 57	285	0	1494	0.15	10.32	0
58	SLU 58	288	0	1493	0.03	10.54	0
58	SLU 59	285	0	1494	0.15	10.32	0
58	SLU 60	304	0	1621	0.04	11.12	0
58	SLU 61	301	0	1622	0.16	10.91	0
58	SLU 62	304	0	1621	0.04	11.12	0
58	SLU 63	301	0	1622	0.16	10.91	0
58	SLU 64	303	0	1368	0.02	10.99	0
58	SLU 65	298	0	1370	0.23	10.64	0
58	SLU 66	303	0	1368	0.02	10.99	0
58	SLU 67	300	0	1369	0.14	10.78	0
58	SLU 68	298	0	1370	0.23	10.64	0
58	SLU 69	303	0	1368	0.02	10.99	0
58	SLU 70	300	0	1369	0.14	10.78	0
58	SLU 71	303	0	1368	0.02	10.99	0
58	SLU 72	300	0	1369	0.14	10.78	0
58	SLU 73	335	0	1667	0.24	12.01	0
58	SLU 74	340	0	1665	0.04	12.36	0
58	SLU 75	337	0	1666	0.16	12.15	0
58	SLU 76	335	0	1667	0.24	12.01	0
58	SLU 77	340	0	1665	0.04	12.36	0
58	SLU 78	337	0	1666	0.16	12.15	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
58	SLU 79	340	0	1665	0.04	12.36	0
58	SLU 80	337	0	1666	0.16	12.15	0
58	SLU 81	356	0	1792	0.05	12.95	0
58	SLU 82	353	0	1793	0.17	12.73	0
58	SLU 83	356	0	1792	0.05	12.95	0
58	SLU 84	353	0	1793	0.17	12.73	0
58	SLE RA 1	222	0	1014	0.02	8.06	0
58	SLE RA 2	219	0	1016	0.15	7.82	0
58	SLE RA 3	222	0	1014	0.02	8.06	0
58	SLE RA 4	220	0	1015	0.1	7.91	0
58	SLE RA 5	219	0	1016	0.15	7.82	0
58	SLE RA 6	222	0	1014	0.02	8.06	0
58	SLE RA 7	220	0	1015	0.1	7.91	0
58	SLE RA 8	222	0	1014	0.02	8.06	0
58	SLE RA 9	220	0	1015	0.1	7.91	0
58	SLE RA 10	243	0	1214	0.16	8.73	0
58	SLE RA 11	246	0	1213	0.03	8.97	0
58	SLE RA 12	245	0	1213	0.11	8.83	0
58	SLE RA 13	243	0	1214	0.16	8.73	0
58	SLE RA 14	246	0	1213	0.03	8.97	0
58	SLE RA 15	245	0	1213	0.11	8.83	0
58	SLE RA 16	246	0	1213	0.03	8.97	0
58	SLE RA 17	245	0	1213	0.11	8.83	0
58	SLE RA 18	257	0	1297	0.03	9.36	0
58	SLE RA 19	255	0	1298	0.11	9.22	0
58	SLE RA 20	257	0	1297	0.03	9.36	0
58	SLE RA 21	255	0	1298	0.11	9.22	0
58	SLE FR 1	222	0	1014	0.02	8.06	0
58	SLE FR 2	221	0	1015	0.04	8.01	0
58	SLE FR 3	222	0	1014	0.02	8.06	0
58	SLE FR 4	232	0	1100	0.05	8.4	0
58	SLE FR 5	232	0	1099	0.02	8.45	0
58	SLE FR 6	239	0	1156	0.02	8.71	0
58	SLE QP 1	222	0	1014	0.02	8.06	0
58	SLE QP 2	232	0	1099	0.02	8.45	0
58	SLD 1	351	-2	1147	-0.69	13.32	0
58	SLD 2	351	-2	1147	-0.69	13.32	0
58	SLD 3	363	4	1154	0.15	13.96	0.01
58	SLD 4	363	4	1154	0.15	13.96	0.01
58	SLD 5	249	-10	1104	-1.46	8.95	-0.02
58	SLD 6	249	-10	1104	-1.46	8.95	-0.02
58	SLD 7	290	10	1125	1.32	11.06	0.02
58	SLD 8	290	10	1125	1.32	11.06	0.02
58	SLD 9	175	-10	1073	-1.28	5.83	-0.02
58	SLD 10	175	-10	1073	-1.28	5.83	-0.02
58	SLD 11	215	10	1095	1.5	7.95	0.02
58	SLD 12	215	10	1095	1.5	7.95	0.02
58	SLD 13	102	-4	1045	-0.11	2.93	-0.01
58	SLD 14	102	-4	1045	-0.11	2.93	-0.01
58	SLD 15	114	2	1051	0.73	3.57	0
58	SLD 16	114	2	1051	0.73	3.57	0
58	SLV 1	515	-7	1213	-1.96	20.56	-0.01
58	SLV 2	515	-7	1213	-1.96	20.56	-0.01
58	SLV 3	544	11	1229	0.42	22.2	0.02
58	SLV 4	544	11	1229	0.42	22.2	0.02
58	SLV 5	273	-29	1109	-4.19	9.59	-0.05
58	SLV 6	273	-29	1109	-4.19	9.59	-0.05
58	SLV 7	370	31	1163	3.75	15.06	0.06
58	SLV 8	370	31	1163	3.75	15.06	0.06
58	SLV 9	95	-31	1036	-3.71	1.83	-0.06
58	SLV 10	95	-31	1036	-3.71	1.83	-0.06
58	SLV 11	191	29	1090	4.23	7.3	0.05
58	SLV 12	191	29	1090	4.23	7.3	0.05
58	SLV 13	-80	-11	969	-0.38	-5.31	-0.02
58	SLV 14	-80	-11	969	-0.38	-5.31	-0.02
58	SLV 15	-51	7	986	2	-3.67	0.01
58	SLV 16	-51	7	986	2	-3.67	0.01
59	SLU 1	150	0	1017	0.02	5.18	0
59	SLU 2	151	-1	1015	0.36	5.48	0
59	SLU 3	150	0	1017	0.02	5.18	0
59	SLU 4	150	0	1016	0.22	5.36	0
59	SLU 5	151	-1	1015	0.36	5.48	0
59	SLU 6	150	0	1017	0.02	5.18	0
59	SLU 7	150	0	1016	0.22	5.36	0
59	SLU 8	150	0	1017	0.02	5.18	0
59	SLU 9	150	0	1016	0.22	5.36	0
59	SLU 10	168	-1	1320	0.38	6.07	0
59	SLU 11	167	0	1322	0.04	5.77	0
59	SLU 12	168	0	1321	0.24	5.95	0
59	SLU 13	168	-1	1320	0.38	6.07	0
59	SLU 14	167	0	1322	0.04	5.77	0
59	SLU 15	168	0	1321	0.24	5.95	0
59	SLU 16	167	0	1322	0.04	5.77	0
59	SLU 17	168	0	1321	0.24	5.95	0
59	SLU 18	174	0	1453	0.05	6.02	0
59	SLU 19	175	0	1452	0.25	6.2	0
59	SLU 20	174	0	1453	0.05	6.02	0
59	SLU 21	175	0	1452	0.25	6.2	0
59	SLU 22	189	0	1215	0.03	6.5	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
59	SLU 23	190	-1	1212	0.37	6.8	0
59	SLU 24	189	0	1215	0.03	6.5	0
59	SLU 25	190	0	1213	0.23	6.68	0
59	SLU 26	190	-1	1212	0.37	6.8	0
59	SLU 27	189	0	1215	0.03	6.5	0
59	SLU 28	190	0	1213	0.23	6.68	0
59	SLU 29	189	0	1215	0.03	6.5	0
59	SLU 30	190	0	1213	0.23	6.68	0
59	SLU 31	207	-1	1518	0.39	7.39	0
59	SLU 32	206	0	1520	0.05	7.09	0
59	SLU 33	207	0	1519	0.25	7.27	0
59	SLU 34	207	-1	1518	0.39	7.39	0
59	SLU 35	206	0	1520	0.05	7.09	0
59	SLU 36	207	0	1519	0.25	7.27	0
59	SLU 37	206	0	1520	0.05	7.09	0
59	SLU 38	207	0	1519	0.25	7.27	0
59	SLU 39	213	0	1651	0.06	7.34	0
59	SLU 40	214	0	1650	0.26	7.52	0
59	SLU 41	213	0	1651	0.06	7.34	0
59	SLU 42	214	0	1650	0.26	7.52	0
59	SLU 43	181	0	1254	0.02	6.28	0
59	SLU 44	183	-1	1252	0.36	6.58	0
59	SLU 45	181	0	1254	0.02	6.28	0
59	SLU 46	182	0	1253	0.22	6.46	0
59	SLU 47	183	-1	1252	0.36	6.58	0
59	SLU 48	181	0	1254	0.02	6.28	0
59	SLU 49	182	0	1253	0.22	6.46	0
59	SLU 50	181	0	1254	0.02	6.28	0
59	SLU 51	182	0	1253	0.22	6.46	0
59	SLU 52	200	-1	1557	0.38	7.17	0
59	SLU 53	198	0	1560	0.04	6.87	0
59	SLU 54	199	0	1558	0.25	7.05	0
59	SLU 55	200	-1	1557	0.38	7.17	0
59	SLU 56	198	0	1560	0.04	6.87	0
59	SLU 57	199	0	1558	0.25	7.05	0
59	SLU 58	198	0	1560	0.04	6.87	0
59	SLU 59	199	0	1558	0.25	7.05	0
59	SLU 60	205	0	1691	0.05	7.12	0
59	SLU 61	206	0	1689	0.26	7.3	0
59	SLU 62	205	0	1691	0.05	7.12	0
59	SLU 63	206	0	1689	0.26	7.3	0
59	SLU 64	220	0	1452	0.03	7.6	0
59	SLU 65	222	-1	1450	0.37	7.9	0
59	SLU 66	220	0	1452	0.03	7.6	0
59	SLU 67	221	0	1451	0.23	7.78	0
59	SLU 68	222	-1	1450	0.37	7.9	0
59	SLU 69	220	0	1452	0.03	7.6	0
59	SLU 70	221	0	1451	0.23	7.78	0
59	SLU 71	220	0	1452	0.03	7.6	0
59	SLU 72	221	0	1451	0.23	7.78	0
59	SLU 73	239	-1	1755	0.39	8.49	0
59	SLU 74	237	0	1757	0.05	8.19	0
59	SLU 75	238	0	1756	0.26	8.37	0
59	SLU 76	239	-1	1755	0.39	8.49	0
59	SLU 77	237	0	1757	0.05	8.19	0
59	SLU 78	238	0	1756	0.26	8.37	0
59	SLU 79	237	0	1757	0.05	8.19	0
59	SLU 80	238	0	1756	0.26	8.37	0
59	SLU 81	245	0	1888	0.06	8.44	0
59	SLU 82	245	0	1887	0.26	8.62	0
59	SLU 83	245	0	1888	0.06	8.44	0
59	SLU 84	245	0	1887	0.26	8.62	0
59	SLE RA 1	161	0	1073	0.02	5.56	0
59	SLE RA 2	162	0	1072	0.25	5.76	0
59	SLE RA 3	161	0	1073	0.02	5.56	0
59	SLE RA 4	161	0	1073	0.16	5.68	0
59	SLE RA 5	162	0	1072	0.25	5.76	0
59	SLE RA 6	161	0	1073	0.02	5.56	0
59	SLE RA 7	161	0	1073	0.16	5.68	0
59	SLE RA 8	161	0	1073	0.02	5.56	0
59	SLE RA 9	161	0	1073	0.16	5.68	0
59	SLE RA 10	173	0	1276	0.26	6.15	0
59	SLE RA 11	172	0	1277	0.03	5.95	0
59	SLE RA 12	173	0	1276	0.17	6.07	0
59	SLE RA 13	173	0	1276	0.26	6.15	0
59	SLE RA 14	172	0	1277	0.03	5.95	0
59	SLE RA 15	173	0	1276	0.17	6.07	0
59	SLE RA 16	172	0	1277	0.03	5.95	0
59	SLE RA 17	173	0	1276	0.17	6.07	0
59	SLE RA 18	177	0	1364	0.04	6.12	0
59	SLE RA 19	178	0	1363	0.18	6.24	0
59	SLE RA 20	177	0	1364	0.04	6.12	0
59	SLE RA 21	178	0	1363	0.18	6.24	0
59	SLE FR 1	161	0	1073	0.02	5.56	0
59	SLE FR 2	161	0	1073	0.06	5.6	0
59	SLE FR 3	161	0	1073	0.02	5.56	0
59	SLE FR 4	166	0	1160	0.07	5.76	0
59	SLE FR 5	166	0	1161	0.03	5.72	0
59	SLE FR 6	169	0	1219	0.03	5.84	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
59	SLE QP 1	161	0	1073	0.02	5.56	0
59	SLE QP 2	166	0	1161	0.03	5.72	0
59	SLD 1	31	-2	1129	-2.25	-0.07	0.01
59	SLD 2	31	-2	1129	-2.25	-0.07	0.01
59	SLD 3	44	4	1135	0.98	0.68	0
59	SLD 4	44	4	1135	0.98	0.68	0
59	SLD 5	105	-9	1142	-5.56	2.84	0.02
59	SLD 6	105	-9	1142	-5.56	2.84	0.02
59	SLD 7	149	10	1162	5.21	5.35	-0.02
59	SLD 8	149	10	1162	5.21	5.35	-0.02
59	SLD 9	182	-10	1160	-5.16	6.09	0.02
59	SLD 10	182	-10	1160	-5.16	6.09	0.02
59	SLD 11	226	9	1179	5.61	8.6	-0.02
59	SLD 12	226	9	1179	5.61	8.6	-0.02
59	SLD 13	288	-4	1187	-0.93	10.77	0
59	SLD 14	288	-4	1187	-0.93	10.77	0
59	SLD 15	301	2	1193	2.31	11.52	-0.01
59	SLD 16	301	2	1193	2.31	11.52	-0.01
59	SLV 1	-156	-6	1084	-6.58	-8.77	0.02
59	SLV 2	-156	-6	1084	-6.58	-8.77	0.02
59	SLV 3	-125	11	1099	3.07	-6.79	-0.01
59	SLV 4	-125	11	1099	3.07	-6.79	-0.01
59	SLV 5	21	-29	1116	-16.58	-1.62	0.05
59	SLV 6	21	-29	1116	-16.58	-1.62	0.05
59	SLV 7	126	30	1164	15.56	4.96	-0.05
59	SLV 8	126	30	1164	15.56	4.96	-0.05
59	SLV 9	205	-30	1157	-15.51	6.49	0.05
59	SLV 10	205	-30	1157	-15.51	6.49	0.05
59	SLV 11	310	29	1206	16.63	13.06	-0.05
59	SLV 12	310	29	1206	16.63	13.06	-0.05
59	SLV 13	456	-11	1223	-3.02	18.24	0.01
59	SLV 14	456	-11	1223	-3.02	18.24	0.01
59	SLV 15	487	6	1237	6.63	20.22	-0.02
59	SLV 16	487	6	1237	6.63	20.22	-0.02
60	SLU 1	101	0	1074	0.02	3.48	0
60	SLU 2	99	-1	1067	0.4	3.15	0
60	SLU 3	101	0	1074	0.02	3.48	0
60	SLU 4	99	0	1070	0.25	3.28	0
60	SLU 5	99	-1	1067	0.4	3.15	0
60	SLU 6	101	0	1074	0.02	3.48	0
60	SLU 7	99	0	1070	0.25	3.28	0
60	SLU 8	101	0	1074	0.02	3.48	0
60	SLU 9	99	0	1070	0.25	3.28	0
60	SLU 10	97	-1	1384	0.43	2.99	0
60	SLU 11	99	0	1391	0.04	3.32	0
60	SLU 12	97	0	1387	0.27	3.13	0
60	SLU 13	97	-1	1384	0.43	2.99	0
60	SLU 14	99	0	1391	0.04	3.32	0
60	SLU 15	97	0	1387	0.27	3.13	0
60	SLU 16	99	0	1391	0.04	3.32	0
60	SLU 17	97	0	1387	0.27	3.13	0
60	SLU 18	98	0	1526	0.05	3.26	0
60	SLU 19	97	0	1522	0.28	3.06	0
60	SLU 20	98	0	1526	0.05	3.26	0
60	SLU 21	97	0	1522	0.28	3.06	0
60	SLU 22	126	0	1296	0.03	4.29	0
60	SLU 23	123	-1	1289	0.41	3.95	0
60	SLU 24	126	0	1296	0.03	4.29	0
60	SLU 25	124	0	1292	0.26	4.09	0
60	SLU 26	123	-1	1289	0.41	3.95	0
60	SLU 27	126	0	1296	0.03	4.29	0
60	SLU 28	124	0	1292	0.26	4.09	0
60	SLU 29	126	0	1296	0.03	4.29	0
60	SLU 30	124	0	1292	0.26	4.09	0
60	SLU 31	121	-1	1606	0.44	3.8	0
60	SLU 32	124	0	1612	0.05	4.13	0
60	SLU 33	122	0	1609	0.28	3.93	0
60	SLU 34	121	-1	1606	0.44	3.8	0
60	SLU 35	124	0	1612	0.05	4.13	0
60	SLU 36	122	0	1609	0.28	3.93	0
60	SLU 37	124	0	1612	0.05	4.13	0
60	SLU 38	122	0	1609	0.28	3.93	0
60	SLU 39	123	0	1748	0.06	4.06	0
60	SLU 40	121	0	1744	0.29	3.86	0
60	SLU 41	123	0	1748	0.06	4.06	0
60	SLU 42	121	0	1744	0.29	3.86	0
60	SLU 43	123	0	1320	0.02	4.25	0
60	SLU 44	120	-1	1313	0.4	3.92	0
60	SLU 45	123	0	1320	0.02	4.25	0
60	SLU 46	121	0	1316	0.25	4.05	0
60	SLU 47	120	-1	1313	0.4	3.92	0
60	SLU 48	123	0	1320	0.02	4.25	0
60	SLU 49	121	0	1316	0.25	4.05	0
60	SLU 50	123	0	1320	0.02	4.25	0
60	SLU 51	121	0	1316	0.25	4.05	0
60	SLU 52	118	-1	1630	0.43	3.76	0
60	SLU 53	121	0	1636	0.05	4.09	0
60	SLU 54	119	0	1633	0.28	3.9	0
60	SLU 55	118	-1	1630	0.43	3.76	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
60	SLU 56	121	0	1636	0.05	4.09	0
60	SLU 57	119	0	1633	0.28	3.9	0
60	SLU 58	121	0	1636	0.05	4.09	0
60	SLU 59	119	0	1633	0.28	3.9	0
60	SLU 60	120	0	1772	0.06	4.03	0
60	SLU 61	118	0	1768	0.29	3.83	0
60	SLU 62	120	0	1772	0.06	4.03	0
60	SLU 63	118	0	1768	0.29	3.83	0
60	SLU 64	147	0	1541	0.03	5.06	0
60	SLU 65	145	-1	1535	0.41	4.72	0
60	SLU 66	147	0	1541	0.03	5.06	0
60	SLU 67	146	0	1538	0.26	4.86	0
60	SLU 68	145	-1	1535	0.41	4.72	0
60	SLU 69	147	0	1541	0.03	5.06	0
60	SLU 70	146	0	1538	0.26	4.86	0
60	SLU 71	147	0	1541	0.03	5.06	0
60	SLU 72	146	0	1538	0.26	4.86	0
60	SLU 73	143	-1	1852	0.44	4.57	0
60	SLU 74	145	0	1858	0.06	4.9	0
60	SLU 75	144	0	1855	0.29	4.7	0
60	SLU 76	143	-1	1852	0.44	4.57	0
60	SLU 77	145	0	1858	0.06	4.9	0
60	SLU 78	144	0	1855	0.29	4.7	0
60	SLU 79	145	0	1858	0.06	4.9	0
60	SLU 80	144	0	1855	0.29	4.7	0
60	SLU 81	145	0	1994	0.07	4.83	0
60	SLU 82	143	0	1990	0.3	4.63	0
60	SLU 83	145	0	1994	0.07	4.83	0
60	SLU 84	143	0	1990	0.3	4.63	0
60	SLE RA 1	108	0	1137	0.02	3.71	0
60	SLE RA 2	106	0	1133	0.28	3.49	0
60	SLE RA 3	108	0	1137	0.02	3.71	0
60	SLE RA 4	107	0	1134	0.17	3.58	0
60	SLE RA 5	106	0	1133	0.28	3.49	0
60	SLE RA 6	108	0	1137	0.02	3.71	0
60	SLE RA 7	107	0	1134	0.17	3.58	0
60	SLE RA 8	108	0	1137	0.02	3.71	0
60	SLE RA 9	107	0	1134	0.17	3.58	0
60	SLE RA 10	105	0	1344	0.29	3.39	0
60	SLE RA 11	107	0	1348	0.04	3.61	0
60	SLE RA 12	106	0	1346	0.19	3.47	0
60	SLE RA 13	105	0	1344	0.29	3.39	0
60	SLE RA 14	107	0	1348	0.04	3.61	0
60	SLE RA 15	106	0	1346	0.19	3.47	0
60	SLE RA 16	107	0	1348	0.04	3.61	0
60	SLE RA 17	106	0	1346	0.19	3.47	0
60	SLE RA 18	106	0	1439	0.05	3.56	0
60	SLE RA 19	105	0	1436	0.2	3.43	0
60	SLE RA 20	106	0	1439	0.05	3.56	0
60	SLE RA 21	105	0	1436	0.2	3.43	0
60	SLE FR 1	108	0	1137	0.02	3.71	0
60	SLE FR 2	108	0	1136	0.07	3.67	0
60	SLE FR 3	108	0	1137	0.02	3.71	0
60	SLE FR 4	107	0	1227	0.08	3.62	0
60	SLE FR 5	107	0	1228	0.03	3.67	0
60	SLE FR 6	107	0	1288	0.03	3.64	0
60	SLE QP 1	108	0	1137	0.02	3.71	0
60	SLE QP 2	107	0	1228	0.03	3.67	0
60	SLD 1	235	0	1194	-4.69	9.4	0
60	SLD 2	235	0	1194	-4.69	9.4	0
60	SLD 3	250	3	1203	2.57	10.32	-0.01
60	SLD 4	250	3	1203	2.57	10.32	-0.01
60	SLD 5	123	-4	1205	-12.41	3.98	0.01
60	SLD 6	123	-4	1205	-12.41	3.98	0.01
60	SLD 7	173	5	1232	11.81	7.07	-0.01
60	SLD 8	173	5	1232	11.81	7.07	-0.01
60	SLD 9	42	-5	1223	-11.75	0.26	0.01
60	SLD 10	42	-5	1223	-11.75	0.26	0.01
60	SLD 11	92	4	1250	12.46	3.36	-0.01
60	SLD 12	92	4	1250	12.46	3.36	-0.01
60	SLD 13	-36	-3	1253	-2.51	-2.99	0.01
60	SLD 14	-36	-3	1253	-2.51	-2.99	0.01
60	SLD 15	-21	0	1261	4.75	-2.06	0
60	SLD 16	-21	0	1261	4.75	-2.06	0
60	SLV 1	417	0	1145	-13.85	18.48	0.01
60	SLV 2	417	0	1145	-13.85	18.48	0.01
60	SLV 3	453	7	1165	8.1	20.96	-0.01
60	SLV 4	453	7	1165	8.1	20.96	-0.01
60	SLV 5	145	-11	1172	-37.42	4.35	0.04
60	SLV 6	145	-11	1172	-37.42	4.35	0.04
60	SLV 7	267	13	1239	35.74	12.62	-0.04
60	SLV 8	267	13	1239	35.74	12.62	-0.04
60	SLV 9	-52	-13	1216	-35.68	-5.28	0.04
60	SLV 10	-52	-13	1216	-35.68	-5.28	0.04
60	SLV 11	70	11	1283	37.48	2.98	-0.04
60	SLV 12	70	11	1283	37.48	2.98	-0.04
60	SLV 13	-239	-7	1290	-8.04	-13.62	0.01
60	SLV 14	-239	-7	1290	-8.04	-13.62	0.01
60	SLV 15	-202	0	1310	13.9	-11.15	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
60	SLV 16	-202	0	1310	13.9	-11.15	-0.01
61	SLU 1	59	0	1116	0.02	2.07	0
61	SLU 2	64	0	1108	0.38	2.58	0
61	SLU 3	59	0	1116	0.02	2.07	0
61	SLU 4	62	0	1111	0.24	2.37	0
61	SLU 5	64	0	1108	0.38	2.58	0
61	SLU 6	59	0	1116	0.02	2.07	0
61	SLU 7	62	0	1111	0.24	2.37	0
61	SLU 8	59	0	1116	0.02	2.07	0
61	SLU 9	62	0	1111	0.24	2.37	0
61	SLU 10	46	0	1433	0.41	1.94	0
61	SLU 11	40	0	1441	0.04	1.44	0
61	SLU 12	44	0	1436	0.26	1.74	0
61	SLU 13	46	0	1433	0.41	1.94	0
61	SLU 14	40	0	1441	0.04	1.44	0
61	SLU 15	44	0	1436	0.26	1.74	0
61	SLU 16	40	0	1441	0.04	1.44	0
61	SLU 17	44	0	1436	0.26	1.74	0
61	SLU 18	33	0	1580	0.05	1.17	0
61	SLU 19	36	0	1575	0.27	1.47	0
61	SLU 20	33	0	1580	0.05	1.17	0
61	SLU 21	36	0	1575	0.27	1.47	0
61	SLU 22	69	0	1355	0.03	2.44	0
61	SLU 23	75	0	1347	0.39	2.94	0
61	SLU 24	69	0	1355	0.03	2.44	0
61	SLU 25	73	0	1351	0.25	2.74	0
61	SLU 26	75	0	1347	0.39	2.94	0
61	SLU 27	69	0	1355	0.03	2.44	0
61	SLU 28	73	0	1351	0.25	2.74	0
61	SLU 29	69	0	1355	0.03	2.44	0
61	SLU 30	73	0	1351	0.25	2.74	0
61	SLU 31	57	0	1672	0.42	2.31	0
61	SLU 32	51	0	1680	0.05	1.8	0
61	SLU 33	55	0	1676	0.27	2.11	0
61	SLU 34	57	0	1672	0.42	2.31	0
61	SLU 35	51	0	1680	0.05	1.8	0
61	SLU 36	55	0	1676	0.27	2.11	0
61	SLU 37	51	0	1680	0.05	1.8	0
61	SLU 38	55	0	1676	0.27	2.11	0
61	SLU 39	43	0	1820	0.06	1.53	0
61	SLU 40	47	0	1815	0.28	1.84	0
61	SLU 41	43	0	1820	0.06	1.53	0
61	SLU 42	47	0	1815	0.28	1.84	0
61	SLU 43	72	0	1368	0.02	2.56	0
61	SLU 44	78	0	1360	0.38	3.07	0
61	SLU 45	72	0	1368	0.02	2.56	0
61	SLU 46	76	0	1363	0.24	2.87	0
61	SLU 47	78	0	1360	0.38	3.07	0
61	SLU 48	72	0	1368	0.02	2.56	0
61	SLU 49	76	0	1363	0.24	2.87	0
61	SLU 50	72	0	1368	0.02	2.56	0
61	SLU 51	76	0	1363	0.24	2.87	0
61	SLU 52	60	0	1685	0.41	2.44	0
61	SLU 53	54	0	1693	0.04	1.93	0
61	SLU 54	57	0	1688	0.26	2.24	0
61	SLU 55	60	0	1685	0.41	2.44	0
61	SLU 56	54	0	1693	0.04	1.93	0
61	SLU 57	57	0	1688	0.26	2.24	0
61	SLU 58	54	0	1693	0.04	1.93	0
61	SLU 59	57	0	1688	0.26	2.24	0
61	SLU 60	46	0	1832	0.06	1.66	0
61	SLU 61	50	0	1828	0.27	1.96	0
61	SLU 62	46	0	1832	0.06	1.66	0
61	SLU 63	50	0	1828	0.27	1.96	0
61	SLU 64	83	0	1608	0.03	2.93	0
61	SLU 65	89	0	1600	0.39	3.44	0
61	SLU 66	83	0	1608	0.03	2.93	0
61	SLU 67	87	0	1603	0.25	3.24	0
61	SLU 68	89	0	1600	0.39	3.44	0
61	SLU 69	83	0	1608	0.03	2.93	0
61	SLU 70	87	0	1603	0.25	3.24	0
61	SLU 71	83	0	1608	0.03	2.93	0
61	SLU 72	87	0	1603	0.25	3.24	0
61	SLU 73	71	0	1925	0.42	2.81	0
61	SLU 74	65	0	1933	0.05	2.3	0
61	SLU 75	68	0	1928	0.27	2.6	0
61	SLU 76	71	0	1925	0.42	2.81	0
61	SLU 77	65	0	1933	0.05	2.3	0
61	SLU 78	68	0	1928	0.27	2.6	0
61	SLU 79	65	0	1933	0.05	2.3	0
61	SLU 80	68	0	1928	0.27	2.6	0
61	SLU 81	57	0	2072	0.07	2.03	0
61	SLU 82	61	0	2067	0.28	2.33	0
61	SLU 83	57	0	2072	0.07	2.03	0
61	SLU 84	61	0	2067	0.28	2.33	0
61	SLE RA 1	62	0	1184	0.02	2.17	0
61	SLE RA 2	65	0	1179	0.26	2.51	0
61	SLE RA 3	62	0	1184	0.02	2.17	0
61	SLE RA 4	64	0	1181	0.17	2.38	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
61	SLE RA 5	65	0	1179	0.26	2.51	0
61	SLE RA 6	62	0	1184	0.02	2.17	0
61	SLE RA 7	64	0	1181	0.17	2.38	0
61	SLE RA 8	62	0	1184	0.02	2.17	0
61	SLE RA 9	64	0	1181	0.17	2.38	0
61	SLE RA 10	53	0	1396	0.28	2.09	0
61	SLE RA 11	50	0	1401	0.04	1.75	0
61	SLE RA 12	52	0	1398	0.18	1.96	0
61	SLE RA 13	53	0	1396	0.28	2.09	0
61	SLE RA 14	50	0	1401	0.04	1.75	0
61	SLE RA 15	52	0	1398	0.18	1.96	0
61	SLE RA 16	50	0	1401	0.04	1.75	0
61	SLE RA 17	52	0	1398	0.18	1.96	0
61	SLE RA 18	44	0	1494	0.04	1.57	0
61	SLE RA 19	47	0	1491	0.19	1.77	0
61	SLE RA 20	44	0	1494	0.04	1.57	0
61	SLE RA 21	47	0	1491	0.19	1.77	0
61	SLE FR 1	62	0	1184	0.02	2.17	0
61	SLE FR 2	62	0	1183	0.07	2.24	0
61	SLE FR 3	62	0	1184	0.02	2.17	0
61	SLE FR 4	57	0	1276	0.08	2.06	0
61	SLE FR 5	56	0	1277	0.03	1.99	0
61	SLE FR 6	53	0	1339	0.03	1.87	0
61	SLE QP 1	62	0	1184	0.02	2.17	0
61	SLE QP 2	56	0	1277	0.03	1.99	0
61	SLD 1	-90	5	1240	-7.34	-5.28	0
61	SLD 2	-90	5	1240	-7.34	-5.28	0
61	SLD 3	-73	-1	1250	4.56	-4.16	0
61	SLD 4	-73	-1	1250	4.56	-4.16	0
61	SLD 5	-12	11	1251	-20.23	-1.89	0.01
61	SLD 6	-12	11	1251	-20.23	-1.89	0.01
61	SLD 7	42	-10	1284	19.44	1.85	-0.01
61	SLD 8	42	-10	1284	19.44	1.85	-0.01
61	SLD 9	71	10	1270	-19.38	2.14	0.01
61	SLD 10	71	10	1270	-19.38	2.14	0.01
61	SLD 11	125	-11	1303	20.29	5.87	-0.01
61	SLD 12	125	-11	1303	20.29	5.87	-0.01
61	SLD 13	186	1	1304	-4.51	8.14	0
61	SLD 14	186	1	1304	-4.51	8.14	0
61	SLD 15	203	-5	1314	7.39	9.26	0
61	SLD 16	203	-5	1314	7.39	9.26	0
61	SLV 1	-295	14	1185	-21.85	-16.99	0
61	SLV 2	-295	14	1185	-21.85	-16.99	0
61	SLV 3	-255	-5	1209	14.32	-13.96	-0.01
61	SLV 4	-255	-5	1209	14.32	-13.96	-0.01
61	SLV 5	-110	32	1213	-61.38	-8.29	0.02
61	SLV 6	-110	32	1213	-61.38	-8.29	0.02
61	SLV 7	24	-29	1293	59.16	1.8	-0.02
61	SLV 8	24	-29	1293	59.16	1.8	-0.02
61	SLV 9	89	29	1261	-59.1	2.19	0.02
61	SLV 10	89	29	1261	-59.1	2.19	0.02
61	SLV 11	223	-32	1341	61.43	12.28	-0.02
61	SLV 12	223	-32	1341	61.43	12.28	-0.02
61	SLV 13	368	5	1345	-14.26	17.94	0.01
61	SLV 14	368	5	1345	-14.26	17.94	0.01
61	SLV 15	408	-14	1369	21.9	20.97	0
61	SLV 16	408	-14	1369	21.9	20.97	0
62	SLU 1	19	0	1141	0.02	0.55	0
62	SLU 2	18	0	1132	0.34	0.15	0
62	SLU 3	19	0	1141	0.02	0.55	0
62	SLU 4	18	0	1136	0.21	0.31	0
62	SLU 5	18	0	1132	0.34	0.15	0
62	SLU 6	19	0	1141	0.02	0.55	0
62	SLU 7	18	0	1136	0.21	0.31	0
62	SLU 8	19	0	1141	0.02	0.55	0
62	SLU 9	18	0	1136	0.21	0.31	0
62	SLU 10	-18	0	1460	0.36	-1.28	0
62	SLU 11	-17	0	1469	0.04	-0.88	0
62	SLU 12	-18	0	1463	0.23	-1.12	0
62	SLU 13	-18	0	1460	0.36	-1.28	0
62	SLU 14	-17	0	1469	0.04	-0.88	0
62	SLU 15	-18	0	1463	0.23	-1.12	0
62	SLU 16	-17	0	1469	0.04	-0.88	0
62	SLU 17	-18	0	1463	0.23	-1.12	0
62	SLU 18	-32	0	1609	0.05	-1.5	0
62	SLU 19	-33	0	1604	0.24	-1.74	0
62	SLU 20	-32	0	1609	0.05	-1.5	0
62	SLU 21	-33	0	1604	0.24	-1.74	0
62	SLU 22	16	0	1392	0.02	0.38	0
62	SLU 23	15	0	1382	0.35	-0.02	0
62	SLU 24	16	0	1392	0.02	0.38	0
62	SLU 25	16	0	1386	0.22	0.14	0
62	SLU 26	15	0	1382	0.35	-0.02	0
62	SLU 27	16	0	1392	0.02	0.38	0
62	SLU 28	16	0	1386	0.22	0.14	0
62	SLU 29	16	0	1392	0.02	0.38	0
62	SLU 30	16	0	1386	0.22	0.14	0
62	SLU 31	-21	0	1710	0.37	-1.45	0
62	SLU 32	-20	0	1719	0.05	-1.05	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
62	SLU 33	-20	0	1714	0.24	-1.29	0
62	SLU 34	-21	0	1710	0.37	-1.45	0
62	SLU 35	-20	0	1719	0.05	-1.05	0
62	SLU 36	-20	0	1714	0.24	-1.29	0
62	SLU 37	-20	0	1719	0.05	-1.05	0
62	SLU 38	-20	0	1714	0.24	-1.29	0
62	SLU 39	-35	0	1860	0.06	-1.67	0
62	SLU 40	-36	0	1854	0.25	-1.91	0
62	SLU 41	-35	0	1860	0.06	-1.67	0
62	SLU 42	-36	0	1854	0.25	-1.91	0
62	SLU 43	26	0	1398	0.02	0.78	0
62	SLU 44	24	0	1389	0.34	0.38	0
62	SLU 45	26	0	1398	0.02	0.78	0
62	SLU 46	25	0	1392	0.21	0.54	0
62	SLU 47	24	0	1389	0.34	0.38	0
62	SLU 48	26	0	1398	0.02	0.78	0
62	SLU 49	25	0	1392	0.21	0.54	0
62	SLU 50	26	0	1398	0.02	0.78	0
62	SLU 51	25	0	1392	0.21	0.54	0
62	SLU 52	-12	0	1716	0.36	-1.06	0
62	SLU 53	-10	0	1725	0.04	-0.66	0
62	SLU 54	-11	0	1720	0.23	-0.9	0
62	SLU 55	-12	0	1716	0.36	-1.06	0
62	SLU 56	-10	0	1725	0.04	-0.66	0
62	SLU 57	-11	0	1720	0.23	-0.9	0
62	SLU 58	-10	0	1725	0.04	-0.66	0
62	SLU 59	-11	0	1720	0.23	-0.9	0
62	SLU 60	-26	0	1866	0.05	-1.27	0
62	SLU 61	-26	0	1860	0.24	-1.51	0
62	SLU 62	-26	0	1866	0.05	-1.27	0
62	SLU 63	-26	0	1860	0.24	-1.51	0
62	SLU 64	23	0	1648	0.03	0.61	0
62	SLU 65	22	0	1639	0.35	0.21	0
62	SLU 66	23	0	1648	0.03	0.61	0
62	SLU 67	22	0	1643	0.22	0.37	0
62	SLU 68	22	0	1639	0.35	0.21	0
62	SLU 69	23	0	1648	0.03	0.61	0
62	SLU 70	22	0	1643	0.22	0.37	0
62	SLU 71	23	0	1648	0.03	0.61	0
62	SLU 72	22	0	1643	0.22	0.37	0
62	SLU 73	-14	0	1967	0.37	-1.23	0
62	SLU 74	-13	0	1976	0.05	-0.83	0
62	SLU 75	-14	0	1970	0.24	-1.07	0
62	SLU 76	-14	0	1967	0.37	-1.23	0
62	SLU 77	-13	0	1976	0.05	-0.83	0
62	SLU 78	-14	0	1970	0.24	-1.07	0
62	SLU 79	-13	0	1976	0.05	-0.83	0
62	SLU 80	-14	0	1970	0.24	-1.07	0
62	SLU 81	-28	0	2116	0.06	-1.45	0
62	SLU 82	-29	0	2111	0.25	-1.68	0
62	SLU 83	-28	0	2116	0.06	-1.45	0
62	SLU 84	-29	0	2111	0.25	-1.68	0
62	SLE RA 1	18	0	1213	0.02	0.5	0
62	SLE RA 2	17	0	1207	0.23	0.24	0
62	SLE RA 3	18	0	1213	0.02	0.5	0
62	SLE RA 4	18	0	1209	0.15	0.34	0
62	SLE RA 5	17	0	1207	0.23	0.24	0
62	SLE RA 6	18	0	1213	0.02	0.5	0
62	SLE RA 7	18	0	1209	0.15	0.34	0
62	SLE RA 8	18	0	1213	0.02	0.5	0
62	SLE RA 9	18	0	1209	0.15	0.34	0
62	SLE RA 10	-7	0	1425	0.25	-0.72	0
62	SLE RA 11	-6	0	1431	0.03	-0.45	0
62	SLE RA 12	-6	0	1428	0.16	-0.61	0
62	SLE RA 13	-7	0	1425	0.25	-0.72	0
62	SLE RA 14	-6	0	1431	0.03	-0.45	0
62	SLE RA 15	-6	0	1428	0.16	-0.61	0
62	SLE RA 16	-6	0	1431	0.03	-0.45	0
62	SLE RA 17	-6	0	1428	0.16	-0.61	0
62	SLE RA 18	-16	0	1525	0.04	-0.86	0
62	SLE RA 19	-16	0	1521	0.17	-1.02	0
62	SLE RA 20	-16	0	1525	0.04	-0.86	0
62	SLE RA 21	-16	0	1521	0.17	-1.02	0
62	SLE FR 1	18	0	1213	0.02	0.5	0
62	SLE FR 2	18	0	1212	0.06	0.45	0
62	SLE FR 3	18	0	1213	0.02	0.5	0
62	SLE FR 4	8	0	1305	0.07	0.04	0
62	SLE FR 5	8	0	1306	0.02	0.09	0
62	SLE FR 6	1	0	1369	0.03	-0.18	0
62	SLE QP 1	18	0	1213	0.02	0.5	0
62	SLE QP 2	8	0	1306	0.02	0.09	0
62	SLD 1	148	7	1267	-9.68	7.67	0
62	SLD 2	148	7	1267	-9.68	7.67	0
62	SLD 3	168	-4	1279	6.63	9.14	0
62	SLD 4	168	-4	1279	6.63	9.14	0
62	SLD 5	21	19	1278	-27.62	0.14	0.01
62	SLD 6	21	19	1278	-27.62	0.14	0.01
62	SLD 7	85	-18	1315	26.74	5.04	-0.01
62	SLD 8	85	-18	1315	26.74	5.04	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
62	SLD 9	-69	18	1298	-26.69	-4.85	0.01
62	SLD 10	-69	18	1298	-26.69	-4.85	0.01
62	SLD 11	-5	-19	1335	27.67	0.05	-0.01
62	SLD 12	-5	-19	1335	27.67	0.05	-0.01
62	SLD 13	-151	4	1334	-6.58	-8.96	0
62	SLD 14	-151	4	1334	-6.58	-8.96	0
62	SLD 15	-132	-7	1345	9.73	-7.49	0
62	SLD 16	-132	-7	1345	9.73	-7.49	0
62	SLV 1	354	21	1206	-29.03	20.61	0
62	SLV 2	354	21	1206	-29.03	20.61	0
62	SLV 3	403	-12	1234	20.63	24.62	-0.01
62	SLV 4	403	-12	1234	20.63	24.62	-0.01
62	SLV 5	38	57	1235	-84.01	0.17	0.02
62	SLV 6	38	57	1235	-84.01	0.17	0.02
62	SLV 7	201	-54	1326	81.52	13.52	-0.02
62	SLV 8	201	-54	1326	81.52	13.52	-0.02
62	SLV 9	-184	54	1287	-81.47	-13.34	0.02
62	SLV 10	-184	54	1287	-81.47	-13.34	0.02
62	SLV 11	-22	-57	1378	84.06	0.01	-0.02
62	SLV 12	-22	-57	1378	84.06	0.01	-0.02
62	SLV 13	-387	12	1379	-20.58	-24.43	0.01
62	SLV 14	-387	12	1379	-20.58	-24.43	0.01
62	SLV 15	-338	-22	1406	29.08	-20.42	0
62	SLV 16	-338	-22	1406	29.08	-20.42	0
63	SLU 1	-10	0	1155	0.01	-0.29	0
63	SLU 2	-2	0	1148	0.29	0.41	0
63	SLU 3	-10	0	1155	0.01	-0.29	0
63	SLU 4	-5	0	1151	0.18	0.13	0
63	SLU 5	-2	0	1148	0.29	0.41	0
63	SLU 6	-10	0	1155	0.01	-0.29	0
63	SLU 7	-5	0	1151	0.18	0.13	0
63	SLU 8	-10	0	1155	0.01	-0.29	0
63	SLU 9	-5	0	1151	0.18	0.13	0
63	SLU 10	-48	0	1475	0.31	-1.18	0
63	SLU 11	-55	0	1483	0.03	-1.88	0
63	SLU 12	-51	0	1478	0.2	-1.46	0
63	SLU 13	-48	0	1475	0.31	-1.18	0
63	SLU 14	-55	0	1483	0.03	-1.88	0
63	SLU 15	-51	0	1478	0.2	-1.46	0
63	SLU 16	-55	0	1483	0.03	-1.88	0
63	SLU 17	-51	0	1478	0.2	-1.46	0
63	SLU 18	-75	0	1624	0.04	-2.56	0
63	SLU 19	-71	0	1619	0.21	-2.14	0
63	SLU 20	-75	0	1624	0.04	-2.56	0
63	SLU 21	-71	0	1619	0.21	-2.14	0
63	SLU 22	-22	0	1412	0.02	-0.71	0
63	SLU 23	-14	0	1404	0.29	-0.01	0
63	SLU 24	-22	0	1412	0.02	-0.71	0
63	SLU 25	-17	0	1407	0.18	-0.29	0
63	SLU 26	-14	0	1404	0.29	-0.01	0
63	SLU 27	-22	0	1412	0.02	-0.71	0
63	SLU 28	-17	0	1407	0.18	-0.29	0
63	SLU 29	-22	0	1412	0.02	-0.71	0
63	SLU 30	-17	0	1407	0.18	-0.29	0
63	SLU 31	-60	0	1731	0.32	-1.6	0
63	SLU 32	-68	0	1739	0.04	-2.3	0
63	SLU 33	-63	0	1735	0.21	-1.88	0
63	SLU 34	-60	0	1731	0.32	-1.6	0
63	SLU 35	-68	0	1739	0.04	-2.3	0
63	SLU 36	-63	0	1735	0.21	-1.88	0
63	SLU 37	-68	0	1739	0.04	-2.3	0
63	SLU 38	-63	0	1735	0.21	-1.88	0
63	SLU 39	-87	0	1880	0.05	-2.98	0
63	SLU 40	-83	0	1875	0.22	-2.56	0
63	SLU 41	-87	0	1880	0.05	-2.98	0
63	SLU 42	-83	0	1875	0.22	-2.56	0
63	SLU 43	-8	0	1414	0.01	-0.23	0
63	SLU 44	-1	0	1406	0.29	0.47	0
63	SLU 45	-8	0	1414	0.01	-0.23	0
63	SLU 46	-4	0	1410	0.18	0.19	0
63	SLU 47	-1	0	1406	0.29	0.47	0
63	SLU 48	-8	0	1414	0.01	-0.23	0
63	SLU 49	-4	0	1410	0.18	0.19	0
63	SLU 50	-8	0	1414	0.01	-0.23	0
63	SLU 51	-4	0	1410	0.18	0.19	0
63	SLU 52	-47	0	1734	0.31	-1.12	0
63	SLU 53	-54	0	1742	0.04	-1.82	0
63	SLU 54	-50	0	1737	0.2	-1.4	0
63	SLU 55	-47	0	1734	0.31	-1.12	0
63	SLU 56	-54	0	1742	0.04	-1.82	0
63	SLU 57	-50	0	1737	0.2	-1.4	0
63	SLU 58	-54	0	1742	0.04	-1.82	0
63	SLU 59	-50	0	1737	0.2	-1.4	0
63	SLU 60	-74	0	1882	0.04	-2.5	0
63	SLU 61	-69	0	1878	0.21	-2.08	0
63	SLU 62	-74	0	1882	0.04	-2.5	0
63	SLU 63	-69	0	1878	0.21	-2.08	0
63	SLU 64	-20	0	1670	0.02	-0.66	0
63	SLU 65	-13	0	1663	0.29	0.05	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
63	SLU 66	-20	0	1670	0.02	-0.66	0
63	SLU 67	-16	0	1666	0.19	-0.24	0
63	SLU 68	-13	0	1663	0.29	0.05	0
63	SLU 69	-20	0	1670	0.02	-0.66	0
63	SLU 70	-16	0	1666	0.19	-0.24	0
63	SLU 71	-20	0	1670	0.02	-0.66	0
63	SLU 72	-16	0	1666	0.19	-0.24	0
63	SLU 73	-59	0	1990	0.32	-1.54	0
63	SLU 74	-66	0	1998	0.04	-2.25	0
63	SLU 75	-62	0	1993	0.21	-1.82	0
63	SLU 76	-59	0	1990	0.32	-1.54	0
63	SLU 77	-66	0	1998	0.04	-2.25	0
63	SLU 78	-62	0	1993	0.21	-1.82	0
63	SLU 79	-66	0	1998	0.04	-2.25	0
63	SLU 80	-62	0	1993	0.21	-1.82	0
63	SLU 81	-86	0	2139	0.05	-2.93	0
63	SLU 82	-81	0	2134	0.22	-2.5	0
63	SLU 83	-86	0	2139	0.05	-2.93	0
63	SLU 84	-81	0	2134	0.22	-2.5	0
63	SLE RA 1	-13	0	1229	0.01	-0.41	0
63	SLE RA 2	-8	0	1223	0.2	0.06	0
63	SLE RA 3	-13	0	1229	0.01	-0.41	0
63	SLE RA 4	-10	0	1225	0.12	-0.13	0
63	SLE RA 5	-8	0	1223	0.2	0.06	0
63	SLE RA 6	-13	0	1229	0.01	-0.41	0
63	SLE RA 7	-10	0	1225	0.12	-0.13	0
63	SLE RA 8	-13	0	1229	0.01	-0.41	0
63	SLE RA 9	-10	0	1225	0.12	-0.13	0
63	SLE RA 10	-39	0	1442	0.21	-1	0
63	SLE RA 11	-44	0	1447	0.03	-1.47	0
63	SLE RA 12	-41	0	1444	0.14	-1.19	0
63	SLE RA 13	-39	0	1442	0.21	-1	0
63	SLE RA 14	-44	0	1447	0.03	-1.47	0
63	SLE RA 15	-41	0	1444	0.14	-1.19	0
63	SLE RA 16	-44	0	1447	0.03	-1.47	0
63	SLE RA 17	-41	0	1444	0.14	-1.19	0
63	SLE RA 18	-57	0	1541	0.04	-1.93	0
63	SLE RA 19	-54	0	1538	0.14	-1.64	0
63	SLE RA 20	-57	0	1541	0.04	-1.93	0
63	SLE RA 21	-54	0	1538	0.14	-1.64	0
63	SLE FR 1	-13	0	1229	0.01	-0.41	0
63	SLE FR 2	-12	0	1228	0.05	-0.32	0
63	SLE FR 3	-13	0	1229	0.01	-0.41	0
63	SLE FR 4	-25	0	1321	0.06	-0.77	0
63	SLE FR 5	-26	0	1322	0.02	-0.87	0
63	SLE FR 6	-35	0	1385	0.03	-1.17	0
63	SLE QP 1	-13	0	1229	0.01	-0.41	0
63	SLE QP 2	-26	0	1322	0.02	-0.87	0
63	SLD 1	-183	9	1288	-11.48	-10.83	0
63	SLD 2	-183	9	1288	-11.48	-10.83	0
63	SLD 3	-164	-6	1300	8.47	-9.11	0
63	SLD 4	-164	-6	1300	8.47	-9.11	0
63	SLD 5	-102	25	1295	-33.68	-6.47	-0.01
63	SLD 6	-102	25	1295	-33.68	-6.47	-0.01
63	SLD 7	-38	-25	1333	32.81	-0.72	0.01
63	SLD 8	-38	-25	1333	32.81	-0.72	0.01
63	SLD 9	-14	24	1312	-32.77	-1.01	-0.01
63	SLD 10	-14	24	1312	-32.77	-1.01	-0.01
63	SLD 11	50	-26	1350	33.73	4.74	0.01
63	SLD 12	50	-26	1350	33.73	4.74	0.01
63	SLD 13	111	6	1345	-8.43	7.38	0
63	SLD 14	111	6	1345	-8.43	7.38	0
63	SLD 15	131	-9	1356	11.52	9.1	0
63	SLD 16	131	-9	1356	11.52	9.1	0
63	SLV 1	-409	27	1238	-34.64	-28.04	-0.01
63	SLV 2	-409	27	1238	-34.64	-28.04	-0.01
63	SLV 3	-360	-18	1265	26.11	-23.28	0
63	SLV 4	-360	-18	1265	26.11	-23.28	0
63	SLV 5	-216	77	1255	-102.52	-16.24	-0.02
63	SLV 6	-216	77	1255	-102.52	-16.24	-0.02
63	SLV 7	-52	-75	1347	99.99	-0.37	0.02
63	SLV 8	-52	-75	1347	99.99	-0.37	0.02
63	SLV 9	0	75	1298	-99.95	-1.37	-0.02
63	SLV 10	0	75	1298	-99.95	-1.37	-0.02
63	SLV 11	163	-77	1389	102.56	14.51	0.02
63	SLV 12	163	-77	1389	102.56	14.51	0.02
63	SLV 13	308	18	1379	-26.07	21.55	0
63	SLV 14	308	18	1379	-26.07	21.55	0
63	SLV 15	357	-27	1407	34.68	26.31	0.01
63	SLV 16	357	-27	1407	34.68	26.31	0.01
64	SLU 1	-35	0	1162	0.01	-1.5	0
64	SLU 2	-39	0	1153	0.24	-2.16	0
64	SLU 3	-35	0	1162	0.01	-1.5	0
64	SLU 4	-37	0	1157	0.15	-1.9	0
64	SLU 5	-39	0	1153	0.24	-2.16	0
64	SLU 6	-35	0	1162	0.01	-1.5	0
64	SLU 7	-37	0	1157	0.15	-1.9	0
64	SLU 8	-35	0	1162	0.01	-1.5	0
64	SLU 9	-37	0	1157	0.15	-1.9	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
64	SLU 10	-95	0	1480	0.26	-4.44	0
64	SLU 11	-91	0	1489	0.03	-3.78	0
64	SLU 12	-93	0	1484	0.17	-4.18	0
64	SLU 13	-95	0	1480	0.26	-4.44	0
64	SLU 14	-91	0	1489	0.03	-3.78	0
64	SLU 15	-93	0	1484	0.17	-4.18	0
64	SLU 16	-91	0	1489	0.03	-3.78	0
64	SLU 17	-93	0	1484	0.17	-4.18	0
64	SLU 18	-115	0	1629	0.04	-4.76	0
64	SLU 19	-117	0	1624	0.18	-5.16	0
64	SLU 20	-115	0	1629	0.04	-4.76	0
64	SLU 21	-117	0	1624	0.18	-5.16	0
64	SLU 22	-56	0	1421	0.02	-2.35	0
64	SLU 23	-59	0	1412	0.25	-3.01	0
64	SLU 24	-56	0	1421	0.02	-2.35	0
64	SLU 25	-58	0	1416	0.15	-2.75	0
64	SLU 26	-59	0	1412	0.25	-3.01	0
64	SLU 27	-56	0	1421	0.02	-2.35	0
64	SLU 28	-58	0	1416	0.15	-2.75	0
64	SLU 29	-56	0	1421	0.02	-2.35	0
64	SLU 30	-58	0	1416	0.15	-2.75	0
64	SLU 31	-115	0	1739	0.27	-5.3	0
64	SLU 32	-112	0	1748	0.04	-4.64	0
64	SLU 33	-114	0	1743	0.17	-5.03	0
64	SLU 34	-115	0	1739	0.27	-5.3	0
64	SLU 35	-112	0	1748	0.04	-4.64	0
64	SLU 36	-114	0	1743	0.17	-5.03	0
64	SLU 37	-112	0	1748	0.04	-4.64	0
64	SLU 38	-114	0	1743	0.17	-5.03	0
64	SLU 39	-136	0	1888	0.05	-5.62	0
64	SLU 40	-138	0	1883	0.18	-6.01	0
64	SLU 41	-136	0	1888	0.05	-5.62	0
64	SLU 42	-138	0	1883	0.18	-6.01	0
64	SLU 43	-39	0	1422	0.01	-1.66	0
64	SLU 44	-42	0	1413	0.24	-2.32	0
64	SLU 45	-39	0	1422	0.01	-1.66	0
64	SLU 46	-41	0	1417	0.15	-2.05	0
64	SLU 47	-42	0	1413	0.24	-2.32	0
64	SLU 48	-39	0	1422	0.01	-1.66	0
64	SLU 49	-41	0	1417	0.15	-2.05	0
64	SLU 50	-39	0	1422	0.01	-1.66	0
64	SLU 51	-41	0	1417	0.15	-2.05	0
64	SLU 52	-98	0	1740	0.26	-4.6	0
64	SLU 53	-95	0	1749	0.03	-3.94	0
64	SLU 54	-97	0	1744	0.17	-4.34	0
64	SLU 55	-98	0	1740	0.26	-4.6	0
64	SLU 56	-95	0	1749	0.03	-3.94	0
64	SLU 57	-97	0	1744	0.17	-4.34	0
64	SLU 58	-95	0	1749	0.03	-3.94	0
64	SLU 59	-97	0	1744	0.17	-4.34	0
64	SLU 60	-118	0	1889	0.04	-4.92	0
64	SLU 61	-121	0	1884	0.18	-5.32	0
64	SLU 62	-118	0	1889	0.04	-4.92	0
64	SLU 63	-121	0	1884	0.18	-5.32	0
64	SLU 64	-59	0	1681	0.02	-2.51	0
64	SLU 65	-63	0	1672	0.25	-3.17	0
64	SLU 66	-59	0	1681	0.02	-2.51	0
64	SLU 67	-61	0	1676	0.15	-2.91	0
64	SLU 68	-63	0	1672	0.25	-3.17	0
64	SLU 69	-59	0	1681	0.02	-2.51	0
64	SLU 70	-61	0	1676	0.15	-2.91	0
64	SLU 71	-59	0	1681	0.02	-2.51	0
64	SLU 72	-61	0	1676	0.15	-2.91	0
64	SLU 73	-119	0	1999	0.27	-5.45	0
64	SLU 74	-115	0	2008	0.04	-4.79	0
64	SLU 75	-117	0	2003	0.17	-5.19	0
64	SLU 76	-119	0	1999	0.27	-5.45	0
64	SLU 77	-115	0	2008	0.04	-4.79	0
64	SLU 78	-117	0	2003	0.17	-5.19	0
64	SLU 79	-115	0	2008	0.04	-4.79	0
64	SLU 80	-117	0	2003	0.17	-5.19	0
64	SLU 81	-139	0	2148	0.05	-5.77	0
64	SLU 82	-141	0	2143	0.18	-6.17	0
64	SLU 83	-139	0	2148	0.05	-5.77	0
64	SLU 84	-141	0	2143	0.18	-6.17	0
64	SLE RA 1	-41	0	1236	0.01	-1.74	0
64	SLE RA 2	-43	0	1230	0.16	-2.18	0
64	SLE RA 3	-41	0	1236	0.01	-1.74	0
64	SLE RA 4	-42	0	1233	0.1	-2.01	0
64	SLE RA 5	-43	0	1230	0.16	-2.18	0
64	SLE RA 6	-41	0	1236	0.01	-1.74	0
64	SLE RA 7	-42	0	1233	0.1	-2.01	0
64	SLE RA 8	-41	0	1236	0.01	-1.74	0
64	SLE RA 9	-42	0	1233	0.1	-2.01	0
64	SLE RA 10	-81	0	1448	0.18	-3.71	0
64	SLE RA 11	-78	0	1454	0.03	-3.27	0
64	SLE RA 12	-80	0	1451	0.12	-3.53	0
64	SLE RA 13	-81	0	1448	0.18	-3.71	0
64	SLE RA 14	-78	0	1454	0.03	-3.27	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
64	SLE RA 15	-80	0	1451	0.12	-3.53	0
64	SLE RA 16	-78	0	1454	0.03	-3.27	0
64	SLE RA 17	-80	0	1451	0.12	-3.53	0
64	SLE RA 18	-94	0	1548	0.03	-3.92	0
64	SLE RA 19	-96	0	1544	0.12	-4.18	0
64	SLE RA 20	-94	0	1548	0.03	-3.92	0
64	SLE RA 21	-96	0	1544	0.12	-4.18	0
64	SLE FR 1	-41	0	1236	0.01	-1.74	0
64	SLE FR 2	-41	0	1235	0.04	-1.83	0
64	SLE FR 3	-41	0	1236	0.01	-1.74	0
64	SLE FR 4	-57	0	1328	0.05	-2.48	0
64	SLE FR 5	-57	0	1330	0.02	-2.4	0
64	SLE FR 6	-68	0	1392	0.02	-2.83	0
64	SLE QP 1	-41	0	1236	0.01	-1.74	0
64	SLE QP 2	-57	0	1330	0.02	-2.4	0
64	SLD 1	103	10	1360	-12.69	8.68	0
64	SLD 2	103	10	1360	-12.69	8.68	0
64	SLD 3	128	-8	1373	9.75	11.06	0
64	SLD 4	128	-8	1373	9.75	11.06	0
64	SLD 5	-48	30	1319	-37.83	-2.69	-0.01
64	SLD 6	-48	30	1319	-37.83	-2.69	-0.01
64	SLD 7	37	-29	1363	36.97	5.26	0.01
64	SLD 8	37	-29	1363	36.97	5.26	0.01
64	SLD 9	-151	29	1297	-36.94	-10.05	-0.01
64	SLD 10	-151	29	1297	-36.94	-10.05	-0.01
64	SLD 11	-66	-30	1340	37.86	-2.1	0.01
64	SLD 12	-66	-30	1340	37.86	-2.1	0.01
64	SLD 13	-242	8	1286	-9.72	-15.86	0
64	SLD 14	-242	8	1286	-9.72	-15.86	0
64	SLD 15	-217	-10	1299	12.72	-13.47	0
64	SLD 16	-217	-10	1299	12.72	-13.47	0
64	SLV 1	353	31	1416	-38.41	28.65	-0.01
64	SLV 2	353	31	1416	-38.41	28.65	-0.01
64	SLV 3	421	-23	1448	29.86	35.24	0
64	SLV 4	421	-23	1448	29.86	35.24	0
64	SLV 5	-36	92	1307	-115.05	-3.07	-0.02
64	SLV 6	-36	92	1307	-115.05	-3.07	-0.02
64	SLV 7	188	-89	1414	112.52	18.88	0.02
64	SLV 8	188	-89	1414	112.52	18.88	0.02
64	SLV 9	-302	89	1245	-112.48	-23.67	-0.02
64	SLV 10	-302	89	1245	-112.48	-23.67	-0.02
64	SLV 11	-78	-92	1352	115.09	-1.72	0.02
64	SLV 12	-78	-92	1352	115.09	-1.72	0.02
64	SLV 13	-535	23	1211	-29.83	-40.03	0
64	SLV 14	-535	23	1211	-29.83	-40.03	0
64	SLV 15	-467	-31	1243	38.44	-33.44	0.01
64	SLV 16	-467	-31	1243	38.44	-33.44	0.01
65	SLU 1	-45	0	1171	0.01	-1.54	0
65	SLU 2	-36	0	1164	0.2	-0.54	0
65	SLU 3	-45	0	1171	0.01	-1.54	0
65	SLU 4	-39	0	1167	0.12	-0.94	0
65	SLU 5	-36	0	1164	0.2	-0.54	0
65	SLU 6	-45	0	1171	0.01	-1.54	0
65	SLU 7	-39	0	1167	0.12	-0.94	0
65	SLU 8	-45	0	1171	0.01	-1.54	0
65	SLU 9	-39	0	1167	0.12	-0.94	0
65	SLU 10	-86	0	1498	0.22	-2.27	0
65	SLU 11	-95	0	1505	0.03	-3.26	0
65	SLU 12	-89	0	1501	0.14	-2.66	0
65	SLU 13	-86	0	1498	0.22	-2.27	0
65	SLU 14	-95	0	1505	0.03	-3.26	0
65	SLU 15	-89	0	1501	0.14	-2.66	0
65	SLU 16	-95	0	1505	0.03	-3.26	0
65	SLU 17	-89	0	1501	0.14	-2.66	0
65	SLU 18	-116	0	1648	0.03	-4	0
65	SLU 19	-111	0	1644	0.15	-3.4	0
65	SLU 20	-116	0	1648	0.03	-4	0
65	SLU 21	-111	0	1644	0.15	-3.4	0
65	SLU 22	-67	0	1433	0.01	-2.31	0
65	SLU 23	-57	0	1427	0.21	-1.31	0
65	SLU 24	-67	0	1433	0.01	-2.31	0
65	SLU 25	-61	0	1430	0.13	-1.71	0
65	SLU 26	-57	0	1427	0.21	-1.31	0
65	SLU 27	-67	0	1433	0.01	-2.31	0
65	SLU 28	-61	0	1430	0.13	-1.71	0
65	SLU 29	-67	0	1433	0.01	-2.31	0
65	SLU 30	-61	0	1430	0.13	-1.71	0
65	SLU 31	-107	0	1761	0.22	-3.03	0
65	SLU 32	-117	0	1767	0.03	-4.03	0
65	SLU 33	-111	0	1764	0.15	-3.43	0
65	SLU 34	-107	0	1761	0.22	-3.03	0
65	SLU 35	-117	0	1767	0.03	-4.03	0
65	SLU 36	-111	0	1764	0.15	-3.43	0
65	SLU 37	-117	0	1767	0.03	-4.03	0
65	SLU 38	-111	0	1764	0.15	-3.43	0
65	SLU 39	-138	0	1911	0.04	-4.76	0
65	SLU 40	-133	0	1907	0.16	-4.17	0
65	SLU 41	-138	0	1911	0.04	-4.76	0
65	SLU 42	-133	0	1907	0.16	-4.17	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
65	SLU 43	-51	0	1432	0.01	-1.74	0
65	SLU 44	-41	0	1425	0.2	-0.74	0
65	SLU 45	-51	0	1432	0.01	-1.74	0
65	SLU 46	-45	0	1428	0.12	-1.14	0
65	SLU 47	-41	0	1425	0.2	-0.74	0
65	SLU 48	-51	0	1432	0.01	-1.74	0
65	SLU 49	-45	0	1428	0.12	-1.14	0
65	SLU 50	-51	0	1432	0.01	-1.74	0
65	SLU 51	-45	0	1428	0.12	-1.14	0
65	SLU 52	-91	0	1759	0.22	-2.47	0
65	SLU 53	-101	0	1766	0.02	-3.46	0
65	SLU 54	-95	0	1762	0.14	-2.86	0
65	SLU 55	-91	0	1759	0.22	-2.47	0
65	SLU 56	-101	0	1766	0.02	-3.46	0
65	SLU 57	-95	0	1762	0.14	-2.86	0
65	SLU 58	-101	0	1766	0.02	-3.46	0
65	SLU 59	-95	0	1762	0.14	-2.86	0
65	SLU 60	-122	0	1909	0.03	-4.2	0
65	SLU 61	-117	0	1905	0.15	-3.6	0
65	SLU 62	-122	0	1909	0.03	-4.2	0
65	SLU 63	-117	0	1905	0.15	-3.6	0
65	SLU 64	-73	0	1694	0.01	-2.51	0
65	SLU 65	-63	0	1688	0.21	-1.51	0
65	SLU 66	-73	0	1694	0.01	-2.51	0
65	SLU 67	-67	0	1691	0.13	-1.91	0
65	SLU 68	-63	0	1688	0.21	-1.51	0
65	SLU 69	-73	0	1694	0.01	-2.51	0
65	SLU 70	-67	0	1691	0.13	-1.91	0
65	SLU 71	-73	0	1694	0.01	-2.51	0
65	SLU 72	-67	0	1691	0.13	-1.91	0
65	SLU 73	-113	0	2022	0.22	-3.23	0
65	SLU 74	-123	0	2028	0.03	-4.23	0
65	SLU 75	-117	0	2025	0.15	-3.63	0
65	SLU 76	-113	0	2022	0.22	-3.23	0
65	SLU 77	-123	0	2028	0.03	-4.23	0
65	SLU 78	-117	0	2025	0.15	-3.63	0
65	SLU 79	-123	0	2028	0.03	-4.23	0
65	SLU 80	-117	0	2025	0.15	-3.63	0
65	SLU 81	-144	0	2172	0.04	-4.96	0
65	SLU 82	-139	0	2168	0.16	-4.37	0
65	SLU 83	-144	0	2172	0.04	-4.96	0
65	SLU 84	-139	0	2168	0.16	-4.37	0
65	SLE RA 1	-51	0	1246	0.01	-1.76	0
65	SLE RA 2	-45	0	1241	0.14	-1.1	0
65	SLE RA 3	-51	0	1246	0.01	-1.76	0
65	SLE RA 4	-47	0	1243	0.09	-1.36	0
65	SLE RA 5	-45	0	1241	0.14	-1.1	0
65	SLE RA 6	-51	0	1246	0.01	-1.76	0
65	SLE RA 7	-47	0	1243	0.09	-1.36	0
65	SLE RA 8	-51	0	1246	0.01	-1.76	0
65	SLE RA 9	-47	0	1243	0.09	-1.36	0
65	SLE RA 10	-78	0	1464	0.15	-2.24	0
65	SLE RA 11	-84	0	1468	0.02	-2.91	0
65	SLE RA 12	-81	0	1466	0.1	-2.51	0
65	SLE RA 13	-78	0	1464	0.15	-2.24	0
65	SLE RA 14	-84	0	1468	0.02	-2.91	0
65	SLE RA 15	-81	0	1466	0.1	-2.51	0
65	SLE RA 16	-84	0	1468	0.02	-2.91	0
65	SLE RA 17	-81	0	1466	0.1	-2.51	0
65	SLE RA 18	-99	0	1564	0.03	-3.4	0
65	SLE RA 19	-95	0	1561	0.1	-3	0
65	SLE RA 20	-99	0	1564	0.03	-3.4	0
65	SLE RA 21	-95	0	1561	0.1	-3	0
65	SLE FR 1	-51	0	1246	0.01	-1.76	0
65	SLE FR 2	-50	0	1245	0.03	-1.63	0
65	SLE FR 3	-51	0	1246	0.01	-1.76	0
65	SLE FR 4	-64	0	1340	0.04	-2.12	0
65	SLE FR 5	-65	0	1341	0.01	-2.25	0
65	SLE FR 6	-75	0	1405	0.02	-2.58	0
65	SLE QP 1	-51	0	1246	0.01	-1.76	0
65	SLE QP 2	-65	0	1341	0.01	-2.25	0
65	SLD 1	-238	11	1313	-13.29	-17.22	0
65	SLD 2	-238	11	1313	-13.29	-17.22	0
65	SLD 3	-215	-8	1323	10.19	-14.47	0
65	SLD 4	-215	-8	1323	10.19	-14.47	0
65	SLD 5	-152	32	1316	-39.59	-10.92	-0.01
65	SLD 6	-152	32	1316	-39.59	-10.92	-0.01
65	SLD 7	-76	-32	1352	38.68	-1.74	0.01
65	SLD 8	-76	-32	1352	38.68	-1.74	0.01
65	SLD 9	-55	31	1330	-38.65	-2.76	-0.01
65	SLD 10	-55	31	1330	-38.65	-2.76	-0.01
65	SLD 11	21	-32	1366	39.62	6.41	0.01
65	SLD 12	21	-32	1366	39.62	6.41	0.01
65	SLD 13	84	8	1359	-10.16	9.96	0
65	SLD 14	84	8	1359	-10.16	9.96	0
65	SLD 15	107	-11	1370	13.32	12.72	0
65	SLD 16	107	-11	1370	13.32	12.72	0
65	SLV 1	-501	33	1270	-40.22	-44.26	-0.01
65	SLV 2	-501	33	1270	-40.22	-44.26	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
65	SLV 3	-440	-25	1295	31.19	-36.57	0
65	SLV 4	-440	-25	1295	31.19	-36.57	0
65	SLV 5	-290	98	1282	-120.36	-26.52	-0.02
65	SLV 6	-290	98	1282	-120.36	-26.52	-0.02
65	SLV 7	-84	-95	1365	117.67	-0.88	0.02
65	SLV 8	-84	-95	1365	117.67	-0.88	0.02
65	SLV 9	-47	95	1317	-117.64	-3.62	-0.02
65	SLV 10	-47	95	1317	-117.64	-3.62	-0.02
65	SLV 11	159	-98	1400	120.38	22.02	0.02
65	SLV 12	159	-98	1400	120.38	22.02	0.02
65	SLV 13	309	25	1387	-31.17	32.07	0
65	SLV 14	309	25	1387	-31.17	32.07	0
65	SLV 15	370	-33	1412	40.24	39.76	0.01
65	SLV 16	370	-33	1412	40.24	39.76	0.01
66	SLU 1	-54	0	1186	0	-2.43	0
66	SLU 2	-62	0	1178	0.17	-3.54	0
66	SLU 3	-54	0	1186	0	-2.43	0
66	SLU 4	-58	0	1181	0.1	-3.1	0
66	SLU 5	-62	0	1178	0.17	-3.54	0
66	SLU 6	-54	0	1186	0	-2.43	0
66	SLU 7	-58	0	1181	0.1	-3.1	0
66	SLU 8	-54	0	1186	0	-2.43	0
66	SLU 9	-58	0	1181	0.1	-3.1	0
66	SLU 10	-105	0	1532	0.19	-5.63	0
66	SLU 11	-97	0	1540	0.02	-4.52	0
66	SLU 12	-102	0	1535	0.12	-5.18	0
66	SLU 13	-105	0	1532	0.19	-5.63	0
66	SLU 14	-97	0	1540	0.02	-4.52	0
66	SLU 15	-102	0	1535	0.12	-5.18	0
66	SLU 16	-97	0	1540	0.02	-4.52	0
66	SLU 17	-102	0	1535	0.12	-5.18	0
66	SLU 18	-116	0	1691	0.03	-5.41	0
66	SLU 19	-120	0	1686	0.13	-6.08	0
66	SLU 20	-116	0	1691	0.03	-5.41	0
66	SLU 21	-120	0	1686	0.13	-6.08	0
66	SLU 22	-77	0	1456	0.01	-3.46	0
66	SLU 23	-84	0	1448	0.17	-4.57	0
66	SLU 24	-77	0	1456	0.01	-3.46	0
66	SLU 25	-81	0	1451	0.11	-4.13	0
66	SLU 26	-84	0	1448	0.17	-4.57	0
66	SLU 27	-77	0	1456	0.01	-3.46	0
66	SLU 28	-81	0	1451	0.11	-4.13	0
66	SLU 29	-77	0	1456	0.01	-3.46	0
66	SLU 30	-81	0	1451	0.11	-4.13	0
66	SLU 31	-127	0	1802	0.19	-6.66	0
66	SLU 32	-120	0	1810	0.02	-5.55	0
66	SLU 33	-124	0	1805	0.12	-6.22	0
66	SLU 34	-127	0	1802	0.19	-6.66	0
66	SLU 35	-120	0	1810	0.02	-5.55	0
66	SLU 36	-124	0	1805	0.12	-6.22	0
66	SLU 37	-120	0	1810	0.02	-5.55	0
66	SLU 38	-124	0	1805	0.12	-6.22	0
66	SLU 39	-138	0	1961	0.03	-6.45	0
66	SLU 40	-143	0	1957	0.13	-7.11	0
66	SLU 41	-138	0	1961	0.03	-6.45	0
66	SLU 42	-143	0	1957	0.13	-7.11	0
66	SLU 43	-62	0	1449	0	-2.81	0
66	SLU 44	-70	0	1441	0.17	-3.91	0
66	SLU 45	-62	0	1449	0	-2.81	0
66	SLU 46	-67	0	1444	0.1	-3.47	0
66	SLU 47	-70	0	1441	0.17	-3.91	0
66	SLU 48	-62	0	1449	0	-2.81	0
66	SLU 49	-67	0	1444	0.1	-3.47	0
66	SLU 50	-62	0	1449	0	-2.81	0
66	SLU 51	-67	0	1444	0.1	-3.47	0
66	SLU 52	-113	0	1795	0.19	-6	0
66	SLU 53	-106	0	1803	0.02	-4.89	0
66	SLU 54	-110	0	1798	0.12	-5.56	0
66	SLU 55	-113	0	1795	0.19	-6	0
66	SLU 56	-106	0	1803	0.02	-4.89	0
66	SLU 57	-110	0	1798	0.12	-5.56	0
66	SLU 58	-106	0	1803	0.02	-4.89	0
66	SLU 59	-110	0	1798	0.12	-5.56	0
66	SLU 60	-124	0	1954	0.02	-5.79	0
66	SLU 61	-129	0	1949	0.12	-6.45	0
66	SLU 62	-124	0	1954	0.02	-5.79	0
66	SLU 63	-129	0	1949	0.12	-6.45	0
66	SLU 64	-85	0	1719	0	-3.84	0
66	SLU 65	-93	0	1711	0.17	-4.95	0
66	SLU 66	-85	0	1719	0	-3.84	0
66	SLU 67	-90	0	1714	0.11	-4.5	0
66	SLU 68	-93	0	1711	0.17	-4.95	0
66	SLU 69	-85	0	1719	0	-3.84	0
66	SLU 70	-90	0	1714	0.11	-4.5	0
66	SLU 71	-85	0	1719	0	-3.84	0
66	SLU 72	-90	0	1714	0.11	-4.5	0
66	SLU 73	-136	0	2065	0.19	-7.04	0
66	SLU 74	-128	0	2073	0.02	-5.93	0
66	SLU 75	-133	0	2068	0.12	-6.59	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
66	SLU 76	-136	0	2065	0.19	-7.04	0
66	SLU 77	-128	0	2073		-5.93	0
66	SLU 78	-133	0	2068	0.12	-6.59	0
66	SLU 79	-128	0	2073	0.02	-5.93	0
66	SLU 80	-133	0	2068	0.12	-6.59	0
66	SLU 81	-147	0	2225	0.03	-6.82	0
66	SLU 82	-151	0	2220	0.13	-7.49	0
66	SLU 83	-147	0	2225	0.03	-6.82	0
66	SLU 84	-151	0	2220	0.13	-7.49	0
66	SLE RA 1	-60	0	1263	0	-2.73	0
66	SLE RA 2	-65	0	1258	0.11	-3.46	0
66	SLE RA 3	-60	0	1263	0	-2.73	0
66	SLE RA 4	-63	0	1260	0.07	-3.17	0
66	SLE RA 5	-65	0	1258	0.11	-3.46	0
66	SLE RA 6	-60	0	1263	0	-2.73	0
66	SLE RA 7	-63	0	1260	0.07	-3.17	0
66	SLE RA 8	-60	0	1263	0	-2.73	0
66	SLE RA 9	-63	0	1260	0.07	-3.17	0
66	SLE RA 10	-94	0	1494	0.13	-4.86	0
66	SLE RA 11	-89	0	1499	0.01	-4.12	0
66	SLE RA 12	-92	0	1496	0.08	-4.56	0
66	SLE RA 13	-94	0	1494	0.13	-4.86	0
66	SLE RA 14	-89	0	1499	0.01	-4.12	0
66	SLE RA 15	-92	0	1496	0.08	-4.56	0
66	SLE RA 16	-89	0	1499	0.01	-4.12	0
66	SLE RA 17	-92	0	1496	0.08	-4.56	0
66	SLE RA 18	-102	0	1600	0.02	-4.71	0
66	SLE RA 19	-105	0	1597	0.09	-5.16	0
66	SLE RA 20	-102	0	1600	0.02	-4.71	0
66	SLE RA 21	-105	0	1597	0.09	-5.16	0
66	SLE FR 1	-60	0	1263	0	-2.73	0
66	SLE FR 2	-61	0	1262	0.03	-2.87	0
66	SLE FR 3	-60	0	1263	0	-2.73	0
66	SLE FR 4	-74	0	1363	0.03	-3.47	0
66	SLE FR 5	-73	0	1364	0.01	-3.32	0
66	SLE FR 6	-81	0	1432	0.01	-3.72	0
66	SLE QP 1	-60	0	1263	0	-2.73	0
66	SLE QP 2	-73	0	1364	0.01	-3.32	0
66	SLD 1	126	11	1418	-13.19	17.68	0
66	SLD 2	126	11	1418	-13.19	17.68	0
66	SLD 3	162	-7	1433	9.76	13.81	0
66	SLD 4	162	-7	1433	9.76	13.81	0
66	SLD 5	-68	31	1358	-38.76	8.86	-0.01
66	SLD 6	-68	31	1358	-38.76	8.86	-0.01
66	SLD 7	53	-30	1407	37.74	-4.06	0.01
66	SLD 8	53	-30	1407	37.74	-4.06	0.01
66	SLD 9	-198	30	1321	-37.73	-2.59	-0.01
66	SLD 10	-198	30	1321	-37.73	-2.59	-0.01
66	SLD 11	-78	-31	1370	38.78	-15.5	0.01
66	SLD 12	-78	-31	1370	38.78	-15.5	0.01
66	SLD 13	-308	7	1295	-9.75	-20.45	0
66	SLD 14	-308	7	1295	-9.75	-20.45	0
66	SLD 15	-271	-11	1310	13.2	-24.33	0
66	SLD 16	-271	-11	1310	13.2	-24.33	0
66	SLV 1	462	33	1520	-39.79	56.36	-0.01
66	SLV 2	462	33	1520	-39.79	56.36	-0.01
66	SLV 3	561	-23	1559	30.05	45.6	0
66	SLV 4	561	-23	1559	30.05	45.6	0
66	SLV 5	-62	95	1351	-117.86	30.91	-0.03
66	SLV 6	-62	95	1351	-117.86	30.91	-0.03
66	SLV 7	267	-92	1482	114.95	-4.98	0.02
66	SLV 8	267	-92	1482	114.95	-4.98	0.02
66	SLV 9	-413	92	1246	-114.93	-1.67	-0.02
66	SLV 10	-413	92	1246	-114.93	-1.67	-0.02
66	SLV 11	-83	-95	1377	117.88	-37.56	0.03
66	SLV 12	-83	-95	1377	117.88	-37.56	0.03
66	SLV 13	-707	23	1169	-30.03	-52.24	0
66	SLV 14	-707	23	1169	-30.03	-52.24	0
66	SLV 15	-608	-33	1208	39.81	-63.01	0.01
66	SLV 16	-608	-33	1208	39.81	-63.01	0.01
67	SLU 1	-40	0	1223	-0.01	-1.38	0
67	SLU 2	-26	0	1219	0.14	0.17	0
67	SLU 3	-40	0	1223	-0.01	-1.38	0
67	SLU 4	-31	0	1221	0.08	-0.45	0
67	SLU 5	-26	0	1219	0.14	0.17	0
67	SLU 6	-40	0	1223	-0.01	-1.38	0
67	SLU 7	-31	0	1221	0.08	-0.45	0
67	SLU 8	-40	0	1223	-0.01	-1.38	0
67	SLU 9	-31	0	1221	0.08	-0.45	0
67	SLU 10	-34	0	1622	0.16	-0.05	0
67	SLU 11	-48	0	1626	0.01	-1.6	0
67	SLU 12	-39	0	1624	0.1	-0.67	0
67	SLU 13	-34	0	1622	0.16	-0.05	0
67	SLU 14	-48	0	1626	0.01	-1.6	0
67	SLU 15	-39	0	1624	0.1	-0.67	0
67	SLU 16	-48	0	1626	0.01	-1.6	0
67	SLU 17	-39	0	1624	0.1	-0.67	0
67	SLU 18	-51	0	1799	0.01	-1.69	0
67	SLU 19	-43	0	1796	0.1	-0.76	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
67	SLU 20	-51	0	1799	0.01	-1.69	0
67	SLU 21	-43	0	1796	0.1	-0.76	0
67	SLU 22	-52	0	1511	-0.01	-1.79	0
67	SLU 23	-38	0	1508	0.14	-0.25	0
67	SLU 24	-52	0	1511	-0.01	-1.79	0
67	SLU 25	-43	0	1509	0.08	-0.87	0
67	SLU 26	-38	0	1508	0.14	-0.25	0
67	SLU 27	-52	0	1511	-0.01	-1.79	0
67	SLU 28	-43	0	1509	0.08	-0.87	0
67	SLU 29	-52	0	1511	-0.01	-1.79	0
67	SLU 30	-43	0	1509	0.08	-0.87	0
67	SLU 31	-46	0	1911	0.16	-0.47	0
67	SLU 32	-60	0	1914	0.01	-2.01	0
67	SLU 33	-52	0	1912	0.1	-1.09	0
67	SLU 34	-46	0	1911	0.16	-0.47	0
67	SLU 35	-60	0	1914	0.01	-2.01	0
67	SLU 36	-52	0	1912	0.1	-1.09	0
67	SLU 37	-60	0	1914	0.01	-2.01	0
67	SLU 38	-52	0	1912	0.1	-1.09	0
67	SLU 39	-63	0	2087	0.01	-2.11	0
67	SLU 40	-55	0	2085	0.1	-1.18	0
67	SLU 41	-63	0	2087	0.01	-2.11	0
67	SLU 42	-55	0	2085	0.1	-1.18	0
67	SLU 43	-47	0	1491	-0.01	-1.65	0
67	SLU 44	-33	0	1487	0.14	-0.1	0
67	SLU 45	-47	0	1491	-0.01	-1.65	0
67	SLU 46	-39	0	1488	0.08	-0.72	0
67	SLU 47	-33	0	1487	0.14	-0.1	0
67	SLU 48	-47	0	1491	-0.01	-1.65	0
67	SLU 49	-39	0	1488	0.08	-0.72	0
67	SLU 50	-47	0	1491	-0.01	-1.65	0
67	SLU 51	-39	0	1488	0.08	-0.72	0
67	SLU 52	-41	0	1890	0.15	-0.32	0
67	SLU 53	-55	0	1894	0	-1.86	0
67	SLU 54	-47	0	1892	0.09	-0.94	0
67	SLU 55	-41	0	1890	0.15	-0.32	0
67	SLU 56	-55	0	1894	0	-1.86	0
67	SLU 57	-47	0	1892	0.09	-0.94	0
67	SLU 58	-55	0	1894	0	-1.86	0
67	SLU 59	-47	0	1892	0.09	-0.94	0
67	SLU 60	-59	0	2066	0.01	-1.96	0
67	SLU 61	-51	0	2064	0.1	-1.03	0
67	SLU 62	-59	0	2066	0.01	-1.96	0
67	SLU 63	-51	0	2064	0.1	-1.03	0
67	SLU 64	-59	0	1779	-0.01	-2.06	0
67	SLU 65	-45	0	1776	0.14	-0.52	0
67	SLU 66	-59	0	1779	-0.01	-2.06	0
67	SLU 67	-51	0	1777	0.08	-1.14	0
67	SLU 68	-45	0	1776	0.14	-0.52	0
67	SLU 69	-59	0	1779	-0.01	-2.06	0
67	SLU 70	-51	0	1777	0.08	-1.14	0
67	SLU 71	-59	0	1779	-0.01	-2.06	0
67	SLU 72	-51	0	1777	0.08	-1.14	0
67	SLU 73	-54	0	2179	0.16	-0.74	0
67	SLU 74	-68	0	2182	0.01	-2.28	0
67	SLU 75	-59	0	2180	0.1	-1.36	0
67	SLU 76	-54	0	2179	0.16	-0.74	0
67	SLU 77	-68	0	2182	0.01	-2.28	0
67	SLU 78	-59	0	2180	0.1	-1.36	0
67	SLU 79	-68	0	2182	0.01	-2.28	0
67	SLU 80	-59	0	2180	0.1	-1.36	0
67	SLU 81	-71	0	2355	0.01	-2.38	0
67	SLU 82	-63	0	2353	0.1	-1.45	0
67	SLU 83	-71	0	2355	0.01	-2.38	0
67	SLU 84	-63	0	2353	0.1	-1.45	0
67	SLE RA 1	-43	0	1305	-0.01	-1.5	0
67	SLE RA 2	-34	0	1303	0.09	-0.47	0
67	SLE RA 3	-43	0	1305	-0.01	-1.5	0
67	SLE RA 4	-37	0	1304	0.05	-0.88	0
67	SLE RA 5	-34	0	1303	0.09	-0.47	0
67	SLE RA 6	-43	0	1305	-0.01	-1.5	0
67	SLE RA 7	-37	0	1304	0.05	-0.88	0
67	SLE RA 8	-43	0	1305	-0.01	-1.5	0
67	SLE RA 9	-37	0	1304	0.05	-0.88	0
67	SLE RA 10	-39	0	1571	0.1	-0.61	0
67	SLE RA 11	-48	0	1574	0	-1.64	0
67	SLE RA 12	-43	0	1572	0.06	-1.02	0
67	SLE RA 13	-39	0	1571	0.1	-0.61	0
67	SLE RA 14	-48	0	1574	0	-1.64	0
67	SLE RA 15	-43	0	1572	0.06	-1.02	0
67	SLE RA 16	-48	0	1574	0	-1.64	0
67	SLE RA 17	-43	0	1572	0.06	-1.02	0
67	SLE RA 18	-51	0	1689	0.01	-1.7	0
67	SLE RA 19	-45	0	1688	0.07	-1.09	0
67	SLE RA 20	-51	0	1689	0.01	-1.7	0
67	SLE RA 21	-45	0	1688	0.07	-1.09	0
67	SLE FR 1	-43	0	1305	-0.01	-1.5	0
67	SLE FR 2	-41	0	1305	0.01	-1.29	0
67	SLE FR 3	-43	0	1305	-0.01	-1.5	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
67	SLE FR 4	-43	0	1420	0.02	-1.35	0
67	SLE FR 5	-45	0	1420	0	-1.56	0
67	SLE FR 6	-47	0	1497	0	-1.6	0
67	SLE QP 1	-43	0	1305	-0.01	-1.5	0
67	SLE QP 2	-45	0	1420	0	-1.56	0
67	SLD 1	-257	6	1461	-12.26	-25.13	-0.01
67	SLD 2	-257	6	1461	-12.26	-25.13	-0.01
67	SLD 3	-224	-10	1451	8.7	-20.68	0
67	SLD 4	-224	-10	1451	8.7	-20.68	0
67	SLD 5	-158	26	1448	-35.47	-15.39	-0.01
67	SLD 6	-158	26	1448	-35.47	-15.39	-0.01
67	SLD 7	-50	-27	1414	34.39	-0.53	0.01
67	SLD 8	-50	-27	1414	34.39	-0.53	0.01
67	SLD 9	-41	27	1427	-34.4	-2.59	-0.01
67	SLD 10	-41	27	1427	-34.4	-2.59	-0.01
67	SLD 11	67	-26	1392	35.46	12.28	0.01
67	SLD 12	67	-26	1392	35.46	12.28	0.01
67	SLD 13	134	10	1389	-8.7	17.56	0
67	SLD 14	134	10	1389	-8.7	17.56	0
67	SLD 15	166	-6	1379	12.26	22.02	0.01
67	SLD 16	166	-6	1379	12.26	22.02	0.01
67	SLV 1	-608	19	1531	-36.89	-68.64	-0.02
67	SLV 2	-608	19	1531	-36.89	-68.64	-0.02
67	SLV 3	-516	-30	1505	26.95	-56.12	0
67	SLV 4	-516	-30	1505	26.95	-56.12	0
67	SLV 5	-354	80	1493	-107.89	-40.68	-0.03
67	SLV 6	-354	80	1493	-107.89	-40.68	-0.03
67	SLV 7	-47	-83	1407	104.91	1.07	0.03
67	SLV 8	-47	-83	1407	104.91	1.07	0.03
67	SLV 9	-44	83	1434	-104.92	-4.19	-0.03
67	SLV 10	-44	83	1434	-104.92	-4.19	-0.03
67	SLV 11	263	-80	1348	107.89	37.57	0.03
67	SLV 12	263	-80	1348	107.89	37.57	0.03
67	SLV 13	425	30	1335	-26.96	53	0
67	SLV 14	425	30	1335	-26.96	53	0
67	SLV 15	517	-19	1309	36.88	65.53	0.02
67	SLV 16	517	-19	1309	36.88	65.53	0.02
68	SLU 1	-32	0	1289	-0.03	-2.08	0
68	SLU 2	-43	0	1285	0.11	-3.78	0
68	SLU 3	-32	0	1289	-0.03	-2.08	0
68	SLU 4	-38	0	1286	0.06	-3.1	0
68	SLU 5	-43	0	1285	0.11	-3.78	0
68	SLU 6	-32	0	1289	-0.03	-2.08	0
68	SLU 7	-38	0	1286	0.06	-3.1	0
68	SLU 8	-32	0	1289	-0.03	-2.08	0
68	SLU 9	-38	0	1286	0.06	-3.1	0
68	SLU 10	-20	0	1778	0.12	-3.94	0
68	SLU 11	-9	0	1783	-0.02	-2.24	0
68	SLU 12	-15	0	1780	0.06	-3.26	0
68	SLU 13	-20	0	1778	0.12	-3.94	0
68	SLU 14	-9	0	1783	-0.02	-2.24	0
68	SLU 15	-15	0	1780	0.06	-3.26	0
68	SLU 16	-9	0	1783	-0.02	-2.24	0
68	SLU 17	-15	0	1780	0.06	-3.26	0
68	SLU 18	1	0	1994	-0.02	-2.31	0
68	SLU 19	-5	0	1992	0.06	-3.33	0
68	SLU 20	1	0	1994	-0.02	-2.31	0
68	SLU 21	-5	0	1992	0.06	-3.33	0
68	SLU 22	-36	0	1611	-0.03	-2.63	0
68	SLU 23	-46	0	1606	0.11	-4.33	0
68	SLU 24	-36	0	1611	-0.03	-2.63	0
68	SLU 25	-42	0	1608	0.05	-3.65	0
68	SLU 26	-46	0	1606	0.11	-4.33	0
68	SLU 27	-36	0	1611	-0.03	-2.63	0
68	SLU 28	-42	0	1608	0.05	-3.65	0
68	SLU 29	-36	0	1611	-0.03	-2.63	0
68	SLU 30	-42	0	1608	0.05	-3.65	0
68	SLU 31	-23	0	2100	0.11	-4.49	0
68	SLU 32	-12	0	2104	-0.02	-2.79	0
68	SLU 33	-19	0	2102	0.06	-3.81	0
68	SLU 34	-23	0	2100	0.11	-4.49	0
68	SLU 35	-12	0	2104	-0.02	-2.79	0
68	SLU 36	-19	0	2102	0.06	-3.81	0
68	SLU 37	-12	0	2104	-0.02	-2.79	0
68	SLU 38	-19	0	2102	0.06	-3.81	0
68	SLU 39	-2	0	2316	-0.02	-2.86	0
68	SLU 40	-9	0	2313	0.06	-3.88	0
68	SLU 41	-2	0	2316	-0.02	-2.86	0
68	SLU 42	-9	0	2313	0.06	-3.88	0
68	SLU 43	-40	0	1565	-0.03	-2.52	0
68	SLU 44	-51	0	1561	0.11	-4.22	0
68	SLU 45	-40	0	1565	-0.03	-2.52	0
68	SLU 46	-47	0	1563	0.05	-3.54	0
68	SLU 47	-51	0	1561	0.11	-4.22	0
68	SLU 48	-40	0	1565	-0.03	-2.52	0
68	SLU 49	-47	0	1563	0.05	-3.54	0
68	SLU 50	-40	0	1565	-0.03	-2.52	0
68	SLU 51	-47	0	1563	0.05	-3.54	0
68	SLU 52	-28	0	2055	0.11	-4.38	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
68	SLU 53	-17	0	2059	-0.03	-2.68	0
68	SLU 54	-24	0	2056	0.06	-3.7	0
68	SLU 55	-28	0	2055	0.11	-4.38	0
68	SLU 56	-17	0	2059	-0.03	-2.68	0
68	SLU 57	-24	0	2056	0.06	-3.7	0
68	SLU 58	-17	0	2059	-0.03	-2.68	0
68	SLU 59	-24	0	2056	0.06	-3.7	0
68	SLU 60	-7	0	2271	-0.02	-2.75	0
68	SLU 61	-14	0	2268	0.06	-3.77	0
68	SLU 62	-7	0	2271	-0.02	-2.75	0
68	SLU 63	-14	0	2268	0.06	-3.77	0
68	SLU 64	-44	0	1887	-0.04	-3.07	0
68	SLU 65	-55	0	1883	0.1	-4.77	0
68	SLU 66	-44	0	1887	-0.04	-3.07	0
68	SLU 67	-50	0	1884	0.05	-4.09	0
68	SLU 68	-55	0	1883	0.1	-4.77	0
68	SLU 69	-44	0	1887	-0.04	-3.07	0
68	SLU 70	-50	0	1884	0.05	-4.09	0
68	SLU 71	-44	0	1887	-0.04	-3.07	0
68	SLU 72	-50	0	1884	0.05	-4.09	0
68	SLU 73	-32	0	2376	0.11	-4.93	0
68	SLU 74	-21	0	2381	-0.03	-3.23	0
68	SLU 75	-27	0	2378	0.05	-4.25	0
68	SLU 76	-32	0	2376	0.11	-4.93	0
68	SLU 77	-21	0	2381	-0.03	-3.23	0
68	SLU 78	-27	0	2378	0.05	-4.25	0
68	SLU 79	-21	0	2381	-0.03	-3.23	0
68	SLU 80	-27	0	2378	0.05	-4.25	0
68	SLU 81	-11	0	2592	-0.03	-3.3	0
68	SLU 82	-17	0	2590	0.05	-4.31	0
68	SLU 83	-11	0	2592	-0.03	-3.3	0
68	SLU 84	-17	0	2590	0.05	-4.31	0
68	SLE RA 1	-33	0	1381	-0.03	-2.24	0
68	SLE RA 2	-40	0	1378	0.07	-3.37	0
68	SLE RA 3	-33	0	1381	-0.03	-2.24	0
68	SLE RA 4	-37	0	1379	0.03	-2.92	0
68	SLE RA 5	-40	0	1378	0.07	-3.37	0
68	SLE RA 6	-33	0	1381	-0.03	-2.24	0
68	SLE RA 7	-37	0	1379	0.03	-2.92	0
68	SLE RA 8	-33	0	1381	-0.03	-2.24	0
68	SLE RA 9	-37	0	1379	0.03	-2.92	0
68	SLE RA 10	-25	0	1707	0.07	-3.48	0
68	SLE RA 11	-17	0	1710	-0.02	-2.35	0
68	SLE RA 12	-22	0	1708	0.03	-3.03	0
68	SLE RA 13	-25	0	1707	0.07	-3.48	0
68	SLE RA 14	-17	0	1710	-0.02	-2.35	0
68	SLE RA 15	-22	0	1708	0.03	-3.03	0
68	SLE RA 16	-17	0	1710	-0.02	-2.35	0
68	SLE RA 17	-22	0	1708	0.03	-3.03	0
68	SLE RA 18	-11	0	1851	-0.02	-2.39	0
68	SLE RA 19	-15	0	1849	0.03	-3.07	0
68	SLE RA 20	-11	0	1851	-0.02	-2.39	0
68	SLE RA 21	-15	0	1849	0.03	-3.07	0
68	SLE FR 1	-33	0	1381	-0.03	-2.24	0
68	SLE FR 2	-34	0	1380	-0.01	-2.47	0
68	SLE FR 3	-33	0	1381	-0.03	-2.24	0
68	SLE FR 4	-28	0	1521	-0.01	-2.51	0
68	SLE FR 5	-26	0	1522	-0.02	-2.29	0
68	SLE FR 6	-22	0	1616	-0.02	-2.32	0
68	SLE QP 1	-33	0	1381	-0.03	-2.24	0
68	SLE QP 2	-26	0	1522	-0.02	-2.29	0
68	SLD 1	287	5	1646	-7.28	29.9	-0.01
68	SLD 2	287	5	1646	-7.28	29.9	-0.01
68	SLD 3	232	-8	1611	10.49	23.84	0
68	SLD 4	232	-8	1611	10.49	23.84	0
68	SLD 5	151	21	1611	-29.16	16.57	-0.01
68	SLD 6	151	21	1611	-29.16	16.57	-0.01
68	SLD 7	-32	-22	1497	30.09	-3.64	0.01
68	SLD 8	-32	-22	1497	30.09	-3.64	0.01
68	SLD 9	-21	22	1547	-30.14	-0.93	-0.01
68	SLD 10	-21	22	1547	-30.14	-0.93	-0.01
68	SLD 11	-203	-20	1433	29.11	-21.14	0.01
68	SLD 12	-203	-20	1433	29.11	-21.14	0.01
68	SLD 13	-285	8	1433	-10.54	-28.41	0
68	SLD 14	-285	8	1433	-10.54	-28.41	0
68	SLD 15	-340	-4	1398	7.23	-34.47	0
68	SLD 16	-340	-4	1398	7.23	-34.47	0
68	SLV 1	845	14	1872	-22.6	89.74	-0.01
68	SLV 2	845	14	1872	-22.6	89.74	-0.01
68	SLV 3	696	-24	1784	31.57	72.91	0.01
68	SLV 4	696	-24	1784	31.57	72.91	0.01
68	SLV 5	461	63	1759	-88.95	50.85	-0.03
68	SLV 6	461	63	1759	-88.95	50.85	-0.03
68	SLV 7	-35	-65	1468	91.6	-5.26	0.03
68	SLV 8	-35	-65	1468	91.6	-5.26	0.03
68	SLV 9	-17	65	1575	-91.65	0.69	-0.03
68	SLV 10	-17	65	1575	-91.65	0.69	-0.03
68	SLV 11	-513	-62	1285	88.9	-55.42	0.03
68	SLV 12	-513	-62	1285	88.9	-55.42	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
68	SLV 13	-749	24	1260	-31.62	-77.48	-0.01
68	SLV 14	-749	24	1260	-31.62	-77.48	-0.01
68	SLV 15	-897	-14	1172	22.55	-94.31	0.01
68	SLV 16	-897	-14	1172	22.55	-94.31	0.01
69	SLU 1	0	0	1404	-0.07	-0.05	0
69	SLU 2	24	0	1409	0.06	2.39	0
69	SLU 3	0	0	1404	-0.07	-0.05	0
69	SLU 4	14	0	1407	0.01	1.42	0
69	SLU 5	24	0	1409	0.06	2.39	0
69	SLU 6	0	0	1404	-0.07	-0.05	0
69	SLU 7	14	0	1407	0.01	1.42	0
69	SLU 8	0	0	1404	-0.07	-0.05	0
69	SLU 9	14	0	1407	0.01	1.42	0
69	SLU 10	110	0	2059	0.04	5.53	0
69	SLU 11	86	0	2054	-0.09	3.09	0
69	SLU 12	100	0	2057	-0.01	4.55	0
69	SLU 13	110	0	2059	0.04	5.53	0
69	SLU 14	86	0	2054	-0.09	3.09	0
69	SLU 15	100	0	2057	-0.01	4.55	0
69	SLU 16	86	0	2054	-0.09	3.09	0
69	SLU 17	100	0	2057	-0.01	4.55	0
69	SLU 18	123	0	2333	-0.1	4.43	0
69	SLU 19	137	0	2336	-0.02	5.9	0
69	SLU 20	123	0	2333	-0.1	4.43	0
69	SLU 21	137	0	2336	-0.02	5.9	0
69	SLU 22	16	0	1783	-0.09	0.55	0
69	SLU 23	41	0	1788	0.04	2.99	0
69	SLU 24	16	0	1783	-0.09	0.55	0
69	SLU 25	31	0	1786	-0.01	2.01	0
69	SLU 26	41	0	1788	0.04	2.99	0
69	SLU 27	16	0	1783	-0.09	0.55	0
69	SLU 28	31	0	1786	-0.01	2.01	0
69	SLU 29	16	0	1783	-0.09	0.55	0
69	SLU 30	31	0	1786	-0.01	2.01	0
69	SLU 31	127	0	2438	0.02	6.13	0
69	SLU 32	102	0	2433	-0.11	3.68	0
69	SLU 33	117	0	2436	-0.03	5.15	0
69	SLU 34	127	0	2438	0.02	6.13	0
69	SLU 35	102	0	2433	-0.11	3.68	0
69	SLU 36	117	0	2436	-0.03	5.15	0
69	SLU 37	102	0	2433	-0.11	3.68	0
69	SLU 38	117	0	2436	-0.03	5.15	0
69	SLU 39	139	0	2712	-0.11	5.03	0
69	SLU 40	154	0	2715	-0.04	6.5	0
69	SLU 41	139	0	2712	-0.11	5.03	0
69	SLU 42	154	0	2715	-0.04	6.5	0
69	SLU 43	-6	0	1696	-0.08	-0.27	0
69	SLU 44	18	0	1701	0.04	2.17	0
69	SLU 45	-6	0	1696	-0.08	-0.27	0
69	SLU 46	8	0	1699	-0.01	1.2	0
69	SLU 47	18	0	1701	0.04	2.17	0
69	SLU 48	-6	0	1696	-0.08	-0.27	0
69	SLU 49	8	0	1699	-0.01	1.2	0
69	SLU 50	-6	0	1696	-0.08	-0.27	0
69	SLU 51	8	0	1699	-0.01	1.2	0
69	SLU 52	104	0	2351	0.03	5.31	0
69	SLU 53	80	0	2346	-0.1	2.87	0
69	SLU 54	94	0	2349	-0.03	4.33	0
69	SLU 55	104	0	2351	0.03	5.31	0
69	SLU 56	80	0	2346	-0.1	2.87	0
69	SLU 57	94	0	2349	-0.03	4.33	0
69	SLU 58	80	0	2346	-0.1	2.87	0
69	SLU 59	94	0	2349	-0.03	4.33	0
69	SLU 60	117	0	2624	-0.11	4.21	0
69	SLU 61	131	0	2627	-0.03	5.68	0
69	SLU 62	117	0	2624	-0.11	4.21	0
69	SLU 63	131	0	2627	-0.03	5.68	0
69	SLU 64	11	0	2075	-0.1	0.33	0
69	SLU 65	35	0	2080	0.02	2.77	0
69	SLU 66	11	0	2075	-0.1	0.33	0
69	SLU 67	25	0	2078	-0.03	1.79	0
69	SLU 68	35	0	2080	0.02	2.77	0
69	SLU 69	11	0	2075	-0.1	0.33	0
69	SLU 70	25	0	2078	-0.03	1.79	0
69	SLU 71	11	0	2075	-0.1	0.33	0
69	SLU 72	25	0	2078	-0.03	1.79	0
69	SLU 73	121	0	2730	0.01	5.91	0
69	SLU 74	97	0	2725	-0.12	3.46	0
69	SLU 75	111	0	2728	-0.04	4.93	0
69	SLU 76	121	0	2730	0.01	5.91	0
69	SLU 77	97	0	2725	-0.12	3.46	0
69	SLU 78	111	0	2728	-0.04	4.93	0
69	SLU 79	97	0	2725	-0.12	3.46	0
69	SLU 80	111	0	2728	-0.04	4.93	0
69	SLU 81	133	0	3003	-0.13	4.81	0
69	SLU 82	148	0	3006	-0.05	6.28	0
69	SLU 83	133	0	3003	-0.13	4.81	0
69	SLU 84	148	0	3006	-0.05	6.28	0
69	SLE RA 1	5	0	1513	-0.08	0.12	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
69	SLE RA 2	21	0	1516	0.01	1.75	0
69	SLE RA 3	5	0	1513	-0.08	0.12	0
69	SLE RA 4	14	0	1515	-0.02	1.1	0
69	SLE RA 5	21	0	1516	0.01	1.75	0
69	SLE RA 6	5	0	1513	-0.08	0.12	0
69	SLE RA 7	14	0	1515	-0.02	1.1	0
69	SLE RA 8	5	0	1513	-0.08	0.12	0
69	SLE RA 9	14	0	1515	-0.02	1.1	0
69	SLE RA 10	78	0	1949	0	3.84	0
69	SLE RA 11	62	0	1946	-0.09	2.21	0
69	SLE RA 12	71	0	1948	-0.04	3.19	0
69	SLE RA 13	78	0	1949	0	3.84	0
69	SLE RA 14	62	0	1946	-0.09	2.21	0
69	SLE RA 15	71	0	1948	-0.04	3.19	0
69	SLE RA 16	62	0	1946	-0.09	2.21	0
69	SLE RA 17	71	0	1948	-0.04	3.19	0
69	SLE RA 18	86	0	2132	-0.09	3.11	0
69	SLE RA 19	96	0	2134	-0.04	4.09	0
69	SLE RA 20	86	0	2132	-0.09	3.11	0
69	SLE RA 21	96	0	2134	-0.04	4.09	0
69	SLE FR 1	5	0	1513	-0.08	0.12	0
69	SLE FR 2	8	0	1513	-0.06	0.45	0
69	SLE FR 3	5	0	1513	-0.08	0.12	0
69	SLE FR 4	32	0	1699	-0.06	1.34	0
69	SLE FR 5	29	0	1698	-0.08	1.02	0
69	SLE FR 6	45	0	1822	-0.08	1.61	0
69	SLE QP 1	5	0	1513	-0.08	0.12	0
69	SLE QP 2	29	0	1698	-0.08	1.02	0
69	SLD 1	-220	3	1791	-5.63	-35.89	-0.01
69	SLD 2	-220	3	1791	-5.63	-35.89	-0.01
69	SLD 3	-281	-5	1733	8.15	-28.75	0
69	SLD 4	-281	-5	1733	8.15	-28.75	0
69	SLD 5	46	14	1814	-22.64	-20.88	-0.01
69	SLD 6	46	14	1814	-22.64	-20.88	-0.01
69	SLD 7	-156	-14	1621	23.28	2.91	0.01
69	SLD 8	-156	-14	1621	23.28	2.91	0.01
69	SLD 9	214	15	1776	-23.44	-0.88	-0.01
69	SLD 10	214	15	1776	-23.44	-0.88	-0.01
69	SLD 11	12	-14	1583	22.48	22.92	0.01
69	SLD 12	12	-14	1583	22.48	22.92	0.01
69	SLD 13	339	6	1664	-8.31	30.78	0
69	SLD 14	339	6	1664	-8.31	30.78	0
69	SLD 15	278	-3	1606	5.47	37.92	0
69	SLD 16	278	-3	1606	5.47	37.92	0
69	SLV 1	-662	9	1944	-17.34	-104.57	-0.02
69	SLV 2	-662	9	1944	-17.34	-104.57	-0.02
69	SLV 3	-831	-16	1809	24.57	-84.5	0
69	SLV 4	-831	-16	1809	24.57	-84.5	0
69	SLV 5	77	42	1977	-68.81	-61.09	-0.03
69	SLV 6	77	42	1977	-68.81	-61.09	-0.03
69	SLV 7	-484	-43	1527	70.87	5.79	0.03
69	SLV 8	-484	-43	1527	70.87	5.79	0.03
69	SLV 9	542	44	1870	-71.03	-3.76	-0.03
69	SLV 10	542	44	1870	-71.03	-3.76	-0.03
69	SLV 11	-19	-41	1420	68.65	63.12	0.03
69	SLV 12	-19	-41	1420	68.65	63.12	0.03
69	SLV 13	889	16	1587	-24.73	86.54	0
69	SLV 14	889	16	1587	-24.73	86.54	0
69	SLV 15	720	-9	1452	17.18	106.6	0.01
69	SLV 16	720	-9	1452	17.18	106.6	0.01
70	SLU 1	-10	1	1569	-0.11	-1.94	0.02
70	SLU 2	-22	1	1577	0.01	-4.3	0.02
70	SLU 3	-10	1	1569	-0.11	-1.94	0.02
70	SLU 4	-17	1	1574	-0.04	-3.36	0.02
70	SLU 5	-22	1	1577	0.01	-4.3	0.02
70	SLU 6	-10	1	1569	-0.11	-1.94	0.02
70	SLU 7	-17	1	1574	-0.04	-3.36	0.02
70	SLU 8	-10	1	1569	-0.11	-1.94	0.02
70	SLU 9	-17	1	1574	-0.04	-3.36	0.02
70	SLU 10	85	2	2451	0.01	-2.1	0.03
70	SLU 11	98	2	2442	-0.11	0.27	0.03
70	SLU 12	90	2	2447	-0.04	-1.15	0.03
70	SLU 13	85	2	2451	0.01	-2.1	0.03
70	SLU 14	98	2	2442	-0.11	0.27	0.03
70	SLU 15	90	2	2447	-0.04	-1.15	0.03
70	SLU 16	98	2	2442	-0.11	0.27	0.03
70	SLU 17	90	2	2447	-0.04	-1.15	0.03
70	SLU 18	144	2	2817	-0.12	1.21	0.04
70	SLU 19	136	2	2822	-0.04	-0.21	0.04
70	SLU 20	144	2	2817	-0.12	1.21	0.04
70	SLU 21	136	2	2822	-0.04	-0.21	0.04
70	SLU 22	10	1	2030	-0.13	-1.91	0.02
70	SLU 23	-2	1	2038	-0.01	-4.27	0.02
70	SLU 24	10	1	2030	-0.13	-1.91	0.02
70	SLU 25	3	1	2035	-0.06	-3.33	0.02
70	SLU 26	-2	1	2038	-0.01	-4.27	0.02
70	SLU 27	10	1	2030	-0.13	-1.91	0.02
70	SLU 28	3	1	2035	-0.06	-3.33	0.02
70	SLU 29	10	1	2030	-0.13	-1.91	0.02





Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
70	SLU 30	3	1	2035	-0.06	-3.33	0.02
70	SLU 31	105	2	2912	-0.02	-2.07	0.04
70	SLU 32	118	2	2903	-0.14	0.29	0.04
70	SLU 33	110	2	2908	-0.07	-1.13	0.04
70	SLU 34	105	2	2912	-0.02	-2.07	0.04
70	SLU 35	118	2	2903	-0.14	0.29	0.04
70	SLU 36	110	2	2908	-0.07	-1.13	0.04
70	SLU 37	118	2	2903	-0.14	0.29	0.04
70	SLU 38	110	2	2908	-0.07	-1.13	0.04
70	SLU 39	164	2	3278	-0.14	1.24	0.04
70	SLU 40	156	2	3283	-0.07	-0.18	0.04
70	SLU 41	164	2	3278	-0.14	1.24	0.04
70	SLU 42	156	2	3283	-0.07	-0.18	0.04
70	SLU 43	-19	1	1881	-0.13	-2.53	0.02
70	SLU 44	-32	1	1890	-0.01	-4.89	0.02
70	SLU 45	-19	1	1881	-0.13	-2.53	0.02
70	SLU 46	-27	1	1886	-0.06	-3.95	0.02
70	SLU 47	-32	1	1890	-0.01	-4.89	0.02
70	SLU 48	-19	1	1881	-0.13	-2.53	0.02
70	SLU 49	-27	1	1886	-0.06	-3.95	0.02
70	SLU 50	-19	1	1881	-0.13	-2.53	0.02
70	SLU 51	-27	1	1886	-0.06	-3.95	0.02
70	SLU 52	75	2	2763	-0.02	-2.69	0.03
70	SLU 53	88	2	2755	-0.14	-0.33	0.03
70	SLU 54	80	2	2760	-0.06	-1.75	0.03
70	SLU 55	75	2	2763	-0.02	-2.69	0.03
70	SLU 56	88	2	2755	-0.14	-0.33	0.03
70	SLU 57	80	2	2760	-0.06	-1.75	0.03
70	SLU 58	88	2	2755	-0.14	-0.33	0.03
70	SLU 59	80	2	2760	-0.06	-1.75	0.03
70	SLU 60	134	2	3129	-0.14	0.62	0.04
70	SLU 61	126	2	3134	-0.07	-0.8	0.04
70	SLU 62	134	2	3129	-0.14	0.62	0.04
70	SLU 63	126	2	3134	-0.07	-0.8	0.04
70	SLU 64	1	2	2342	-0.16	-2.5	0.03
70	SLU 65	-12	1	2351	-0.04	-4.87	0.03
70	SLU 66	1	2	2342	-0.16	-2.5	0.03
70	SLU 67	-7	2	2347	-0.08	-3.92	0.03
70	SLU 68	-12	1	2351	-0.04	-4.87	0.03
70	SLU 69	1	2	2342	-0.16	-2.5	0.03
70	SLU 70	-7	2	2347	-0.08	-3.92	0.03
70	SLU 71	1	2	2342	-0.16	-2.5	0.03
70	SLU 72	-7	2	2347	-0.08	-3.92	0.03
70	SLU 73	95	2	3224	-0.04	-2.66	0.04
70	SLU 74	108	2	3216	-0.16	-0.3	0.04
70	SLU 75	100	2	3221	-0.09	-1.72	0.04
70	SLU 76	95	2	3224	-0.04	-2.66	0.04
70	SLU 77	108	2	3216	-0.16	-0.3	0.04
70	SLU 78	100	2	3221	-0.09	-1.72	0.04
70	SLU 79	108	2	3216	-0.16	-0.3	0.04
70	SLU 80	100	2	3221	-0.09	-1.72	0.04
70	SLU 81	154	3	3590	-0.17	0.65	0.04
70	SLU 82	146	3	3595	-0.09	-0.77	0.04
70	SLU 83	154	3	3590	-0.17	0.65	0.04
70	SLU 84	146	3	3595	-0.09	-0.77	0.04
70	SLE RA 1	-4	1	1700	-0.11	-1.93	0.02
70	SLE RA 2	-12	1	1706	-0.03	-3.51	0.02
70	SLE RA 3	-4	1	1700	-0.11	-1.93	0.02
70	SLE RA 4	-9	1	1704	-0.07	-2.87	0.02
70	SLE RA 5	-12	1	1706	-0.03	-3.51	0.02
70	SLE RA 6	-4	1	1700	-0.11	-1.93	0.02
70	SLE RA 7	-9	1	1704	-0.07	-2.87	0.02
70	SLE RA 8	-4	1	1700	-0.11	-1.93	0.02
70	SLE RA 9	-9	1	1704	-0.07	-2.87	0.02
70	SLE RA 10	59	2	2289	-0.04	-2.04	0.03
70	SLE RA 11	68	2	2283	-0.12	-0.46	0.03
70	SLE RA 12	63	2	2286	-0.07	-1.41	0.03
70	SLE RA 13	59	2	2289	-0.04	-2.04	0.03
70	SLE RA 14	68	2	2283	-0.12	-0.46	0.03
70	SLE RA 15	63	2	2286	-0.07	-1.41	0.03
70	SLE RA 16	68	2	2283	-0.12	-0.46	0.03
70	SLE RA 17	63	2	2286	-0.07	-1.41	0.03
70	SLE RA 18	98	2	2532	-0.12	0.17	0.03
70	SLE RA 19	93	2	2536	-0.07	-0.78	0.03
70	SLE RA 20	98	2	2532	-0.12	0.17	0.03
70	SLE RA 21	93	2	2536	-0.07	-0.78	0.03
70	SLE FR 1	-4	1	1700	-0.11	-1.93	0.02
70	SLE FR 2	-6	1	1701	-0.1	-2.24	0.02
70	SLE FR 3	-4	1	1700	-0.11	-1.93	0.02
70	SLE FR 4	25	1	1951	-0.1	-1.61	0.02
70	SLE FR 5	27	1	1950	-0.12	-1.3	0.02
70	SLE FR 6	47	1	2116	-0.12	-0.88	0.02
70	SLE QP 1	-4	1	1700	-0.11	-1.93	0.02
70	SLE QP 2	27	1	1950	-0.12	-1.3	0.02
70	SLD 1	413	6	2133	-6.1	43.77	0.02
70	SLD 2	413	6	2133	-6.1	43.77	0.02
70	SLD 3	338	1	2027	3.3	35.21	0.02
70	SLD 4	338	1	2027	3.3	35.21	0.02
70	SLD 5	256	9	2164	-16.18	25.21	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
70	SLD 6	256	9	2164	-16.18	25.21	0.01
70	SLD 7	7	-5	1814	15.18	-3.34	0.03
70	SLD 8	7	-5	1814	15.18	-3.34	0.03
70	SLD 9	47	8	2086	-15.41	0.74	0.01
70	SLD 10	47	8	2086	-15.41	0.74	0.01
70	SLD 11	-203	-7	1736	15.95	-27.81	0.03
70	SLD 12	-203	-7	1736	15.95	-27.81	0.03
70	SLD 13	-285	1	1872	-3.54	-37.81	0.02
70	SLD 14	-285	1	1872	-3.54	-37.81	0.02
70	SLD 15	-360	-3	1767	5.87	-46.37	0.03
70	SLD 16	-360	-3	1767	5.87	-46.37	0.03
70	SLV 1	1112	13	2444	-17.81	127.8	0
70	SLV 2	1112	13	2444	-17.81	127.8	0
70	SLV 3	914	1	2199	10.68	104.1	0.02
70	SLV 4	914	1	2199	10.68	104.1	0.02
70	SLV 5	653	23	2471	-48.64	73.38	-0.01
70	SLV 6	653	23	2471	-48.64	73.38	-0.01
70	SLV 7	-7	-17	1652	46.33	-5.62	0.05
70	SLV 8	-7	-17	1652	46.33	-5.62	0.05
70	SLV 9	61	20	2248	-46.57	3.03	-0.01
70	SLV 10	61	20	2248	-46.57	3.03	-0.01
70	SLV 11	-599	-21	1429	48.4	-75.97	0.06
70	SLV 12	-599	-21	1429	48.4	-75.97	0.06
70	SLV 13	-861	2	1701	-10.91	-106.7	0.02
70	SLV 14	-861	2	1701	-10.91	-106.7	0.02
70	SLV 15	-1059	-10	1455	17.58	-130.4	0.04
70	SLV 16	-1059	-10	1455	17.58	-130.4	0.04
71	SLU 1	-25	-3	1779	0.65	-1.15	-0.02
71	SLU 2	10	-3	1802	0.78	2.27	-0.02
71	SLU 3	-25	-3	1779	0.65	-1.15	-0.02
71	SLU 4	-4	-3	1793	0.73	0.9	-0.02
71	SLU 5	10	-3	1802	0.78	2.27	-0.02
71	SLU 6	-25	-3	1779	0.65	-1.15	-0.02
71	SLU 7	-4	-3	1793	0.73	0.9	-0.02
71	SLU 8	-25	-3	1779	0.65	-1.15	-0.02
71	SLU 9	-4	-3	1793	0.73	0.9	-0.02
71	SLU 10	133	-6	2960	1.43	6.74	-0.04
71	SLU 11	98	-6	2937	1.31	3.33	-0.04
71	SLU 12	119	-6	2951	1.39	5.38	-0.04
71	SLU 13	133	-6	2960	1.43	6.74	-0.04
71	SLU 14	98	-6	2937	1.31	3.33	-0.04
71	SLU 15	119	-6	2951	1.39	5.38	-0.04
71	SLU 16	98	-6	2937	1.31	3.33	-0.04
71	SLU 17	119	-6	2951	1.39	5.38	-0.04
71	SLU 18	151	-7	3433	1.59	5.25	-0.05
71	SLU 19	172	-8	3447	1.67	7.3	-0.05
71	SLU 20	151	-7	3433	1.59	5.25	-0.05
71	SLU 21	172	-8	3447	1.67	7.3	-0.05
71	SLU 22	-4	-4	2345	0.91	-0.44	-0.03
71	SLU 23	31	-5	2368	1.03	2.98	-0.03
71	SLU 24	-4	-4	2345	0.91	-0.44	-0.03
71	SLU 25	17	-5	2359	0.98	1.61	-0.03
71	SLU 26	31	-5	2368	1.03	2.98	-0.03
71	SLU 27	-4	-4	2345	0.91	-0.44	-0.03
71	SLU 28	17	-5	2359	0.98	1.61	-0.03
71	SLU 29	-4	-4	2345	0.91	-0.44	-0.03
71	SLU 30	17	-5	2359	0.98	1.61	-0.03
71	SLU 31	154	-8	3526	1.69	7.45	-0.05
71	SLU 32	120	-7	3503	1.57	4.04	-0.05
71	SLU 33	140	-8	3516	1.64	6.09	-0.05
71	SLU 34	154	-8	3526	1.69	7.45	-0.05
71	SLU 35	120	-7	3503	1.57	4.04	-0.05
71	SLU 36	140	-8	3516	1.64	6.09	-0.05
71	SLU 37	120	-7	3503	1.57	4.04	-0.05
71	SLU 38	140	-8	3516	1.64	6.09	-0.05
71	SLU 39	172	-9	3999	1.85	5.96	-0.06
71	SLU 40	193	-9	4012	1.92	8.01	-0.06
71	SLU 41	172	-9	3999	1.85	5.96	-0.06
71	SLU 42	193	-9	4012	1.92	8.01	-0.06
71	SLU 43	-39	-4	2119	0.76	-1.73	-0.02
71	SLU 44	-5	-4	2142	0.89	1.68	-0.02
71	SLU 45	-39	-4	2119	0.76	-1.73	-0.02
71	SLU 46	-19	-4	2133	0.84	0.31	-0.02
71	SLU 47	-5	-4	2142	0.89	1.68	-0.02
71	SLU 48	-39	-4	2119	0.76	-1.73	-0.02
71	SLU 49	-19	-4	2133	0.84	0.31	-0.02
71	SLU 50	-39	-4	2119	0.76	-1.73	-0.02
71	SLU 51	-19	-4	2133	0.84	0.31	-0.02
71	SLU 52	118	-7	3299	1.54	6.16	-0.04
71	SLU 53	84	-7	3277	1.42	2.74	-0.04
71	SLU 54	104	-7	3290	1.5	4.79	-0.04
71	SLU 55	118	-7	3299	1.54	6.16	-0.04
71	SLU 56	84	-7	3277	1.42	2.74	-0.04
71	SLU 57	104	-7	3290	1.5	4.79	-0.04
71	SLU 58	84	-7	3277	1.42	2.74	-0.04
71	SLU 59	104	-7	3290	1.5	4.79	-0.04
71	SLU 60	137	-8	3773	1.7	4.66	-0.05
71	SLU 61	157	-8	3786	1.78	6.71	-0.05
71	SLU 62	137	-8	3773	1.7	4.66	-0.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
71	SLU 63	157	-8	3786	1.78	6.71	-0.05
71	SLU 64	-18	-5	2685	-1.02	-1.02	-0.03
71	SLU 65	16	-5	2708	1.14	2.39	-0.03
71	SLU 66	-18	-5	2685	1.02	-1.02	-0.03
71	SLU 67	2	-5	2699	1.09	1.02	-0.03
71	SLU 68	16	-5	2708	1.14	2.39	-0.03
71	SLU 69	-18	-5	2685	1.02	-1.02	-0.03
71	SLU 70	2	-5	2699	1.09	1.02	-0.03
71	SLU 71	-18	-5	2685	1.02	-1.02	-0.03
71	SLU 72	2	-5	2699	1.09	1.02	-0.03
71	SLU 73	139	-8	3865	1.8	6.87	-0.05
71	SLU 74	105	-8	3842	1.67	3.45	-0.05
71	SLU 75	126	-8	3856	1.75	5.5	-0.05
71	SLU 76	139	-8	3865	1.8	6.87	-0.05
71	SLU 77	105	-8	3842	1.67	3.45	-0.05
71	SLU 78	126	-8	3856	1.75	5.5	-0.05
71	SLU 79	105	-8	3842	1.67	3.45	-0.05
71	SLU 80	126	-8	3856	1.75	5.5	-0.05
71	SLU 81	158	-9	4338	1.96	5.37	-0.06
71	SLU 82	178	-9	4352	2.03	7.42	-0.06
71	SLU 83	158	-9	4338	1.96	5.37	-0.06
71	SLU 84	178	-9	4352	2.03	7.42	-0.06
71	SLE RA 1	-19	-3	1941	0.73	-0.94	-0.02
71	SLE RA 2	4	-4	1956	0.81	1.33	-0.02
71	SLE RA 3	-19	-3	1941	0.73	-0.94	-0.02
71	SLE RA 4	-5	-4	1950	0.78	0.42	-0.02
71	SLE RA 5	4	-4	1956	0.81	1.33	-0.02
71	SLE RA 6	-19	-3	1941	0.73	-0.94	-0.02
71	SLE RA 7	-5	-4	1950	0.78	0.42	-0.02
71	SLE RA 8	-19	-3	1941	0.73	-0.94	-0.02
71	SLE RA 9	-5	-4	1950	0.78	0.42	-0.02
71	SLE RA 10	86	-6	2728	1.25	4.32	-0.04
71	SLE RA 11	63	-5	2713	1.17	2.04	-0.04
71	SLE RA 12	77	-6	2722	1.21	3.41	-0.04
71	SLE RA 13	86	-6	2728	1.25	4.32	-0.04
71	SLE RA 14	63	-5	2713	1.17	2.04	-0.04
71	SLE RA 15	77	-6	2722	1.21	3.41	-0.04
71	SLE RA 16	63	-5	2713	1.17	2.04	-0.04
71	SLE RA 17	77	-6	2722	1.21	3.41	-0.04
71	SLE RA 18	99	-6	3043	1.35	3.32	-0.04
71	SLE RA 19	112	-6	3052	1.4	4.68	-0.04
71	SLE RA 20	99	-6	3043	1.35	3.32	-0.04
71	SLE RA 21	112	-6	3052	1.4	4.68	-0.04
71	SLE FR 1	-19	-3	1941	0.73	-0.94	-0.02
71	SLE FR 2	-14	-3	1944	0.74	-0.49	-0.02
71	SLE FR 3	-19	-3	1941	0.73	-0.94	-0.02
71	SLE FR 4	21	-4	2275	0.93	0.79	-0.03
71	SLE FR 5	17	-4	2272	0.91	0.33	-0.03
71	SLE FR 6	40	-5	2492	1.04	1.19	-0.03
71	SLE QP 1	-19	-3	1941	0.73	-0.94	-0.02
71	SLE QP 2	17	-4	2272	0.91	0.33	-0.03
71	SLD 1	-354	-1	2425	-3.3	-52.53	-0.01
71	SLD 2	-354	-1	2425	-3.3	-52.53	-0.01
71	SLD 3	-446	2	2268	1.99	-42.18	0
71	SLD 4	-446	2	2268	1.99	-42.18	0
71	SLD 5	44	-8	2556	-8.38	-31.22	-0.04
71	SLD 6	44	-8	2556	-8.38	-31.22	-0.04
71	SLD 7	-261	2	2032	9.27	3.28	0
71	SLD 8	-261	2	2032	9.27	3.28	0
71	SLD 9	294	-11	2511	-7.44	-2.61	-0.05
71	SLD 10	294	-11	2511	-7.44	-2.61	-0.05
71	SLD 11	-11	-1	1987	10.21	31.89	-0.01
71	SLD 12	-11	-1	1987	10.21	31.89	-0.01
71	SLD 13	479	-11	2275	-0.16	42.85	-0.05
71	SLD 14	479	-11	2275	-0.16	42.85	-0.05
71	SLD 15	388	-8	2118	5.13	53.2	-0.04
71	SLD 16	388	-8	2118	5.13	53.2	-0.04
71	SLV 1	-1041	5	2648	-11.15	-151.29	0.01
71	SLV 2	-1041	5	2648	-11.15	-151.29	0.01
71	SLV 3	-1294	13	2282	4.77	-122.14	0.04
71	SLV 4	-1294	13	2282	4.77	-122.14	0.04
71	SLV 5	82	-14	2941	-26.86	-89.37	-0.06
71	SLV 6	82	-14	2941	-26.86	-89.37	-0.06
71	SLV 7	-759	13	1719	26.23	7.81	0.04
71	SLV 8	-759	13	1719	26.23	7.81	0.04
71	SLV 9	793	-22	2825	-24.4	-7.14	-0.1
71	SLV 10	793	-22	2825	-24.4	-7.14	-0.1
71	SLV 11	-49	5	1603	28.69	90.04	0.01
71	SLV 12	-49	5	1603	28.69	90.04	0.01
71	SLV 13	1327	-22	2262	-2.94	122.81	-0.1
71	SLV 14	1327	-22	2262	-2.94	122.81	-0.1
71	SLV 15	1074	-14	1895	12.98	151.96	-0.07
71	SLV 16	1074	-14	1895	12.98	151.96	-0.07
72	SLU 1	-193	11	1921	-2.37	-10.57	0.7
72	SLU 2	-215	11	1947	-2.32	-13.78	0.67
72	SLU 3	-193	11	1921	-2.37	-10.57	0.7
72	SLU 4	-206	11	1937	-2.34	-12.49	0.68
72	SLU 5	-215	11	1947	-2.32	-13.78	0.67
72	SLU 6	-193	11	1921	-2.37	-10.57	0.7



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
72	SLU 7	-206	11	1937	-2.34	-12.49	0.68
72	SLU 8	-193	11	1921	-2.37	-10.57	0.7
72	SLU 9	-206	11	1937	-2.34	-12.49	0.68
72	SLU 10	-234	23	3331	-4.32	-17.67	1.44
72	SLU 11	-211	23	3305	-4.37	-14.46	1.46
72	SLU 12	-225	23	3320	-4.34	-16.38	1.45
72	SLU 13	-234	23	3331	-4.32	-17.67	1.44
72	SLU 14	-211	23	3305	-4.37	-14.46	1.46
72	SLU 15	-225	23	3320	-4.34	-16.38	1.45
72	SLU 16	-211	23	3305	-4.37	-14.46	1.46
72	SLU 17	-225	23	3320	-4.34	-16.38	1.45
72	SLU 18	-219	28	3898	-5.23	-16.12	1.79
72	SLU 19	-233	28	3914	-5.2	-18.05	1.77
72	SLU 20	-219	28	3898	-5.23	-16.12	1.79
72	SLU 21	-233	28	3914	-5.2	-18.05	1.77
72	SLU 22	-234	16	2566	-3.22	-13.46	0.99
72	SLU 23	-256	15	2593	-3.17	-16.67	0.96
72	SLU 24	-234	16	2566	-3.22	-13.46	0.99
72	SLU 25	-247	16	2582	-3.19	-15.39	0.97
72	SLU 26	-256	15	2593	-3.17	-16.67	0.96
72	SLU 27	-234	16	2566	-3.22	-13.46	0.99
72	SLU 28	-247	16	2582	-3.19	-15.39	0.97
72	SLU 29	-234	16	2566	-3.22	-13.46	0.99
72	SLU 30	-247	16	2582	-3.19	-15.39	0.97
72	SLU 31	-275	27	3977	-5.17	-20.57	1.72
72	SLU 32	-253	27	3950	-5.22	-17.36	1.75
72	SLU 33	-266	27	3966	-5.19	-19.28	1.73
72	SLU 34	-275	27	3977	-5.17	-20.57	1.72
72	SLU 35	-253	27	3950	-5.22	-17.36	1.75
72	SLU 36	-266	27	3966	-5.19	-19.28	1.73
72	SLU 37	-253	27	3950	-5.22	-17.36	1.75
72	SLU 38	-266	27	3966	-5.19	-19.28	1.73
72	SLU 39	-261	32	4543	-6.08	-19.02	2.07
72	SLU 40	-274	32	4559	-6.05	-20.95	2.06
72	SLU 41	-261	32	4543	-6.08	-19.02	2.07
72	SLU 42	-274	32	4559	-6.05	-20.95	2.06
72	SLU 43	-236	13	2276	-2.79	-12.74	0.81
72	SLU 44	-259	13	2302	-2.73	-15.95	0.79
72	SLU 45	-236	13	2276	-2.79	-12.74	0.81
72	SLU 46	-250	13	2291	-2.76	-14.67	0.8
72	SLU 47	-259	13	2302	-2.73	-15.95	0.79
72	SLU 48	-236	13	2276	-2.79	-12.74	0.81
72	SLU 49	-250	13	2291	-2.76	-14.67	0.8
72	SLU 50	-236	13	2276	-2.79	-12.74	0.81
72	SLU 51	-250	13	2291	-2.76	-14.67	0.8
72	SLU 52	-277	25	3686	-4.74	-19.84	1.55
72	SLU 53	-255	25	3660	-4.79	-16.63	1.57
72	SLU 54	-268	25	3675	-4.76	-18.56	1.56
72	SLU 55	-277	25	3686	-4.74	-19.84	1.55
72	SLU 56	-255	25	3660	-4.79	-16.63	1.57
72	SLU 57	-268	25	3675	-4.76	-18.56	1.56
72	SLU 58	-255	25	3660	-4.79	-16.63	1.57
72	SLU 59	-268	25	3675	-4.76	-18.56	1.56
72	SLU 60	-263	30	4253	-5.65	-18.3	1.9
72	SLU 61	-276	30	4268	-5.62	-20.23	1.88
72	SLU 62	-263	30	4253	-5.65	-18.3	1.9
72	SLU 63	-276	30	4268	-5.62	-20.23	1.88
72	SLU 64	-278	17	2921	-3.64	-15.64	1.1
72	SLU 65	-300	17	2947	-3.58	-18.85	1.07
72	SLU 66	-278	17	2921	-3.64	-15.64	1.1
72	SLU 67	-291	17	2937	-3.61	-17.57	1.08
72	SLU 68	-300	17	2947	-3.58	-18.85	1.07
72	SLU 69	-278	17	2921	-3.64	-15.64	1.1
72	SLU 70	-291	17	2937	-3.61	-17.57	1.08
72	SLU 71	-278	17	2921	-3.64	-15.64	1.1
72	SLU 72	-291	17	2937	-3.61	-17.57	1.08
72	SLU 73	-319	29	4331	-5.59	-22.74	1.83
72	SLU 74	-296	29	4305	-5.64	-19.53	1.86
72	SLU 75	-310	29	4321	-5.61	-21.46	1.84
72	SLU 76	-319	29	4331	-5.59	-22.74	1.83
72	SLU 77	-296	29	4305	-5.64	-19.53	1.86
72	SLU 78	-310	29	4321	-5.61	-21.46	1.84
72	SLU 79	-296	29	4305	-5.64	-19.53	1.86
72	SLU 80	-310	29	4321	-5.61	-21.46	1.84
72	SLU 81	-304	34	4898	-6.5	-21.2	2.19
72	SLU 82	-318	34	4914	-6.47	-23.12	2.17
72	SLU 83	-304	34	4898	-6.5	-21.2	2.19
72	SLU 84	-318	34	4914	-6.47	-23.12	2.17
72	SLE RA 1	-205	12	2105	-2.61	-11.39	0.78
72	SLE RA 2	-219	12	2123	-2.58	-13.53	0.76
72	SLE RA 3	-205	12	2105	-2.61	-11.39	0.78
72	SLE RA 4	-213	12	2116	-2.59	-12.68	0.77
72	SLE RA 5	-219	12	2123	-2.58	-13.53	0.76
72	SLE RA 6	-205	12	2105	-2.61	-11.39	0.78
72	SLE RA 7	-213	12	2116	-2.59	-12.68	0.77
72	SLE RA 8	-205	12	2105	-2.61	-11.39	0.78
72	SLE RA 9	-213	12	2116	-2.59	-12.68	0.77
72	SLE RA 10	-232	20	3045	-3.91	-16.13	1.27
72	SLE RA 11	-217	20	3028	-3.95	-13.99	1.29



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
72	SLE RA 12	-226	20	3038	-3.93	-15.27	1.28
72	SLE RA 13	-232	20	3045	-3.91	-16.13	1.27
72	SLE RA 14	-217	20	3028	-3.95	-13.99	1.29
72	SLE RA 15	-226	20	3038	-3.93	-15.27	1.28
72	SLE RA 16	-217	20	3028	-3.95	-13.99	1.29
72	SLE RA 17	-226	20	3038	-3.93	-15.27	1.28
72	SLE RA 18	-222	23	3423	-4.52	-15.1	1.51
72	SLE RA 19	-231	23	3434	-4.5	-16.38	1.5
72	SLE RA 20	-222	23	3423	-4.52	-15.1	1.51
72	SLE RA 21	-231	23	3434	-4.5	-16.38	1.5
72	SLE FR 1	-205	12	2105	-2.61	-11.39	0.78
72	SLE FR 2	-207	12	2109	-2.6	-11.82	0.78
72	SLE FR 3	-205	12	2105	-2.61	-11.39	0.78
72	SLE FR 4	-213	16	2504	-3.18	-12.93	1
72	SLE FR 5	-210	16	2501	-3.18	-12.51	1
72	SLE FR 6	-213	18	2764	-3.57	-13.25	1.14
72	SLE QP 1	-205	12	2105	-2.61	-11.39	0.78
72	SLE QP 2	-210	16	2501	-3.18	-12.51	1
72	SLD 1	237	27	2742	-6.43	43.15	1.81
72	SLD 2	237	27	2742	-6.43	43.15	1.81
72	SLD 3	135	24	2525	-3.73	31.95	1.52
72	SLD 4	135	24	2525	-3.73	31.95	1.52
72	SLD 5	79	25	2903	-8.25	21.17	1.7
72	SLD 6	79	25	2903	-8.25	21.17	1.7
72	SLD 7	-261	13	2178	0.74	-16.15	0.7
72	SLD 8	-261	13	2178	0.74	-16.15	0.7
72	SLD 9	-159	19	2823	-7.11	-8.86	1.3
72	SLD 10	-159	19	2823	-7.11	-8.86	1.3
72	SLD 11	-499	7	2099	1.88	-46.18	0.3
72	SLD 12	-499	7	2099	1.88	-46.18	0.3
72	SLD 13	-555	8	2476	-2.64	-56.97	0.48
72	SLD 14	-555	8	2476	-2.64	-56.97	0.48
72	SLD 15	-657	4	2259	0.06	-68.16	0.18
72	SLD 16	-657	4	2259	0.06	-68.16	0.18
72	SLV 1	1063	46	3104	-12.22	147.19	3.31
72	SLV 2	1063	46	3104	-12.22	147.19	3.31
72	SLV 3	765	37	2564	-4.18	115.36	2.44
72	SLV 4	765	37	2564	-4.18	115.36	2.44
72	SLV 5	624	39	3501	-18.08	83.69	3.01
72	SLV 6	624	39	3501	-18.08	83.69	3.01
72	SLV 7	-369	8	1700	8.71	-22.43	0.11
72	SLV 8	-369	8	1700	8.71	-22.43	0.11
72	SLV 9	-50	24	3301	-15.08	-2.58	1.88
72	SLV 10	-50	24	3301	-15.08	-2.58	1.88
72	SLV 11	-1044	-8	1500	11.72	-108.7	-1.01
72	SLV 12	-1044	-8	1500	11.72	-108.7	-1.01
72	SLV 13	-1185	-5	2437	-2.19	-140.37	-0.44
72	SLV 14	-1185	-5	2437	-2.19	-140.37	-0.44
72	SLV 15	-1483	-15	1897	5.85	-172.21	-1.31
72	SLV 16	-1483	-15	1897	5.85	-172.21	-1.31
73	SLU 1	-286	60	3274	8.21	-7.11	1.87
73	SLU 2	-274	77	3319	7.54	-5.42	1.77
73	SLU 3	-286	60	3274	8.21	-7.11	1.87
73	SLU 4	-278	70	3301	7.81	-6.09	1.81
73	SLU 5	-274	77	3319	7.54	-5.42	1.77
73	SLU 6	-286	60	3274	8.21	-7.11	1.87
73	SLU 7	-278	70	3301	7.81	-6.09	1.81
73	SLU 8	-286	60	3274	8.21	-7.11	1.87
73	SLU 9	-278	70	3301	7.81	-6.09	1.81
73	SLU 10	-431	185	5788	11.29	-8.49	2.79
73	SLU 11	-442	168	5743	11.97	-10.18	2.9
73	SLU 12	-435	178	5770	11.56	-9.17	2.83
73	SLU 13	-431	185	5788	11.29	-8.49	2.79
73	SLU 14	-442	168	5743	11.97	-10.18	2.9
73	SLU 15	-435	178	5770	11.56	-9.17	2.83
73	SLU 16	-442	168	5743	11.97	-10.18	2.9
73	SLU 17	-435	178	5770	11.56	-9.17	2.83
73	SLU 18	-510	214	6801	13.58	-11.5	3.33
73	SLU 19	-503	225	6828	13.17	-10.48	3.27
73	SLU 20	-510	214	6801	13.58	-11.5	3.33
73	SLU 21	-503	225	6828	13.17	-10.48	3.27
73	SLU 22	-373	105	4398	10.14	-9.11	2.44
73	SLU 23	-361	122	4443	9.46	-7.42	2.34
73	SLU 24	-373	105	4398	10.14	-9.11	2.44
73	SLU 25	-366	115	4425	9.73	-8.1	2.38
73	SLU 26	-361	122	4443	9.46	-7.42	2.34
73	SLU 27	-373	105	4398	10.14	-9.11	2.44
73	SLU 28	-366	115	4425	9.73	-8.1	2.38
73	SLU 29	-373	105	4398	10.14	-9.11	2.44
73	SLU 30	-366	115	4425	9.73	-8.1	2.38
73	SLU 31	-518	230	6912	13.22	-10.5	3.36
73	SLU 32	-530	213	6867	13.89	-12.19	3.47
73	SLU 33	-523	223	6894	13.49	-11.17	3.4
73	SLU 34	-518	230	6912	13.22	-10.5	3.36
73	SLU 35	-530	213	6867	13.89	-12.19	3.47
73	SLU 36	-523	223	6894	13.49	-11.17	3.4
73	SLU 37	-530	213	6867	13.89	-12.19	3.47
73	SLU 38	-523	223	6894	13.49	-11.17	3.4
73	SLU 39	-597	259	7925	15.5	-13.51	3.9



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
73	SLU 40	-590	269	7952	15.1	-12.49	3.84
73	SLU 41	-597	259	7925	15.5	-13.51	3.9
73	SLU 42	-590	269	7952	15.1	-12.49	3.84
73	SLU 43	-341	63	3870	10.02	-8.55	2.24
73	SLU 44	-329	80	3916	9.34	-6.86	2.13
73	SLU 45	-341	63	3870	10.02	-8.55	2.24
73	SLU 46	-334	73	3897	9.61	-7.54	2.17
73	SLU 47	-329	80	3916	9.34	-6.86	2.13
73	SLU 48	-341	63	3870	10.02	-8.55	2.24
73	SLU 49	-334	73	3897	9.61	-7.54	2.17
73	SLU 50	-341	63	3870	10.02	-8.55	2.24
73	SLU 51	-334	73	3897	9.61	-7.54	2.17
73	SLU 52	-486	188	6385	13.1	-9.93	3.16
73	SLU 53	-498	171	6339	13.78	-11.63	3.26
73	SLU 54	-491	181	6367	13.37	-10.61	3.2
73	SLU 55	-486	188	6385	13.1	-9.93	3.16
73	SLU 56	-498	171	6339	13.78	-11.63	3.26
73	SLU 57	-491	181	6367	13.37	-10.61	3.2
73	SLU 58	-498	171	6339	13.78	-11.63	3.26
73	SLU 59	-491	181	6367	13.37	-10.61	3.2
73	SLU 60	-565	217	7398	15.38	-12.94	3.7
73	SLU 61	-558	227	7425	14.98	-11.93	3.64
73	SLU 62	-565	217	7398	15.38	-12.94	3.7
73	SLU 63	-558	227	7425	14.98	-11.93	3.64
73	SLU 64	-429	107	4994	11.94	-10.56	2.81
73	SLU 65	-417	125	5040	11.27	-8.87	2.7
73	SLU 66	-429	107	4994	11.94	-10.56	2.81
73	SLU 67	-422	118	5022	11.54	-9.54	2.74
73	SLU 68	-417	125	5040	11.27	-8.87	2.7
73	SLU 69	-429	107	4994	11.94	-10.56	2.81
73	SLU 70	-422	118	5022	11.54	-9.54	2.74
73	SLU 71	-429	107	4994	11.94	-10.56	2.81
73	SLU 72	-422	118	5022	11.54	-9.54	2.74
73	SLU 73	-574	233	7509	15.02	-11.94	3.73
73	SLU 74	-586	215	7464	15.7	-13.63	3.83
73	SLU 75	-578	226	7491	15.29	-12.62	3.77
73	SLU 76	-574	233	7509	15.02	-11.94	3.73
73	SLU 77	-586	215	7464	15.7	-13.63	3.83
73	SLU 78	-578	226	7491	15.29	-12.62	3.77
73	SLU 79	-586	215	7464	15.7	-13.63	3.83
73	SLU 80	-578	226	7491	15.29	-12.62	3.77
73	SLU 81	-653	262	8522	17.31	-14.95	4.27
73	SLU 82	-646	272	8549	16.9	-13.94	4.21
73	SLU 83	-653	262	8522	17.31	-14.95	4.27
73	SLU 84	-646	272	8549	16.9	-13.94	4.21
73	SLE RA 1	-311	73	3595	8.76	-7.68	2.03
73	SLE RA 2	-303	84	3625	8.31	-6.55	1.96
73	SLE RA 3	-311	73	3595	8.76	-7.68	2.03
73	SLE RA 4	-306	80	3613	8.49	-7	1.99
73	SLE RA 5	-303	84	3625	8.31	-6.55	1.96
73	SLE RA 6	-311	73	3595	8.76	-7.68	2.03
73	SLE RA 7	-306	80	3613	8.49	-7	1.99
73	SLE RA 8	-311	73	3595	8.76	-7.68	2.03
73	SLE RA 9	-306	80	3613	8.49	-7	1.99
73	SLE RA 10	-407	156	5271	10.82	-8.6	2.65
73	SLE RA 11	-415	145	5241	11.27	-9.73	2.72
73	SLE RA 12	-410	152	5259	11	-9.05	2.68
73	SLE RA 13	-407	156	5271	10.82	-8.6	2.65
73	SLE RA 14	-415	145	5241	11.27	-9.73	2.72
73	SLE RA 15	-410	152	5259	11	-9.05	2.68
73	SLE RA 16	-415	145	5241	11.27	-9.73	2.72
73	SLE RA 17	-410	152	5259	11	-9.05	2.68
73	SLE RA 18	-460	176	5946	12.34	-10.61	3.01
73	SLE RA 19	-455	183	5965	12.07	-9.93	2.97
73	SLE RA 20	-460	176	5946	12.34	-10.61	3.01
73	SLE RA 21	-455	183	5965	12.07	-9.93	2.97
73	SLE FR 1	-311	73	3595	8.76	-7.68	2.03
73	SLE FR 2	-309	75	3601	8.67	-7.46	2.02
73	SLE FR 3	-311	73	3595	8.76	-7.68	2.03
73	SLE FR 4	-354	106	4306	9.75	-8.33	2.31
73	SLE FR 5	-355	104	4300	9.84	-8.56	2.33
73	SLE FR 6	-385	124	4771	10.55	-9.14	2.52
73	SLE QP 1	-311	73	3595	8.76	-7.68	2.03
73	SLE QP 2	-355	104	4300	9.84	-8.56	2.33
73	SLD 1	-611	120	4227	9.37	-37.67	4.41
73	SLD 2	-611	120	4227	9.37	-37.67	4.41
73	SLD 3	-558	38	3903	12.83	-32.34	3.99
73	SLD 4	-558	38	3903	12.83	-32.34	3.99
73	SLD 5	-513	233	4769	4.46	-25.39	3.59
73	SLD 6	-513	233	4769	4.46	-25.39	3.59
73	SLD 7	-336	-40	3690	15.98	-7.6	2.19
73	SLD 8	-336	-40	3690	15.98	-7.6	2.19
73	SLD 9	-375	248	4910	3.7	-9.52	2.47
73	SLD 10	-375	248	4910	3.7	-9.52	2.47
73	SLD 11	-198	-25	3831	15.22	8.27	1.06
73	SLD 12	-198	-25	3831	15.22	8.27	1.06
73	SLD 13	-153	170	4697	6.85	15.22	0.67
73	SLD 14	-153	170	4697	6.85	15.22	0.67
73	SLD 15	-99	88	4374	10.3	20.55	0.25



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
73	SLD 16	-99	88	4374	10.3	20.55	0.25
73	SLV 1	-1078	134	4125	9.05	-91.86	8.23
73	SLV 2	-1078	134	4125	9.05	-91.86	8.23
73	SLV 3	-938	-57	3360	17.27	-77.4	7.12
73	SLV 4	-938	-57	3360	17.27	-77.4	7.12
73	SLV 5	-784	402	5407	-2.86	-55.48	5.78
73	SLV 6	-784	402	5407	-2.86	-55.48	5.78
73	SLV 7	-319	-234	2859	24.53	-7.28	2.08
73	SLV 8	-319	-234	2859	24.53	-7.28	2.08
73	SLV 9	-392	441	5741	-4.86	-9.84	2.57
73	SLV 10	-392	441	5741	-4.86	-9.84	2.57
73	SLV 11	73	-195	3194	22.54	38.37	-1.13
73	SLV 12	73	-195	3194	22.54	38.37	-1.13
73	SLV 13	228	264	5240	2.41	60.28	-2.47
73	SLV 14	228	264	5240	2.41	60.28	-2.47
73	SLV 15	367	73	4476	10.63	74.74	-3.58
73	SLV 16	367	73	4476	10.63	74.74	-3.58
74	SLU 1	-3	-255	975	3.73	-0.35	-0.08
74	SLU 2	-3	-252	977	3.56	-0.37	-0.09
74	SLU 3	-3	-255	975	3.73	-0.35	-0.08
74	SLU 4	-3	-253	977	3.63	-0.36	-0.09
74	SLU 5	-3	-252	977	3.56	-0.37	-0.09
74	SLU 6	-3	-255	975	3.73	-0.35	-0.08
74	SLU 7	-3	-253	977	3.63	-0.36	-0.09
74	SLU 8	-3	-255	975	3.73	-0.35	-0.08
74	SLU 9	-3	-253	977	3.63	-0.36	-0.09
74	SLU 10	-5	-430	1719	5.61	-0.62	-0.16
74	SLU 11	-5	-432	1717	5.78	-0.6	-0.15
74	SLU 12	-5	-431	1718	5.68	-0.62	-0.16
74	SLU 13	-5	-430	1719	5.61	-0.62	-0.16
74	SLU 14	-5	-432	1717	5.78	-0.6	-0.15
74	SLU 15	-5	-431	1718	5.68	-0.62	-0.16
74	SLU 16	-5	-432	1717	5.78	-0.6	-0.15
74	SLU 17	-5	-431	1718	5.68	-0.62	-0.16
74	SLU 18	-6	-508	2035	6.66	-0.71	-0.18
74	SLU 19	-6	-507	2036	6.55	-0.73	-0.18
74	SLU 20	-6	-508	2035	6.66	-0.71	-0.18
74	SLU 21	-6	-507	2036	6.55	-0.73	-0.18
74	SLU 22	-4	-337	1310	4.76	-0.47	-0.11
74	SLU 23	-4	-334	1312	4.59	-0.49	-0.12
74	SLU 24	-4	-337	1310	4.76	-0.47	-0.11
74	SLU 25	-4	-335	1312	4.66	-0.48	-0.12
74	SLU 26	-4	-334	1312	4.59	-0.49	-0.12
74	SLU 27	-4	-337	1310	4.76	-0.47	-0.11
74	SLU 28	-4	-335	1312	4.66	-0.48	-0.12
74	SLU 29	-4	-337	1310	4.76	-0.47	-0.11
74	SLU 30	-4	-335	1312	4.66	-0.48	-0.12
74	SLU 31	-6	-512	2054	6.64	-0.74	-0.19
74	SLU 32	-6	-515	2052	6.81	-0.72	-0.18
74	SLU 33	-6	-513	2053	6.7	-0.73	-0.19
74	SLU 34	-6	-512	2054	6.64	-0.74	-0.19
74	SLU 35	-6	-515	2052	6.81	-0.72	-0.18
74	SLU 36	-6	-513	2053	6.7	-0.73	-0.19
74	SLU 37	-6	-515	2052	6.81	-0.72	-0.18
74	SLU 38	-6	-513	2053	6.7	-0.73	-0.19
74	SLU 39	-7	-591	2370	7.69	-0.83	-0.21
74	SLU 40	-7	-589	2371	7.58	-0.84	-0.21
74	SLU 41	-7	-591	2370	7.69	-0.83	-0.21
74	SLU 42	-7	-589	2371	7.58	-0.84	-0.21
74	SLU 43	-3	-303	1153	4.5	-0.41	-0.1
74	SLU 44	-3	-300	1155	4.33	-0.43	-0.11
74	SLU 45	-3	-303	1153	4.5	-0.41	-0.1
74	SLU 46	-3	-301	1154	4.4	-0.42	-0.1
74	SLU 47	-3	-300	1155	4.33	-0.43	-0.11
74	SLU 48	-3	-303	1153	4.5	-0.41	-0.1
74	SLU 49	-3	-301	1154	4.4	-0.42	-0.1
74	SLU 50	-3	-303	1153	4.5	-0.41	-0.1
74	SLU 51	-3	-301	1154	4.4	-0.42	-0.1
74	SLU 52	-6	-478	1897	6.37	-0.69	-0.17
74	SLU 53	-6	-480	1895	6.55	-0.67	-0.17
74	SLU 54	-6	-479	1896	6.44	-0.68	-0.17
74	SLU 55	-6	-478	1897	6.37	-0.69	-0.17
74	SLU 56	-6	-480	1895	6.55	-0.67	-0.17
74	SLU 57	-6	-479	1896	6.44	-0.68	-0.17
74	SLU 58	-6	-480	1895	6.55	-0.67	-0.17
74	SLU 59	-6	-479	1896	6.44	-0.68	-0.17
74	SLU 60	-7	-557	2213	7.43	-0.78	-0.19
74	SLU 61	-7	-555	2214	7.32	-0.79	-0.2
74	SLU 62	-7	-557	2213	7.43	-0.78	-0.19
74	SLU 63	-7	-555	2214	7.32	-0.79	-0.2
74	SLU 64	-4	-385	1488	5.53	-0.53	-0.13
74	SLU 65	-4	-382	1490	5.35	-0.55	-0.14
74	SLU 66	-4	-385	1488	5.53	-0.53	-0.13
74	SLU 67	-4	-383	1489	5.42	-0.54	-0.13
74	SLU 68	-4	-382	1490	5.35	-0.55	-0.14
74	SLU 69	-4	-385	1488	5.53	-0.53	-0.13
74	SLU 70	-4	-383	1489	5.42	-0.54	-0.13
74	SLU 71	-4	-385	1488	5.53	-0.53	-0.13
74	SLU 72	-4	-383	1489	5.42	-0.54	-0.13



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
74	SLU 73	-7	-560	2232	7.4	-0.81	-0.2
74	SLU 74	-7	-563	2230	7.58	-0.79	-0.2
74	SLU 75	-7	-561	2231	7.47	-0.8	-0.2
74	SLU 76	-7	-560	2232	7.4	-0.81	-0.2
74	SLU 77	-7	-563	2230	7.58	-0.79	-0.2
74	SLU 78	-7	-561	2231	7.47	-0.8	-0.2
74	SLU 79	-7	-563	2230	7.58	-0.79	-0.2
74	SLU 80	-7	-561	2231	7.47	-0.8	-0.2
74	SLU 81	-8	-639	2548	8.46	-0.9	-0.22
74	SLU 82	-8	-637	2549	8.35	-0.91	-0.23
74	SLU 83	-8	-639	2548	8.46	-0.9	-0.22
74	SLU 84	-8	-637	2549	8.35	-0.91	-0.23
74	SLE RA 1	-3	-278	1071	4.03	-0.38	-0.09
74	SLE RA 2	-3	-276	1072	3.91	-0.39	-0.1
74	SLE RA 3	-3	-278	1071	4.03	-0.38	-0.09
74	SLE RA 4	-3	-277	1072	3.96	-0.39	-0.1
74	SLE RA 5	-3	-276	1072	3.91	-0.39	-0.1
74	SLE RA 6	-3	-278	1071	4.03	-0.38	-0.09
74	SLE RA 7	-3	-277	1072	3.96	-0.39	-0.1
74	SLE RA 8	-3	-278	1071	4.03	-0.38	-0.09
74	SLE RA 9	-3	-277	1072	3.96	-0.39	-0.1
74	SLE RA 10	-5	-395	1567	5.28	-0.57	-0.14
74	SLE RA 11	-5	-397	1566	5.39	-0.55	-0.14
74	SLE RA 12	-5	-395	1566	5.32	-0.56	-0.14
74	SLE RA 13	-5	-395	1567	5.28	-0.57	-0.14
74	SLE RA 14	-5	-397	1566	5.39	-0.55	-0.14
74	SLE RA 15	-5	-395	1566	5.32	-0.56	-0.14
74	SLE RA 16	-5	-397	1566	5.39	-0.55	-0.14
74	SLE RA 17	-5	-395	1566	5.32	-0.56	-0.14
74	SLE RA 18	-5	-447	1777	5.98	-0.63	-0.16
74	SLE RA 19	-5	-446	1778	5.91	-0.63	-0.16
74	SLE RA 20	-5	-447	1777	5.98	-0.63	-0.16
74	SLE RA 21	-5	-446	1778	5.91	-0.63	-0.16
74	SLE FR 1	-3	-278	1071	4.03	-0.38	-0.09
74	SLE FR 2	-3	-278	1071	4	-0.38	-0.09
74	SLE FR 3	-3	-278	1071	4.03	-0.38	-0.09
74	SLE FR 4	-4	-328	1283	4.59	-0.46	-0.11
74	SLE FR 5	-4	-329	1283	4.61	-0.45	-0.11
74	SLE FR 6	-4	-363	1424	5	-0.5	-0.12
74	SLE QP 1	-3	-278	1071	4.03	-0.38	-0.09
74	SLE QP 2	-4	-329	1283	4.61	-0.45	-0.11
74	SLD 1	-5	-334	1259	4.64	-0.64	-0.17
74	SLD 2	-5	-334	1259	4.64	-0.64	-0.17
74	SLD 3	-14	-366	1168	5.64	-1.61	-0.41
74	SLD 4	-14	-366	1168	5.64	-1.61	-0.41
74	SLD 5	9	-283	1414	3.1	0.96	0.25
74	SLD 6	9	-283	1414	3.1	0.96	0.25
74	SLD 7	-21	-388	1110	6.44	-2.27	-0.58
74	SLD 8	-21	-388	1110	6.44	-2.27	-0.58
74	SLD 9	13	-270	1456	2.78	1.36	0.36
74	SLD 10	13	-270	1456	2.78	1.36	0.36
74	SLD 11	-17	-375	1152	6.13	-1.87	-0.47
74	SLD 12	-17	-375	1152	6.13	-1.87	-0.47
74	SLD 13	7	-292	1398	3.58	0.7	0.19
74	SLD 14	7	-292	1398	3.58	0.7	0.19
74	SLD 15	-2	-324	1307	4.59	-0.27	-0.06
74	SLD 16	-2	-324	1307	4.59	-0.27	-0.06
74	SLV 1	-7	-340	1229	4.74	-0.74	-0.2
74	SLV 2	-7	-340	1229	4.74	-0.74	-0.2
74	SLV 3	-33	-418	1006	7.17	-3.62	-0.94
74	SLV 4	-33	-418	1006	7.17	-3.62	-0.94
74	SLV 5	36	-213	1606	0.96	3.84	0.99
74	SLV 6	36	-213	1606	0.96	3.84	0.99
74	SLV 7	-53	-475	861	9.07	-5.78	-1.48
74	SLV 8	-53	-475	861	9.07	-5.78	-1.48
74	SLV 9	46	-183	1705	0.15	4.88	1.26
74	SLV 10	46	-183	1705	0.15	4.88	1.26
74	SLV 11	-43	-445	961	8.26	-4.75	-1.21
74	SLV 12	-43	-445	961	8.26	-4.75	-1.21
74	SLV 13	26	-240	1560	2.05	2.72	0.72
74	SLV 14	26	-240	1560	2.05	2.72	0.72
74	SLV 15	-1	-318	1337	4.48	-0.17	-0.02
74	SLV 16	-1	-318	1337	4.48	-0.17	-0.02
75	SLU 1	0	14	2057	-0.49	0.49	0
75	SLU 2	0	26	2058	-0.96	-1.54	0
75	SLU 3	0	14	2057	-0.49	0.49	0
75	SLU 4	0	21	2058	-0.77	-0.73	0
75	SLU 5	0	26	2058	-0.96	-1.54	0
75	SLU 6	0	14	2057	-0.49	0.49	0
75	SLU 7	0	21	2058	-0.77	-0.73	0
75	SLU 8	0	14	2057	-0.49	0.49	0
75	SLU 9	0	21	2058	-0.77	-0.73	0
75	SLU 10	0	35	2492	-1.27	-0.67	0
75	SLU 11	0	22	2491	-0.8	1.36	0
75	SLU 12	0	30	2491	-1.08	0.14	0
75	SLU 13	0	35	2492	-1.27	-0.67	0
75	SLU 14	0	22	2491	-0.8	1.36	0
75	SLU 15	0	30	2491	-1.08	0.14	0
75	SLU 16	0	22	2491	-0.8	1.36	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
75	SLU 17	0	30	2491	-1.08	0.14	0
75	SLU 18	1	26	2677	-0.93	1.73	0
75	SLU 19	0	34	2677	-1.22	0.51	0
75	SLU 20	1	26	2677	-0.93	1.73	0
75	SLU 21	0	34	2677	-1.22	0.51	0
75	SLU 22	0	18	2279	-0.65	0.83	0
75	SLU 23	0	31	2280	-1.12	-1.2	0
75	SLU 24	0	18	2279	-0.65	0.83	0
75	SLU 25	0	26	2280	-0.93	-0.39	0
75	SLU 26	0	31	2280	-1.12	-1.2	0
75	SLU 27	0	18	2279	-0.65	0.83	0
75	SLU 28	0	26	2280	-0.93	-0.39	0
75	SLU 29	0	18	2279	-0.65	0.83	0
75	SLU 30	0	26	2280	-0.93	-0.39	0
75	SLU 31	0	40	2713	-1.43	-0.33	0
75	SLU 32	1	27	2713	-0.97	1.7	0
75	SLU 33	0	35	2713	-1.25	0.48	0
75	SLU 34	0	40	2713	-1.43	-0.33	0
75	SLU 35	1	27	2713	-0.97	1.7	0
75	SLU 36	0	35	2713	-1.25	0.48	0
75	SLU 37	1	27	2713	-0.97	1.7	0
75	SLU 38	0	35	2713	-1.25	0.48	0
75	SLU 39	1	30	2898	-1.1	2.07	0
75	SLU 40	0	38	2899	-1.38	0.85	0
75	SLU 41	1	30	2898	-1.1	2.07	0
75	SLU 42	0	38	2899	-1.38	0.85	0
75	SLU 43	0	16	2599	-0.58	0.52	0
75	SLU 44	0	29	2599	-1.05	-1.51	0
75	SLU 45	0	16	2599	-0.58	0.52	0
75	SLU 46	0	24	2599	-0.86	-0.7	0
75	SLU 47	0	29	2599	-1.05	-1.51	0
75	SLU 48	0	16	2599	-0.58	0.52	0
75	SLU 49	0	24	2599	-0.86	-0.7	0
75	SLU 50	0	16	2599	-0.58	0.52	0
75	SLU 51	0	24	2599	-0.86	-0.7	0
75	SLU 52	0	38	3033	-1.36	-0.64	0
75	SLU 53	1	25	3032	-0.89	1.39	0
75	SLU 54	0	32	3033	-1.17	0.17	0
75	SLU 55	0	38	3033	-1.36	-0.64	0
75	SLU 56	1	25	3032	-0.89	1.39	0
75	SLU 57	0	32	3033	-1.17	0.17	0
75	SLU 58	1	25	3032	-0.89	1.39	0
75	SLU 59	0	32	3033	-1.17	0.17	0
75	SLU 60	1	28	3218	-1.02	1.76	0
75	SLU 61	0	36	3218	-1.3	0.54	0
75	SLU 62	1	28	3218	-1.02	1.76	0
75	SLU 63	0	36	3218	-1.3	0.54	0
75	SLU 64	0	21	2820	-0.74	0.86	0
75	SLU 65	0	34	2821	-1.21	-1.17	0
75	SLU 66	0	21	2820	-0.74	0.86	0
75	SLU 67	0	28	2821	-1.02	-0.36	0
75	SLU 68	0	34	2821	-1.21	-1.17	0
75	SLU 69	0	21	2820	-0.74	0.86	0
75	SLU 70	0	28	2821	-1.02	-0.36	0
75	SLU 71	0	21	2820	-0.74	0.86	0
75	SLU 72	0	28	2821	-1.02	-0.36	0
75	SLU 73	0	42	3255	-1.52	-0.3	0
75	SLU 74	1	29	3254	-1.06	1.73	0
75	SLU 75	0	37	3254	-1.34	0.51	0
75	SLU 76	0	42	3255	-1.52	-0.3	0
75	SLU 77	1	29	3254	-1.06	1.73	0
75	SLU 78	0	37	3254	-1.34	0.51	0
75	SLU 79	1	29	3254	-1.06	1.73	0
75	SLU 80	0	37	3254	-1.34	0.51	0
75	SLU 81	1	33	3440	-1.19	2.1	0
75	SLU 82	0	41	3440	-1.47	0.88	0
75	SLU 83	1	33	3440	-1.19	2.1	0
75	SLU 84	0	41	3440	-1.47	0.88	0
75	SLE RA 1	0	15	2121	-0.54	0.59	0
75	SLE RA 2	0	24	2121	-0.85	-0.77	0
75	SLE RA 3	0	15	2121	-0.54	0.59	0
75	SLE RA 4	0	20	2121	-0.72	-0.23	0
75	SLE RA 5	0	24	2121	-0.85	-0.77	0
75	SLE RA 6	0	15	2121	-0.54	0.59	0
75	SLE RA 7	0	20	2121	-0.72	-0.23	0
75	SLE RA 8	0	15	2121	-0.54	0.59	0
75	SLE RA 9	0	20	2121	-0.72	-0.23	0
75	SLE RA 10	0	29	2410	-1.06	-0.19	0
75	SLE RA 11	0	21	2410	-0.74	1.16	0
75	SLE RA 12	0	26	2410	-0.93	0.35	0
75	SLE RA 13	0	29	2410	-1.06	-0.19	0
75	SLE RA 14	0	21	2410	-0.74	1.16	0
75	SLE RA 15	0	26	2410	-0.93	0.35	0
75	SLE RA 16	0	21	2410	-0.74	1.16	0
75	SLE RA 17	0	26	2410	-0.93	0.35	0
75	SLE RA 18	1	23	2534	-0.83	1.41	0
75	SLE RA 19	0	28	2534	-1.02	0.6	0
75	SLE RA 20	1	23	2534	-0.83	1.41	0
75	SLE RA 21	0	28	2534	-1.02	0.6	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
75	SLE FR 1	0	15	2121	-0.54	0.59	0
75	SLE FR 2	0	17	2121	-0.6	0.31	0
75	SLE FR 3	0	15	2121	-0.54	0.59	0
75	SLE FR 4	0	19	2245	-0.69	0.56	0
75	SLE FR 5	0	17	2245	-0.62	0.83	0
75	SLE FR 6	0	19	2327	-0.68	1	0
75	SLE QP 1	0	15	2121	-0.54	0.59	0
75	SLE QP 2	0	17	2245	-0.62	0.83	0
75	SLD 1	51	-4	2293	0.09	76.89	0
75	SLD 2	51	-4	2293	0.09	76.89	0
75	SLD 3	53	-71	2285	2.51	79.25	0
75	SLD 4	53	-71	2285	2.51	79.25	0
75	SLD 5	11	112	2271	-4.07	20.08	0
75	SLD 6	11	112	2271	-4.07	20.08	0
75	SLD 7	20	-111	2245	3.98	27.93	0.01
75	SLD 8	20	-111	2245	3.98	27.93	0.01
75	SLD 9	-20	145	2244	-5.23	-26.26	-0.01
75	SLD 10	-20	145	2244	-5.23	-26.26	-0.01
75	SLD 11	-11	-78	2219	2.83	-18.41	0
75	SLD 12	-11	-78	2219	2.83	-18.41	0
75	SLD 13	-53	106	2205	-3.76	-77.58	0
75	SLD 14	-53	106	2205	-3.76	-77.58	0
75	SLD 15	-50	39	2197	-1.34	-75.22	0
75	SLD 16	-50	39	2197	-1.34	-75.22	0
75	SLV 1	129	-37	2364	1.2	194.78	0
75	SLV 2	129	-37	2364	1.2	194.78	0
75	SLV 3	135	-197	2345	6.98	200.62	0.01
75	SLV 4	135	-197	2345	6.98	200.62	0.01
75	SLV 5	29	243	2309	-8.84	50.15	-0.01
75	SLV 6	29	243	2309	-8.84	50.15	-0.01
75	SLV 7	50	-289	2246	10.42	69.64	0.01
75	SLV 8	50	-289	2246	10.42	69.64	0.01
75	SLV 9	-50	324	2243	-11.67	-67.97	-0.01
75	SLV 10	-50	324	2243	-11.67	-67.97	-0.01
75	SLV 11	-28	-209	2180	7.59	-48.48	0.01
75	SLV 12	-28	-209	2180	7.59	-48.48	0.01
75	SLV 13	-134	232	2144	-8.23	-198.96	-0.01
75	SLV 14	-134	232	2144	-8.23	-198.96	-0.01
75	SLV 15	-128	72	2125	-2.45	-193.11	0
75	SLV 16	-128	72	2125	-2.45	-193.11	0
76	SLU 1	3	-30	1667	0.35	0.87	0.01
76	SLU 2	1	1	1687	-0.78	1.79	0.02
76	SLU 3	3	-30	1667	0.35	0.87	0.01
76	SLU 4	2	-12	1679	-0.33	1.42	0.01
76	SLU 5	1	1	1687	-0.78	1.79	0.02
76	SLU 6	3	-30	1667	0.35	0.87	0.01
76	SLU 7	2	-12	1679	-0.33	1.42	0.01
76	SLU 8	3	-30	1667	0.35	0.87	0.01
76	SLU 9	2	-12	1679	-0.33	1.42	0.01
76	SLU 10	2	-9	2226	-0.96	2.04	0.02
76	SLU 11	4	-40	2206	0.17	1.13	0.01
76	SLU 12	3	-22	2218	-0.51	1.68	0.02
76	SLU 13	2	-9	2226	-0.96	2.04	0.02
76	SLU 14	4	-40	2206	0.17	1.13	0.01
76	SLU 15	3	-22	2218	-0.51	1.68	0.02
76	SLU 16	4	-40	2206	0.17	1.13	0.01
76	SLU 17	3	-22	2218	-0.51	1.68	0.02
76	SLU 18	4	-44	2437	0.1	1.24	0.01
76	SLU 19	3	-26	2449	-0.58	1.79	0.02
76	SLU 20	4	-44	2437	0.1	1.24	0.01
76	SLU 21	3	-26	2449	-0.58	1.79	0.02
76	SLU 22	4	-42	1916	0.5	1.08	0.01
76	SLU 23	2	-11	1937	-0.64	2	0.02
76	SLU 24	4	-42	1916	0.5	1.08	0.01
76	SLU 25	3	-24	1929	-0.18	1.63	0.02
76	SLU 26	2	-11	1937	-0.64	2	0.02
76	SLU 27	4	-42	1916	0.5	1.08	0.01
76	SLU 28	3	-24	1929	-0.18	1.63	0.02
76	SLU 29	4	-42	1916	0.5	1.08	0.01
76	SLU 30	3	-24	1929	-0.18	1.63	0.02
76	SLU 31	3	-21	2476	-0.82	2.25	0.02
76	SLU 32	4	-52	2455	0.32	1.34	0.01
76	SLU 33	3	-33	2468	-0.36	1.89	0.02
76	SLU 34	3	-21	2476	-0.82	2.25	0.02
76	SLU 35	4	-52	2455	0.32	1.34	0.01
76	SLU 36	3	-33	2468	-0.36	1.89	0.02
76	SLU 37	4	-52	2455	0.32	1.34	0.01
76	SLU 38	3	-33	2468	-0.36	1.89	0.02
76	SLU 39	5	-56	2686	0.24	1.45	0.01
76	SLU 40	4	-38	2699	-0.44	2	0.02
76	SLU 41	5	-56	2686	0.24	1.45	0.01
76	SLU 42	4	-38	2699	-0.44	2	0.02
76	SLU 43	3	-35	2081	0.41	1.06	0.01
76	SLU 44	2	-4	2102	-0.73	1.97	0.02
76	SLU 45	3	-35	2081	0.41	1.06	0.01
76	SLU 46	2	-16	2093	-0.27	1.61	0.02
76	SLU 47	2	-4	2102	-0.73	1.97	0.02
76	SLU 48	3	-35	2081	0.41	1.06	0.01
76	SLU 49	2	-16	2093	-0.27	1.61	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
76	SLU 50	3	-35	2081	0.41	1.06	0.01
76	SLU 51	2	-16	2093	-0.27	1.61	0.02
76	SLU 52	3	-14	2641	-0.9	2.23	0.02
76	SLU 53	4	-45	2620	0.23	1.32	0.01
76	SLU 54	3	-26	2632	-0.45	1.87	0.02
76	SLU 55	3	-14	2641	-0.9	2.23	0.02
76	SLU 56	4	-45	2620	0.23	1.32	0.01
76	SLU 57	3	-26	2632	-0.45	1.87	0.02
76	SLU 58	4	-45	2620	0.23	1.32	0.01
76	SLU 59	3	-26	2632	-0.45	1.87	0.02
76	SLU 60	5	-49	2851	0.15	1.43	0.01
76	SLU 61	4	-31	2863	-0.53	1.98	0.02
76	SLU 62	5	-49	2851	0.15	1.43	0.01
76	SLU 63	4	-31	2863	-0.53	1.98	0.02
76	SLU 64	4	-47	2331	0.55	1.27	0.01
76	SLU 65	2	-16	2352	-0.58	2.19	0.02
76	SLU 66	4	-47	2331	0.55	1.27	0.01
76	SLU 67	3	-28	2343	-0.13	1.82	0.02
76	SLU 68	2	-16	2352	-0.58	2.19	0.02
76	SLU 69	4	-47	2331	0.55	1.27	0.01
76	SLU 70	3	-28	2343	-0.13	1.82	0.02
76	SLU 71	4	-47	2331	0.55	1.27	0.01
76	SLU 72	3	-28	2343	-0.13	1.82	0.02
76	SLU 73	3	-26	2891	-0.76	2.44	0.02
76	SLU 74	5	-57	2870	0.38	1.53	0.01
76	SLU 75	4	-38	2882	-0.31	2.08	0.02
76	SLU 76	3	-26	2891	-0.76	2.44	0.02
76	SLU 77	5	-57	2870	0.38	1.53	0.01
76	SLU 78	4	-38	2882	-0.31	2.08	0.02
76	SLU 79	5	-57	2870	0.38	1.53	0.01
76	SLU 80	4	-38	2882	-0.31	2.08	0.02
76	SLU 81	5	-61	3101	0.3	1.64	0.02
76	SLU 82	4	-43	3113	-0.38	2.19	0.02
76	SLU 83	5	-61	3101	0.3	1.64	0.02
76	SLU 84	4	-43	3113	-0.38	2.19	0.02
76	SLE RA 1	3	-33	1738	0.39	0.93	0.01
76	SLE RA 2	2	-13	1752	-0.36	1.54	0.01
76	SLE RA 3	3	-33	1738	0.39	0.93	0.01
76	SLE RA 4	2	-21	1746	-0.06	1.3	0.01
76	SLE RA 5	2	-13	1752	-0.36	1.54	0.01
76	SLE RA 6	3	-33	1738	0.39	0.93	0.01
76	SLE RA 7	2	-21	1746	-0.06	1.3	0.01
76	SLE RA 8	3	-33	1738	0.39	0.93	0.01
76	SLE RA 9	2	-21	1746	-0.06	1.3	0.01
76	SLE RA 10	2	-20	2111	-0.48	1.71	0.02
76	SLE RA 11	4	-40	2097	0.28	1.1	0.01
76	SLE RA 12	3	-28	2106	-0.18	1.47	0.01
76	SLE RA 13	2	-20	2111	-0.48	1.71	0.02
76	SLE RA 14	4	-40	2097	0.28	1.1	0.01
76	SLE RA 15	3	-28	2106	-0.18	1.47	0.01
76	SLE RA 16	4	-40	2097	0.28	1.1	0.01
76	SLE RA 17	3	-28	2106	-0.18	1.47	0.01
76	SLE RA 18	4	-43	2251	0.22	1.18	0.01
76	SLE RA 19	3	-31	2260	-0.23	1.54	0.01
76	SLE RA 20	4	-43	2251	0.22	1.18	0.01
76	SLE RA 21	3	-31	2260	-0.23	1.54	0.01
76	SLE FR 1	3	-33	1738	0.39	0.93	0.01
76	SLE FR 2	3	-29	1741	0.24	1.05	0.01
76	SLE FR 3	3	-33	1738	0.39	0.93	0.01
76	SLE FR 4	3	-32	1895	0.19	1.13	0.01
76	SLE FR 5	3	-36	1892	0.34	1.01	0.01
76	SLE FR 6	3	-38	1995	0.31	1.06	0.01
76	SLE QP 1	3	-33	1738	0.39	0.93	0.01
76	SLE QP 2	3	-36	1892	0.34	1.01	0.01
76	SLD 1	-8	-32	1997	-0.03	-2.08	0.05
76	SLD 2	-8	-32	1997	-0.03	-2.08	0.05
76	SLD 3	-2	-107	1982	2.72	0.84	0.03
76	SLD 4	-2	-107	1982	2.72	0.84	0.03
76	SLD 5	-10	79	1946	-3.94	-4.34	0.04
76	SLD 6	-10	79	1946	-3.94	-4.34	0.04
76	SLD 7	11	-171	1896	5.23	5.37	-0.01
76	SLD 8	11	-171	1896	5.23	5.37	-0.01
76	SLD 9	-5	99	1888	-4.54	-3.36	0.03
76	SLD 10	-5	99	1888	-4.54	-3.36	0.03
76	SLD 11	16	-152	1838	4.63	6.35	-0.02
76	SLD 12	16	-152	1838	4.63	6.35	-0.02
76	SLD 13	9	34	1802	-2.03	1.18	-0.01
76	SLD 14	9	34	1802	-2.03	1.18	-0.01
76	SLD 15	15	-41	1788	0.72	4.09	-0.03
76	SLD 16	15	-41	1788	0.72	4.09	-0.03
76	SLV 1	-27	-15	2144	-0.92	-7.28	0.1
76	SLV 2	-27	-15	2144	-0.92	-7.28	0.1
76	SLV 3	-9	-213	2103	6.35	0.82	0.06
76	SLV 4	-9	-213	2103	6.35	0.82	0.06
76	SLV 5	-33	270	2029	-11.06	-13.77	0.1
76	SLV 6	-33	270	2029	-11.06	-13.77	0.1
76	SLV 7	27	-389	1894	13.17	13.24	-0.04
76	SLV 8	27	-389	1894	13.17	13.24	-0.04
76	SLV 9	-20	317	1890	-12.48	-11.23	0.06



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
76	SLV 10	-20	317	1890	-12.48	-11.23	0.06
76	SLV 11	40	-343	1756	11.75	15.79	-0.08
76	SLV 12	40	-343	1756	11.75	15.79	-0.08
76	SLV 13	16	140	1681	-5.66	1.19	-0.04
76	SLV 14	16	140	1681	-5.66	1.19	-0.04
76	SLV 15	34	-58	1641	1.61	9.3	-0.08
76	SLV 16	34	-58	1641	1.61	9.3	-0.08
77	SLU 1	0	-5	2058	0.19	0.48	0
77	SLU 2	-1	7	2060	-0.2	-1.72	0
77	SLU 3	0	-5	2058	0.19	0.48	0
77	SLU 4	0	2	2059	-0.04	-0.84	0
77	SLU 5	-1	7	2060	-0.2	-1.72	0
77	SLU 6	0	-5	2058	0.19	0.48	0
77	SLU 7	0	2	2059	-0.04	-0.84	0
77	SLU 8	0	-5	2058	0.19	0.48	0
77	SLU 9	0	2	2059	-0.04	-0.84	0
77	SLU 10	0	11	2494	-0.32	-0.88	0
77	SLU 11	0	-2	2492	0.07	1.32	0
77	SLU 12	0	6	2493	-0.16	0	0
77	SLU 13	0	11	2494	-0.32	-0.88	0
77	SLU 14	0	-2	2492	0.07	1.32	0
77	SLU 15	0	6	2493	-0.16	0	0
77	SLU 16	0	-2	2492	0.07	1.32	0
77	SLU 17	0	6	2493	-0.16	0	0
77	SLU 18	1	0	2678	0.02	1.68	0
77	SLU 19	0	7	2679	-0.22	0.36	0
77	SLU 20	1	0	2678	0.02	1.68	0
77	SLU 21	0	7	2679	-0.22	0.36	0
77	SLU 22	0	-3	2280	0.12	0.81	0
77	SLU 23	0	9	2282	-0.27	-1.39	0
77	SLU 24	0	-3	2280	0.12	0.81	0
77	SLU 25	0	4	2281	-0.11	-0.51	0
77	SLU 26	0	9	2282	-0.27	-1.39	0
77	SLU 27	0	-3	2280	0.12	0.81	0
77	SLU 28	0	4	2281	-0.11	-0.51	0
77	SLU 29	0	-3	2280	0.12	0.81	0
77	SLU 30	0	4	2281	-0.11	-0.51	0
77	SLU 31	0	13	2716	-0.39	-0.56	0
77	SLU 32	1	0	2714	0	1.65	0
77	SLU 33	0	8	2715	-0.23	0.33	0
77	SLU 34	0	13	2716	-0.39	-0.56	0
77	SLU 35	1	0	2714	0	1.65	0
77	SLU 36	0	8	2715	-0.23	0.33	0
77	SLU 37	1	0	2714	0	1.65	0
77	SLU 38	0	8	2715	-0.23	0.33	0
77	SLU 39	1	2	2900	-0.05	2.01	0
77	SLU 40	0	9	2901	-0.29	0.68	0
77	SLU 41	1	2	2900	-0.05	2.01	0
77	SLU 42	0	9	2901	-0.29	0.68	0
77	SLU 43	0	-8	2599	0.27	0.52	0
77	SLU 44	0	5	2601	-0.12	-1.69	0
77	SLU 45	0	-8	2599	0.27	0.52	0
77	SLU 46	0	0	2600	0.04	-0.81	0
77	SLU 47	0	5	2601	-0.12	-1.69	0
77	SLU 48	0	-8	2599	0.27	0.52	0
77	SLU 49	0	0	2600	0.04	-0.81	0
77	SLU 50	0	-8	2599	0.27	0.52	0
77	SLU 51	0	0	2600	0.04	-0.81	0
77	SLU 52	0	8	3035	-0.24	-0.85	0
77	SLU 53	0	-4	3033	0.15	1.35	0
77	SLU 54	0	3	3034	-0.08	0.03	0
77	SLU 55	0	8	3035	-0.24	-0.85	0
77	SLU 56	0	-4	3033	0.15	1.35	0
77	SLU 57	0	3	3034	-0.08	0.03	0
77	SLU 58	0	-4	3033	0.15	1.35	0
77	SLU 59	0	3	3034	-0.08	0.03	0
77	SLU 60	1	-2	3219	0.1	1.71	0
77	SLU 61	0	5	3220	-0.13	0.39	0
77	SLU 62	1	-2	3219	0.1	1.71	0
77	SLU 63	0	5	3220	-0.13	0.39	0
77	SLU 64	0	-6	2821	0.2	0.84	0
77	SLU 65	0	7	2823	-0.19	-1.36	0
77	SLU 66	0	-6	2821	0.2	0.84	0
77	SLU 67	0	2	2822	-0.03	-0.48	0
77	SLU 68	0	7	2823	-0.19	-1.36	0
77	SLU 69	0	-6	2821	0.2	0.84	0
77	SLU 70	0	2	2822	-0.03	-0.48	0
77	SLU 71	0	-6	2821	0.2	0.84	0
77	SLU 72	0	2	2822	-0.03	-0.48	0
77	SLU 73	0	10	3257	-0.31	-0.52	0
77	SLU 74	1	-2	3255	0.08	1.68	0
77	SLU 75	0	5	3256	-0.15	0.36	0
77	SLU 76	0	10	3257	-0.31	-0.52	0
77	SLU 77	1	-2	3255	0.08	1.68	0
77	SLU 78	0	5	3256	-0.15	0.36	0
77	SLU 79	1	-2	3255	0.08	1.68	0
77	SLU 80	0	5	3256	-0.15	0.36	0
77	SLU 81	1	0	3441	0.03	2.04	0
77	SLU 82	0	7	3442	-0.2	0.72	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
77	SLU 83	1	0	3441	0.03	2.04	0
77	SLU 84	0	7	3442	-0.2	0.72	0
77	SLE RA 1	0	-5	2121	0.17	0.58	0
77	SLE RA 2	0	4	2123	-0.09	-0.89	0
77	SLE RA 3	0	-5	2121	0.17	0.58	0
77	SLE RA 4	0	0	2122	0.02	-0.3	0
77	SLE RA 5	0	4	2123	-0.09	-0.89	0
77	SLE RA 6	0	-5	2121	0.17	0.58	0
77	SLE RA 7	0	0	2122	0.02	-0.3	0
77	SLE RA 8	0	-5	2121	0.17	0.58	0
77	SLE RA 9	0	0	2122	0.02	-0.3	0
77	SLE RA 10	0	6	2412	-0.17	-0.33	0
77	SLE RA 11	0	-2	2411	0.09	1.13	0
77	SLE RA 12	0	3	2411	-0.07	0.25	0
77	SLE RA 13	0	6	2412	-0.17	-0.33	0
77	SLE RA 14	0	-2	2411	0.09	1.13	0
77	SLE RA 15	0	3	2411	-0.07	0.25	0
77	SLE RA 16	0	-2	2411	0.09	1.13	0
77	SLE RA 17	0	3	2411	-0.07	0.25	0
77	SLE RA 18	0	-1	2535	0.06	1.37	0
77	SLE RA 19	0	4	2535	-0.1	0.49	0
77	SLE RA 20	0	-1	2535	0.06	1.37	0
77	SLE RA 21	0	4	2535	-0.1	0.49	0
77	SLE FR 1	0	-5	2121	0.17	0.58	0
77	SLE FR 2	0	-3	2122	0.12	0.28	0
77	SLE FR 3	0	5	2121	0.17	0.58	0
77	SLE FR 4	0	-2	2246	0.09	0.52	0
77	SLE FR 5	0	-4	2245	0.14	0.82	0
77	SLE FR 6	0	-3	2328	0.11	0.97	0
77	SLE QP 1	0	-5	2121	0.17	0.58	0
77	SLE QP 2	0	-4	2245	0.14	0.82	0
77	SLD 1	54	-21	2287	0.79	76.64	0
77	SLD 2	54	-21	2287	0.79	76.64	0
77	SLD 3	50	-88	2280	3.17	79.66	0
77	SLD 4	50	-88	2280	3.17	79.66	0
77	SLD 5	22	92	2269	-3.28	18.99	0
77	SLD 6	22	92	2269	-3.28	18.99	0
77	SLD 7	10	-130	2245	4.67	29.04	0.01
77	SLD 8	10	-130	2245	4.67	29.04	0.01
77	SLD 9	-10	123	2246	-4.39	-27.41	-0.01
77	SLD 10	-10	123	2246	-4.39	-27.41	-0.01
77	SLD 11	-21	-99	2222	3.56	-17.36	0
77	SLD 12	-21	-99	2222	3.56	-17.36	0
77	SLD 13	-50	80	2211	-2.9	-78.03	0
77	SLD 14	-50	80	2211	-2.9	-78.03	0
77	SLD 15	-53	14	2204	-0.51	-75.01	0
77	SLD 16	-53	14	2204	-0.51	-75.01	0
77	SLV 1	136	-48	2349	1.83	194.17	0
77	SLV 2	136	-48	2349	1.83	194.17	0
77	SLV 3	128	-207	2332	7.48	201.66	0.01
77	SLV 4	128	-207	2332	7.48	201.66	0.01
77	SLV 5	54	224	2303	-7.93	47.46	-0.01
77	SLV 6	54	224	2303	-7.93	47.46	-0.01
77	SLV 7	26	-305	2245	10.92	72.43	0.01
77	SLV 8	26	-305	2245	10.92	72.43	0.01
77	SLV 9	-25	298	2246	-10.64	-70.8	-0.01
77	SLV 10	-25	298	2246	-10.64	-70.8	-0.01
77	SLV 11	-53	-231	2188	8.21	-45.83	0.01
77	SLV 12	-53	-231	2188	8.21	-45.83	0.01
77	SLV 13	-127	200	2159	-7.21	-200.03	-0.01
77	SLV 14	-127	200	2159	-7.21	-200.03	-0.01
77	SLV 15	-136	41	2141	-1.55	-192.54	0
77	SLV 16	-136	41	2141	-1.55	-192.54	0
78	SLU 1	0	-20	1628	1.13	0.39	-0.01
78	SLU 2	-2	6	1657	0.29	2.66	0
78	SLU 3	0	-20	1628	1.13	0.39	-0.01
78	SLU 4	-1	-5	1645	0.63	1.76	0
78	SLU 5	-2	6	1657	0.29	2.66	0
78	SLU 6	0	-20	1628	1.13	0.39	-0.01
78	SLU 7	-1	-5	1645	0.63	1.76	0
78	SLU 8	0	-20	1628	1.13	0.39	-0.01
78	SLU 9	-1	-5	1645	0.63	1.76	0
78	SLU 10	-2	-8	2183	1.23	2.85	-0.01
78	SLU 11	1	-34	2154	2.07	0.57	-0.01
78	SLU 12	-1	-18	2171	1.57	1.94	-0.01
78	SLU 13	-2	-8	2183	1.23	2.85	-0.01
78	SLU 14	1	-34	2154	2.07	0.57	-0.01
78	SLU 15	-1	-18	2171	1.57	1.94	-0.01
78	SLU 16	1	-34	2154	2.07	0.57	-0.01
78	SLU 17	-1	-18	2171	1.57	1.94	-0.01
78	SLU 18	1	-40	2379	2.47	0.65	-0.01
78	SLU 19	-1	-24	2397	1.97	2.01	-0.01
78	SLU 20	1	-40	2379	2.47	0.65	-0.01
78	SLU 21	-1	-24	2397	1.97	2.01	-0.01
78	SLU 22	1	-33	1859	1.74	0.51	-0.01
78	SLU 23	-2	-7	1888	0.9	2.78	0
78	SLU 24	1	-33	1859	1.74	0.51	-0.01
78	SLU 25	-1	-18	1876	1.24	1.87	-0.01
78	SLU 26	-2	-7	1888	0.9	2.78	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
78	SLU 27	1	-33	1859	1.74	0.51	-0.01
78	SLU 28	-1	-18	1876	1.24	1.87	-0.01
78	SLU 29	1	-33	1859	1.74	0.51	-0.01
78	SLU 30	-1	-18	1876	1.24	1.87	-0.01
78	SLU 31	-2	-21	2414	1.84	2.96	-0.01
78	SLU 32	1	-47	2385	2.68	0.69	-0.01
78	SLU 33	-1	-32	2402	2.17	2.05	-0.01
78	SLU 34	-2	-21	2414	1.84	2.96	-0.01
78	SLU 35	1	-47	2385	2.68	0.69	-0.01
78	SLU 36	-1	-32	2402	2.17	2.05	-0.01
78	SLU 37	1	-47	2385	2.68	0.69	-0.01
78	SLU 38	-1	-32	2402	2.17	2.05	-0.01
78	SLU 39	1	-53	2610	3.08	0.77	-0.01
78	SLU 40	-1	-37	2627	2.57	2.13	-0.01
78	SLU 41	1	-53	2610	3.08	0.77	-0.01
78	SLU 42	-1	-37	2627	2.57	2.13	-0.01
78	SLU 43	0	-22	2037	1.27	0.47	-0.01
78	SLU 44	-2	4	2066	0.42	2.74	0
78	SLU 45	0	-22	2037	1.27	0.47	-0.01
78	SLU 46	-1	-6	2054	0.76	1.83	-0.01
78	SLU 47	-2	4	2066	0.42	2.74	0
78	SLU 48	0	-22	2037	1.27	0.47	-0.01
78	SLU 49	-1	-6	2054	0.76	1.83	-0.01
78	SLU 50	0	-22	2037	1.27	0.47	-0.01
78	SLU 51	-1	-6	2054	0.76	1.83	-0.01
78	SLU 52	-2	-9	2592	1.36	2.92	-0.01
78	SLU 53	1	-36	2563	2.2	0.65	-0.01
78	SLU 54	-1	-20	2580	1.7	2.01	-0.01
78	SLU 55	-2	-9	2592	1.36	2.92	-0.01
78	SLU 56	1	-36	2563	2.2	0.65	-0.01
78	SLU 57	-1	-20	2580	1.7	2.01	-0.01
78	SLU 58	1	-36	2563	2.2	0.65	-0.01
78	SLU 59	-1	-20	2580	1.7	2.01	-0.01
78	SLU 60	1	-42	2788	2.61	0.73	-0.01
78	SLU 61	-1	-26	2806	2.1	2.09	-0.01
78	SLU 62	1	-42	2788	2.61	0.73	-0.01
78	SLU 63	-1	-26	2806	2.1	2.09	-0.01
78	SLU 64	1	-35	2268	1.87	0.59	-0.01
78	SLU 65	-2	-9	2297	1.03	2.86	-0.01
78	SLU 66	1	-35	2268	1.87	0.59	-0.01
78	SLU 67	-1	-19	2285	1.37	1.95	-0.01
78	SLU 68	-2	-9	2297	1.03	2.86	-0.01
78	SLU 69	1	-35	2268	1.87	0.59	-0.01
78	SLU 70	-1	-19	2285	1.37	1.95	-0.01
78	SLU 71	1	-35	2268	1.87	0.59	-0.01
78	SLU 72	-1	-19	2285	1.37	1.95	-0.01
78	SLU 73	-2	-23	2823	1.97	3.04	-0.01
78	SLU 74	1	-49	2794	2.81	0.77	-0.01
78	SLU 75	-1	-33	2811	2.3	2.13	-0.01
78	SLU 76	-2	-23	2823	1.97	3.04	-0.01
78	SLU 77	1	-49	2794	2.81	0.77	-0.01
78	SLU 78	-1	-33	2811	2.3	2.13	-0.01
78	SLU 79	1	-49	2794	2.81	0.77	-0.01
78	SLU 80	-1	-33	2811	2.3	2.13	-0.01
78	SLU 81	1	-55	3019	3.21	0.85	-0.01
78	SLU 82	-1	-39	3037	2.71	2.21	-0.01
78	SLU 83	1	-55	3019	3.21	0.85	-0.01
78	SLU 84	-1	-39	3037	2.71	2.21	-0.01
78	SLE RA 1	0	-24	1694	1.31	0.43	-0.01
78	SLE RA 2	-1	-7	1713	0.75	1.94	0
78	SLE RA 3	0	-24	1694	1.31	0.43	-0.01
78	SLE RA 4	-1	-14	1705	0.97	1.33	-0.01
78	SLE RA 5	-1	-7	1713	0.75	1.94	0
78	SLE RA 6	0	-24	1694	1.31	0.43	-0.01
78	SLE RA 7	-1	-14	1705	0.97	1.33	-0.01
78	SLE RA 8	0	-24	1694	1.31	0.43	-0.01
78	SLE RA 9	-1	-14	1705	0.97	1.33	-0.01
78	SLE RA 10	-1	-16	2064	1.37	2.06	-0.01
78	SLE RA 11	1	-33	2044	1.93	0.55	-0.01
78	SLE RA 12	0	-23	2056	1.6	1.46	-0.01
78	SLE RA 13	-1	-16	2064	1.37	2.06	-0.01
78	SLE RA 14	1	-33	2044	1.93	0.55	-0.01
78	SLE RA 15	0	-23	2056	1.6	1.46	-0.01
78	SLE RA 16	1	-33	2044	1.93	0.55	-0.01
78	SLE RA 17	0	-23	2056	1.6	1.46	-0.01
78	SLE RA 18	1	-37	2194	2.2	0.6	-0.01
78	SLE RA 19	0	-27	2206	1.86	1.51	-0.01
78	SLE RA 20	1	-37	2194	2.2	0.6	-0.01
78	SLE RA 21	0	-27	2206	1.86	1.51	-0.01
78	SLE FR 1	0	-24	1694	1.31	0.43	-0.01
78	SLE FR 2	0	-21	1697	1.2	0.73	-0.01
78	SLE FR 3	0	-24	1694	1.31	0.43	-0.01
78	SLE FR 4	0	-25	1848	1.46	0.78	-0.01
78	SLE FR 5	0	-28	1844	1.58	0.48	-0.01
78	SLE FR 6	1	-31	1944	1.75	0.51	-0.01
78	SLE QP 1	0	-24	1694	1.31	0.43	-0.01
78	SLE QP 2	0	-28	1844	1.58	0.48	-0.01
78	SLD 1	-15	-24	1915	1.43	-5.91	0.02
78	SLD 2	-15	-24	1915	1.43	-5.91	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
78	SLD 3	-7	-93	1885	3.79	-1.12	0
78	SLD 4	-7	-93	1885	3.79	-1.12	0
78	SLD 5	-17	78	1911	-2.05	-8.69	0.02
78	SLD 6	-17	78	1911	-2.05	-8.69	0.02
78	SLD 7	11	-152	1810	5.82	7.25	-0.02
78	SLD 8	11	-152	1810	5.82	7.25	-0.02
78	SLD 9	-10	96	1877	-2.67	-6.3	0.01
78	SLD 10	-10	96	1877	-2.67	-6.3	0.01
78	SLD 11	18	-134	1777	5.2	9.65	-0.03
78	SLD 12	18	-134	1777	5.2	9.65	-0.03
78	SLD 13	8	37	1802	-0.64	2.08	-0.02
78	SLD 14	8	37	1802	-0.64	2.08	-0.02
78	SLD 15	16	-32	1772	1.72	6.86	-0.03
78	SLD 16	16	-32	1772	1.72	6.86	-0.03
78	SLV 1	-41	-12	2022	1.02	-16.21	0.05
78	SLV 2	-41	-12	2022	1.02	-16.21	0.05
78	SLV 3	-16	-190	1936	7.02	-3.06	0.02
78	SLV 4	-16	-190	1936	7.02	-3.06	0.02
78	SLV 5	-48	247	2027	-7.68	-24.46	0.06
78	SLV 6	-48	247	2027	-7.68	-24.46	0.06
78	SLV 7	32	-346	1742	12.3	19.35	-0.04
78	SLV 8	32	-346	1742	12.3	19.35	-0.04
78	SLV 9	-31	290	1946	-9.15	-18.4	0.03
78	SLV 10	-31	290	1946	-9.15	-18.4	0.03
78	SLV 11	49	-303	1660	10.83	25.42	-0.07
78	SLV 12	49	-303	1660	10.83	25.42	-0.07
78	SLV 13	17	134	1751	-3.87	4.02	-0.03
78	SLV 14	17	134	1751	-3.87	4.02	-0.03
78	SLV 15	42	-44	1666	2.13	17.16	-0.06
78	SLV 16	42	-44	1666	2.13	17.16	-0.06
79	SLU 1	0	-25	2058	0.89	0.46	0
79	SLU 2	-1	-11	2062	0.3	-1.94	0
79	SLU 3	0	-25	2058	0.89	0.46	0
79	SLU 4	0	-16	2061	0.54	-0.98	0
79	SLU 5	-1	-11	2062	0.3	-1.94	0
79	SLU 6	0	-25	2058	0.89	0.46	0
79	SLU 7	0	-16	2061	0.54	-0.98	0
79	SLU 8	0	-25	2058	0.89	0.46	0
79	SLU 9	0	-16	2061	0.54	-0.98	0
79	SLU 10	0	-12	2496	0.35	-1.16	0
79	SLU 11	0	-27	2492	0.94	1.24	0
79	SLU 12	0	-18	2494	0.58	-0.2	0
79	SLU 13	0	-12	2496	0.35	-1.16	0
79	SLU 14	0	-27	2492	0.94	1.24	0
79	SLU 15	0	-18	2494	0.58	-0.2	0
79	SLU 16	0	-27	2492	0.94	1.24	0
79	SLU 17	0	-18	2494	0.58	-0.2	0
79	SLU 18	1	-27	2678	0.96	1.57	0
79	SLU 19	0	-19	2680	0.6	0.13	0
79	SLU 20	1	-27	2678	0.96	1.57	0
79	SLU 21	0	-19	2680	0.6	0.13	0
79	SLU 22	0	-26	2280	0.91	0.76	0
79	SLU 23	-1	-11	2284	0.32	-1.63	0
79	SLU 24	0	-26	2280	0.91	0.76	0
79	SLU 25	0	-17	2283	0.56	-0.68	0
79	SLU 26	-1	-11	2284	0.32	-1.63	0
79	SLU 27	0	-26	2280	0.91	0.76	0
79	SLU 28	0	-17	2283	0.56	-0.68	0
79	SLU 29	0	-26	2280	0.91	0.76	0
79	SLU 30	0	-17	2283	0.56	-0.68	0
79	SLU 31	0	-13	2718	0.37	-0.85	0
79	SLU 32	1	-27	2714	0.96	1.54	0
79	SLU 33	0	-19	2716	0.6	0.1	0
79	SLU 34	0	-13	2718	0.37	-0.85	0
79	SLU 35	1	-27	2714	0.96	1.54	0
79	SLU 36	0	-19	2716	0.6	0.1	0
79	SLU 37	1	-27	2714	0.96	1.54	0
79	SLU 38	0	-19	2716	0.6	0.1	0
79	SLU 39	1	-28	2900	0.98	1.88	0
79	SLU 40	0	-19	2902	0.62	0.44	0
79	SLU 41	1	-28	2900	0.98	1.88	0
79	SLU 42	0	-19	2902	0.62	0.44	0
79	SLU 43	0	-32	2599	1.16	0.49	0
79	SLU 44	-1	-18	2604	0.56	-1.91	0
79	SLU 45	0	-32	2599	1.16	0.49	0
79	SLU 46	0	-24	2602	0.8	-0.95	0
79	SLU 47	-1	-18	2604	0.56	-1.91	0
79	SLU 48	0	-32	2599	1.16	0.49	0
79	SLU 49	0	-24	2602	0.8	-0.95	0
79	SLU 50	0	-32	2599	1.16	0.49	0
79	SLU 51	0	-24	2602	0.8	-0.95	0
79	SLU 52	0	-19	3037	0.61	-1.13	0
79	SLU 53	0	-34	3033	1.2	1.27	0
79	SLU 54	0	-25	3036	0.84	-0.17	0
79	SLU 55	0	-19	3037	0.61	-1.13	0
79	SLU 56	0	-34	3033	1.2	1.27	0
79	SLU 57	0	-25	3036	0.84	-0.17	0
79	SLU 58	0	-34	3033	1.2	1.27	0
79	SLU 59	0	-25	3036	0.84	-0.17	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
79	SLU 60	1	-34	3219	1.22	1.6	0
79	SLU 61	0	-26	3222	0.86	0.16	0
79	SLU 62	1	-34	3219	1.22	1.6	0
79	SLU 63	0	-26	3222	0.86	0.16	0
79	SLU 64	0	-33	2821	1.18	0.79	0
79	SLU 65	-1	-19	2826	0.58	-1.6	0
79	SLU 66	0	-33	2821	1.18	0.79	0
79	SLU 67	0	-24	2824	0.82	-0.64	0
79	SLU 68	-1	-19	2826	0.58	-1.6	0
79	SLU 69	0	-33	2821	1.18	0.79	0
79	SLU 70	0	-24	2824	0.82	-0.64	0
79	SLU 71	0	-33	2821	1.18	0.79	0
79	SLU 72	0	-24	2824	0.82	-0.64	0
79	SLU 73	0	-20	3259	0.63	-0.82	0
79	SLU 74	1	-34	3255	1.22	1.57	0
79	SLU 75	0	-26	3258	0.86	0.14	0
79	SLU 76	0	-20	3259	0.63	-0.82	0
79	SLU 77	1	-34	3255	1.22	1.57	0
79	SLU 78	0	-26	3258	0.86	0.14	0
79	SLU 79	1	-34	3255	1.22	1.57	0
79	SLU 80	0	-26	3258	0.86	0.14	0
79	SLU 81	1	-35	3441	1.24	1.91	0
79	SLU 82	0	-27	3444	0.88	0.47	0
79	SLU 83	1	-35	3441	1.24	1.91	0
79	SLU 84	0	-27	3444	0.88	0.47	0
79	SLE RA 1	0	-25	2122	0.9	0.54	0
79	SLE RA 2	0	-16	2124	0.5	-1.05	0
79	SLE RA 3	0	-25	2122	0.9	0.54	0
79	SLE RA 4	0	-19	2123	0.66	-0.42	0
79	SLE RA 5	0	-16	2124	0.5	-1.05	0
79	SLE RA 6	0	-25	2122	0.9	0.54	0
79	SLE RA 7	0	-19	2123	0.66	-0.42	0
79	SLE RA 8	0	-25	2122	0.9	0.54	0
79	SLE RA 9	0	-19	2123	0.66	-0.42	0
79	SLE RA 10	0	-17	2414	0.53	-0.53	0
79	SLE RA 11	0	-26	2411	0.93	1.06	0
79	SLE RA 12	0	-20	2412	0.69	0.1	0
79	SLE RA 13	0	-17	2414	0.53	-0.53	0
79	SLE RA 14	0	-26	2411	0.93	1.06	0
79	SLE RA 15	0	-20	2412	0.69	0.1	0
79	SLE RA 16	0	-26	2411	0.93	1.06	0
79	SLE RA 17	0	-20	2412	0.69	0.1	0
79	SLE RA 18	0	-27	2535	0.94	1.29	0
79	SLE RA 19	0	-21	2536	0.71	0.33	0
79	SLE RA 20	0	-27	2535	0.94	1.29	0
79	SLE RA 21	0	-21	2536	0.71	0.33	0
79	SLE FR 1	0	-25	2122	0.9	0.54	0
79	SLE FR 2	0	-23	2122	0.82	0.22	0
79	SLE FR 3	0	-25	2122	0.9	0.54	0
79	SLE FR 4	0	-24	2246	0.83	0.45	0
79	SLE FR 5	0	-26	2246	0.91	0.77	0
79	SLE FR 6	0	-26	2328	0.92	0.91	0
79	SLE QP 1	0	-25	2122	0.9	0.54	0
79	SLE QP 2	0	-26	2246	0.91	0.77	0
79	SLD 1	53	-37	2282	1.29	77.97	0
79	SLD 2	53	-37	2282	1.29	77.97	0
79	SLD 3	48	-104	2274	3.77	73.86	0.01
79	SLD 4	48	-104	2274	3.77	73.86	0.01
79	SLD 5	23	74	2269	-2.73	30.16	-0.01
79	SLD 6	23	74	2269	-2.73	30.16	-0.01
79	SLD 7	8	-152	2242	5.53	16.46	0.01
79	SLD 8	8	-152	2242	5.53	16.46	0.01
79	SLD 9	-7	100	2249	-3.7	-14.93	-0.01
79	SLD 10	-7	100	2249	-3.7	-14.93	-0.01
79	SLD 11	-22	-125	2222	4.56	-28.62	0.01
79	SLD 12	-22	-125	2222	4.56	-28.62	0.01
79	SLD 13	-48	53	2217	-1.94	-72.33	-0.01
79	SLD 14	-48	53	2217	-1.94	-72.33	-0.01
79	SLD 15	-52	-15	2209	0.54	-76.43	0
79	SLD 16	-52	-15	2209	0.54	-76.43	0
79	SLV 1	134	-54	2338	1.86	197.41	0.01
79	SLV 2	134	-54	2338	1.86	197.41	0.01
79	SLV 3	123	-216	2317	7.85	187.12	0.02
79	SLV 4	123	-216	2317	7.85	187.12	0.02
79	SLV 5	57	211	2306	-7.89	75.36	-0.02
79	SLV 6	57	211	2306	-7.89	75.36	-0.02
79	SLV 7	20	-328	2235	12.08	41.07	0.02
79	SLV 8	20	-328	2235	12.08	41.07	0.02
79	SLV 9	-20	277	2256	-10.25	-39.54	-0.02
79	SLV 10	-20	277	2256	-10.25	-39.54	-0.02
79	SLV 11	-56	-262	2185	9.72	-73.83	0.02
79	SLV 12	-56	-262	2185	9.72	-73.83	0.02
79	SLV 13	-122	165	2174	-6.02	-185.59	-0.02
79	SLV 14	-122	165	2174	-6.02	-185.59	-0.02
79	SLV 15	-133	3	2153	-0.03	-195.87	-0.01
79	SLV 16	-133	3	2153	-0.03	-195.87	-0.01
80	SLU 1	0	-4	1637	-0.24	0.23	0
80	SLU 2	-1	21	1671	-1.2	4.49	0
80	SLU 3	0	-4	1637	-0.24	0.23	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
80	SLU 4	0	11	1657	-0.82	2.79	0
80	SLU 5	-1	21	1671	-1.2	4.49	0
80	SLU 6	0	-4	1637	-0.24	0.23	0
80	SLU 7	0	11	1657	-0.82	2.79	0
80	SLU 8	0	-4	1637	-0.24	0.23	0
80	SLU 9	0	11	1657	-0.82	2.79	0
80	SLU 10	-1	19	2196	-1.61	4.65	0
80	SLU 11	0	-5	2162	-0.64	0.39	0
80	SLU 12	0	10	2182	-1.22	2.94	0
80	SLU 13	-1	19	2196	-1.61	4.65	0
80	SLU 14	0	-5	2162	-0.64	0.39	0
80	SLU 15	0	10	2182	-1.22	2.94	0
80	SLU 16	0	-5	2162	-0.64	0.39	0
80	SLU 17	0	10	2182	-1.22	2.94	0
80	SLU 18	1	-6	2387	-0.81	0.46	0
80	SLU 19	0	9	2407	-1.39	3.01	0
80	SLU 20	1	-6	2387	-0.81	0.46	0
80	SLU 21	0	9	2407	-1.39	3.01	0
80	SLU 22	0	-11	1860	-0.18	0.32	0
80	SLU 23	-1	13	1894	-1.14	4.57	0
80	SLU 24	0	-11	1860	-0.18	0.32	0
80	SLU 25	0	4	1880	-0.76	2.87	0
80	SLU 26	-1	13	1894	-1.14	4.57	0
80	SLU 27	0	-11	1860	-0.18	0.32	0
80	SLU 28	0	4	1880	-0.76	2.87	0
80	SLU 29	0	-11	1860	-0.18	0.32	0
80	SLU 30	0	4	1880	-0.76	2.87	0
80	SLU 31	0	12	2419	-1.55	4.73	0
80	SLU 32	1	-12	2385	-0.58	0.47	0
80	SLU 33	0	2	2405	-1.16	3.03	0
80	SLU 34	0	12	2419	-1.55	4.73	0
80	SLU 35	1	-12	2385	-0.58	0.47	0
80	SLU 36	0	2	2405	-1.16	3.03	0
80	SLU 37	1	-12	2385	-0.58	0.47	0
80	SLU 38	0	2	2405	-1.16	3.03	0
80	SLU 39	1	-13	2610	-0.75	0.54	0
80	SLU 40	0	2	2630	-1.33	3.09	0
80	SLU 41	1	-13	2610	-0.75	0.54	0
80	SLU 42	0	2	2630	-1.33	3.09	0
80	SLU 43	0	-2	2051	-0.33	0.28	0
80	SLU 44	-1	22	2085	-1.3	4.53	0
80	SLU 45	0	-2	2051	-0.33	0.28	0
80	SLU 46	0	12	2072	-0.91	2.83	0
80	SLU 47	-1	22	2085	-1.3	4.53	0
80	SLU 48	0	-2	2051	-0.33	0.28	0
80	SLU 49	0	12	2072	-0.91	2.83	0
80	SLU 50	0	-2	2051	-0.33	0.28	0
80	SLU 51	0	12	2072	-0.91	2.83	0
80	SLU 52	-1	21	2610	-1.7	4.69	0
80	SLU 53	1	-4	2576	-0.73	0.43	0
80	SLU 54	0	11	2597	-1.31	2.99	0
80	SLU 55	-1	21	2610	-1.7	4.69	0
80	SLU 56	1	-4	2576	-0.73	0.43	0
80	SLU 57	0	11	2597	-1.31	2.99	0
80	SLU 58	1	-4	2576	-0.73	0.43	0
80	SLU 59	0	11	2597	-1.31	2.99	0
80	SLU 60	1	-4	2801	-0.91	0.5	0
80	SLU 61	0	10	2822	-1.49	3.05	0
80	SLU 62	1	-4	2801	-0.91	0.5	0
80	SLU 63	0	10	2822	-1.49	3.05	0
80	SLU 64	0	-10	2274	-0.27	0.36	0
80	SLU 65	-1	15	2308	-1.24	4.62	0
80	SLU 66	0	-10	2274	-0.27	0.36	0
80	SLU 67	0	5	2295	-0.85	2.91	0
80	SLU 68	-1	15	2308	-1.24	4.62	0
80	SLU 69	0	-10	2274	-0.27	0.36	0
80	SLU 70	0	5	2295	-0.85	2.91	0
80	SLU 71	0	-10	2274	-0.27	0.36	0
80	SLU 72	0	5	2295	-0.85	2.91	0
80	SLU 73	0	13	2833	-1.64	4.77	0
80	SLU 74	1	-11	2799	-0.67	0.51	0
80	SLU 75	0	4	2820	-1.25	3.07	0
80	SLU 76	0	13	2833	-1.64	4.77	0
80	SLU 77	1	-11	2799	-0.67	0.51	0
80	SLU 78	0	4	2820	-1.25	3.07	0
80	SLU 79	1	-11	2799	-0.67	0.51	0
80	SLU 80	0	4	2820	-1.25	3.07	0
80	SLU 81	1	-12	3024	-0.85	0.58	0
80	SLU 82	0	3	3045	-1.43	3.13	0
80	SLU 83	1	-12	3024	-0.85	0.58	0
80	SLU 84	0	3	3045	-1.43	3.13	0
80	SLE RA 1	0	-6	1700	-0.22	0.26	0
80	SLE RA 2	0	10	1723	-0.86	3.1	0
80	SLE RA 3	0	-6	1700	-0.22	0.26	0
80	SLE RA 4	0	4	1714	-0.61	1.96	0
80	SLE RA 5	0	10	1723	-0.86	3.1	0
80	SLE RA 6	0	-6	1700	-0.22	0.26	0
80	SLE RA 7	0	4	1714	-0.61	1.96	0
80	SLE RA 8	0	-6	1700	-0.22	0.26	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
80	SLE RA 9	0	4	1714	-0.61	1.96	0
80	SLE RA 10	0	10	2073	-1.13	3.2	0
80	SLE RA 11	0	-7	2050	-0.49	0.36	0
80	SLE RA 12	0	3	2064	-0.88	2.06	0
80	SLE RA 13	0	10	2073	-1.13	3.2	0
80	SLE RA 14	0	-7	2050	-0.49	0.36	0
80	SLE RA 15	0	3	2064	-0.88	2.06	0
80	SLE RA 16	0	-7	2050	-0.49	0.36	0
80	SLE RA 17	0	3	2064	-0.88	2.06	0
80	SLE RA 18	1	-7	2200	-0.61	0.41	0
80	SLE RA 19	0	3	2214	-0.99	2.11	0
80	SLE RA 20	1	-7	2200	-0.61	0.41	0
80	SLE RA 21	0	3	2214	-0.99	2.11	0
80	SLE FR 1	0	-6	1700	-0.22	0.26	0
80	SLE FR 2	0	-3	1705	-0.35	0.83	0
80	SLE FR 3	0	-6	1700	-0.22	0.26	0
80	SLE FR 4	0	-3	1855	-0.47	0.87	0
80	SLE FR 5	0	-6	1850	-0.34	0.3	0
80	SLE FR 6	0	-6	1950	-0.41	0.33	0
80	SLE QP 1	0	-6	1700	-0.22	0.26	0
80	SLE QP 2	0	-6	1850	-0.34	0.3	0
80	SLD 1	-13	-1	1907	-0.64	-5	0.02
80	SLD 2	-13	-1	1907	-0.64	-5	0.02
80	SLD 3	-6	-67	1865	1.84	-10.67	0.01
80	SLD 4	-6	-67	1865	1.84	-10.67	0.01
80	SLD 5	-15	94	1931	-4.18	7.31	0.03
80	SLD 6	-15	94	1931	-4.18	7.31	0.03
80	SLD 7	10	-123	1792	4.07	-11.59	-0.02
80	SLD 8	10	-123	1792	4.07	-11.59	-0.02
80	SLD 9	-10	111	1909	-4.75	12.19	0.02
80	SLD 10	-10	111	1909	-4.75	12.19	0.02
80	SLD 11	16	-107	1770	3.51	-6.7	-0.03
80	SLD 12	16	-107	1770	3.51	-6.7	-0.03
80	SLD 13	6	54	1835	-2.51	11.27	-0.01
80	SLD 14	6	54	1835	-2.51	11.27	-0.01
80	SLD 15	14	-11	1794	-0.04	5.61	-0.03
80	SLD 16	14	-11	1794	-0.04	5.61	-0.03
80	SLV 1	-35	12	1997	-1.34	-12.33	0.06
80	SLV 2	-35	12	1997	-1.34	-12.33	0.06
80	SLV 3	-13	-155	1877	5.11	-27.58	0.03
80	SLV 4	-13	-155	1877	5.11	-27.58	0.03
80	SLV 5	-43	253	2075	-10.41	19.64	0.07
80	SLV 6	-43	253	2075	-10.41	19.64	0.07
80	SLV 7	29	-305	1678	11.07	-31.19	-0.05
80	SLV 8	29	-305	1678	11.07	-31.19	-0.05
80	SLV 9	-28	292	2023	-11.75	31.8	0.04
80	SLV 10	-28	292	2023	-11.75	31.8	0.04
80	SLV 11	43	-265	1626	9.74	-19.03	-0.07
80	SLV 12	43	-265	1626	9.74	-19.03	-0.07
80	SLV 13	14	143	1823	-5.78	28.19	-0.03
80	SLV 14	14	143	1823	-5.78	28.19	-0.03
80	SLV 15	35	-24	1704	0.67	12.94	-0.07
80	SLV 16	35	-24	1704	0.67	12.94	-0.07
81	SLU 1	0	267	1153	-5.92	-0.01	0
81	SLU 2	1	297	1251	-6.82	-0.08	0.01
81	SLU 3	0	267	1153	-5.92	-0.01	0
81	SLU 4	0	285	1212	-6.46	-0.05	0.01
81	SLU 5	1	297	1251	-6.82	-0.08	0.01
81	SLU 6	0	267	1153	-5.92	-0.01	0
81	SLU 7	0	285	1212	-6.46	-0.05	0.01
81	SLU 8	0	267	1153	-5.92	-0.01	0
81	SLU 9	0	285	1212	-6.46	-0.05	0.01
81	SLU 10	1	444	1963	-9.77	-0.1	0.01
81	SLU 11	0	414	1865	-8.87	-0.03	0
81	SLU 12	0	432	1924	-9.41	-0.07	0.01
81	SLU 13	1	444	1963	-9.77	-0.1	0.01
81	SLU 14	0	414	1865	-8.87	-0.03	0
81	SLU 15	0	432	1924	-9.41	-0.07	0.01
81	SLU 16	0	414	1865	-8.87	-0.03	0
81	SLU 17	0	432	1924	-9.41	-0.07	0.01
81	SLU 18	0	477	2170	-10.13	-0.03	0
81	SLU 19	1	495	2229	-10.67	-0.07	0.01
81	SLU 20	0	477	2170	-10.13	-0.03	0
81	SLU 21	1	495	2229	-10.67	-0.07	0.01
81	SLU 22	0	333	1471	-7.29	-0.02	0
81	SLU 23	1	364	1569	-8.19	-0.09	0.01
81	SLU 24	0	333	1471	-7.29	-0.02	0
81	SLU 25	0	352	1530	-7.83	-0.06	0.01
81	SLU 26	1	364	1569	-8.19	-0.09	0.01
81	SLU 27	0	333	1471	-7.29	-0.02	0
81	SLU 28	0	352	1530	-7.83	-0.06	0.01
81	SLU 29	0	333	1471	-7.29	-0.02	0
81	SLU 30	0	352	1530	-7.83	-0.06	0.01
81	SLU 31	1	511	2281	-11.14	-0.1	0.01
81	SLU 32	0	481	2183	-10.23	-0.03	0
81	SLU 33	1	499	2242	-10.77	-0.07	0.01
81	SLU 34	1	511	2281	-11.14	-0.1	0.01
81	SLU 35	0	481	2183	-10.23	-0.03	0
81	SLU 36	1	499	2242	-10.77	-0.07	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
81	SLU 37	0	481	2183	-10.23	-0.03	0
81	SLU 38	1	499	2242	-10.77	-0.07	0.01
81	SLU 39	0	544	2488	-11.49	-0.04	0.01
81	SLU 40	1	562	2547	-12.04	-0.08	0.01
81	SLU 41	0	544	2488	-11.49	-0.04	0.01
81	SLU 42	1	562	2547	-12.04	-0.08	0.01
81	SLU 43	0	324	1389	-7.23	-0.01	0
81	SLU 44	1	354	1488	-8.13	-0.08	0.01
81	SLU 45	0	324	1389	-7.23	-0.01	0
81	SLU 46	0	342	1449	-7.77	-0.05	0.01
81	SLU 47	1	354	1488	-8.13	-0.08	0.01
81	SLU 48	0	324	1389	-7.23	-0.01	0
81	SLU 49	0	342	1449	-7.77	-0.05	0.01
81	SLU 50	0	324	1389	-7.23	-0.01	0
81	SLU 51	0	342	1449	-7.77	-0.05	0.01
81	SLU 52	1	501	2200	-11.08	-0.1	0.01
81	SLU 53	0	471	2101	-10.17	-0.03	0
81	SLU 54	0	489	2160	-10.72	-0.07	0.01
81	SLU 55	1	501	2200	-11.08	-0.1	0.01
81	SLU 56	0	471	2101	-10.17	-0.03	0
81	SLU 57	0	489	2160	-10.72	-0.07	0.01
81	SLU 58	0	471	2101	-10.17	-0.03	0
81	SLU 59	0	489	2160	-10.72	-0.07	0.01
81	SLU 60	0	534	2406	-11.44	-0.03	0
81	SLU 61	1	552	2465	-11.98	-0.08	0.01
81	SLU 62	0	534	2406	-11.44	-0.03	0
81	SLU 63	1	552	2465	-11.98	-0.08	0.01
81	SLU 64	0	390	1708	-8.6	-0.02	0
81	SLU 65	1	421	1806	-9.5	-0.09	0.01
81	SLU 66	0	390	1708	-8.6	-0.02	0
81	SLU 67	0	409	1767	-9.14	-0.06	0.01
81	SLU 68	1	421	1806	-9.5	-0.09	0.01
81	SLU 69	0	390	1708	-8.6	-0.02	0
81	SLU 70	0	409	1767	-9.14	-0.06	0.01
81	SLU 71	0	390	1708	-8.6	-0.02	0
81	SLU 72	0	409	1767	-9.14	-0.06	0.01
81	SLU 73	1	568	2518	-12.44	-0.1	0.01
81	SLU 74	0	538	2419	-11.54	-0.03	0
81	SLU 75	1	556	2479	-12.08	-0.08	0.01
81	SLU 76	1	568	2518	-12.44	-0.1	0.01
81	SLU 77	0	538	2419	-11.54	-0.03	0
81	SLU 78	1	556	2479	-12.08	-0.08	0.01
81	SLU 79	0	538	2419	-11.54	-0.03	0
81	SLU 80	1	556	2479	-12.08	-0.08	0.01
81	SLU 81	0	601	2724	-12.8	-0.04	0.01
81	SLU 82	1	619	2784	-13.34	-0.08	0.01
81	SLU 83	0	601	2724	-12.8	-0.04	0.01
81	SLU 84	1	619	2784	-13.34	-0.08	0.01
81	SLE RA 1	0	286	1244	-6.31	-0.01	0
81	SLE RA 2	0	306	1309	-6.91	-0.06	0.01
81	SLE RA 3	0	286	1244	-6.31	-0.01	0
81	SLE RA 4	0	298	1283	-6.67	-0.04	0
81	SLE RA 5	0	306	1309	-6.91	-0.06	0.01
81	SLE RA 6	0	286	1244	-6.31	-0.01	0
81	SLE RA 7	0	298	1283	-6.67	-0.04	0
81	SLE RA 8	0	286	1244	-6.31	-0.01	0
81	SLE RA 9	0	298	1283	-6.67	-0.04	0
81	SLE RA 10	0	404	1784	-8.88	-0.07	0.01
81	SLE RA 11	0	384	1718	-8.28	-0.02	0
81	SLE RA 12	0	396	1758	-8.64	-0.05	0.01
81	SLE RA 13	0	404	1784	-8.88	-0.07	0.01
81	SLE RA 14	0	384	1718	-8.28	-0.02	0
81	SLE RA 15	0	396	1758	-8.64	-0.05	0.01
81	SLE RA 16	0	384	1718	-8.28	-0.02	0
81	SLE RA 17	0	396	1758	-8.64	-0.05	0.01
81	SLE RA 18	0	426	1922	-9.12	-0.03	0
81	SLE RA 19	0	438	1961	-9.48	-0.06	0.01
81	SLE RA 20	0	426	1922	-9.12	-0.03	0
81	SLE RA 21	0	438	1961	-9.48	-0.06	0.01
81	SLE FR 1	0	286	1244	-6.31	-0.01	0
81	SLE FR 2	0	290	1257	-6.43	-0.02	0
81	SLE FR 3	0	286	1244	-6.31	-0.01	0
81	SLE FR 4	0	332	1460	-7.27	-0.03	0
81	SLE FR 5	0	328	1447	-7.15	-0.02	0
81	SLE FR 6	0	356	1583	-7.71	-0.02	0
81	SLE QP 1	0	286	1244	-6.31	-0.01	0
81	SLE QP 2	0	328	1447	-7.15	-0.02	0
81	SLD 1	-15	359	1515	-8.31	-7.42	0.97
81	SLD 2	-15	359	1515	-8.31	-7.42	0.97
81	SLD 3	-19	259	1191	-5.21	-9.14	1.24
81	SLD 4	-19	259	1191	-5.21	-9.14	1.24
81	SLD 5	1	490	1959	-12.2	0.38	-0.11
81	SLD 6	1	490	1959	-12.2	0.38	-0.11
81	SLD 7	-11	154	879	-1.87	-5.37	0.78
81	SLD 8	-11	154	879	-1.87	-5.37	0.78
81	SLD 9	11	501	2015	-12.44	5.34	-0.78
81	SLD 10	11	501	2015	-12.44	5.34	-0.78
81	SLD 11	-1	166	935	-2.1	-0.41	0.12
81	SLD 12	-1	166	935	-2.1	-0.41	0.12



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
81	SLD 13	19	397	1703	-9.09	9.11	-1.24
81	SLD 14	19	397	1703	-9.09	9.11	-1.24
81	SLD 15	15	296	1379	-6	7.38	-0.97
81	SLD 16	15	296	1379	-6	7.38	-0.97
81	SLV 1	-39	395	1560	-9.76	-18.7	2.45
81	SLV 2	-39	395	1560	-9.76	-18.7	2.45
81	SLV 3	-48	163	815	-2.62	-23.69	3.22
81	SLV 4	-48	163	815	-2.62	-23.69	3.22
81	SLV 5	2	699	2611	-18.76	1.93	-0.43
81	SLV 6	2	699	2611	-18.76	1.93	-0.43
81	SLV 7	-28	-73	127	5.03	-14.67	2.13
81	SLV 8	-28	-73	127	5.03	-14.67	2.13
81	SLV 9	29	728	2767	-19.34	14.64	-2.13
81	SLV 10	29	728	2767	-19.34	14.64	-2.13
81	SLV 11	-2	-44	283	4.45	-1.97	0.43
81	SLV 12	-2	-44	283	4.45	-1.97	0.43
81	SLV 13	48	492	2079	-11.69	23.65	-3.21
81	SLV 14	48	492	2079	-11.69	23.65	-3.21
81	SLV 15	39	261	1334	-4.55	18.67	-2.44
81	SLV 16	39	261	1334	-4.55	18.67	-2.44
82	SLU 1	0	-46	2057	1.68	0.41	0
82	SLU 2	-1	-34	2063	1.38	-2.21	0
82	SLU 3	0	-46	2057	1.68	0.41	0
82	SLU 4	-1	-39	2061	1.5	-1.16	0
82	SLU 5	-1	-34	2063	1.38	-2.21	0
82	SLU 6	0	-46	2057	1.68	0.41	0
82	SLU 7	-1	-39	2061	1.5	-1.16	0
82	SLU 8	0	-46	2057	1.68	0.41	0
82	SLU 9	-1	-39	2061	1.5	-1.16	0
82	SLU 10	-1	-43	2495	1.69	-1.51	0
82	SLU 11	0	-55	2490	1.98	1.11	0
82	SLU 12	0	-48	2493	1.81	-0.46	0
82	SLU 13	-1	-43	2495	1.69	-1.51	0
82	SLU 14	0	-55	2490	1.98	1.11	0
82	SLU 15	0	-48	2493	1.81	-0.46	0
82	SLU 16	0	-55	2490	1.98	1.11	0
82	SLU 17	0	-48	2493	1.81	-0.46	0
82	SLU 18	0	-58	2675	2.12	1.41	0
82	SLU 19	0	-51	2679	1.94	-0.16	0
82	SLU 20	0	-58	2675	2.12	1.41	0
82	SLU 21	0	-51	2679	1.94	-0.16	0
82	SLU 22	0	-51	2279	1.83	0.69	0
82	SLU 23	-1	-39	2284	1.53	-1.93	0
82	SLU 24	0	-51	2279	1.83	0.69	0
82	SLU 25	0	-43	2282	1.65	-0.88	0
82	SLU 26	-1	-39	2284	1.53	-1.93	0
82	SLU 27	0	-51	2279	1.83	0.69	0
82	SLU 28	0	-43	2282	1.65	-0.88	0
82	SLU 29	0	-51	2279	1.83	0.69	0
82	SLU 30	0	-43	2282	1.65	-0.88	0
82	SLU 31	-1	-47	2716	1.84	-1.23	0
82	SLU 32	0	-59	2711	2.13	1.39	0
82	SLU 33	0	-52	2714	1.96	-0.18	0
82	SLU 34	-1	-47	2716	1.84	-1.23	0
82	SLU 35	0	-59	2711	2.13	1.39	0
82	SLU 36	0	-52	2714	1.96	-0.18	0
82	SLU 37	0	-59	2711	2.13	1.39	0
82	SLU 38	0	-52	2714	1.96	-0.18	0
82	SLU 39	1	-62	2897	2.26	1.69	0
82	SLU 40	0	-55	2900	2.09	0.12	0
82	SLU 41	1	-62	2897	2.26	1.69	0
82	SLU 42	0	-55	2900	2.09	0.12	0
82	SLU 43	0	-59	2599	2.13	0.44	0
82	SLU 44	-1	-47	2604	1.83	-2.18	0
82	SLU 45	0	-59	2599	2.13	0.44	0
82	SLU 46	-1	-52	2602	1.95	-1.13	0
82	SLU 47	-1	-47	2604	1.83	-2.18	0
82	SLU 48	0	-59	2599	2.13	0.44	0
82	SLU 49	-1	-52	2602	1.95	-1.13	0
82	SLU 50	0	-59	2599	2.13	0.44	0
82	SLU 51	-1	-52	2602	1.95	-1.13	0
82	SLU 52	-1	-55	3037	2.14	-1.48	0
82	SLU 53	0	-67	3031	2.44	1.14	0
82	SLU 54	0	-60	3034	2.26	-0.43	0
82	SLU 55	-1	-55	3037	2.14	-1.48	0
82	SLU 56	0	-67	3031	2.44	1.14	0
82	SLU 57	0	-60	3034	2.26	-0.43	0
82	SLU 58	0	-67	3031	2.44	1.14	0
82	SLU 59	0	-60	3034	2.26	-0.43	0
82	SLU 60	0	-71	3217	2.57	1.44	0
82	SLU 61	0	-64	3220	2.39	-0.13	0
82	SLU 62	0	-71	3217	2.57	1.44	0
82	SLU 63	0	-64	3220	2.39	-0.13	0
82	SLU 64	0	-63	2820	2.28	0.71	0
82	SLU 65	-1	-51	2825	1.98	-1.9	0
82	SLU 66	0	-63	2820	2.28	0.71	0
82	SLU 67	0	-56	2823	2.1	-0.86	0
82	SLU 68	-1	-51	2825	1.98	-1.9	0
82	SLU 69	0	-63	2820	2.28	0.71	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
82	SLU 70	0	-56	2823	2.1	-0.86	0
82	SLU 71	0	-63	2820	2.28	0.71	0
82	SLU 72	0	-56	2823	2.1	-0.86	0
82	SLU 73	-1	-59	3258	2.29	-1.2	0
82	SLU 74	0	-71	3253	2.59	1.42	0
82	SLU 75	0	-64	3256	2.41	-0.15	0
82	SLU 76	-1	-59	3258	2.29	-1.2	0
82	SLU 77	0	-71	3253	2.59	1.42	0
82	SLU 78	0	-64	3256	2.41	-0.15	0
82	SLU 79	0	-71	3253	2.59	1.42	0
82	SLU 80	0	-64	3256	2.41	-0.15	0
82	SLU 81	1	-75	3438	2.72	1.72	0
82	SLU 82	0	-68	3441	2.54	0.15	0
82	SLU 83	1	-75	3438	2.72	1.72	0
82	SLU 84	0	-68	3441	2.54	0.15	0
82	SLE RA 1	0	-48	2121	1.72	0.49	0
82	SLE RA 2	-1	-40	2124	1.52	-1.26	0
82	SLE RA 3	0	-48	2121	1.72	0.49	0
82	SLE RA 4	0	-43	2123	1.6	-0.56	0
82	SLE RA 5	-1	-40	2124	1.52	-1.26	0
82	SLE RA 6	0	-48	2121	1.72	0.49	0
82	SLE RA 7	0	-43	2123	1.6	-0.56	0
82	SLE RA 8	0	-48	2121	1.72	0.49	0
82	SLE RA 9	0	-43	2123	1.6	-0.56	0
82	SLE RA 10	0	-45	2412	1.73	-0.79	0
82	SLE RA 11	0	-53	2409	1.93	0.96	0
82	SLE RA 12	0	-48	2411	1.81	-0.09	0
82	SLE RA 13	0	-45	2412	1.73	-0.79	0
82	SLE RA 14	0	-53	2409	1.93	0.96	0
82	SLE RA 15	0	-48	2411	1.81	-0.09	0
82	SLE RA 16	0	-53	2409	1.93	0.96	0
82	SLE RA 17	0	-48	2411	1.81	-0.09	0
82	SLE RA 18	0	-56	2533	2.01	1.16	0
82	SLE RA 19	0	-51	2535	1.89	0.11	0
82	SLE RA 20	0	-56	2533	2.01	1.16	0
82	SLE RA 21	0	-51	2535	1.89	0.11	0
82	SLE FR 1	0	-48	2121	1.72	0.49	0
82	SLE FR 2	0	-46	2121	1.68	0.14	0
82	SLE FR 3	0	-48	2121	1.72	0.49	0
82	SLE FR 4	0	-48	2245	1.77	0.34	0
82	SLE FR 5	0	-50	2244	1.81	0.69	0
82	SLE FR 6	0	-52	2327	1.87	0.82	0
82	SLE QP 1	0	-48	2121	1.72	0.49	0
82	SLE QP 2	0	-50	2244	1.81	0.69	0
82	SLD 1	50	-58	2276	2.1	73.99	0
82	SLD 2	50	-58	2276	2.1	73.99	0
82	SLD 3	45	-124	2268	4.44	68.93	0.01
82	SLD 4	45	-124	2268	4.44	68.93	0.01
82	SLD 5	23	48	2267	-1.66	30.36	0
82	SLD 6	23	48	2267	-1.66	30.36	0
82	SLD 7	5	-172	2239	6.15	13.48	0.01
82	SLD 8	5	-172	2239	6.15	13.48	0.01
82	SLD 9	-5	72	2250	-2.54	-12.1	-0.01
82	SLD 10	-5	72	2250	-2.54	-12.1	-0.01
82	SLD 11	-23	-148	2222	5.28	-28.98	0
82	SLD 12	-23	-148	2222	5.28	-28.98	0
82	SLD 13	-44	24	2221	-0.83	-67.55	-0.01
82	SLD 14	-44	24	2221	-0.83	-67.55	-0.01
82	SLD 15	-49	-42	2212	1.52	-72.62	0
82	SLD 16	-49	-42	2212	1.52	-72.62	0
82	SLV 1	126	-70	2325	2.62	187.38	0.01
82	SLV 2	126	-70	2325	2.62	187.38	0.01
82	SLV 3	113	-227	2303	8.13	174.62	0.01
82	SLV 4	113	-227	2303	8.13	174.62	0.01
82	SLV 5	58	181	2302	-6.31	76.05	-0.01
82	SLV 6	58	181	2302	-6.31	76.05	-0.01
82	SLV 7	14	-340	2228	12.07	33.51	0.01
82	SLV 8	14	-340	2228	12.07	33.51	0.01
82	SLV 9	-14	240	2260	-8.45	-32.13	-0.01
82	SLV 10	-14	240	2260	-8.45	-32.13	-0.01
82	SLV 11	-58	-281	2187	9.93	-74.67	0.01
82	SLV 12	-58	-281	2187	9.93	-74.67	0.01
82	SLV 13	-113	127	2186	-4.51	-173.24	-0.01
82	SLV 14	-113	127	2186	-4.51	-173.24	-0.01
82	SLV 15	-126	-30	2164	1	-186	-0.01
82	SLV 16	-126	-30	2164	1	-186	-0.01
83	SLU 1	0	-22	1662	1.31	0.16	0
83	SLU 2	2	-5	1695	0.79	6.72	-0.01
83	SLU 3	0	-22	1662	1.31	0.16	0
83	SLU 4	1	-11	1682	1	4.09	0
83	SLU 5	2	-5	1695	0.79	6.72	-0.01
83	SLU 6	0	-22	1662	1.31	0.16	0
83	SLU 7	1	-11	1682	1	4.09	0
83	SLU 8	0	-22	1662	1.31	0.16	0
83	SLU 9	1	-11	1682	1	4.09	0
83	SLU 10	2	-21	2223	1.81	6.84	-0.01
83	SLU 11	0	-38	2190	2.33	0.29	0
83	SLU 12	1	-28	2210	2.01	4.22	0
83	SLU 13	2	-21	2223	1.81	6.84	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
83	SLU 14	0	-38	2190	2.33	0.29	0
83	SLU 15	1	-28	2210	2.01	4.22	0
83	SLU 16	0	-38	2190	2.33	0.29	0
83	SLU 17	1	-28	2210	2.01	4.22	0
83	SLU 18	0	-45	2416	2.76	0.34	0
83	SLU 19	1	-35	2436	2.45	4.27	0
83	SLU 20	0	-45	2416	2.76	0.34	0
83	SLU 21	1	-35	2436	2.45	4.27	0
83	SLU 22	0	-34	1880	1.9	0.22	0
83	SLU 23	2	-17	1913	1.38	6.78	-0.01
83	SLU 24	0	-34	1880	1.9	0.22	0
83	SLU 25	1	-24	1900	1.58	4.15	0
83	SLU 26	2	-17	1913	1.38	6.78	-0.01
83	SLU 27	0	-34	1880	1.9	0.22	0
83	SLU 28	1	-24	1900	1.58	4.15	0
83	SLU 29	0	-34	1880	1.9	0.22	0
83	SLU 30	1	-24	1900	1.58	4.15	0
83	SLU 31	2	-34	2441	2.39	6.9	-0.01
83	SLU 32	0	-50	2408	2.91	0.35	0
83	SLU 33	1	-40	2428	2.6	4.28	0
83	SLU 34	2	-34	2441	2.39	6.9	-0.01
83	SLU 35	0	-50	2408	2.91	0.35	0
83	SLU 36	1	-40	2428	2.6	4.28	0
83	SLU 37	0	-50	2408	2.91	0.35	0
83	SLU 38	1	-40	2428	2.6	4.28	0
83	SLU 39	0	-58	2635	3.35	0.4	0
83	SLU 40	1	-47	2655	3.04	4.33	0
83	SLU 41	0	-58	2635	3.35	0.4	0
83	SLU 42	1	-47	2655	3.04	4.33	0
83	SLU 43	0	-24	2085	1.5	0.19	0
83	SLU 44	2	-7	2118	0.98	6.74	-0.01
83	SLU 45	0	-24	2085	1.5	0.19	0
83	SLU 46	1	-14	2105	1.19	4.12	0
83	SLU 47	2	-7	2118	0.98	6.74	-0.01
83	SLU 48	0	-24	2085	1.5	0.19	0
83	SLU 49	1	-14	2105	1.19	4.12	0
83	SLU 50	0	-24	2085	1.5	0.19	0
83	SLU 51	1	-14	2105	1.19	4.12	0
83	SLU 52	2	-24	2646	2	6.87	-0.01
83	SLU 53	0	-40	2613	2.52	0.31	0
83	SLU 54	1	-30	2633	2.2	4.25	0
83	SLU 55	2	-24	2646	2	6.87	-0.01
83	SLU 56	0	-40	2613	2.52	0.31	0
83	SLU 57	1	-30	2633	2.2	4.25	0
83	SLU 58	0	-40	2613	2.52	0.31	0
83	SLU 59	1	-30	2633	2.2	4.25	0
83	SLU 60	0	-48	2840	2.95	0.37	0
83	SLU 61	1	-38	2860	2.64	4.3	0
83	SLU 62	0	-48	2840	2.95	0.37	0
83	SLU 63	1	-38	2860	2.64	4.3	0
83	SLU 64	0	-36	2304	2.09	0.25	0
83	SLU 65	2	-19	2337	1.57	6.8	-0.01
83	SLU 66	0	-36	2304	2.09	0.25	0
83	SLU 67	1	-26	2324	1.77	4.18	0
83	SLU 68	2	-19	2337	1.57	6.8	-0.01
83	SLU 69	0	-36	2304	2.09	0.25	0
83	SLU 70	1	-26	2324	1.77	4.18	0
83	SLU 71	0	-36	2304	2.09	0.25	0
83	SLU 72	1	-26	2324	1.77	4.18	0
83	SLU 73	2	-36	2865	2.58	6.93	-0.01
83	SLU 74	0	-53	2832	3.1	0.37	0
83	SLU 75	1	-43	2852	2.79	4.31	0
83	SLU 76	2	-36	2865	2.58	6.93	-0.01
83	SLU 77	0	-53	2832	3.1	0.37	0
83	SLU 78	1	-43	2852	2.79	4.31	0
83	SLU 79	0	-53	2832	3.1	0.37	0
83	SLU 80	1	-43	2852	2.79	4.31	0
83	SLU 81	0	-60	3058	3.54	0.43	0
83	SLU 82	1	-50	3078	3.23	4.36	0
83	SLU 83	0	-60	3058	3.54	0.43	0
83	SLU 84	1	-50	3078	3.23	4.36	0
83	SLE RA 1	0	-25	1724	1.48	0.18	0
83	SLE RA 2	1	-14	1746	1.13	4.55	0
83	SLE RA 3	0	-25	1724	1.48	0.18	0
83	SLE RA 4	1	-18	1737	1.27	2.8	0
83	SLE RA 5	1	-14	1746	1.13	4.55	0
83	SLE RA 6	0	-25	1724	1.48	0.18	0
83	SLE RA 7	1	-18	1737	1.27	2.8	0
83	SLE RA 8	0	-25	1724	1.48	0.18	0
83	SLE RA 9	1	-18	1737	1.27	2.8	0
83	SLE RA 10	1	-25	2098	1.81	4.63	0
83	SLE RA 11	0	-36	2076	2.15	0.26	0
83	SLE RA 12	1	-29	2089	1.95	2.88	0
83	SLE RA 13	1	-25	2098	1.81	4.63	0
83	SLE RA 14	0	-36	2076	2.15	0.26	0
83	SLE RA 15	1	-29	2089	1.95	2.88	0
83	SLE RA 16	0	-36	2076	2.15	0.26	0
83	SLE RA 17	1	-29	2089	1.95	2.88	0
83	SLE RA 18	0	-41	2227	2.45	0.3	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
83	SLE RA 19	1	-34	2240	2.24	2.92	0
83	SLE RA 20	0	-41	2227	2.45	0.3	0
83	SLE RA 21	1	-34	2240	2.24	2.92	0
83	SLE FR 1	0	-25	1724	1.48	0.18	0
83	SLE FR 2	0	-23	1729	1.41	1.05	0
83	SLE FR 3	0	-25	1724	1.48	0.18	0
83	SLE FR 4	0	-28	1879	1.7	1.09	0
83	SLE FR 5	0	-30	1875	1.77	0.21	0
83	SLE FR 6	0	-33	1976	1.96	0.24	0
83	SLE QP 1	0	-25	1724	1.48	0.18	0
83	SLE QP 2	0	-30	1875	1.77	0.21	0
83	SLD 1	-14	-28	1919	1.72	16.25	0.02
83	SLD 2	-14	-28	1919	1.72	16.25	0.02
83	SLD 3	-8	-82	1877	3.64	10.19	0.03
83	SLD 4	-8	-82	1877	3.64	10.19	0.03
83	SLD 5	-14	54	1951	-1.17	14.22	-0.01
83	SLD 6	-14	54	1951	-1.17	14.22	-0.01
83	SLD 7	7	-128	1813	5.25	-5.99	0.03
83	SLD 8	7	-128	1813	5.25	-5.99	0.03
83	SLD 9	-7	69	1938	-1.72	6.42	-0.03
83	SLD 10	-7	69	1938	-1.72	6.42	-0.03
83	SLD 11	14	-113	1799	4.7	-13.8	0.01
83	SLD 12	14	-113	1799	4.7	-13.8	0.01
83	SLD 13	8	23	1873	-0.11	-9.76	-0.03
83	SLD 14	8	23	1873	-0.11	-9.76	-0.03
83	SLD 15	14	-32	1831	1.81	-15.82	-0.02
83	SLD 16	14	-32	1831	1.81	-15.82	-0.02
83	SLV 1	-35	-23	1990	1.63	40.42	0.05
83	SLV 2	-35	-23	1990	1.63	40.42	0.05
83	SLV 3	-18	-155	1871	6.24	24.48	0.08
83	SLV 4	-18	-155	1871	6.24	24.48	0.08
83	SLV 5	-36	174	2089	-5.28	36.46	-0.04
83	SLV 6	-36	174	2089	-5.28	36.46	-0.04
83	SLV 7	21	-269	1694	10.12	-16.69	0.07
83	SLV 8	21	-269	1694	10.12	-16.69	0.07
83	SLV 9	-20	209	2056	-6.58	17.11	-0.08
83	SLV 10	-20	209	2056	-6.58	17.11	-0.08
83	SLV 11	37	-233	1661	8.81	-36.03	0.04
83	SLV 12	37	-233	1661	8.81	-36.03	0.04
83	SLV 13	18	96	1879	-2.71	-24.05	-0.08
83	SLV 14	18	96	1879	-2.71	-24.05	-0.08
83	SLV 15	35	-37	1761	1.91	-40	-0.05
83	SLV 16	35	-37	1761	1.91	-40	-0.05
84	SLU 1	0	122	2016	-5.48	-0.03	0
84	SLU 2	0	155	2133	-7.19	-0.31	0
84	SLU 3	0	122	2016	-5.48	-0.03	0
84	SLU 4	0	142	2086	-6.51	-0.2	0
84	SLU 5	0	155	2133	-7.19	-0.31	0
84	SLU 6	0	122	2016	-5.48	-0.03	0
84	SLU 7	0	142	2086	-6.51	-0.2	0
84	SLU 8	0	122	2016	-5.48	-0.03	0
84	SLU 9	0	142	2086	-6.51	-0.2	0
84	SLU 10	0	173	3403	-8.19	-0.35	0
84	SLU 11	0	140	3285	-6.49	-0.08	0
84	SLU 12	0	160	3355	-7.51	-0.24	0
84	SLU 13	0	173	3403	-8.19	-0.35	0
84	SLU 14	0	140	3285	-6.49	-0.08	0
84	SLU 15	0	160	3355	-7.51	-0.24	0
84	SLU 16	0	140	3285	-6.49	-0.08	0
84	SLU 17	0	160	3355	-7.51	-0.24	0
84	SLU 18	0	148	3829	-6.92	-0.1	0
84	SLU 19	0	167	3899	-7.94	-0.26	0
84	SLU 20	0	148	3829	-6.92	-0.1	0
84	SLU 21	0	167	3899	-7.94	-0.26	0
84	SLU 22	0	134	2580	-6.09	-0.05	0
84	SLU 23	0	166	2697	-7.79	-0.33	0
84	SLU 24	0	134	2580	-6.09	-0.05	0
84	SLU 25	0	153	2650	-7.11	-0.22	0
84	SLU 26	0	166	2697	-7.79	-0.33	0
84	SLU 27	0	134	2580	-6.09	-0.05	0
84	SLU 28	0	153	2650	-7.11	-0.22	0
84	SLU 29	0	134	2580	-6.09	-0.05	0
84	SLU 30	0	153	2650	-7.11	-0.22	0
84	SLU 31	0	184	3967	-8.8	-0.37	0
84	SLU 32	0	152	3849	-7.09	-0.1	0
84	SLU 33	0	171	3919	-8.11	-0.26	0
84	SLU 34	0	184	3967	-8.8	-0.37	0
84	SLU 35	0	152	3849	-7.09	-0.1	0
84	SLU 36	0	171	3919	-8.11	-0.26	0
84	SLU 37	0	152	3849	-7.09	-0.1	0
84	SLU 38	0	171	3919	-8.11	-0.26	0
84	SLU 39	0	159	4393	-7.52	-0.12	0
84	SLU 40	0	179	4463	-8.54	-0.28	0
84	SLU 41	0	159	4393	-7.52	-0.12	0
84	SLU 42	0	179	4463	-8.54	-0.28	0
84	SLU 43	0	155	2427	-6.92	-0.04	0
84	SLU 44	0	187	2545	-8.63	-0.31	0
84	SLU 45	0	155	2427	-6.92	-0.04	0
84	SLU 46	0	174	2498	-7.94	-0.2	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
84	SLU 47	0	187	2545	-8.63	-0.31	0
84	SLU 48	0	155	2427	-6.92	-0.04	0
84	SLU 49	0	174	2498	-7.94	-0.2	0
84	SLU 50	0	155	2427	-6.92	-0.04	0
84	SLU 51	0	174	2498	-7.94	-0.2	0
84	SLU 52	0	205	3814	-9.63	-0.36	0
84	SLU 53	0	173	3696	-7.93	-0.08	0
84	SLU 54	0	192	3767	-8.95	-0.25	0
84	SLU 55	0	205	3814	-9.63	-0.36	0
84	SLU 56	0	173	3696	-7.93	-0.08	0
84	SLU 57	0	192	3767	-8.95	-0.25	0
84	SLU 58	0	173	3696	-7.93	-0.08	0
84	SLU 59	0	192	3767	-8.95	-0.25	0
84	SLU 60	0	180	4240	-8.36	-0.1	0
84	SLU 61	0	200	4311	-9.38	-0.27	0
84	SLU 62	0	180	4240	-8.36	-0.1	0
84	SLU 63	0	200	4311	-9.38	-0.27	0
84	SLU 64	0	166	2991	-7.52	-0.06	0
84	SLU 65	0	199	3109	-9.23	-0.33	0
84	SLU 66	0	166	2991	-7.52	-0.06	0
84	SLU 67	0	186	3062	-8.55	-0.22	0
84	SLU 68	0	199	3109	-9.23	-0.33	0
84	SLU 69	0	166	2991	-7.52	-0.06	0
84	SLU 70	0	186	3062	-8.55	-0.22	0
84	SLU 71	0	166	2991	-7.52	-0.06	0
84	SLU 72	0	186	3062	-8.55	-0.22	0
84	SLU 73	0	217	4378	-10.23	-0.38	0
84	SLU 74	0	184	4260	-8.53	-0.1	0
84	SLU 75	0	204	4331	-9.55	-0.27	0
84	SLU 76	0	217	4378	-10.23	-0.38	0
84	SLU 77	0	184	4260	-8.53	-0.1	0
84	SLU 78	0	204	4331	-9.55	-0.27	0
84	SLU 79	0	184	4260	-8.53	-0.1	0
84	SLU 80	0	204	4331	-9.55	-0.27	0
84	SLU 81	0	192	4804	-8.96	-0.12	0
84	SLU 82	0	211	4875	-9.98	-0.29	0
84	SLU 83	0	192	4804	-8.96	-0.12	0
84	SLU 84	0	211	4875	-9.98	-0.29	0
84	SLE RA 1	0	125	2177	-5.66	-0.04	0
84	SLE RA 2	0	147	2255	-6.79	-0.22	0
84	SLE RA 3	0	125	2177	-5.66	-0.04	0
84	SLE RA 4	0	138	2224	-6.34	-0.15	0
84	SLE RA 5	0	147	2255	-6.79	-0.22	0
84	SLE RA 6	0	125	2177	-5.66	-0.04	0
84	SLE RA 7	0	138	2224	-6.34	-0.15	0
84	SLE RA 8	0	125	2177	-5.66	-0.04	0
84	SLE RA 9	0	138	2224	-6.34	-0.15	0
84	SLE RA 10	0	159	3101	-7.46	-0.25	0
84	SLE RA 11	0	137	3023	-6.33	-0.07	0
84	SLE RA 12	0	150	3070	-7.01	-0.18	0
84	SLE RA 13	0	159	3101	-7.46	-0.25	0
84	SLE RA 14	0	137	3023	-6.33	-0.07	0
84	SLE RA 15	0	150	3070	-7.01	-0.18	0
84	SLE RA 16	0	137	3023	-6.33	-0.07	0
84	SLE RA 17	0	150	3070	-7.01	-0.18	0
84	SLE RA 18	0	142	3385	-6.61	-0.08	0
84	SLE RA 19	0	155	3433	-7.29	-0.19	0
84	SLE RA 20	0	142	3385	-6.61	-0.08	0
84	SLE RA 21	0	155	3433	-7.29	-0.19	0
84	SLE FR 1	0	125	2177	-5.66	-0.04	0
84	SLE FR 2	0	130	2192	-5.88	-0.08	0
84	SLE FR 3	0	125	2177	-5.66	-0.04	0
84	SLE FR 4	0	135	2555	-6.17	-0.09	0
84	SLE FR 5	0	130	2539	-5.94	-0.05	0
84	SLE FR 6	0	134	2781	-6.13	-0.06	0
84	SLE QP 1	0	125	2177	-5.66	-0.04	0
84	SLE QP 2	0	130	2539	-5.94	-0.05	0
84	SLD 1	-23	198	2562	-8.01	23.66	0.09
84	SLD 2	-23	198	2562	-8.01	23.66	0.09
84	SLD 3	-27	91	2186	-2.51	20.47	0.07
84	SLD 4	-27	91	2186	-2.51	20.47	0.07
84	SLD 5	-1	312	3117	-14.9	11.89	0.05
84	SLD 6	-1	312	3117	-14.9	11.89	0.05
84	SLD 7	-14	-42	1863	3.43	1.28	0
84	SLD 8	-14	-42	1863	3.43	1.28	0
84	SLD 9	14	303	3216	-15.31	-1.38	0
84	SLD 10	14	303	3216	-15.31	-1.38	0
84	SLD 11	1	-51	1962	3.02	-11.99	-0.05
84	SLD 12	1	-51	1962	3.02	-11.99	-0.05
84	SLD 13	27	169	2892	-9.37	-20.58	-0.08
84	SLD 14	27	169	2892	-9.37	-20.58	-0.08
84	SLD 15	23	63	2516	-3.87	-23.76	-0.09
84	SLD 16	23	63	2516	-3.87	-23.76	-0.09
84	SLV 1	-58	289	2508	-10.58	61.34	0.23
84	SLV 2	-58	289	2508	-10.58	61.34	0.23
84	SLV 3	-69	44	1642	2.09	52.06	0.19
84	SLV 4	-69	44	1642	2.09	52.06	0.19
84	SLV 5	-1	550	3844	-26.55	32.45	0.14
84	SLV 6	-1	550	3844	-26.55	32.45	0.14





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
84	SLV 7	-38	-267	956	15.69	1.5	-0.01
84	SLV 8	-38	-267	956	15.69	1.5	-0.01
84	SLV 9	38	528	4122	-27.57	-1.6	0.01
84	SLV 10	38	528	4122	-27.57	-1.6	0.01
84	SLV 11	1	-289	1235	14.67	-32.55	-0.14
84	SLV 12	1	-289	1235	14.67	-32.55	-0.14
84	SLV 13	69	217	3437	-13.97	-52.16	-0.19
84	SLV 14	69	217	3437	-13.97	-52.16	-0.19
84	SLV 15	58	-28	2570	-1.3	-61.45	-0.23
84	SLV 16	58	-28	2570	-1.3	-61.45	-0.23
85	SLU 1	0	-70	2056	2.52	0.35	0
85	SLU 2	-1	-55	2063	1.78	-2.52	0
85	SLU 3	0	-70	2056	2.52	0.35	0
85	SLU 4	-1	-61	2060	2.08	-1.37	0
85	SLU 5	-1	-55	2063	1.78	-2.52	0
85	SLU 6	0	-70	2056	2.52	0.35	0
85	SLU 7	-1	-61	2060	2.08	-1.37	0
85	SLU 8	0	-70	2056	2.52	0.35	0
85	SLU 9	-1	-61	2060	2.08	-1.37	0
85	SLU 10	-1	-71	2492	2.32	-1.91	0
85	SLU 11	0	-86	2485	3.06	0.95	0
85	SLU 12	-1	-77	2490	2.62	-0.77	0
85	SLU 13	-1	-71	2492	2.32	-1.91	0
85	SLU 14	0	-86	2485	3.06	0.95	0
85	SLU 15	-1	-77	2490	2.62	-0.77	0
85	SLU 16	0	-86	2485	3.06	0.95	0
85	SLU 17	-1	-77	2490	2.62	-0.77	0
85	SLU 18	0	-93	2669	3.29	1.21	0
85	SLU 19	-1	-84	2674	2.85	-0.51	0
85	SLU 20	0	-93	2669	3.29	1.21	0
85	SLU 21	-1	-84	2674	2.85	-0.51	0
85	SLU 22	0	-79	2275	2.8	0.58	0
85	SLU 23	-1	-63	2283	2.06	-2.28	0
85	SLU 24	0	-79	2275	2.8	0.58	0
85	SLU 25	-1	-69	2280	2.35	-1.13	0
85	SLU 26	-1	-63	2283	2.06	-2.28	0
85	SLU 27	0	-79	2275	2.8	0.58	0
85	SLU 28	-1	-69	2280	2.35	-1.13	0
85	SLU 29	0	-79	2275	2.8	0.58	0
85	SLU 30	-1	-69	2280	2.35	-1.13	0
85	SLU 31	-1	-79	2712	2.6	-1.67	0
85	SLU 32	0	-95	2705	3.34	1.19	0
85	SLU 33	-1	-85	2709	2.9	-0.53	0
85	SLU 34	-1	-79	2712	2.6	-1.67	0
85	SLU 35	0	-95	2705	3.34	1.19	0
85	SLU 36	-1	-85	2709	2.9	-0.53	0
85	SLU 37	0	-95	2705	3.34	1.19	0
85	SLU 38	-1	-85	2709	2.9	-0.53	0
85	SLU 39	0	-101	2889	3.57	1.45	0
85	SLU 40	0	-92	2893	3.13	-0.27	0
85	SLU 41	0	-101	2889	3.57	1.45	0
85	SLU 42	0	-92	2893	3.13	-0.27	0
85	SLU 43	0	-89	2597	3.18	0.37	0
85	SLU 44	-1	-73	2604	2.44	-2.49	0
85	SLU 45	0	-89	2597	3.18	0.37	0
85	SLU 46	-1	-79	2601	2.74	-1.35	0
85	SLU 47	-1	-73	2604	2.44	-2.49	0
85	SLU 48	0	-89	2597	3.18	0.37	0
85	SLU 49	-1	-79	2601	2.74	-1.35	0
85	SLU 50	0	-89	2597	3.18	0.37	0
85	SLU 51	-1	-79	2601	2.74	-1.35	0
85	SLU 52	-1	-89	3034	2.98	-1.89	0
85	SLU 53	0	-105	3027	3.72	0.97	0
85	SLU 54	-1	-95	3031	3.28	-0.74	0
85	SLU 55	-1	-89	3034	2.98	-1.89	0
85	SLU 56	0	-105	3027	3.72	0.97	0
85	SLU 57	-1	-95	3031	3.28	-0.74	0
85	SLU 58	0	-105	3027	3.72	0.97	0
85	SLU 59	-1	-95	3031	3.28	-0.74	0
85	SLU 60	0	-112	3211	3.95	1.23	0
85	SLU 61	-1	-102	3215	3.51	-0.48	0
85	SLU 62	0	-112	3211	3.95	1.23	0
85	SLU 63	-1	-102	3215	3.51	-0.48	0
85	SLU 64	0	-97	2817	3.46	0.61	0
85	SLU 65	-1	-81	2824	2.72	-2.26	0
85	SLU 66	0	-97	2817	3.46	0.61	0
85	SLU 67	-1	-87	2821	3.01	-1.11	0
85	SLU 68	-1	-81	2824	2.72	-2.26	0
85	SLU 69	0	-97	2817	3.46	0.61	0
85	SLU 70	-1	-87	2821	3.01	-1.11	0
85	SLU 71	0	-97	2817	3.46	0.61	0
85	SLU 72	-1	-87	2821	3.01	-1.11	0
85	SLU 73	-1	-97	3254	3.26	-1.65	0
85	SLU 74	0	-113	3246	4	1.21	0
85	SLU 75	-1	-103	3251	3.56	-0.51	0
85	SLU 76	-1	-97	3254	3.26	-1.65	0
85	SLU 77	0	-113	3246	4	1.21	0
85	SLU 78	-1	-103	3251	3.56	-0.51	0
85	SLU 79	0	-113	3246	4	1.21	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
85	SLU 80	-1	-103	3251	3.56	-0.51	0
85	SLU 81	0	-120	3430	4.23	1.47	0
85	SLU 82	0	-110	3435	3.79	-0.25	0
85	SLU 83	0	-120	3430	4.23	1.47	0
85	SLU 84	0	-110	3435	3.79	-0.25	0
85	SLE RA 1	0	-73	2118	2.6	0.41	0
85	SLE RA 2	-1	-62	2123	2.11	-1.49	0
85	SLE RA 3	0	-73	2118	2.6	0.41	0
85	SLE RA 4	0	-66	2121	2.3	-0.73	0
85	SLE RA 5	-1	-62	2123	2.11	-1.49	0
85	SLE RA 6	0	-73	2118	2.6	0.41	0
85	SLE RA 7	0	-66	2121	2.3	-0.73	0
85	SLE RA 8	0	-73	2118	2.6	0.41	0
85	SLE RA 9	0	-66	2121	2.3	-0.73	0
85	SLE RA 10	-1	-73	2410	2.47	-1.09	0
85	SLE RA 11	0	-83	2405	2.96	0.82	0
85	SLE RA 12	0	-77	2408	2.66	-0.33	0
85	SLE RA 13	-1	-73	2410	2.47	-1.09	0
85	SLE RA 14	0	-83	2405	2.96	0.82	0
85	SLE RA 15	0	-77	2408	2.66	-0.33	0
85	SLE RA 16	0	-83	2405	2.96	0.82	0
85	SLE RA 17	0	-77	2408	2.66	-0.33	0
85	SLE RA 18	0	-88	2528	3.11	0.99	0
85	SLE RA 19	0	-82	2530	2.82	-0.15	0
85	SLE RA 20	0	-88	2528	3.11	0.99	0
85	SLE RA 21	0	-82	2530	2.82	-0.15	0
85	SLE FR 1	0	-73	2118	2.6	0.41	0
85	SLE FR 2	0	-71	2119	2.5	0.03	0
85	SLE FR 3	0	-73	2118	2.6	0.41	0
85	SLE FR 4	0	-75	2242	2.65	0.21	0
85	SLE FR 5	0	-77	2241	2.75	0.59	0
85	SLE FR 6	0	-80	2323	2.86	0.7	0
85	SLE QP 1	0	-73	2118	2.6	0.41	0
85	SLE QP 2	0	-77	2241	2.75	0.59	0
85	SLD 1	40	-81	2270	2.86	67.82	0
85	SLD 2	40	-81	2270	2.86	67.82	0
85	SLD 3	45	-148	2259	5.43	62.14	0.01
85	SLD 4	45	-148	2259	5.43	62.14	0.01
85	SLD 5	3	24	2266	-1.11	29.36	0
85	SLD 6	3	24	2266	-1.11	29.36	0
85	SLD 7	23	-201	2230	7.45	10.45	0
85	SLD 8	23	-201	2230	7.45	10.45	0
85	SLD 9	-22	46	2252	-1.95	-9.28	0
85	SLD 10	-22	46	2252	-1.95	-9.28	0
85	SLD 11	-3	-179	2216	6.62	-28.18	0
85	SLD 12	-3	-179	2216	6.62	-28.18	0
85	SLD 13	-45	-7	2223	0.08	-60.97	-0.01
85	SLD 14	-45	-7	2223	0.08	-60.97	-0.01
85	SLD 15	-39	-74	2212	2.65	-66.64	0
85	SLD 16	-39	-74	2212	2.65	-66.64	0
85	SLV 1	100	-86	2315	3.01	171.73	0.01
85	SLV 2	100	-86	2315	3.01	171.73	0.01
85	SLV 3	115	-248	2286	9.31	157.38	0.01
85	SLV 4	115	-248	2286	9.31	157.38	0.01
85	SLV 5	8	166	2308	-6.73	73.7	0
85	SLV 6	8	166	2308	-6.73	73.7	0
85	SLV 7	57	-374	2210	14.28	25.86	0.01
85	SLV 8	57	-374	2210	14.28	25.86	0.01
85	SLV 9	-56	220	2272	-8.78	-24.68	-0.01
85	SLV 10	-56	220	2272	-8.78	-24.68	-0.01
85	SLV 11	-8	-320	2174	12.23	-72.52	0
85	SLV 12	-8	-320	2174	12.23	-72.52	0
85	SLV 13	-115	94	2197	-3.81	-156.21	-0.01
85	SLV 14	-115	94	2197	-3.81	-156.21	-0.01
85	SLV 15	-100	-69	2167	2.49	-170.56	-0.01
85	SLV 16	-100	-69	2167	2.49	-170.56	-0.01
86	SLU 1	0	-26	1690	0.71	0.12	0
86	SLU 2	4	-12	1716	0.04	8.83	-0.01
86	SLU 3	0	-26	1690	0.71	0.12	0
86	SLU 4	3	-17	1705	0.31	5.35	-0.01
86	SLU 5	4	-12	1716	0.04	8.83	-0.01
86	SLU 6	0	-26	1690	0.71	0.12	0
86	SLU 7	3	-17	1705	0.31	5.35	-0.01
86	SLU 8	0	-26	1690	0.71	0.12	0
86	SLU 9	3	-17	1705	0.31	5.35	-0.01
86	SLU 10	4	-28	2243	0.28	8.93	-0.01
86	SLU 11	0	-42	2217	0.94	0.21	0
86	SLU 12	3	-33	2233	0.54	5.44	-0.01
86	SLU 13	4	-28	2243	0.28	8.93	-0.01
86	SLU 14	0	-42	2217	0.94	0.21	0
86	SLU 15	3	-33	2233	0.54	5.44	-0.01
86	SLU 16	0	-42	2217	0.94	0.21	0
86	SLU 17	3	-33	2233	0.54	5.44	-0.01
86	SLU 18	0	-49	2443	1.04	0.25	0
86	SLU 19	3	-40	2458	0.64	5.48	-0.01
86	SLU 20	0	-49	2443	1.04	0.25	0
86	SLU 21	3	-40	2458	0.64	5.48	-0.01
86	SLU 22	0	-36	1905	0.93	0.16	0
86	SLU 23	4	-22	1931	0.27	8.88	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
86	SLU 24	0	-36	1905	0.93	0.16	0
86	SLU 25	3	-28	1920	0.53	5.39	-0.01
86	SLU 26	4	-22	1931	0.27	8.88	-0.01
86	SLU 27	0	-36	1905	0.93	0.16	0
86	SLU 28	3	-28	1920	0.53	5.39	-0.01
86	SLU 29	0	-36	1905	0.93	0.16	0
86	SLU 30	3	-28	1920	0.53	5.39	-0.01
86	SLU 31	4	-38	2458	0.5	8.97	-0.01
86	SLU 32	0	-52	2432	1.16	0.25	0
86	SLU 33	3	-44	2447	0.76	5.48	-0.01
86	SLU 34	4	-38	2458	0.5	8.97	-0.01
86	SLU 35	0	-52	2432	1.16	0.25	0
86	SLU 36	3	-44	2447	0.76	5.48	-0.01
86	SLU 37	0	-52	2432	1.16	0.25	0
86	SLU 38	3	-44	2447	0.76	5.48	-0.01
86	SLU 39	0	-59	2658	1.26	0.29	0
86	SLU 40	3	-50	2673	0.86	5.52	-0.01
86	SLU 41	0	-59	2658	1.26	0.29	0
86	SLU 42	3	-50	2673	0.86	5.52	-0.01
86	SLU 43	0	-30	2123	0.85	0.14	0
86	SLU 44	4	-16	2149	0.18	8.86	-0.01
86	SLU 45	0	-30	2123	0.85	0.14	0
86	SLU 46	3	-22	2139	0.45	5.37	-0.01
86	SLU 47	4	-16	2149	0.18	8.86	-0.01
86	SLU 48	0	-30	2123	0.85	0.14	0
86	SLU 49	3	-22	2139	0.45	5.37	-0.01
86	SLU 50	0	-30	2123	0.85	0.14	0
86	SLU 51	3	-22	2139	0.45	5.37	-0.01
86	SLU 52	4	-32	2676	0.41	8.95	-0.01
86	SLU 53	0	-46	2650	1.08	0.23	0
86	SLU 54	3	-38	2666	0.68	5.46	-0.01
86	SLU 55	4	-32	2676	0.41	8.95	-0.01
86	SLU 56	0	-46	2650	1.08	0.23	0
86	SLU 57	3	-38	2666	0.68	5.46	-0.01
86	SLU 58	0	-46	2650	1.08	0.23	0
86	SLU 59	3	-38	2666	0.68	5.46	-0.01
86	SLU 60	0	-53	2876	1.18	0.27	0
86	SLU 61	3	-44	2892	0.78	5.5	-0.01
86	SLU 62	0	-53	2876	1.18	0.27	0
86	SLU 63	3	-44	2892	0.78	5.5	-0.01
86	SLU 64	0	-41	2338	1.07	0.18	0
86	SLU 65	4	-26	2364	0.4	8.9	-0.01
86	SLU 66	0	-41	2338	1.07	0.18	0
86	SLU 67	3	-32	2354	0.67	5.41	-0.01
86	SLU 68	4	-26	2364	0.4	8.9	-0.01
86	SLU 69	0	-41	2338	1.07	0.18	0
86	SLU 70	3	-32	2354	0.67	5.41	-0.01
86	SLU 71	0	-41	2338	1.07	0.18	0
86	SLU 72	3	-32	2354	0.67	5.41	-0.01
86	SLU 73	4	-42	2891	0.64	8.99	-0.01
86	SLU 74	0	-57	2865	1.3	0.27	0
86	SLU 75	3	-48	2881	0.9	5.5	-0.01
86	SLU 76	4	-42	2891	0.64	8.99	-0.01
86	SLU 77	0	-57	2865	1.3	0.27	0
86	SLU 78	3	-48	2881	0.9	5.5	-0.01
86	SLU 79	0	-57	2865	1.3	0.27	0
86	SLU 80	3	-48	2881	0.9	5.5	-0.01
86	SLU 81	0	-63	3091	1.4	0.31	0
86	SLU 82	3	-55	3107	1	5.54	-0.01
86	SLU 83	0	-63	3091	1.4	0.31	0
86	SLU 84	3	-55	3107	1	5.54	-0.01
86	SLE RA 1	0	-29	1751	0.77	0.13	0
86	SLE RA 2	3	-19	1769	0.33	5.94	-0.01
86	SLE RA 3	0	-29	1751	0.77	0.13	0
86	SLE RA 4	2	-23	1762	0.51	3.62	0
86	SLE RA 5	3	-19	1769	0.33	5.94	-0.01
86	SLE RA 6	0	-29	1751	0.77	0.13	0
86	SLE RA 7	2	-23	1762	0.51	3.62	0
86	SLE RA 8	0	-29	1751	0.77	0.13	0
86	SLE RA 9	2	-23	1762	0.51	3.62	0
86	SLE RA 10	3	-30	2120	0.48	6	-0.01
86	SLE RA 11	0	-40	2103	0.93	0.19	0
86	SLE RA 12	2	-34	2113	0.66	3.68	0
86	SLE RA 13	3	-30	2120	0.48	6	-0.01
86	SLE RA 14	0	-40	2103	0.93	0.19	0
86	SLE RA 15	2	-34	2113	0.66	3.68	0
86	SLE RA 16	0	-40	2103	0.93	0.19	0
86	SLE RA 17	2	-34	2113	0.66	3.68	0
86	SLE RA 18	0	-44	2253	0.99	0.22	0
86	SLE RA 19	2	-38	2264	0.73	3.7	0
86	SLE RA 20	0	-44	2253	0.99	0.22	0
86	SLE RA 21	2	-38	2264	0.73	3.7	0
86	SLE FR 1	0	-29	1751	0.77	0.13	0
86	SLE FR 2	1	-27	1755	0.68	1.29	0
86	SLE FR 3	0	-29	1751	0.77	0.13	0
86	SLE FR 4	1	-32	1905	0.75	1.32	0
86	SLE FR 5	0	-34	1902	0.84	0.15	0
86	SLE FR 6	0	-37	2002	0.88	0.17	0
86	SLE QP 1	0	-29	1751	0.77	0.13	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
86	SLE QP 2	0	-34	1902	0.84	0.15	0
86	SLD 1	-12	-30	1932	0.59	20.35	0.03
86	SLD 2	-12	-30	1932	0.59	20.35	0.03
86	SLD 3	-17	-80	1902	2.55	14.11	0.04
86	SLD 4	-17	-80	1902	2.55	14.11	0.04
86	SLD 5	5	43	1956	-2.2	15.67	-0.01
86	SLD 6	5	43	1956	-2.2	15.67	-0.01
86	SLD 7	-13	-123	1857	4.32	-5.12	0.03
86	SLD 8	-13	-123	1857	4.32	-5.12	0.03
86	SLD 9	14	56	1946	-2.64	5.42	-0.03
86	SLD 10	14	56	1946	-2.64	5.42	-0.03
86	SLD 11	-5	-110	1848	3.88	-15.36	0.01
86	SLD 12	-5	-110	1848	3.88	-15.36	0.01
86	SLD 13	18	13	1901	-0.87	-13.8	-0.04
86	SLD 14	18	13	1901	-0.87	-13.8	-0.04
86	SLD 15	12	-37	1871	1.08	-20.04	-0.03
86	SLD 16	12	-37	1871	1.08	-20.04	-0.03
86	SLV 1	-29	-23	1981	0.12	50.48	0.06
86	SLV 2	-29	-23	1981	0.12	50.48	0.06
86	SLV 3	-43	-144	1898	5.01	34.38	0.09
86	SLV 4	-43	-144	1898	5.01	34.38	0.09
86	SLV 5	13	152	2053	-6.79	39.68	-0.02
86	SLV 6	13	152	2053	-6.79	39.68	-0.02
86	SLV 7	-34	-249	1774	9.5	-14	0.07
86	SLV 8	-34	-249	1774	9.5	-14	0.07
86	SLV 9	35	182	2030	-7.82	14.31	-0.07
86	SLV 10	35	182	2030	-7.82	14.31	-0.07
86	SLV 11	-13	-219	1751	8.46	-39.37	0.02
86	SLV 12	-13	-219	1751	8.46	-39.37	0.02
86	SLV 13	43	77	1906	-3.33	-34.07	-0.09
86	SLV 14	43	77	1906	-3.33	-34.07	-0.09
86	SLV 15	29	-44	1822	1.55	-50.18	-0.06
86	SLV 16	29	-44	1822	1.55	-50.18	-0.06
87	SLU 1	0	-8	1934	-0.04	-0.04	0
87	SLU 2	0	27	2001	-1.52	-0.36	0
87	SLU 3	0	-8	1934	-0.04	-0.04	0
87	SLU 4	0	13	1974	-0.93	-0.23	0
87	SLU 5	0	27	2001	-1.52	-0.36	0
87	SLU 6	0	-8	1934	-0.04	-0.04	0
87	SLU 7	0	13	1974	-0.93	-0.23	0
87	SLU 8	0	-8	1934	-0.04	-0.04	0
87	SLU 9	0	13	1974	-0.93	-0.23	0
87	SLU 10	0	-61	3189	1.39	-0.41	0
87	SLU 11	0	-96	3122	2.88	-0.09	0
87	SLU 12	0	-75	3162	1.99	-0.28	0
87	SLU 13	0	-61	3189	1.39	-0.41	0
87	SLU 14	0	-96	3122	2.88	-0.09	0
87	SLU 15	0	-75	3162	1.99	-0.28	0
87	SLU 16	0	-96	3122	2.88	-0.09	0
87	SLU 17	0	-75	3162	1.99	-0.28	0
87	SLU 18	0	-134	3631	4.13	-0.11	0
87	SLU 19	0	-113	3671	3.24	-0.3	0
87	SLU 20	0	-134	3631	4.13	-0.11	0
87	SLU 21	0	-113	3671	3.24	-0.3	0
87	SLU 22	0	-43	2462	1.08	-0.06	0
87	SLU 23	0	-8	2529	-0.41	-0.38	0
87	SLU 24	0	-43	2462	1.08	-0.06	0
87	SLU 25	0	-22	2502	0.19	-0.25	0
87	SLU 26	0	-8	2529	-0.41	-0.38	0
87	SLU 27	0	-43	2462	1.08	-0.06	0
87	SLU 28	0	-22	2502	0.19	-0.25	0
87	SLU 29	0	-43	2462	1.08	-0.06	0
87	SLU 30	0	-22	2502	0.19	-0.25	0
87	SLU 31	0	-96	3717	2.51	-0.43	0
87	SLU 32	0	-131	3649	4	-0.11	0
87	SLU 33	0	-110	3690	3.1	-0.3	0
87	SLU 34	0	-96	3717	2.51	-0.43	0
87	SLU 35	0	-131	3649	4	-0.11	0
87	SLU 36	0	-110	3690	3.1	-0.3	0
87	SLU 37	0	-131	3649	4	-0.11	0
87	SLU 38	0	-110	3690	3.1	-0.3	0
87	SLU 39	0	-169	4158	5.25	-0.13	0
87	SLU 40	0	-147	4199	4.35	-0.32	0
87	SLU 41	0	-169	4158	5.25	-0.13	0
87	SLU 42	0	-147	4199	4.35	-0.32	0
87	SLU 43	0	1	2333	-0.43	-0.04	0
87	SLU 44	0	36	2401	-1.92	-0.36	0
87	SLU 45	0	1	2333	-0.43	-0.04	0
87	SLU 46	0	22	2374	-1.32	-0.23	0
87	SLU 47	0	36	2401	-1.92	-0.36	0
87	SLU 48	0	1	2333	-0.43	-0.04	0
87	SLU 49	0	22	2374	-1.32	-0.23	0
87	SLU 50	0	1	2333	-0.43	-0.04	0
87	SLU 51	0	22	2374	-1.32	-0.23	0
87	SLU 52	0	-52	3588	1	-0.41	0
87	SLU 53	0	-87	3521	2.49	-0.09	0
87	SLU 54	0	-66	3561	1.59	-0.28	0
87	SLU 55	0	-52	3588	1	-0.41	0
87	SLU 56	0	-87	3521	2.49	-0.09	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
87	SLU 57	0	-66	3561	1.59	-0.28	0
87	SLU 58	0	-87	3521	2.49	-0.09	0
87	SLU 59	0	-66	3561	1.59	-0.28	0
87	SLU 60	0	-125	4030	3.74	-0.11	0
87	SLU 61	0	-104	4070	2.84	-0.31	0
87	SLU 62	0	-125	4030	3.74	-0.11	0
87	SLU 63	0	-104	4070	2.84	-0.31	0
87	SLU 64	0	-33	2861	0.69	-0.06	0
87	SLU 65	0	2	2928	-0.8	-0.38	0
87	SLU 66	0	-33	2861	0.69	-0.06	0
87	SLU 67	0	-12	2901	-0.21	-0.25	0
87	SLU 68	0	2	2928	-0.8	-0.38	0
87	SLU 69	0	-33	2861	0.69	-0.06	0
87	SLU 70	0	-12	2901	-0.21	-0.25	0
87	SLU 71	0	-33	2861	0.69	-0.06	0
87	SLU 72	0	-12	2901	-0.21	-0.25	0
87	SLU 73	0	-86	4116	2.12	-0.43	0
87	SLU 74	0	-122	4049	3.6	-0.11	0
87	SLU 75	0	-100	4089	2.71	-0.3	0
87	SLU 76	0	-86	4116	2.12	-0.43	0
87	SLU 77	0	-122	4049	3.6	-0.11	0
87	SLU 78	0	-100	4089	2.71	-0.3	0
87	SLU 79	0	-122	4049	3.6	-0.11	0
87	SLU 80	0	-100	4089	2.71	-0.3	0
87	SLU 81	0	-159	4558	4.85	-0.13	0
87	SLU 82	0	-138	4598	3.96	-0.32	0
87	SLU 83	0	-159	4558	4.85	-0.13	0
87	SLU 84	0	-138	4598	3.96	-0.32	0
87	SLE RA 1	0	-18	2085	0.28	-0.04	0
87	SLE RA 2	0	5	2130	-0.71	-0.26	0
87	SLE RA 3	0	-18	2085	0.28	-0.04	0
87	SLE RA 4	0	-4	2112	-0.31	-0.17	0
87	SLE RA 5	0	5	2130	-0.71	-0.26	0
87	SLE RA 6	0	-18	2085	0.28	-0.04	0
87	SLE RA 7	0	-4	2112	-0.31	-0.17	0
87	SLE RA 8	0	-18	2085	0.28	-0.04	0
87	SLE RA 9	0	-4	2112	-0.31	-0.17	0
87	SLE RA 10	0	-53	2921	1.24	-0.29	0
87	SLE RA 11	0	-77	2877	2.23	-0.08	0
87	SLE RA 12	0	-63	2904	1.63	-0.2	0
87	SLE RA 13	0	-53	2921	1.24	-0.29	0
87	SLE RA 14	0	-77	2877	2.23	-0.08	0
87	SLE RA 15	0	-63	2904	1.63	-0.2	0
87	SLE RA 16	0	-77	2877	2.23	-0.08	0
87	SLE RA 17	0	-63	2904	1.63	-0.2	0
87	SLE RA 18	0	-102	3216	3.06	-0.09	0
87	SLE RA 19	0	-88	3243	2.46	-0.22	0
87	SLE RA 20	0	-102	3216	3.06	-0.09	0
87	SLE RA 21	0	-88	3243	2.46	-0.22	0
87	SLE FR 1	0	-18	2085	0.28	-0.04	0
87	SLE FR 2	0	-14	2094	0.08	-0.09	0
87	SLE FR 3	0	-18	2085	0.28	-0.04	0
87	SLE FR 4	0	-39	2433	0.92	-0.1	0
87	SLE FR 5	0	-43	2424	1.12	-0.06	0
87	SLE FR 6	0	-60	2650	1.67	-0.07	0
87	SLE QP 1	0	-18	2085	0.28	-0.04	0
87	SLE QP 2	0	-43	2424	1.12	-0.06	0
87	SLD 1	26	46	2376	-2.64	26.01	0
87	SLD 2	26	46	2376	-2.64	26.01	0
87	SLD 3	24	-76	2180	2.69	23.29	0.01
87	SLD 4	24	-76	2180	2.69	23.29	0.01
87	SLD 5	11	167	2707	-8.09	11.89	0
87	SLD 6	11	167	2707	-8.09	11.89	0
87	SLD 7	3	-237	2053	9.67	2.82	0
87	SLD 8	3	-237	2053	9.67	2.82	0
87	SLD 9	-3	150	2795	-7.44	-2.93	-0.01
87	SLD 10	-3	150	2795	-7.44	-2.93	-0.01
87	SLD 11	-11	-254	2141	10.32	-12.01	0
87	SLD 12	-11	-254	2141	10.32	-12.01	0
87	SLD 13	-24	-11	2669	-0.46	-23.41	-0.01
87	SLD 14	-24	-11	2669	-0.46	-23.41	-0.01
87	SLD 15	-26	-132	2473	4.87	-26.13	0
87	SLD 16	-26	-132	2473	4.87	-26.13	0
87	SLV 1	67	177	2234	-8.08	67.3	0.01
87	SLV 2	67	177	2234	-8.08	67.3	0.01
87	SLV 3	60	-103	1781	4.21	59.43	0.02
87	SLV 4	60	-103	1781	4.21	59.43	0.02
87	SLV 5	30	447	3053	-20.29	32.09	0
87	SLV 6	30	447	3053	-20.29	32.09	0
87	SLV 7	8	-486	1545	20.69	5.85	0.01
87	SLV 8	8	-486	1545	20.69	5.85	0.01
87	SLV 9	-8	399	3303	-18.46	-5.97	-0.01
87	SLV 10	-8	399	3303	-18.46	-5.97	-0.01
87	SLV 11	-30	-534	1795	22.52	-32.2	0
87	SLV 12	-30	-534	1795	22.52	-32.2	0
87	SLV 13	-60	17	3067	-1.98	-59.54	-0.02
87	SLV 14	-60	17	3067	-1.98	-59.54	-0.02
87	SLV 15	-67	-263	2614	10.32	-67.41	-0.01
87	SLV 16	-67	-263	2614	10.32	-67.41	-0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
88	SLU 1	0	70	279	-1.45	0	0
88	SLU 2	1	112	442	-1.91	-2.43	0.3
88	SLU 3	0	70	279	-1.45	0	0
88	SLU 4	1	96	377	-1.73	-1.46	0.18
88	SLU 5	1	112	442	-1.91	-2.43	0.3
88	SLU 6	0	70	279	-1.45	0	0
88	SLU 7	1	96	377	-1.73	-1.46	0.18
88	SLU 8	0	70	279	-1.45	0	0
88	SLU 9	1	96	377	-1.73	-1.46	0.18
88	SLU 10	1	106	409	-1.72	-2.43	0.3
88	SLU 11	0	64	247	-1.27	0	0
88	SLU 12	1	89	344	-1.54	-1.45	0.18
88	SLU 13	1	106	409	-1.72	-2.43	0.3
88	SLU 14	0	64	247	-1.27	0	0
88	SLU 15	1	89	344	-1.54	-1.45	0.18
88	SLU 16	0	64	247	-1.27	0	0
88	SLU 17	1	89	344	-1.54	-1.45	0.18
88	SLU 18	0	61	233	-1.19	0	0
88	SLU 19	1	86	330	-1.46	-1.45	0.18
88	SLU 20	0	61	233	-1.19	0	0
88	SLU 21	1	86	330	-1.46	-1.45	0.18
88	SLU 22	0	66	256	-1.32	0	0
88	SLU 23	1	108	418	-1.77	-2.43	0.3
88	SLU 24	0	66	256	-1.32	0	0
88	SLU 25	1	91	353	-1.59	-1.45	0.18
88	SLU 26	1	108	418	-1.77	-2.43	0.3
88	SLU 27	0	66	256	-1.32	0	0
88	SLU 28	1	91	353	-1.59	-1.45	0.18
88	SLU 29	0	66	256	-1.32	0	0
88	SLU 30	1	91	353	-1.59	-1.45	0.18
88	SLU 31	1	101	386	-1.59	-2.43	0.3
88	SLU 32	0	59	223	-1.14	0.01	0
88	SLU 33	1	84	321	-1.41	-1.45	0.18
88	SLU 34	1	101	386	-1.59	-2.43	0.3
88	SLU 35	0	59	223	-1.14	0.01	0
88	SLU 36	1	84	321	-1.41	-1.45	0.18
88	SLU 37	0	59	223	-1.14	0.01	0
88	SLU 38	1	84	321	-1.41	-1.45	0.18
88	SLU 39	0	56	209	-1.06	0.01	0
88	SLU 40	1	82	307	-1.33	-1.45	0.18
88	SLU 41	0	56	209	-1.06	0.01	0
88	SLU 42	1	82	307	-1.33	-1.45	0.18
88	SLU 43	0	93	371	-1.94	0	0
88	SLU 44	1	135	534	-2.39	-2.43	0.3
88	SLU 45	0	93	371	-1.94	0	0
88	SLU 46	1	118	469	-2.21	-1.45	0.18
88	SLU 47	1	135	534	-2.39	-2.43	0.3
88	SLU 48	0	93	371	-1.94	0	0
88	SLU 49	1	118	469	-2.21	-1.45	0.18
88	SLU 50	0	93	371	-1.94	0	0
88	SLU 51	1	118	469	-2.21	-1.45	0.18
88	SLU 52	1	129	501	-2.2	-2.43	0.3
88	SLU 53	0	87	339	-1.75	0	0
88	SLU 54	1	112	436	-2.02	-1.45	0.18
88	SLU 55	1	129	501	-2.2	-2.43	0.3
88	SLU 56	0	87	339	-1.75	0	0
88	SLU 57	1	112	436	-2.02	-1.45	0.18
88	SLU 58	0	87	339	-1.75	0	0
88	SLU 59	1	112	436	-2.02	-1.45	0.18
88	SLU 60	0	84	325	-1.67	0.01	0
88	SLU 61	1	109	422	-1.94	-1.45	0.18
88	SLU 62	0	84	325	-1.67	0.01	0
88	SLU 63	1	109	422	-1.94	-1.45	0.18
88	SLU 64	0	88	348	-1.8	0	0
88	SLU 65	1	130	510	-2.25	-2.43	0.3
88	SLU 66	0	88	348	-1.8	0	0
88	SLU 67	1	114	445	-2.07	-1.45	0.18
88	SLU 68	1	130	510	-2.25	-2.43	0.3
88	SLU 69	0	88	348	-1.8	0	0
88	SLU 70	1	114	445	-2.07	-1.45	0.18
88	SLU 71	0	88	348	-1.8	0	0
88	SLU 72	1	114	445	-2.07	-1.45	0.18
88	SLU 73	1	124	477	-2.07	-2.42	0.3
88	SLU 74	0	82	315	-1.62	0.01	0
88	SLU 75	1	107	413	-1.89	-1.45	0.18
88	SLU 76	1	124	477	-2.07	-2.42	0.3
88	SLU 77	0	82	315	-1.62	0.01	0
88	SLU 78	1	107	413	-1.89	-1.45	0.18
88	SLU 79	0	82	315	-1.62	0.01	0
88	SLU 80	1	107	413	-1.89	-1.45	0.18
88	SLU 81	0	79	301	-1.54	0.01	0
88	SLU 82	1	104	399	-1.81	-1.45	0.18
88	SLU 83	0	79	301	-1.54	0.01	0
88	SLU 84	1	104	399	-1.81	-1.45	0.18
88	SLE RA 1	0	69	273	-1.42	0	0
88	SLE RA 2	1	97	381	-1.72	-1.62	0.2
88	SLE RA 3	0	69	273	-1.42	0	0
88	SLE RA 4	1	86	338	-1.6	-0.97	0.12
88	SLE RA 5	1	97	381	-1.72	-1.62	0.2



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
88	SLE RA 6	0	69	273	-1.42	0	0
88	SLE RA 7	1	86	338	-1.6	-0.97	0.12
88	SLE RA 8	0	69	273	-1.42	0	0
88	SLE RA 9	1	86	338	-1.6	-0.97	0.12
88	SLE RA 10	1	93	359	-1.59	-1.62	0.2
88	SLE RA 11	0	65	251	-1.29	0	0
88	SLE RA 12	1	82	316	-1.47	-0.97	0.12
88	SLE RA 13	1	93	359	-1.59	-1.62	0.2
88	SLE RA 14	0	65	251	-1.29	0	0
88	SLE RA 15	1	82	316	-1.47	-0.97	0.12
88	SLE RA 16	0	65	251	-1.29	0	0
88	SLE RA 17	1	82	316	-1.47	-0.97	0.12
88	SLE RA 18	0	63	242	-1.24	0	0
88	SLE RA 19	1	80	307	-1.42	-0.97	0.12
88	SLE RA 20	0	63	242	-1.24	0	0
88	SLE RA 21	1	80	307	-1.42	-0.97	0.12
88	SLE FR 1	0	69	273	-1.42	0	0
88	SLE FR 2	0	75	294	-1.48	-0.32	0.04
88	SLE FR 3	0	69	273	-1.42	0	0
88	SLE FR 4	0	73	285	-1.42	-0.32	0.04
88	SLE FR 5	0	67	263	-1.36	0	0
88	SLE FR 6	0	66	257	-1.33	0	0
88	SLE QP 1	0	69	273	-1.42	0	0
88	SLE QP 2	0	67	263	-1.36	0	0
88	SLD 1	20	105	384	-2.4	-16.66	2.26
88	SLD 2	20	105	384	-2.4	-16.66	2.26
88	SLD 3	14	65	260	-1.3	-10.97	1.5
88	SLD 4	14	65	260	-1.3	-10.97	1.5
88	SLD 5	15	138	488	-3.33	-13.63	1.83
88	SLD 6	15	138	488	-3.33	-13.63	1.83
88	SLD 7	-5	7	74	0.31	5.34	-0.7
88	SLD 8	-5	7	74	0.31	5.34	-0.7
88	SLD 9	5	127	453	-3.04	-5.34	0.7
88	SLD 10	5	127	453	-3.04	-5.34	0.7
88	SLD 11	-15	-3	39	0.6	13.64	-1.83
88	SLD 12	-15	-3	39	0.6	13.64	-1.83
88	SLD 13	-14	69	267	-1.43	10.98	-1.5
88	SLD 14	-14	69	267	-1.43	10.98	-1.5
88	SLD 15	-20	30	142	-0.33	16.67	-2.26
88	SLD 16	-20	30	142	-0.33	16.67	-2.26
88	SLV 1	48	159	563	-3.87	-39.17	5.32
88	SLV 2	48	159	563	-3.87	-39.17	5.32
88	SLV 3	33	64	260	-1.25	-25.56	3.5
88	SLV 4	33	64	260	-1.25	-25.56	3.5
88	SLV 5	36	239	813	-6.09	-32.4	4.35
88	SLV 6	36	239	813	-6.09	-32.4	4.35
88	SLV 7	-12	-78	-197	2.65	12.99	-1.7
88	SLV 8	-12	-78	-197	2.65	12.99	-1.7
88	SLV 9	12	212	724	-5.37	-12.98	1.7
88	SLV 10	12	212	724	-5.37	-12.98	1.7
88	SLV 11	-36	-104	-286	3.36	32.41	-4.35
88	SLV 12	-36	-104	-286	3.36	32.41	-4.35
88	SLV 13	-33	70	267	-1.48	25.56	-3.5
88	SLV 14	-33	70	267	-1.48	25.56	-3.5
88	SLV 15	-48	-25	-36	1.14	39.18	-5.32
88	SLV 16	-48	-25	-36	1.14	39.18	-5.32
89	SLU 1	0	-99	2052	3.57	0.27	0
89	SLU 2	-2	-89	2059	3.44	-2.85	0
89	SLU 3	0	-99	2052	3.57	0.27	0
89	SLU 4	-1	-93	2056	3.49	-1.61	0
89	SLU 5	-2	-89	2059	3.44	-2.85	0
89	SLU 6	0	-99	2052	3.57	0.27	0
89	SLU 7	-1	-93	2056	3.49	-1.61	0
89	SLU 8	0	-99	2052	3.57	0.27	0
89	SLU 9	-1	-93	2056	3.49	-1.61	0
89	SLU 10	-2	-116	2482	4.39	-2.36	0
89	SLU 11	0	-126	2475	4.53	0.76	0
89	SLU 12	-1	-120	2479	4.45	-1.11	0
89	SLU 13	-2	-116	2482	4.39	-2.36	0
89	SLU 14	0	-126	2475	4.53	0.76	0
89	SLU 15	-1	-120	2479	4.45	-1.11	0
89	SLU 16	0	-126	2475	4.53	0.76	0
89	SLU 17	-1	-120	2479	4.45	-1.11	0
89	SLU 18	0	-138	2656	4.94	0.97	0
89	SLU 19	-1	-131	2660	4.85	-0.9	0
89	SLU 20	0	-138	2656	4.94	0.97	0
89	SLU 21	-1	-131	2660	4.85	-0.9	0
89	SLU 22	0	-113	2268	4.05	0.46	0
89	SLU 23	-2	-103	2275	3.92	-2.66	0
89	SLU 24	0	-113	2268	4.05	0.46	0
89	SLU 25	-1	-107	2272	3.97	-1.41	0
89	SLU 26	-2	-103	2275	3.92	-2.66	0
89	SLU 27	0	-113	2268	4.05	0.46	0
89	SLU 28	-1	-107	2272	3.97	-1.41	0
89	SLU 29	0	-113	2268	4.05	0.46	0
89	SLU 30	-1	-107	2272	3.97	-1.41	0
89	SLU 31	-2	-129	2698	4.87	-2.17	0
89	SLU 32	0	-140	2691	5.01	0.95	0
89	SLU 33	-1	-134	2696	4.93	-0.92	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
89	SLU 34	-2	-129	2698	4.87	-2.17	0
89	SLU 35	0	-140	2691	5.01	0.95	0
89	SLU 36	-1	-134	2696	4.93	-0.92	0
89	SLU 37	0	-140	2691	5.01	0.95	0
89	SLU 38	-1	-134	2696	4.93	-0.92	0
89	SLU 39	0	-151	2873	5.42	1.17	0
89	SLU 40	-1	-145	2877	5.34	-0.71	0
89	SLU 41	0	-151	2873	5.42	1.17	0
89	SLU 42	-1	-145	2877	5.34	-0.71	0
89	SLU 43	0	-124	2593	4.48	0.28	0
89	SLU 44	-2	-114	2600	4.34	-2.84	0
89	SLU 45	0	-124	2593	4.48	0.28	0
89	SLU 46	-1	-118	2597	4.4	-1.59	0
89	SLU 47	-2	-114	2600	4.34	-2.84	0
89	SLU 48	0	-124	2593	4.48	0.28	0
89	SLU 49	-1	-118	2597	4.4	-1.59	0
89	SLU 50	0	-124	2593	4.48	0.28	0
89	SLU 51	-1	-118	2597	4.4	-1.59	0
89	SLU 52	-2	-141	3023	5.3	-2.35	0
89	SLU 53	0	-151	3016	5.43	0.77	0
89	SLU 54	-1	-145	3020	5.35	-1.1	0
89	SLU 55	-2	-141	3023	5.3	-2.35	0
89	SLU 56	0	-151	3016	5.43	0.77	0
89	SLU 57	-1	-145	3020	5.35	-1.1	0
89	SLU 58	0	-151	3016	5.43	0.77	0
89	SLU 59	-1	-145	3020	5.35	-1.1	0
89	SLU 60	0	-163	3197	5.84	0.99	0
89	SLU 61	-1	-157	3202	5.76	-0.89	0
89	SLU 62	0	-163	3197	5.84	0.99	0
89	SLU 63	-1	-157	3202	5.76	-0.89	0
89	SLU 64	0	-138	2809	4.96	0.47	0
89	SLU 65	-2	-128	2817	4.82	-2.65	0
89	SLU 66	0	-138	2809	4.96	0.47	0
89	SLU 67	-1	-132	2814	4.88	-1.4	0
89	SLU 68	-2	-128	2817	4.82	-2.65	0
89	SLU 69	0	-138	2809	4.96	0.47	0
89	SLU 70	-1	-132	2814	4.88	-1.4	0
89	SLU 71	0	-138	2809	4.96	0.47	0
89	SLU 72	-1	-132	2814	4.88	-1.4	0
89	SLU 73	-2	-155	3240	5.78	-2.15	0
89	SLU 74	0	-165	3233	5.92	0.97	0
89	SLU 75	-1	-159	3237	5.83	-0.9	0
89	SLU 76	-2	-155	3240	5.78	-2.15	0
89	SLU 77	0	-165	3233	5.92	0.97	0
89	SLU 78	-1	-159	3237	5.83	-0.9	0
89	SLU 79	0	-165	3233	5.92	0.97	0
89	SLU 80	-1	-159	3237	5.83	-0.9	0
89	SLU 81	0	-176	3414	6.33	1.18	0
89	SLU 82	-1	-170	3418	6.24	-0.69	0
89	SLU 83	0	-176	3414	6.33	1.18	0
89	SLU 84	-1	-170	3418	6.24	-0.69	0
89	SLE RA 1	0	-103	2114	3.71	0.32	0
89	SLE RA 2	-1	-96	2118	3.62	-1.76	0
89	SLE RA 3	0	-103	2114	3.71	0.32	0
89	SLE RA 4	-1	-99	2116	3.65	-0.93	0
89	SLE RA 5	-1	-96	2118	3.62	-1.76	0
89	SLE RA 6	0	-103	2114	3.71	0.32	0
89	SLE RA 7	-1	-99	2116	3.65	-0.93	0
89	SLE RA 8	0	-103	2114	3.71	0.32	0
89	SLE RA 9	-1	-99	2116	3.65	-0.93	0
89	SLE RA 10	-1	-114	2400	4.26	-1.43	0
89	SLE RA 11	0	-121	2396	4.35	0.65	0
89	SLE RA 12	-1	-117	2398	4.29	-0.6	0
89	SLE RA 13	-1	-114	2400	4.26	-1.43	0
89	SLE RA 14	0	-121	2396	4.35	0.65	0
89	SLE RA 15	-1	-117	2398	4.29	-0.6	0
89	SLE RA 16	0	-121	2396	4.35	0.65	0
89	SLE RA 17	-1	-117	2398	4.29	-0.6	0
89	SLE RA 18	0	-129	2516	4.62	0.79	0
89	SLE RA 19	-1	-125	2519	4.56	-0.46	0
89	SLE RA 20	0	-129	2516	4.62	0.79	0
89	SLE RA 21	-1	-125	2519	4.56	-0.46	0
89	SLE FR 1	0	-103	2114	3.71	0.32	0
89	SLE FR 2	0	-102	2114	3.69	-0.1	0
89	SLE FR 3	0	-103	2114	3.71	0.32	0
89	SLE FR 4	0	-109	2235	3.96	0.05	0
89	SLE FR 5	0	-111	2234	3.98	0.46	0
89	SLE FR 6	0	-116	2315	4.16	0.56	0
89	SLE QP 1	0	-103	2114	3.71	0.32	0
89	SLE QP 2	0	-111	2234	3.98	0.46	0
89	SLD 1	34	-112	2258	6.32	53.77	0.01
89	SLD 2	34	-112	2258	6.32	53.77	0.01
89	SLD 3	39	-176	2248	4.03	59.62	0
89	SLD 4	39	-176	2248	4.03	59.62	0
89	SLD 5	1	-15	2257	8.16	7.59	0
89	SLD 6	1	-15	2257	8.16	7.59	0
89	SLD 7	21	-227	2223	0.52	27.07	0
89	SLD 8	21	-227	2223	0.52	27.07	0
89	SLD 9	-21	5	2246	7.44	-26.15	0





Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
89	SLD 10	-21	5	2246	7.44	-26.15	0
89	SLD 11	-1	-207	2212	-0.19	-6.67	0
89	SLD 12	-1	-207	2212	-0.19	-6.67	0
89	SLD 13	-39	-46	2221	3.94	-58.69	0
89	SLD 14	-39	-46	2221	3.94	-58.69	0
89	SLD 15	-33	-109	2211	1.65	-52.85	-0.01
89	SLD 16	-33	-109	2211	1.65	-52.85	-0.01
89	SLV 1	85	-116	2295	9.57	136.11	0.01
89	SLV 2	85	-116	2295	9.57	136.11	0.01
89	SLV 3	99	-266	2268	4.19	150.94	0.01
89	SLV 4	99	-266	2268	4.19	150.94	0.01
89	SLV 5	3	115	2293	13.8	18.67	0.01
89	SLV 6	3	115	2293	13.8	18.67	0.01
89	SLV 7	52	-385	2204	-4.1	68.1	0
89	SLV 8	52	-385	2204	-4.1	68.1	0
89	SLV 9	-52	163	2265	12.06	-67.17	0
89	SLV 10	-52	163	2265	12.06	-67.17	0
89	SLV 11	-3	-337	2175	-5.84	-17.74	-0.01
89	SLV 12	-3	-337	2175	-5.84	-17.74	-0.01
89	SLV 13	-99	44	2201	3.77	-150.02	-0.01
89	SLV 14	-99	44	2201	3.77	-150.02	-0.01
89	SLV 15	-84	-106	2174	-1.6	-135.19	-0.01
89	SLV 16	-84	-106	2174	-1.6	-135.19	-0.01
90	SLU 1	0	-51	1724	2.26	0.09	0
90	SLU 2	6	-43	1738	1.98	10.48	-0.01
90	SLU 3	0	-51	1724	2.26	0.09	0
90	SLU 4	4	-46	1733	2.09	6.33	-0.01
90	SLU 5	6	-43	1738	1.98	10.48	-0.01
90	SLU 6	0	-51	1724	2.26	0.09	0
90	SLU 7	4	-46	1733	2.09	6.33	-0.01
90	SLU 8	0	-51	1724	2.26	0.09	0
90	SLU 9	4	-46	1733	2.09	6.33	-0.01
90	SLU 10	6	-77	2264	3.45	10.55	-0.01
90	SLU 11	0	-86	2250	3.73	0.16	0
90	SLU 12	4	-80	2258	3.56	6.39	-0.01
90	SLU 13	6	-77	2264	3.45	10.55	-0.01
90	SLU 14	0	-86	2250	3.73	0.16	0
90	SLU 15	4	-80	2258	3.56	6.39	-0.01
90	SLU 16	0	-86	2250	3.73	0.16	0
90	SLU 17	4	-80	2258	3.56	6.39	-0.01
90	SLU 18	0	-100	2475	4.36	0.19	0
90	SLU 19	4	-95	2484	4.19	6.42	-0.01
90	SLU 20	0	-100	2475	4.36	0.19	0
90	SLU 21	4	-95	2484	4.19	6.42	-0.01
90	SLU 22	0	-67	1937	2.92	0.12	0
90	SLU 23	6	-58	1951	2.64	10.51	-0.01
90	SLU 24	0	-67	1937	2.92	0.12	0
90	SLU 25	4	-62	1946	2.75	6.35	-0.01
90	SLU 26	6	-58	1951	2.64	10.51	-0.01
90	SLU 27	0	-67	1937	2.92	0.12	0
90	SLU 28	4	-62	1946	2.75	6.35	-0.01
90	SLU 29	0	-67	1937	2.92	0.12	0
90	SLU 30	4	-62	1946	2.75	6.35	-0.01
90	SLU 31	6	-92	2477	4.11	10.58	-0.01
90	SLU 32	0	-101	2463	4.39	0.19	0
90	SLU 33	4	-96	2471	4.22	6.42	-0.01
90	SLU 34	6	-92	2477	4.11	10.58	-0.01
90	SLU 35	0	-101	2463	4.39	0.19	0
90	SLU 36	4	-96	2471	4.22	6.42	-0.01
90	SLU 37	0	-101	2463	4.39	0.19	0
90	SLU 38	4	-96	2471	4.22	6.42	-0.01
90	SLU 39	0	-116	2688	5.02	0.22	0
90	SLU 40	4	-111	2697	4.85	6.45	-0.01
90	SLU 41	0	-116	2688	5.02	0.22	0
90	SLU 42	4	-111	2697	4.85	6.45	-0.01
90	SLU 43	0	-61	2168	2.71	0.11	0
90	SLU 44	6	-53	2183	2.43	10.5	-0.01
90	SLU 45	0	-61	2168	2.71	0.11	0
90	SLU 46	4	-56	2177	2.55	6.34	-0.01
90	SLU 47	6	-53	2183	2.43	10.5	-0.01
90	SLU 48	0	-61	2168	2.71	0.11	0
90	SLU 49	4	-56	2177	2.55	6.34	-0.01
90	SLU 50	0	-61	2168	2.71	0.11	0
90	SLU 51	4	-56	2177	2.55	6.34	-0.01
90	SLU 52	6	-87	2708	3.9	10.57	-0.01
90	SLU 53	0	-96	2694	4.18	0.18	0
90	SLU 54	4	-90	2703	4.01	6.41	-0.01
90	SLU 55	6	-87	2708	3.9	10.57	-0.01
90	SLU 56	0	-96	2694	4.18	0.18	0
90	SLU 57	4	-90	2703	4.01	6.41	-0.01
90	SLU 58	0	-96	2694	4.18	0.18	0
90	SLU 59	4	-90	2703	4.01	6.41	-0.01
90	SLU 60	0	-110	2919	4.81	0.21	0
90	SLU 61	4	-105	2928	4.64	6.44	-0.01
90	SLU 62	0	-110	2919	4.81	0.21	0
90	SLU 63	4	-105	2928	4.64	6.44	-0.01
90	SLU 64	0	-77	2381	3.37	0.14	0
90	SLU 65	6	-68	2396	3.09	10.53	-0.01
90	SLU 66	0	-77	2381	3.37	0.14	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
90	SLU 67	4	-72	2390	3.2	6.37	-0.01
90	SLU 68	6	-68	2396	3.09	10.53	-0.01
90	SLU 69	0	-77	2381	3.37	0.14	0
90	SLU 70	4	-72	2390	3.2	6.37	-0.01
90	SLU 71	0	-77	2381	3.37	0.14	0
90	SLU 72	4	-72	2390	3.2	6.37	-0.01
90	SLU 73	6	-103	2921	4.56	10.6	-0.01
90	SLU 74	0	-111	2907	4.84	0.21	0
90	SLU 75	4	-106	2916	4.67	6.44	-0.01
90	SLU 76	6	-103	2921	4.56	10.6	-0.01
90	SLU 77	0	-111	2907	4.84	0.21	0
90	SLU 78	4	-106	2916	4.67	6.44	-0.01
90	SLU 79	0	-111	2907	4.84	0.21	0
90	SLU 80	4	-106	2916	4.67	6.44	-0.01
90	SLU 81	0	-126	3132	5.47	0.24	0
90	SLU 82	4	-121	3141	5.3	6.47	-0.01
90	SLU 83	0	-126	3132	5.47	0.24	0
90	SLU 84	4	-121	3141	5.3	6.47	-0.01
90	SLE RA 1	0	-56	1785	2.45	0.1	0
90	SLE RA 2	4	-50	1794	2.26	7.03	-0.01
90	SLE RA 3	0	-56	1785	2.45	0.1	0
90	SLE RA 4	3	-52	1791	2.34	4.26	0
90	SLE RA 5	4	-50	1794	2.26	7.03	-0.01
90	SLE RA 6	0	-56	1785	2.45	0.1	0
90	SLE RA 7	3	-52	1791	2.34	4.26	0
90	SLE RA 8	0	-56	1785	2.45	0.1	0
90	SLE RA 9	3	-52	1791	2.34	4.26	0
90	SLE RA 10	4	-73	2145	3.24	7.07	-0.01
90	SLE RA 11	0	-79	2135	3.43	0.15	0
90	SLE RA 12	3	-75	2141	3.32	4.3	-0.01
90	SLE RA 13	4	-73	2145	3.24	7.07	-0.01
90	SLE RA 14	0	-79	2135	3.43	0.15	0
90	SLE RA 15	3	-75	2141	3.32	4.3	-0.01
90	SLE RA 16	0	-79	2135	3.43	0.15	0
90	SLE RA 17	3	-75	2141	3.32	4.3	-0.01
90	SLE RA 18	0	-88	2286	3.85	0.17	0
90	SLE RA 19	3	-85	2291	3.74	4.32	-0.01
90	SLE RA 20	0	-88	2286	3.85	0.17	0
90	SLE RA 21	3	-85	2291	3.74	4.32	-0.01
90	SLE FR 1	0	-56	1785	2.45	0.1	0
90	SLE FR 2	1	-55	1787	2.41	1.49	0
90	SLE FR 3	0	-56	1785	2.45	0.1	0
90	SLE FR 4	1	-64	1937	2.83	1.51	0
90	SLE FR 5	0	-66	1935	2.87	0.12	0
90	SLE FR 6	0	-72	2035	3.15	0.13	0
90	SLE QP 1	0	-56	1785	2.45	0.1	0
90	SLE QP 2	0	-66	1935	2.87	0.12	0
90	SLD 1	-15	-108	1953	4.48	22.58	0.03
90	SLD 2	-15	-108	1953	4.48	22.58	0.03
90	SLD 3	-20	-62	1944	2.71	16.32	0.03
90	SLD 4	-20	-62	1944	2.71	16.32	0.03
90	SLD 5	3	-148	1954	6.03	16.35	-0.01
90	SLD 6	3	-148	1954	6.03	16.35	-0.01
90	SLD 7	-14	6	1925	0.13	-4.51	0.02
90	SLD 8	-14	6	1925	0.13	-4.51	0.02
90	SLD 9	14	-137	1945	5.6	4.75	-0.02
90	SLD 10	14	-137	1945	5.6	4.75	-0.02
90	SLD 11	-3	17	1917	-0.3	-16.11	0.01
90	SLD 12	-3	17	1917	-0.3	-16.11	0.01
90	SLD 13	20	-70	1926	3.03	-16.08	-0.03
90	SLD 14	20	-70	1926	3.03	-16.08	-0.03
90	SLD 15	15	-23	1917	1.26	-22.33	-0.03
90	SLD 16	15	-23	1917	1.26	-22.33	-0.03
90	SLV 1	-36	-166	1979	6.69	55.97	0.06
90	SLV 2	-36	-166	1979	6.69	55.97	0.06
90	SLV 3	-49	-56	1956	2.47	39.96	0.08
90	SLV 4	-49	-56	1956	2.47	39.96	0.08
90	SLV 5	9	-262	1983	10.42	41.16	-0.02
90	SLV 6	9	-262	1983	10.42	41.16	-0.02
90	SLV 7	-34	103	1907	-3.66	-12.21	0.06
90	SLV 8	-34	103	1907	-3.66	-12.21	0.06
90	SLV 9	34	-235	1963	9.4	12.46	-0.06
90	SLV 10	34	-235	1963	9.4	12.46	-0.06
90	SLV 11	-9	130	1887	-4.69	-40.92	0.02
90	SLV 12	-9	130	1887	-4.69	-40.92	0.02
90	SLV 13	49	-75	1914	3.27	-39.72	-0.08
90	SLV 14	49	-75	1914	3.27	-39.72	-0.08
90	SLV 15	36	34	1891	-0.96	-55.73	-0.06
90	SLV 16	36	34	1891	-0.96	-55.73	-0.06
91	SLU 1	0	-109	1858	3.89	-0.03	0
91	SLU 2	0	-70	1896	2.2	-0.27	0
91	SLU 3	0	-109	1858	3.89	-0.03	0
91	SLU 4	0	-85	1881	2.87	-0.18	0
91	SLU 5	0	-70	1896	2.2	-0.27	0
91	SLU 6	0	-109	1858	3.89	-0.03	0
91	SLU 7	0	-85	1881	2.87	-0.18	0
91	SLU 8	0	-109	1858	3.89	-0.03	0
91	SLU 9	0	-85	1881	2.87	-0.18	0
91	SLU 10	0	-236	2973	8.18	-0.32	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
91	SLU 11	0	-275	2935	9.87	-0.08	0
91	SLU 12	0	-252	2958	8.85	-0.22	0
91	SLU 13	0	-236	2973	8.18	-0.32	0
91	SLU 14	0	-275	2935	9.87	-0.08	0
91	SLU 15	0	-252	2958	8.85	-0.22	0
91	SLU 16	0	-275	2935	9.87	-0.08	0
91	SLU 17	0	-252	2958	8.85	-0.22	0
91	SLU 18	0	-346	3397	12.43	-0.1	0
91	SLU 19	0	-323	3420	11.42	-0.24	0
91	SLU 20	0	-346	3397	12.43	-0.1	0
91	SLU 21	0	-323	3420	11.42	-0.24	0
91	SLU 22	0	-177	2339	6.34	-0.05	0
91	SLU 23	0	-138	2377	4.65	-0.29	0
91	SLU 24	0	-177	2339	6.34	-0.05	0
91	SLU 25	0	-154	2362	5.33	-0.19	0
91	SLU 26	0	-138	2377	4.65	-0.29	0
91	SLU 27	0	-177	2339	6.34	-0.05	0
91	SLU 28	0	-154	2362	5.33	-0.19	0
91	SLU 29	0	-177	2339	6.34	-0.05	0
91	SLU 30	0	-154	2362	5.33	-0.19	0
91	SLU 31	0	-304	3454	10.63	-0.33	0
91	SLU 32	0	-343	3416	12.32	-0.09	0
91	SLU 33	0	-320	3439	11.31	-0.24	0
91	SLU 34	0	-304	3454	10.63	-0.33	0
91	SLU 35	0	-343	3416	12.32	-0.09	0
91	SLU 36	0	-320	3439	11.31	-0.24	0
91	SLU 37	0	-343	3416	12.32	-0.09	0
91	SLU 38	0	-320	3439	11.31	-0.24	0
91	SLU 39	0	-414	3877	14.88	-0.11	0
91	SLU 40	0	-391	3900	13.87	-0.26	0
91	SLU 41	0	-414	3877	14.88	-0.11	0
91	SLU 42	0	-391	3900	13.87	-0.26	0
91	SLU 43	0	-118	2251	4.22	-0.04	0
91	SLU 44	0	-79	2289	2.52	-0.27	0
91	SLU 45	0	-118	2251	4.22	-0.04	0
91	SLU 46	0	-94	2274	3.2	-0.18	0
91	SLU 47	0	-79	2289	2.52	-0.27	0
91	SLU 48	0	-118	2251	4.22	-0.04	0
91	SLU 49	0	-94	2274	3.2	-0.18	0
91	SLU 50	0	-118	2251	4.22	-0.04	0
91	SLU 51	0	-94	2274	3.2	-0.18	0
91	SLU 52	0	-245	3366	8.5	-0.32	0
91	SLU 53	0	-284	3328	10.2	-0.08	0
91	SLU 54	0	-261	3351	9.18	-0.22	0
91	SLU 55	0	-245	3366	8.5	-0.32	0
91	SLU 56	0	-284	3328	10.2	-0.08	0
91	SLU 57	0	-261	3351	9.18	-0.22	0
91	SLU 58	0	-284	3328	10.2	-0.08	0
91	SLU 59	0	-261	3351	9.18	-0.22	0
91	SLU 60	0	-355	3790	12.76	-0.1	0
91	SLU 61	0	-332	3812	11.74	-0.24	0
91	SLU 62	0	-355	3790	12.76	-0.1	0
91	SLU 63	0	-332	3812	11.74	-0.24	0
91	SLU 64	0	-186	2731	6.67	-0.05	0
91	SLU 65	0	-147	2770	4.98	-0.29	0
91	SLU 66	0	-186	2731	6.67	-0.05	0
91	SLU 67	0	-163	2754	5.65	-0.2	0
91	SLU 68	0	-147	2770	4.98	-0.29	0
91	SLU 69	0	-186	2731	6.67	-0.05	0
91	SLU 70	0	-163	2754	5.65	-0.2	0
91	SLU 71	0	-186	2731	6.67	-0.05	0
91	SLU 72	0	-163	2754	5.65	-0.2	0
91	SLU 73	0	-313	3847	10.96	-0.34	0
91	SLU 74	0	-352	3808	12.65	-0.1	0
91	SLU 75	0	-329	3831	11.63	-0.24	0
91	SLU 76	0	-313	3847	10.96	-0.34	0
91	SLU 77	0	-352	3808	12.65	-0.1	0
91	SLU 78	0	-329	3831	11.63	-0.24	0
91	SLU 79	0	-352	3808	12.65	-0.1	0
91	SLU 80	0	-329	3831	11.63	-0.24	0
91	SLU 81	0	-424	4270	15.21	-0.12	0
91	SLU 82	0	-400	4293	14.2	-0.26	0
91	SLU 83	0	-424	4270	15.21	-0.12	0
91	SLU 84	0	-400	4293	14.2	-0.26	0
91	SLE RA 1	0	-128	1996	4.59	-0.04	0
91	SLE RA 2	0	-102	2021	3.46	-0.2	0
91	SLE RA 3	0	-128	1996	4.59	-0.04	0
91	SLE RA 4	0	-113	2011	3.91	-0.13	0
91	SLE RA 5	0	-102	2021	3.46	-0.2	0
91	SLE RA 6	0	-128	1996	4.59	-0.04	0
91	SLE RA 7	0	-113	2011	3.91	-0.13	0
91	SLE RA 8	0	-128	1996	4.59	-0.04	0
91	SLE RA 9	0	-113	2011	3.91	-0.13	0
91	SLE RA 10	0	-213	2739	7.45	-0.23	0
91	SLE RA 11	0	-239	2714	8.58	-0.07	0
91	SLE RA 12	0	-223	2729	7.9	-0.16	0
91	SLE RA 13	0	-213	2739	7.45	-0.23	0
91	SLE RA 14	0	-239	2714	8.58	-0.07	0
91	SLE RA 15	0	-223	2729	7.9	-0.16	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
91	SLE RA 16	0	-239	2714	8.58	-0.07	0
91	SLE RA 17	0	-223	2729	7.9	-0.16	0
91	SLE RA 18	0	-286	3021	10.29	-0.08	0
91	SLE RA 19	0	-271	3036	9.61	-0.18	0
91	SLE RA 20	0	-286	3021	10.29	-0.08	0
91	SLE RA 21	0	-271	3036	9.61	-0.18	0
91	SLE FR 1	0	-128	1996	4.59	-0.04	0
91	SLE FR 2	0	-123	2001	4.36	-0.07	0
91	SLE FR 3	0	-128	1996	4.59	-0.04	0
91	SLE FR 4	0	-170	2308	6.07	-0.08	0
91	SLE FR 5	0	-176	2303	6.3	-0.05	0
91	SLE FR 6	0	-207	2508	7.44	-0.06	0
91	SLE QP 1	0	-128	1996	4.59	-0.04	0
91	SLE QP 2	0	-176	2303	6.3	-0.05	0
91	SLD 1	24	-70	2227	2.1	25	0
91	SLD 2	24	-70	2227	2.1	25	0
91	SLD 3	22	-206	2138	7.81	22.67	0.01
91	SLD 4	22	-206	2138	7.81	22.67	0.01
91	SLD 5	10	61	2415	-3.62	11	0
91	SLD 6	10	61	2415	-3.62	11	0
91	SLD 7	3	-390	2119	15.41	3.22	0
91	SLD 8	3	-390	2119	15.41	3.22	0
91	SLD 9	-3	38	2487	-2.82	-3.33	0
91	SLD 10	-3	38	2487	-2.82	-3.33	0
91	SLD 11	-10	-412	2191	16.22	-11.1	0
91	SLD 12	-10	-412	2191	16.22	-11.1	0
91	SLD 13	-22	-146	2468	4.79	-22.77	-0.01
91	SLD 14	-22	-146	2468	4.79	-22.77	-0.01
91	SLD 15	-24	-281	2379	10.5	-25.1	0
91	SLD 16	-24	-281	2379	10.5	-25.1	0
91	SLV 1	61	88	2063	-4.1	64.55	0.01
91	SLV 2	61	88	2063	-4.1	64.55	0.01
91	SLV 3	55	-224	1855	9.08	57.94	0.01
91	SLV 4	55	-224	1855	9.08	57.94	0.01
91	SLV 5	27	377	2546	-16.82	29.35	0
91	SLV 6	27	377	2546	-16.82	29.35	0
91	SLV 7	8	-664	1854	27.13	7.33	0.01
91	SLV 8	8	-664	1854	27.13	7.33	0.01
91	SLV 9	-8	312	2752	-14.53	-7.43	-0.01
91	SLV 10	-8	312	2752	-14.53	-7.43	-0.01
91	SLV 11	-27	-728	2060	29.41	-29.45	0
91	SLV 12	-27	-728	2060	29.41	-29.45	0
91	SLV 13	-55	-127	2751	3.52	-58.05	-0.01
91	SLV 14	-55	-127	2751	3.52	-58.05	-0.01
91	SLV 15	-61	-439	2543	16.7	-64.65	-0.01
91	SLV 16	-61	-439	2543	16.7	-64.65	-0.01
92	SLU 1	0	72	616	-1.93	0.01	0
92	SLU 2	-7	153	808	-6.95	-5.82	-0.03
92	SLU 3	0	72	616	-1.93	0.01	0
92	SLU 4	-4	121	731	-4.94	-3.49	-0.02
92	SLU 5	-7	153	808	-6.95	-5.82	-0.03
92	SLU 6	0	72	616	-1.93	0.01	0
92	SLU 7	-4	121	731	-4.94	-3.49	-0.02
92	SLU 8	0	72	616	-1.93	0.01	0
92	SLU 9	-4	121	731	-4.94	-3.49	-0.02
92	SLU 10	-7	152	774	-6.76	-5.81	-0.03
92	SLU 11	0	71	583	-1.74	0.01	0
92	SLU 12	-4	120	698	-4.75	-3.48	-0.02
92	SLU 13	-7	152	774	-6.76	-5.81	-0.03
92	SLU 14	0	71	583	-1.74	0.01	0
92	SLU 15	-4	120	698	-4.75	-3.48	-0.02
92	SLU 16	0	71	583	-1.74	0.01	0
92	SLU 17	-4	120	698	-4.75	-3.48	-0.02
92	SLU 18	0	70	568	-1.66	0.01	0
92	SLU 19	-4	119	683	-4.67	-3.48	-0.02
92	SLU 20	0	70	568	-1.66	0.01	0
92	SLU 21	-4	119	683	-4.67	-3.48	-0.02
92	SLU 22	0	71	592	-1.79	0.01	0
92	SLU 23	-7	153	784	-6.81	-5.81	-0.03
92	SLU 24	0	71	592	-1.79	0.01	0
92	SLU 25	-4	120	707	-4.8	-3.48	-0.02
92	SLU 26	-7	153	784	-6.81	-5.81	-0.03
92	SLU 27	0	71	592	-1.79	0.01	0
92	SLU 28	-4	120	707	-4.8	-3.48	-0.02
92	SLU 29	0	71	592	-1.79	0.01	0
92	SLU 30	-4	120	707	-4.8	-3.48	-0.02
92	SLU 31	-7	152	750	-6.62	-5.81	-0.03
92	SLU 32	0	70	558	-1.6	0.01	0
92	SLU 33	-4	119	673	-4.61	-3.48	-0.02
92	SLU 34	-7	152	750	-6.62	-5.81	-0.03
92	SLU 35	0	70	558	-1.6	0.01	0
92	SLU 36	-4	119	673	-4.61	-3.48	-0.02
92	SLU 37	0	70	558	-1.6	0.01	0
92	SLU 38	-4	119	673	-4.61	-3.48	-0.02
92	SLU 39	0	69	543	-1.52	0.01	0
92	SLU 40	-4	118	658	-4.53	-3.48	-0.02
92	SLU 41	0	69	543	-1.52	0.01	0
92	SLU 42	-4	118	658	-4.53	-3.48	-0.02
92	SLU 43	0	93	810	-2.56	0.01	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
92	SLU 44	-7	175	1001	-7.58	-5.81	-0.03
92	SLU 45	0	93	810	-2.56	0.01	0
92	SLU 46	-4	142	925	-5.57	-3.49	-0.02
92	SLU 47	-7	175	1001	-7.58	-5.81	-0.03
92	SLU 48	0	93	810	-2.56	0.01	0
92	SLU 49	-4	142	925	-5.57	-3.49	-0.02
92	SLU 50	0	93	810	-2.56	0.01	0
92	SLU 51	-4	142	925	-5.57	-3.49	-0.02
92	SLU 52	-7	174	968	-7.38	-5.81	-0.03
92	SLU 53	0	92	776	-2.37	0.01	0
92	SLU 54	-4	141	891	-5.38	-3.48	-0.02
92	SLU 55	-7	174	968	-7.38	-5.81	-0.03
92	SLU 56	0	92	776	-2.37	0.01	0
92	SLU 57	-4	141	891	-5.38	-3.48	-0.02
92	SLU 58	0	92	776	-2.37	0.01	0
92	SLU 59	-4	141	891	-5.38	-3.48	-0.02
92	SLU 60	0	92	761	-2.28	0.01	0
92	SLU 61	-4	141	876	-5.29	-3.48	-0.02
92	SLU 62	0	92	761	-2.28	0.01	0
92	SLU 63	-4	141	876	-5.29	-3.48	-0.02
92	SLU 64	0	93	785	-2.42	0.01	0
92	SLU 65	-7	174	977	-7.43	-5.81	-0.03
92	SLU 66	0	93	785	-2.42	0.01	0
92	SLU 67	-4	142	900	-5.43	-3.48	-0.02
92	SLU 68	-7	174	977	-7.43	-5.81	-0.03
92	SLU 69	0	93	785	-2.42	0.01	0
92	SLU 70	-4	142	900	-5.43	-3.48	-0.02
92	SLU 71	0	93	785	-2.42	0.01	0
92	SLU 72	-4	142	900	-5.43	-3.48	-0.02
92	SLU 73	-7	173	943	-7.24	-5.81	-0.03
92	SLU 74	0	92	751	-2.23	0.01	0
92	SLU 75	-4	141	866	-5.24	-3.48	-0.02
92	SLU 76	-7	173	943	-7.24	-5.81	-0.03
92	SLU 77	0	92	751	-2.23	0.01	0
92	SLU 78	-4	141	866	-5.24	-3.48	-0.02
92	SLU 79	0	92	751	-2.23	0.01	0
92	SLU 80	-4	141	866	-5.24	-3.48	-0.02
92	SLU 81	0	91	737	-2.14	0.01	0
92	SLU 82	-4	140	852	-5.15	-3.48	-0.02
92	SLU 83	0	91	737	-2.14	0.01	0
92	SLU 84	-4	140	852	-5.15	-3.48	-0.02
92	SLE RA 1	0	71	609	-1.89	0.01	0
92	SLE RA 2	-4	126	737	-5.24	-3.87	-0.02
92	SLE RA 3	0	71	609	-1.89	0.01	0
92	SLE RA 4	-3	104	686	-3.9	-2.32	-0.01
92	SLE RA 5	-4	126	737	-5.24	-3.87	-0.02
92	SLE RA 6	0	71	609	-1.89	0.01	0
92	SLE RA 7	-3	104	686	-3.9	-2.32	-0.01
92	SLE RA 8	0	71	609	-1.89	0.01	0
92	SLE RA 9	-3	104	686	-3.9	-2.32	-0.01
92	SLE RA 10	-4	125	715	-5.11	-3.87	-0.02
92	SLE RA 11	0	71	587	-1.76	0.01	0
92	SLE RA 12	-3	103	663	-3.77	-2.32	-0.01
92	SLE RA 13	-4	125	715	-5.11	-3.87	-0.02
92	SLE RA 14	0	71	587	-1.76	0.01	0
92	SLE RA 15	-3	103	663	-3.77	-2.32	-0.01
92	SLE RA 16	0	71	587	-1.76	0.01	0
92	SLE RA 17	-3	103	663	-3.77	-2.32	-0.01
92	SLE RA 18	0	70	577	-1.71	0.01	0
92	SLE RA 19	-3	103	654	-3.71	-2.32	-0.01
92	SLE RA 20	0	70	577	-1.71	0.01	0
92	SLE RA 21	-3	103	654	-3.71	-2.32	-0.01
92	SLE FR 1	0	71	609	-1.89	0.01	0
92	SLE FR 2	-1	82	635	-2.56	-0.77	0
92	SLE FR 3	0	71	609	-1.89	0.01	0
92	SLE FR 4	-1	82	625	-2.5	-0.77	0
92	SLE FR 5	0	71	600	-1.84	0.01	0
92	SLE FR 6	0	71	593	-1.8	0.01	0
92	SLE QP 1	0	71	609	-1.89	0.01	0
92	SLE QP 2	0	71	600	-1.84	0.01	0
92	SLD 1	-35	125	738	-4.61	-29.92	-0.17
92	SLD 2	-35	125	738	-4.61	-29.92	-0.17
92	SLD 3	-23	71	597	-1.98	-19.09	-0.11
92	SLD 4	-23	71	597	-1.98	-19.09	-0.11
92	SLD 5	-30	168	855	-6.66	-25.39	-0.14
92	SLD 6	-30	168	855	-6.66	-25.39	-0.14
92	SLD 7	12	-10	385	2.12	10.7	0.06
92	SLD 8	12	-10	385	2.12	10.7	0.06
92	SLD 9	-12	152	814	-5.79	-10.69	-0.06
92	SLD 10	-12	152	814	-5.79	-10.69	-0.06
92	SLD 11	30	-26	345	2.99	25.41	0.14
92	SLD 12	30	-26	345	2.99	25.41	0.14
92	SLD 13	23	71	603	-1.7	19.1	0.11
92	SLD 14	23	71	603	-1.7	19.1	0.11
92	SLD 15	35	18	462	0.94	29.93	0.17
92	SLD 16	35	18	462	0.94	29.93	0.17
92	SLV 1	-83	204	942	-8.81	-70.53	-0.41
92	SLV 2	-83	204	942	-8.81	-70.53	-0.41
92	SLV 3	-53	73	598	-2.28	-44.4	-0.26



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
92	SLV 4	-53	73	598	-2.28	-44.4	-0.26
92	SLV 5	-71	310	1224	-13.83	-60.79	-0.34
92	SLV 6	-71	310	1224	-13.83	-60.79	-0.34
92	SLV 7	30	-127	77	7.94	26.33	0.14
92	SLV 8	30	-127	77	7.94	26.33	0.14
92	SLV 9	-30	269	1122	-11.61	-26.31	-0.14
92	SLV 10	-30	269	1122	-11.61	-26.31	-0.14
92	SLV 11	71	-168	-25	10.16	60.81	0.34
92	SLV 12	71	-168	-25	10.16	60.81	0.34
92	SLV 13	53	69	602	-1.39	44.41	0.26
92	SLV 14	53	69	602	-1.39	44.41	0.26
92	SLV 15	83	-62	258	5.14	70.55	0.41
92	SLV 16	83	-62	258	5.14	70.55	0.41
93	SLU 1	0	-133	2044	4.76	0.17	0
93	SLU 2	-3	-118	2052	3.91	-3.17	0
93	SLU 3	0	-133	2044	4.76	0.17	0
93	SLU 4	-2	-124	2049	4.25	-1.84	0
93	SLU 5	-3	-118	2052	3.91	-3.17	0
93	SLU 6	0	-133	2044	4.76	0.17	0
93	SLU 7	-2	-124	2049	4.25	-1.84	0
93	SLU 8	0	-133	2044	4.76	0.17	0
93	SLU 9	-2	-124	2049	4.25	-1.84	0
93	SLU 10	-3	-157	2464	5.24	-2.8	0
93	SLU 11	0	-173	2456	6.09	0.54	0
93	SLU 12	-2	-164	2461	5.58	-1.46	0
93	SLU 13	-3	-157	2464	5.24	-2.8	0
93	SLU 14	0	-173	2456	6.09	0.54	0
93	SLU 15	-2	-164	2461	5.58	-1.46	0
93	SLU 16	0	-173	2456	6.09	0.54	0
93	SLU 17	-2	-164	2461	5.58	-1.46	0
93	SLU 18	0	-190	2633	6.66	0.7	0
93	SLU 19	-2	-180	2637	6.15	-1.3	0
93	SLU 20	0	-190	2633	6.66	0.7	0
93	SLU 21	-2	-180	2637	6.15	-1.3	0
93	SLU 22	0	-154	2255	5.44	0.31	0
93	SLU 23	-3	-138	2263	4.59	-3.03	0
93	SLU 24	0	-154	2255	5.44	0.31	0
93	SLU 25	-2	-144	2260	4.93	-1.69	0
93	SLU 26	-3	-138	2263	4.59	-3.03	0
93	SLU 27	0	-154	2255	5.44	0.31	0
93	SLU 28	-2	-144	2260	4.93	-1.69	0
93	SLU 29	0	-154	2255	5.44	0.31	0
93	SLU 30	-2	-144	2260	4.93	-1.69	0
93	SLU 31	-3	-178	2675	5.93	-2.65	0
93	SLU 32	0	-193	2667	6.78	0.68	0
93	SLU 33	-2	-184	2672	6.27	-1.32	0
93	SLU 34	-3	-178	2675	5.93	-2.65	0
93	SLU 35	0	-193	2667	6.78	0.68	0
93	SLU 36	-2	-184	2672	6.27	-1.32	0
93	SLU 37	0	-193	2667	6.78	0.68	0
93	SLU 38	-2	-184	2672	6.27	-1.32	0
93	SLU 39	0	-210	2844	7.35	0.84	0
93	SLU 40	-2	-201	2848	6.84	-1.16	0
93	SLU 41	0	-210	2844	7.35	0.84	0
93	SLU 42	-2	-201	2848	6.84	-1.16	0
93	SLU 43	0	-166	2585	5.95	0.17	0
93	SLU 44	-3	-151	2593	5.1	-3.17	0
93	SLU 45	0	-166	2585	5.95	0.17	0
93	SLU 46	-2	-157	2590	5.44	-1.84	0
93	SLU 47	-3	-151	2593	5.1	-3.17	0
93	SLU 48	0	-166	2585	5.95	0.17	0
93	SLU 49	-2	-157	2590	5.44	-1.84	0
93	SLU 50	0	-166	2585	5.95	0.17	0
93	SLU 51	-2	-157	2590	5.44	-1.84	0
93	SLU 52	-3	-190	3005	6.43	-2.8	0
93	SLU 53	0	-206	2997	7.28	0.54	0
93	SLU 54	-2	-197	3002	6.77	-1.46	0
93	SLU 55	-3	-190	3005	6.43	-2.8	0
93	SLU 56	0	-206	2997	7.28	0.54	0
93	SLU 57	-2	-197	3002	6.77	-1.46	0
93	SLU 58	0	-206	2997	7.28	0.54	0
93	SLU 59	-2	-197	3002	6.77	-1.46	0
93	SLU 60	0	-223	3174	7.85	0.7	0
93	SLU 61	-2	-213	3178	7.34	-1.3	0
93	SLU 62	0	-223	3174	7.85	0.7	0
93	SLU 63	-2	-213	3178	7.34	-1.3	0
93	SLU 64	0	-187	2796	6.64	0.31	0
93	SLU 65	-3	-171	2804	5.78	-3.03	0
93	SLU 66	0	-187	2796	6.64	0.31	0
93	SLU 67	-2	-177	2801	6.13	-1.69	0
93	SLU 68	-3	-171	2804	5.78	-3.03	0
93	SLU 69	0	-187	2796	6.64	0.31	0
93	SLU 70	-2	-177	2801	6.13	-1.69	0
93	SLU 71	0	-187	2796	6.64	0.31	0
93	SLU 72	-2	-177	2801	6.13	-1.69	0
93	SLU 73	-3	-211	3216	7.12	-2.65	0
93	SLU 74	0	-226	3208	7.97	0.68	0
93	SLU 75	-2	-217	3213	7.46	-1.32	0
93	SLU 76	-3	-211	3216	7.12	-2.65	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
93	SLU 77	0	-226	3208	7.97	0.68	0
93	SLU 78	-2	-217	3213	7.46	-1.32	0
93	SLU 79	0	-226	3208	7.97	0.68	0
93	SLU 80	-2	-217	3213	7.46	-1.32	0
93	SLU 81	0	-243	3385	8.54	0.84	0
93	SLU 82	-2	-234	3389	8.03	-1.16	0
93	SLU 83	0	-243	3385	8.54	0.84	0
93	SLU 84	-2	-234	3389	8.03	-1.16	0
93	SLE RA 1	0	-139	2104	4.95	0.21	0
93	SLE RA 2	-2	-129	2110	4.39	-2.02	0
93	SLE RA 3	0	-139	2104	4.95	0.21	0
93	SLE RA 4	-1	-133	2108	4.61	-1.13	0
93	SLE RA 5	-2	-129	2110	4.39	-2.02	0
93	SLE RA 6	0	-139	2104	4.95	0.21	0
93	SLE RA 7	-1	-133	2108	4.61	-1.13	0
93	SLE RA 8	0	-139	2104	4.95	0.21	0
93	SLE RA 9	-1	-133	2108	4.61	-1.13	0
93	SLE RA 10	-2	-155	2384	5.27	-1.77	0
93	SLE RA 11	0	-165	2379	5.84	0.46	0
93	SLE RA 12	-1	-159	2382	5.5	-0.88	0
93	SLE RA 13	-2	-155	2384	5.27	-1.77	0
93	SLE RA 14	0	-165	2379	5.84	0.46	0
93	SLE RA 15	-1	-159	2382	5.5	-0.88	0
93	SLE RA 16	0	-165	2379	5.84	0.46	0
93	SLE RA 17	-1	-159	2382	5.5	-0.88	0
93	SLE RA 18	0	-177	2497	6.22	0.56	0
93	SLE RA 19	-1	-170	2500	5.88	-0.77	0
93	SLE RA 20	0	-177	2497	6.22	0.56	0
93	SLE RA 21	-1	-170	2500	5.88	-0.77	0
93	SLE FR 1	0	-139	2104	4.95	0.21	0
93	SLE FR 2	0	-137	2105	4.84	-0.24	0
93	SLE FR 3	0	-139	2104	4.95	0.21	0
93	SLE FR 4	0	-148	2223	5.22	-0.13	0
93	SLE FR 5	0	-150	2222	5.33	0.31	0
93	SLE FR 6	0	-158	2301	5.59	0.39	0
93	SLE QP 1	0	-139	2104	4.95	0.21	0
93	SLE QP 2	0	-150	2222	5.33	0.31	0
93	SLD 1	26	-150	2244	5.36	44.11	0.01
93	SLD 2	26	-150	2244	5.36	44.11	0.01
93	SLD 3	32	-215	2232	7.97	49.68	0
93	SLD 4	32	-215	2232	7.97	49.68	0
93	SLD 5	-1	-52	2247	1.39	5	0
93	SLD 6	-1	-52	2247	1.39	5	0
93	SLD 7	18	-268	2207	10.08	23.58	0
93	SLD 8	18	-268	2207	10.08	23.58	0
93	SLD 9	-18	-33	2238	0.59	-22.95	0
93	SLD 10	-18	-33	2238	0.59	-22.95	0
93	SLD 11	1	-249	2197	9.28	-4.37	0
93	SLD 12	1	-249	2197	9.28	-4.37	0
93	SLD 13	-32	-86	2212	2.7	-49.05	0
93	SLD 14	-32	-86	2212	2.7	-49.05	0
93	SLD 15	-26	-151	2200	5.31	-43.48	-0.01
93	SLD 16	-26	-151	2200	5.31	-43.48	-0.01
93	SLV 1	66	-151	2277	5.39	111.6	0.01
93	SLV 2	66	-151	2277	5.39	111.6	0.01
93	SLV 3	80	-306	2246	11.9	125.75	0.01
93	SLV 4	80	-306	2246	11.9	125.75	0.01
93	SLV 5	-2	86	2287	-4.52	12.23	0.01
93	SLV 6	-2	86	2287	-4.52	12.23	0.01
93	SLV 7	45	-433	2181	17.18	59.42	0
93	SLV 8	45	-433	2181	17.18	59.42	0
93	SLV 9	-45	133	2263	-6.51	-58.79	0
93	SLV 10	-45	133	2263	-6.51	-58.79	0
93	SLV 11	2	-387	2158	15.19	-11.6	-0.01
93	SLV 12	2	-387	2158	15.19	-11.6	-0.01
93	SLV 13	-80	6	2198	-1.23	-125.12	-0.01
93	SLV 14	-80	6	2198	-1.23	-125.12	-0.01
93	SLV 15	-66	-150	2167	5.28	-110.97	-0.01
93	SLV 16	-66	-150	2167	5.28	-110.97	-0.01
94	SLU 1	0	-67	1761	2.41	0.1	0
94	SLU 2	8	-56	1760	1.92	11.41	-0.01
94	SLU 3	0	-67	1761	2.41	0.1	0
94	SLU 4	5	-60	1761	2.11	6.88	-0.01
94	SLU 5	8	-56	1760	1.92	11.41	-0.01
94	SLU 6	0	-67	1761	2.41	0.1	0
94	SLU 7	5	-60	1761	2.11	6.88	-0.01
94	SLU 8	0	-67	1761	2.41	0.1	0
94	SLU 9	5	-60	1761	2.11	6.88	-0.01
94	SLU 10	8	-98	2279	3.23	11.46	-0.01
94	SLU 11	0	-109	2279	3.73	0.15	0
94	SLU 12	5	-103	2279	3.43	6.93	-0.01
94	SLU 13	8	-98	2279	3.23	11.46	-0.01
94	SLU 14	0	-109	2279	3.73	0.15	0
94	SLU 15	5	-103	2279	3.43	6.93	-0.01
94	SLU 16	0	-109	2279	3.73	0.15	0
94	SLU 17	5	-103	2279	3.43	6.93	-0.01
94	SLU 18	0	-127	2502	4.29	0.17	0
94	SLU 19	5	-121	2501	4	6.96	-0.01
94	SLU 20	0	-127	2502	4.29	0.17	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
94	SLU 21	5	-121	2501	4	6.96	-0.01
94	SLU 22	0	-84	1971	2.95	0.12	0
94	SLU 23	8	-73	1971	2.45	11.43	-0.01
94	SLU 24	0	-84	1971	2.95	0.12	0
94	SLU 25	5	-77	1971	2.65	6.9	-0.01
94	SLU 26	8	-73	1971	2.45	11.43	-0.01
94	SLU 27	0	-84	1971	2.95	0.12	0
94	SLU 28	5	-77	1971	2.65	6.9	-0.01
94	SLU 29	0	-84	1971	2.95	0.12	0
94	SLU 30	5	-77	1971	2.65	6.9	-0.01
94	SLU 31	8	-115	2489	3.77	11.48	-0.01
94	SLU 32	0	-126	2490	4.26	0.17	0
94	SLU 33	5	-119	2490	3.97	6.96	-0.01
94	SLU 34	8	-115	2489	3.77	11.48	-0.01
94	SLU 35	0	-126	2490	4.26	0.17	0
94	SLU 36	5	-119	2490	3.97	6.96	-0.01
94	SLU 37	0	-126	2490	4.26	0.17	0
94	SLU 38	5	-119	2490	3.97	6.96	-0.01
94	SLU 39	0	-144	2712	4.83	0.19	0
94	SLU 40	5	-137	2712	4.53	6.98	-0.01
94	SLU 41	0	-144	2712	4.83	0.19	0
94	SLU 42	5	-137	2712	4.53	6.98	-0.01
94	SLU 43	0	-81	2217	2.95	0.12	0
94	SLU 44	8	-71	2216	2.46	11.43	-0.01
94	SLU 45	0	-81	2217	2.95	0.12	0
94	SLU 46	5	-75	2217	2.66	6.9	-0.01
94	SLU 47	8	-71	2216	2.46	11.43	-0.01
94	SLU 48	0	-81	2217	2.95	0.12	0
94	SLU 49	5	-75	2217	2.66	6.9	-0.01
94	SLU 50	0	-81	2217	2.95	0.12	0
94	SLU 51	5	-75	2217	2.66	6.9	-0.01
94	SLU 52	8	-113	2735	3.77	11.48	-0.01
94	SLU 53	0	-123	2736	4.27	0.17	0
94	SLU 54	5	-117	2735	3.97	6.96	-0.01
94	SLU 55	8	-113	2735	3.77	11.48	-0.01
94	SLU 56	0	-123	2736	4.27	0.17	0
94	SLU 57	5	-117	2735	3.97	6.96	-0.01
94	SLU 58	0	-123	2736	4.27	0.17	0
94	SLU 59	5	-117	2735	3.97	6.96	-0.01
94	SLU 60	0	-141	2958	4.83	0.19	0
94	SLU 61	5	-135	2957	4.54	6.98	-0.01
94	SLU 62	0	-141	2958	4.83	0.19	0
94	SLU 63	5	-135	2957	4.54	6.98	-0.01
94	SLU 64	0	-98	2428	3.49	0.14	0
94	SLU 65	8	-87	2427	2.99	11.45	-0.01
94	SLU 66	0	-98	2428	3.49	0.14	0
94	SLU 67	5	-92	2427	3.19	6.93	-0.01
94	SLU 68	8	-87	2427	2.99	11.45	-0.01
94	SLU 69	0	-98	2428	3.49	0.14	0
94	SLU 70	5	-92	2427	3.19	6.93	-0.01
94	SLU 71	0	-98	2428	3.49	0.14	0
94	SLU 72	5	-92	2427	3.19	6.93	-0.01
94	SLU 73	8	-130	2945	4.31	11.5	-0.01
94	SLU 74	0	-140	2946	4.8	0.19	0
94	SLU 75	5	-134	2946	4.51	6.98	-0.01
94	SLU 76	8	-130	2945	4.31	11.5	-0.01
94	SLU 77	0	-140	2946	4.8	0.19	0
94	SLU 78	5	-134	2946	4.51	6.98	-0.01
94	SLU 79	0	-140	2946	4.8	0.19	0
94	SLU 80	5	-134	2946	4.51	6.98	-0.01
94	SLU 81	0	-158	3168	5.37	0.21	0
94	SLU 82	5	-152	3168	5.07	7	-0.01
94	SLU 83	0	-158	3168	5.37	0.21	0
94	SLU 84	5	-152	3168	5.07	7	-0.01
94	SLE RA 1	0	-71	1821	2.56	0.1	0
94	SLE RA 2	5	-65	1821	2.23	7.64	-0.01
94	SLE RA 3	0	-71	1821	2.56	0.1	0
94	SLE RA 4	3	-67	1821	2.37	4.63	-0.01
94	SLE RA 5	5	-65	1821	2.23	7.64	-0.01
94	SLE RA 6	0	-71	1821	2.56	0.1	0
94	SLE RA 7	3	-67	1821	2.37	4.63	-0.01
94	SLE RA 8	0	-71	1821	2.56	0.1	0
94	SLE RA 9	3	-67	1821	2.37	4.63	-0.01
94	SLE RA 10	5	-93	2166	3.11	7.68	-0.01
94	SLE RA 11	0	-100	2167	3.44	0.14	0
94	SLE RA 12	3	-95	2166	3.24	4.66	-0.01
94	SLE RA 13	5	-93	2166	3.11	7.68	-0.01
94	SLE RA 14	0	-100	2167	3.44	0.14	0
94	SLE RA 15	3	-95	2166	3.24	4.66	-0.01
94	SLE RA 16	0	-100	2167	3.44	0.14	0
94	SLE RA 17	3	-95	2166	3.24	4.66	-0.01
94	SLE RA 18	0	-112	2315	3.82	0.15	0
94	SLE RA 19	3	-107	2315	3.62	4.68	-0.01
94	SLE RA 20	0	-112	2315	3.82	0.15	0
94	SLE RA 21	3	-107	2315	3.62	4.68	-0.01
94	SLE FR 1	0	-71	1821	2.56	0.1	0
94	SLE FR 2	1	-70	1821	2.5	1.61	0
94	SLE FR 3	0	-71	1821	2.56	0.1	0
94	SLE FR 4	1	-82	1969	2.87	1.62	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
94	SLE FR 5	0	-84	1969	2.94	0.12	0
94	SLE FR 6	0	-92	2068	3.19	0.13	0
94	SLE QP 1	0	-71	1821	2.56	0.1	0
94	SLE QP 2	0	-84	1969	2.94	0.12	0
94	SLD 1	20	-44	1975	1.46	22.62	0.02
94	SLD 2	20	-44	1975	1.46	22.62	0.02
94	SLD 3	15	-88	1999	3.19	16.38	0.03
94	SLD 4	15	-88	1999	3.19	16.38	0.03
94	SLD 5	14	-4	1935	-0.11	16.33	-0.01
94	SLD 6	14	-4	1935	-0.11	16.33	-0.01
94	SLD 7	-4	-152	2015	5.63	-4.47	0.02
94	SLD 8	-4	-152	2015	5.63	-4.47	0.02
94	SLD 9	4	-15	1924	0.25	4.7	-0.02
94	SLD 10	4	-15	1924	0.25	4.7	-0.02
94	SLD 11	-14	-163	2004	6	-16.1	0.01
94	SLD 12	-14	-163	2004	6	-16.1	0.01
94	SLD 13	-15	-79	1939	2.69	-16.15	-0.03
94	SLD 14	-15	-79	1939	2.69	-16.15	-0.03
94	SLD 15	-20	-123	1963	4.42	-22.39	-0.02
94	SLD 16	-20	-123	1963	4.42	-22.39	-0.02
94	SLV 1	50	10	1979	-0.61	56.07	0.05
94	SLV 2	50	10	1979	-0.61	56.07	0.05
94	SLV 3	36	-95	2047	3.6	40.14	0.07
94	SLV 4	36	-95	2047	3.6	40.14	0.07
94	SLV 5	36	104	1868	-4.5	41.06	-0.02
94	SLV 6	36	104	1868	-4.5	41.06	-0.02
94	SLV 7	-11	-246	2097	9.52	-12.03	0.06
94	SLV 8	-11	-246	2097	9.52	-12.03	0.06
94	SLV 9	11	79	1841	-3.64	12.26	-0.06
94	SLV 10	11	79	1841	-3.64	12.26	-0.06
94	SLV 11	-36	-271	2071	10.38	-40.82	0.02
94	SLV 12	-36	-271	2071	10.38	-40.82	0.02
94	SLV 13	-35	-72	1891	2.28	-39.91	-0.07
94	SLV 14	-35	-72	1891	2.28	-39.91	-0.07
94	SLV 15	-50	-177	1960	6.49	-55.83	-0.05
94	SLV 16	-50	-177	1960	6.49	-55.83	-0.05
95	SLU 1	0	-171	1753	6.09	-0.03	0
95	SLU 2	0	-131	1768	4.51	-0.08	0
95	SLU 3	0	-171	1753	6.09	-0.03	0
95	SLU 4	0	-147	1762	5.14	-0.06	0
95	SLU 5	0	-131	1768	4.51	-0.08	0
95	SLU 6	0	-171	1753	6.09	-0.03	0
95	SLU 7	0	-147	1762	5.14	-0.06	0
95	SLU 8	0	-171	1753	6.09	-0.03	0
95	SLU 9	0	-147	1762	5.14	-0.06	0
95	SLU 10	0	-340	2702	11.9	-0.11	0
95	SLU 11	0	-380	2687	13.47	-0.06	0
95	SLU 12	0	-356	2696	12.53	-0.09	0
95	SLU 13	0	-340	2702	11.9	-0.11	0
95	SLU 14	0	-380	2687	13.47	-0.06	0
95	SLU 15	0	-356	2696	12.53	-0.09	0
95	SLU 16	0	-380	2687	13.47	-0.06	0
95	SLU 17	0	-356	2696	12.53	-0.09	0
95	SLU 18	0	-470	3087	16.63	-0.08	0
95	SLU 19	0	-446	3096	15.69	-0.11	0
95	SLU 20	0	-470	3087	16.63	-0.08	0
95	SLU 21	0	-446	3096	15.69	-0.11	0
95	SLU 22	0	-258	2173	9.17	-0.04	0
95	SLU 23	0	-218	2188	7.59	-0.09	0
95	SLU 24	0	-258	2173	9.17	-0.04	0
95	SLU 25	0	-234	2182	8.22	-0.07	0
95	SLU 26	0	-218	2188	7.59	-0.09	0
95	SLU 27	0	-258	2173	9.17	-0.04	0
95	SLU 28	0	-234	2182	8.22	-0.07	0
95	SLU 29	0	-258	2173	9.17	-0.04	0
95	SLU 30	0	-234	2182	8.22	-0.07	0
95	SLU 31	0	-428	3121	14.97	-0.13	0
95	SLU 32	0	-467	3107	16.55	-0.07	0
95	SLU 33	0	-444	3115	15.6	-0.11	0
95	SLU 34	0	-428	3121	14.97	-0.13	0
95	SLU 35	0	-467	3107	16.55	-0.07	0
95	SLU 36	0	-444	3115	15.6	-0.11	0
95	SLU 37	0	-467	3107	16.55	-0.07	0
95	SLU 38	0	-444	3115	15.6	-0.11	0
95	SLU 39	0	-557	3507	19.71	-0.09	0
95	SLU 40	0	-533	3516	18.77	-0.12	0
95	SLU 41	0	-557	3507	19.71	-0.09	0
95	SLU 42	0	-533	3516	18.77	-0.12	0
95	SLU 43	0	-192	2135	6.86	-0.03	0
95	SLU 44	0	-152	2150	5.28	-0.08	0
95	SLU 45	0	-192	2135	6.86	-0.03	0
95	SLU 46	0	-168	2144	5.91	-0.06	0
95	SLU 47	0	-152	2150	5.28	-0.08	0
95	SLU 48	0	-192	2135	6.86	-0.03	0
95	SLU 49	0	-168	2144	5.91	-0.06	0
95	SLU 50	0	-192	2135	6.86	-0.03	0
95	SLU 51	0	-168	2144	5.91	-0.06	0
95	SLU 52	0	-362	3084	12.67	-0.12	0
95	SLU 53	0	-401	3069	14.24	-0.06	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
95	SLU 54	0	-377	3078	13.3	-0.09	0
95	SLU 55	0	-362	3084	12.67	-0.12	0
95	SLU 56	0	-401	3069	14.24	-0.06	0
95	SLU 57	0	-377	3078	13.3	-0.09	0
95	SLU 58	0	-401	3069	14.24	-0.06	0
95	SLU 59	0	-377	3078	13.3	-0.09	0
95	SLU 60	0	-491	3469	17.4	-0.08	0
95	SLU 61	0	-467	3478	16.46	-0.11	0
95	SLU 62	0	-491	3469	17.4	-0.08	0
95	SLU 63	0	-467	3478	16.46	-0.11	0
95	SLU 64	0	-280	2555	9.94	-0.04	0
95	SLU 65	0	-240	2570	8.36	-0.09	0
95	SLU 66	0	-280	2555	9.94	-0.04	0
95	SLU 67	0	-256	2564	8.99	-0.07	0
95	SLU 68	0	-240	2570	8.36	-0.09	0
95	SLU 69	0	-280	2555	9.94	-0.04	0
95	SLU 70	0	-256	2564	8.99	-0.07	0
95	SLU 71	0	-280	2555	9.94	-0.04	0
95	SLU 72	0	-256	2564	8.99	-0.07	0
95	SLU 73	0	-449	3503	15.75	-0.13	0
95	SLU 74	0	-489	3489	17.32	-0.08	0
95	SLU 75	0	-465	3497	16.38	-0.11	0
95	SLU 76	0	-449	3503	15.75	-0.13	0
95	SLU 77	0	-489	3489	17.32	-0.08	0
95	SLU 78	0	-465	3497	16.38	-0.11	0
95	SLU 79	0	-489	3489	17.32	-0.08	0
95	SLU 80	0	-465	3497	16.38	-0.11	0
95	SLU 81	0	-578	3889	20.48	-0.09	0
95	SLU 82	0	-554	3898	19.54	-0.12	0
95	SLU 83	0	-578	3889	20.48	-0.09	0
95	SLU 84	0	-554	3898	19.54	-0.12	0
95	SLE RA 1	0	-196	1873	6.97	-0.03	0
95	SLE RA 2	0	-169	1883	5.92	-0.06	0
95	SLE RA 3	0	-196	1873	6.97	-0.03	0
95	SLE RA 4	0	-180	1879	6.34	-0.05	0
95	SLE RA 5	0	-169	1883	5.92	-0.06	0
95	SLE RA 6	0	-196	1873	6.97	-0.03	0
95	SLE RA 7	0	-180	1879	6.34	-0.05	0
95	SLE RA 8	0	-196	1873	6.97	-0.03	0
95	SLE RA 9	0	-180	1879	6.34	-0.05	0
95	SLE RA 10	0	-309	2505	10.84	-0.09	0
95	SLE RA 11	0	-335	2496	11.89	-0.05	0
95	SLE RA 12	0	-319	2501	11.26	-0.07	0
95	SLE RA 13	0	-309	2505	10.84	-0.09	0
95	SLE RA 14	0	-335	2496	11.89	-0.05	0
95	SLE RA 15	0	-319	2501	11.26	-0.07	0
95	SLE RA 16	0	-335	2496	11.89	-0.05	0
95	SLE RA 17	0	-319	2501	11.26	-0.07	0
95	SLE RA 18	0	-395	2762	14	-0.06	0
95	SLE RA 19	0	-379	2768	13.37	-0.08	0
95	SLE RA 20	0	-395	2762	14	-0.06	0
95	SLE RA 21	0	-379	2768	13.37	-0.08	0
95	SLE FR 1	0	-196	1873	6.97	-0.03	0
95	SLE FR 2	0	-191	1875	6.76	-0.04	0
95	SLE FR 3	0	-196	1873	6.97	-0.03	0
95	SLE FR 4	0	-250	2142	8.87	-0.05	0
95	SLE FR 5	0	-256	2140	9.08	-0.04	0
95	SLE FR 6	0	-295	2318	10.48	-0.05	0
95	SLE QP 1	0	-196	1873	6.97	-0.03	0
95	SLE QP 2	0	-256	2140	9.08	-0.04	0
95	SLD 1	19	-138	2040	4.47	21.78	0
95	SLD 2	19	-138	2040	4.47	21.78	0
95	SLD 3	18	-287	2062	10.54	19.83	0
95	SLD 4	18	-287	2062	10.54	19.83	0
95	SLD 5	9	5	2076	-1.52	9.47	0
95	SLD 6	9	5	2076	-1.52	9.47	0
95	SLD 7	3	-490	2150	18.73	2.96	0
95	SLD 8	3	-490	2150	18.73	2.96	0
95	SLD 9	-2	-21	2130	-0.57	-3.04	0
95	SLD 10	-2	-21	2130	-0.57	-3.04	0
95	SLD 11	-9	-516	2204	19.67	-9.55	0
95	SLD 12	-9	-516	2204	19.67	-9.55	0
95	SLD 13	-18	-224	2218	7.62	-19.9	0
95	SLD 14	-18	-224	2218	7.62	-19.9	0
95	SLD 15	-19	-373	2240	13.69	-21.86	0
95	SLD 16	-19	-373	2240	13.69	-21.86	0
95	SLV 1	50	39	1856	-2.43	56.15	0
95	SLV 2	50	39	1856	-2.43	56.15	0
95	SLV 3	45	-304	1915	11.59	50.75	0.01
95	SLV 4	45	-304	1915	11.59	50.75	0.01
95	SLV 5	22	353	1965	-15.63	25.01	0
95	SLV 6	22	353	1965	-15.63	25.01	0
95	SLV 7	7	-790	2162	31.08	7.01	0
95	SLV 8	7	-790	2162	31.08	7.01	0
95	SLV 9	-7	279	2118	-12.93	-7.08	0
95	SLV 10	-7	279	2118	-12.93	-7.08	0
95	SLV 11	-22	-864	2315	33.78	-25.09	0
95	SLV 12	-22	-864	2315	33.78	-25.09	0
95	SLV 13	-45	-207	2365	6.57	-50.83	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
95	SLV 14	-45	-207	2365	6.57	-50.83	-0.01
95	SLV 15	-50	-550	2424	20.58	-56.23	0
95	SLV 16	-50	-550	2424	20.58	-56.23	0
96	SLU 1	0	51	798	-1.03	0	0
96	SLU 2	-6	94	910	-1.11	-6.06	0
96	SLU 3	0	51	798	-1.03	0	0
96	SLU 4	-4	76	865	-1.08	-3.64	0
96	SLU 5	-6	94	910	-1.11	-6.06	0
96	SLU 6	0	51	798	-1.03	0	0
96	SLU 7	-4	76	865	-1.08	-3.64	0
96	SLU 8	0	51	798	-1.03	0	0
96	SLU 9	-4	76	865	-1.08	-3.64	0
96	SLU 10	-6	96	911	-1.08	-6.06	0
96	SLU 11	0	53	798	-1	0	0
96	SLU 12	-4	79	866	-1.05	-3.63	0
96	SLU 13	-6	96	911	-1.08	-6.06	0
96	SLU 14	0	53	798	-1	0	0
96	SLU 15	-4	79	866	-1.05	-3.63	0
96	SLU 16	0	53	798	-1	0	0
96	SLU 17	-4	79	866	-1.05	-3.63	0
96	SLU 18	0	54	798	-0.98	0.01	0
96	SLU 19	-4	80	866	-1.03	-3.63	0
96	SLU 20	0	54	798	-0.98	0.01	0
96	SLU 21	-4	80	866	-1.03	-3.63	0
96	SLU 22	0	52	798	-1.01	0.01	0
96	SLU 23	-6	96	910	-1.09	-6.06	0
96	SLU 24	0	52	798	-1.01	0.01	0
96	SLU 25	-4	78	865	-1.06	-3.63	0
96	SLU 26	-6	96	910	-1.09	-6.06	0
96	SLU 27	0	52	798	-1.01	0.01	0
96	SLU 28	-4	78	865	-1.06	-3.63	0
96	SLU 29	0	52	798	-1.01	0.01	0
96	SLU 30	-4	78	865	-1.06	-3.63	0
96	SLU 31	-6	98	911	-1.06	-6.06	0
96	SLU 32	0	55	798	-0.97	0.01	0
96	SLU 33	-4	81	866	-1.03	-3.63	0
96	SLU 34	-6	98	911	-1.06	-6.06	0
96	SLU 35	0	55	798	-0.97	0.01	0
96	SLU 36	-4	81	866	-1.03	-3.63	0
96	SLU 37	0	55	798	-0.97	0.01	0
96	SLU 38	-4	81	866	-1.03	-3.63	0
96	SLU 39	0	56	798	-0.96	0.01	0
96	SLU 40	-4	82	866	-1.01	-3.63	0
96	SLU 41	0	56	798	-0.96	0.01	0
96	SLU 42	-4	82	866	-1.01	-3.63	0
96	SLU 43	0	65	1037	-1.34	0	0
96	SLU 44	-6	108	1150	-1.43	-6.06	0
96	SLU 45	0	65	1037	-1.34	0	0
96	SLU 46	-4	91	1105	-1.39	-3.64	0
96	SLU 47	-6	108	1150	-1.43	-6.06	0
96	SLU 48	0	65	1037	-1.34	0	0
96	SLU 49	-4	91	1105	-1.39	-3.64	0
96	SLU 50	0	65	1037	-1.34	0	0
96	SLU 51	-4	91	1105	-1.39	-3.64	0
96	SLU 52	-6	111	1150	-1.4	-6.06	0
96	SLU 53	0	68	1037	-1.31	0.01	0
96	SLU 54	-4	94	1105	-1.36	-3.63	0
96	SLU 55	-6	111	1150	-1.4	-6.06	0
96	SLU 56	0	68	1037	-1.31	0.01	0
96	SLU 57	-4	94	1105	-1.36	-3.63	0
96	SLU 58	0	68	1037	-1.31	0.01	0
96	SLU 59	-4	94	1105	-1.36	-3.63	0
96	SLU 60	0	69	1038	-1.3	0.01	0
96	SLU 61	-4	95	1105	-1.35	-3.63	0
96	SLU 62	0	69	1038	-1.3	0.01	0
96	SLU 63	-4	95	1105	-1.35	-3.63	0
96	SLU 64	0	67	1037	-1.32	0.01	0
96	SLU 65	-6	110	1150	-1.41	-6.06	0
96	SLU 66	0	67	1037	-1.32	0.01	0
96	SLU 67	-4	93	1105	-1.37	-3.63	0
96	SLU 68	-6	110	1150	-1.41	-6.06	0
96	SLU 69	0	67	1037	-1.32	0.01	0
96	SLU 70	-4	93	1105	-1.37	-3.63	0
96	SLU 71	0	67	1037	-1.32	0.01	0
96	SLU 72	-4	93	1105	-1.37	-3.63	0
96	SLU 73	-6	113	1150	-1.38	-6.06	0
96	SLU 74	0	70	1037	-1.29	0.01	0
96	SLU 75	-4	96	1105	-1.34	-3.63	0
96	SLU 76	-6	113	1150	-1.38	-6.06	0
96	SLU 77	0	70	1037	-1.29	0.01	0
96	SLU 78	-4	96	1105	-1.34	-3.63	0
96	SLU 79	0	70	1037	-1.29	0.01	0
96	SLU 80	-4	96	1105	-1.34	-3.63	0
96	SLU 81	0	71	1038	-1.28	0.01	0
96	SLU 82	-4	97	1105	-1.33	-3.63	0
96	SLU 83	0	71	1038	-1.28	0.01	0
96	SLU 84	-4	97	1105	-1.33	-3.63	0
96	SLE RA 1	0	51	798	-1.02	0	0
96	SLE RA 2	-4	80	873	-1.08	-4.04	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
96	SLE RA 3	0	51	798	-1.02	0	0
96	SLE RA 4	-2	68	843	-1.06	-2.42	0
96	SLE RA 5	-4	80	873	-1.08	-4.04	0
96	SLE RA 6	0	51	798	-1.02	0	0
96	SLE RA 7	-2	68	843	-1.06	-2.42	0
96	SLE RA 8	0	51	798	-1.02	0	0
96	SLE RA 9	-2	68	843	-1.06	-2.42	0
96	SLE RA 10	-4	82	873	-1.06	-4.04	0
96	SLE RA 11	0	53	798	-1	0	0
96	SLE RA 12	-2	70	843	-1.03	-2.42	0
96	SLE RA 13	-4	82	873	-1.06	-4.04	0
96	SLE RA 14	0	53	798	-1	0	0
96	SLE RA 15	-2	70	843	-1.03	-2.42	0
96	SLE RA 16	0	53	798	-1	0	0
96	SLE RA 17	-2	70	843	-1.03	-2.42	0
96	SLE RA 18	0	54	798	-0.99	0.01	0
96	SLE RA 19	-2	71	843	-1.03	-2.42	0
96	SLE RA 20	0	54	798	-0.99	0.01	0
96	SLE RA 21	-2	71	843	-1.03	-2.42	0
96	SLE FR 1	0	51	798	-1.02	0	0
96	SLE FR 2	-1	57	813	-1.03	-0.8	0
96	SLE FR 3	0	51	798	-1.02	0	0
96	SLE FR 4	-1	58	813	-1.02	-0.8	0
96	SLE FR 5	0	52	798	-1.01	0	0
96	SLE FR 6	0	52	798	-1.01	0	0
96	SLE QP 1	0	51	798	-1.02	0	0
96	SLE QP 2	0	52	798	-1.01	0	0
96	SLD 1	-15	101	876	-2.75	-22.12	0.01
96	SLD 2	-15	101	876	-2.75	-22.12	0.01
96	SLD 3	-8	49	797	-0.94	-13.23	0.01
96	SLD 4	-8	49	797	-0.94	-13.23	0.01
96	SLD 5	-15	145	940	-4.27	-20.12	0.01
96	SLD 6	-15	145	940	-4.27	-20.12	0.01
96	SLD 7	8	-28	679	1.75	9.52	0
96	SLD 8	8	-28	679	1.75	9.52	0
96	SLD 9	-8	131	917	-3.77	-9.51	0
96	SLD 10	-8	131	917	-3.77	-9.51	0
96	SLD 11	15	-41	656	2.24	20.12	-0.01
96	SLD 12	15	-41	656	2.24	20.12	-0.01
96	SLD 13	8	55	799	-1.08	13.24	-0.01
96	SLD 14	8	55	799	-1.08	13.24	-0.01
96	SLD 15	15	3	720	0.72	22.13	-0.01
96	SLD 16	15	3	720	0.72	22.13	-0.01
96	SLV 1	-35	172	992	-5.21	-52.43	0.03
96	SLV 2	-35	172	992	-5.21	-52.43	0.03
96	SLV 3	-18	47	799	-0.9	-30.68	0.02
96	SLV 4	-18	47	799	-0.9	-30.68	0.02
96	SLV 5	-37	278	1148	-8.81	-48.71	0.02
96	SLV 6	-37	278	1148	-8.81	-48.71	0.02
96	SLV 7	21	-140	506	5.56	23.78	-0.01
96	SLV 8	21	-140	506	5.56	23.78	-0.01
96	SLV 9	-21	243	1090	-7.58	-23.77	0.01
96	SLV 10	-21	243	1090	-7.58	-23.77	0.01
96	SLV 11	37	-174	448	6.78	48.71	-0.02
96	SLV 12	37	-174	448	6.78	48.71	-0.02
96	SLV 13	18	57	797	-1.12	30.69	-0.02
96	SLV 14	18	57	797	-1.12	30.69	-0.02
96	SLV 15	35	-68	604	3.19	52.44	-0.03
96	SLV 16	35	-68	604	3.19	52.44	-0.03
97	SLU 1	0	-177	2032	6.33	0.05	0
97	SLU 2	-3	-172	2036	6.49	-3.38	0
97	SLU 3	0	-177	2032	6.33	0.05	0
97	SLU 4	-2	-174	2034	6.42	-2.01	0
97	SLU 5	-3	-172	2036	6.49	-3.38	0
97	SLU 6	0	-177	2032	6.33	0.05	0
97	SLU 7	-2	-174	2034	6.42	-2.01	0
97	SLU 8	0	-177	2032	6.33	0.05	0
97	SLU 9	-2	-174	2034	6.42	-2.01	0
97	SLU 10	-3	-228	2429	8.46	-3.13	0
97	SLU 11	0	-233	2425	8.3	0.3	0
97	SLU 12	-2	-230	2428	8.39	-1.76	0
97	SLU 13	-3	-228	2429	8.46	-3.13	0
97	SLU 14	0	-233	2425	8.3	0.3	0
97	SLU 15	-2	-230	2428	8.39	-1.76	0
97	SLU 16	0	-233	2425	8.3	0.3	0
97	SLU 17	-2	-230	2428	8.39	-1.76	0
97	SLU 18	0	-257	2594	9.14	0.4	0
97	SLU 19	-2	-254	2596	9.24	-1.66	0
97	SLU 20	0	-257	2594	9.14	0.4	0
97	SLU 21	-2	-254	2596	9.24	-1.66	0
97	SLU 22	0	-205	2233	7.33	0.14	0
97	SLU 23	-3	-200	2237	7.49	-3.29	0
97	SLU 24	0	-205	2233	7.33	0.14	0
97	SLU 25	-2	-202	2236	7.42	-1.92	0
97	SLU 26	-3	-200	2237	7.49	-3.29	0
97	SLU 27	0	-205	2233	7.33	0.14	0
97	SLU 28	-2	-202	2236	7.42	-1.92	0
97	SLU 29	0	-205	2233	7.33	0.14	0
97	SLU 30	-2	-202	2236	7.42	-1.92	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
97	SLU 31	-3	-256	2631	9.46	-3.04	0
97	SLU 32	0	-261	2627	9.3	0.39	0
97	SLU 33	-2	-258	2629	9.39	-1.67	0
97	SLU 34	-3	-256	2631	9.46	-3.04	0
97	SLU 35	0	-261	2627	9.3	0.39	0
97	SLU 36	-2	-258	2629	9.39	-1.67	0
97	SLU 37	0	-261	2627	9.3	0.39	0
97	SLU 38	-2	-258	2629	9.39	-1.67	0
97	SLU 39	0	-285	2795	10.14	0.5	0
97	SLU 40	-2	-282	2798	10.24	-1.56	0
97	SLU 41	0	-285	2795	10.14	0.5	0
97	SLU 42	-2	-282	2798	10.24	-1.56	0
97	SLU 43	0	-220	2572	7.88	0.03	0
97	SLU 44	-3	-215	2576	8.04	-3.4	0
97	SLU 45	0	-220	2572	7.88	0.03	0
97	SLU 46	-2	-217	2575	7.98	-2.03	0
97	SLU 47	-3	-215	2576	8.04	-3.4	0
97	SLU 48	0	-220	2572	7.88	0.03	0
97	SLU 49	-2	-217	2575	7.98	-2.03	0
97	SLU 50	0	-220	2572	7.88	0.03	0
97	SLU 51	-2	-217	2575	7.98	-2.03	0
97	SLU 52	-3	-271	2970	10.01	-3.15	0
97	SLU 53	0	-276	2966	9.85	0.28	0
97	SLU 54	-2	-273	2968	9.95	-1.78	0
97	SLU 55	-3	-271	2970	10.01	-3.15	0
97	SLU 56	0	-276	2966	9.85	0.28	0
97	SLU 57	-2	-273	2968	9.95	-1.78	0
97	SLU 58	0	-276	2966	9.85	0.28	0
97	SLU 59	-2	-273	2968	9.95	-1.78	0
97	SLU 60	0	-300	3134	10.7	0.38	0
97	SLU 61	-2	-297	3137	10.79	-1.67	0
97	SLU 62	0	-300	3134	10.7	0.38	0
97	SLU 63	-2	-297	3137	10.79	-1.67	0
97	SLU 64	0	-248	2774	8.88	0.12	0
97	SLU 65	-3	-243	2778	9.04	-3.31	0
97	SLU 66	0	-248	2774	8.88	0.12	0
97	SLU 67	-2	-245	2776	8.98	-1.93	0
97	SLU 68	-3	-243	2778	9.04	-3.31	0
97	SLU 69	0	-248	2774	8.88	0.12	0
97	SLU 70	-2	-245	2776	8.98	-1.93	0
97	SLU 71	0	-248	2774	8.88	0.12	0
97	SLU 72	-2	-245	2776	8.98	-1.93	0
97	SLU 73	-3	-300	3171	11.01	-3.06	0
97	SLU 74	0	-305	3167	10.85	0.37	0
97	SLU 75	-2	-302	3170	10.95	-1.69	0
97	SLU 76	-3	-300	3171	11.01	-3.06	0
97	SLU 77	0	-305	3167	10.85	0.37	0
97	SLU 78	-2	-302	3170	10.95	-1.69	0
97	SLU 79	0	-305	3167	10.85	0.37	0
97	SLU 80	-2	-302	3170	10.95	-1.69	0
97	SLU 81	0	-329	3336	11.7	0.48	0
97	SLU 82	-2	-326	3338	11.79	-1.58	0
97	SLU 83	0	-329	3336	11.7	0.48	0
97	SLU 84	-2	-326	3338	11.79	-1.58	0
97	SLE RA 1	0	-185	2089	6.61	0.07	0
97	SLE RA 2	-2	-181	2092	6.72	-2.21	0
97	SLE RA 3	0	-185	2089	6.61	0.07	0
97	SLE RA 4	-1	-183	2091	6.68	-1.3	0
97	SLE RA 5	-2	-181	2092	6.72	-2.21	0
97	SLE RA 6	0	-185	2089	6.61	0.07	0
97	SLE RA 7	-1	-183	2091	6.68	-1.3	0
97	SLE RA 8	0	-185	2089	6.61	0.07	0
97	SLE RA 9	-1	-183	2091	6.68	-1.3	0
97	SLE RA 10	-2	-219	2354	8.03	-2.05	0
97	SLE RA 11	0	-222	2352	7.93	0.24	0
97	SLE RA 12	-1	-220	2353	7.99	-1.13	0
97	SLE RA 13	-2	-219	2354	8.03	-2.05	0
97	SLE RA 14	0	-222	2352	7.93	0.24	0
97	SLE RA 15	-1	-220	2353	7.99	-1.13	0
97	SLE RA 16	0	-222	2352	7.93	0.24	0
97	SLE RA 17	-1	-220	2353	7.99	-1.13	0
97	SLE RA 18	0	-238	2464	8.49	0.31	0
97	SLE RA 19	-1	-236	2466	8.55	-1.06	0
97	SLE RA 20	0	-238	2464	8.49	0.31	0
97	SLE RA 21	-1	-236	2466	8.55	-1.06	0
97	SLE FR 1	0	-185	2089	6.61	0.07	0
97	SLE FR 2	-1	-184	2090	6.64	-0.38	0
97	SLE FR 3	0	-185	2089	6.61	0.07	0
97	SLE FR 4	-1	-200	2202	7.2	-0.31	0
97	SLE FR 5	0	-201	2202	7.18	0.15	0
97	SLE FR 6	0	-211	2277	7.55	0.19	0
97	SLE QP 1	0	-185	2089	6.61	0.07	0
97	SLE QP 2	0	-201	2202	7.18	0.15	0
97	SLD 1	-23	-200	2225	9.42	33.57	0.01
97	SLD 2	-23	-200	2225	9.42	33.57	0.01
97	SLD 3	-18	-259	2212	7.18	38.47	0.01
97	SLD 4	-18	-259	2212	7.18	38.47	0.01
97	SLD 5	-14	-112	2229	11.26	2.74	0.01
97	SLD 6	-14	-112	2229	11.26	2.74	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
97	SLD 7	2	-307	2185	3.77	19.07	0
97	SLD 8	2	-307	2185	3.77	19.07	0
97	SLD 9	-2	-94	2218	10.58	-18.78	0
97	SLD 10	-2	-94	2218	10.58	-18.78	0
97	SLD 11	14	-290	2175	3.1	-2.45	-0.01
97	SLD 12	14	-290	2175	3.1	-2.45	-0.01
97	SLD 13	18	-142	2191	7.18	-38.18	-0.01
97	SLD 14	18	-142	2191	7.18	-38.18	-0.01
97	SLD 15	23	-201	2178	4.93	-33.28	-0.01
97	SLD 16	23	-201	2178	4.93	-33.28	-0.01
97	SLV 1	-57	-202	2258	12.65	84.91	0.02
97	SLV 2	-57	-202	2258	12.65	84.91	0.02
97	SLV 3	-44	-340	2227	7.29	97.37	0.01
97	SLV 4	-44	-340	2227	7.29	97.37	0.01
97	SLV 5	-36	8	2266	16.95	6.68	0.01
97	SLV 6	-36	8	2266	16.95	6.68	0.01
97	SLV 7	6	-451	2162	-0.92	48.21	0
97	SLV 8	6	-451	2162	-0.92	48.21	0
97	SLV 9	-6	50	2241	15.27	-47.92	0
97	SLV 10	-6	50	2241	15.27	-47.92	0
97	SLV 11	36	-409	2137	-2.59	-6.39	-0.01
97	SLV 12	36	-409	2137	-2.59	-6.39	-0.01
97	SLV 13	44	-62	2176	7.07	-97.08	-0.01
97	SLV 14	44	-62	2176	7.07	-97.08	-0.01
97	SLV 15	57	-200	2145	1.71	-84.62	-0.02
97	SLV 16	57	-200	2145	1.71	-84.62	-0.02
98	SLU 1	0	-96	1809	3.79	0.13	0
98	SLU 2	9	-85	1795	3.36	11.44	-0.01
98	SLU 3	0	-96	1809	3.79	0.13	0
98	SLU 4	6	-90	1801	3.53	6.91	-0.01
98	SLU 5	9	-85	1795	3.36	11.44	-0.01
98	SLU 6	0	-96	1809	3.79	0.13	0
98	SLU 7	6	-90	1801	3.53	6.91	-0.01
98	SLU 8	0	-96	1809	3.79	0.13	0
98	SLU 9	6	-90	1801	3.53	6.91	-0.01
98	SLU 10	9	-147	2305	5.63	11.49	-0.01
98	SLU 11	0	-158	2319	6.06	0.17	0
98	SLU 12	6	-151	2311	5.8	6.96	-0.01
98	SLU 13	9	-147	2305	5.63	11.49	-0.01
98	SLU 14	0	-158	2319	6.06	0.17	0
98	SLU 15	6	-151	2311	5.8	6.96	-0.01
98	SLU 16	0	-158	2319	6.06	0.17	0
98	SLU 17	6	-151	2311	5.8	6.96	-0.01
98	SLU 18	0	-184	2538	7.04	0.19	0
98	SLU 19	6	-177	2529	6.78	6.98	-0.01
98	SLU 20	0	-184	2538	7.04	0.19	0
98	SLU 21	6	-177	2529	6.78	6.98	-0.01
98	SLU 22	0	-119	2019	4.65	0.15	0
98	SLU 23	9	-108	2005	4.21	11.46	-0.01
98	SLU 24	0	-119	2019	4.65	0.15	0
98	SLU 25	6	-112	2011	4.39	6.93	-0.01
98	SLU 26	9	-108	2005	4.21	11.46	-0.01
98	SLU 27	0	-119	2019	4.65	0.15	0
98	SLU 28	6	-112	2011	4.39	6.93	-0.01
98	SLU 29	0	-119	2019	4.65	0.15	0
98	SLU 30	6	-112	2011	4.39	6.93	-0.01
98	SLU 31	9	-169	2515	6.48	11.51	-0.01
98	SLU 32	0	-180	2529	6.92	0.19	0
98	SLU 33	6	-174	2520	6.66	6.98	-0.01
98	SLU 34	9	-169	2515	6.48	11.51	-0.01
98	SLU 35	0	-180	2529	6.92	0.19	0
98	SLU 36	6	-174	2520	6.66	6.98	-0.01
98	SLU 37	0	-180	2529	6.92	0.19	0
98	SLU 38	6	-174	2520	6.66	6.98	-0.01
98	SLU 39	0	-206	2747	7.89	0.21	0
98	SLU 40	6	-200	2739	7.63	7	-0.01
98	SLU 41	0	-206	2747	7.89	0.21	0
98	SLU 42	6	-200	2739	7.63	7	-0.01
98	SLU 43	0	-117	2280	4.64	0.16	0
98	SLU 44	9	-106	2266	4.2	11.47	-0.01
98	SLU 45	0	-117	2280	4.64	0.16	0
98	SLU 46	6	-111	2272	4.38	6.94	-0.01
98	SLU 47	9	-106	2266	4.2	11.47	-0.01
98	SLU 48	0	-117	2280	4.64	0.16	0
98	SLU 49	6	-111	2272	4.38	6.94	-0.01
98	SLU 50	0	-117	2280	4.64	0.16	0
98	SLU 51	6	-111	2272	4.38	6.94	-0.01
98	SLU 52	9	-168	2776	6.47	11.52	-0.01
98	SLU 53	0	-179	2790	6.91	0.2	0
98	SLU 54	6	-172	2782	6.65	6.99	-0.01
98	SLU 55	9	-168	2776	6.47	11.52	-0.01
98	SLU 56	0	-179	2790	6.91	0.2	0
98	SLU 57	6	-172	2782	6.65	6.99	-0.01
98	SLU 58	0	-179	2790	6.91	0.2	0
98	SLU 59	6	-172	2782	6.65	6.99	-0.01
98	SLU 60	0	-205	3009	7.88	0.22	0
98	SLU 61	6	-198	3000	7.62	7.01	-0.01
98	SLU 62	0	-205	3009	7.88	0.22	0
98	SLU 63	6	-198	3000	7.62	7.01	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
98	SLU 64	0	-140	2490	5.49	0.18	0
98	SLU 65	9	-129	2476	5.06	11.49	-0.01
98	SLU 66	0	-140	2490	5.49	0.18	0
98	SLU 67	6	-133	2481	5.23	6.97	-0.01
98	SLU 68	9	-129	2476	5.06	11.49	-0.01
98	SLU 69	0	-140	2490	5.49	0.18	0
98	SLU 70	6	-133	2481	5.23	6.97	-0.01
98	SLU 71	0	-140	2490	5.49	0.18	0
98	SLU 72	6	-133	2481	5.23	6.97	-0.01
98	SLU 73	9	-190	2986	7.33	11.54	-0.01
98	SLU 74	0	-201	3000	7.76	0.22	0
98	SLU 75	6	-195	2991	7.5	7.01	-0.01
98	SLU 76	9	-190	2986	7.33	11.54	-0.01
98	SLU 77	0	-201	3000	7.76	0.22	0
98	SLU 78	6	-195	2991	7.5	7.01	-0.01
98	SLU 79	0	-201	3000	7.76	0.22	0
98	SLU 80	6	-195	2991	7.5	7.01	-0.01
98	SLU 81	0	-228	3218	8.73	0.24	0
98	SLU 82	6	-221	3210	8.47	7.03	-0.01
98	SLU 83	0	-228	3218	8.73	0.24	0
98	SLU 84	6	-221	3210	8.47	7.03	-0.01
98	SLE RA 1	0	-103	1869	4.04	0.13	0
98	SLE RA 2	6	-95	1860	3.75	7.67	-0.01
98	SLE RA 3	0	-103	1869	4.04	0.13	0
98	SLE RA 4	4	-98	1864	3.86	4.66	0
98	SLE RA 5	6	-95	1860	3.75	7.67	-0.01
98	SLE RA 6	0	-103	1869	4.04	0.13	0
98	SLE RA 7	4	-98	1864	3.86	4.66	0
98	SLE RA 8	0	-103	1869	4.04	0.13	0
98	SLE RA 9	4	-98	1864	3.86	4.66	0
98	SLE RA 10	6	-136	2200	5.26	7.7	-0.01
98	SLE RA 11	0	-144	2209	5.55	0.16	0
98	SLE RA 12	4	-139	2203	5.38	4.69	0
98	SLE RA 13	6	-136	2200	5.26	7.7	-0.01
98	SLE RA 14	0	-144	2209	5.55	0.16	0
98	SLE RA 15	4	-139	2203	5.38	4.69	0
98	SLE RA 16	0	-144	2209	5.55	0.16	0
98	SLE RA 17	4	-139	2203	5.38	4.69	0
98	SLE RA 18	0	-161	2355	6.2	0.18	0
98	SLE RA 19	4	-157	2349	6.03	4.7	0
98	SLE RA 20	0	-161	2355	6.2	0.18	0
98	SLE RA 21	4	-157	2349	6.03	4.7	0
98	SLE FR 1	0	-103	1869	4.04	0.13	0
98	SLE FR 2	1	-101	1867	3.98	1.64	0
98	SLE FR 3	0	-103	1869	4.04	0.13	0
98	SLE FR 4	1	-119	2013	4.63	1.65	0
98	SLE FR 5	0	-120	2015	4.68	0.15	0
98	SLE FR 6	0	-132	2112	5.12	0.15	0
98	SLE QP 1	0	-103	1869	4.04	0.13	0
98	SLE QP 2	0	-120	2015	4.68	0.15	0
98	SLD 1	-12	-79	2021	4.57	20.65	0.01
98	SLD 2	-12	-79	2021	4.57	20.65	0.01
98	SLD 3	-19	-123	2069	6.23	14.37	0.02
98	SLD 4	-19	-123	2069	6.23	14.37	0.02
98	SLD 5	7	-40	1944	2.13	15.82	-0.01
98	SLD 6	7	-40	1944	2.13	15.82	-0.01
98	SLD 7	-16	-189	2104	7.67	-5.11	0.02
98	SLD 8	-16	-189	2104	7.67	-5.11	0.02
98	SLD 9	16	-52	1926	1.7	5.4	-0.02
98	SLD 10	16	-52	1926	1.7	5.4	-0.02
98	SLD 11	-7	-200	2086	7.24	-15.53	0.01
98	SLD 12	-7	-200	2086	7.24	-15.53	0.01
98	SLD 13	19	-117	1961	3.14	-14.08	-0.02
98	SLD 14	19	-117	1961	3.14	-14.08	-0.02
98	SLD 15	12	-162	2009	4.8	-20.36	-0.01
98	SLD 16	12	-162	2009	4.8	-20.36	-0.01
98	SLV 1	-28	-22	2020	4.4	51.2	0.02
98	SLV 2	-28	-22	2020	4.4	51.2	0.02
98	SLV 3	-46	-128	2156	8.35	35.17	0.05
98	SLV 4	-46	-128	2156	8.35	35.17	0.05
98	SLV 5	19	69	1809	-1.38	39.77	-0.04
98	SLV 6	19	69	1809	-1.38	39.77	-0.04
98	SLV 7	-41	-283	2264	11.76	-13.66	0.06
98	SLV 8	-41	-283	2264	11.76	-13.66	0.06
98	SLV 9	41	42	1765	-2.4	13.95	-0.06
98	SLV 10	41	42	1765	-2.4	13.95	-0.06
98	SLV 11	-19	-310	2221	10.75	-39.48	0.04
98	SLV 12	-19	-310	2221	10.75	-39.48	0.04
98	SLV 13	46	-113	1873	1.02	-34.88	-0.05
98	SLV 14	46	-113	1873	1.02	-34.88	-0.05
98	SLV 15	28	-218	2010	4.97	-50.91	-0.02
98	SLV 16	28	-218	2010	4.97	-50.91	-0.02
99	SLU 1	0	-217	1639	7.86	-0.02	0
99	SLU 2	1	-174	1634	6.04	0.19	0
99	SLU 3	0	-217	1639	7.86	-0.02	0
99	SLU 4	0	-191	1636	6.77	0.11	0
99	SLU 5	1	-174	1634	6.04	0.19	0
99	SLU 6	0	-217	1639	7.86	-0.02	0
99	SLU 7	0	-191	1636	6.77	0.11	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
99	SLU 8	0	-217	1639	7.86	-0.02	0
99	SLU 9	0	-191	1636	6.77	0.11	0
99	SLU 10	1	-408	2413	14.38	0.17	0
99	SLU 11	0	-452	2419	16.2	-0.04	0
99	SLU 12	0	-426	2415	15.11	0.08	0
99	SLU 13	1	-408	2413	14.38	0.17	0
99	SLU 14	0	-452	2419	16.2	-0.04	0
99	SLU 15	0	-426	2415	15.11	0.08	0
99	SLU 16	0	-452	2419	16.2	-0.04	0
99	SLU 17	0	-426	2415	15.11	0.08	0
99	SLU 18	0	-552	2753	19.78	-0.05	0
99	SLU 19	0	-526	2749	18.68	0.07	0
99	SLU 20	0	-552	2753	19.78	-0.05	0
99	SLU 21	0	-526	2749	18.68	0.07	0
99	SLU 22	0	-316	1994	11.38	-0.03	0
99	SLU 23	1	-273	1988	9.56	0.18	0
99	SLU 24	0	-316	1994	11.38	-0.03	0
99	SLU 25	0	-290	1990	10.29	0.1	0
99	SLU 26	1	-273	1988	9.56	0.18	0
99	SLU 27	0	-316	1994	11.38	-0.03	0
99	SLU 28	0	-290	1990	10.29	0.1	0
99	SLU 29	0	-316	1994	11.38	-0.03	0
99	SLU 30	0	-290	1990	10.29	0.1	0
99	SLU 31	1	-507	2768	17.9	0.16	0
99	SLU 32	0	-551	2773	19.73	-0.05	0
99	SLU 33	0	-525	2770	18.63	0.07	0
99	SLU 34	1	-507	2768	17.9	0.16	0
99	SLU 35	0	-551	2773	19.73	-0.05	0
99	SLU 36	0	-525	2770	18.63	0.07	0
99	SLU 37	0	-551	2773	19.73	-0.05	0
99	SLU 38	0	-525	2770	18.63	0.07	0
99	SLU 39	0	-651	3107	23.3	-0.06	0
99	SLU 40	0	-625	3104	22.21	0.06	0
99	SLU 41	0	-651	3107	23.3	-0.06	0
99	SLU 42	0	-625	3104	22.21	0.06	0
99	SLU 43	0	-249	2009	9.01	-0.02	0
99	SLU 44	1	-205	2004	7.19	0.19	0
99	SLU 45	0	-249	2009	9.01	-0.02	0
99	SLU 46	0	-223	2006	7.92	0.11	0
99	SLU 47	1	-205	2004	7.19	0.19	0
99	SLU 48	0	-249	2009	9.01	-0.02	0
99	SLU 49	0	-223	2006	7.92	0.11	0
99	SLU 50	0	-249	2009	9.01	-0.02	0
99	SLU 51	0	-223	2006	7.92	0.11	0
99	SLU 52	1	-440	2783	15.53	0.17	0
99	SLU 53	0	-483	2789	17.36	-0.04	0
99	SLU 54	0	-457	2786	16.26	0.08	0
99	SLU 55	1	-440	2783	15.53	0.17	0
99	SLU 56	0	-483	2789	17.36	-0.04	0
99	SLU 57	0	-457	2786	16.26	0.08	0
99	SLU 58	0	-483	2789	17.36	-0.04	0
99	SLU 59	0	-457	2786	16.26	0.08	0
99	SLU 60	0	-583	3123	20.93	-0.05	0
99	SLU 61	0	-557	3120	19.84	0.07	0
99	SLU 62	0	-583	3123	20.93	-0.05	0
99	SLU 63	0	-557	3120	19.84	0.07	0
99	SLU 64	0	-348	2364	12.54	-0.03	0
99	SLU 65	1	-304	2358	10.71	0.18	0
99	SLU 66	0	-348	2364	12.54	-0.03	0
99	SLU 67	0	-322	2361	11.44	0.1	0
99	SLU 68	1	-304	2358	10.71	0.18	0
99	SLU 69	0	-348	2364	12.54	-0.03	0
99	SLU 70	0	-322	2361	11.44	0.1	0
99	SLU 71	0	-348	2364	12.54	-0.03	0
99	SLU 72	0	-322	2361	11.44	0.1	0
99	SLU 73	1	-539	3138	19.05	0.16	0
99	SLU 74	0	-582	3143	20.88	-0.05	0
99	SLU 75	0	-556	3140	19.78	0.07	0
99	SLU 76	1	-539	3138	19.05	0.16	0
99	SLU 77	0	-582	3143	20.88	-0.05	0
99	SLU 78	0	-556	3140	19.78	0.07	0
99	SLU 79	0	-582	3143	20.88	-0.05	0
99	SLU 80	0	-556	3140	19.78	0.07	0
99	SLU 81	0	-682	3477	24.45	-0.06	0
99	SLU 82	0	-656	3474	23.36	0.06	0
99	SLU 83	0	-682	3477	24.45	-0.06	0
99	SLU 84	0	-656	3474	23.36	0.06	0
99	SLE RA 1	0	-246	1740	8.87	-0.02	0
99	SLE RA 2	0	-217	1737	7.65	0.12	0
99	SLE RA 3	0	-246	1740	8.87	-0.02	0
99	SLE RA 4	0	-228	1738	8.14	0.06	0
99	SLE RA 5	0	-217	1737	7.65	0.12	0
99	SLE RA 6	0	-246	1740	8.87	-0.02	0
99	SLE RA 7	0	-228	1738	8.14	0.06	0
99	SLE RA 8	0	-246	1740	8.87	-0.02	0
99	SLE RA 9	0	-228	1738	8.14	0.06	0
99	SLE RA 10	0	-373	2256	13.21	0.1	0
99	SLE RA 11	0	-402	2260	14.43	-0.04	0
99	SLE RA 12	0	-385	2258	13.7	0.05	0





Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
99	SLE RA 13	0	-373	2256	13.21	0.1	0
99	SLE RA 14	0	-402	2260	14.43	-0.04	0
99	SLE RA 15	0	-385	2258	13.7	0.05	0
99	SLE RA 16	0	-402	2260	14.43	-0.04	0
99	SLE RA 17	0	-385	2258	13.7	0.05	0
99	SLE RA 18	0	-469	2483	16.81	-0.04	0
99	SLE RA 19	0	-451	2481	16.08	0.04	0
99	SLE RA 20	0	-469	2483	16.81	-0.04	0
99	SLE RA 21	0	-451	2481	16.08	0.04	0
99	SLE FR 1	0	-246	1740	8.87	-0.02	0
99	SLE FR 2	0	-240	1740	8.62	0.01	0
99	SLE FR 3	0	-246	1740	8.87	-0.02	0
99	SLE FR 4	0	-307	1962	11.01	0	0
99	SLE FR 5	0	-313	1963	11.25	-0.03	0
99	SLE FR 6	0	-357	2112	12.84	-0.03	0
99	SLE QP 1	0	-246	1740	8.87	-0.02	0
99	SLE QP 2	0	-313	1963	11.25	-0.03	0
99	SLD 1	12	-189	1870	6.47	16.73	0
99	SLD 2	12	-189	1870	6.47	16.73	0
99	SLD 3	11	-352	1942	13.05	15.23	0.01
99	SLD 4	11	-352	1942	13.05	15.23	0.01
99	SLD 5	6	-28	1826	-0.17	7.29	0
99	SLD 6	6	-28	1826	-0.17	7.29	0
99	SLD 7	1	-571	2066	21.78	2.26	0
99	SLD 8	1	-571	2066	21.78	2.26	0
99	SLD 9	-1	-54	1860	0.73	-2.31	0
99	SLD 10	-1	-54	1860	0.73	-2.31	0
99	SLD 11	-6	-597	2100	22.67	-7.34	0
99	SLD 12	-6	-597	2100	22.67	-7.34	0
99	SLD 13	-11	-274	1984	9.45	-15.28	-0.01
99	SLD 14	-11	-274	1984	9.45	-15.28	-0.01
99	SLD 15	-12	-436	2057	16.03	-16.79	0
99	SLD 16	-12	-436	2057	16.03	-16.79	0
99	SLV 1	32	-4	1716	-0.56	43.09	0.01
99	SLV 2	32	-4	1716	-0.56	43.09	0.01
99	SLV 3	28	-380	1883	14.62	39.01	0.02
99	SLV 4	28	-380	1883	14.62	39.01	0.02
99	SLV 5	15	350	1636	-15.32	19.1	0
99	SLV 6	15	350	1636	-15.32	19.1	0
99	SLV 7	3	-903	2192	35.29	5.49	0.01
99	SLV 8	3	-903	2192	35.29	5.49	0.01
99	SLV 9	-3	278	1734	-12.79	-5.55	-0.01
99	SLV 10	-3	278	1734	-12.79	-5.55	-0.01
99	SLV 11	-15	-976	2290	37.82	-19.15	0
99	SLV 12	-15	-976	2290	37.82	-19.15	0
99	SLV 13	-28	-246	2043	7.88	-39.06	-0.02
99	SLV 14	-28	-246	2043	7.88	-39.06	-0.02
99	SLV 15	-32	-622	2210	23.07	-43.15	-0.01
99	SLV 16	-32	-622	2210	23.07	-43.15	-0.01
100	SLU 1	0	36	991	-0.46	0	0
100	SLU 2	-6	117	1060	-5.2	-5.75	0
100	SLU 3	0	36	991	-0.46	0	0
100	SLU 4	-4	85	1032	-3.3	-3.45	0
100	SLU 5	-6	117	1060	-5.2	-5.75	0
100	SLU 6	0	36	991	-0.46	0	0
100	SLU 7	-4	85	1032	-3.3	-3.45	0
100	SLU 8	0	36	991	-0.46	0	0
100	SLU 9	-4	85	1032	-3.3	-3.45	0
100	SLU 10	-6	124	1094	-5.27	-5.75	0
100	SLU 11	0	43	1026	-0.53	0	0
100	SLU 12	-4	91	1066	-3.38	-3.45	0
100	SLU 13	-6	124	1094	-5.27	-5.75	0
100	SLU 14	0	43	1026	-0.53	0	0
100	SLU 15	-4	91	1066	-3.38	-3.45	0
100	SLU 16	0	43	1026	-0.53	0	0
100	SLU 17	-4	91	1066	-3.38	-3.45	0
100	SLU 18	0	45	1040	-0.56	0	0
100	SLU 19	-4	94	1081	-3.41	-3.45	0
100	SLU 20	0	45	1040	-0.56	0	0
100	SLU 21	-4	94	1081	-3.41	-3.45	0
100	SLU 22	0	41	1016	-0.51	0	0
100	SLU 23	-6	122	1084	-5.25	-5.75	0
100	SLU 24	0	41	1016	-0.51	0	0
100	SLU 25	-4	89	1057	-3.35	-3.45	0
100	SLU 26	-6	122	1084	-5.25	-5.75	0
100	SLU 27	0	41	1016	-0.51	0	0
100	SLU 28	-4	89	1057	-3.35	-3.45	0
100	SLU 29	0	41	1016	-0.51	0	0
100	SLU 30	-4	89	1057	-3.35	-3.45	0
100	SLU 31	-6	128	1118	-5.32	-5.75	0
100	SLU 32	0	47	1050	-0.58	0	0
100	SLU 33	-4	96	1091	-3.43	-3.45	0
100	SLU 34	-6	128	1118	-5.32	-5.75	0
100	SLU 35	0	47	1050	-0.58	0	0
100	SLU 36	-4	96	1091	-3.43	-3.45	0
100	SLU 37	0	47	1050	-0.58	0	0
100	SLU 38	-4	96	1091	-3.43	-3.45	0
100	SLU 39	0	50	1065	-0.61	0	0
100	SLU 40	-4	98	1106	-3.46	-3.45	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
100	SLU 41	0	50	1065	-0.61	0	0
100	SLU 42	-4	98	1106	-3.46	-3.45	0
100	SLU 43	0	46	1280	-0.58	0	0
100	SLU 44	-6	127	1349	-5.32	-5.75	0
100	SLU 45	0	46	1280	-0.58	0	0
100	SLU 46	-4	94	1321	-3.42	-3.45	0
100	SLU 47	-6	127	1349	-5.32	-5.75	0
100	SLU 48	0	46	1280	-0.58	0	0
100	SLU 49	-4	94	1321	-3.42	-3.45	0
100	SLU 50	0	46	1280	-0.58	0	0
100	SLU 51	-4	94	1321	-3.42	-3.45	0
100	SLU 52	-6	133	1383	-5.39	-5.75	0
100	SLU 53	0	52	1315	-0.65	0	0
100	SLU 54	-4	101	1355	-3.5	-3.45	0
100	SLU 55	-6	133	1383	-5.39	-5.75	0
100	SLU 56	0	52	1315	-0.65	0	0
100	SLU 57	-4	101	1355	-3.5	-3.45	0
100	SLU 58	0	52	1315	-0.65	0	0
100	SLU 59	-4	101	1355	-3.5	-3.45	0
100	SLU 60	0	55	1329	-0.68	-0.01	0
100	SLU 61	-4	103	1370	-3.53	-3.45	0
100	SLU 62	0	55	1329	-0.68	-0.01	0
100	SLU 63	-4	103	1370	-3.53	-3.45	0
100	SLU 64	0	50	1305	-0.63	0	0
100	SLU 65	-6	131	1373	-5.37	-5.75	0
100	SLU 66	0	50	1305	-0.63	0	0
100	SLU 67	-4	99	1346	-3.47	-3.45	0
100	SLU 68	-6	131	1373	-5.37	-5.75	0
100	SLU 69	0	50	1305	-0.63	0	0
100	SLU 70	-4	99	1346	-3.47	-3.45	0
100	SLU 71	0	50	1305	-0.63	0	0
100	SLU 72	-4	99	1346	-3.47	-3.45	0
100	SLU 73	-6	137	1407	-5.44	-5.75	0
100	SLU 74	0	56	1339	-0.7	0	0
100	SLU 75	-4	105	1380	-3.55	-3.45	0
100	SLU 76	-6	137	1407	-5.44	-5.75	0
100	SLU 77	0	56	1339	-0.7	0	0
100	SLU 78	-4	105	1380	-3.55	-3.45	0
100	SLU 79	0	56	1339	-0.7	0	0
100	SLU 80	-4	105	1380	-3.55	-3.45	0
100	SLU 81	0	59	1354	-0.73	-0.01	0
100	SLU 82	-4	108	1395	-3.58	-3.45	0
100	SLU 83	0	59	1354	-0.73	-0.01	0
100	SLU 84	-4	108	1395	-3.58	-3.45	0
100	SLE RA 1	0	38	999	-0.47	0	0
100	SLE RA 2	-4	92	1044	-3.63	-3.83	0
100	SLE RA 3	0	38	999	-0.47	0	0
100	SLE RA 4	-3	70	1026	-2.37	-2.3	0
100	SLE RA 5	-4	92	1044	-3.63	-3.83	0
100	SLE RA 6	0	38	999	-0.47	0	0
100	SLE RA 7	-3	70	1026	-2.37	-2.3	0
100	SLE RA 8	0	38	999	-0.47	0	0
100	SLE RA 9	-3	70	1026	-2.37	-2.3	0
100	SLE RA 10	-4	96	1067	-3.68	-3.83	0
100	SLE RA 11	0	42	1021	-0.52	0	0
100	SLE RA 12	-3	74	1049	-2.42	-2.3	0
100	SLE RA 13	-4	96	1067	-3.68	-3.83	0
100	SLE RA 14	0	42	1021	-0.52	0	0
100	SLE RA 15	-3	74	1049	-2.42	-2.3	0
100	SLE RA 16	0	42	1021	-0.52	0	0
100	SLE RA 17	-3	74	1049	-2.42	-2.3	0
100	SLE RA 18	0	43	1031	-0.54	0	0
100	SLE RA 19	-3	76	1058	-2.44	-2.3	0
100	SLE RA 20	0	43	1031	-0.54	0	0
100	SLE RA 21	-3	76	1058	-2.44	-2.3	0
100	SLE FR 1	0	38	999	-0.47	0	0
100	SLE FR 2	-1	48	1008	-1.1	-0.77	0
100	SLE FR 3	0	38	999	-0.47	0	0
100	SLE FR 4	-1	50	1017	-1.13	-0.77	0
100	SLE FR 5	0	39	1008	-0.49	0	0
100	SLE FR 6	0	41	1015	-0.51	0	0
100	SLE QP 1	0	38	999	-0.47	0	0
100	SLE QP 2	0	39	1008	-0.49	0	0
100	SLD 1	-8	97	1053	-3.16	-14.96	0
100	SLD 2	-8	97	1053	-3.16	-14.96	0
100	SLD 3	-2	38	1009	-0.61	-7.94	0
100	SLD 4	-2	38	1009	-0.61	-7.94	0
100	SLD 5	-12	146	1090	-5.15	-15.14	0.01
100	SLD 6	-12	146	1090	-5.15	-15.14	0.01
100	SLD 7	9	-51	941	3.33	8.27	0
100	SLD 8	9	-51	941	3.33	8.27	0
100	SLD 9	-9	129	1076	-4.32	-8.27	0
100	SLD 10	-9	129	1076	-4.32	-8.27	0
100	SLD 11	12	-68	927	4.17	15.13	-0.01
100	SLD 12	12	-68	927	4.17	15.13	-0.01
100	SLD 13	2	41	1008	-0.38	7.93	0
100	SLD 14	2	41	1008	-0.38	7.93	0
100	SLD 15	8	-19	963	2.17	14.95	0
100	SLD 16	8	-19	963	2.17	14.95	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
100	SLV 1	-21	183	1121	-7.18	-35.76	0.01
100	SLV 2	-21	183	1121	-7.18	-35.76	0.01
100	SLV 3	-5	39	1011	-0.87	-18.33	0
100	SLV 4	-5	39	1011	-0.87	-18.33	0
100	SLV 5	-31	301	1209	-12.05	-37.17	0.02
100	SLV 6	-31	301	1209	-12.05	-37.17	0.02
100	SLV 7	23	-180	842	8.95	20.94	-0.01
100	SLV 8	23	-180	842	8.95	20.94	-0.01
100	SLV 9	-23	259	1175	-9.94	-20.94	0.01
100	SLV 10	-23	259	1175	-9.94	-20.94	0.01
100	SLV 11	31	-223	807	11.07	37.16	-0.02
100	SLV 12	31	-223	807	11.07	37.16	-0.02
100	SLV 13	5	40	1006	-0.11	18.33	0
100	SLV 14	5	40	1006	-0.11	18.33	0
100	SLV 15	21	-104	896	6.19	35.76	-0.01
100	SLV 16	21	-104	896	6.19	35.76	-0.01
101	SLU 1	0	-228	2016	8.15	-0.1	0
101	SLU 2	-4	-216	2015	7.26	-3.35	0
101	SLU 3	0	-228	2016	8.15	-0.1	0
101	SLU 4	-2	-221	2016	7.62	-2.05	0
101	SLU 5	-4	-216	2015	7.26	-3.35	0
101	SLU 6	0	-228	2016	8.15	-0.1	0
101	SLU 7	-2	-221	2016	7.62	-2.05	0
101	SLU 8	0	-228	2016	8.15	-0.1	0
101	SLU 9	-2	-221	2016	7.62	-2.05	0
101	SLU 10	-4	-289	2382	9.75	-3.21	0
101	SLU 11	0	-301	2383	10.63	0.04	0
101	SLU 12	-3	-294	2383	10.1	-1.91	0
101	SLU 13	-4	-289	2382	9.75	-3.21	0
101	SLU 14	0	-301	2383	10.63	0.04	0
101	SLU 15	-3	-294	2383	10.1	-1.91	0
101	SLU 16	0	-301	2383	10.63	0.04	0
101	SLU 17	-3	-294	2383	10.1	-1.91	0
101	SLU 18	0	-333	2540	11.7	0.09	0
101	SLU 19	-3	-325	2540	11.17	-1.86	0
101	SLU 20	0	-333	2540	11.7	0.09	0
101	SLU 21	-3	-325	2540	11.17	-1.86	0
101	SLU 22	0	-265	2204	9.43	-0.05	0
101	SLU 23	-4	-253	2203	8.54	-3.3	0
101	SLU 24	0	-265	2204	9.43	-0.05	0
101	SLU 25	-3	-258	2203	8.9	-2	0
101	SLU 26	-4	-253	2203	8.54	-3.3	0
101	SLU 27	0	-265	2204	9.43	-0.05	0
101	SLU 28	-3	-258	2203	8.9	-2	0
101	SLU 29	0	-265	2204	9.43	-0.05	0
101	SLU 30	-3	-258	2203	8.9	-2	0
101	SLU 31	-4	-327	2570	11.03	-3.17	0
101	SLU 32	0	-339	2571	11.91	0.09	0
101	SLU 33	-3	-332	2570	11.38	-1.87	0
101	SLU 34	-4	-327	2570	11.03	-3.17	0
101	SLU 35	0	-339	2571	11.91	0.09	0
101	SLU 36	-3	-332	2570	11.38	-1.87	0
101	SLU 37	0	-339	2571	11.91	0.09	0
101	SLU 38	-3	-332	2570	11.38	-1.87	0
101	SLU 39	-1	-370	2728	12.98	0.14	0
101	SLU 40	-3	-363	2728	12.45	-1.81	0
101	SLU 41	-1	-370	2728	12.98	0.14	0
101	SLU 42	-3	-363	2728	12.45	-1.81	0
101	SLU 43	0	-283	2557	10.16	-0.14	0
101	SLU 44	-4	-271	2556	9.27	-3.39	0
101	SLU 45	0	-283	2557	10.16	-0.14	0
101	SLU 46	-2	-276	2556	9.62	-2.09	0
101	SLU 47	-4	-271	2556	9.27	-3.39	0
101	SLU 48	0	-283	2557	10.16	-0.14	0
101	SLU 49	-2	-276	2556	9.62	-2.09	0
101	SLU 50	0	-283	2557	10.16	-0.14	0
101	SLU 51	-2	-276	2556	9.62	-2.09	0
101	SLU 52	-4	-345	2923	11.76	-3.26	0
101	SLU 53	0	-357	2924	12.64	-0.01	0
101	SLU 54	-3	-349	2923	12.11	-1.96	0
101	SLU 55	-4	-345	2923	11.76	-3.26	0
101	SLU 56	0	-357	2924	12.64	-0.01	0
101	SLU 57	-3	-349	2923	12.11	-1.96	0
101	SLU 58	0	-357	2924	12.64	-0.01	0
101	SLU 59	-3	-349	2923	12.11	-1.96	0
101	SLU 60	0	-388	3081	13.71	0.05	0
101	SLU 61	-3	-381	3080	13.17	-1.9	0
101	SLU 62	0	-388	3081	13.71	0.05	0
101	SLU 63	-3	-381	3080	13.17	-1.9	0
101	SLU 64	0	-321	2744	11.43	-0.09	0
101	SLU 65	-4	-309	2744	10.55	-3.34	0
101	SLU 66	0	-321	2744	11.43	-0.09	0
101	SLU 67	-3	-314	2744	10.9	-2.04	0
101	SLU 68	-4	-309	2744	10.55	-3.34	0
101	SLU 69	0	-321	2744	11.43	-0.09	0
101	SLU 70	-3	-314	2744	10.9	-2.04	0
101	SLU 71	0	-321	2744	11.43	-0.09	0
101	SLU 72	-3	-314	2744	10.9	-2.04	0
101	SLU 73	-4	-382	3111	13.04	-3.21	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
101	SLU 74	0	-394	3111	13.92	0.04	0
101	SLU 75	-3	-387	3111	13.39	-1.91	0
101	SLU 76	-4	-382	3111	13.04	-3.21	0
101	SLU 77	0	-394	3111	13.92	0.04	0
101	SLU 78	-3	-387	3111	13.39	-1.91	0
101	SLU 79	0	-394	3111	13.92	0.04	0
101	SLU 80	-3	-387	3111	13.39	-1.91	0
101	SLU 81	-1	-426	3269	14.98	0.1	0
101	SLU 82	-3	-419	3268	14.45	-1.85	0
101	SLU 83	-1	-426	3269	14.98	0.1	0
101	SLU 84	-3	-419	3268	14.45	-1.85	0
101	SLE RA 1	0	-239	2070	8.51	-0.08	0
101	SLE RA 2	-3	-231	2069	7.93	-2.25	0
101	SLE RA 3	0	-239	2070	8.51	-0.08	0
101	SLE RA 4	-2	-234	2069	8.16	-1.38	0
101	SLE RA 5	-3	-231	2069	7.93	-2.25	0
101	SLE RA 6	0	-239	2070	8.51	-0.08	0
101	SLE RA 7	-2	-234	2069	8.16	-1.38	0
101	SLE RA 8	0	-239	2070	8.51	-0.08	0
101	SLE RA 9	-2	-234	2069	8.16	-1.38	0
101	SLE RA 10	-3	-279	2314	9.58	-2.16	0
101	SLE RA 11	0	-287	2314	10.17	0.01	0
101	SLE RA 12	-2	-283	2314	9.82	-1.29	0
101	SLE RA 13	-3	-279	2314	9.58	-2.16	0
101	SLE RA 14	0	-287	2314	10.17	0.01	0
101	SLE RA 15	-2	-283	2314	9.82	-1.29	0
101	SLE RA 16	0	-287	2314	10.17	0.01	0
101	SLE RA 17	-2	-283	2314	9.82	-1.29	0
101	SLE RA 18	0	-308	2419	10.88	0.04	0
101	SLE RA 19	-2	-304	2419	10.53	-1.26	0
101	SLE RA 20	0	-308	2419	10.88	0.04	0
101	SLE RA 21	-2	-304	2419	10.53	-1.26	0
101	SLE FR 1	0	-239	2070	8.51	-0.08	0
101	SLE FR 2	-1	-237	2070	8.4	-0.52	0
101	SLE FR 3	0	-239	2070	8.51	-0.08	0
101	SLE FR 4	-1	-258	2175	9.11	-0.48	0
101	SLE FR 5	0	-260	2175	9.22	-0.04	0
101	SLE FR 6	0	-274	2245	9.7	-0.02	0
101	SLE QP 1	0	-239	2070	8.51	-0.08	0
101	SLE QP 2	0	-260	2175	9.22	-0.04	0
101	SLD 1	-14	-260	2133	6.59	22.8	0.01
101	SLD 2	-14	-260	2133	6.59	22.8	0.01
101	SLD 3	-10	-319	2156	9.17	26.72	0.01
101	SLD 4	-10	-319	2156	9.17	26.72	0.01
101	SLD 5	-11	-170	2128	4.51	0.87	0.01
101	SLD 6	-11	-170	2128	4.51	0.87	0.01
101	SLD 7	3	-367	2203	13.13	13.93	0
101	SLD 8	3	-367	2203	13.13	13.93	0
101	SLD 9	-4	-152	2146	5.32	-14.02	0
101	SLD 10	-4	-152	2146	5.32	-14.02	0
101	SLD 11	10	-349	2221	13.94	-0.95	-0.01
101	SLD 12	10	-349	2221	13.94	-0.95	-0.01
101	SLD 13	9	-200	2194	9.28	-26.81	-0.01
101	SLD 14	9	-200	2194	9.28	-26.81	-0.01
101	SLD 15	13	-259	2216	11.86	-22.89	-0.01
101	SLD 16	13	-259	2216	11.86	-22.89	-0.01
101	SLV 1	-33	-262	2075	2.57	57.78	0.03
101	SLV 2	-33	-262	2075	2.57	57.78	0.03
101	SLV 3	-23	-403	2129	9.13	67.74	0.02
101	SLV 4	-23	-403	2129	9.13	67.74	0.02
101	SLV 5	-26	-46	2062	-2.71	2.2	0.02
101	SLV 6	-26	-46	2062	-2.71	2.2	0.02
101	SLV 7	9	-516	2244	19.14	35.39	0
101	SLV 8	9	-516	2244	19.14	35.39	0
101	SLV 9	-10	-3	2106	-0.69	-35.48	0
101	SLV 10	-10	-3	2106	-0.69	-35.48	0
101	SLV 11	26	-473	2287	21.16	-2.29	-0.02
101	SLV 12	26	-473	2287	21.16	-2.29	-0.02
101	SLV 13	22	-116	2220	9.32	-67.82	-0.02
101	SLV 14	22	-116	2220	9.32	-67.82	-0.02
101	SLV 15	33	-257	2274	15.88	-57.87	-0.03
101	SLV 16	33	-257	2274	15.88	-57.87	-0.03
102	SLU 1	0	-131	1868	5	0.2	0
102	SLU 2	9	-118	1841	4.49	10.43	-0.01
102	SLU 3	0	-131	1868	5	0.2	0
102	SLU 4	6	-123	1852	4.7	6.34	-0.01
102	SLU 5	9	-118	1841	4.49	10.43	-0.01
102	SLU 6	0	-131	1868	5	0.2	0
102	SLU 7	6	-123	1852	4.7	6.34	-0.01
102	SLU 8	0	-131	1868	5	0.2	0
102	SLU 9	6	-123	1852	4.7	6.34	-0.01
102	SLU 10	10	-196	2336	7.2	10.48	-0.01
102	SLU 11	0	-210	2363	7.71	0.26	0
102	SLU 12	6	-202	2347	7.41	6.39	-0.01
102	SLU 13	10	-196	2336	7.2	10.48	-0.01
102	SLU 14	0	-210	2363	7.71	0.26	0
102	SLU 15	6	-202	2347	7.41	6.39	-0.01
102	SLU 16	0	-210	2363	7.71	0.26	0
102	SLU 17	6	-202	2347	7.41	6.39	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
102	SLU 18	0	-243	2574	8.88	0.28	0
102	SLU 19	6	-235	2559	8.57	6.41	-0.01
102	SLU 20	0	-243	2574	8.88	0.28	0
102	SLU 21	6	-235	2559	8.57	6.41	-0.01
102	SLU 22	0	-159	2077	5.97	0.23	0
102	SLU 23	9	-145	2050	5.46	10.45	-0.01
102	SLU 24	0	-159	2077	5.97	0.23	0
102	SLU 25	6	-151	2061	5.66	6.36	-0.01
102	SLU 26	9	-145	2050	5.46	10.45	-0.01
102	SLU 27	0	-159	2077	5.97	0.23	0
102	SLU 28	6	-151	2061	5.66	6.36	-0.01
102	SLU 29	0	-159	2077	5.97	0.23	0
102	SLU 30	6	-151	2061	5.66	6.36	-0.01
102	SLU 31	10	-224	2544	8.17	10.51	-0.01
102	SLU 32	0	-237	2571	8.68	0.28	0
102	SLU 33	6	-229	2555	8.38	6.42	-0.01
102	SLU 34	10	-224	2544	8.17	10.51	-0.01
102	SLU 35	0	-237	2571	8.68	0.28	0
102	SLU 36	6	-229	2555	8.38	6.42	-0.01
102	SLU 37	0	-237	2571	8.68	0.28	0
102	SLU 38	6	-229	2555	8.38	6.42	-0.01
102	SLU 39	0	-271	2783	9.85	0.31	0
102	SLU 40	6	-263	2767	9.54	6.44	-0.01
102	SLU 41	0	-271	2783	9.85	0.31	0
102	SLU 42	6	-263	2767	9.54	6.44	-0.01
102	SLU 43	0	-161	2357	6.17	0.25	0
102	SLU 44	9	-148	2330	5.66	10.48	-0.01
102	SLU 45	0	-161	2357	6.17	0.25	0
102	SLU 46	6	-153	2341	5.86	6.39	-0.01
102	SLU 47	9	-148	2330	5.66	10.48	-0.01
102	SLU 48	0	-161	2357	6.17	0.25	0
102	SLU 49	6	-153	2341	5.86	6.39	-0.01
102	SLU 50	0	-161	2357	6.17	0.25	0
102	SLU 51	6	-153	2341	5.86	6.39	-0.01
102	SLU 52	10	-226	2825	8.37	10.53	-0.01
102	SLU 53	0	-240	2852	8.88	0.31	0
102	SLU 54	6	-232	2836	8.58	6.44	-0.01
102	SLU 55	10	-226	2825	8.37	10.53	-0.01
102	SLU 56	0	-240	2852	8.88	0.31	0
102	SLU 57	6	-232	2836	8.58	6.44	-0.01
102	SLU 58	0	-240	2852	8.88	0.31	0
102	SLU 59	6	-232	2836	8.58	6.44	-0.01
102	SLU 60	0	-273	3063	10.05	0.33	0
102	SLU 61	6	-265	3047	9.74	6.47	-0.01
102	SLU 62	0	-273	3063	10.05	0.33	0
102	SLU 63	6	-265	3047	9.74	6.47	-0.01
102	SLU 64	0	-189	2566	7.14	0.28	0
102	SLU 65	9	-175	2539	6.63	10.5	-0.01
102	SLU 66	0	-189	2566	7.14	0.28	0
102	SLU 67	6	-181	2550	6.83	6.42	-0.01
102	SLU 68	9	-175	2539	6.63	10.5	-0.01
102	SLU 69	0	-189	2566	7.14	0.28	0
102	SLU 70	6	-181	2550	6.83	6.42	-0.01
102	SLU 71	0	-189	2566	7.14	0.28	0
102	SLU 72	6	-181	2550	6.83	6.42	-0.01
102	SLU 73	10	-254	3033	9.34	10.56	-0.01
102	SLU 74	0	-267	3060	9.85	0.34	0
102	SLU 75	6	-259	3044	9.55	6.47	-0.01
102	SLU 76	10	-254	3033	9.34	10.56	-0.01
102	SLU 77	0	-267	3060	9.85	0.34	0
102	SLU 78	6	-259	3044	9.55	6.47	-0.01
102	SLU 79	0	-267	3060	9.85	0.34	0
102	SLU 80	6	-259	3044	9.55	6.47	-0.01
102	SLU 81	0	-301	3272	11.02	0.36	0
102	SLU 82	6	-293	3256	10.71	6.49	-0.01
102	SLU 83	0	-301	3272	11.02	0.36	0
102	SLU 84	6	-293	3256	10.71	6.49	-0.01
102	SLE RA 1	0	-139	1928	5.28	0.21	0
102	SLE RA 2	6	-130	1910	4.94	7.03	-0.01
102	SLE RA 3	0	-139	1928	5.28	0.21	0
102	SLE RA 4	4	-134	1917	5.07	4.3	0
102	SLE RA 5	6	-130	1910	4.94	7.03	-0.01
102	SLE RA 6	0	-139	1928	5.28	0.21	0
102	SLE RA 7	4	-134	1917	5.07	4.3	0
102	SLE RA 8	0	-139	1928	5.28	0.21	0
102	SLE RA 9	4	-134	1917	5.07	4.3	0
102	SLE RA 10	6	-182	2240	6.75	7.06	-0.01
102	SLE RA 11	0	-191	2257	7.09	0.25	0
102	SLE RA 12	4	-186	2247	6.88	4.34	0
102	SLE RA 13	6	-182	2240	6.75	7.06	-0.01
102	SLE RA 14	0	-191	2257	7.09	0.25	0
102	SLE RA 15	4	-186	2247	6.88	4.34	0
102	SLE RA 16	0	-191	2257	7.09	0.25	0
102	SLE RA 17	4	-186	2247	6.88	4.34	0
102	SLE RA 18	0	-214	2399	7.86	0.26	0
102	SLE RA 19	4	-208	2388	7.66	4.35	0
102	SLE RA 20	0	-214	2399	7.86	0.26	0
102	SLE RA 21	4	-208	2388	7.66	4.35	0
102	SLE FR 1	0	-139	1928	5.28	0.21	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
102	SLE FR 2	1	-137	1924	5.21	1.57	0
102	SLE FR 3	0	-139	1928	5.28	0.21	0
102	SLE FR 4	1	-160	2065	5.99	1.59	0
102	SLE FR 5	0	-162	2069	6.05	0.23	0
102	SLE FR 6	0	-176	2163	6.57	0.24	0
102	SLE QP 1	0	-139	1928	5.28	0.21	0
102	SLE QP 2	0	-162	2069	6.05	0.23	0
102	SLD 1	-7	-115	2088	4.37	17.1	0
102	SLD 2	-7	-115	2088	4.37	17.1	0
102	SLD 3	-16	-163	2154	6.25	10.88	0.01
102	SLD 4	-16	-163	2154	6.25	10.88	0.01
102	SLD 5	12	-75	1974	2.69	14.73	-0.02
102	SLD 6	12	-75	1974	2.69	14.73	-0.02
102	SLD 7	-18	-235	2195	8.97	-6.02	0.02
102	SLD 8	-18	-235	2195	8.97	-6.02	0.02
102	SLD 9	19	-88	1943	3.13	6.47	-0.02
102	SLD 10	19	-88	1943	3.13	6.47	-0.02
102	SLD 11	-12	-248	2164	9.42	-14.28	0.02
102	SLD 12	-12	-248	2164	9.42	-14.28	0.02
102	SLD 13	16	-160	1984	5.85	-10.43	-0.01
102	SLD 14	16	-160	1984	5.85	-10.43	-0.01
102	SLD 15	7	-208	2050	7.74	-16.65	0
102	SLD 16	7	-208	2050	7.74	-16.65	0
102	SLV 1	-16	-49	2100	1.92	42.36	0
102	SLV 2	-16	-49	2100	1.92	42.36	0
102	SLV 3	-39	-168	2287	6.69	26.47	0.04
102	SLV 4	-39	-168	2287	6.69	26.47	0.04
102	SLV 5	31	52	1794	-2.42	36.96	-0.05
102	SLV 6	31	52	1794	-2.42	36.96	-0.05
102	SLV 7	-47	-343	2418	13.47	-16	0.06
102	SLV 8	-47	-343	2418	13.47	-16	0.06
102	SLV 9	47	20	1720	-1.37	16.45	-0.06
102	SLV 10	47	20	1720	-1.37	16.45	-0.06
102	SLV 11	-30	-375	2343	14.52	-36.51	0.05
102	SLV 12	-30	-375	2343	14.52	-36.51	0.05
102	SLV 13	39	-155	1850	5.42	-26.02	-0.03
102	SLV 14	39	-155	1850	5.42	-26.02	-0.03
102	SLV 15	16	-274	2038	10.18	-41.91	0
102	SLV 16	16	-274	2038	10.18	-41.91	0
103	SLU 1	0	-259	1520	9.41	-0.01	0
103	SLU 2	1	-216	1496	7.74	0.46	0
103	SLU 3	0	-259	1520	9.41	-0.01	0
103	SLU 4	1	-233	1506	8.41	0.27	0
103	SLU 5	1	-216	1496	7.74	0.46	0
103	SLU 6	0	-259	1520	9.41	-0.01	0
103	SLU 7	1	-233	1506	8.41	0.27	0
103	SLU 8	0	-259	1520	9.41	-0.01	0
103	SLU 9	1	-233	1506	8.41	0.27	0
103	SLU 10	1	-463	2118	16.51	0.45	0
103	SLU 11	0	-506	2143	18.18	-0.03	0
103	SLU 12	1	-480	2128	17.18	0.26	0
103	SLU 13	1	-463	2118	16.51	0.45	0
103	SLU 14	0	-506	2143	18.18	-0.03	0
103	SLU 15	1	-480	2128	17.18	0.26	0
103	SLU 16	0	-506	2143	18.18	-0.03	0
103	SLU 17	1	-480	2128	17.18	0.26	0
103	SLU 18	0	-612	2409	21.94	-0.03	0
103	SLU 19	1	-586	2395	20.93	0.25	0
103	SLU 20	0	-612	2409	21.94	-0.03	0
103	SLU 21	1	-586	2395	20.93	0.25	0
103	SLU 22	0	-365	1808	13.16	-0.02	0
103	SLU 23	1	-321	1784	11.48	0.46	0
103	SLU 24	0	-365	1808	13.16	-0.02	0
103	SLU 25	1	-339	1793	12.15	0.27	0
103	SLU 26	1	-321	1784	11.48	0.46	0
103	SLU 27	0	-365	1808	13.16	-0.02	0
103	SLU 28	1	-339	1793	12.15	0.27	0
103	SLU 29	0	-365	1808	13.16	-0.02	0
103	SLU 30	1	-339	1793	12.15	0.27	0
103	SLU 31	1	-568	2406	20.25	0.44	0
103	SLU 32	0	-612	2430	21.93	-0.03	0
103	SLU 33	1	-586	2416	20.92	0.25	0
103	SLU 34	1	-568	2406	20.25	0.44	0
103	SLU 35	0	-612	2430	21.93	-0.03	0
103	SLU 36	1	-586	2416	20.92	0.25	0
103	SLU 37	0	-612	2430	21.93	-0.03	0
103	SLU 38	1	-586	2416	20.92	0.25	0
103	SLU 39	0	-718	2697	25.69	-0.04	0
103	SLU 40	1	-692	2683	24.68	0.25	0
103	SLU 41	0	-718	2697	25.69	-0.04	0
103	SLU 42	1	-692	2683	24.68	0.25	0
103	SLU 43	0	-301	1877	10.95	-0.02	0
103	SLU 44	1	-258	1853	9.28	0.46	0
103	SLU 45	0	-301	1877	10.95	-0.02	0
103	SLU 46	1	-275	1863	9.95	0.27	0
103	SLU 47	1	-258	1853	9.28	0.46	0
103	SLU 48	0	-301	1877	10.95	-0.02	0
103	SLU 49	1	-275	1863	9.95	0.27	0
103	SLU 50	0	-301	1877	10.95	-0.02	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
103	SLU 51	1	-275	1863	9.95	0.27	0
103	SLU 52	1	-504	2476	18.04	0.45	0
103	SLU 53	0	-548	2500	19.72	-0.03	0
103	SLU 54	1	-522	2485	18.72	0.26	0
103	SLU 55	1	-504	2476	18.04	0.45	0
103	SLU 56	0	-548	2500	19.72	-0.03	0
103	SLU 57	1	-522	2485	18.72	0.26	0
103	SLU 58	0	-548	2500	19.72	-0.03	0
103	SLU 59	1	-522	2485	18.72	0.26	0
103	SLU 60	0	-654	2767	23.48	-0.04	0
103	SLU 61	1	-628	2752	22.47	0.25	0
103	SLU 62	0	-654	2767	23.48	-0.04	0
103	SLU 63	1	-628	2752	22.47	0.25	0
103	SLU 64	0	-407	2165	14.7	-0.02	0
103	SLU 65	1	-363	2141	13.02	0.45	0
103	SLU 66	0	-407	2165	14.7	-0.02	0
103	SLU 67	1	-380	2151	13.69	0.26	0
103	SLU 68	1	-363	2141	13.02	0.45	0
103	SLU 69	0	-407	2165	14.7	-0.02	0
103	SLU 70	1	-380	2151	13.69	0.26	0
103	SLU 71	0	-407	2165	14.7	-0.02	0
103	SLU 72	1	-380	2151	13.69	0.26	0
103	SLU 73	1	-610	2764	21.79	0.44	0
103	SLU 74	0	-654	2788	23.47	-0.04	0
103	SLU 75	1	-627	2773	22.46	0.25	0
103	SLU 76	1	-610	2764	21.79	0.44	0
103	SLU 77	0	-654	2788	23.47	-0.04	0
103	SLU 78	1	-627	2773	22.46	0.25	0
103	SLU 79	0	-654	2788	23.47	-0.04	0
103	SLU 80	1	-627	2773	22.46	0.25	0
103	SLU 81	0	-759	3054	27.23	-0.04	0
103	SLU 82	1	-733	3040	26.22	0.24	0
103	SLU 83	0	-759	3054	27.23	-0.04	0
103	SLU 84	1	-733	3040	26.22	0.24	0
103	SLE RA 1	0	-290	1602	10.48	-0.02	0
103	SLE RA 2	1	-260	1586	9.37	0.3	0
103	SLE RA 3	0	-290	1602	10.48	-0.02	0
103	SLE RA 4	1	-272	1593	9.81	0.17	0
103	SLE RA 5	1	-260	1586	9.37	0.3	0
103	SLE RA 6	0	-290	1602	10.48	-0.02	0
103	SLE RA 7	1	-272	1593	9.81	0.17	0
103	SLE RA 8	0	-290	1602	10.48	-0.02	0
103	SLE RA 9	1	-272	1593	9.81	0.17	0
103	SLE RA 10	1	-425	2001	15.21	0.29	0
103	SLE RA 11	0	-454	2017	16.33	-0.02	0
103	SLE RA 12	1	-437	2008	15.66	0.17	0
103	SLE RA 13	1	-425	2001	15.21	0.29	0
103	SLE RA 14	0	-454	2017	16.33	-0.02	0
103	SLE RA 15	1	-437	2008	15.66	0.17	0
103	SLE RA 16	0	-454	2017	16.33	-0.02	0
103	SLE RA 17	1	-437	2008	15.66	0.17	0
103	SLE RA 18	0	-525	2195	18.83	-0.03	0
103	SLE RA 19	1	-507	2186	18.16	0.16	0
103	SLE RA 20	0	-525	2195	18.83	-0.03	0
103	SLE RA 21	1	-507	2186	18.16	0.16	0
103	SLE FR 1	0	-290	1602	10.48	-0.02	0
103	SLE FR 2	0	-284	1599	10.26	0.05	0
103	SLE FR 3	0	-290	1602	10.48	-0.02	0
103	SLE FR 4	0	-354	1777	12.77	0.04	0
103	SLE FR 5	0	-360	1780	12.99	-0.02	0
103	SLE FR 6	0	-407	1899	14.66	-0.02	0
103	SLE QP 1	0	-290	1602	10.48	-0.02	0
103	SLE QP 2	0	-360	1780	12.99	-0.02	0
103	SLD 1	-3	-232	1680	8.07	10.7	0.01
103	SLD 2	-3	-232	1680	8.07	10.7	0.01
103	SLD 3	-4	-409	1810	15.04	9.68	0.01
103	SLD 4	-4	-409	1810	15.04	9.68	0.01
103	SLD 5	1	-54	1553	0.93	4.75	0
103	SLD 6	1	-54	1553	0.93	4.75	0
103	SLD 7	-3	-642	1986	24.19	1.34	0.01
103	SLD 8	-3	-642	1986	24.19	1.34	0.01
103	SLD 9	3	-78	1574	1.79	-1.38	-0.01
103	SLD 10	3	-78	1574	1.79	-1.38	-0.01
103	SLD 11	-1	-666	2007	25.05	-4.79	0
103	SLD 12	-1	-666	2007	25.05	-4.79	0
103	SLD 13	4	-312	1750	10.93	-9.72	-0.01
103	SLD 14	4	-312	1750	10.93	-9.72	-0.01
103	SLD 15	3	-488	1880	17.91	-10.74	-0.01
103	SLD 16	3	-488	1880	17.91	-10.74	-0.01
103	SLV 1	-7	-44	1538	0.89	27.53	0.02
103	SLV 2	-7	-44	1538	0.89	27.53	0.02
103	SLV 3	-9	-451	1836	16.97	24.82	0.03
103	SLV 4	-9	-451	1836	16.97	24.82	0.03
103	SLV 5	2	352	1255	-15.03	12.35	0
103	SLV 6	2	352	1255	-15.03	12.35	0
103	SLV 7	-6	-1004	2250	38.57	3.32	0.02
103	SLV 8	-6	-1004	2250	38.57	3.32	0.02
103	SLV 9	7	284	1311	-12.59	-3.36	-0.02
103	SLV 10	7	284	1311	-12.59	-3.36	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
103	SLV 11	-2	-1072	2306	41	-12.39	0
103	SLV 12	-2	-1072	2306	41	-12.39	0
103	SLV 13	9	-269	1724	9	-24.86	-0.03
103	SLV 14	9	-269	1724	9	-24.86	-0.03
103	SLV 15	7	-676	2023	25.08	-27.57	-0.02
103	SLV 16	7	-676	2023	25.08	-27.57	-0.02
104	SLU 1	0	14	1206	0.29	-0.01	0
104	SLU 2	-6	42	1228	0.84	-4.74	0
104	SLU 3	0	14	1206	0.29	-0.01	0
104	SLU 4	-4	31	1219	0.62	-2.85	0
104	SLU 5	-6	42	1228	0.84	-4.74	0
104	SLU 6	0	14	1206	0.29	-0.01	0
104	SLU 7	-4	31	1219	0.62	-2.85	0
104	SLU 8	0	14	1206	0.29	-0.01	0
104	SLU 9	-4	31	1219	0.62	-2.85	0
104	SLU 10	-6	50	1301	0.71	-4.74	0
104	SLU 11	0	23	1280	0.16	-0.02	0
104	SLU 12	-4	39	1293	0.49	-2.85	0
104	SLU 13	-6	50	1301	0.71	-4.74	0
104	SLU 14	0	23	1280	0.16	-0.02	0
104	SLU 15	-4	39	1293	0.49	-2.85	0
104	SLU 16	0	23	1280	0.16	-0.02	0
104	SLU 17	-4	39	1293	0.49	-2.85	0
104	SLU 18	0	26	1311	0.11	-0.02	0
104	SLU 19	-4	43	1324	0.44	-2.85	0
104	SLU 20	0	26	1311	0.11	-0.02	0
104	SLU 21	-4	43	1324	0.44	-2.85	0
104	SLU 22	0	20	1259	0.2	-0.02	0
104	SLU 23	-6	48	1281	0.75	-4.74	0
104	SLU 24	0	20	1259	0.2	-0.02	0
104	SLU 25	-4	37	1272	0.53	-2.85	0
104	SLU 26	-6	48	1281	0.75	-4.74	0
104	SLU 27	0	20	1259	0.2	-0.02	0
104	SLU 28	-4	37	1272	0.53	-2.85	0
104	SLU 29	0	20	1259	0.2	-0.02	0
104	SLU 30	-4	37	1272	0.53	-2.85	0
104	SLU 31	-6	56	1354	0.62	-4.75	0
104	SLU 32	0	28	1333	0.07	-0.02	0
104	SLU 33	-4	45	1346	0.4	-2.86	0
104	SLU 34	-6	56	1354	0.62	-4.75	0
104	SLU 35	0	28	1333	0.07	-0.02	0
104	SLU 36	-4	45	1346	0.4	-2.86	0
104	SLU 37	0	28	1333	0.07	-0.02	0
104	SLU 38	-4	45	1346	0.4	-2.86	0
104	SLU 39	0	32	1364	0.01	-0.02	0
104	SLU 40	-4	49	1377	0.34	-2.86	0
104	SLU 41	0	32	1364	0.01	-0.02	0
104	SLU 42	-4	49	1377	0.34	-2.86	0
104	SLU 43	0	17	1550	0.41	-0.02	0
104	SLU 44	-6	45	1571	0.96	-4.74	0
104	SLU 45	0	17	1550	0.41	-0.02	0
104	SLU 46	-4	33	1563	0.74	-2.85	0
104	SLU 47	-6	45	1571	0.96	-4.74	0
104	SLU 48	0	17	1550	0.41	-0.02	0
104	SLU 49	-4	33	1563	0.74	-2.85	0
104	SLU 50	0	17	1550	0.41	-0.02	0
104	SLU 51	-4	33	1563	0.74	-2.85	0
104	SLU 52	-6	53	1645	0.83	-4.75	0
104	SLU 53	0	25	1624	0.28	-0.02	0
104	SLU 54	-4	42	1636	0.61	-2.86	0
104	SLU 55	-6	53	1645	0.83	-4.75	0
104	SLU 56	0	25	1624	0.28	-0.02	0
104	SLU 57	-4	42	1636	0.61	-2.86	0
104	SLU 58	0	25	1624	0.28	-0.02	0
104	SLU 59	-4	42	1636	0.61	-2.86	0
104	SLU 60	0	28	1655	0.23	-0.02	0
104	SLU 61	-4	45	1668	0.56	-2.86	0
104	SLU 62	0	28	1655	0.23	-0.02	0
104	SLU 63	-4	45	1668	0.56	-2.86	0
104	SLU 64	0	23	1603	0.32	-0.02	0
104	SLU 65	-6	51	1624	0.87	-4.74	0
104	SLU 66	0	23	1603	0.32	-0.02	0
104	SLU 67	-4	39	1616	0.65	-2.86	0
104	SLU 68	-6	51	1624	0.87	-4.74	0
104	SLU 69	0	23	1603	0.32	-0.02	0
104	SLU 70	-4	39	1616	0.65	-2.86	0
104	SLU 71	0	23	1603	0.32	-0.02	0
104	SLU 72	-4	39	1616	0.65	-2.86	0
104	SLU 73	-6	59	1698	0.74	-4.75	0
104	SLU 74	0	31	1677	0.19	-0.02	0
104	SLU 75	-4	48	1689	0.52	-2.86	0
104	SLU 76	-6	59	1698	0.74	-4.75	0
104	SLU 77	0	31	1677	0.19	-0.02	0
104	SLU 78	-4	48	1689	0.52	-2.86	0
104	SLU 79	0	31	1677	0.19	-0.02	0
104	SLU 80	-4	48	1689	0.52	-2.86	0
104	SLU 81	0	34	1708	0.13	-0.03	0
104	SLU 82	-4	51	1721	0.46	-2.86	0
104	SLU 83	0	34	1708	0.13	-0.03	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
104	SLU 84	-4	51	1721	0.46	-2.86	0
104	SLE RA 1	0	16	1222	0.27	-0.02	0
104	SLE RA 2	-4	35	1236	0.63	-3.16	0
104	SLE RA 3	0	16	1222	0.27	-0.02	0
104	SLE RA 4	-3	27	1230	0.49	-1.9	0
104	SLE RA 5	-4	35	1236	0.63	-3.16	0
104	SLE RA 6	0	16	1222	0.27	-0.02	0
104	SLE RA 7	-3	27	1230	0.49	-1.9	0
104	SLE RA 8	0	16	1222	0.27	-0.02	0
104	SLE RA 9	-3	27	1230	0.49	-1.9	0
104	SLE RA 10	-4	40	1285	0.55	-3.17	0
104	SLE RA 11	0	22	1271	0.18	-0.02	0
104	SLE RA 12	-3	33	1279	0.4	-1.91	0
104	SLE RA 13	-4	40	1285	0.55	-3.17	0
104	SLE RA 14	0	22	1271	0.18	-0.02	0
104	SLE RA 15	-3	33	1279	0.4	-1.91	0
104	SLE RA 16	0	22	1271	0.18	-0.02	0
104	SLE RA 17	-3	33	1279	0.4	-1.91	0
104	SLE RA 18	0	24	1291	0.14	-0.02	0
104	SLE RA 19	-3	35	1300	0.36	-1.91	0
104	SLE RA 20	0	24	1291	0.14	-0.02	0
104	SLE RA 21	-3	35	1300	0.36	-1.91	0
104	SLE FR 1	0	16	1222	0.27	-0.02	0
104	SLE FR 2	-1	20	1224	0.34	-0.64	0
104	SLE FR 3	0	16	1222	0.27	-0.02	0
104	SLE FR 4	-1	22	1245	0.3	-0.65	0
104	SLE FR 5	0	18	1243	0.23	-0.02	0
104	SLE FR 6	0	20	1257	0.2	-0.02	0
104	SLE QP 1	0	16	1222	0.27	-0.02	0
104	SLE QP 2	0	18	1243	0.23	-0.02	0
104	SLD 1	-9	65	1242	1.96	-9.01	0.01
104	SLD 2	-9	65	1242	1.96	-9.01	0.01
104	SLD 3	-2	15	1258	0.18	-3.82	0.01
104	SLD 4	-2	15	1258	0.18	-3.82	0.01
104	SLD 5	-12	109	1218	3.44	-10.59	0
104	SLD 6	-12	109	1218	3.44	-10.59	0
104	SLD 7	9	-59	1272	-2.47	6.72	0.01
104	SLD 8	9	-59	1272	-2.47	6.72	0.01
104	SLD 9	-9	96	1213	2.93	-6.75	-0.01
104	SLD 10	-9	96	1213	2.93	-6.75	-0.01
104	SLD 11	12	-72	1267	-2.98	10.55	0
104	SLD 12	12	-72	1267	-2.98	10.55	0
104	SLD 13	2	22	1227	0.27	3.79	-0.01
104	SLD 14	2	22	1227	0.27	3.79	-0.01
104	SLD 15	9	-28	1243	-1.5	8.98	-0.01
104	SLD 16	9	-28	1243	-1.5	8.98	-0.01
104	SLV 1	-22	131	1242	4.41	-21.85	0.01
104	SLV 2	-22	131	1242	4.41	-21.85	0.01
104	SLV 3	-5	11	1281	0.19	-8.8	0.02
104	SLV 4	-5	11	1281	0.19	-8.8	0.02
104	SLV 5	-31	235	1183	7.87	-26.37	-0.01
104	SLV 6	-31	235	1183	7.87	-26.37	-0.01
104	SLV 7	23	-167	1314	-6.17	17.15	0.02
104	SLV 8	23	-167	1314	-6.17	17.15	0.02
104	SLV 9	-23	204	1171	6.63	-17.18	-0.02
104	SLV 10	-23	204	1171	6.63	-17.18	-0.02
104	SLV 11	31	-198	1302	-7.41	26.33	0.01
104	SLV 12	31	-198	1302	-7.41	26.33	0.01
104	SLV 13	5	26	1204	0.26	8.76	-0.02
104	SLV 14	5	26	1204	0.26	8.76	-0.02
104	SLV 15	21	-95	1243	-3.95	21.82	-0.01
104	SLV 16	21	-95	1243	-3.95	21.82	-0.01
105	SLU 1	0	-295	2002	10.59	-0.32	0
105	SLU 2	-4	-297	1991	11.09	-2.95	0
105	SLU 3	0	-295	2002	10.59	-0.32	0
105	SLU 4	-2	-296	1995	10.89	-1.9	0
105	SLU 5	-4	-297	1991	11.09	-2.95	0
105	SLU 6	0	-295	2002	10.59	-0.32	0
105	SLU 7	-2	-296	1995	10.89	-1.9	0
105	SLU 8	0	-295	2002	10.59	-0.32	0
105	SLU 9	-2	-296	1995	10.89	-1.9	0
105	SLU 10	-4	-390	2323	14.35	-2.91	0
105	SLU 11	-1	-388	2334	13.85	-0.29	-0.01
105	SLU 12	-3	-389	2328	14.15	-1.86	0
105	SLU 13	-4	-390	2323	14.35	-2.91	0
105	SLU 14	-1	-388	2334	13.85	-0.29	-0.01
105	SLU 15	-3	-389	2328	14.15	-1.86	0
105	SLU 16	-1	-388	2334	13.85	-0.29	-0.01
105	SLU 17	-3	-389	2328	14.15	-1.86	0
105	SLU 18	-1	-428	2477	15.24	-0.27	-0.01
105	SLU 19	-3	-429	2470	15.54	-1.85	-0.01
105	SLU 20	-1	-428	2477	15.24	-0.27	-0.01
105	SLU 21	-3	-429	2470	15.54	-1.85	-0.01
105	SLU 22	0	-342	2172	12.25	-0.31	0
105	SLU 23	-4	-344	2161	12.75	-2.94	0
105	SLU 24	0	-342	2172	12.25	-0.31	0
105	SLU 25	-3	-344	2166	12.55	-1.89	0
105	SLU 26	-4	-344	2161	12.75	-2.94	0
105	SLU 27	0	-342	2172	12.25	-0.31	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
105	SLU 28	-3	-344	2166	12.55	-1.89	0
105	SLU 29	0	-342	2172	12.25	-0.31	0
105	SLU 30	-3	-344	2166	12.55	-1.89	0
105	SLU 31	-4	-438	2494	16.01	-2.91	-0.01
105	SLU 32	-1	-436	2505	15.5	-0.28	-0.01
105	SLU 33	-3	-437	2498	15.8	-1.86	-0.01
105	SLU 34	-4	-438	2494	16.01	-2.91	-0.01
105	SLU 35	-1	-436	2505	15.5	-0.28	-0.01
105	SLU 36	-3	-437	2498	15.8	-1.86	-0.01
105	SLU 37	-1	-436	2505	15.5	-0.28	-0.01
105	SLU 38	-3	-437	2498	15.8	-1.86	-0.01
105	SLU 39	-1	-476	2647	16.9	-0.26	-0.01
105	SLU 40	-3	-477	2640	17.2	-1.84	-0.01
105	SLU 41	-1	-476	2647	16.9	-0.26	-0.01
105	SLU 42	-3	-477	2640	17.2	-1.84	-0.01
105	SLU 43	0	-367	2544	13.2	-0.42	-0.01
105	SLU 44	-4	-369	2533	13.7	-3.05	-0.01
105	SLU 45	0	-367	2544	13.2	-0.42	-0.01
105	SLU 46	-3	-368	2538	13.5	-2	-0.01
105	SLU 47	-4	-369	2533	13.7	-3.05	-0.01
105	SLU 48	0	-367	2544	13.2	-0.42	-0.01
105	SLU 49	-3	-368	2538	13.5	-2	-0.01
105	SLU 50	0	-367	2544	13.2	-0.42	-0.01
105	SLU 51	-3	-368	2538	13.5	-2	-0.01
105	SLU 52	-4	-462	2866	16.96	-3.01	-0.01
105	SLU 53	-1	-460	2877	16.45	-0.39	-0.01
105	SLU 54	-3	-461	2870	16.76	-1.96	-0.01
105	SLU 55	-4	-462	2866	16.96	-3.01	-0.01
105	SLU 56	-1	-460	2877	16.45	-0.39	-0.01
105	SLU 57	-3	-461	2870	16.76	-1.96	-0.01
105	SLU 58	-1	-460	2877	16.45	-0.39	-0.01
105	SLU 59	-3	-461	2870	16.76	-1.96	-0.01
105	SLU 60	-1	-500	3019	17.85	-0.37	-0.01
105	SLU 61	-3	-501	3013	18.15	-1.95	-0.01
105	SLU 62	-1	-500	3019	17.85	-0.37	-0.01
105	SLU 63	-3	-501	3013	18.15	-1.95	-0.01
105	SLU 64	-1	-414	2715	14.85	-0.41	-0.01
105	SLU 65	-4	-416	2703	15.36	-3.04	-0.01
105	SLU 66	-1	-414	2715	14.85	-0.41	-0.01
105	SLU 67	-3	-416	2708	15.16	-1.99	-0.01
105	SLU 68	-4	-416	2703	15.36	-3.04	-0.01
105	SLU 69	-1	-414	2715	14.85	-0.41	-0.01
105	SLU 70	-3	-416	2708	15.16	-1.99	-0.01
105	SLU 71	-1	-414	2715	14.85	-0.41	-0.01
105	SLU 72	-3	-416	2708	15.16	-1.99	-0.01
105	SLU 73	-4	-510	3036	18.61	-3.01	-0.01
105	SLU 74	-1	-508	3047	18.11	-0.38	-0.01
105	SLU 75	-3	-509	3040	18.41	-1.96	-0.01
105	SLU 76	-4	-510	3036	18.61	-3.01	-0.01
105	SLU 77	-1	-508	3047	18.11	-0.38	-0.01
105	SLU 78	-3	-509	3040	18.41	-1.96	-0.01
105	SLU 79	-1	-508	3047	18.11	-0.38	-0.01
105	SLU 80	-3	-509	3040	18.41	-1.96	-0.01
105	SLU 81	-1	-548	3189	19.51	-0.36	-0.01
105	SLU 82	-3	-549	3183	19.81	-1.94	-0.01
105	SLU 83	-1	-548	3189	19.51	-0.36	-0.01
105	SLU 84	-3	-549	3183	19.81	-1.94	-0.01
105	SLE RA 1	0	-308	2051	11.06	-0.32	0
105	SLE RA 2	-3	-310	2043	11.4	-2.07	0
105	SLE RA 3	0	-308	2051	11.06	-0.32	0
105	SLE RA 4	-2	-309	2046	11.26	-1.37	0
105	SLE RA 5	-3	-310	2043	11.4	-2.07	0
105	SLE RA 6	0	-308	2051	11.06	-0.32	0
105	SLE RA 7	-2	-309	2046	11.26	-1.37	0
105	SLE RA 8	0	-308	2051	11.06	-0.32	0
105	SLE RA 9	-2	-309	2046	11.26	-1.37	0
105	SLE RA 10	-3	-372	2265	13.57	-2.05	0
105	SLE RA 11	-1	-371	2272	13.23	-0.3	-0.01
105	SLE RA 12	-2	-371	2268	13.43	-1.35	0
105	SLE RA 13	-3	-372	2265	13.57	-2.05	0
105	SLE RA 14	-1	-371	2272	13.23	-0.3	-0.01
105	SLE RA 15	-2	-371	2268	13.43	-1.35	0
105	SLE RA 16	-1	-371	2272	13.23	-0.3	-0.01
105	SLE RA 17	-2	-371	2268	13.43	-1.35	0
105	SLE RA 18	-1	-397	2367	14.16	-0.29	-0.01
105	SLE RA 19	-2	-398	2363	14.37	-1.34	-0.01
105	SLE RA 20	-1	-397	2367	14.16	-0.29	-0.01
105	SLE RA 21	-2	-398	2363	14.37	-1.34	-0.01
105	SLE FR 1	0	-308	2051	11.06	-0.32	0
105	SLE FR 2	-1	-309	2049	11.13	-0.67	0
105	SLE FR 3	0	-308	2051	11.06	-0.32	0
105	SLE FR 4	-1	-335	2144	12.06	-0.66	0
105	SLE FR 5	0	-335	2146	11.99	-0.31	0
105	SLE FR 6	-1	-353	2209	12.61	-0.3	0
105	SLE QP 1	0	-308	2051	11.06	-0.32	0
105	SLE QP 2	0	-335	2146	11.99	-0.31	0
105	SLD 1	-9	-392	2069	14.4	12.82	0.01
105	SLD 2	-9	-392	2069	14.4	12.82	0.01
105	SLD 3	-5	-338	2111	12.06	15.55	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
105	SLD 4	-5	-338	2111	12.06	15.55	0.01
105	SLD 5	-8	-434	2059	16.26	-0.5	-0.01
105	SLD 6	-8	-434	2059	16.26	-0.5	-0.01
105	SLD 7	3	-254	2198	8.47	8.58	0
105	SLD 8	3	-254	2198	8.47	8.58	0
105	SLD 9	-4	-416	2093	15.52	-9.2	-0.01
105	SLD 10	-4	-416	2093	15.52	-9.2	-0.01
105	SLD 11	7	-236	2232	7.73	-0.12	0
105	SLD 12	7	-236	2232	7.73	-0.12	0
105	SLD 13	4	-332	2181	11.93	-16.17	-0.02
105	SLD 14	4	-332	2181	11.93	-16.17	-0.02
105	SLD 15	8	-278	2222	9.59	-13.44	-0.01
105	SLD 16	8	-278	2222	9.59	-13.44	-0.01
105	SLV 1	-20	-471	1959	18.06	32.86	0.02
105	SLV 2	-20	-471	1959	18.06	32.86	0.02
105	SLV 3	-12	-343	2063	12.25	39.75	0.03
105	SLV 4	-12	-343	2063	12.25	39.75	0.03
105	SLV 5	-19	-569	1931	22.62	-0.82	-0.01
105	SLV 6	-19	-569	1931	22.62	-0.82	-0.01
105	SLV 7	9	-145	2279	3.26	22.17	0.02
105	SLV 8	9	-145	2279	3.26	22.17	0.02
105	SLV 9	-10	-525	2012	20.72	-22.79	-0.03
105	SLV 10	-10	-525	2012	20.72	-22.79	-0.03
105	SLV 11	18	-101	2360	1.37	0.2	0
105	SLV 12	18	-101	2360	1.37	0.2	0
105	SLV 13	11	-327	2228	11.73	-40.37	-0.04
105	SLV 14	11	-327	2228	11.73	-40.37	-0.04
105	SLV 15	20	-199	2333	5.93	-33.48	-0.03
105	SLV 16	20	-199	2333	5.93	-33.48	-0.03
106	SLU 1	0	-186	1946	7.03	0.41	0.01
106	SLU 2	8	-171	1909	6.4	8.29	0
106	SLU 3	0	-186	1946	7.03	0.41	0.01
106	SLU 4	5	-177	1924	6.65	5.13	0
106	SLU 5	8	-171	1909	6.4	8.29	0
106	SLU 6	0	-186	1946	7.03	0.41	0.01
106	SLU 7	5	-177	1924	6.65	5.13	0
106	SLU 8	0	-186	1946	7.03	0.41	0.01
106	SLU 9	5	-177	1924	6.65	5.13	0
106	SLU 10	8	-271	2387	9.96	8.37	0
106	SLU 11	0	-286	2424	10.59	0.5	0.01
106	SLU 12	5	-277	2401	10.21	5.22	0
106	SLU 13	8	-271	2387	9.96	8.37	0
106	SLU 14	0	-286	2424	10.59	0.5	0.01
106	SLU 15	5	-277	2401	10.21	5.22	0
106	SLU 16	0	-286	2424	10.59	0.5	0.01
106	SLU 17	5	-277	2401	10.21	5.22	0
106	SLU 18	0	-329	2628	12.12	0.53	0.01
106	SLU 19	5	-320	2606	11.74	5.26	0
106	SLU 20	0	-329	2628	12.12	0.53	0.01
106	SLU 21	5	-320	2606	11.74	5.26	0
106	SLU 22	0	-221	2156	8.3	0.46	0.01
106	SLU 23	8	-206	2119	7.66	8.33	0
106	SLU 24	0	-221	2156	8.3	0.46	0.01
106	SLU 25	5	-212	2133	7.92	5.18	0
106	SLU 26	8	-206	2119	7.66	8.33	0
106	SLU 27	0	-221	2156	8.3	0.46	0.01
106	SLU 28	5	-212	2133	7.92	5.18	0
106	SLU 29	0	-221	2156	8.3	0.46	0.01
106	SLU 30	5	-212	2133	7.92	5.18	0
106	SLU 31	8	-306	2596	11.22	8.42	0
106	SLU 32	0	-321	2633	11.86	0.54	0.01
106	SLU 33	5	-312	2611	11.48	5.27	0
106	SLU 34	8	-306	2596	11.22	8.42	0
106	SLU 35	0	-321	2633	11.86	0.54	0.01
106	SLU 36	5	-312	2611	11.48	5.27	0
106	SLU 37	0	-321	2633	11.86	0.54	0.01
106	SLU 38	5	-312	2611	11.48	5.27	0
106	SLU 39	0	-364	2837	13.39	0.58	0.01
106	SLU 40	5	-355	2815	13	5.31	0
106	SLU 41	0	-364	2837	13.39	0.58	0.01
106	SLU 42	5	-355	2815	13	5.31	0
106	SLU 43	0	-230	2458	8.71	0.51	0.01
106	SLU 44	8	-215	2421	8.07	8.39	0
106	SLU 45	0	-230	2458	8.71	0.51	0.01
106	SLU 46	5	-221	2436	8.33	5.24	0
106	SLU 47	8	-215	2421	8.07	8.39	0
106	SLU 48	0	-230	2458	8.71	0.51	0.01
106	SLU 49	5	-221	2436	8.33	5.24	0
106	SLU 50	0	-230	2458	8.71	0.51	0.01
106	SLU 51	5	-221	2436	8.33	5.24	0
106	SLU 52	9	-315	2899	11.63	8.48	0
106	SLU 53	0	-330	2936	12.27	0.6	0.01
106	SLU 54	5	-321	2914	11.89	5.33	0.01
106	SLU 55	9	-315	2899	11.63	8.48	0
106	SLU 56	0	-330	2936	12.27	0.6	0.01
106	SLU 57	5	-321	2914	11.89	5.33	0.01
106	SLU 58	0	-330	2936	12.27	0.6	0.01
106	SLU 59	5	-321	2914	11.89	5.33	0.01
106	SLU 60	0	-373	3140	13.8	0.64	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
106	SLU 61	5	-364	3118	13.41	5.37	0.01
106	SLU 62	0	-373	3140	13.8	0.64	0.01
106	SLU 63	5	-364	3118	13.41	5.37	0.01
106	SLU 64	0	-265	2668	9.98	0.56	0.01
106	SLU 65	8	-249	2631	9.34	8.44	0
106	SLU 66	0	-265	2668	9.98	0.56	0.01
106	SLU 67	5	-255	2646	9.59	5.29	0.01
106	SLU 68	8	-249	2631	9.34	8.44	0
106	SLU 69	0	-265	2668	9.98	0.56	0.01
106	SLU 70	5	-255	2646	9.59	5.29	0.01
106	SLU 71	0	-265	2668	9.98	0.56	0.01
106	SLU 72	5	-255	2646	9.59	5.29	0.01
106	SLU 73	9	-350	3108	12.9	8.53	0
106	SLU 74	0	-365	3145	13.54	0.65	0.01
106	SLU 75	5	-356	3123	13.15	5.38	0.01
106	SLU 76	9	-350	3108	12.9	8.53	0
106	SLU 77	0	-365	3145	13.54	0.65	0.01
106	SLU 78	5	-356	3123	13.15	5.38	0.01
106	SLU 79	0	-365	3145	13.54	0.65	0.01
106	SLU 80	5	-356	3123	13.15	5.38	0.01
106	SLU 81	0	-408	3350	15.06	0.69	0.01
106	SLU 82	5	-399	3327	14.68	5.41	0.01
106	SLU 83	0	-408	3350	15.06	0.69	0.01
106	SLU 84	5	-399	3327	14.68	5.41	0.01
106	SLE RA 1	0	-196	2006	7.4	0.42	0.01
106	SLE RA 2	6	-186	1981	6.97	5.67	0
106	SLE RA 3	0	-196	2006	7.4	0.42	0.01
106	SLE RA 4	4	-190	1991	7.14	3.57	0
106	SLE RA 5	6	-186	1981	6.97	5.67	0
106	SLE RA 6	0	-196	2006	7.4	0.42	0.01
106	SLE RA 7	4	-190	1991	7.14	3.57	0
106	SLE RA 8	0	-196	2006	7.4	0.42	0.01
106	SLE RA 9	4	-190	1991	7.14	3.57	0
106	SLE RA 10	6	-253	2300	9.34	5.73	0
106	SLE RA 11	0	-263	2324	9.77	0.48	0.01
106	SLE RA 12	4	-257	2310	9.51	3.63	0
106	SLE RA 13	6	-253	2300	9.34	5.73	0
106	SLE RA 14	0	-263	2324	9.77	0.48	0.01
106	SLE RA 15	4	-257	2310	9.51	3.63	0
106	SLE RA 16	0	-263	2324	9.77	0.48	0.01
106	SLE RA 17	4	-257	2310	9.51	3.63	0
106	SLE RA 18	0	-291	2461	10.79	0.51	0.01
106	SLE RA 19	4	-285	2446	10.53	3.66	0
106	SLE RA 20	0	-291	2461	10.79	0.51	0.01
106	SLE RA 21	4	-285	2446	10.53	3.66	0
106	SLE FR 1	0	-196	2006	7.4	0.42	0.01
106	SLE FR 2	1	-194	2001	7.31	1.47	0.01
106	SLE FR 3	0	-196	2006	7.4	0.42	0.01
106	SLE FR 4	1	-222	2138	8.33	1.5	0.01
106	SLE FR 5	0	-224	2142	8.41	0.45	0.01
106	SLE FR 6	0	-244	2233	9.09	0.46	0.01
106	SLE QP 1	0	-196	2006	7.4	0.42	0.01
106	SLE QP 2	0	-224	2142	8.41	0.45	0.01
106	SLD 1	-2	-172	2191	6.62	12.48	0.02
106	SLD 2	-2	-172	2191	6.62	12.48	0.02
106	SLD 3	-12	-222	2267	8.44	6.96	0.01
106	SLD 4	-12	-222	2267	8.44	6.96	0.01
106	SLD 5	15	-132	2041	5.13	12.44	0.03
106	SLD 6	15	-132	2041	5.13	12.44	0.03
106	SLD 7	-19	-300	2296	11.17	-5.98	-0.01
106	SLD 8	-19	-300	2296	11.17	-5.98	-0.01
106	SLD 9	20	-149	1989	5.66	6.87	0.02
106	SLD 10	20	-149	1989	5.66	6.87	0.02
106	SLD 11	-15	-317	2244	11.7	-11.54	-0.01
106	SLD 12	-15	-317	2244	11.7	-11.54	-0.01
106	SLD 13	13	-227	2018	8.39	-6.06	0
106	SLD 14	13	-227	2018	8.39	-6.06	0
106	SLD 15	2	-277	2094	10.2	-11.59	-0.01
106	SLD 16	2	-277	2094	10.2	-11.59	-0.01
106	SLV 1	-4	-97	2244	4.09	30.61	0.04
106	SLV 2	-4	-97	2244	4.09	30.61	0.04
106	SLV 3	-31	-224	2457	8.57	16.52	0.01
106	SLV 4	-31	-224	2457	8.57	16.52	0.01
106	SLV 5	39	6	1850	0.31	30.87	0.06
106	SLV 6	39	6	1850	0.31	30.87	0.06
106	SLV 7	-49	-416	2560	15.27	-16.1	-0.04
106	SLV 8	-49	-416	2560	15.27	-16.1	-0.04
106	SLV 9	50	-33	1725	1.56	17	0.05
106	SLV 10	50	-33	1725	1.56	17	0.05
106	SLV 11	-38	-455	2435	16.52	-29.98	-0.04
106	SLV 12	-38	-455	2435	16.52	-29.98	-0.04
106	SLV 13	31	-225	1828	8.26	-15.63	0
106	SLV 14	31	-225	1828	8.26	-15.63	0
106	SLV 15	5	-352	2041	12.74	-29.72	-0.02
106	SLV 16	5	-352	2041	12.74	-29.72	-0.02
107	SLU 1	0	-312	1391	11.2	-0.03	0
107	SLU 2	2	-264	1350	9.21	0.6	0
107	SLU 3	0	-312	1391	11.2	-0.03	0
107	SLU 4	1	-283	1366	10.01	0.35	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
107	SLU 5	2	-264	1350	9.21	0.6	0
107	SLU 6	0	-312	1391	11.2	-0.03	0
107	SLU 7	1	-283	1366	10.01	0.35	0
107	SLU 8	0	-312	1391	11.2	-0.03	0
107	SLU 9	1	-283	1366	10.01	0.35	0
107	SLU 10	2	-518	1819	18.19	0.59	0
107	SLU 11	0	-567	1860	20.17	-0.03	0
107	SLU 12	1	-538	1835	18.98	0.34	0
107	SLU 13	2	-518	1819	18.19	0.59	0
107	SLU 14	0	-567	1860	20.17	-0.03	0
107	SLU 15	1	-538	1835	18.98	0.34	0
107	SLU 16	0	-567	1860	20.17	-0.03	0
107	SLU 17	1	-538	1835	18.98	0.34	0
107	SLU 18	0	-675	2061	24.01	-0.04	0
107	SLU 19	1	-646	2036	22.82	0.34	0
107	SLU 20	0	-675	2061	24.01	-0.04	0
107	SLU 21	1	-646	2036	22.82	0.34	0
107	SLU 22	0	-422	1614	15.08	-0.03	0
107	SLU 23	2	-374	1572	13.09	0.59	0
107	SLU 24	0	-422	1614	15.08	-0.03	0
107	SLU 25	1	-393	1589	13.89	0.34	0
107	SLU 26	2	-374	1572	13.09	0.59	0
107	SLU 27	0	-422	1614	15.08	-0.03	0
107	SLU 28	1	-393	1589	13.89	0.34	0
107	SLU 29	0	-422	1614	15.08	-0.03	0
107	SLU 30	1	-393	1589	13.89	0.34	0
107	SLU 31	2	-628	2041	22.07	0.58	0
107	SLU 32	0	-676	2083	24.05	-0.04	0
107	SLU 33	1	-647	2058	22.86	0.33	0
107	SLU 34	2	-628	2041	22.07	0.58	0
107	SLU 35	0	-676	2083	24.05	-0.04	0
107	SLU 36	1	-647	2058	22.86	0.33	0
107	SLU 37	0	-676	2083	24.05	-0.04	0
107	SLU 38	1	-647	2058	22.86	0.33	0
107	SLU 39	0	-785	2284	27.89	-0.04	0
107	SLU 40	1	-756	2259	26.7	0.33	0
107	SLU 41	0	-785	2284	27.89	-0.04	0
107	SLU 42	1	-756	2259	26.7	0.33	0
107	SLU 43	0	-368	1733	13.22	-0.03	0
107	SLU 44	2	-320	1691	11.24	0.59	0
107	SLU 45	0	-368	1733	13.22	-0.03	0
107	SLU 46	1	-339	1708	12.03	0.34	0
107	SLU 47	2	-320	1691	11.24	0.59	0
107	SLU 48	0	-368	1733	13.22	-0.03	0
107	SLU 49	1	-339	1708	12.03	0.34	0
107	SLU 50	0	-368	1733	13.22	-0.03	0
107	SLU 51	1	-339	1708	12.03	0.34	0
107	SLU 52	2	-574	2160	20.21	0.58	0
107	SLU 53	0	-623	2202	22.19	-0.04	0
107	SLU 54	1	-594	2177	21.01	0.33	0
107	SLU 55	2	-574	2160	20.21	0.58	0
107	SLU 56	0	-623	2202	22.19	-0.04	0
107	SLU 57	1	-594	2177	21.01	0.33	0
107	SLU 58	0	-623	2202	22.19	-0.04	0
107	SLU 59	1	-594	2177	21.01	0.33	0
107	SLU 60	0	-731	2403	26.04	-0.04	0
107	SLU 61	1	-703	2378	24.85	0.33	0
107	SLU 62	0	-731	2403	26.04	-0.04	0
107	SLU 63	1	-703	2378	24.85	0.33	0
107	SLU 64	0	-478	1955	17.1	-0.04	0
107	SLU 65	2	-430	1913	15.12	0.59	0
107	SLU 66	0	-478	1955	17.1	-0.04	0
107	SLU 67	1	-449	1930	15.92	0.34	0
107	SLU 68	2	-430	1913	15.12	0.59	0
107	SLU 69	0	-478	1955	17.1	-0.04	0
107	SLU 70	1	-449	1930	15.92	0.34	0
107	SLU 71	0	-478	1955	17.1	-0.04	0
107	SLU 72	1	-449	1930	15.92	0.34	0
107	SLU 73	2	-684	2382	24.09	0.58	0
107	SLU 74	0	-732	2424	26.08	-0.04	0
107	SLU 75	1	-704	2399	24.89	0.33	0
107	SLU 76	2	-684	2382	24.09	0.58	0
107	SLU 77	0	-732	2424	26.08	-0.04	0
107	SLU 78	1	-704	2399	24.89	0.33	0
107	SLU 79	0	-732	2424	26.08	-0.04	0
107	SLU 80	1	-704	2399	24.89	0.33	0
107	SLU 81	0	-841	2625	29.92	-0.05	0
107	SLU 82	1	-812	2600	28.73	0.32	0
107	SLU 83	0	-841	2625	29.92	-0.05	0
107	SLU 84	1	-812	2600	28.73	0.32	0
107	SLE RA 1	0	-344	1455	12.3	-0.03	0
107	SLE RA 2	1	-312	1427	10.98	0.39	0
107	SLE RA 3	0	-344	1455	12.3	-0.03	0
107	SLE RA 4	1	-324	1438	11.51	0.22	0
107	SLE RA 5	1	-312	1427	10.98	0.39	0
107	SLE RA 6	0	-344	1455	12.3	-0.03	0
107	SLE RA 7	1	-324	1438	11.51	0.22	0
107	SLE RA 8	0	-344	1455	12.3	-0.03	0
107	SLE RA 9	1	-324	1438	11.51	0.22	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
107	SLE RA 10	1	-481	1740	16.96	0.38	0
107	SLE RA 11	0	-513	1768	18.29	-0.03	0
107	SLE RA 12	1	-494	1751	17.49	0.22	0
107	SLE RA 13	1	-481	1740	16.96	0.38	0
107	SLE RA 14	0	-513	1768	18.29	-0.03	0
107	SLE RA 15	1	-494	1751	17.49	0.22	0
107	SLE RA 16	0	-513	1768	18.29	-0.03	0
107	SLE RA 17	1	-494	1751	17.49	0.22	0
107	SLE RA 18	0	-586	1902	20.85	-0.03	0
107	SLE RA 19	1	-567	1885	20.06	0.21	0
107	SLE RA 20	0	-586	1902	20.85	-0.03	0
107	SLE RA 21	1	-567	1885	20.06	0.21	0
107	SLE FR 1	0	-344	1455	12.3	-0.03	0
107	SLE FR 2	0	-337	1449	12.04	0.06	0
107	SLE FR 3	0	-344	1455	12.3	-0.03	0
107	SLE FR 4	0	-410	1583	14.6	0.05	0
107	SLE FR 5	0	-416	1589	14.87	-0.03	0
107	SLE FR 6	0	-465	1678	16.58	-0.03	0
107	SLE QP 1	0	-344	1455	12.3	-0.03	0
107	SLE QP 2	0	-416	1589	14.87	-0.03	0
107	SLD 1	-5	-286	1534	9.87	5.06	0.01
107	SLD 2	-5	-286	1534	9.87	5.06	0.01
107	SLD 3	-6	-479	1714	17.44	4.45	0.01
107	SLD 4	-6	-479	1714	17.44	4.45	0.01
107	SLD 5	0	-84	1300	1.88	2.42	0
107	SLD 6	0	-84	1300	1.88	2.42	0
107	SLD 7	-4	-729	1899	27.13	0.39	0.01
107	SLD 8	-4	-729	1899	27.13	0.39	0.01
107	SLD 9	4	-104	1279	2.6	-0.45	-0.01
107	SLD 10	4	-104	1279	2.6	-0.45	-0.01
107	SLD 11	0	-749	1878	27.86	-2.48	0
107	SLD 12	0	-749	1878	27.86	-2.48	0
107	SLD 13	6	-353	1464	12.29	-4.51	-0.02
107	SLD 14	6	-353	1464	12.29	-4.51	-0.02
107	SLD 15	5	-547	1644	19.87	-5.12	-0.01
107	SLD 16	5	-547	1644	19.87	-5.12	-0.01
107	SLV 1	-12	-99	1470	2.81	13.03	0.03
107	SLV 2	-12	-99	1470	2.81	13.03	0.03
107	SLV 3	-15	-545	1882	20.25	11.45	0.04
107	SLV 4	-15	-545	1882	20.25	11.45	0.04
107	SLV 5	1	355	927	-15.21	6.27	0
107	SLV 6	1	355	927	-15.21	6.27	0
107	SLV 7	-9	-1131	2303	42.94	1.03	0.02
107	SLV 8	-9	-1131	2303	42.94	1.03	0.02
107	SLV 9	9	298	875	-13.21	-1.09	-0.02
107	SLV 10	9	298	875	-13.21	-1.09	-0.02
107	SLV 11	-1	-1188	2251	44.94	-6.33	0
107	SLV 12	-1	-1188	2251	44.94	-6.33	0
107	SLV 13	15	-288	1296	9.48	-11.51	-0.04
107	SLV 14	15	-288	1296	9.48	-11.51	-0.04
107	SLV 15	12	-734	1708	26.93	-13.08	-0.03
107	SLV 16	12	-734	1708	26.93	-13.08	-0.03
108	SLU 1	0	-60	1463	3.47	-0.03	0
108	SLU 2	-4	5	1427	-0.79	-2.74	-0.01
108	SLU 3	0	-60	1463	3.47	-0.03	0
108	SLU 4	-2	-21	1442	0.91	-1.65	0
108	SLU 5	-4	5	1427	-0.79	-2.74	-0.01
108	SLU 6	0	-60	1463	3.47	-0.03	0
108	SLU 7	-2	-21	1442	0.91	-1.65	0
108	SLU 8	0	-60	1463	3.47	-0.03	0
108	SLU 9	-2	-21	1442	0.91	-1.65	0
108	SLU 10	-4	9	1548	-0.7	-2.74	-0.01
108	SLU 11	0	-56	1584	3.57	-0.04	0
108	SLU 12	-2	-17	1563	1.01	-1.66	0
108	SLU 13	-4	9	1548	-0.7	-2.74	-0.01
108	SLU 14	0	-56	1584	3.57	-0.04	0
108	SLU 15	-2	-17	1563	1.01	-1.66	0
108	SLU 16	0	-56	1584	3.57	-0.04	0
108	SLU 17	-2	-17	1563	1.01	-1.66	0
108	SLU 18	0	-55	1636	3.61	-0.04	0
108	SLU 19	-2	-16	1614	1.05	-1.66	0
108	SLU 20	0	-55	1636	3.61	-0.04	0
108	SLU 21	-2	-16	1614	1.05	-1.66	0
108	SLU 22	0	-58	1551	3.54	-0.04	0
108	SLU 23	-4	8	1515	-0.72	-2.74	-0.01
108	SLU 24	0	-58	1551	3.54	-0.04	0
108	SLU 25	-2	-18	1529	0.98	-1.66	0
108	SLU 26	-4	8	1515	-0.72	-2.74	-0.01
108	SLU 27	0	-58	1551	3.54	-0.04	0
108	SLU 28	-2	-18	1529	0.98	-1.66	0
108	SLU 29	0	-58	1551	3.54	-0.04	0
108	SLU 30	-2	-18	1529	0.98	-1.66	0
108	SLU 31	-4	12	1635	-0.63	-2.75	-0.01
108	SLU 32	0	-54	1671	3.64	-0.04	0
108	SLU 33	-2	-15	1650	1.08	-1.67	0
108	SLU 34	-4	12	1635	-0.63	-2.75	-0.01
108	SLU 35	0	-54	1671	3.64	-0.04	0
108	SLU 36	-2	-15	1650	1.08	-1.67	0
108	SLU 37	0	-54	1671	3.64	-0.04	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
108	SLU 38	-2	-15	1650	1.08	-1.67	0
108	SLU 39	0	-52	1723	3.68	-0.05	0
108	SLU 40	-2	-13	1702	1.12	-1.67	0
108	SLU 41	0	-52	1723	3.68	-0.05	0
108	SLU 42	-2	-13	1702	1.12	-1.67	0
108	SLU 43	0	-79	1872	4.49	-0.04	0
108	SLU 44	-4	-14	1836	0.22	-2.74	-0.01
108	SLU 45	0	-79	1872	4.49	-0.04	0
108	SLU 46	-2	-40	1851	1.93	-1.66	0
108	SLU 47	-4	-14	1836	0.22	-2.74	-0.01
108	SLU 48	0	-79	1872	4.49	-0.04	0
108	SLU 49	-2	-40	1851	1.93	-1.66	0
108	SLU 50	0	-79	1872	4.49	-0.04	0
108	SLU 51	-2	-40	1851	1.93	-1.66	0
108	SLU 52	-4	-10	1957	0.32	-2.75	-0.01
108	SLU 53	0	-75	1993	4.58	-0.04	0
108	SLU 54	-2	-36	1972	2.02	-1.66	0
108	SLU 55	-4	-10	1957	0.32	-2.75	-0.01
108	SLU 56	0	-75	1993	4.58	-0.04	0
108	SLU 57	-2	-36	1972	2.02	-1.66	0
108	SLU 58	0	-75	1993	4.58	-0.04	0
108	SLU 59	-2	-36	1972	2.02	-1.66	0
108	SLU 60	0	-74	2045	4.62	-0.04	0
108	SLU 61	-2	-35	2023	2.07	-1.67	0
108	SLU 62	0	-74	2045	4.62	-0.04	0
108	SLU 63	-2	-35	2023	2.07	-1.67	0
108	SLU 64	0	-76	1960	4.56	-0.05	0
108	SLU 65	-4	-11	1924	0.29	-2.75	-0.01
108	SLU 66	0	-76	1960	4.56	-0.05	0
108	SLU 67	-2	-37	1938	2	-1.67	0
108	SLU 68	-4	-11	1924	0.29	-2.75	-0.01
108	SLU 69	0	-76	1960	4.56	-0.05	0
108	SLU 70	-2	-37	1938	2	-1.67	0
108	SLU 71	0	-76	1960	4.56	-0.05	0
108	SLU 72	-2	-37	1938	2	-1.67	0
108	SLU 73	-4	-7	2045	0.39	-2.76	-0.01
108	SLU 74	0	-73	2080	4.65	-0.05	0
108	SLU 75	-2	-34	2059	2.09	-1.67	0
108	SLU 76	-4	-7	2045	0.39	-2.76	-0.01
108	SLU 77	0	-73	2080	4.65	-0.05	0
108	SLU 78	-2	-34	2059	2.09	-1.67	0
108	SLU 79	0	-73	2080	4.65	-0.05	0
108	SLU 80	-2	-34	2059	2.09	-1.67	0
108	SLU 81	0	-71	2132	4.69	-0.05	0
108	SLU 82	-2	-32	2111	2.14	-1.68	0
108	SLU 83	0	-71	2132	4.69	-0.05	0
108	SLU 84	-2	-32	2111	2.14	-1.68	0
108	SLE RA 1	0	-59	1488	3.49	-0.03	0
108	SLE RA 2	-3	-16	1464	0.65	-1.84	0
108	SLE RA 3	0	-59	1488	3.49	-0.03	0
108	SLE RA 4	-2	-33	1474	1.79	-1.12	0
108	SLE RA 5	-3	-16	1464	0.65	-1.84	0
108	SLE RA 6	0	-59	1488	3.49	-0.03	0
108	SLE RA 7	-2	-33	1474	1.79	-1.12	0
108	SLE RA 8	0	-59	1488	3.49	-0.03	0
108	SLE RA 9	-2	-33	1474	1.79	-1.12	0
108	SLE RA 10	-3	-13	1545	0.71	-1.84	0
108	SLE RA 11	0	-57	1569	3.55	-0.04	0
108	SLE RA 12	-2	-31	1554	1.85	-1.12	0
108	SLE RA 13	-3	-13	1545	0.71	-1.84	0
108	SLE RA 14	0	-57	1569	3.55	-0.04	0
108	SLE RA 15	-2	-31	1554	1.85	-1.12	0
108	SLE RA 16	0	-57	1569	3.55	-0.04	0
108	SLE RA 17	-2	-31	1554	1.85	-1.12	0
108	SLE RA 18	0	-56	1603	3.58	-0.04	0
108	SLE RA 19	-2	-30	1589	1.88	-1.12	0
108	SLE RA 20	0	-56	1603	3.58	-0.04	0
108	SLE RA 21	-2	-30	1589	1.88	-1.12	0
108	SLE FR 1	0	-59	1488	3.49	-0.03	0
108	SLE FR 2	-1	-51	1483	2.92	-0.39	0
108	SLE FR 3	0	-59	1488	3.49	-0.03	0
108	SLE FR 4	-1	-50	1518	2.95	-0.4	0
108	SLE FR 5	0	-58	1523	3.52	-0.04	0
108	SLE FR 6	0	-58	1546	3.54	-0.04	0
108	SLE QP 1	0	-59	1488	3.49	-0.03	0
108	SLE QP 2	0	-58	1523	3.52	-0.04	0
108	SLD 1	-8	-8	1488	1.09	-4.22	-0.01
108	SLD 2	-8	-8	1488	1.09	-4.22	-0.01
108	SLD 3	-3	-60	1525	3.44	-1.31	-0.01
108	SLD 4	-3	-60	1525	3.44	-1.31	-0.01
108	SLD 5	-10	36	1457	-0.77	-5.7	-0.01
108	SLD 6	-10	36	1457	-0.77	-5.7	-0.01
108	SLD 7	6	-138	1579	7.06	3.99	0.01
108	SLD 8	6	-138	1579	7.06	3.99	0.01
108	SLD 9	-6	22	1467	-0.02	-4.06	-0.01
108	SLD 10	-6	22	1467	-0.02	-4.06	-0.01
108	SLD 11	10	-153	1588	7.81	5.63	0.01
108	SLD 12	10	-153	1588	7.81	5.63	0.01
108	SLD 13	3	-56	1521	3.6	1.24	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
108	SLD 14	3	-56	1521	3.6	1.24	0.01
108	SLD 15	8	-109	1557	5.95	4.15	0.01
108	SLD 16	8	-109	1557	5.95	4.15	0.01
108	SLV 1	-19	65	1439	-2.55	-10.37	-0.03
108	SLV 2	-19	65	1439	-2.55	-10.37	-0.03
108	SLV 3	-7	-61	1526	3.23	-3.01	-0.02
108	SLV 4	-7	-61	1526	3.23	-3.01	-0.02
108	SLV 5	-24	171	1366	-7.06	-14.29	-0.03
108	SLV 6	-24	171	1366	-7.06	-14.29	-0.03
108	SLV 7	16	-251	1655	12.19	10.23	0.02
108	SLV 8	16	-251	1655	12.19	10.23	0.02
108	SLV 9	-16	135	1390	-5.15	-10.3	-0.02
108	SLV 10	-16	135	1390	-5.15	-10.3	-0.02
108	SLV 11	24	-288	1680	14.1	14.22	0.03
108	SLV 12	24	-288	1680	14.1	14.22	0.03
108	SLV 13	7	-55	1520	3.81	2.94	0.02
108	SLV 14	7	-55	1520	3.81	2.94	0.02
108	SLV 15	19	-182	1607	9.58	10.29	0.03
108	SLV 16	19	-182	1607	9.58	10.29	0.03
109	SLU 1	-3	-368	2097	14.67	-0.86	0.01
109	SLU 2	-5	-359	2073	13.79	-2.33	0.01
109	SLU 3	-3	-368	2097	14.67	-0.86	0.01
109	SLU 4	-4	-363	2082	14.14	-1.74	0.01
109	SLU 5	-5	-359	2073	13.79	-2.33	0.01
109	SLU 6	-3	-368	2097	14.67	-0.86	0.01
109	SLU 7	-4	-363	2082	14.14	-1.74	0.01
109	SLU 8	-3	-368	2097	14.67	-0.86	0.01
109	SLU 9	-4	-363	2082	14.14	-1.74	0.01
109	SLU 10	-5	-467	2381	17.67	-2.37	0.01
109	SLU 11	-3	-475	2405	18.55	-0.9	0.01
109	SLU 12	-5	-470	2391	18.03	-1.79	0.01
109	SLU 13	-5	-467	2381	17.67	-2.37	0.01
109	SLU 14	-3	-475	2405	18.55	-0.9	0.01
109	SLU 15	-5	-470	2391	18.03	-1.79	0.01
109	SLU 16	-3	-475	2405	18.55	-0.9	0.01
109	SLU 17	-5	-470	2391	18.03	-1.79	0.01
109	SLU 18	-4	-521	2538	20.22	-0.92	0.02
109	SLU 19	-5	-516	2523	19.69	-1.8	0.01
109	SLU 20	-4	-521	2538	20.22	-0.92	0.02
109	SLU 21	-5	-516	2523	19.69	-1.8	0.01
109	SLU 22	-3	-423	2255	16.67	-0.89	0.01
109	SLU 23	-5	-414	2231	15.79	-2.36	0.01
109	SLU 24	-3	-423	2255	16.67	-0.89	0.01
109	SLU 25	-4	-418	2241	16.14	-1.77	0.01
109	SLU 26	-5	-414	2231	15.79	-2.36	0.01
109	SLU 27	-3	-423	2255	16.67	-0.89	0.01
109	SLU 28	-4	-418	2241	16.14	-1.77	0.01
109	SLU 29	-3	-423	2255	16.67	-0.89	0.01
109	SLU 30	-4	-418	2241	16.14	-1.77	0.01
109	SLU 31	-6	-522	2539	19.67	-2.4	0.01
109	SLU 32	-4	-530	2564	20.55	-0.93	0.02
109	SLU 33	-5	-525	2549	20.02	-1.81	0.01
109	SLU 34	-6	-522	2539	19.67	-2.4	0.01
109	SLU 35	-4	-530	2564	20.55	-0.93	0.02
109	SLU 36	-5	-525	2549	20.02	-1.81	0.01
109	SLU 37	-4	-530	2564	20.55	-0.93	0.02
109	SLU 38	-5	-525	2549	20.02	-1.81	0.01
109	SLU 39	-4	-576	2696	22.22	-0.95	0.02
109	SLU 40	-5	-571	2681	21.69	-1.83	0.01
109	SLU 41	-4	-576	2696	22.22	-0.95	0.02
109	SLU 42	-5	-571	2681	21.69	-1.83	0.01
109	SLU 43	-4	-459	2672	18.39	-1.11	0.02
109	SLU 44	-6	-451	2648	17.5	-2.58	0.01
109	SLU 45	-4	-459	2672	18.39	-1.11	0.02
109	SLU 46	-5	-454	2657	17.86	-1.99	0.01
109	SLU 47	-6	-451	2648	17.5	-2.58	0.01
109	SLU 48	-4	-459	2672	18.39	-1.11	0.02
109	SLU 49	-5	-454	2657	17.86	-1.99	0.01
109	SLU 50	-4	-459	2672	18.39	-1.11	0.02
109	SLU 51	-5	-454	2657	17.86	-1.99	0.01
109	SLU 52	-6	-558	2956	21.39	-2.62	0.01
109	SLU 53	-4	-567	2980	22.27	-1.15	0.02
109	SLU 54	-5	-562	2966	21.74	-2.03	0.02
109	SLU 55	-6	-558	2956	21.39	-2.62	0.01
109	SLU 56	-4	-567	2980	22.27	-1.15	0.02
109	SLU 57	-5	-562	2966	21.74	-2.03	0.02
109	SLU 58	-4	-567	2980	22.27	-1.15	0.02
109	SLU 59	-5	-562	2966	21.74	-2.03	0.02
109	SLU 60	-4	-613	3112	23.93	-1.17	0.02
109	SLU 61	-6	-608	3098	23.41	-2.05	0.02
109	SLU 62	-4	-613	3112	23.93	-1.17	0.02
109	SLU 63	-6	-608	3098	23.41	-2.05	0.02
109	SLU 64	-4	-514	2830	20.38	-1.14	0.02
109	SLU 65	-6	-506	2806	19.5	-2.61	0.01
109	SLU 66	-4	-514	2830	20.38	-1.14	0.02
109	SLU 67	-5	-509	2815	19.85	-2.02	0.02
109	SLU 68	-6	-506	2806	19.5	-2.61	0.01
109	SLU 69	-4	-514	2830	20.38	-1.14	0.02
109	SLU 70	-5	-509	2815	19.85	-2.02	0.02





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
109	SLU 71	-4	-514	2830	20.38	-1.14	0.02
109	SLU 72	-5	-509	2815	19.85	-2.02	0.02
109	SLU 73	-6	-613	3114	23.39	-2.65	0.02
109	SLU 74	-4	-622	3138	24.27	-1.18	0.02
109	SLU 75	-6	-617	3124	23.74	-2.06	0.02
109	SLU 76	-6	-613	3114	23.39	-2.65	0.02
109	SLU 77	-4	-622	3138	24.27	-1.18	0.02
109	SLU 78	-6	-617	3124	23.74	-2.06	0.02
109	SLU 79	-4	-622	3138	24.27	-1.18	0.02
109	SLU 80	-6	-617	3124	23.74	-2.06	0.02
109	SLU 81	-5	-668	3271	25.93	-1.2	0.02
109	SLU 82	-6	-663	3256	25.4	-2.08	0.02
109	SLU 83	-5	-668	3271	25.93	-1.2	0.02
109	SLU 84	-6	-663	3256	25.4	-2.08	0.02
109	SLE RA 1	-3	-384	2142	15.24	-0.87	0.01
109	SLE RA 2	-4	-378	2126	14.65	-1.85	0.01
109	SLE RA 3	-3	-384	2142	15.24	-0.87	0.01
109	SLE RA 4	-4	-380	2132	14.89	-1.46	0.01
109	SLE RA 5	-4	-378	2126	14.65	-1.85	0.01
109	SLE RA 6	-3	-384	2142	15.24	-0.87	0.01
109	SLE RA 7	-4	-380	2132	14.89	-1.46	0.01
109	SLE RA 8	-3	-384	2142	15.24	-0.87	0.01
109	SLE RA 9	-4	-380	2132	14.89	-1.46	0.01
109	SLE RA 10	-5	-450	2332	17.24	-1.88	0.01
109	SLE RA 11	-3	-455	2348	17.83	-0.9	0.01
109	SLE RA 12	-4	-452	2338	17.48	-1.48	0.01
109	SLE RA 13	-5	-450	2332	17.24	-1.88	0.01
109	SLE RA 14	-3	-455	2348	17.83	-0.9	0.01
109	SLE RA 15	-4	-452	2338	17.48	-1.48	0.01
109	SLE RA 16	-3	-455	2348	17.83	-0.9	0.01
109	SLE RA 17	-4	-452	2338	17.48	-1.48	0.01
109	SLE RA 18	-3	-486	2436	18.94	-0.91	0.01
109	SLE RA 19	-4	-483	2426	18.59	-1.5	0.01
109	SLE RA 20	-3	-486	2436	18.94	-0.91	0.01
109	SLE RA 21	-4	-483	2426	18.59	-1.5	0.01
109	SLE FR 1	-3	-384	2142	15.24	-0.87	0.01
109	SLE FR 2	-3	-382	2139	15.12	-1.06	0.01
109	SLE FR 3	-3	-384	2142	15.24	-0.87	0.01
109	SLE FR 4	-3	-413	2227	16.23	-1.08	0.01
109	SLE FR 5	-3	-414	2230	16.35	-0.88	0.01
109	SLE FR 6	-3	-435	2289	17.09	-0.89	0.01
109	SLE QP 1	-3	-384	2142	15.24	-0.87	0.01
109	SLE QP 2	-3	-414	2230	16.35	-0.88	0.01
109	SLD 1	-10	-419	2088	13.64	4.66	0
109	SLD 2	-10	-419	2088	13.64	4.66	0
109	SLD 3	-8	-473	2162	16.29	6.04	0
109	SLD 4	-8	-473	2162	16.29	6.04	0
109	SLD 5	-8	-334	2074	11.51	-1.32	0
109	SLD 6	-8	-334	2074	11.51	-1.32	0
109	SLD 7	-1	-514	2323	20.36	3.3	0.02
109	SLD 8	-1	-514	2323	20.36	3.3	0.02
109	SLD 9	-5	-315	2137	12.34	-5.06	0.01
109	SLD 10	-5	-315	2137	12.34	-5.06	0.01
109	SLD 11	2	-495	2386	21.19	-0.44	0.03
109	SLD 12	2	-495	2386	21.19	-0.44	0.03
109	SLD 13	1	-356	2298	16.41	-7.8	0.03
109	SLD 14	1	-356	2298	16.41	-7.8	0.03
109	SLD 15	3	-410	2373	19.06	-6.42	0.03
109	SLD 16	3	-410	2373	19.06	-6.42	0.03
109	SLV 1	-19	-425	1882	9.44	13.08	-0.03
109	SLV 2	-19	-425	1882	9.44	13.08	-0.03
109	SLV 3	-15	-554	2069	16.28	16.56	-0.02
109	SLV 4	-15	-554	2069	16.28	16.56	-0.02
109	SLV 5	-15	-221	1843	3.9	-1.97	-0.02
109	SLV 6	-15	-221	1843	3.9	-1.97	-0.02
109	SLV 7	1	-653	2464	26.7	9.63	0.02
109	SLV 8	1	-653	2464	26.7	9.63	0.02
109	SLV 9	-7	-175	1996	6	-11.39	0.01
109	SLV 10	-7	-175	1996	6	-11.39	0.01
109	SLV 11	9	-608	2617	28.8	0.21	0.04
109	SLV 12	9	-608	2617	28.8	0.21	0.04
109	SLV 13	8	-274	2392	16.42	-18.32	0.05
109	SLV 14	8	-274	2392	16.42	-18.32	0.05
109	SLV 15	13	-404	2578	23.26	-14.84	0.06
109	SLV 16	13	-404	2578	23.26	-14.84	0.06
110	SLU 1	3	-257	2151	11.26	1.05	-0.01
110	SLU 2	8	-246	2099	10.82	5.32	-0.01
110	SLU 3	3	-257	2151	11.26	1.05	-0.01
110	SLU 4	6	-250	2120	10.99	3.61	-0.01
110	SLU 5	8	-246	2099	10.82	5.32	-0.01
110	SLU 6	3	-257	2151	11.26	1.05	-0.01
110	SLU 7	6	-250	2120	10.99	3.61	-0.01
110	SLU 8	3	-257	2151	11.26	1.05	-0.01
110	SLU 9	6	-250	2120	10.99	3.61	-0.01
110	SLU 10	8	-366	2584	15.46	5.5	-0.01
110	SLU 11	4	-377	2636	15.9	1.23	-0.02
110	SLU 12	7	-370	2605	15.63	3.79	-0.01
110	SLU 13	8	-366	2584	15.46	5.5	-0.01
110	SLU 14	4	-377	2636	15.9	1.23	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
110	SLU 15	7	-370	2605	15.63	3.79	-0.01
110	SLU 16	4	-377	2636	15.9	1.23	-0.02
110	SLU 17	7	-370	2605	15.63	3.79	-0.01
110	SLU 18	4	-429	2844	17.89	1.31	-0.02
110	SLU 19	7	-422	2812	17.62	3.87	-0.02
110	SLU 20	4	-429	2844	17.89	1.31	-0.02
110	SLU 21	7	-422	2812	17.62	3.87	-0.02
110	SLU 22	4	-299	2377	12.96	1.16	-0.02
110	SLU 23	8	-287	2324	12.52	5.43	-0.01
110	SLU 24	4	-299	2377	12.96	1.16	-0.02
110	SLU 25	6	-292	2345	12.7	3.72	-0.01
110	SLU 26	8	-287	2324	12.52	5.43	-0.01
110	SLU 27	4	-299	2377	12.96	1.16	-0.02
110	SLU 28	6	-292	2345	12.7	3.72	-0.01
110	SLU 29	4	-299	2377	12.96	1.16	-0.02
110	SLU 30	6	-292	2345	12.7	3.72	-0.01
110	SLU 31	9	-407	2809	17.17	5.62	-0.01
110	SLU 32	4	-419	2861	17.6	1.34	-0.02
110	SLU 33	7	-412	2830	17.34	3.91	-0.02
110	SLU 34	9	-407	2809	17.17	5.62	-0.01
110	SLU 35	4	-419	2861	17.6	1.34	-0.02
110	SLU 36	7	-412	2830	17.34	3.91	-0.02
110	SLU 37	4	-419	2861	17.6	1.34	-0.02
110	SLU 38	7	-412	2830	17.34	3.91	-0.02
110	SLU 39	5	-470	3069	19.59	1.42	-0.02
110	SLU 40	7	-463	3038	19.33	3.98	-0.02
110	SLU 41	5	-470	3069	19.59	1.42	-0.02
110	SLU 42	7	-463	3038	19.33	3.98	-0.02
110	SLU 43	4	-320	2719	14.05	1.33	-0.02
110	SLU 44	9	-308	2667	13.61	5.6	-0.01
110	SLU 45	4	-320	2719	14.05	1.33	-0.02
110	SLU 46	7	-313	2688	13.78	3.89	-0.01
110	SLU 47	9	-308	2667	13.61	5.6	-0.01
110	SLU 48	4	-320	2719	14.05	1.33	-0.02
110	SLU 49	7	-313	2688	13.78	3.89	-0.01
110	SLU 50	4	-320	2719	14.05	1.33	-0.02
110	SLU 51	7	-313	2688	13.78	3.89	-0.01
110	SLU 52	9	-429	3152	18.25	5.78	-0.02
110	SLU 53	5	-440	3204	18.69	1.51	-0.02
110	SLU 54	7	-433	3173	18.42	4.07	-0.02
110	SLU 55	9	-429	3152	18.25	5.78	-0.02
110	SLU 56	5	-440	3204	18.69	1.51	-0.02
110	SLU 57	7	-433	3173	18.42	4.07	-0.02
110	SLU 58	5	-440	3204	18.69	1.51	-0.02
110	SLU 59	7	-433	3173	18.42	4.07	-0.02
110	SLU 60	5	-491	3412	20.68	1.59	-0.02
110	SLU 61	8	-485	3380	20.41	4.15	-0.02
110	SLU 62	5	-491	3412	20.68	1.59	-0.02
110	SLU 63	8	-485	3380	20.41	4.15	-0.02
110	SLU 64	5	-361	2944	15.75	1.44	-0.02
110	SLU 65	9	-350	2892	15.32	5.71	-0.01
110	SLU 66	5	-361	2944	15.75	1.44	-0.02
110	SLU 67	7	-355	2913	15.49	4	-0.02
110	SLU 68	9	-350	2892	15.32	5.71	-0.01
110	SLU 69	5	-361	2944	15.75	1.44	-0.02
110	SLU 70	7	-355	2913	15.49	4	-0.02
110	SLU 71	5	-361	2944	15.75	1.44	-0.02
110	SLU 72	7	-355	2913	15.49	4	-0.02
110	SLU 73	10	-470	3377	19.96	5.89	-0.02
110	SLU 74	5	-482	3429	20.4	1.62	-0.02
110	SLU 75	8	-475	3398	20.13	4.18	-0.02
110	SLU 76	10	-470	3377	19.96	5.89	-0.02
110	SLU 77	5	-482	3429	20.4	1.62	-0.02
110	SLU 78	8	-475	3398	20.13	4.18	-0.02
110	SLU 79	5	-482	3429	20.4	1.62	-0.02
110	SLU 80	8	-475	3398	20.13	4.18	-0.02
110	SLU 81	5	-533	3637	22.38	1.7	-0.03
110	SLU 82	8	-526	3606	22.12	4.26	-0.02
110	SLU 83	5	-533	3637	22.38	1.7	-0.03
110	SLU 84	8	-526	3606	22.12	4.26	-0.02
110	SLE RA 1	3	-269	2215	11.74	1.08	-0.02
110	SLE RA 2	6	-261	2181	11.45	3.93	-0.01
110	SLE RA 3	3	-269	2215	11.74	1.08	-0.02
110	SLE RA 4	5	-264	2195	11.57	2.79	-0.01
110	SLE RA 5	6	-261	2181	11.45	3.93	-0.01
110	SLE RA 6	3	-269	2215	11.74	1.08	-0.02
110	SLE RA 7	5	-264	2195	11.57	2.79	-0.01
110	SLE RA 8	3	-269	2215	11.74	1.08	-0.02
110	SLE RA 9	5	-264	2195	11.57	2.79	-0.01
110	SLE RA 10	7	-341	2504	14.54	4.05	-0.01
110	SLE RA 11	4	-349	2539	14.84	1.2	-0.02
110	SLE RA 12	6	-344	2518	14.66	2.91	-0.01
110	SLE RA 13	7	-341	2504	14.54	4.05	-0.01
110	SLE RA 14	4	-349	2539	14.84	1.2	-0.02
110	SLE RA 15	6	-344	2518	14.66	2.91	-0.01
110	SLE RA 16	4	-349	2539	14.84	1.2	-0.02
110	SLE RA 17	6	-344	2518	14.66	2.91	-0.01
110	SLE RA 18	4	-383	2677	16.16	1.25	-0.02
110	SLE RA 19	6	-379	2656	15.99	2.96	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
110	SLE RA 20	4	-383	2677	16.16	1.25	-0.02
110	SLE RA 21	6	-379	2656	15.99	2.96	-0.02
110	SLE FR 1	3	-269	2215	11.74	1.08	-0.02
110	SLE FR 2	4	-267	2208	11.68	1.65	-0.01
110	SLE FR 3	3	-269	2215	11.74	1.08	-0.02
110	SLE FR 4	4	-302	2347	13.01	1.7	-0.02
110	SLE FR 5	4	-303	2354	13.07	1.13	-0.02
110	SLE FR 6	4	-326	2446	13.95	1.17	-0.02
110	SLE QP 1	3	-269	2215	11.74	1.08	-0.02
110	SLE QP 2	4	-303	2354	13.07	1.13	-0.02
110	SLD 1	3	-243	2460	11.08	7.45	-0.02
110	SLD 2	3	-243	2460	11.08	7.45	-0.02
110	SLD 3	-4	-298	2555	13.31	4	-0.02
110	SLD 4	-4	-298	2555	13.31	4	-0.02
110	SLD 5	15	-202	2242	9.08	8.26	-0.01
110	SLD 6	15	-202	2242	9.08	8.26	-0.01
110	SLD 7	-11	-385	2557	16.53	-3.23	-0.03
110	SLD 8	-11	-385	2557	16.53	-3.23	-0.03
110	SLD 9	18	-222	2150	9.61	5.5	0
110	SLD 10	18	-222	2150	9.61	5.5	0
110	SLD 11	-8	-404	2465	17.06	-5.99	-0.03
110	SLD 12	-8	-404	2465	17.06	-5.99	-0.03
110	SLD 13	12	-308	2153	12.82	-1.74	-0.01
110	SLD 14	12	-308	2153	12.82	-1.74	-0.01
110	SLD 15	4	-363	2248	15.06	-5.18	-0.02
110	SLD 16	4	-363	2248	15.06	-5.18	-0.02
110	SLV 1	3	-155	2596	8.07	17.04	-0.02
110	SLV 2	3	-155	2596	8.07	17.04	-0.02
110	SLV 3	-17	-298	2852	13.95	8.26	-0.04
110	SLV 4	-17	-298	2852	13.95	8.26	-0.04
110	SLV 5	33	-42	2038	2.66	19.22	0.01
110	SLV 6	33	-42	2038	2.66	19.22	0.01
110	SLV 7	-32	-518	2892	22.24	-10.05	-0.05
110	SLV 8	-32	-518	2892	22.24	-10.05	-0.05
110	SLV 9	40	-88	1816	3.9	12.31	0.02
110	SLV 10	40	-88	1816	3.9	12.31	0.02
110	SLV 11	-26	-565	2670	23.47	-16.95	-0.04
110	SLV 12	-26	-565	2670	23.47	-16.95	-0.04
110	SLV 13	24	-309	1856	12.19	-5.99	0.01
110	SLV 14	24	-309	1856	12.19	-5.99	0.01
110	SLV 15	4	-452	2112	18.07	-14.77	-0.01
110	SLV 16	4	-452	2112	18.07	-14.77	-0.01
111	SLU 1	0	-385	1262	14.29	-0.07	0
111	SLU 2	1	-334	1202	12.35	0.41	0
111	SLU 3	0	-385	1262	14.29	-0.07	0
111	SLU 4	1	-355	1226	13.12	0.22	0
111	SLU 5	1	-334	1202	12.35	0.41	0
111	SLU 6	0	-385	1262	14.29	-0.07	0
111	SLU 7	1	-355	1226	13.12	0.22	0
111	SLU 8	0	-385	1262	14.29	-0.07	0
111	SLU 9	1	-355	1226	13.12	0.22	0
111	SLU 10	1	-591	1534	21.65	0.39	0
111	SLU 11	0	-641	1594	23.59	-0.08	0
111	SLU 12	1	-611	1558	22.43	0.2	0
111	SLU 13	1	-591	1534	21.65	0.39	0
111	SLU 14	0	-641	1594	23.59	-0.08	0
111	SLU 15	1	-611	1558	22.43	0.2	0
111	SLU 16	0	-641	1594	23.59	-0.08	0
111	SLU 17	1	-611	1558	22.43	0.2	0
111	SLU 18	0	-751	1737	27.58	-0.09	0
111	SLU 19	1	-721	1701	26.42	0.2	0
111	SLU 20	0	-751	1737	27.58	-0.09	0
111	SLU 21	1	-721	1701	26.42	0.2	0
111	SLU 22	0	-498	1425	18.39	-0.08	0
111	SLU 23	1	-447	1365	16.44	0.4	0
111	SLU 24	0	-498	1425	18.39	-0.08	0
111	SLU 25	1	-467	1389	17.22	0.21	0
111	SLU 26	1	-447	1365	16.44	0.4	0
111	SLU 27	0	-498	1425	18.39	-0.08	0
111	SLU 28	1	-467	1389	17.22	0.21	0
111	SLU 29	0	-498	1425	18.39	-0.08	0
111	SLU 30	1	-467	1389	17.22	0.21	0
111	SLU 31	1	-704	1698	25.75	0.38	0
111	SLU 32	0	-754	1758	27.69	-0.09	0
111	SLU 33	1	-724	1722	26.52	0.19	0
111	SLU 34	1	-704	1698	25.75	0.38	0
111	SLU 35	0	-754	1758	27.69	-0.09	0
111	SLU 36	1	-724	1722	26.52	0.19	0
111	SLU 37	0	-754	1758	27.69	-0.09	0
111	SLU 38	1	-724	1722	26.52	0.19	0
111	SLU 39	0	-864	1901	31.68	-0.1	0
111	SLU 40	1	-834	1865	30.51	0.19	0
111	SLU 41	0	-864	1901	31.68	-0.1	0
111	SLU 42	1	-834	1865	30.51	0.19	0
111	SLU 43	0	-462	1584	17.17	-0.09	0
111	SLU 44	1	-411	1524	15.23	0.39	0
111	SLU 45	0	-462	1584	17.17	-0.09	0
111	SLU 46	1	-431	1548	16.01	0.2	0
111	SLU 47	1	-411	1524	15.23	0.39	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
111	SLU 48	0	-462	1584	17.17	-0.09	0
111	SLU 49	1	-431	1548	16.01	0.2	0
111	SLU 50	0	-462	1584	17.17	-0.09	0
111	SLU 51	1	-431	1548	16.01	0.2	0
111	SLU 52	1	-668	1857	24.53	0.38	0
111	SLU 53	0	-718	1917	26.48	-0.1	0
111	SLU 54	1	-688	1881	25.31	0.18	0
111	SLU 55	1	-668	1857	24.53	0.38	0
111	SLU 56	0	-718	1917	26.48	-0.1	0
111	SLU 57	1	-688	1881	25.31	0.18	0
111	SLU 58	0	-718	1917	26.48	-0.1	0
111	SLU 59	1	-688	1881	25.31	0.18	0
111	SLU 60	0	-828	2059	30.46	-0.11	0
111	SLU 61	1	-798	2023	29.3	0.18	0
111	SLU 62	0	-828	2059	30.46	-0.11	0
111	SLU 63	1	-798	2023	29.3	0.18	0
111	SLU 64	0	-574	1748	21.27	-0.1	0
111	SLU 65	1	-524	1688	19.33	0.38	0
111	SLU 66	0	-574	1748	21.27	-0.1	0
111	SLU 67	1	-544	1712	20.1	0.19	0
111	SLU 68	1	-524	1688	19.33	0.38	0
111	SLU 69	0	-574	1748	21.27	-0.1	0
111	SLU 70	1	-544	1712	20.1	0.19	0
111	SLU 71	0	-574	1748	21.27	-0.1	0
111	SLU 72	1	-544	1712	20.1	0.19	0
111	SLU 73	1	-781	2020	28.63	0.36	0
111	SLU 74	0	-831	2080	30.57	-0.11	0
111	SLU 75	1	-801	2044	29.41	0.17	0
111	SLU 76	1	-781	2020	28.63	0.36	0
111	SLU 77	0	-831	2080	30.57	-0.11	0
111	SLU 78	1	-801	2044	29.41	0.17	0
111	SLU 79	0	-831	2080	30.57	-0.11	0
111	SLU 80	1	-801	2044	29.41	0.17	0
111	SLU 81	0	-941	2223	34.56	-0.12	0
111	SLU 82	1	-911	2187	33.39	0.17	0
111	SLU 83	0	-941	2223	34.56	-0.12	0
111	SLU 84	1	-911	2187	33.39	0.17	0
111	SLE RA 1	0	-417	1308	15.46	-0.07	0
111	SLE RA 2	1	-383	1268	14.16	0.24	0
111	SLE RA 3	0	-417	1308	15.46	-0.07	0
111	SLE RA 4	0	-397	1284	14.68	0.12	0
111	SLE RA 5	1	-383	1268	14.16	0.24	0
111	SLE RA 6	0	-417	1308	15.46	-0.07	0
111	SLE RA 7	0	-397	1284	14.68	0.12	0
111	SLE RA 8	0	-417	1308	15.46	-0.07	0
111	SLE RA 9	0	-397	1284	14.68	0.12	0
111	SLE RA 10	1	-555	1490	20.37	0.24	0
111	SLE RA 11	0	-588	1530	21.66	-0.08	0
111	SLE RA 12	0	-568	1506	20.89	0.11	0
111	SLE RA 13	1	-555	1490	20.37	0.24	0
111	SLE RA 14	0	-588	1530	21.66	-0.08	0
111	SLE RA 15	0	-568	1506	20.89	0.11	0
111	SLE RA 16	0	-588	1530	21.66	-0.08	0
111	SLE RA 17	0	-568	1506	20.89	0.11	0
111	SLE RA 18	0	-661	1625	24.32	-0.09	0
111	SLE RA 19	0	-641	1601	23.54	0.1	0
111	SLE RA 20	0	-661	1625	24.32	-0.09	0
111	SLE RA 21	0	-641	1601	23.54	0.1	0
111	SLE FR 1	0	-417	1308	15.46	-0.07	0
111	SLE FR 2	0	-410	1300	15.2	-0.01	0
111	SLE FR 3	0	-417	1308	15.46	-0.07	0
111	SLE FR 4	0	-484	1395	17.86	-0.01	0
111	SLE FR 5	0	-490	1403	18.12	-0.08	0
111	SLE FR 6	0	-539	1467	19.89	-0.08	0
111	SLE QP 1	0	-417	1308	15.46	-0.07	0
111	SLE QP 2	0	-490	1403	18.12	-0.08	0
111	SLD 1	-7	-358	1336	12.95	1.38	-0.01
111	SLD 2	-7	-358	1336	12.95	1.38	-0.01
111	SLD 3	-8	-567	1566	21.2	1.05	-0.01
111	SLD 4	-8	-567	1566	21.2	1.05	-0.01
111	SLD 5	0	-133	1034	4.04	0.86	0
111	SLD 6	0	-133	1034	4.04	0.86	0
111	SLD 7	-5	-831	1801	31.57	-0.23	0
111	SLD 8	-5	-831	1801	31.57	-0.23	0
111	SLD 9	4	-149	1005	4.67	0.08	0.01
111	SLD 10	4	-149	1005	4.67	0.08	0.01
111	SLD 11	0	-848	1773	32.19	-1.01	0
111	SLD 12	0	-848	1773	32.19	-1.01	0
111	SLD 13	8	-413	1241	15.04	-1.21	0.01
111	SLD 14	8	-413	1241	15.04	-1.21	0.01
111	SLD 15	6	-623	1471	23.29	-1.54	0.01
111	SLD 16	6	-623	1471	23.29	-1.54	0.01
111	SLV 1	-17	-174	1261	5.81	3.65	-0.03
111	SLV 2	-17	-174	1261	5.81	3.65	-0.03
111	SLV 3	-21	-656	1789	24.81	2.82	-0.03
111	SLV 4	-21	-656	1789	24.81	2.82	-0.03
111	SLV 5	-1	336	559	-14.38	2.29	0
111	SLV 6	-1	336	559	-14.38	2.29	0
111	SLV 7	-11	-1271	2321	48.94	-0.46	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
111	SLV 8	-11	-1271	2321	48.94	-0.46	-0.01
111	SLV 9	11	291	486	-12.7	0.3	0.02
111	SLV 10	11	291	486	-12.7	0.3	0.02
111	SLV 11	0	-1316	2248	50.62	-2.45	0
111	SLV 12	0	-1316	2248	50.62	-2.45	0
111	SLV 13	20	-324	1017	11.43	-2.98	0.03
111	SLV 14	20	-324	1017	11.43	-2.98	0.03
111	SLV 15	17	-807	1546	30.43	-3.8	0.03
111	SLV 16	17	-807	1546	30.43	-3.8	0.03
112	SLU 1	392	-338	2763	8.85	10.7	0.02
112	SLU 2	377	-332	2692	7.98	10.96	0.01
112	SLU 3	392	-338	2763	8.85	10.7	0.02
112	SLU 4	383	-334	2720	8.33	10.85	0.01
112	SLU 5	377	-332	2692	7.98	10.96	0.01
112	SLU 6	392	-338	2763	8.85	10.7	0.02
112	SLU 7	383	-334	2720	8.33	10.85	0.01
112	SLU 8	392	-338	2763	8.85	10.7	0.02
112	SLU 9	383	-334	2720	8.33	10.85	0.01
112	SLU 10	432	-437	3274	11.07	12.33	-0.01
112	SLU 11	447	-444	3345	11.94	12.07	0
112	SLU 12	438	-440	3303	11.41	12.23	0
112	SLU 13	432	-437	3274	11.07	12.33	-0.01
112	SLU 14	447	-444	3345	11.94	12.07	0
112	SLU 15	438	-440	3303	11.41	12.23	0
112	SLU 16	447	-444	3345	11.94	12.07	0
112	SLU 17	438	-440	3303	11.41	12.23	0
112	SLU 18	471	-489	3594	13.26	12.66	-0.01
112	SLU 19	462	-485	3552	12.74	12.82	-0.01
112	SLU 20	471	-489	3594	13.26	12.66	-0.01
112	SLU 21	462	-485	3552	12.74	12.82	-0.01
112	SLU 22	430	-381	3052	10.05	11.72	0.01
112	SLU 23	415	-374	2981	9.18	11.98	0.01
112	SLU 24	430	-381	3052	10.05	11.72	0.01
112	SLU 25	421	-377	3009	9.53	11.88	0.01
112	SLU 26	415	-374	2981	9.18	11.98	0.01
112	SLU 27	430	-381	3052	10.05	11.72	0.01
112	SLU 28	421	-377	3009	9.53	11.88	0.01
112	SLU 29	430	-381	3052	10.05	11.72	0.01
112	SLU 30	421	-377	3009	9.53	11.88	0.01
112	SLU 31	470	-480	3563	12.27	13.36	-0.01
112	SLU 32	485	-486	3634	13.14	13.09	0
112	SLU 33	476	-483	3592	12.62	13.25	-0.01
112	SLU 34	470	-480	3563	12.27	13.36	-0.01
112	SLU 35	485	-486	3634	13.14	13.09	0
112	SLU 36	476	-483	3592	12.62	13.25	-0.01
112	SLU 37	485	-486	3634	13.14	13.09	0
112	SLU 38	476	-483	3592	12.62	13.25	-0.01
112	SLU 39	508	-532	3883	14.47	13.68	-0.01
112	SLU 40	499	-528	3841	13.94	13.84	-0.01
112	SLU 41	508	-532	3883	14.47	13.68	-0.01
112	SLU 42	499	-528	3841	13.94	13.84	-0.01
112	SLU 43	497	-424	3493	11.09	13.56	0.02
112	SLU 44	482	-418	3422	10.22	13.82	0.02
112	SLU 45	497	-424	3493	11.09	13.56	0.02
112	SLU 46	488	-421	3450	10.57	13.71	0.02
112	SLU 47	482	-418	3422	10.22	13.82	0.02
112	SLU 48	497	-424	3493	11.09	13.56	0.02
112	SLU 49	488	-421	3450	10.57	13.71	0.02
112	SLU 50	497	-424	3493	11.09	13.56	0.02
112	SLU 51	488	-421	3450	10.57	13.71	0.02
112	SLU 52	537	-524	4004	13.31	15.19	0
112	SLU 53	552	-530	4075	14.18	14.93	0
112	SLU 54	543	-526	4032	13.66	15.09	0
112	SLU 55	537	-524	4004	13.31	15.19	0
112	SLU 56	552	-530	4075	14.18	14.93	0
112	SLU 57	543	-526	4032	13.66	15.09	0
112	SLU 58	552	-530	4075	14.18	14.93	0
112	SLU 59	543	-526	4032	13.66	15.09	0
112	SLU 60	575	-576	4324	15.5	15.52	0
112	SLU 61	566	-572	4282	14.98	15.68	-0.01
112	SLU 62	575	-576	4324	15.5	15.52	0
112	SLU 63	566	-572	4282	14.98	15.68	-0.01
112	SLU 64	534	-467	3782	12.29	14.58	0.02
112	SLU 65	519	-461	3711	11.42	14.84	0.02
112	SLU 66	534	-467	3782	12.29	14.58	0.02
112	SLU 67	525	-464	3739	11.77	14.74	0.02
112	SLU 68	519	-461	3711	11.42	14.84	0.02
112	SLU 69	534	-467	3782	12.29	14.58	0.02
112	SLU 70	525	-464	3739	11.77	14.74	0.02
112	SLU 71	534	-467	3782	12.29	14.58	0.02
112	SLU 72	525	-464	3739	11.77	14.74	0.02
112	SLU 73	574	-567	4293	14.51	16.21	0
112	SLU 74	589	-573	4364	15.38	15.95	0
112	SLU 75	580	-569	4321	14.86	16.11	0
112	SLU 76	574	-567	4293	14.51	16.21	0
112	SLU 77	589	-573	4364	15.38	15.95	0
112	SLU 78	580	-569	4321	14.86	16.11	0
112	SLU 79	589	-573	4364	15.38	15.95	0
112	SLU 80	580	-569	4321	14.86	16.11	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
112	SLU 81	613	-618	4613	16.71	16.54	-0.01
112	SLU 82	604	-615	4571	16.18	16.7	-0.01
112	SLU 83	613	-618	4613	16.71	16.54	-0.01
112	SLU 84	604	-615	4571	16.18	16.7	-0.01
112	SLE RA 1	403	-350	2845	9.19	10.99	0.01
112	SLE RA 2	393	-346	2798	8.61	11.16	0.01
112	SLE RA 3	403	-350	2845	9.19	10.99	0.01
112	SLE RA 4	397	-348	2817	8.84	11.09	0.01
112	SLE RA 5	393	-346	2798	8.61	11.16	0.01
112	SLE RA 6	403	-350	2845	9.19	10.99	0.01
112	SLE RA 7	397	-348	2817	8.84	11.09	0.01
112	SLE RA 8	403	-350	2845	9.19	10.99	0.01
112	SLE RA 9	397	-348	2817	8.84	11.09	0.01
112	SLE RA 10	429	-416	3186	10.67	12.08	0
112	SLE RA 11	439	-421	3233	11.25	11.91	0
112	SLE RA 12	433	-418	3205	10.9	12.01	0
112	SLE RA 13	429	-416	3186	10.67	12.08	0
112	SLE RA 14	439	-421	3233	11.25	11.91	0
112	SLE RA 15	433	-418	3205	10.9	12.01	0
112	SLE RA 16	439	-421	3233	11.25	11.91	0
112	SLE RA 17	433	-418	3205	10.9	12.01	0
112	SLE RA 18	455	-451	3400	12.13	12.3	0
112	SLE RA 19	449	-448	3372	11.79	12.4	0
112	SLE RA 20	455	-451	3400	12.13	12.3	0
112	SLE RA 21	449	-448	3372	11.79	12.4	0
112	SLE FR 1	403	-350	2845	9.19	10.99	0.01
112	SLE FR 2	401	-349	2836	9.08	11.02	0.01
112	SLE FR 3	403	-350	2845	9.19	10.99	0.01
112	SLE FR 4	416	-379	3002	9.96	11.42	0.01
112	SLE FR 5	418	-380	3012	10.08	11.38	0.01
112	SLE FR 6	429	-400	3123	10.66	11.64	0.01
112	SLE QP 1	403	-350	2845	9.19	10.99	0.01
112	SLE QP 2	418	-380	3012	10.08	11.38	0.01
112	SLD 1	485	-376	3211	8.79	13.97	0.05
112	SLD 2	485	-376	3211	8.79	13.97	0.05
112	SLD 3	498	-412	3343	10.12	13.61	0.03
112	SLD 4	498	-412	3343	10.12	13.61	0.03
112	SLD 5	419	-325	2871	7.67	12.7	0.04
112	SLD 6	419	-325	2871	7.67	12.7	0.04
112	SLD 7	461	-444	3311	12.11	11.5	-0.01
112	SLD 8	461	-444	3311	12.11	11.5	-0.01
112	SLD 9	375	-316	2712	8.04	11.26	0.03
112	SLD 10	375	-316	2712	8.04	11.26	0.03
112	SLD 11	417	-436	3152	12.48	10.06	-0.02
112	SLD 12	417	-436	3152	12.48	10.06	-0.02
112	SLD 13	339	-348	2681	10.03	9.16	-0.01
112	SLD 14	339	-348	2681	10.03	9.16	-0.01
112	SLD 15	351	-384	2812	11.36	8.8	-0.03
112	SLD 16	351	-384	2812	11.36	8.8	-0.03
112	SLV 1	580	-368	3481	6.84	17.61	0.1
112	SLV 2	580	-368	3481	6.84	17.61	0.1
112	SLV 3	612	-461	3829	10.26	16.71	0.06
112	SLV 4	612	-461	3829	10.26	16.71	0.06
112	SLV 5	418	-235	2624	3.93	14.61	0.09
112	SLV 6	418	-235	2624	3.93	14.61	0.09
112	SLV 7	525	-546	3786	15.3	11.62	-0.03
112	SLV 8	525	-546	3786	15.3	11.62	-0.03
112	SLV 9	311	-214	2238	4.85	11.14	0.05
112	SLV 10	311	-214	2238	4.85	11.14	0.05
112	SLV 11	419	-526	3400	16.22	8.15	-0.07
112	SLV 12	419	-526	3400	16.22	8.15	-0.07
112	SLV 13	225	-299	2194	9.89	6.05	-0.04
112	SLV 14	225	-299	2194	9.89	6.05	-0.04
112	SLV 15	257	-393	2543	13.31	5.16	-0.08
112	SLV 16	257	-393	2543	13.31	5.16	-0.08
113	SLU 1	346	-3	2243	0.95	13.77	0.01
113	SLU 2	340	-2	2199	-3.09	13.52	0
113	SLU 3	346	-3	2243	0.95	13.77	0.01
113	SLU 4	342	-3	2217	-1.47	13.62	0.01
113	SLU 5	340	-2	2199	-3.09	13.52	0
113	SLU 6	346	-3	2243	0.95	13.77	0.01
113	SLU 7	342	-3	2217	-1.47	13.62	0.01
113	SLU 8	346	-3	2243	0.95	13.77	0.01
113	SLU 9	342	-3	2217	-1.47	13.62	0.01
113	SLU 10	363	-3	2609	-2.8	14.94	0.01
113	SLU 11	369	-4	2654	1.24	15.18	0.01
113	SLU 12	365	-3	2627	-1.18	15.03	0.01
113	SLU 13	363	-3	2609	-2.8	14.94	0.01
113	SLU 14	369	-4	2654	1.24	15.18	0.01
113	SLU 15	365	-3	2627	-1.18	15.03	0.01
113	SLU 16	369	-4	2654	1.24	15.18	0.01
113	SLU 17	365	-3	2627	-1.18	15.03	0.01
113	SLU 18	379	-4	2830	1.37	15.79	0.01
113	SLU 19	375	-4	2803	-1.06	15.64	0.01
113	SLU 20	379	-4	2830	1.37	15.79	0.01
113	SLU 21	375	-4	2803	-1.06	15.64	0.01
113	SLU 22	377	-4	2461	1.08	15.12	0.01
113	SLU 23	371	-3	2417	-2.96	14.87	0
113	SLU 24	377	-4	2461	1.08	15.12	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
113	SLU 25	373	-3	2435	-1.35	14.97	0.01
113	SLU 26	371	-3	2417	-2.96	14.87	0
113	SLU 27	377	-4	2461	1.08	15.12	0.01
113	SLU 28	373	-3	2435	-1.35	14.97	0.01
113	SLU 29	377	-4	2461	1.08	15.12	0.01
113	SLU 30	373	-3	2435	-1.35	14.97	0.01
113	SLU 31	394	-3	2827	-2.67	16.28	0.01
113	SLU 32	400	-4	2872	1.37	16.53	0.01
113	SLU 33	396	-4	2845	-1.06	16.38	0.01
113	SLU 34	394	-3	2827	-2.67	16.28	0.01
113	SLU 35	400	-4	2872	1.37	16.53	0.01
113	SLU 36	396	-4	2845	-1.06	16.38	0.01
113	SLU 37	400	-4	2872	1.37	16.53	0.01
113	SLU 38	396	-4	2845	-1.06	16.38	0.01
113	SLU 39	410	-5	3047	1.49	17.14	0.01
113	SLU 40	406	-4	3021	-0.93	16.99	0.01
113	SLU 41	410	-5	3047	1.49	17.14	0.01
113	SLU 42	406	-4	3021	-0.93	16.99	0.01
113	SLU 43	439	-4	2842	1.2	17.44	0.01
113	SLU 44	433	-3	2797	-2.84	17.19	0.01
113	SLU 45	439	-4	2842	1.2	17.44	0.01
113	SLU 46	436	-3	2815	-1.23	17.29	0.01
113	SLU 47	433	-3	2797	-2.84	17.19	0.01
113	SLU 48	439	-4	2842	1.2	17.44	0.01
113	SLU 49	436	-3	2815	-1.23	17.29	0.01
113	SLU 50	439	-4	2842	1.2	17.44	0.01
113	SLU 51	436	-3	2815	-1.23	17.29	0.01
113	SLU 52	456	-4	3208	-2.55	18.6	0.01
113	SLU 53	462	-5	3252	1.49	18.85	0.01
113	SLU 54	459	-4	3225	-0.94	18.7	0.01
113	SLU 55	456	-4	3208	-2.55	18.6	0.01
113	SLU 56	462	-5	3252	1.49	18.85	0.01
113	SLU 57	459	-4	3225	-0.94	18.7	0.01
113	SLU 58	462	-5	3252	1.49	18.85	0.01
113	SLU 59	459	-4	3225	-0.94	18.7	0.01
113	SLU 60	472	-5	3428	1.61	19.46	0.01
113	SLU 61	468	-5	3401	-0.81	19.31	0.01
113	SLU 62	472	-5	3428	1.61	19.46	0.01
113	SLU 63	468	-5	3401	-0.81	19.31	0.01
113	SLU 64	470	-4	3060	1.32	18.79	0.01
113	SLU 65	464	-3	3015	-2.72	18.54	0.01
113	SLU 66	470	-4	3060	1.32	18.79	0.01
113	SLU 67	467	-4	3033	-1.1	18.64	0.01
113	SLU 68	464	-3	3015	-2.72	18.54	0.01
113	SLU 69	470	-4	3060	1.32	18.79	0.01
113	SLU 70	467	-4	3033	-1.1	18.64	0.01
113	SLU 71	470	-4	3060	1.32	18.79	0.01
113	SLU 72	467	-4	3033	-1.1	18.64	0.01
113	SLU 73	487	-4	3425	-2.43	19.95	0.01
113	SLU 74	493	-5	3470	1.61	20.2	0.01
113	SLU 75	490	-5	3443	-0.81	20.05	0.01
113	SLU 76	487	-4	3425	-2.43	19.95	0.01
113	SLU 77	493	-5	3470	1.61	20.2	0.01
113	SLU 78	490	-5	3443	-0.81	20.05	0.01
113	SLU 79	493	-5	3470	1.61	20.2	0.01
113	SLU 80	490	-5	3443	-0.81	20.05	0.01
113	SLU 81	503	-5	3646	1.73	20.81	0.01
113	SLU 82	499	-5	3619	-0.69	20.66	0.01
113	SLU 83	503	-5	3646	1.73	20.81	0.01
113	SLU 84	499	-5	3619	-0.69	20.66	0.01
113	SLE RA 1	355	-3	2306	0.99	14.16	0.01
113	SLE RA 2	351	-3	2276	-1.7	13.99	0.01
113	SLE RA 3	355	-3	2306	0.99	14.16	0.01
113	SLE RA 4	352	-3	2288	-0.63	14.06	0.01
113	SLE RA 5	351	-3	2276	-1.7	13.99	0.01
113	SLE RA 6	355	-3	2306	0.99	14.16	0.01
113	SLE RA 7	352	-3	2288	-0.63	14.06	0.01
113	SLE RA 8	355	-3	2306	0.99	14.16	0.01
113	SLE RA 9	352	-3	2288	-0.63	14.06	0.01
113	SLE RA 10	366	-3	2550	-1.51	14.93	0.01
113	SLE RA 11	370	-4	2579	1.18	15.1	0.01
113	SLE RA 12	368	-3	2561	-0.43	15	0.01
113	SLE RA 13	366	-3	2550	-1.51	14.93	0.01
113	SLE RA 14	370	-4	2579	1.18	15.1	0.01
113	SLE RA 15	368	-3	2561	-0.43	15	0.01
113	SLE RA 16	370	-4	2579	1.18	15.1	0.01
113	SLE RA 17	368	-3	2561	-0.43	15	0.01
113	SLE RA 18	377	-4	2696	1.26	15.5	0.01
113	SLE RA 19	374	-4	2679	-0.35	15.4	0.01
113	SLE RA 20	377	-4	2696	1.26	15.5	0.01
113	SLE RA 21	374	-4	2679	-0.35	15.4	0.01
113	SLE FR 1	355	-3	2306	0.99	14.16	0.01
113	SLE FR 2	354	-3	2300	0.45	14.12	0.01
113	SLE FR 3	355	-3	2306	0.99	14.16	0.01
113	SLE FR 4	361	-3	2417	0.53	14.53	0.01
113	SLE FR 5	362	-3	2423	1.07	14.56	0.01
113	SLE FR 6	366	-4	2501	1.13	14.83	0.01
113	SLE QP 1	355	-3	2306	0.99	14.16	0.01
113	SLE QP 2	362	-3	2423	1.07	14.56	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
113	SLD 1	492	2	2555	-5.4	20	0.03
113	SLD 2	492	2	2555	-5.4	20	0.03
113	SLD 3	471	4	2634	-1.44	19.27	0.03
113	SLD 4	471	4	2634	-1.44	19.27	0.03
113	SLD 5	432	-5	2344	-6.88	17.31	0
113	SLD 6	432	-5	2344	-6.88	17.31	0
113	SLD 7	363	2	2605	6.33	14.86	0.03
113	SLD 8	363	2	2605	6.33	14.86	0.03
113	SLD 9	360	-9	2240	-4.19	14.26	-0.02
113	SLD 10	360	-9	2240	-4.19	14.26	-0.02
113	SLD 11	291	-2	2502	9.02	11.81	0.01
113	SLD 12	291	-2	2502	9.02	11.81	0.01
113	SLD 13	252	-11	2212	3.58	9.85	-0.02
113	SLD 14	252	-11	2212	3.58	9.85	-0.02
113	SLD 15	231	-9	2290	7.54	9.12	-0.01
113	SLD 16	231	-9	2290	7.54	9.12	-0.01
113	SLV 1	685	10	2743	-15.3	28.11	0.05
113	SLV 2	685	10	2743	-15.3	28.11	0.05
113	SLV 3	630	16	2950	-5.24	26.18	0.08
113	SLV 4	630	16	2950	-5.24	26.18	0.08
113	SLV 5	541	-7	2205	-19.1	21.56	-0.01
113	SLV 6	541	-7	2205	-19.1	21.56	-0.01
113	SLV 7	359	10	2895	14.44	15.11	0.06
113	SLV 8	359	10	2895	14.44	15.11	0.06
113	SLV 9	364	-17	1950	-12.3	14.01	-0.05
113	SLV 10	364	-17	1950	-12.3	14.01	-0.05
113	SLV 11	182	0	2641	21.24	7.56	0.03
113	SLV 12	182	0	2641	21.24	7.56	0.03
113	SLV 13	93	-22	1896	7.38	2.94	-0.06
113	SLV 14	93	-22	1896	7.38	2.94	-0.06
113	SLV 15	39	-17	2103	17.44	1.01	-0.04
113	SLV 16	39	-17	2103	17.44	1.01	-0.04
114	SLU 1	226	0	2063	0.4	7.66	-0.01
114	SLU 2	222	2	2030	-7.71	7.46	0
114	SLU 3	226	0	2063	0.4	7.66	-0.01
114	SLU 4	224	1	2043	-4.47	7.54	0
114	SLU 5	222	2	2030	-7.71	7.46	0
114	SLU 6	226	0	2063	0.4	7.66	-0.01
114	SLU 7	224	1	2043	-4.47	7.54	0
114	SLU 8	226	0	2063	0.4	7.66	-0.01
114	SLU 9	224	1	2043	-4.47	7.54	0
114	SLU 10	232	2	2354	-7.6	7.93	0
114	SLU 11	236	0	2387	0.51	8.13	-0.01
114	SLU 12	233	1	2367	-4.35	8.01	0
114	SLU 13	232	2	2354	-7.6	7.93	0
114	SLU 14	236	0	2387	0.51	8.13	-0.01
114	SLU 15	233	1	2367	-4.35	8.01	0
114	SLU 16	236	0	2387	0.51	8.13	-0.01
114	SLU 17	233	1	2367	-4.35	8.01	0
114	SLU 18	240	0	2526	0.56	8.33	-0.01
114	SLU 19	237	1	2506	-4.3	8.21	0
114	SLU 20	240	0	2526	0.56	8.33	-0.01
114	SLU 21	237	1	2506	-4.3	8.21	0
114	SLU 22	247	0	2251	0.45	8.36	-0.01
114	SLU 23	243	2	2218	-7.66	8.16	0
114	SLU 24	247	0	2251	0.45	8.36	-0.01
114	SLU 25	244	1	2231	-4.42	8.24	0
114	SLU 26	243	2	2218	-7.66	8.16	0
114	SLU 27	247	0	2251	0.45	8.36	-0.01
114	SLU 28	244	1	2231	-4.42	8.24	0
114	SLU 29	247	0	2251	0.45	8.36	-0.01
114	SLU 30	244	1	2231	-4.42	8.24	0
114	SLU 31	252	2	2542	-7.54	8.63	0
114	SLU 32	256	0	2575	0.57	8.83	-0.01
114	SLU 33	254	1	2555	-4.3	8.71	0
114	SLU 34	252	2	2542	-7.54	8.63	0
114	SLU 35	256	0	2575	0.57	8.83	-0.01
114	SLU 36	254	1	2555	-4.3	8.71	0
114	SLU 37	256	0	2575	0.57	8.83	-0.01
114	SLU 38	254	1	2555	-4.3	8.71	0
114	SLU 39	260	0	2714	0.62	9.03	-0.01
114	SLU 40	258	1	2694	-4.25	8.91	-0.01
114	SLU 41	260	0	2714	0.62	9.03	-0.01
114	SLU 42	258	1	2694	-4.25	8.91	-0.01
114	SLU 43	287	0	2617	0.5	9.72	-0.01
114	SLU 44	283	2	2584	-7.61	9.52	0
114	SLU 45	287	0	2617	0.5	9.72	-0.01
114	SLU 46	285	1	2597	-4.37	9.6	0
114	SLU 47	283	2	2584	-7.61	9.52	0
114	SLU 48	287	0	2617	0.5	9.72	-0.01
114	SLU 49	285	1	2597	-4.37	9.6	0
114	SLU 50	287	0	2617	0.5	9.72	-0.01
114	SLU 51	285	1	2597	-4.37	9.6	0
114	SLU 52	293	2	2908	-7.5	9.99	0
114	SLU 53	297	0	2942	0.61	10.19	-0.01
114	SLU 54	294	1	2922	-4.25	10.07	-0.01
114	SLU 55	293	2	2908	-7.5	9.99	0
114	SLU 56	297	0	2942	0.61	10.19	-0.01
114	SLU 57	294	1	2922	-4.25	10.07	-0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
114	SLU 58	297	0	2942	0.61	10.19	-0.01
114	SLU 59	294	1	2922	-4.25	10.07	-0.01
114	SLU 60	301	0	3081	0.66	10.39	-0.01
114	SLU 61	298	1	3061	-4.2	10.27	-0.01
114	SLU 62	301	0	3081	0.66	10.39	-0.01
114	SLU 63	298	1	3061	-4.2	10.27	-0.01
114	SLU 64	308	0	2806	0.55	10.41	-0.01
114	SLU 65	304	2	2772	-7.56	10.22	0
114	SLU 66	308	0	2806	0.55	10.41	-0.01
114	SLU 67	305	1	2786	-4.32	10.29	0
114	SLU 68	304	2	2772	-7.56	10.22	0
114	SLU 69	308	0	2806	0.55	10.41	-0.01
114	SLU 70	305	1	2786	-4.32	10.29	0
114	SLU 71	308	0	2806	0.55	10.41	-0.01
114	SLU 72	305	1	2786	-4.32	10.29	0
114	SLU 73	313	2	3096	-7.44	10.69	0
114	SLU 74	317	0	3130	0.67	10.88	-0.01
114	SLU 75	315	1	3110	-4.2	10.77	-0.01
114	SLU 76	313	2	3096	-7.44	10.69	0
114	SLU 77	317	0	3130	0.67	10.88	-0.01
114	SLU 78	315	1	3110	-4.2	10.77	-0.01
114	SLU 79	317	0	3130	0.67	10.88	-0.01
114	SLU 80	315	1	3110	-4.2	10.77	-0.01
114	SLU 81	321	0	3269	0.72	11.09	-0.01
114	SLU 82	319	1	3249	-4.15	10.97	-0.01
114	SLU 83	321	0	3269	0.72	11.09	-0.01
114	SLU 84	319	1	3249	-4.15	10.97	-0.01
114	SLE RA 1	232	0	2117	0.41	7.86	-0.01
114	SLE RA 2	230	1	2095	-4.99	7.72	0
114	SLE RA 3	232	0	2117	0.41	7.86	-0.01
114	SLE RA 4	231	1	2103	-2.83	7.78	0
114	SLE RA 5	230	1	2095	-4.99	7.72	0
114	SLE RA 6	232	0	2117	0.41	7.86	-0.01
114	SLE RA 7	231	1	2103	-2.83	7.78	0
114	SLE RA 8	232	0	2117	0.41	7.86	-0.01
114	SLE RA 9	231	1	2103	-2.83	7.78	0
114	SLE RA 10	236	1	2311	-4.92	8.04	0
114	SLE RA 11	238	0	2333	0.49	8.17	-0.01
114	SLE RA 12	237	1	2320	-2.75	8.09	-0.01
114	SLE RA 13	236	1	2311	-4.92	8.04	0
114	SLE RA 14	238	0	2333	0.49	8.17	-0.01
114	SLE RA 15	237	1	2320	-2.75	8.09	-0.01
114	SLE RA 16	238	0	2333	0.49	8.17	-0.01
114	SLE RA 17	237	1	2320	-2.75	8.09	-0.01
114	SLE RA 18	241	0	2426	0.52	8.31	-0.01
114	SLE RA 19	240	1	2412	-2.72	8.23	-0.01
114	SLE RA 20	241	0	2426	0.52	8.31	-0.01
114	SLE RA 21	240	1	2412	-2.72	8.23	-0.01
114	SLE FR 1	232	0	2117	0.41	7.86	-0.01
114	SLE FR 2	232	0	2112	-0.67	7.83	-0.01
114	SLE FR 3	232	0	2117	0.41	7.86	-0.01
114	SLE FR 4	234	0	2205	-0.64	7.97	-0.01
114	SLE FR 5	235	0	2209	0.44	7.99	-0.01
114	SLE FR 6	237	0	2271	0.47	8.08	-0.01
114	SLE QP 1	232	0	2117	0.41	7.86	-0.01
114	SLE QP 2	235	0	2209	0.44	7.99	-0.01
114	SLD 1	349	7	2313	-12.18	11.61	0.01
114	SLD 2	349	7	2313	-12.18	11.61	0.01
114	SLD 3	333	12	2362	-3.44	11.1	0.04
114	SLD 4	333	12	2362	-3.44	11.1	0.04
114	SLD 5	294	-6	2166	-16.6	9.84	-0.05
114	SLD 6	294	-6	2166	-16.6	9.84	-0.05
114	SLD 7	239	11	2329	12.53	8.16	0.05
114	SLD 8	239	11	2329	12.53	8.16	0.05
114	SLD 9	230	-12	2089	-11.64	7.83	-0.07
114	SLD 10	230	-12	2089	-11.64	7.83	-0.07
114	SLD 11	176	5	2253	17.49	6.14	0.03
114	SLD 12	176	5	2253	17.49	6.14	0.03
114	SLD 13	137	-13	2057	4.33	4.88	-0.06
114	SLD 14	137	-13	2057	4.33	4.88	-0.06
114	SLD 15	120	-8	2106	13.07	4.38	-0.03
114	SLD 16	120	-8	2106	13.07	4.38	-0.03
114	SLV 1	512	18	2472	-31.63	16.61	0.05
114	SLV 2	512	18	2472	-31.63	16.61	0.05
114	SLV 3	470	31	2601	-9.45	15.37	0.12
114	SLV 4	470	31	2601	-9.45	15.37	0.12
114	SLV 5	381	-14	2093	-42.83	12.46	-0.11
114	SLV 6	381	-14	2093	-42.83	12.46	-0.11
114	SLV 7	242	29	2522	31.12	8.32	0.15
114	SLV 8	242	29	2522	31.12	8.32	0.15
114	SLV 9	227	-29	1896	-30.24	7.66	-0.16
114	SLV 10	227	-29	1896	-30.24	7.66	-0.16
114	SLV 11	88	14	2326	43.71	3.53	0.09
114	SLV 12	88	14	2326	43.71	3.53	0.09
114	SLV 13	-1	-31	1818	10.34	0.61	-0.14
114	SLV 14	-1	-31	1818	10.34	0.61	-0.14
114	SLV 15	-42	-19	1946	32.52	-0.63	-0.06
114	SLV 16	-42	-19	1946	32.52	-0.63	-0.06
115	SLU 1	121	0	1948	0.22	4.68	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
115	SLU 2	119	6	1920	-11.94	4.67	0.03
115	SLU 3	121	0	1948	0.22	4.68	0
115	SLU 4	120	3	1931	-7.07	4.67	0.02
115	SLU 5	119	6	1920	-11.94	4.67	0.03
115	SLU 6	121	0	1948	0.22	4.68	0
115	SLU 7	120	3	1931	-7.07	4.67	0.02
115	SLU 8	121	0	1948	0.22	4.68	0
115	SLU 9	120	3	1931	-7.07	4.67	0.02
115	SLU 10	120	6	2191	-11.87	4.94	0.03
115	SLU 11	121	0	2218	0.29	4.96	0
115	SLU 12	120	3	2202	-7.01	4.95	0.02
115	SLU 13	120	6	2191	-11.87	4.94	0.03
115	SLU 14	121	0	2218	0.29	4.96	0
115	SLU 15	120	3	2202	-7.01	4.95	0.02
115	SLU 16	121	0	2218	0.29	4.96	0
115	SLU 17	120	3	2202	-7.01	4.95	0.02
115	SLU 18	121	0	2334	0.31	5.08	0
115	SLU 19	121	3	2318	-6.98	5.07	0.02
115	SLU 20	121	0	2334	0.31	5.08	0
115	SLU 21	121	3	2318	-6.98	5.07	0.02
115	SLU 22	132	0	2118	0.25	5.17	0
115	SLU 23	131	6	2090	-11.9	5.16	0.03
115	SLU 24	132	0	2118	0.25	5.17	0
115	SLU 25	131	3	2101	-7.04	5.16	0.02
115	SLU 26	131	6	2090	-11.9	5.16	0.03
115	SLU 27	132	0	2118	0.25	5.17	0
115	SLU 28	131	3	2101	-7.04	5.16	0.02
115	SLU 29	132	0	2118	0.25	5.17	0
115	SLU 30	131	3	2101	-7.04	5.16	0.02
115	SLU 31	131	6	2361	-11.84	5.43	0.03
115	SLU 32	132	0	2388	0.32	5.45	0
115	SLU 33	131	3	2372	-6.98	5.44	0.02
115	SLU 34	131	6	2361	-11.84	5.43	0.03
115	SLU 35	132	0	2388	0.32	5.45	0
115	SLU 36	131	3	2372	-6.98	5.44	0.02
115	SLU 37	132	0	2388	0.32	5.45	0
115	SLU 38	131	3	2372	-6.98	5.44	0.02
115	SLU 39	132	0	2504	0.35	5.56	0
115	SLU 40	132	3	2487	-6.95	5.56	0.02
115	SLU 41	132	0	2504	0.35	5.56	0
115	SLU 42	132	3	2487	-6.95	5.56	0.02
115	SLU 43	153	0	2474	0.28	5.92	0
115	SLU 44	152	6	2446	-11.88	5.91	0.03
115	SLU 45	153	0	2474	0.28	5.92	0
115	SLU 46	152	3	2457	-7.02	5.91	0.02
115	SLU 47	152	6	2446	-11.88	5.91	0.03
115	SLU 48	153	0	2474	0.28	5.92	0
115	SLU 49	152	3	2457	-7.02	5.91	0.02
115	SLU 50	153	0	2474	0.28	5.92	0
115	SLU 51	152	3	2457	-7.02	5.91	0.02
115	SLU 52	152	6	2717	-11.81	6.18	0.03
115	SLU 53	153	0	2744	0.34	6.2	0
115	SLU 54	153	3	2728	-6.95	6.19	0.02
115	SLU 55	152	6	2717	-11.81	6.18	0.03
115	SLU 56	153	0	2744	0.34	6.2	0
115	SLU 57	153	3	2728	-6.95	6.19	0.02
115	SLU 58	153	0	2744	0.34	6.2	0
115	SLU 59	153	3	2728	-6.95	6.19	0.02
115	SLU 60	154	0	2860	0.37	6.31	0
115	SLU 61	153	3	2844	-6.92	6.3	0.02
115	SLU 62	154	0	2860	0.37	6.31	0
115	SLU 63	153	3	2844	-6.92	6.3	0.02
115	SLU 64	164	0	2644	0.31	6.41	0
115	SLU 65	163	6	2616	-11.85	6.39	0.03
115	SLU 66	164	0	2644	0.31	6.41	0
115	SLU 67	163	3	2627	-6.99	6.4	0.02
115	SLU 68	163	6	2616	-11.85	6.39	0.03
115	SLU 69	164	0	2644	0.31	6.41	0
115	SLU 70	163	3	2627	-6.99	6.4	0.02
115	SLU 71	164	0	2644	0.31	6.41	0
115	SLU 72	163	3	2627	-6.99	6.4	0.02
115	SLU 73	163	6	2887	-11.78	6.67	0.03
115	SLU 74	164	0	2914	0.37	6.68	0
115	SLU 75	164	3	2898	-6.92	6.68	0.02
115	SLU 76	163	6	2887	-11.78	6.67	0.03
115	SLU 77	164	0	2914	0.37	6.68	0
115	SLU 78	164	3	2898	-6.92	6.68	0.02
115	SLU 79	164	0	2914	0.37	6.68	0
115	SLU 80	164	3	2898	-6.92	6.68	0.02
115	SLU 81	165	0	3030	0.4	6.8	0
115	SLU 82	164	3	3014	-6.89	6.79	0.02
115	SLU 83	165	0	3030	0.4	6.8	0
115	SLU 84	164	3	3014	-6.89	6.79	0.02
115	SLE RA 1	124	0	1996	0.23	4.82	0
115	SLE RA 2	123	4	1978	-7.87	4.81	0.02
115	SLE RA 3	124	0	1996	0.23	4.82	0
115	SLE RA 4	123	2	1985	-4.63	4.82	0.01
115	SLE RA 5	123	4	1978	-7.87	4.81	0.02
115	SLE RA 6	124	0	1996	0.23	4.82	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
115	SLE RA 7	123	2	1985	-4.63	4.82	0.01
115	SLE RA 8	124	0	1996	0.23	4.82	0
115	SLE RA 9	123	2	1985	-4.63	4.82	0.01
115	SLE RA 10	123	4	2158	-7.83	5	0.02
115	SLE RA 11	124	0	2177	0.27	5.01	0
115	SLE RA 12	124	2	2166	-4.59	5	0.01
115	SLE RA 13	123	4	2158	-7.83	5	0.02
115	SLE RA 14	124	0	2177	0.27	5.01	0
115	SLE RA 15	124	2	2166	-4.59	5	0.01
115	SLE RA 16	124	0	2177	0.27	5.01	0
115	SLE RA 17	124	2	2166	-4.59	5	0.01
115	SLE RA 18	124	0	2254	0.29	5.08	0
115	SLE RA 19	124	2	2243	-4.57	5.08	0.01
115	SLE RA 20	124	0	2254	0.29	5.08	0
115	SLE RA 21	124	2	2243	-4.57	5.08	0.01
115	SLE FR 1	124	0	1996	0.23	4.82	0
115	SLE FR 2	124	1	1993	-1.39	4.82	0
115	SLE FR 3	124	0	1996	0.23	4.82	0
115	SLE FR 4	124	1	2070	-1.37	4.9	0
115	SLE FR 5	124	0	2074	0.25	4.9	0
115	SLE FR 6	124	0	2125	0.26	4.95	0
115	SLE QP 1	124	0	1996	0.23	4.82	0
115	SLE QP 2	124	0	2074	0.25	4.9	0
115	SLD 1	246	5	2170	-17.77	9.39	0.02
115	SLD 2	246	5	2170	-17.77	9.39	0.02
115	SLD 3	231	17	2205	-3.9	8.83	0.09
115	SLD 4	231	17	2205	-3.9	8.83	0.09
115	SLD 5	184	-16	2049	-26.19	7.09	-0.09
115	SLD 6	184	-16	2049	-26.19	7.09	-0.09
115	SLD 7	133	23	2167	20.03	5.24	0.12
115	SLD 8	133	23	2167	20.03	5.24	0.12
115	SLD 9	115	-23	1980	-19.54	4.57	-0.13
115	SLD 10	115	-23	1980	-19.54	4.57	-0.13
115	SLD 11	64	16	2098	26.68	2.71	0.09
115	SLD 12	64	16	2098	26.68	2.71	0.09
115	SLD 13	17	-17	1942	4.4	0.97	-0.09
115	SLD 14	17	-17	1942	4.4	0.97	-0.09
115	SLD 15	1	-6	1977	18.27	0.41	-0.02
115	SLD 16	1	-6	1977	18.27	0.41	-0.02
115	SLV 1	420	14	2325	-45.69	15.89	0.06
115	SLV 2	420	14	2325	-45.69	15.89	0.06
115	SLV 3	381	43	2417	-10.47	14.45	0.22
115	SLV 4	381	43	2417	-10.47	14.45	0.22
115	SLV 5	272	-40	2009	-66.96	10.37	-0.23
115	SLV 6	272	-40	2009	-66.96	10.37	-0.23
115	SLV 7	142	57	2317	50.46	5.59	0.32
115	SLV 8	142	57	2317	50.46	5.59	0.32
115	SLV 9	106	-57	1830	-49.96	4.21	-0.32
115	SLV 10	106	-57	1830	-49.96	4.21	-0.32
115	SLV 11	-24	40	2138	67.46	-0.57	0.23
115	SLV 12	-24	40	2138	67.46	-0.57	0.23
115	SLV 13	-134	-43	1730	10.96	-4.65	-0.23
115	SLV 14	-134	-43	1730	10.96	-4.65	-0.23
115	SLV 15	-173	-14	1822	46.19	-6.08	-0.06
115	SLV 16	-173	-14	1822	46.19	-6.08	-0.06
116	SLU 1	45	0	1781	0.16	1.72	0
116	SLU 2	42	11	1759	-15.4	1.6	0.06
116	SLU 3	45	0	1781	0.16	1.72	0
116	SLU 4	43	6	1767	-9.18	1.65	0.03
116	SLU 5	42	11	1759	-15.4	1.6	0.06
116	SLU 6	45	0	1781	0.16	1.72	0
116	SLU 7	43	6	1767	-9.18	1.65	0.03
116	SLU 8	45	0	1781	0.16	1.72	0
116	SLU 9	43	6	1767	-9.18	1.65	0.03
116	SLU 10	37	11	1979	-15.36	1.54	0.06
116	SLU 11	40	0	2001	0.2	1.67	0
116	SLU 12	38	6	1988	-9.13	1.59	0.03
116	SLU 13	37	11	1979	-15.36	1.54	0.06
116	SLU 14	40	0	2001	0.2	1.67	0
116	SLU 15	38	6	1988	-9.13	1.59	0.03
116	SLU 16	40	0	2001	0.2	1.67	0
116	SLU 17	38	6	1988	-9.13	1.59	0.03
116	SLU 18	38	0	2096	0.22	1.65	0
116	SLU 19	36	6	2082	-9.11	1.57	0.03
116	SLU 20	38	0	2096	0.22	1.65	0
116	SLU 21	36	6	2082	-9.11	1.57	0.03
116	SLU 22	48	0	1928	0.18	1.85	0
116	SLU 23	45	11	1906	-15.38	1.72	0.06
116	SLU 24	48	0	1928	0.18	1.85	0
116	SLU 25	46	6	1915	-9.16	1.77	0.03
116	SLU 26	45	11	1906	-15.38	1.72	0.06
116	SLU 27	48	0	1928	0.18	1.85	0
116	SLU 28	46	6	1915	-9.16	1.77	0.03
116	SLU 29	48	0	1928	0.18	1.85	0
116	SLU 30	46	6	1915	-9.16	1.77	0.03
116	SLU 31	41	11	2127	-15.33	1.67	0.06
116	SLU 32	43	0	2149	0.23	1.79	0
116	SLU 33	41	6	2136	-9.11	1.72	0.03
116	SLU 34	41	11	2127	-15.33	1.67	0.06



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
116	SLU 35	43	0	2149	0.23	1.79	0
116	SLU 36	41	6	2136	-9.11	1.72	0.03
116	SLU 37	43	0	2149	0.23	1.79	0
116	SLU 38	41	6	2136	-9.11	1.72	0.03
116	SLU 39	41	0	2243	0.25	1.77	0
116	SLU 40	39	6	2230	-9.09	1.69	0.03
116	SLU 41	41	0	2243	0.25	1.77	0
116	SLU 42	39	6	2230	-9.09	1.69	0.03
116	SLU 43	57	0	2264	0.19	2.2	0
116	SLU 44	55	11	2242	-15.37	2.07	0.06
116	SLU 45	57	0	2264	0.19	2.2	0
116	SLU 46	56	6	2251	-9.14	2.12	0.03
116	SLU 47	55	11	2242	-15.37	2.07	0.06
116	SLU 48	57	0	2264	0.19	2.2	0
116	SLU 49	56	6	2251	-9.14	2.12	0.03
116	SLU 50	57	0	2264	0.19	2.2	0
116	SLU 51	56	6	2251	-9.14	2.12	0.03
116	SLU 52	50	11	2463	-15.32	2.02	0.06
116	SLU 53	52	0	2485	0.24	2.14	0
116	SLU 54	51	6	2471	-9.1	2.07	0.03
116	SLU 55	50	11	2463	-15.32	2.02	0.06
116	SLU 56	52	0	2485	0.24	2.14	0
116	SLU 57	51	6	2471	-9.1	2.07	0.03
116	SLU 58	52	0	2485	0.24	2.14	0
116	SLU 59	51	6	2471	-9.1	2.07	0.03
116	SLU 60	50	0	2579	0.26	2.12	0
116	SLU 61	49	6	2566	-9.08	2.04	0.03
116	SLU 62	50	0	2579	0.26	2.12	0
116	SLU 63	49	6	2566	-9.08	2.04	0.03
116	SLU 64	60	0	2412	0.22	2.32	0
116	SLU 65	58	11	2390	-15.34	2.2	0.06
116	SLU 66	60	0	2412	0.22	2.32	0
116	SLU 67	59	6	2399	-9.12	2.25	0.03
116	SLU 68	58	11	2390	-15.34	2.2	0.06
116	SLU 69	60	0	2412	0.22	2.32	0
116	SLU 70	59	6	2399	-9.12	2.25	0.03
116	SLU 71	60	0	2412	0.22	2.32	0
116	SLU 72	59	6	2399	-9.12	2.25	0.03
116	SLU 73	53	11	2610	-15.3	2.14	0.06
116	SLU 74	55	0	2632	0.26	2.27	0
116	SLU 75	54	6	2619	-9.07	2.19	0.03
116	SLU 76	53	11	2610	-15.3	2.14	0.06
116	SLU 77	55	0	2632	0.26	2.27	0
116	SLU 78	54	6	2619	-9.07	2.19	0.03
116	SLU 79	55	0	2632	0.26	2.27	0
116	SLU 80	54	6	2619	-9.07	2.19	0.03
116	SLU 81	53	0	2727	0.28	2.24	0
116	SLU 82	52	6	2714	-9.05	2.17	0.03
116	SLU 83	53	0	2727	0.28	2.24	0
116	SLU 84	52	6	2714	-9.05	2.17	0.03
116	SLE RA 1	45	0	1823	0.16	1.76	0
116	SLE RA 2	44	7	1808	-10.21	1.67	0.04
116	SLE RA 3	45	0	1823	0.16	1.76	0
116	SLE RA 4	45	4	1814	-6.06	1.71	0.02
116	SLE RA 5	44	7	1808	-10.21	1.67	0.04
116	SLE RA 6	45	0	1823	0.16	1.76	0
116	SLE RA 7	45	4	1814	-6.06	1.71	0.02
116	SLE RA 8	45	0	1823	0.16	1.76	0
116	SLE RA 9	45	4	1814	-6.06	1.71	0.02
116	SLE RA 10	41	7	1955	-10.18	1.64	0.04
116	SLE RA 11	42	0	1970	0.19	1.72	0
116	SLE RA 12	41	4	1961	-6.03	1.67	0.02
116	SLE RA 13	41	7	1955	-10.18	1.64	0.04
116	SLE RA 14	42	0	1970	0.19	1.72	0
116	SLE RA 15	41	4	1961	-6.03	1.67	0.02
116	SLE RA 16	42	0	1970	0.19	1.72	0
116	SLE RA 17	41	4	1961	-6.03	1.67	0.02
116	SLE RA 18	41	0	2033	0.21	1.71	0
116	SLE RA 19	40	4	2024	-6.02	1.66	0.02
116	SLE RA 20	41	0	2033	0.21	1.71	0
116	SLE RA 21	40	4	2024	-6.02	1.66	0.02
116	SLE FR 1	45	0	1823	0.16	1.76	0
116	SLE FR 2	45	1	1820	-1.91	1.74	0.01
116	SLE FR 3	45	0	1823	0.16	1.76	0
116	SLE FR 4	44	1	1883	-1.9	1.73	0.01
116	SLE FR 5	44	0	1886	0.18	1.74	0
116	SLE FR 6	43	0	1928	0.18	1.73	0
116	SLE QP 1	45	0	1823	0.16	1.76	0
116	SLE QP 2	44	0	1886	0.18	1.74	0
116	SLD 1	164	22	1969	-21.9	-1.46	0.11
116	SLD 2	164	22	1969	-21.9	-1.46	0.11
116	SLD 3	149	4	1995	-3.72	-1.92	0.02
116	SLD 4	149	4	1995	-3.72	-1.92	0.02
116	SLD 5	102	34	1872	-34.02	1.49	0.18
116	SLD 6	102	34	1872	-34.02	1.49	0.18
116	SLD 7	53	-26	1958	26.59	-0.07	-0.14
116	SLD 8	53	-26	1958	26.59	-0.07	-0.14
116	SLD 9	35	26	1814	-26.23	3.55	0.14
116	SLD 10	35	26	1814	-26.23	3.55	0.14



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
116	SLD 11	-14	-34	1900	34.38	1.99	-0.18
116	SLD 12	-14	-34	1900	34.38	1.99	-0.18
116	SLD 13	-61	-4	1777	4.07	5.41	-0.02
116	SLD 14	-61	-4	1777	4.07	5.41	-0.02
116	SLD 15	-76	-22	1802	22.25	4.94	-0.11
116	SLD 16	-76	-22	1802	22.25	4.94	-0.11
116	SLV 1	329	55	2105	-56.23	-5.83	0.29
116	SLV 2	329	55	2105	-56.23	-5.83	0.29
116	SLV 3	294	10	2171	-9.99	-6.95	0.05
116	SLV 4	294	10	2171	-9.99	-6.95	0.05
116	SLV 5	182	86	1851	-86.88	1.16	0.45
116	SLV 6	182	86	1851	-86.88	1.16	0.45
116	SLV 7	66	-66	2072	67.26	-2.56	-0.35
116	SLV 8	66	-66	2072	67.26	-2.56	-0.35
116	SLV 9	22	66	1699	-66.91	6.04	0.35
116	SLV 10	22	66	1699	-66.91	6.04	0.35
116	SLV 11	-94	-86	1921	87.23	2.32	-0.45
116	SLV 12	-94	-86	1921	87.23	2.32	-0.45
116	SLV 13	-206	-10	1601	10.34	10.43	-0.05
116	SLV 14	-206	-10	1601	10.34	10.43	-0.05
116	SLV 15	-241	-55	1667	56.58	9.32	-0.29
116	SLV 16	-241	-55	1667	56.58	9.32	-0.29
117	SLU 1	57	0	1627	0.12	2.46	0
117	SLU 2	54	14	1609	-17.17	2.42	0.06
117	SLU 3	57	0	1627	0.12	2.46	0
117	SLU 4	55	8	1616	-10.25	2.43	0.04
117	SLU 5	54	14	1609	-17.17	2.42	0.06
117	SLU 6	57	0	1627	0.12	2.46	0
117	SLU 7	55	8	1616	-10.25	2.43	0.04
117	SLU 8	57	0	1627	0.12	2.46	0
117	SLU 9	55	8	1616	-10.25	2.43	0.04
117	SLU 10	58	14	1791	-17.14	2.69	0.06
117	SLU 11	60	0	1809	0.16	2.74	0
117	SLU 12	59	8	1798	-10.22	2.71	0.04
117	SLU 13	58	14	1791	-17.14	2.69	0.06
117	SLU 14	60	0	1809	0.16	2.74	0
117	SLU 15	59	8	1798	-10.22	2.71	0.04
117	SLU 16	60	0	1809	0.16	2.74	0
117	SLU 17	59	8	1798	-10.22	2.71	0.04
117	SLU 18	62	0	1887	0.17	2.85	0
117	SLU 19	60	8	1876	-10.2	2.83	0.04
117	SLU 20	62	0	1887	0.17	2.85	0
117	SLU 21	60	8	1876	-10.2	2.83	0.04
117	SLU 22	62	0	1755	0.14	2.73	0
117	SLU 23	60	14	1737	-17.15	2.69	0.06
117	SLU 24	62	0	1755	0.14	2.73	0
117	SLU 25	61	8	1744	-10.24	2.7	0.04
117	SLU 26	60	14	1737	-17.15	2.69	0.06
117	SLU 27	62	0	1755	0.14	2.73	0
117	SLU 28	61	8	1744	-10.24	2.7	0.04
117	SLU 29	62	0	1755	0.14	2.73	0
117	SLU 30	61	8	1744	-10.24	2.7	0.04
117	SLU 31	63	14	1919	-17.12	2.96	0.06
117	SLU 32	65	0	1937	0.18	3.01	0
117	SLU 33	64	8	1926	-10.2	2.98	0.04
117	SLU 34	63	14	1919	-17.12	2.96	0.06
117	SLU 35	65	0	1937	0.18	3.01	0
117	SLU 36	64	8	1926	-10.2	2.98	0.04
117	SLU 37	65	0	1937	0.18	3.01	0
117	SLU 38	64	8	1926	-10.2	2.98	0.04
117	SLU 39	67	0	2015	0.19	3.12	0
117	SLU 40	65	8	2004	-10.19	3.1	0.04
117	SLU 41	67	0	2015	0.19	3.12	0
117	SLU 42	65	8	2004	-10.19	3.1	0.04
117	SLU 43	72	0	2071	0.15	3.11	0
117	SLU 44	70	14	2053	-17.14	3.06	0.06
117	SLU 45	72	0	2071	0.15	3.11	0
117	SLU 46	71	8	2060	-10.22	3.08	0.04
117	SLU 47	70	14	2053	-17.14	3.06	0.06
117	SLU 48	72	0	2071	0.15	3.11	0
117	SLU 49	71	8	2060	-10.22	3.08	0.04
117	SLU 50	72	0	2071	0.15	3.11	0
117	SLU 51	71	8	2060	-10.22	3.08	0.04
117	SLU 52	73	14	2235	-17.11	3.34	0.06
117	SLU 53	75	0	2253	0.19	3.38	0
117	SLU 54	74	8	2242	-10.19	3.36	0.04
117	SLU 55	73	14	2235	-17.11	3.34	0.06
117	SLU 56	75	0	2253	0.19	3.38	0
117	SLU 57	74	8	2242	-10.19	3.36	0.04
117	SLU 58	75	0	2253	0.19	3.38	0
117	SLU 59	74	8	2242	-10.19	3.36	0.04
117	SLU 60	77	0	2331	0.2	3.5	0
117	SLU 61	75	8	2320	-10.17	3.47	0.04
117	SLU 62	77	0	2331	0.2	3.5	0
117	SLU 63	75	8	2320	-10.17	3.47	0.04
117	SLU 64	77	0	2199	0.17	3.38	0
117	SLU 65	75	14	2181	-17.12	3.33	0.06
117	SLU 66	77	0	2199	0.17	3.38	0
117	SLU 67	76	8	2189	-10.2	3.35	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
117	SLU 68	75	14	2181	-17.12	3.33	0.06
117	SLU 69	77	0	2199	0.17	3.38	0
117	SLU 70	76	8	2189	-10.2	3.35	0.04
117	SLU 71	77	0	2199	0.17	3.38	0
117	SLU 72	76	8	2189	-10.2	3.35	0.04
117	SLU 73	78	14	2363	-17.09	3.61	0.06
117	SLU 74	81	0	2381	0.21	3.65	0
117	SLU 75	79	8	2370	-10.17	3.63	0.04
117	SLU 76	78	14	2363	-17.09	3.61	0.06
117	SLU 77	81	0	2381	0.21	3.65	0
117	SLU 78	79	8	2370	-10.17	3.63	0.04
117	SLU 79	81	0	2381	0.21	3.65	0
117	SLU 80	79	8	2370	-10.17	3.63	0.04
117	SLU 81	82	0	2459	0.22	3.77	0
117	SLU 82	81	8	2448	-10.15	3.74	0.04
117	SLU 83	82	0	2459	0.22	3.77	0
117	SLU 84	81	8	2448	-10.15	3.74	0.04
117	SLE RA 1	58	0	1664	0.13	2.54	0
117	SLE RA 2	57	9	1652	-11.4	2.51	0.04
117	SLE RA 3	58	0	1664	0.13	2.54	0
117	SLE RA 4	57	6	1656	-6.79	2.52	0.02
117	SLE RA 5	57	9	1652	-11.4	2.51	0.04
117	SLE RA 6	58	0	1664	0.13	2.54	0
117	SLE RA 7	57	6	1656	-6.79	2.52	0.02
117	SLE RA 8	58	0	1664	0.13	2.54	0
117	SLE RA 9	57	6	1656	-6.79	2.52	0.02
117	SLE RA 10	59	9	1773	-11.38	2.69	0.04
117	SLE RA 11	61	0	1785	0.15	2.72	0
117	SLE RA 12	60	6	1778	-6.77	2.7	0.02
117	SLE RA 13	59	9	1773	-11.38	2.69	0.04
117	SLE RA 14	61	0	1785	0.15	2.72	0
117	SLE RA 15	60	6	1778	-6.77	2.7	0.02
117	SLE RA 16	61	0	1785	0.15	2.72	0
117	SLE RA 17	60	6	1778	-6.77	2.7	0.02
117	SLE RA 18	62	0	1837	0.16	2.8	0
117	SLE RA 19	61	6	1830	-6.76	2.78	0.02
117	SLE RA 20	62	0	1837	0.16	2.8	0
117	SLE RA 21	61	6	1830	-6.76	2.78	0.02
117	SLE FR 1	58	0	1664	0.13	2.54	0
117	SLE FR 2	58	2	1661	-2.18	2.53	0.01
117	SLE FR 3	58	0	1664	0.13	2.54	0
117	SLE FR 4	59	2	1713	-2.17	2.61	0.01
117	SLE FR 5	59	0	1716	0.14	2.62	0
117	SLE FR 6	60	0	1750	0.15	2.67	0
117	SLE QP 1	58	0	1664	0.13	2.54	0
117	SLE QP 2	59	0	1716	0.14	2.62	0
117	SLD 1	194	25	1757	-23.89	6.82	0.11
117	SLD 2	194	25	1757	-23.89	6.82	0.11
117	SLD 3	178	3	1772	-3.31	6.33	0.01
117	SLD 4	178	3	1772	-3.31	6.33	0.01
117	SLD 5	124	40	1706	-38.28	4.61	0.17
117	SLD 6	124	40	1706	-38.28	4.61	0.17
117	SLD 7	70	-32	1755	30.32	2.99	-0.14
117	SLD 8	70	-32	1755	30.32	2.99	-0.14
117	SLD 9	48	32	1676	-30.04	2.24	0.14
117	SLD 10	48	32	1676	-30.04	2.24	0.14
117	SLD 11	-6	-40	1725	38.56	0.62	-0.17
117	SLD 12	-6	-40	1725	38.56	0.62	-0.17
117	SLD 13	-59	-3	1659	3.59	-1.1	-0.01
117	SLD 14	-59	-3	1659	3.59	-1.1	-0.01
117	SLD 15	-75	-25	1674	24.17	-1.58	-0.11
117	SLD 16	-75	-25	1674	24.17	-1.58	-0.11
117	SLV 1	378	63	1825	-61.3	12.59	0.27
117	SLV 2	378	63	1825	-61.3	12.59	0.27
117	SLV 3	340	7	1862	-8.92	11.44	0.03
117	SLV 4	340	7	1862	-8.92	11.44	0.03
117	SLV 5	212	103	1691	-97.73	7.34	0.44
117	SLV 6	212	103	1691	-97.73	7.34	0.44
117	SLV 7	86	-82	1817	76.86	3.53	-0.35
117	SLV 8	86	-82	1817	76.86	3.53	-0.35
117	SLV 9	33	82	1614	-76.59	1.7	0.35
117	SLV 10	33	82	1614	-76.59	1.7	0.35
117	SLV 11	-94	-103	1740	98.01	-2.11	-0.44
117	SLV 12	-94	-103	1740	98.01	-2.11	-0.44
117	SLV 13	-221	-8	1569	9.2	-6.21	-0.03
117	SLV 14	-221	-8	1569	9.2	-6.21	-0.03
117	SLV 15	-259	-63	1606	61.57	-7.36	-0.27
117	SLV 16	-259	-63	1606	61.57	-7.36	-0.27
118	SLU 1	106	0	1589	0.11	2.87	0
118	SLU 2	99	13	1573	-16.32	2.61	0.03
118	SLU 3	106	0	1589	0.11	2.87	0
118	SLU 4	102	8	1580	-9.75	2.71	0.02
118	SLU 5	99	13	1573	-16.32	2.61	0.03
118	SLU 6	106	0	1589	0.11	2.87	0
118	SLU 7	102	8	1580	-9.75	2.71	0.02
118	SLU 8	106	0	1589	0.11	2.87	0
118	SLU 9	102	8	1580	-9.75	2.71	0.02
118	SLU 10	113	13	1741	-16.29	2.97	0.03
118	SLU 11	120	0	1757	0.14	3.23	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
118	SLU 12	116	8	1748	-9.72	3.07	0.02
118	SLU 13	113	13	1741	-16.29	2.97	0.03
118	SLU 14	120	0	1757	0.14	3.23	0
118	SLU 15	116	8	1748	-9.72	3.07	0.02
118	SLU 16	120	0	1757	0.14	3.23	0
118	SLU 17	116	8	1748	-9.72	3.07	0.02
118	SLU 18	126	0	1829	0.15	3.38	0
118	SLU 19	122	8	1820	-9.71	3.23	0.02
118	SLU 20	126	0	1829	0.15	3.38	0
118	SLU 21	122	8	1820	-9.71	3.23	0.02
118	SLU 22	116	0	1711	0.13	3.11	0
118	SLU 23	109	13	1695	-16.31	2.86	0.03
118	SLU 24	116	0	1711	0.13	3.11	0
118	SLU 25	112	8	1701	-9.73	2.96	0.02
118	SLU 26	109	13	1695	-16.31	2.86	0.03
118	SLU 27	116	0	1711	0.13	3.11	0
118	SLU 28	112	8	1701	-9.73	2.96	0.02
118	SLU 29	116	0	1711	0.13	3.11	0
118	SLU 30	112	8	1701	-9.73	2.96	0.02
118	SLU 31	123	13	1863	-16.28	3.22	0.03
118	SLU 32	130	0	1879	0.15	3.47	0
118	SLU 33	126	8	1869	-9.71	3.32	0.02
118	SLU 34	123	13	1863	-16.28	3.22	0.03
118	SLU 35	130	0	1879	0.15	3.47	0
118	SLU 36	126	8	1869	-9.71	3.32	0.02
118	SLU 37	130	0	1879	0.15	3.47	0
118	SLU 38	126	8	1869	-9.71	3.32	0.02
118	SLU 39	136	0	1951	0.17	3.63	0
118	SLU 40	132	8	1941	-9.69	3.47	0.02
118	SLU 41	136	0	1951	0.17	3.63	0
118	SLU 42	132	8	1941	-9.69	3.47	0.02
118	SLU 43	135	0	2024	0.13	3.64	0
118	SLU 44	128	13	2008	-16.3	3.39	0.03
118	SLU 45	135	0	2024	0.13	3.64	0
118	SLU 46	131	8	2015	-9.72	3.49	0.02
118	SLU 47	128	13	2008	-16.3	3.39	0.03
118	SLU 48	135	0	2024	0.13	3.64	0
118	SLU 49	131	8	2015	-9.72	3.49	0.02
118	SLU 50	135	0	2024	0.13	3.64	0
118	SLU 51	131	8	2015	-9.72	3.49	0.02
118	SLU 52	142	13	2176	-16.27	3.75	0.03
118	SLU 53	149	0	2192	0.16	4	0
118	SLU 54	144	8	2183	-9.7	3.85	0.02
118	SLU 55	142	13	2176	-16.27	3.75	0.03
118	SLU 56	149	0	2192	0.16	4	0
118	SLU 57	144	8	2183	-9.7	3.85	0.02
118	SLU 58	149	0	2192	0.16	4	0
118	SLU 59	144	8	2183	-9.7	3.85	0.02
118	SLU 60	155	0	2264	0.18	4.16	0
118	SLU 61	150	8	2255	-9.68	4.01	0.02
118	SLU 62	155	0	2264	0.18	4.16	0
118	SLU 63	150	8	2255	-9.68	4.01	0.02
118	SLU 64	145	0	2146	0.15	3.89	0
118	SLU 65	138	13	2130	-16.28	3.63	0.03
118	SLU 66	145	0	2146	0.15	3.89	0
118	SLU 67	141	8	2137	-9.71	3.74	0.02
118	SLU 68	138	13	2130	-16.28	3.63	0.03
118	SLU 69	145	0	2146	0.15	3.89	0
118	SLU 70	141	8	2137	-9.71	3.74	0.02
118	SLU 71	145	0	2146	0.15	3.89	0
118	SLU 72	141	8	2137	-9.71	3.74	0.02
118	SLU 73	151	13	2298	-16.25	3.99	0.03
118	SLU 74	159	0	2314	0.18	4.25	0
118	SLU 75	154	8	2305	-9.68	4.1	0.02
118	SLU 76	151	13	2298	-16.25	3.99	0.03
118	SLU 77	159	0	2314	0.18	4.25	0
118	SLU 78	154	8	2305	-9.68	4.1	0.02
118	SLU 79	159	0	2314	0.18	4.25	0
118	SLU 80	154	8	2305	-9.68	4.1	0.02
118	SLU 81	164	0	2386	0.19	4.4	0
118	SLU 82	160	8	2376	-9.67	4.25	0.02
118	SLU 83	164	0	2386	0.19	4.4	0
118	SLU 84	160	8	2376	-9.67	4.25	0.02
118	SLE RA 1	109	0	1624	0.11	2.94	0
118	SLE RA 2	105	9	1613	-10.84	2.77	0.02
118	SLE RA 3	109	0	1624	0.11	2.94	0
118	SLE RA 4	106	5	1618	-6.46	2.84	0.01
118	SLE RA 5	105	9	1613	-10.84	2.77	0.02
118	SLE RA 6	109	0	1624	0.11	2.94	0
118	SLE RA 7	106	5	1618	-6.46	2.84	0.01
118	SLE RA 8	109	0	1624	0.11	2.94	0
118	SLE RA 9	106	5	1618	-6.46	2.84	0.01
118	SLE RA 10	114	9	1725	-10.82	3.01	0.02
118	SLE RA 11	118	0	1736	0.13	3.18	0
118	SLE RA 12	116	5	1730	-6.44	3.08	0.01
118	SLE RA 13	114	9	1725	-10.82	3.01	0.02
118	SLE RA 14	118	0	1736	0.13	3.18	0
118	SLE RA 15	116	5	1730	-6.44	3.08	0.01
118	SLE RA 16	118	0	1736	0.13	3.18	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
118	SLE RA 17	116	5	1730	-6.44	3.08	0.01
118	SLE RA 18	122	0	1784	0.14	3.28	0
118	SLE RA 19	119	5	1778	-6.43	3.18	0.01
118	SLE RA 20	122	0	1784	0.14	3.28	0
118	SLE RA 21	119	5	1778	-6.43	3.18	0.01
118	SLE FR 1	109	0	1624	0.11	2.94	0
118	SLE FR 2	108	2	1622	-2.08	2.9	0
118	SLE FR 3	109	0	1624	0.11	2.94	0
118	SLE FR 4	112	2	1670	-2.07	3.01	0
118	SLE FR 5	113	0	1672	0.12	3.04	0
118	SLE FR 6	116	0	1704	0.13	3.11	0
118	SLE QP 1	109	0	1624	0.11	2.94	0
118	SLE QP 2	113	0	1672	0.12	3.04	0
118	SLD 1	-9	24	1651	-23.13	-1.18	0.07
118	SLD 2	-9	24	1651	-23.13	-1.18	0.07
118	SLD 3	-27	2	1661	-2.79	-0.62	0.01
118	SLD 4	-27	2	1661	-2.79	-0.62	0.01
118	SLD 5	104	40	1651	-37.71	0.93	0.11
118	SLD 6	104	40	1651	-37.71	0.93	0.11
118	SLD 7	44	-32	1684	30.1	2.79	-0.09
118	SLD 8	44	-32	1684	30.1	2.79	-0.09
118	SLD 9	183	32	1661	-29.86	3.29	0.09
118	SLD 10	183	32	1661	-29.86	3.29	0.09
118	SLD 11	122	-40	1693	37.95	5.16	-0.11
118	SLD 12	122	-40	1693	37.95	5.16	-0.11
118	SLD 13	253	-2	1683	3.03	6.7	-0.01
118	SLD 14	253	-2	1683	3.03	6.7	-0.01
118	SLD 15	235	-24	1693	23.37	7.26	-0.07
118	SLD 16	235	-24	1693	23.37	7.26	-0.07
118	SLV 1	-176	60	1620	-59.3	-6.98	0.17
118	SLV 2	-176	60	1620	-59.3	-6.98	0.17
118	SLV 3	-219	6	1644	-7.5	-5.63	0.02
118	SLV 4	-219	6	1644	-7.5	-5.63	0.02
118	SLV 5	92	101	1619	-96.27	-2.01	0.29
118	SLV 6	92	101	1619	-96.27	-2.01	0.29
118	SLV 7	-52	-81	1701	76.4	2.48	-0.23
118	SLV 8	-52	-81	1701	76.4	2.48	-0.23
118	SLV 9	278	81	1643	-76.16	3.6	0.23
118	SLV 10	278	81	1643	-76.16	3.6	0.23
118	SLV 11	135	-101	1725	96.51	8.09	-0.29
118	SLV 12	135	-101	1725	96.51	8.09	-0.29
118	SLV 13	445	-6	1700	7.74	11.71	-0.02
118	SLV 14	445	-6	1700	7.74	11.71	-0.02
118	SLV 15	402	-60	1724	59.54	13.06	-0.17
118	SLV 16	402	-60	1724	59.54	13.06	-0.17
119	SLU 1	149	0	1683	0.1	4.33	0
119	SLU 2	139	6	1664	-12.89	4.06	0
119	SLU 3	149	0	1683	0.1	4.33	0
119	SLU 4	143	4	1671	-7.69	4.17	0
119	SLU 5	139	6	1664	-12.89	4.06	0
119	SLU 6	149	0	1683	0.1	4.33	0
119	SLU 7	143	4	1671	-7.69	4.17	0
119	SLU 8	149	0	1683	0.1	4.33	0
119	SLU 9	143	4	1671	-7.69	4.17	0
119	SLU 10	161	6	1841	-12.86	4.74	0
119	SLU 11	171	0	1860	0.13	5	0
119	SLU 12	165	4	1849	-7.67	4.84	0
119	SLU 13	161	6	1841	-12.86	4.74	0
119	SLU 14	171	0	1860	0.13	5	0
119	SLU 15	165	4	1849	-7.67	4.84	0
119	SLU 16	171	0	1860	0.13	5	0
119	SLU 17	165	4	1849	-7.67	4.84	0
119	SLU 18	181	0	1936	0.14	5.29	0
119	SLU 19	174	4	1925	-7.66	5.13	0
119	SLU 20	181	0	1936	0.14	5.29	0
119	SLU 21	174	4	1925	-7.66	5.13	0
119	SLU 22	164	0	1813	0.12	4.77	0
119	SLU 23	153	6	1794	-12.87	4.51	0
119	SLU 24	164	0	1813	0.12	4.77	0
119	SLU 25	157	4	1801	-7.68	4.62	0
119	SLU 26	153	6	1794	-12.87	4.51	0
119	SLU 27	164	0	1813	0.12	4.77	0
119	SLU 28	157	4	1801	-7.68	4.62	0
119	SLU 29	164	0	1813	0.12	4.77	0
119	SLU 30	157	4	1801	-7.68	4.62	0
119	SLU 31	175	6	1971	-12.85	5.18	0
119	SLU 32	186	0	1990	0.15	5.45	0
119	SLU 33	179	4	1979	-7.65	5.29	0
119	SLU 34	175	6	1971	-12.85	5.18	0
119	SLU 35	186	0	1990	0.15	5.45	0
119	SLU 36	179	4	1979	-7.65	5.29	0
119	SLU 37	186	0	1990	0.15	5.45	0
119	SLU 38	179	4	1979	-7.65	5.29	0
119	SLU 39	195	0	2066	0.16	5.73	0
119	SLU 40	189	4	2055	-7.64	5.58	0
119	SLU 41	195	0	2066	0.16	5.73	0
119	SLU 42	189	4	2055	-7.64	5.58	0
119	SLU 43	189	0	2143	0.13	5.47	0
119	SLU 44	178	6	2124	-12.86	5.21	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
119	SLU 45	189	0	2143	0.13	5.47	0
119	SLU 46	182	4	2132	-7.67	5.31	0
119	SLU 47	178	6	2124	-12.86	5.21	0
119	SLU 48	189	0	2143	0.13	5.47	0
119	SLU 49	182	4	2132	-7.67	5.31	0
119	SLU 50	189	0	2143	0.13	5.47	0
119	SLU 51	182	4	2132	-7.67	5.31	0
119	SLU 52	200	6	2301	-12.84	5.88	0
119	SLU 53	211	0	2320	0.16	6.14	0
119	SLU 54	205	4	2309	-7.64	5.99	0
119	SLU 55	200	6	2301	-12.84	5.88	0
119	SLU 56	211	0	2320	0.16	6.14	0
119	SLU 57	205	4	2309	-7.64	5.99	0
119	SLU 58	211	0	2320	0.16	6.14	0
119	SLU 59	205	4	2309	-7.64	5.99	0
119	SLU 60	220	0	2396	0.17	6.43	0
119	SLU 61	214	4	2385	-7.63	6.28	0
119	SLU 62	220	0	2396	0.17	6.43	0
119	SLU 63	214	4	2385	-7.63	6.28	0
119	SLU 64	203	0	2273	0.15	5.92	0
119	SLU 65	193	6	2254	-12.85	5.66	0
119	SLU 66	203	0	2273	0.15	5.92	0
119	SLU 67	197	4	2262	-7.65	5.76	0
119	SLU 68	193	6	2254	-12.85	5.66	0
119	SLU 69	203	0	2273	0.15	5.92	0
119	SLU 70	197	4	2262	-7.65	5.76	0
119	SLU 71	203	0	2273	0.15	5.92	0
119	SLU 72	197	4	2262	-7.65	5.76	0
119	SLU 73	215	6	2431	-12.82	6.33	0
119	SLU 74	225	0	2451	0.17	6.59	0
119	SLU 75	219	4	2439	-7.62	6.43	0
119	SLU 76	215	6	2431	-12.82	6.33	0
119	SLU 77	225	0	2451	0.17	6.59	0
119	SLU 78	219	4	2439	-7.62	6.43	0
119	SLU 79	225	0	2451	0.17	6.59	0
119	SLU 80	219	4	2439	-7.62	6.43	0
119	SLU 81	235	0	2526	0.18	6.88	0
119	SLU 82	229	4	2515	-7.61	6.72	0
119	SLU 83	235	0	2526	0.18	6.88	0
119	SLU 84	229	4	2515	-7.61	6.72	0
119	SLE RA 1	153	0	1720	0.11	4.45	0
119	SLE RA 2	146	4	1707	-8.55	4.28	0
119	SLE RA 3	153	0	1720	0.11	4.45	0
119	SLE RA 4	149	3	1712	-5.09	4.35	0
119	SLE RA 5	146	4	1707	-8.55	4.28	0
119	SLE RA 6	153	0	1720	0.11	4.45	0
119	SLE RA 7	149	3	1712	-5.09	4.35	0
119	SLE RA 8	153	0	1720	0.11	4.45	0
119	SLE RA 9	149	3	1712	-5.09	4.35	0
119	SLE RA 10	161	4	1825	-8.54	4.73	0
119	SLE RA 11	168	0	1838	0.13	4.9	0
119	SLE RA 12	164	3	1831	-5.07	4.8	0
119	SLE RA 13	161	4	1825	-8.54	4.73	0
119	SLE RA 14	168	0	1838	0.13	4.9	0
119	SLE RA 15	164	3	1831	-5.07	4.8	0
119	SLE RA 16	168	0	1838	0.13	4.9	0
119	SLE RA 17	164	3	1831	-5.07	4.8	0
119	SLE RA 18	174	0	1889	0.13	5.09	0
119	SLE RA 19	170	3	1881	-5.06	4.99	0
119	SLE RA 20	174	0	1889	0.13	5.09	0
119	SLE RA 21	170	3	1881	-5.06	4.99	0
119	SLE FR 1	153	0	1720	0.11	4.45	0
119	SLE FR 2	152	1	1717	-1.62	4.42	0
119	SLE FR 3	153	0	1720	0.11	4.45	0
119	SLE FR 4	158	1	1768	-1.62	4.61	0
119	SLE FR 5	160	0	1771	0.12	4.65	0
119	SLE FR 6	164	0	1804	0.12	4.77	0
119	SLE QP 1	153	0	1720	0.11	4.45	0
119	SLE QP 2	160	0	1771	0.12	4.65	0
119	SLD 1	277	19	1712	-19.65	8.27	-0.02
119	SLD 2	277	19	1712	-19.65	8.27	-0.02
119	SLD 3	295	2	1694	-2.2	8.8	0
119	SLD 4	295	2	1694	-2.2	8.8	0
119	SLD 5	168	31	1781	-32.28	4.93	-0.04
119	SLD 6	168	31	1781	-32.28	4.93	-0.04
119	SLD 7	227	-25	1720	25.89	6.7	0.03
119	SLD 8	227	-25	1720	25.89	6.7	0.03
119	SLD 9	92	25	1822	-25.65	2.59	-0.03
119	SLD 10	92	25	1822	-25.65	2.59	-0.03
119	SLD 11	151	-31	1760	32.51	4.36	0.04
119	SLD 12	151	-31	1760	32.51	4.36	0.04
119	SLD 13	24	-2	1848	2.43	0.49	0
119	SLD 14	24	-2	1848	2.43	0.49	0
119	SLD 15	42	-19	1829	19.88	1.02	0.02
119	SLD 16	42	-19	1829	19.88	1.02	0.02
119	SLV 1	438	47	1619	-50.3	13.27	-0.06
119	SLV 2	438	47	1619	-50.3	13.27	-0.06
119	SLV 3	480	4	1572	-5.88	14.53	-0.01
119	SLV 4	480	4	1572	-5.88	14.53	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
119	SLV 5	179	78	1796	-82.37	5.33	-0.1
119	SLV 6	179	78	1796	-82.37	5.33	-0.1
119	SLV 7	319	-63	1641	65.68	9.51	0.08
119	SLV 8	319	-63	1641	65.68	9.51	0.08
119	SLV 9	0	63	1901	-65.45	-0.22	-0.08
119	SLV 10	0	63	1901	-65.45	-0.22	-0.08
119	SLV 11	140	-78	1746	82.6	3.96	0.1
119	SLV 12	140	-78	1746	82.6	3.96	0.1
119	SLV 13	-161	-5	1969	6.11	-5.23	0.01
119	SLV 14	-161	-5	1969	6.11	-5.23	0.01
119	SLV 15	-119	-47	1923	50.53	-3.98	0.06
119	SLV 16	-119	-47	1923	50.53	-3.98	0.06
120	SLU 1	117	0	1817	0.11	3.2	0
120	SLU 2	100	-2	1788	-8.19	2.63	-0.01
120	SLU 3	117	0	1817	0.11	3.2	0
120	SLU 4	107	-1	1800	-4.87	2.86	-0.01
120	SLU 5	100	-2	1788	-8.19	2.63	-0.01
120	SLU 6	117	0	1817	0.11	3.2	0
120	SLU 7	107	-1	1800	-4.87	2.86	-0.01
120	SLU 8	117	0	1817	0.11	3.2	0
120	SLU 9	107	-1	1800	-4.87	2.86	-0.01
120	SLU 10	117	-2	1982	-8.17	3.07	-0.01
120	SLU 11	133	0	2011	0.13	3.64	0
120	SLU 12	123	-1	1994	-4.85	3.3	-0.01
120	SLU 13	117	-2	1982	-8.17	3.07	-0.01
120	SLU 14	133	0	2011	0.13	3.64	0
120	SLU 15	123	-1	1994	-4.85	3.3	-0.01
120	SLU 16	133	0	2011	0.13	3.64	0
120	SLU 17	123	-1	1994	-4.85	3.3	-0.01
120	SLU 18	141	0	2094	0.14	3.83	0
120	SLU 19	130	-1	2077	-4.84	3.49	-0.01
120	SLU 20	141	0	2094	0.14	3.83	0
120	SLU 21	130	-1	2077	-4.84	3.49	-0.01
120	SLU 22	126	0	1960	0.13	3.43	0
120	SLU 23	109	-2	1931	-8.18	2.86	-0.01
120	SLU 24	126	0	1960	0.13	3.43	0
120	SLU 25	116	-1	1942	-4.86	3.09	-0.01
120	SLU 26	109	-2	1931	-8.18	2.86	-0.01
120	SLU 27	126	0	1960	0.13	3.43	0
120	SLU 28	116	-1	1942	-4.86	3.09	-0.01
120	SLU 29	126	0	1960	0.13	3.43	0
120	SLU 30	116	-1	1942	-4.86	3.09	-0.01
120	SLU 31	126	-2	2124	-8.16	3.3	-0.01
120	SLU 32	143	0	2153	0.15	3.86	0
120	SLU 33	133	-1	2136	-4.83	3.52	-0.01
120	SLU 34	126	-2	2124	-8.16	3.3	-0.01
120	SLU 35	143	0	2153	0.15	3.86	0
120	SLU 36	133	-1	2136	-4.83	3.52	-0.01
120	SLU 37	143	0	2153	0.15	3.86	0
120	SLU 38	133	-1	2136	-4.83	3.52	-0.01
120	SLU 39	150	0	2236	0.16	4.05	0
120	SLU 40	140	-1	2219	-4.83	3.71	-0.01
120	SLU 41	150	0	2236	0.16	4.05	0
120	SLU 42	140	-1	2219	-4.83	3.71	-0.01
120	SLU 43	149	0	2314	0.14	4.08	0
120	SLU 44	132	-2	2285	-8.16	3.51	-0.01
120	SLU 45	149	0	2314	0.14	4.08	0
120	SLU 46	138	-1	2296	-4.84	3.74	-0.01
120	SLU 47	132	-2	2285	-8.16	3.51	-0.01
120	SLU 48	149	0	2314	0.14	4.08	0
120	SLU 49	138	-1	2296	-4.84	3.74	-0.01
120	SLU 50	149	0	2314	0.14	4.08	0
120	SLU 51	138	-1	2296	-4.84	3.74	-0.01
120	SLU 52	148	-2	2478	-8.14	3.95	-0.01
120	SLU 53	165	0	2507	0.16	4.52	0
120	SLU 54	155	-1	2490	-4.82	4.18	-0.01
120	SLU 55	148	-2	2478	-8.14	3.95	-0.01
120	SLU 56	165	0	2507	0.16	4.52	0
120	SLU 57	155	-1	2490	-4.82	4.18	-0.01
120	SLU 58	165	0	2507	0.16	4.52	0
120	SLU 59	155	-1	2490	-4.82	4.18	-0.01
120	SLU 60	172	0	2590	0.17	4.71	0
120	SLU 61	162	-1	2573	-4.81	4.37	-0.01
120	SLU 62	172	0	2590	0.17	4.71	0
120	SLU 63	162	-1	2573	-4.81	4.37	-0.01
120	SLU 64	158	0	2456	0.16	4.31	0
120	SLU 65	141	-2	2427	-8.15	3.74	-0.01
120	SLU 66	158	0	2456	0.16	4.31	0
120	SLU 67	148	-1	2439	-4.83	3.97	-0.01
120	SLU 68	141	-2	2427	-8.15	3.74	-0.01
120	SLU 69	158	0	2456	0.16	4.31	0
120	SLU 70	148	-1	2439	-4.83	3.97	-0.01
120	SLU 71	158	0	2456	0.16	4.31	0
120	SLU 72	148	-1	2439	-4.83	3.97	-0.01
120	SLU 73	158	-2	2621	-8.13	4.18	-0.01
120	SLU 74	175	0	2650	0.18	4.75	0
120	SLU 75	165	-1	2632	-4.81	4.41	-0.01
120	SLU 76	158	-2	2621	-8.13	4.18	-0.01
120	SLU 77	175	0	2650	0.18	4.75	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
120	SLU 78	165	-1	2632	-4.81	4.41	-0.01
120	SLU 79	175	0	2650	0.18	4.75	0
120	SLU 80	165	-1	2632	-4.81	4.41	-0.01
120	SLU 81	182	0	2733	0.19	4.93	0
120	SLU 82	172	-1	2715	-4.8	4.59	-0.01
120	SLU 83	182	0	2733	0.19	4.93	0
120	SLU 84	172	-1	2715	-4.8	4.59	-0.01
120	SLE RA 1	119	0	1858	0.12	3.26	0
120	SLE RA 2	108	-1	1839	-5.42	2.89	-0.01
120	SLE RA 3	119	0	1858	0.12	3.26	0
120	SLE RA 4	113	-1	1846	-3.2	3.04	0
120	SLE RA 5	108	-1	1839	-5.42	2.89	-0.01
120	SLE RA 6	119	0	1858	0.12	3.26	0
120	SLE RA 7	113	-1	1846	-3.2	3.04	0
120	SLE RA 8	119	0	1858	0.12	3.26	0
120	SLE RA 9	113	-1	1846	-3.2	3.04	0
120	SLE RA 10	119	-1	1968	-5.41	3.18	-0.01
120	SLE RA 11	131	0	1987	0.13	3.56	0
120	SLE RA 12	124	-1	1976	-3.19	3.33	0
120	SLE RA 13	119	-1	1968	-5.41	3.18	-0.01
120	SLE RA 14	131	0	1987	0.13	3.56	0
120	SLE RA 15	124	-1	1976	-3.19	3.33	0
120	SLE RA 16	131	0	1987	0.13	3.56	0
120	SLE RA 17	124	-1	1976	-3.19	3.33	0
120	SLE RA 18	135	0	2042	0.14	3.68	0
120	SLE RA 19	129	-1	2031	-3.18	3.45	0
120	SLE RA 20	135	0	2042	0.14	3.68	0
120	SLE RA 21	129	-1	2031	-3.18	3.45	0
120	SLE FR 1	119	0	1858	0.12	3.26	0
120	SLE FR 2	117	0	1854	-0.99	3.19	0
120	SLE FR 3	119	0	1858	0.12	3.26	0
120	SLE FR 4	122	0	1909	-0.98	3.31	0
120	SLE FR 5	124	0	1913	0.12	3.39	0
120	SLE FR 6	127	0	1950	0.13	3.47	0
120	SLE QP 1	119	0	1858	0.12	3.26	0
120	SLE QP 2	124	0	1913	0.12	3.39	0
120	SLD 1	238	-11	1810	-14.31	7.14	-0.01
120	SLD 2	238	-11	1810	-14.31	7.14	-0.01
120	SLD 3	259	-2	1836	-1.66	7.79	0
120	SLD 4	259	-2	1836	-1.66	7.79	0
120	SLD 5	127	-17	1843	-23.41	3.54	-0.01
120	SLD 6	127	-17	1843	-23.41	3.54	-0.01
120	SLD 7	196	13	1930	18.79	5.69	0.01
120	SLD 8	196	13	1930	18.79	5.69	0.01
120	SLD 9	53	-13	1897	-18.54	1.09	-0.01
120	SLD 10	53	-13	1897	-18.54	1.09	-0.01
120	SLD 11	121	17	1984	23.65	3.24	0.01
120	SLD 12	121	17	1984	23.65	3.24	0.01
120	SLD 13	-10	2	1990	1.9	-1.01	0
120	SLD 14	-10	2	1990	1.9	-1.01	0
120	SLD 15	10	11	2016	14.56	-0.37	0.01
120	SLD 16	10	11	2016	14.56	-0.37	0.01
120	SLV 1	395	-29	1647	-36.56	12.3	-0.02
120	SLV 2	395	-29	1647	-36.56	12.3	-0.02
120	SLV 3	445	-5	1713	-4.37	13.85	-0.01
120	SLV 4	445	-5	1713	-4.37	13.85	-0.01
120	SLV 5	131	-44	1733	-59.7	3.7	-0.03
120	SLV 6	131	-44	1733	-59.7	3.7	-0.03
120	SLV 7	295	34	1954	47.6	8.89	0.02
120	SLV 8	295	34	1954	47.6	8.89	0.02
120	SLV 9	-47	-34	1873	-47.35	-2.11	-0.02
120	SLV 10	-47	-34	1873	-47.35	-2.11	-0.02
120	SLV 11	118	44	2094	59.95	3.08	0.03
120	SLV 12	118	44	2094	59.95	3.08	0.03
120	SLV 13	-196	5	2114	4.62	-7.07	0.01
120	SLV 14	-196	5	2114	4.62	-7.07	0.01
120	SLV 15	-147	29	2180	36.8	-5.52	0.02
120	SLV 16	-147	29	2180	36.8	-5.52	0.02
121	SLU 1	50	0	1887	0.17	1.62	0
121	SLU 2	32	-6	1843	-4.04	1.17	0
121	SLU 3	50	0	1887	0.17	1.62	0
121	SLU 4	40	-4	1861	-2.35	1.35	0
121	SLU 5	32	-6	1843	-4.04	1.17	0
121	SLU 6	50	0	1887	0.17	1.62	0
121	SLU 7	40	-4	1861	-2.35	1.35	0
121	SLU 8	50	0	1887	0.17	1.62	0
121	SLU 9	40	-4	1861	-2.35	1.35	0
121	SLU 10	40	-6	2044	-4.02	1.47	0
121	SLU 11	58	0	2088	0.19	1.91	0
121	SLU 12	47	-4	2061	-2.34	1.64	0
121	SLU 13	40	-6	2044	-4.02	1.47	0
121	SLU 14	58	0	2088	0.19	1.91	0
121	SLU 15	47	-4	2061	-2.34	1.64	0
121	SLU 16	58	0	2088	0.19	1.91	0
121	SLU 17	47	-4	2061	-2.34	1.64	0
121	SLU 18	62	0	2174	0.2	2.04	0
121	SLU 19	51	-4	2147	-2.33	1.77	0
121	SLU 20	62	0	2174	0.2	2.04	0
121	SLU 21	51	-4	2147	-2.33	1.77	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
121	SLU 22	53	0	2034	0.19	1.73	0
121	SLU 23	35	-6	1991	-4.02	1.28	0
121	SLU 24	53	0	2034	0.19	1.73	0
121	SLU 25	42	-4	2008	-2.34	1.46	0
121	SLU 26	35	-6	1991	-4.02	1.28	0
121	SLU 27	53	0	2034	0.19	1.73	0
121	SLU 28	42	-4	2008	-2.34	1.46	0
121	SLU 29	53	0	2034	0.19	1.73	0
121	SLU 30	42	-4	2008	-2.34	1.46	0
121	SLU 31	43	-6	2191	-4.01	1.58	0
121	SLU 32	61	0	2235	0.21	2.02	0
121	SLU 33	50	-4	2209	-2.32	1.75	0
121	SLU 34	43	-6	2191	-4.01	1.58	0
121	SLU 35	61	0	2235	0.21	2.02	0
121	SLU 36	50	-4	2209	-2.32	1.75	0
121	SLU 37	61	0	2235	0.21	2.02	0
121	SLU 38	50	-4	2209	-2.32	1.75	0
121	SLU 39	64	0	2321	0.21	2.15	0
121	SLU 40	53	-4	2294	-2.31	1.88	0
121	SLU 41	64	0	2321	0.21	2.15	0
121	SLU 42	53	-4	2294	-2.31	1.88	0
121	SLU 43	65	0	2403	0.22	2.07	0
121	SLU 44	47	-6	2359	-3.99	1.62	0
121	SLU 45	65	0	2403	0.22	2.07	0
121	SLU 46	54	-4	2377	-2.31	1.8	0
121	SLU 47	47	-6	2359	-3.99	1.62	0
121	SLU 48	65	0	2403	0.22	2.07	0
121	SLU 49	54	-4	2377	-2.31	1.8	0
121	SLU 50	65	0	2403	0.22	2.07	0
121	SLU 51	54	-4	2377	-2.31	1.8	0
121	SLU 52	55	-6	2560	-3.97	1.91	0
121	SLU 53	72	0	2603	0.24	2.36	0
121	SLU 54	62	-4	2577	-2.29	2.09	0
121	SLU 55	55	-6	2560	-3.97	1.91	0
121	SLU 56	72	0	2603	0.24	2.36	0
121	SLU 57	62	-4	2577	-2.29	2.09	0
121	SLU 58	72	0	2603	0.24	2.36	0
121	SLU 59	62	-4	2577	-2.29	2.09	0
121	SLU 60	76	0	2689	0.25	2.49	0
121	SLU 61	65	-4	2663	-2.28	2.22	0
121	SLU 62	76	0	2689	0.25	2.49	0
121	SLU 63	65	-4	2663	-2.28	2.22	0
121	SLU 64	67	0	2550	0.23	2.18	0
121	SLU 65	49	-6	2506	-3.98	1.73	0
121	SLU 66	67	0	2550	0.23	2.18	0
121	SLU 67	56	-4	2524	-2.29	1.91	0
121	SLU 68	49	-6	2506	-3.98	1.73	0
121	SLU 69	67	0	2550	0.23	2.18	0
121	SLU 70	56	-4	2524	-2.29	1.91	0
121	SLU 71	67	0	2550	0.23	2.18	0
121	SLU 72	56	-4	2524	-2.29	1.91	0
121	SLU 73	57	-6	2707	-3.96	2.02	0
121	SLU 74	75	0	2751	0.25	2.47	0
121	SLU 75	64	-4	2724	-2.27	2.2	0
121	SLU 76	57	-6	2707	-3.96	2.02	0
121	SLU 77	75	0	2751	0.25	2.47	0
121	SLU 78	64	-4	2724	-2.27	2.2	0
121	SLU 79	75	0	2751	0.25	2.47	0
121	SLU 80	64	-4	2724	-2.27	2.2	0
121	SLU 81	78	0	2836	0.26	2.6	0
121	SLU 82	67	-4	2810	-2.27	2.33	0
121	SLU 83	78	0	2836	0.26	2.6	0
121	SLU 84	67	-4	2810	-2.27	2.33	0
121	SLE RA 1	51	0	1929	0.18	1.65	0
121	SLE RA 2	39	-4	1900	-2.63	1.35	0
121	SLE RA 3	51	0	1929	0.18	1.65	0
121	SLE RA 4	44	-2	1912	-1.51	1.47	0
121	SLE RA 5	39	-4	1900	-2.63	1.35	0
121	SLE RA 6	51	0	1929	0.18	1.65	0
121	SLE RA 7	44	-2	1912	-1.51	1.47	0
121	SLE RA 8	51	0	1929	0.18	1.65	0
121	SLE RA 9	44	-2	1912	-1.51	1.47	0
121	SLE RA 10	44	-4	2034	-2.62	1.55	0
121	SLE RA 11	56	0	2063	0.19	1.85	0
121	SLE RA 12	49	-2	2045	-1.5	1.67	0
121	SLE RA 13	44	-4	2034	-2.62	1.55	0
121	SLE RA 14	56	0	2063	0.19	1.85	0
121	SLE RA 15	49	-2	2045	-1.5	1.67	0
121	SLE RA 16	56	0	2063	0.19	1.85	0
121	SLE RA 17	49	-2	2045	-1.5	1.67	0
121	SLE RA 18	58	0	2120	0.19	1.93	0
121	SLE RA 19	51	-2	2103	-1.49	1.75	0
121	SLE RA 20	58	0	2120	0.19	1.93	0
121	SLE RA 21	51	-2	2103	-1.49	1.75	0
121	SLE FR 1	51	0	1929	0.18	1.65	0
121	SLE FR 2	49	-1	1923	-0.39	1.59	0
121	SLE FR 3	51	0	1929	0.18	1.65	0
121	SLE FR 4	51	-1	1981	-0.38	1.68	0
121	SLE FR 5	53	0	1987	0.18	1.74	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
121	SLE FR 6	55	0	2025	0.19	1.79	0
121	SLE QP 1	51	0	1929	0.18	1.65	0
121	SLE QP 2	53	0	1987	0.18	1.74	0
121	SLD 1	166	-7	1883	-8.55	5.49	0
121	SLD 2	166	-7	1883	-8.55	5.49	0
121	SLD 3	193	-4	1919	-1.19	6.33	0.02
121	SLD 4	193	-4	1919	-1.19	6.33	0.02
121	SLD 5	47	-7	1901	-13.6	1.59	-0.02
121	SLD 6	47	-7	1901	-13.6	1.59	-0.02
121	SLD 7	135	4	2021	10.94	4.39	0.03
121	SLD 8	135	4	2021	10.94	4.39	0.03
121	SLD 9	-29	-4	1953	-10.57	-0.92	-0.02
121	SLD 10	-29	-4	1953	-10.57	-0.92	-0.02
121	SLD 11	60	7	2072	13.97	1.88	0.02
121	SLD 12	60	7	2072	13.97	1.88	0.02
121	SLD 13	-86	4	2054	1.55	-2.86	-0.01
121	SLD 14	-86	4	2054	1.55	-2.86	-0.01
121	SLD 15	-59	7	2090	8.91	-2.02	0
121	SLD 16	-59	7	2090	8.91	-2.02	0
121	SLV 1	325	-17	1720	-21.82	10.84	0.01
121	SLV 2	325	-17	1720	-21.82	10.84	0.01
121	SLV 3	389	-9	1809	-3.14	12.83	0.04
121	SLV 4	389	-9	1809	-3.14	12.83	0.04
121	SLV 5	39	-18	1772	-34.75	1.45	-0.04
121	SLV 6	39	-18	1772	-34.75	1.45	-0.04
121	SLV 7	250	10	2068	27.52	8.09	0.06
121	SLV 8	250	10	2068	27.52	8.09	0.06
121	SLV 9	-144	-10	1905	-27.16	-4.62	-0.05
121	SLV 10	-144	-10	1905	-27.16	-4.62	-0.05
121	SLV 11	68	18	2201	35.12	2.03	0.05
121	SLV 12	68	18	2201	35.12	2.03	0.05
121	SLV 13	-282	9	2164	3.5	-9.36	-0.03
121	SLV 14	-282	9	2164	3.5	-9.36	-0.03
121	SLV 15	-219	17	2253	22.18	-7.37	0
121	SLV 16	-219	17	2253	22.18	-7.37	0
122	SLU 1	-1	-1	1884	0.43	0.06	-0.01
122	SLU 2	-22	-5	1817	-1.31	-0.66	0.01
122	SLU 3	-1	-1	1884	0.43	0.06	-0.01
122	SLU 4	-14	-3	1844	-0.61	-0.37	0.01
122	SLU 5	-22	-5	1817	-1.31	-0.66	0.01
122	SLU 6	-1	-1	1884	0.43	0.06	-0.01
122	SLU 7	-14	-3	1844	-0.61	-0.37	0.01
122	SLU 8	-1	-1	1884	0.43	0.06	-0.01
122	SLU 9	-14	-3	1844	-0.61	-0.37	0.01
122	SLU 10	-22	-5	2014	-1.27	-0.66	0.01
122	SLU 11	-1	-1	2081	0.46	0.06	-0.01
122	SLU 12	-14	-3	2040	-0.58	-0.37	0.01
122	SLU 13	-22	-5	2014	-1.27	-0.66	0.01
122	SLU 14	-1	-1	2081	0.46	0.06	-0.01
122	SLU 15	-14	-3	2040	-0.58	-0.37	0.01
122	SLU 16	-1	-1	2081	0.46	0.06	-0.01
122	SLU 17	-14	-3	2040	-0.58	-0.37	0.01
122	SLU 18	-1	-1	2165	0.48	0.07	-0.01
122	SLU 19	-14	-3	2124	-0.57	-0.37	0.01
122	SLU 20	-1	-1	2165	0.48	0.07	-0.01
122	SLU 21	-14	-3	2124	-0.57	-0.37	0.01
122	SLU 22	-5	-1	2027	0.46	-0.09	-0.01
122	SLU 23	-27	-5	1960	-1.28	-0.81	0.01
122	SLU 24	-5	-1	2027	0.46	-0.09	-0.01
122	SLU 25	-18	-3	1987	-0.59	-0.52	0.01
122	SLU 26	-27	-5	1960	-1.28	-0.81	0.01
122	SLU 27	-5	-1	2027	0.46	-0.09	-0.01
122	SLU 28	-18	-3	1987	-0.59	-0.52	0.01
122	SLU 29	-5	-1	2027	0.46	-0.09	-0.01
122	SLU 30	-18	-3	1987	-0.59	-0.52	0.01
122	SLU 31	-27	-5	2157	-1.25	-0.81	0.01
122	SLU 32	-5	-1	2223	0.49	-0.09	-0.01
122	SLU 33	-18	-3	2183	-0.55	-0.52	0.01
122	SLU 34	-27	-5	2157	-1.25	-0.81	0.01
122	SLU 35	-5	-1	2223	0.49	-0.09	-0.01
122	SLU 36	-18	-3	2183	-0.55	-0.52	0.01
122	SLU 37	-5	-1	2223	0.49	-0.09	-0.01
122	SLU 38	-18	-3	2183	-0.55	-0.52	0.01
122	SLU 39	-5	-1	2308	0.5	-0.09	-0.01
122	SLU 40	-18	-3	2267	-0.54	-0.52	0.01
122	SLU 41	-5	-1	2308	0.5	-0.09	-0.01
122	SLU 42	-18	-3	2267	-0.54	-0.52	0.01
122	SLU 43	0	-2	2401	0.55	0.13	-0.01
122	SLU 44	-21	-5	2334	-1.19	-0.59	0.01
122	SLU 45	0	-2	2401	0.55	0.13	-0.01
122	SLU 46	-13	-4	2360	-0.49	-0.3	0
122	SLU 47	-21	-5	2334	-1.19	-0.59	0.01
122	SLU 48	0	-2	2401	0.55	0.13	-0.01
122	SLU 49	-13	-4	2360	-0.49	-0.3	0
122	SLU 50	0	-2	2401	0.55	0.13	-0.01
122	SLU 51	-13	-4	2360	-0.49	-0.3	0
122	SLU 52	-21	-5	2530	-1.15	-0.59	0.01
122	SLU 53	0	-2	2597	0.58	0.13	-0.01
122	SLU 54	-13	-4	2557	-0.46	-0.3	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
122	SLU 55	-21	-5	2530	-1.15	-0.59	0.01
122	SLU 56	0	-2	2597	0.58	0.13	-0.01
122	SLU 57	-13	-4	2557	-0.46	-0.3	0
122	SLU 58	0	-2	2597	0.58	0.13	-0.01
122	SLU 59	-13	-4	2557	-0.46	-0.3	0
122	SLU 60	0	-2	2681	0.6	0.14	-0.01
122	SLU 61	-12	-4	2641	-0.45	-0.3	0
122	SLU 62	0	-2	2681	0.6	0.14	-0.01
122	SLU 63	-12	-4	2641	-0.45	-0.3	0
122	SLU 64	-4	-2	2544	0.58	-0.02	-0.01
122	SLU 65	-26	-5	2477	-1.16	-0.74	0.01
122	SLU 66	-4	-2	2544	0.58	-0.02	-0.01
122	SLU 67	-17	-4	2503	-0.47	-0.45	0
122	SLU 68	-26	-5	2477	-1.16	-0.74	0.01
122	SLU 69	-4	-2	2544	0.58	-0.02	-0.01
122	SLU 70	-17	-4	2503	-0.47	-0.45	0
122	SLU 71	-4	-2	2544	0.58	-0.02	-0.01
122	SLU 72	-17	-4	2503	-0.47	-0.45	0
122	SLU 73	-25	-5	2673	-1.13	-0.74	0.01
122	SLU 74	-4	-2	2740	0.61	-0.02	-0.01
122	SLU 75	-17	-4	2700	-0.43	-0.45	0
122	SLU 76	-25	-5	2673	-1.13	-0.74	0.01
122	SLU 77	-4	-2	2740	0.61	-0.02	-0.01
122	SLU 78	-17	-4	2700	-0.43	-0.45	0
122	SLU 79	-4	-2	2740	0.61	-0.02	-0.01
122	SLU 80	-17	-4	2700	-0.43	-0.45	0
122	SLU 81	-4	-2	2824	0.62	-0.02	-0.01
122	SLU 82	-17	-4	2784	-0.42	-0.45	0
122	SLU 83	-4	-2	2824	0.62	-0.02	-0.01
122	SLU 84	-17	-4	2784	-0.42	-0.45	0
122	SLE RA 1	-2	-1	1925	0.44	0.02	-0.01
122	SLE RA 2	-17	-4	1881	-0.72	-0.46	0.01
122	SLE RA 3	-2	-1	1925	0.44	0.02	-0.01
122	SLE RA 4	-11	-3	1898	-0.26	-0.27	0
122	SLE RA 5	-17	-4	1881	-0.72	-0.46	0.01
122	SLE RA 6	-2	-1	1925	0.44	0.02	-0.01
122	SLE RA 7	-11	-3	1898	-0.26	-0.27	0
122	SLE RA 8	-2	-1	1925	0.44	0.02	-0.01
122	SLE RA 9	-11	-3	1898	-0.26	-0.27	0
122	SLE RA 10	-16	-4	2011	-0.7	-0.46	0.01
122	SLE RA 11	-2	-1	2056	0.46	0.02	-0.01
122	SLE RA 12	-11	-3	2029	-0.24	-0.27	0
122	SLE RA 13	-16	-4	2011	-0.7	-0.46	0.01
122	SLE RA 14	-2	-1	2056	0.46	0.02	-0.01
122	SLE RA 15	-11	-3	2029	-0.24	-0.27	0
122	SLE RA 16	-2	-1	2056	0.46	0.02	-0.01
122	SLE RA 17	-11	-3	2029	-0.24	-0.27	0
122	SLE RA 18	-2	-1	2112	0.47	0.02	-0.01
122	SLE RA 19	-11	-3	2085	-0.23	-0.27	0
122	SLE RA 20	-2	-1	2112	0.47	0.02	-0.01
122	SLE RA 21	-11	-3	2085	-0.23	-0.27	0
122	SLE FR 1	-2	-1	1925	0.44	0.02	-0.01
122	SLE FR 2	-5	-2	1916	0.21	-0.08	0
122	SLE FR 3	-2	-1	1925	0.44	0.02	-0.01
122	SLE FR 4	-5	-2	1972	0.21	-0.08	0
122	SLE FR 5	-2	-1	1981	0.45	0.02	-0.01
122	SLE FR 6	-2	-1	2019	0.45	0.02	-0.01
122	SLE QP 1	-2	-1	1925	0.44	0.02	-0.01
122	SLE QP 2	-2	-1	1981	0.45	0.02	-0.01
122	SLD 1	113	-7	1892	-3.46	4.12	0.01
122	SLD 2	113	-7	1892	-3.46	4.12	0.01
122	SLD 3	148	-4	1949	-0.42	5.26	0
122	SLD 4	148	-4	1949	-0.42	5.26	0
122	SLD 5	-22	-8	1868	-5.34	-0.48	0.01
122	SLD 6	-22	-8	1868	-5.34	-0.48	0.01
122	SLD 7	97	3	2058	4.8	3.33	-0.02
122	SLD 8	97	3	2058	4.8	3.33	-0.02
122	SLD 9	-102	-6	1905	-3.9	-3.29	0.01
122	SLD 10	-102	-6	1905	-3.9	-3.29	0.01
122	SLD 11	17	6	2094	6.23	0.52	-0.03
122	SLD 12	17	6	2094	6.23	0.52	-0.03
122	SLD 13	-153	1	2014	1.32	-5.22	-0.01
122	SLD 14	-153	1	2014	1.32	-5.22	-0.01
122	SLD 15	-117	4	2071	4.36	-4.08	-0.02
122	SLD 16	-117	4	2071	4.36	-4.08	-0.02
122	SLV 1	277	-16	1754	-9.3	9.93	0.03
122	SLV 2	277	-16	1754	-9.3	9.93	0.03
122	SLV 3	362	-7	1891	-1.61	12.63	0.01
122	SLV 4	362	-7	1891	-1.61	12.63	0.01
122	SLV 5	-46	-18	1705	-14.14	-1.1	0.05
122	SLV 6	-46	-18	1705	-14.14	-1.1	0.05
122	SLV 7	235	10	2162	11.49	7.9	-0.04
122	SLV 8	235	10	2162	11.49	7.9	-0.04
122	SLV 9	-239	-12	1801	-10.6	-7.86	0.03
122	SLV 10	-239	-12	1801	-10.6	-7.86	0.03
122	SLV 11	42	16	2257	15.03	1.14	-0.06
122	SLV 12	42	16	2257	15.03	1.14	-0.06
122	SLV 13	-366	4	2072	2.5	-12.59	-0.02
122	SLV 14	-366	4	2072	2.5	-12.59	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
122	SLV 15	-282	13	2209	10.19	-9.89	-0.05
122	SLV 16	-282	13	2209	10.19	-9.89	-0.05
123	SLU 1	-17	-180	2723	4.59	-0.62	0
123	SLU 2	-25	-162	2585	4.7	-1.25	-0.01
123	SLU 3	-17	-180	2723	4.59	-0.62	0
123	SLU 4	-22	-169	2640	4.66	-1	0
123	SLU 5	-25	-162	2585	4.7	-1.25	-0.01
123	SLU 6	-17	-180	2723	4.59	-0.62	0
123	SLU 7	-22	-169	2640	4.66	-1	0
123	SLU 8	-17	-180	2723	4.59	-0.62	0
123	SLU 9	-22	-169	2640	4.66	-1	0
123	SLU 10	-23	-174	2855	5.02	-1.17	-0.01
123	SLU 11	-15	-193	2993	4.91	-0.53	0
123	SLU 12	-20	-182	2910	4.97	-0.91	0
123	SLU 13	-23	-174	2855	5.02	-1.17	-0.01
123	SLU 14	-15	-193	2993	4.91	-0.53	0
123	SLU 15	-20	-182	2910	4.97	-0.91	0
123	SLU 16	-15	-193	2993	4.91	-0.53	0
123	SLU 17	-20	-182	2910	4.97	-0.91	0
123	SLU 18	-15	-198	3109	5.04	-0.5	0
123	SLU 19	-19	-187	3026	5.11	-0.88	0
123	SLU 20	-15	-198	3109	5.04	-0.5	0
123	SLU 21	-19	-187	3026	5.11	-0.88	0
123	SLU 22	-22	-189	2917	4.82	-0.75	0
123	SLU 23	-30	-171	2779	4.93	-1.39	-0.01
123	SLU 24	-22	-189	2917	4.82	-0.75	0
123	SLU 25	-26	-178	2834	4.88	-1.13	0
123	SLU 26	-30	-171	2779	4.93	-1.39	-0.01
123	SLU 27	-22	-189	2917	4.82	-0.75	0
123	SLU 28	-26	-178	2834	4.88	-1.13	0
123	SLU 29	-22	-189	2917	4.82	-0.75	0
123	SLU 30	-26	-178	2834	4.88	-1.13	0
123	SLU 31	-28	-184	3049	5.25	-1.3	-0.01
123	SLU 32	-20	-202	3187	5.13	-0.67	0
123	SLU 33	-25	-191	3104	5.2	-1.05	0
123	SLU 34	-28	-184	3049	5.25	-1.3	-0.01
123	SLU 35	-20	-202	3187	5.13	-0.67	0
123	SLU 36	-25	-191	3104	5.2	-1.05	0
123	SLU 37	-20	-202	3187	5.13	-0.67	0
123	SLU 38	-25	-191	3104	5.2	-1.05	0
123	SLU 39	-19	-207	3303	5.27	-0.63	0
123	SLU 40	-24	-196	3220	5.34	-1.01	0
123	SLU 41	-19	-207	3303	5.27	-0.63	0
123	SLU 42	-24	-196	3220	5.34	-1.01	0
123	SLU 43	-21	-231	3474	5.89	-0.76	0
123	SLU 44	-29	-213	3336	6	-1.39	-0.01
123	SLU 45	-21	-231	3474	5.89	-0.76	0
123	SLU 46	-26	-220	3391	5.96	-1.14	0
123	SLU 47	-29	-213	3336	6	-1.39	-0.01
123	SLU 48	-21	-231	3474	5.89	-0.76	0
123	SLU 49	-26	-220	3391	5.96	-1.14	0
123	SLU 50	-21	-231	3474	5.89	-0.76	0
123	SLU 51	-26	-220	3391	5.96	-1.14	0
123	SLU 52	-27	-225	3606	6.32	-1.31	-0.01
123	SLU 53	-19	-244	3744	6.2	-0.67	0
123	SLU 54	-24	-233	3661	6.27	-1.05	0
123	SLU 55	-27	-225	3606	6.32	-1.31	-0.01
123	SLU 56	-19	-244	3744	6.2	-0.67	0
123	SLU 57	-24	-233	3661	6.27	-1.05	0
123	SLU 58	-19	-244	3744	6.2	-0.67	0
123	SLU 59	-24	-233	3661	6.27	-1.05	0
123	SLU 60	-18	-249	3860	6.34	-0.64	0
123	SLU 61	-23	-238	3777	6.41	-1.02	0
123	SLU 62	-18	-249	3860	6.34	-0.64	0
123	SLU 63	-23	-238	3777	6.41	-1.02	0
123	SLU 64	-25	-240	3668	6.11	-0.89	0
123	SLU 65	-33	-222	3529	6.23	-1.53	-0.01
123	SLU 66	-25	-240	3668	6.11	-0.89	0
123	SLU 67	-30	-229	3585	6.18	-1.27	0
123	SLU 68	-33	-222	3529	6.23	-1.53	-0.01
123	SLU 69	-25	-240	3668	6.11	-0.89	0
123	SLU 70	-30	-229	3585	6.18	-1.27	0
123	SLU 71	-25	-240	3668	6.11	-0.89	0
123	SLU 72	-30	-229	3585	6.18	-1.27	0
123	SLU 73	-31	-235	3799	6.55	-1.44	-0.01
123	SLU 74	-23	-253	3938	6.43	-0.81	0
123	SLU 75	-28	-242	3855	6.5	-1.19	0
123	SLU 76	-31	-235	3799	6.55	-1.44	-0.01
123	SLU 77	-23	-253	3938	6.43	-0.81	0
123	SLU 78	-28	-242	3855	6.5	-1.19	0
123	SLU 79	-23	-253	3938	6.43	-0.81	0
123	SLU 80	-28	-242	3855	6.5	-1.19	0
123	SLU 81	-23	-258	4053	6.57	-0.77	0
123	SLU 82	-28	-247	3970	6.64	-1.15	0
123	SLU 83	-23	-258	4053	6.57	-0.77	0
123	SLU 84	-28	-247	3970	6.64	-1.15	0
123	SLE RA 1	-18	-183	2779	4.65	-0.66	0
123	SLE RA 2	-24	-170	2686	4.73	-1.08	0
123	SLE RA 3	-18	-183	2779	4.65	-0.66	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
123	SLE RA 4	-22	-175	2723	4.7	-0.91	0
123	SLE RA 5	-24	-170	2686	4.73	-1.08	0
123	SLE RA 6	-18	-183	2779	4.65	-0.66	0
123	SLE RA 7	-22	-175	2723	4.7	-0.91	0
123	SLE RA 8	-18	-183	2779	4.65	-0.66	0
123	SLE RA 9	-22	-175	2723	4.7	-0.91	0
123	SLE RA 10	-23	-179	2867	4.94	-1.02	0
123	SLE RA 11	-17	-191	2959	4.86	-0.6	0
123	SLE RA 12	-20	-184	2903	4.91	-0.85	0
123	SLE RA 13	-23	-179	2867	4.94	-1.02	0
123	SLE RA 14	-17	-191	2959	4.86	-0.6	0
123	SLE RA 15	-20	-184	2903	4.91	-0.85	0
123	SLE RA 16	-17	-191	2959	4.86	-0.6	0
123	SLE RA 17	-20	-184	2903	4.91	-0.85	0
123	SLE RA 18	-17	-195	3036	4.96	-0.58	0
123	SLE RA 19	-20	-187	2981	5	-0.83	0
123	SLE RA 20	-17	-195	3036	4.96	-0.58	0
123	SLE RA 21	-20	-187	2981	5	-0.83	0
123	SLE FR 1	-18	-183	2779	4.65	-0.66	0
123	SLE FR 2	-19	-180	2760	4.67	-0.74	0
123	SLE FR 3	-18	-183	2779	4.65	-0.66	0
123	SLE FR 4	-19	-184	2837	4.76	-0.72	0
123	SLE FR 5	-18	-186	2856	4.74	-0.63	0
123	SLE FR 6	-18	-189	2907	4.8	-0.62	0
123	SLE QP 1	-18	-183	2779	4.65	-0.66	0
123	SLE QP 2	-18	-186	2856	4.74	-0.63	0
123	SLD 1	90	-161	2729	5.74	3.29	0.02
123	SLD 2	90	-161	2729	5.74	3.29	0.02
123	SLD 3	136	-189	2861	4.69	4.92	0.03
123	SLD 4	136	-189	2861	4.69	4.92	0.03
123	SLD 5	-56	-136	2619	6.64	-1.94	-0.01
123	SLD 6	-56	-136	2619	6.64	-1.94	-0.01
123	SLD 7	99	-230	3056	3.13	3.52	0.02
123	SLD 8	99	-230	3056	3.13	3.52	0.02
123	SLD 9	-135	-143	2655	6.36	-4.78	-0.02
123	SLD 10	-135	-143	2655	6.36	-4.78	-0.02
123	SLD 11	21	-237	3093	2.85	0.68	0
123	SLD 12	21	-237	3093	2.85	0.68	0
123	SLD 13	-172	-183	2851	4.8	-6.19	-0.03
123	SLD 14	-172	-183	2851	4.8	-6.19	-0.03
123	SLD 15	-125	-212	2982	3.74	-4.55	-0.02
123	SLD 16	-125	-212	2982	3.74	-4.55	-0.02
123	SLV 1	246	-125	2544	7.15	8.94	0.05
123	SLV 2	246	-125	2544	7.15	8.94	0.05
123	SLV 3	354	-192	2858	4.66	12.76	0.07
123	SLV 4	354	-192	2858	4.66	12.76	0.07
123	SLV 5	-103	-66	2287	9.24	-3.55	-0.01
123	SLV 6	-103	-66	2287	9.24	-3.55	-0.01
123	SLV 7	258	-290	3332	0.94	9.17	0.05
123	SLV 8	258	-290	3332	0.94	9.17	0.05
123	SLV 9	-293	-82	2380	8.55	-10.44	-0.05
123	SLV 10	-293	-82	2380	8.55	-10.44	-0.05
123	SLV 11	67	-307	3425	0.24	2.29	0.01
123	SLV 12	67	-307	3425	0.24	2.29	0.01
123	SLV 13	-390	-180	2854	4.83	-14.02	-0.07
123	SLV 14	-390	-180	2854	4.83	-14.02	-0.07
123	SLV 15	-281	-247	3167	2.34	-10.2	-0.06
123	SLV 16	-281	-247	3167	2.34	-10.2	-0.06
124	SLU 1	-10	-1	1782	0.46	-0.27	0.01
124	SLU 2	-15	-6	1696	2.77	-0.56	-0.01
124	SLU 3	-10	-1	1782	0.46	-0.27	0.01
124	SLU 4	-13	-4	1731	1.85	-0.45	0
124	SLU 5	-15	-6	1696	2.77	-0.56	-0.01
124	SLU 6	-10	-1	1782	0.46	-0.27	0.01
124	SLU 7	-13	-4	1731	1.85	-0.45	0
124	SLU 8	-10	-1	1782	0.46	-0.27	0.01
124	SLU 9	-13	-4	1731	1.85	-0.45	0
124	SLU 10	-9	-6	1885	2.84	-0.4	-0.01
124	SLU 11	-4	-1	1971	0.52	-0.11	0.01
124	SLU 12	-7	-4	1919	1.91	-0.29	0
124	SLU 13	-9	-6	1885	2.84	-0.4	-0.01
124	SLU 14	-4	-1	1971	0.52	-0.11	0.01
124	SLU 15	-7	-4	1919	1.91	-0.29	0
124	SLU 16	-4	-1	1971	0.52	-0.11	0.01
124	SLU 17	-7	-4	1919	1.91	-0.29	0
124	SLU 18	-2	-1	2052	0.55	-0.04	0.01
124	SLU 19	-5	-4	2000	1.94	-0.22	0
124	SLU 20	-2	-1	2052	0.55	-0.04	0.01
124	SLU 21	-5	-4	2000	1.94	-0.22	0
124	SLU 22	-13	-1	1913	0.5	-0.39	0.01
124	SLU 23	-18	-6	1827	2.81	-0.68	-0.01
124	SLU 24	-13	-1	1913	0.5	-0.39	0.01
124	SLU 25	-16	-4	1861	1.88	-0.57	0
124	SLU 26	-18	-6	1827	2.81	-0.68	-0.01
124	SLU 27	-13	-1	1913	0.5	-0.39	0.01
124	SLU 28	-16	-4	1861	1.88	-0.57	0
124	SLU 29	-13	-1	1913	0.5	-0.39	0.01
124	SLU 30	-16	-4	1861	1.88	-0.57	0
124	SLU 31	-12	-6	2015	2.87	-0.52	-0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
124	SLU 32	-7	-1	2102	0.56	-0.23	0.01
124	SLU 33	-10	-4	2050	1.95	-0.41	0
124	SLU 34	-12	-6	2015	2.87	-0.52	-0.01
124	SLU 35	-7	-1	2102	0.56	-0.23	0.01
124	SLU 36	-10	-4	2050	1.95	-0.41	0
124	SLU 37	-7	-1	2102	0.56	-0.23	0.01
124	SLU 38	-10	-4	2050	1.95	-0.41	0
124	SLU 39	-5	-1	2183	0.59	-0.16	0.01
124	SLU 40	-8	-4	2131	1.97	-0.34	0
124	SLU 41	-5	-1	2183	0.59	-0.16	0.01
124	SLU 42	-8	-4	2131	1.97	-0.34	0
124	SLU 43	-12	-2	2272	0.59	-0.31	0.01
124	SLU 44	-17	-6	2186	2.9	-0.6	-0.01
124	SLU 45	-12	-2	2272	0.59	-0.31	0.01
124	SLU 46	-15	-4	2220	1.97	-0.49	0
124	SLU 47	-17	-6	2186	2.9	-0.6	-0.01
124	SLU 48	-12	-2	2272	0.59	-0.31	0.01
124	SLU 49	-15	-4	2220	1.97	-0.49	0
124	SLU 50	-12	-2	2272	0.59	-0.31	0.01
124	SLU 51	-15	-4	2220	1.97	-0.49	0
124	SLU 52	-11	-6	2374	2.96	-0.44	-0.01
124	SLU 53	-6	-2	2461	0.65	-0.15	0.01
124	SLU 54	-9	-4	2409	2.04	-0.33	0
124	SLU 55	-11	-6	2374	2.96	-0.44	-0.01
124	SLU 56	-6	-2	2461	0.65	-0.15	0.01
124	SLU 57	-9	-4	2409	2.04	-0.33	0
124	SLU 58	-6	-2	2461	0.65	-0.15	0.01
124	SLU 59	-9	-4	2409	2.04	-0.33	0
124	SLU 60	-4	-2	2542	0.67	-0.08	0.01
124	SLU 61	-7	-4	2490	2.06	-0.26	0
124	SLU 62	-4	-2	2542	0.67	-0.08	0.01
124	SLU 63	-7	-4	2490	2.06	-0.26	0
124	SLU 64	-15	-2	2403	0.62	-0.43	0.01
124	SLU 65	-20	-6	2317	2.94	-0.72	-0.01
124	SLU 66	-15	-2	2403	0.62	-0.43	0.01
124	SLU 67	-18	-4	2351	2.01	-0.61	0
124	SLU 68	-20	-6	2317	2.94	-0.72	-0.01
124	SLU 69	-15	-2	2403	0.62	-0.43	0.01
124	SLU 70	-18	-4	2351	2.01	-0.61	0
124	SLU 71	-15	-2	2403	0.62	-0.43	0.01
124	SLU 72	-18	-4	2351	2.01	-0.61	0
124	SLU 73	-14	-6	2505	3	-0.56	0
124	SLU 74	-9	-2	2592	0.68	-0.27	0.01
124	SLU 75	-12	-4	2540	2.07	-0.45	0
124	SLU 76	-14	-6	2505	3	-0.56	0
124	SLU 77	-9	-2	2592	0.68	-0.27	0.01
124	SLU 78	-12	-4	2540	2.07	-0.45	0
124	SLU 79	-9	-2	2592	0.68	-0.27	0.01
124	SLU 80	-12	-4	2540	2.07	-0.45	0
124	SLU 81	-7	-2	2673	0.71	-0.2	0.01
124	SLU 82	-10	-4	2621	2.1	-0.38	0
124	SLU 83	-7	-2	2673	0.71	-0.2	0.01
124	SLU 84	-10	-4	2621	2.1	-0.38	0
124	SLE RA 1	-11	-1	1820	0.47	-0.3	0.01
124	SLE RA 2	-14	-4	1762	2.01	-0.5	0
124	SLE RA 3	-11	-1	1820	0.47	-0.3	0.01
124	SLE RA 4	-13	-3	1785	1.4	-0.42	0
124	SLE RA 5	-14	-4	1762	2.01	-0.5	0
124	SLE RA 6	-11	-1	1820	0.47	-0.3	0.01
124	SLE RA 7	-13	-3	1785	1.4	-0.42	0
124	SLE RA 8	-11	-1	1820	0.47	-0.3	0.01
124	SLE RA 9	-13	-3	1785	1.4	-0.42	0
124	SLE RA 10	-10	-4	1888	2.05	-0.39	0
124	SLE RA 11	-7	-1	1946	0.51	-0.2	0.01
124	SLE RA 12	-9	-3	1911	1.44	-0.32	0
124	SLE RA 13	-10	-4	1888	2.05	-0.39	0
124	SLE RA 14	-7	-1	1946	0.51	-0.2	0.01
124	SLE RA 15	-9	-3	1911	1.44	-0.32	0
124	SLE RA 16	-7	-1	1946	0.51	-0.2	0.01
124	SLE RA 17	-9	-3	1911	1.44	-0.32	0
124	SLE RA 18	-5	-1	2000	0.53	-0.15	0.01
124	SLE RA 19	-7	-3	1965	1.46	-0.27	0
124	SLE RA 20	-5	-1	2000	0.53	-0.15	0.01
124	SLE RA 21	-7	-3	1965	1.46	-0.27	0
124	SLE FR 1	-11	-1	1820	0.47	-0.3	0.01
124	SLE FR 2	-11	-2	1808	0.78	-0.34	0.01
124	SLE FR 3	-11	-1	1820	0.47	-0.3	0.01
124	SLE FR 4	-10	-2	1862	0.8	-0.3	0.01
124	SLE FR 5	-9	-1	1874	0.49	-0.26	0.01
124	SLE FR 6	-8	-1	1910	0.5	-0.23	0.01
124	SLE QP 1	-11	-1	1820	0.47	-0.3	0.01
124	SLE QP 2	-9	-1	1874	0.49	-0.26	0.01
124	SLD 1	88	-9	1786	3.78	3.45	0
124	SLD 2	88	-9	1786	3.78	3.45	0
124	SLD 3	147	-3	1898	1.51	5.4	0
124	SLD 4	147	-3	1898	1.51	5.4	0
124	SLD 5	-70	-13	1679	4.92	-2.1	-0.01
124	SLD 6	-70	-13	1679	4.92	-2.1	-0.01
124	SLD 7	128	7	2050	-2.65	4.4	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
124	SLD 8	128	7	2050	-2.65	4.4	0.02
124	SLD 9	-146	-10	1698	3.62	-4.91	0
124	SLD 10	-146	-10	1698	3.62	-4.91	0
124	SLD 11	52	10	2069	-3.94	1.58	0.02
124	SLD 12	52	10	2069	-3.94	1.58	0.02
124	SLD 13	-165	1	1850	-0.54	-5.92	0.01
124	SLD 14	-165	1	1850	-0.54	-5.92	0.01
124	SLD 15	-106	7	1961	-2.81	-3.97	0.02
124	SLD 16	-106	7	1961	-2.81	-3.97	0.02
124	SLV 1	228	-21	1664	8.75	8.8	-0.02
124	SLV 2	228	-21	1664	8.75	8.8	-0.02
124	SLV 3	365	-6	1923	2.99	13.3	0
124	SLV 4	365	-6	1923	2.99	13.3	0
124	SLV 5	-146	-30	1418	11.7	-4.37	-0.03
124	SLV 6	-146	-30	1418	11.7	-4.37	-0.03
124	SLV 7	311	20	2282	-7.49	10.63	0.04
124	SLV 8	311	20	2282	-7.49	10.63	0.04
124	SLV 9	-329	-23	1466	8.47	-11.15	-0.02
124	SLV 10	-329	-23	1466	8.47	-11.15	-0.02
124	SLV 11	127	28	2330	-10.72	3.85	0.05
124	SLV 12	127	28	2330	-10.72	3.85	0.05
124	SLV 13	-384	4	1824	-2.01	-13.82	0.01
124	SLV 14	-384	4	1824	-2.01	-13.82	0.01
124	SLV 15	-247	19	2084	-7.77	-9.32	0.04
124	SLV 16	-247	19	2084	-7.77	-9.32	0.04
125	SLU 1	-20	0	1797	0.3	-0.91	0
125	SLU 2	-25	-9	1712	4.17	-1.01	0
125	SLU 3	-20	0	1797	0.3	-0.91	0
125	SLU 4	-23	-5	1746	2.62	-0.97	0
125	SLU 5	-25	-9	1712	4.17	-1.01	0
125	SLU 6	-20	0	1797	0.3	-0.91	0
125	SLU 7	-23	-5	1746	2.62	-0.97	0
125	SLU 8	-20	0	1797	0.3	-0.91	0
125	SLU 9	-23	-5	1746	2.62	-0.97	0
125	SLU 10	-18	-9	1913	4.27	-0.78	0
125	SLU 11	-13	0	1998	0.41	-0.68	0
125	SLU 12	-16	-5	1947	2.73	-0.74	0
125	SLU 13	-18	-9	1913	4.27	-0.78	0
125	SLU 14	-13	0	1998	0.41	-0.68	0
125	SLU 15	-16	-5	1947	2.73	-0.74	0
125	SLU 16	-13	0	1998	0.41	-0.68	0
125	SLU 17	-16	-5	1947	2.73	-0.74	0
125	SLU 18	-9	0	2085	0.45	-0.58	0
125	SLU 19	-12	-5	2034	2.77	-0.64	0
125	SLU 20	-9	0	2085	0.45	-0.58	0
125	SLU 21	-12	-5	2034	2.77	-0.64	0
125	SLU 22	-23	0	1931	0.35	-1.02	0
125	SLU 23	-28	-9	1846	4.22	-1.12	0
125	SLU 24	-23	0	1931	0.35	-1.02	0
125	SLU 25	-26	-5	1880	2.67	-1.08	0
125	SLU 26	-28	-9	1846	4.22	-1.12	0
125	SLU 27	-23	0	1931	0.35	-1.02	0
125	SLU 28	-26	-5	1880	2.67	-1.08	0
125	SLU 29	-23	0	1931	0.35	-1.02	0
125	SLU 30	-26	-5	1880	2.67	-1.08	0
125	SLU 31	-20	-9	2047	4.32	-0.89	0
125	SLU 32	-16	0	2132	0.46	-0.79	0
125	SLU 33	-18	-5	2081	2.78	-0.85	0
125	SLU 34	-20	-9	2047	4.32	-0.89	0
125	SLU 35	-16	0	2132	0.46	-0.79	0
125	SLU 36	-18	-5	2081	2.78	-0.85	0
125	SLU 37	-16	0	2132	0.46	-0.79	0
125	SLU 38	-18	-5	2081	2.78	-0.85	0
125	SLU 39	-12	0	2219	0.5	-0.69	0
125	SLU 40	-15	-5	2168	2.82	-0.75	0
125	SLU 41	-12	0	2219	0.5	-0.69	0
125	SLU 42	-15	-5	2168	2.82	-0.75	0
125	SLU 43	-26	0	2290	0.37	-1.14	0
125	SLU 44	-30	-9	2205	4.24	-1.25	0
125	SLU 45	-26	0	2290	0.37	-1.14	0
125	SLU 46	-28	-5	2239	2.69	-1.21	0
125	SLU 47	-30	-9	2205	4.24	-1.25	0
125	SLU 48	-26	0	2290	0.37	-1.14	0
125	SLU 49	-28	-5	2239	2.69	-1.21	0
125	SLU 50	-26	0	2290	0.37	-1.14	0
125	SLU 51	-28	-5	2239	2.69	-1.21	0
125	SLU 52	-23	-9	2406	4.34	-1.01	0
125	SLU 53	-18	0	2492	0.48	-0.91	0
125	SLU 54	-21	-5	2441	2.8	-0.97	0
125	SLU 55	-23	-9	2406	4.34	-1.01	0
125	SLU 56	-18	0	2492	0.48	-0.91	0
125	SLU 57	-21	-5	2441	2.8	-0.97	0
125	SLU 58	-18	0	2492	0.48	-0.91	0
125	SLU 59	-21	-5	2441	2.8	-0.97	0
125	SLU 60	-15	0	2578	0.52	-0.81	0
125	SLU 61	-18	-5	2527	2.84	-0.87	0
125	SLU 62	-15	0	2578	0.52	-0.81	0
125	SLU 63	-18	-5	2527	2.84	-0.87	0
125	SLU 64	-28	0	2424	0.42	-1.26	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
125	SLU 65	-33	-9	2339	4.29	-1.36	0
125	SLU 66	-28	0	2424	0.42	-1.26	0
125	SLU 67	-31	-5	2373	2.74	-1.32	0
125	SLU 68	-33	-9	2339	4.29	-1.36	0
125	SLU 69	-28	0	2424	0.42	-1.26	0
125	SLU 70	-31	-5	2373	2.74	-1.32	0
125	SLU 71	-28	0	2424	0.42	-1.26	0
125	SLU 72	-31	-5	2373	2.74	-1.32	0
125	SLU 73	-26	-9	2540	4.4	-1.12	0
125	SLU 74	-21	0	2625	0.53	-1.02	0
125	SLU 75	-24	-5	2574	2.85	-1.08	0
125	SLU 76	-26	-9	2540	4.4	-1.12	0
125	SLU 77	-21	0	2625	0.53	-1.02	0
125	SLU 78	-24	-5	2574	2.85	-1.08	0
125	SLU 79	-21	0	2625	0.53	-1.02	0
125	SLU 80	-24	-5	2574	2.85	-1.08	0
125	SLU 81	-17	0	2712	0.57	-0.92	0
125	SLU 82	-20	-5	2661	2.89	-0.98	0
125	SLU 83	-17	0	2712	0.57	-0.92	0
125	SLU 84	-20	-5	2661	2.89	-0.98	0
125	SLE RA 1	-21	0	1835	0.31	-0.94	0
125	SLE RA 2	-24	-6	1778	2.89	-1.01	0
125	SLE RA 3	-21	0	1835	0.31	-0.94	0
125	SLE RA 4	-23	-4	1801	1.86	-0.98	0
125	SLE RA 5	-24	-6	1778	2.89	-1.01	0
125	SLE RA 6	-21	0	1835	0.31	-0.94	0
125	SLE RA 7	-23	-4	1801	1.86	-0.98	0
125	SLE RA 8	-21	0	1835	0.31	-0.94	0
125	SLE RA 9	-23	-4	1801	1.86	-0.98	0
125	SLE RA 10	-19	-6	1913	2.96	-0.85	0
125	SLE RA 11	-16	0	1969	0.38	-0.79	0
125	SLE RA 12	-18	-4	1935	1.93	-0.83	0
125	SLE RA 13	-19	-6	1913	2.96	-0.85	0
125	SLE RA 14	-16	0	1969	0.38	-0.79	0
125	SLE RA 15	-18	-4	1935	1.93	-0.83	0
125	SLE RA 16	-16	0	1969	0.38	-0.79	0
125	SLE RA 17	-18	-4	1935	1.93	-0.83	0
125	SLE RA 18	-14	0	2027	0.42	-0.72	0
125	SLE RA 19	-16	-4	1993	1.96	-0.76	0
125	SLE RA 20	-14	0	2027	0.42	-0.72	0
125	SLE RA 21	-16	-4	1993	1.96	-0.76	0
125	SLE FR 1	-21	0	1835	0.31	-0.94	0
125	SLE FR 2	-22	-1	1824	0.83	-0.96	0
125	SLE FR 3	-21	0	1835	0.31	-0.94	0
125	SLE FR 4	-20	-1	1881	0.86	-0.89	0
125	SLE FR 5	-19	0	1893	0.34	-0.88	0
125	SLE FR 6	-18	0	1931	0.36	-0.83	0
125	SLE QP 1	-21	0	1835	0.31	-0.94	0
125	SLE QP 2	-19	0	1893	0.34	-0.88	0
125	SLD 1	68	-12	1853	5.53	2.38	0
125	SLD 2	68	-12	1853	5.53	2.38	0
125	SLD 3	136	-4	2015	2.25	4.67	0.01
125	SLD 4	136	-4	2015	2.25	4.67	0.01
125	SLD 5	-97	-15	1636	6.87	-3.38	-0.01
125	SLD 6	-97	-15	1636	6.87	-3.38	-0.01
125	SLD 7	132	11	2174	-4.05	4.27	0.01
125	SLD 8	132	11	2174	-4.05	4.27	0.01
125	SLD 9	-170	-11	1611	4.74	-6.02	-0.01
125	SLD 10	-170	-11	1611	4.74	-6.02	-0.01
125	SLD 11	59	15	2149	-6.18	1.63	0.01
125	SLD 12	59	15	2149	-6.18	1.63	0.01
125	SLD 13	-174	4	1771	-1.56	-6.42	-0.01
125	SLD 14	-174	4	1771	-1.56	-6.42	-0.01
125	SLD 15	-106	11	1932	-4.84	-4.13	-0.01
125	SLD 16	-106	11	1932	-4.84	-4.13	-0.01
125	SLV 1	195	-29	1813	13.41	7.13	0.01
125	SLV 2	195	-29	1813	13.41	7.13	0.01
125	SLV 3	353	-9	2185	5.09	12.41	0.03
125	SLV 4	353	-9	2185	5.09	12.41	0.03
125	SLV 5	-195	-39	1304	16.88	-6.49	-0.02
125	SLV 6	-195	-39	1304	16.88	-6.49	-0.02
125	SLV 7	333	27	2545	-10.85	11.12	0.03
125	SLV 8	333	27	2545	-10.85	11.12	0.03
125	SLV 9	-371	-27	1241	11.54	-12.87	-0.03
125	SLV 10	-371	-27	1241	11.54	-12.87	-0.03
125	SLV 11	157	38	2481	-16.19	4.73	0.02
125	SLV 12	157	38	2481	-16.19	4.73	0.02
125	SLV 13	-391	9	1600	-4.4	-14.16	-0.03
125	SLV 14	-391	9	1600	-4.4	-14.16	-0.03
125	SLV 15	-233	29	1973	-12.72	-8.88	-0.02
125	SLV 16	-233	29	1973	-12.72	-8.88	-0.02
126	SLU 1	-50	0	1803	0.48	-1.78	0.01
126	SLU 2	-56	-8	1712	4.13	-2.01	0.01
126	SLU 3	-50	0	1803	0.48	-1.78	0.01
126	SLU 4	-53	-5	1748	2.67	-1.91	0.01
126	SLU 5	-56	-8	1712	4.13	-2.01	0.01
126	SLU 6	-50	0	1803	0.48	-1.78	0.01
126	SLU 7	-53	-5	1748	2.67	-1.91	0.01
126	SLU 8	-50	0	1803	0.48	-1.78	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
126	SLU 9	-53	-5	1748	2.67	-1.91	0.01
126	SLU 10	-49	-8	1931	4.38	-1.9	0.02
126	SLU 11	-43	-1	2022	0.73	-1.66	0.01
126	SLU 12	-47	-5	1968	2.92	-1.8	0.01
126	SLU 13	-49	-8	1931	4.38	-1.9	0.02
126	SLU 14	-43	-1	2022	0.73	-1.66	0.01
126	SLU 15	-47	-5	1968	2.92	-1.8	0.01
126	SLU 16	-43	-1	2022	0.73	-1.66	0.01
126	SLU 17	-47	-5	1968	2.92	-1.8	0.01
126	SLU 18	-40	-1	2116	0.84	-1.62	0.01
126	SLU 19	-44	-5	2062	3.03	-1.76	0.01
126	SLU 20	-40	-1	2116	0.84	-1.62	0.01
126	SLU 21	-44	-5	2062	3.03	-1.76	0.01
126	SLU 22	-54	0	1941	0.6	-1.99	0.01
126	SLU 23	-60	-8	1850	4.24	-2.22	0.01
126	SLU 24	-54	0	1941	0.6	-1.99	0.01
126	SLU 25	-58	-5	1886	2.78	-2.13	0.01
126	SLU 26	-60	-8	1850	4.24	-2.22	0.01
126	SLU 27	-54	0	1941	0.6	-1.99	0.01
126	SLU 28	-58	-5	1886	2.78	-2.13	0.01
126	SLU 29	-54	0	1941	0.6	-1.99	0.01
126	SLU 30	-58	-5	1886	2.78	-2.13	0.01
126	SLU 31	-54	-8	2070	4.49	-2.11	0.02
126	SLU 32	-48	-1	2160	0.85	-1.88	0.01
126	SLU 33	-51	-5	2106	3.03	-2.02	0.01
126	SLU 34	-54	-8	2070	4.49	-2.11	0.02
126	SLU 35	-48	-1	2160	0.85	-1.88	0.01
126	SLU 36	-51	-5	2106	3.03	-2.02	0.01
126	SLU 37	-48	-1	2160	0.85	-1.88	0.01
126	SLU 38	-51	-5	2106	3.03	-2.02	0.01
126	SLU 39	-45	-1	2255	0.95	-1.83	0.01
126	SLU 40	-48	-5	2200	3.14	-1.97	0.02
126	SLU 41	-45	-1	2255	0.95	-1.83	0.01
126	SLU 42	-48	-5	2200	3.14	-1.97	0.02
126	SLU 43	-63	0	2296	0.59	-2.24	0.01
126	SLU 44	-69	-8	2205	4.23	-2.47	0.01
126	SLU 45	-63	0	2296	0.59	-2.24	0.01
126	SLU 46	-67	-5	2242	2.78	-2.37	0.01
126	SLU 47	-69	-8	2205	4.23	-2.47	0.01
126	SLU 48	-63	0	2296	0.59	-2.24	0.01
126	SLU 49	-67	-5	2242	2.78	-2.37	0.01
126	SLU 50	-63	0	2296	0.59	-2.24	0.01
126	SLU 51	-67	-5	2242	2.78	-2.37	0.01
126	SLU 52	-62	-8	2425	4.49	-2.36	0.02
126	SLU 53	-56	-1	2516	0.84	-2.12	0.01
126	SLU 54	-60	-5	2461	3.03	-2.26	0.01
126	SLU 55	-62	-8	2425	4.49	-2.36	0.02
126	SLU 56	-56	-1	2516	0.84	-2.12	0.01
126	SLU 57	-60	-5	2461	3.03	-2.26	0.01
126	SLU 58	-56	-1	2516	0.84	-2.12	0.01
126	SLU 59	-60	-5	2461	3.03	-2.26	0.01
126	SLU 60	-53	-1	2610	0.95	-2.08	0.01
126	SLU 61	-57	-5	2555	3.13	-2.21	0.02
126	SLU 62	-53	-1	2610	0.95	-2.08	0.01
126	SLU 63	-57	-5	2555	3.13	-2.21	0.02
126	SLU 64	-68	0	2434	0.7	-2.45	0.01
126	SLU 65	-74	-8	2344	4.35	-2.68	0.02
126	SLU 66	-68	0	2434	0.7	-2.45	0.01
126	SLU 67	-71	-5	2380	2.89	-2.59	0.01
126	SLU 68	-74	-8	2344	4.35	-2.68	0.02
126	SLU 69	-68	0	2434	0.7	-2.45	0.01
126	SLU 70	-71	-5	2380	2.89	-2.59	0.01
126	SLU 71	-68	0	2434	0.7	-2.45	0.01
126	SLU 72	-71	-5	2380	2.89	-2.59	0.01
126	SLU 73	-67	-8	2563	4.6	-2.57	0.02
126	SLU 74	-61	-1	2654	0.95	-2.34	0.01
126	SLU 75	-65	-5	2599	3.14	-2.48	0.02
126	SLU 76	-67	-8	2563	4.6	-2.57	0.02
126	SLU 77	-61	-1	2654	0.95	-2.34	0.01
126	SLU 78	-65	-5	2599	3.14	-2.48	0.02
126	SLU 79	-61	-1	2654	0.95	-2.34	0.01
126	SLU 80	-65	-5	2599	3.14	-2.48	0.02
126	SLU 81	-58	-1	2748	1.06	-2.29	0.01
126	SLU 82	-62	-5	2694	3.25	-2.43	0.02
126	SLU 83	-58	-1	2748	1.06	-2.29	0.01
126	SLU 84	-62	-5	2694	3.25	-2.43	0.02
126	SLE RA 1	-51	0	1842	0.51	-1.84	0.01
126	SLE RA 2	-55	-6	1782	2.95	-1.99	0.01
126	SLE RA 3	-51	0	1842	0.51	-1.84	0.01
126	SLE RA 4	-53	-3	1806	1.97	-1.93	0.01
126	SLE RA 5	-55	-6	1782	2.95	-1.99	0.01
126	SLE RA 6	-51	0	1842	0.51	-1.84	0.01
126	SLE RA 7	-53	-3	1806	1.97	-1.93	0.01
126	SLE RA 8	-51	0	1842	0.51	-1.84	0.01
126	SLE RA 9	-53	-3	1806	1.97	-1.93	0.01
126	SLE RA 10	-51	-6	1928	3.11	-1.92	0.01
126	SLE RA 11	-47	0	1989	0.68	-1.76	0.01
126	SLE RA 12	-49	-4	1952	2.14	-1.85	0.01
126	SLE RA 13	-51	-6	1928	3.11	-1.92	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
126	SLE RA 14	-47	0	1989	0.68	-1.76	0.01
126	SLE RA 15	-49	-4	1952	2.14	-1.85	0.01
126	SLE RA 16	-47	0	1989	0.68	-1.76	0.01
126	SLE RA 17	-49	-4	1952	2.14	-1.85	0.01
126	SLE RA 18	-45	-1	2051	0.75	-1.73	0.01
126	SLE RA 19	-47	-4	2015	2.21	-1.82	0.01
126	SLE RA 20	-45	-1	2051	0.75	-1.73	0.01
126	SLE RA 21	-47	-4	2015	2.21	-1.82	0.01
126	SLE FR 1	-51	0	1842	0.51	-1.84	0.01
126	SLE FR 2	-52	-1	1830	1	-1.87	0.01
126	SLE FR 3	-51	0	1842	0.51	-1.84	0.01
126	SLE FR 4	-50	-1	1893	1.07	-1.84	0.01
126	SLE FR 5	-49	0	1905	0.59	-1.8	0.01
126	SLE FR 6	-48	0	1947	0.63	-1.78	0.01
126	SLE QP 1	-51	0	1842	0.51	-1.84	0.01
126	SLE QP 2	-49	0	1905	0.59	-1.8	0.01
126	SLD 1	33	-12	1852	5.77	1.48	0.02
126	SLD 2	33	-12	1852	5.77	1.48	0.02
126	SLD 3	102	-6	2081	2.98	3.68	0.01
126	SLD 4	102	-6	2081	2.98	3.68	0.01
126	SLD 5	-129	-12	1542	6.38	-4.15	0.02
126	SLD 6	-129	-12	1542	6.38	-4.15	0.02
126	SLD 7	101	6	2305	-2.93	3.17	0
126	SLD 8	101	6	2305	-2.93	3.17	0
126	SLD 9	-199	-7	1505	4.1	-6.78	0.02
126	SLD 10	-199	-7	1505	4.1	-6.78	0.02
126	SLD 11	31	11	2268	-5.21	0.54	-0.01
126	SLD 12	31	11	2268	-5.21	0.54	-0.01
126	SLD 13	-200	6	1729	-1.81	-7.29	0
126	SLD 14	-200	6	1729	-1.81	-7.29	0
126	SLD 15	-131	11	1958	-4.6	-5.09	0
126	SLD 16	-131	11	1958	-4.6	-5.09	0
126	SLV 1	153	-30	1801	13.73	6.25	0.04
126	SLV 2	153	-30	1801	13.73	6.25	0.04
126	SLV 3	312	-16	2327	6.65	11.3	0.02
126	SLV 4	312	-16	2327	6.65	11.3	0.02
126	SLV 5	-229	-30	1076	15.27	-7.06	0.05
126	SLV 6	-229	-30	1076	15.27	-7.06	0.05
126	SLV 7	300	16	2830	-8.34	9.8	-0.02
126	SLV 8	300	16	2830	-8.34	9.8	-0.02
126	SLV 9	-398	-17	980	9.51	-13.41	0.03
126	SLV 10	-398	-17	980	9.51	-13.41	0.03
126	SLV 11	131	30	2735	-14.1	3.45	-0.03
126	SLV 12	131	30	2735	-14.1	3.45	-0.03
126	SLV 13	-410	15	1483	-5.48	-14.91	0
126	SLV 14	-410	15	1483	-5.48	-14.91	0
126	SLV 15	-251	29	2009	-12.56	-9.86	-0.02
126	SLV 16	-251	29	2009	-12.56	-9.86	-0.02
127	SLU 1	-85	-4	1813	1.19	-3.32	-0.02
127	SLU 2	-88	-7	1708	3.13	-3.34	-0.01
127	SLU 3	-85	-4	1813	1.19	-3.32	-0.02
127	SLU 4	-87	-6	1750	2.36	-3.33	-0.01
127	SLU 5	-88	-7	1708	3.13	-3.34	-0.01
127	SLU 6	-85	-4	1813	1.19	-3.32	-0.02
127	SLU 7	-87	-6	1750	2.36	-3.33	-0.01
127	SLU 8	-85	-4	1813	1.19	-3.32	-0.02
127	SLU 9	-87	-6	1750	2.36	-3.33	-0.01
127	SLU 10	-80	-9	1973	3.77	-3.3	-0.01
127	SLU 11	-76	-6	2078	1.82	-3.29	-0.02
127	SLU 12	-78	-8	2015	2.99	-3.29	-0.02
127	SLU 13	-80	-9	1973	3.77	-3.3	-0.01
127	SLU 14	-76	-6	2078	1.82	-3.29	-0.02
127	SLU 15	-78	-8	2015	2.99	-3.29	-0.02
127	SLU 16	-76	-6	2078	1.82	-3.29	-0.02
127	SLU 17	-78	-8	2015	2.99	-3.29	-0.02
127	SLU 18	-73	-7	2191	2.1	-3.27	-0.03
127	SLU 19	-75	-9	2128	3.26	-3.28	-0.02
127	SLU 20	-73	-7	2191	2.1	-3.27	-0.03
127	SLU 21	-75	-9	2128	3.26	-3.28	-0.02
127	SLU 22	-90	-5	1966	1.48	-3.63	-0.02
127	SLU 23	-94	-8	1861	3.42	-3.64	-0.01
127	SLU 24	-90	-5	1966	1.48	-3.63	-0.02
127	SLU 25	-92	-7	1903	2.64	-3.63	-0.01
127	SLU 26	-94	-8	1861	3.42	-3.64	-0.01
127	SLU 27	-90	-5	1966	1.48	-3.63	-0.02
127	SLU 28	-92	-7	1903	2.64	-3.63	-0.01
127	SLU 29	-90	-5	1966	1.48	-3.63	-0.02
127	SLU 30	-92	-7	1903	2.64	-3.63	-0.01
127	SLU 31	-85	-10	2126	4.05	-3.6	-0.02
127	SLU 32	-82	-7	2230	2.11	-3.59	-0.03
127	SLU 33	-84	-9	2168	3.27	-3.59	-0.02
127	SLU 34	-85	-10	2126	4.05	-3.6	-0.02
127	SLU 35	-82	-7	2230	2.11	-3.59	-0.03
127	SLU 36	-84	-9	2168	3.27	-3.59	-0.02
127	SLU 37	-82	-7	2230	2.11	-3.59	-0.03
127	SLU 38	-84	-9	2168	3.27	-3.59	-0.02
127	SLU 39	-78	-8	2344	2.38	-3.57	-0.03
127	SLU 40	-80	-10	2281	3.55	-3.58	-0.02
127	SLU 41	-78	-8	2344	2.38	-3.57	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
127	SLU 42	-80	-10	2281	3.55	-3.58	-0.02
127	SLU 43	-109	-5	2305	1.45	-4.22	-0.02
127	SLU 44	-112	-8	2200	3.39	-4.23	-0.01
127	SLU 45	-109	-5	2305	1.45	-4.22	-0.02
127	SLU 46	-111	-7	2242	2.62	-4.22	-0.01
127	SLU 47	-112	-8	2200	3.39	-4.23	-0.01
127	SLU 48	-109	-5	2305	1.45	-4.22	-0.02
127	SLU 49	-111	-7	2242	2.62	-4.22	-0.01
127	SLU 50	-109	-5	2305	1.45	-4.22	-0.02
127	SLU 51	-111	-7	2242	2.62	-4.22	-0.01
127	SLU 52	-103	-10	2465	4.03	-4.19	-0.02
127	SLU 53	-100	-7	2569	2.08	-4.18	-0.03
127	SLU 54	-102	-9	2507	3.25	-4.19	-0.02
127	SLU 55	-103	-10	2465	4.03	-4.19	-0.02
127	SLU 56	-100	-7	2569	2.08	-4.18	-0.03
127	SLU 57	-102	-9	2507	3.25	-4.19	-0.02
127	SLU 58	-100	-7	2569	2.08	-4.18	-0.03
127	SLU 59	-102	-9	2507	3.25	-4.19	-0.02
127	SLU 60	-96	-8	2683	2.36	-4.16	-0.03
127	SLU 61	-98	-10	2620	3.52	-4.17	-0.02
127	SLU 62	-96	-8	2683	2.36	-4.16	-0.03
127	SLU 63	-98	-10	2620	3.52	-4.17	-0.02
127	SLU 64	-114	-6	2457	1.74	-4.52	-0.02
127	SLU 65	-117	-9	2352	3.68	-4.53	-0.01
127	SLU 66	-114	-6	2457	1.74	-4.52	-0.02
127	SLU 67	-116	-8	2394	2.9	-4.53	-0.02
127	SLU 68	-117	-9	2352	3.68	-4.53	-0.01
127	SLU 69	-114	-6	2457	1.74	-4.52	-0.02
127	SLU 70	-116	-8	2394	2.9	-4.53	-0.02
127	SLU 71	-114	-6	2457	1.74	-4.52	-0.02
127	SLU 72	-116	-8	2394	2.9	-4.53	-0.02
127	SLU 73	-109	-11	2617	4.31	-4.49	-0.02
127	SLU 74	-106	-8	2722	2.37	-4.48	-0.03
127	SLU 75	-108	-10	2659	3.53	-4.49	-0.02
127	SLU 76	-109	-11	2617	4.31	-4.49	-0.02
127	SLU 77	-106	-8	2722	2.37	-4.48	-0.03
127	SLU 78	-108	-10	2659	3.53	-4.49	-0.02
127	SLU 79	-106	-8	2722	2.37	-4.48	-0.03
127	SLU 80	-108	-10	2659	3.53	-4.49	-0.02
127	SLU 81	-102	-9	2835	2.64	-4.47	-0.03
127	SLU 82	-104	-11	2773	3.81	-4.47	-0.03
127	SLU 83	-102	-9	2835	2.64	-4.47	-0.03
127	SLU 84	-104	-11	2773	3.81	-4.47	-0.03
127	SLE RA 1	-87	-4	1857	1.27	-3.41	-0.02
127	SLE RA 2	-89	-6	1787	2.57	-3.42	-0.01
127	SLE RA 3	-87	-4	1857	1.27	-3.41	-0.02
127	SLE RA 4	-88	-6	1815	2.05	-3.41	-0.01
127	SLE RA 5	-89	-6	1787	2.57	-3.42	-0.01
127	SLE RA 6	-87	-4	1857	1.27	-3.41	-0.02
127	SLE RA 7	-88	-6	1815	2.05	-3.41	-0.01
127	SLE RA 8	-87	-4	1857	1.27	-3.41	-0.02
127	SLE RA 9	-88	-6	1815	2.05	-3.41	-0.01
127	SLE RA 10	-83	-8	1963	2.99	-3.39	-0.02
127	SLE RA 11	-81	-6	2033	1.7	-3.38	-0.02
127	SLE RA 12	-82	-7	1991	2.47	-3.39	-0.02
127	SLE RA 13	-83	-8	1963	2.99	-3.39	-0.02
127	SLE RA 14	-81	-6	2033	1.7	-3.38	-0.02
127	SLE RA 15	-82	-7	1991	2.47	-3.39	-0.02
127	SLE RA 16	-81	-6	2033	1.7	-3.38	-0.02
127	SLE RA 17	-82	-7	1991	2.47	-3.39	-0.02
127	SLE RA 18	-78	-6	2109	1.88	-3.37	-0.02
127	SLE RA 19	-80	-8	2067	2.65	-3.38	-0.02
127	SLE RA 20	-78	-6	2109	1.88	-3.37	-0.02
127	SLE RA 21	-80	-8	2067	2.65	-3.38	-0.02
127	SLE FR 1	-87	-4	1857	1.27	-3.41	-0.02
127	SLE FR 2	-87	-5	1843	1.53	-3.41	-0.02
127	SLE FR 3	-87	-4	1857	1.27	-3.41	-0.02
127	SLE FR 4	-85	-5	1918	1.71	-3.4	-0.02
127	SLE FR 5	-84	-5	1932	1.45	-3.4	-0.02
127	SLE FR 6	-82	-5	1983	1.57	-3.39	-0.02
127	SLE QP 1	-87	-4	1857	1.27	-3.41	-0.02
127	SLE QP 2	-84	-5	1932	1.45	-3.4	-0.02
127	SLD 1	-5	1	1848	4.81	-0.28	-0.01
127	SLD 2	-5	1	1848	4.81	-0.28	-0.01
127	SLD 3	55	3	2171	3.24	1.55	-0.01
127	SLD 4	55	3	2171	3.24	1.55	-0.01
127	SLD 5	-152	-7	1417	4.83	-5.24	0
127	SLD 6	-152	-7	1417	4.83	-5.24	0
127	SLD 7	49	1	2494	-0.38	0.86	-0.03
127	SLD 8	49	1	2494	-0.38	0.86	-0.03
127	SLD 9	-217	-11	1371	3.28	-7.66	-0.01
127	SLD 10	-217	-11	1371	3.28	-7.66	-0.01
127	SLD 11	-16	-3	2447	-1.92	-1.56	-0.04
127	SLD 12	-16	-3	2447	-1.92	-1.56	-0.04
127	SLD 13	-223	-13	1694	-0.34	-8.35	-0.02
127	SLD 14	-223	-13	1694	-0.34	-8.35	-0.02
127	SLD 15	-163	-10	2017	-1.9	-6.52	-0.03
127	SLD 16	-163	-10	2017	-1.9	-6.52	-0.03
127	SLV 1	108	9	1761	9.94	4.15	0.02



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
127	SLV 2	108	9	1761	9.94	4.15	0.02
127	SLV 3	247	16	2503	6.04	8.36	0
127	SLV 4	247	16	2503	6.04	8.36	0
127	SLV 5	-237	-10	755	9.91	-7.52	0.02
127	SLV 6	-237	-10	755	9.91	-7.52	0.02
127	SLV 7	225	11	3229	-3.08	6.52	-0.05
127	SLV 8	225	11	3229	-3.08	6.52	-0.05
127	SLV 9	-393	-21	635	5.99	-13.31	0.01
127	SLV 10	-393	-21	635	5.99	-13.31	0.01
127	SLV 11	68	0	3109	-7.01	0.73	-0.06
127	SLV 12	68	0	3109	-7.01	0.73	-0.06
127	SLV 13	-415	-25	1361	-3.14	-15.16	-0.03
127	SLV 14	-415	-25	1361	-3.14	-15.16	-0.03
127	SLV 15	-276	-19	2103	-7.03	-10.94	-0.05
127	SLV 16	-276	-19	2103	-7.03	-10.94	-0.05
128	SLU 1	-174	-310	2534	10.24	-5.75	-0.01
128	SLU 2	-163	-274	2367	8.9	-5.34	0
128	SLU 3	-174	-310	2534	10.24	-5.75	-0.01
128	SLU 4	-167	-288	2434	9.44	-5.5	-0.01
128	SLU 5	-163	-274	2367	8.9	-5.34	0
128	SLU 6	-174	-310	2534	10.24	-5.75	-0.01
128	SLU 7	-167	-288	2434	9.44	-5.5	-0.01
128	SLU 8	-174	-310	2534	10.24	-5.75	-0.01
128	SLU 9	-167	-288	2434	9.44	-5.5	-0.01
128	SLU 10	-199	-426	2873	14.54	-6.48	-0.01
128	SLU 11	-210	-461	3039	15.87	-6.89	-0.01
128	SLU 12	-203	-440	2939	15.07	-6.64	-0.01
128	SLU 13	-199	-426	2873	14.54	-6.48	-0.01
128	SLU 14	-210	-461	3039	15.87	-6.89	-0.01
128	SLU 15	-203	-440	2939	15.07	-6.64	-0.01
128	SLU 16	-210	-461	3039	15.87	-6.89	-0.01
128	SLU 17	-203	-440	2939	15.07	-6.64	-0.01
128	SLU 18	-225	-526	3256	18.29	-7.38	-0.01
128	SLU 19	-218	-505	3156	17.49	-7.13	-0.01
128	SLU 20	-225	-526	3256	18.29	-7.38	-0.01
128	SLU 21	-218	-505	3156	17.49	-7.13	-0.01
128	SLU 22	-200	-378	2795	12.76	-6.6	-0.01
128	SLU 23	-189	-343	2628	11.42	-6.19	-0.01
128	SLU 24	-200	-378	2795	12.76	-6.6	-0.01
128	SLU 25	-193	-357	2695	11.95	-6.35	-0.01
128	SLU 26	-189	-343	2628	11.42	-6.19	-0.01
128	SLU 27	-200	-378	2795	12.76	-6.6	-0.01
128	SLU 28	-193	-357	2695	11.95	-6.35	-0.01
128	SLU 29	-200	-378	2795	12.76	-6.6	-0.01
128	SLU 30	-193	-357	2695	11.95	-6.35	-0.01
128	SLU 31	-225	-494	3134	17.06	-7.33	-0.01
128	SLU 32	-236	-530	3301	18.39	-7.74	-0.02
128	SLU 33	-229	-509	3201	17.59	-7.5	-0.01
128	SLU 34	-225	-494	3134	17.06	-7.33	-0.01
128	SLU 35	-236	-530	3301	18.39	-7.74	-0.02
128	SLU 36	-229	-509	3201	17.59	-7.5	-0.01
128	SLU 37	-236	-530	3301	18.39	-7.74	-0.02
128	SLU 38	-229	-509	3201	17.59	-7.5	-0.01
128	SLU 39	-251	-595	3518	20.81	-8.23	-0.02
128	SLU 40	-244	-573	3418	20.01	-7.98	-0.01
128	SLU 41	-251	-595	3518	20.81	-8.23	-0.02
128	SLU 42	-244	-573	3418	20.01	-7.98	-0.01
128	SLU 43	-217	-379	3204	12.45	-7.18	-0.01
128	SLU 44	-206	-344	3037	11.11	-6.77	-0.01
128	SLU 45	-217	-379	3204	12.45	-7.18	-0.01
128	SLU 46	-211	-358	3104	11.64	-6.93	-0.01
128	SLU 47	-206	-344	3037	11.11	-6.77	-0.01
128	SLU 48	-217	-379	3204	12.45	-7.18	-0.01
128	SLU 49	-211	-358	3104	11.64	-6.93	-0.01
128	SLU 50	-217	-379	3204	12.45	-7.18	-0.01
128	SLU 51	-211	-358	3104	11.64	-6.93	-0.01
128	SLU 52	-242	-495	3543	16.74	-7.91	-0.01
128	SLU 53	-253	-531	3710	18.08	-8.32	-0.02
128	SLU 54	-246	-509	3610	17.28	-8.07	-0.01
128	SLU 55	-242	-495	3543	16.74	-7.91	-0.01
128	SLU 56	-253	-531	3710	18.08	-8.32	-0.02
128	SLU 57	-246	-509	3610	17.28	-8.07	-0.01
128	SLU 58	-253	-531	3710	18.08	-8.32	-0.02
128	SLU 59	-246	-509	3610	17.28	-8.07	-0.01
128	SLU 60	-268	-595	3927	20.5	-8.81	-0.02
128	SLU 61	-261	-574	3827	19.7	-8.56	-0.01
128	SLU 62	-268	-595	3927	20.5	-8.81	-0.02
128	SLU 63	-261	-574	3827	19.7	-8.56	-0.01
128	SLU 64	-243	-447	3466	14.97	-8.03	-0.01
128	SLU 65	-232	-412	3299	13.63	-7.62	-0.01
128	SLU 66	-243	-447	3466	14.97	-8.03	-0.01
128	SLU 67	-237	-426	3366	14.16	-7.78	-0.01
128	SLU 68	-232	-412	3299	13.63	-7.62	-0.01
128	SLU 69	-243	-447	3466	14.97	-8.03	-0.01
128	SLU 70	-237	-426	3366	14.16	-7.78	-0.01
128	SLU 71	-243	-447	3466	14.97	-8.03	-0.01
128	SLU 72	-237	-426	3366	14.16	-7.78	-0.01
128	SLU 73	-268	-564	3805	19.26	-8.76	-0.01
128	SLU 74	-279	-599	3971	20.6	-9.17	-0.02



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
128	SLU 75	-272	-578	3871	19.8	-8.93	-0.01
128	SLU 76	-268	-564	3805	19.26	-8.76	-0.01
128	SLU 77	-279	-599	3971	20.6	-9.17	-0.02
128	SLU 78	-272	-578	3871	19.8	-8.93	-0.01
128	SLU 79	-279	-599	3971	20.6	-9.17	-0.02
128	SLU 80	-272	-578	3871	19.8	-8.93	-0.01
128	SLU 81	-294	-664	4188	23.02	-9.66	-0.02
128	SLU 82	-288	-643	4088	22.21	-9.42	-0.02
128	SLU 83	-294	-664	4188	23.02	-9.66	-0.02
128	SLU 84	-288	-643	4088	22.21	-9.42	-0.02
128	SLE RA 1	-181	-329	2608	10.96	-5.99	-0.01
128	SLE RA 2	-174	-306	2497	10.07	-5.72	-0.01
128	SLE RA 3	-181	-329	2608	10.96	-5.99	-0.01
128	SLE RA 4	-177	-315	2542	10.42	-5.83	-0.01
128	SLE RA 5	-174	-306	2497	10.07	-5.72	-0.01
128	SLE RA 6	-181	-329	2608	10.96	-5.99	-0.01
128	SLE RA 7	-177	-315	2542	10.42	-5.83	-0.01
128	SLE RA 8	-181	-329	2608	10.96	-5.99	-0.01
128	SLE RA 9	-177	-315	2542	10.42	-5.83	-0.01
128	SLE RA 10	-198	-407	2834	13.82	-6.48	-0.01
128	SLE RA 11	-205	-430	2946	14.72	-6.75	-0.01
128	SLE RA 12	-201	-416	2879	14.18	-6.59	-0.01
128	SLE RA 13	-198	-407	2834	13.82	-6.48	-0.01
128	SLE RA 14	-205	-430	2946	14.72	-6.75	-0.01
128	SLE RA 15	-201	-416	2879	14.18	-6.59	-0.01
128	SLE RA 16	-205	-430	2946	14.72	-6.75	-0.01
128	SLE RA 17	-201	-416	2879	14.18	-6.59	-0.01
128	SLE RA 18	-215	-474	3090	16.33	-7.08	-0.01
128	SLE RA 19	-211	-459	3023	15.79	-6.91	-0.01
128	SLE RA 20	-215	-474	3090	16.33	-7.08	-0.01
128	SLE RA 21	-211	-459	3023	15.79	-6.91	-0.01
128	SLE FR 1	-181	-329	2608	10.96	-5.99	-0.01
128	SLE FR 2	-180	-324	2586	10.78	-5.94	-0.01
128	SLE FR 3	-181	-329	2608	10.96	-5.99	-0.01
128	SLE FR 4	-190	-368	2731	12.39	-6.26	-0.01
128	SLE FR 5	-192	-372	2753	12.57	-6.32	-0.01
128	SLE FR 6	-198	-401	2849	13.64	-6.53	-0.01
128	SLE QP 1	-181	-329	2608	10.96	-5.99	-0.01
128	SLE QP 2	-192	-372	2753	12.57	-6.32	-0.01
128	SLD 1	-75	-319	2567	10.49	-1.93	0
128	SLD 2	-75	-319	2567	10.49	-1.93	0
128	SLD 3	-93	-456	3161	15.88	-2.52	0
128	SLD 4	-93	-456	3161	15.88	-2.52	0
128	SLD 5	-130	-148	1797	3.77	-4.11	0
128	SLD 6	-130	-148	1797	3.77	-4.11	0
128	SLD 7	-188	-606	3776	21.74	-6.07	-0.02
128	SLD 8	-188	-606	3776	21.74	-6.07	-0.02
128	SLD 9	-195	-139	1730	3.4	-6.56	-0.01
128	SLD 10	-195	-139	1730	3.4	-6.56	-0.01
128	SLD 11	-253	-597	3709	21.36	-8.53	-0.02
128	SLD 12	-253	-597	3709	21.36	-8.53	-0.02
128	SLD 13	-291	-289	2345	9.25	-10.11	-0.02
128	SLD 14	-291	-289	2345	9.25	-10.11	-0.02
128	SLD 15	-308	-426	2939	14.64	-10.7	-0.03
128	SLD 16	-308	-426	2939	14.64	-10.7	-0.03
128	SLV 1	85	-252	2354	7.95	4.13	0.02
128	SLV 2	85	-252	2354	7.95	4.13	0.02
128	SLV 3	44	-568	3717	20.34	2.74	0.01
128	SLV 4	44	-568	3717	20.34	2.74	0.01
128	SLV 5	-47	142	565	-7.61	-1.07	0.02
128	SLV 6	-47	142	565	-7.61	-1.07	0.02
128	SLV 7	-183	-910	5110	33.7	-5.71	-0.03
128	SLV 8	-183	-910	5110	33.7	-5.71	-0.03
128	SLV 9	-200	165	396	-8.56	-6.92	0
128	SLV 10	-200	165	396	-8.56	-6.92	0
128	SLV 11	-336	-887	4941	32.75	-11.56	-0.04
128	SLV 12	-336	-887	4941	32.75	-11.56	-0.04
128	SLV 13	-427	-177	1788	4.79	-15.37	-0.03
128	SLV 14	-427	-177	1788	4.79	-15.37	-0.03
128	SLV 15	-468	-493	3152	17.19	-16.76	-0.05
128	SLV 16	-468	-493	3152	17.19	-16.76	-0.05
129	SLU 1	-215	-4	1590	1.17	-7.25	0.03
129	SLU 2	-189	-1	1509	-0.78	-6.44	0.02
129	SLU 3	-215	-4	1590	1.17	-7.25	0.03
129	SLU 4	-199	-2	1541	0	-6.76	0.02
129	SLU 5	-189	-1	1509	-0.78	-6.44	0.02
129	SLU 6	-215	-4	1590	1.17	-7.25	0.03
129	SLU 7	-199	-2	1541	0	-6.76	0.02
129	SLU 8	-215	-4	1590	1.17	-7.25	0.03
129	SLU 9	-199	-2	1541	0	-6.76	0.02
129	SLU 10	-263	-3	1716	-0.14	-8.75	0.03
129	SLU 11	-289	-6	1798	1.81	-9.56	0.04
129	SLU 12	-273	-4	1749	0.64	-9.07	0.03
129	SLU 13	-263	-3	1716	-0.14	-8.75	0.03
129	SLU 14	-289	-6	1798	1.81	-9.56	0.04
129	SLU 15	-273	-4	1749	0.64	-9.07	0.03
129	SLU 16	-289	-6	1798	1.81	-9.56	0.04
129	SLU 17	-273	-4	1749	0.64	-9.07	0.03
129	SLU 18	-321	-7	1887	2.09	-10.55	0.04





Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
129	SLU 19	-305	-5	1838	0.92	-10.06	0.04
129	SLU 20	-321	-7	1887	2.09	-10.55	0.04
129	SLU 21	-305	-5	1838	0.92	-10.06	0.04
129	SLU 22	-258	-5	1703	1.46	-8.63	0.03
129	SLU 23	-232	-2	1622	-0.49	-7.82	0.02
129	SLU 24	-258	-5	1703	1.46	-8.63	0.03
129	SLU 25	-242	-3	1654	0.29	-8.14	0.03
129	SLU 26	-232	-2	1622	-0.49	-7.82	0.02
129	SLU 27	-258	-5	1703	1.46	-8.63	0.03
129	SLU 28	-242	-3	1654	0.29	-8.14	0.03
129	SLU 29	-258	-5	1703	1.46	-8.63	0.03
129	SLU 30	-242	-3	1654	0.29	-8.14	0.03
129	SLU 31	-306	-4	1829	0.15	-10.13	0.04
129	SLU 32	-332	-7	1911	2.1	-10.94	0.04
129	SLU 33	-317	-5	1862	0.93	-10.45	0.04
129	SLU 34	-306	-4	1829	0.15	-10.13	0.04
129	SLU 35	-332	-7	1911	2.1	-10.94	0.04
129	SLU 36	-317	-5	1862	0.93	-10.45	0.04
129	SLU 37	-332	-7	1911	2.1	-10.94	0.04
129	SLU 38	-317	-5	1862	0.93	-10.45	0.04
129	SLU 39	-364	-8	2000	2.38	-11.93	0.05
129	SLU 40	-348	-6	1951	1.21	-11.45	0.04
129	SLU 41	-364	-8	2000	2.38	-11.93	0.05
129	SLU 42	-348	-6	1951	1.21	-11.45	0.04
129	SLU 43	-264	-5	2028	1.42	-8.95	0.03
129	SLU 44	-239	-2	1947	-0.53	-8.14	0.02
129	SLU 45	-264	-5	2028	1.42	-8.95	0.03
129	SLU 46	-249	-3	1979	0.25	-8.46	0.03
129	SLU 47	-239	-2	1947	-0.53	-8.14	0.02
129	SLU 48	-264	-5	2028	1.42	-8.95	0.03
129	SLU 49	-249	-3	1979	0.25	-8.46	0.03
129	SLU 50	-264	-5	2028	1.42	-8.95	0.03
129	SLU 51	-249	-3	1979	0.25	-8.46	0.03
129	SLU 52	-313	-4	2155	0.12	-10.45	0.04
129	SLU 53	-338	-7	2236	2.07	-11.26	0.04
129	SLU 54	-323	-5	2187	0.9	-10.77	0.04
129	SLU 55	-313	-4	2155	0.12	-10.45	0.04
129	SLU 56	-338	-7	2236	2.07	-11.26	0.04
129	SLU 57	-323	-5	2187	0.9	-10.77	0.04
129	SLU 58	-338	-7	2236	2.07	-11.26	0.04
129	SLU 59	-323	-5	2187	0.9	-10.77	0.04
129	SLU 60	-370	-8	2325	2.34	-12.25	0.05
129	SLU 61	-355	-6	2276	1.17	-11.77	0.04
129	SLU 62	-370	-8	2325	2.34	-12.25	0.05
129	SLU 63	-355	-6	2276	1.17	-11.77	0.04
129	SLU 64	-308	-6	2141	1.71	-10.33	0.04
129	SLU 65	-282	-3	2060	-0.24	-9.52	0.03
129	SLU 66	-308	-6	2141	1.71	-10.33	0.04
129	SLU 67	-292	-4	2092	0.54	-9.84	0.03
129	SLU 68	-282	-3	2060	-0.24	-9.52	0.03
129	SLU 69	-308	-6	2141	1.71	-10.33	0.04
129	SLU 70	-292	-4	2092	0.54	-9.84	0.03
129	SLU 71	-308	-6	2141	1.71	-10.33	0.04
129	SLU 72	-292	-4	2092	0.54	-9.84	0.03
129	SLU 73	-356	-5	2268	0.4	-11.83	0.04
129	SLU 74	-382	-8	2349	2.35	-12.64	0.05
129	SLU 75	-366	-6	2300	1.18	-12.16	0.05
129	SLU 76	-356	-5	2268	0.4	-11.83	0.04
129	SLU 77	-382	-8	2349	2.35	-12.64	0.05
129	SLU 78	-366	-6	2300	1.18	-12.16	0.05
129	SLU 79	-382	-8	2349	2.35	-12.64	0.05
129	SLU 80	-366	-6	2300	1.18	-12.16	0.05
129	SLU 81	-413	-8	2438	2.63	-13.63	0.06
129	SLU 82	-398	-7	2389	1.46	-13.15	0.05
129	SLU 83	-413	-8	2438	2.63	-13.63	0.06
129	SLU 84	-398	-7	2389	1.46	-13.15	0.05
129	SLE RA 1	-227	-4	1622	1.25	-7.64	0.03
129	SLE RA 2	-210	-2	1568	-0.05	-7.1	0.02
129	SLE RA 3	-227	-4	1622	1.25	-7.64	0.03
129	SLE RA 4	-217	-3	1590	0.47	-7.32	0.02
129	SLE RA 5	-210	-2	1568	-0.05	-7.1	0.02
129	SLE RA 6	-227	-4	1622	1.25	-7.64	0.03
129	SLE RA 7	-217	-3	1590	0.47	-7.32	0.02
129	SLE RA 8	-227	-4	1622	1.25	-7.64	0.03
129	SLE RA 9	-217	-3	1590	0.47	-7.32	0.02
129	SLE RA 10	-259	-3	1707	0.38	-8.64	0.03
129	SLE RA 11	-276	-5	1761	1.68	-9.19	0.04
129	SLE RA 12	-266	-4	1728	0.9	-8.86	0.03
129	SLE RA 13	-259	-3	1707	0.38	-8.64	0.03
129	SLE RA 14	-276	-5	1761	1.68	-9.19	0.04
129	SLE RA 15	-266	-4	1728	0.9	-8.86	0.03
129	SLE RA 16	-276	-5	1761	1.68	-9.19	0.04
129	SLE RA 17	-266	-4	1728	0.9	-8.86	0.03
129	SLE RA 18	-298	-6	1820	1.86	-9.85	0.04
129	SLE RA 19	-287	-5	1788	1.09	-9.52	0.04
129	SLE RA 20	-298	-6	1820	1.86	-9.85	0.04
129	SLE RA 21	-287	-5	1788	1.09	-9.52	0.04
129	SLE FR 1	-227	-4	1622	1.25	-7.64	0.03
129	SLE FR 2	-224	-4	1611	0.99	-7.53	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
129	SLE FR 3	-227	-4	1622	1.25	-7.64	0.03
129	SLE FR 4	-245	-4	1671	1.18	-8.2	0.03
129	SLE FR 5	-248	-5	1682	1.44	-8.3	0.03
129	SLE FR 6	-262	-5	1721	1.56	-8.74	0.03
129	SLE QP 1	-227	-4	1622	1.25	-7.64	0.03
129	SLE QP 2	-248	-5	1682	1.44	-8.3	0.03
129	SLD 1	-320	4	1595	3.44	-3.06	0.04
129	SLD 2	-320	4	1595	3.44	-3.06	0.04
129	SLD 3	-396	1	1883	4.92	-5.41	0.05
129	SLD 4	-396	1	1883	4.92	-5.41	0.05
129	SLD 5	-155	3	1218	-0.2	-3.16	0.01
129	SLD 6	-155	3	1218	-0.2	-3.16	0.01
129	SLD 7	-408	-8	2180	4.71	-11.01	0.06
129	SLD 8	-408	-8	2180	4.71	-11.01	0.06
129	SLD 9	-89	-1	1183	-1.84	-5.6	0
129	SLD 10	-89	-1	1183	-1.84	-5.6	0
129	SLD 11	-342	-12	2146	3.07	-13.45	0.05
129	SLD 12	-342	-12	2146	3.07	-13.45	0.05
129	SLD 13	-100	-10	1480	-2.05	-11.19	0.01
129	SLD 14	-100	-10	1480	-2.05	-11.19	0.01
129	SLD 15	-176	-13	1769	-0.57	-13.55	0.03
129	SLD 16	-176	-13	1769	-0.57	-13.55	0.03
129	SLV 1	-421	17	1496	6.62	4.04	0.04
129	SLV 2	-421	17	1496	6.62	4.04	0.04
129	SLV 3	-596	9	2159	10.23	-1.36	0.08
129	SLV 4	-596	9	2159	10.23	-1.36	0.08
129	SLV 5	-35	13	620	-2.48	3.6	-0.02
129	SLV 6	-35	13	620	-2.48	3.6	-0.02
129	SLV 7	-617	-12	2830	9.54	-14.42	0.1
129	SLV 8	-617	-12	2830	9.54	-14.42	0.1
129	SLV 9	121	3	533	-6.67	-2.19	-0.03
129	SLV 10	121	3	533	-6.67	-2.19	-0.03
129	SLV 11	-461	-23	2743	5.35	-20.21	0.08
129	SLV 12	-461	-23	2743	5.35	-20.21	0.08
129	SLV 13	99	-18	1205	-7.35	-15.24	-0.01
129	SLV 14	99	-18	1205	-7.35	-15.24	-0.01
129	SLV 15	-75	-26	1868	-3.75	-20.65	0.02
129	SLV 16	-75	-26	1868	-3.75	-20.65	0.02
130	SLU 1	-128	0	1428	0.44	-4.3	0
130	SLU 2	-107	3	1382	-2.73	-3.62	-0.02
130	SLU 3	-128	0	1428	0.44	-4.3	0
130	SLU 4	-116	2	1401	-1.46	-3.89	-0.01
130	SLU 5	-107	3	1382	-2.73	-3.62	-0.02
130	SLU 6	-128	0	1428	0.44	-4.3	0
130	SLU 7	-116	2	1401	-1.46	-3.89	-0.01
130	SLU 8	-128	0	1428	0.44	-4.3	0
130	SLU 9	-116	2	1401	-1.46	-3.89	-0.01
130	SLU 10	-159	3	1496	-2.46	-5.25	-0.02
130	SLU 11	-180	0	1543	0.71	-5.92	-0.01
130	SLU 12	-167	2	1515	-1.19	-5.52	-0.01
130	SLU 13	-159	3	1496	-2.46	-5.25	-0.02
130	SLU 14	-180	0	1543	0.71	-5.92	-0.01
130	SLU 15	-167	2	1515	-1.19	-5.52	-0.01
130	SLU 16	-180	0	1543	0.71	-5.92	-0.01
130	SLU 17	-167	2	1515	-1.19	-5.52	-0.01
130	SLU 18	-202	-1	1592	0.82	-6.62	-0.01
130	SLU 19	-190	1	1564	-1.08	-6.22	-0.01
130	SLU 20	-202	-1	1592	0.82	-6.62	-0.01
130	SLU 21	-190	1	1564	-1.08	-6.22	-0.01
130	SLU 22	-160	0	1492	0.55	-5.3	-0.01
130	SLU 23	-139	3	1446	-2.61	-4.63	-0.02
130	SLU 24	-160	0	1492	0.55	-5.3	-0.01
130	SLU 25	-147	2	1465	-1.34	-4.9	-0.01
130	SLU 26	-139	3	1446	-2.61	-4.63	-0.02
130	SLU 27	-160	0	1492	0.55	-5.3	-0.01
130	SLU 28	-147	2	1465	-1.34	-4.9	-0.01
130	SLU 29	-160	0	1492	0.55	-5.3	-0.01
130	SLU 30	-147	2	1465	-1.34	-4.9	-0.01
130	SLU 31	-190	3	1560	-2.34	-6.26	-0.02
130	SLU 32	-212	-1	1607	0.82	-6.93	-0.01
130	SLU 33	-199	1	1579	-1.08	-6.53	-0.01
130	SLU 34	-190	3	1560	-2.34	-6.26	-0.02
130	SLU 35	-212	-1	1607	0.82	-6.93	-0.01
130	SLU 36	-199	1	1579	-1.08	-6.53	-0.01
130	SLU 37	-212	-1	1607	0.82	-6.93	-0.01
130	SLU 38	-199	1	1579	-1.08	-6.53	-0.01
130	SLU 39	-234	-1	1656	0.94	-7.63	-0.01
130	SLU 40	-221	1	1628	-0.96	-7.22	-0.01
130	SLU 41	-234	-1	1656	0.94	-7.63	-0.01
130	SLU 42	-221	1	1628	-0.96	-7.22	-0.01
130	SLU 43	-156	0	1835	0.53	-5.24	-0.01
130	SLU 44	-135	3	1788	-2.64	-4.56	-0.02
130	SLU 45	-156	0	1835	0.53	-5.24	-0.01
130	SLU 46	-143	2	1807	-1.37	-4.83	-0.01
130	SLU 47	-135	3	1788	-2.64	-4.56	-0.02
130	SLU 48	-156	0	1835	0.53	-5.24	-0.01
130	SLU 49	-143	2	1807	-1.37	-4.83	-0.01
130	SLU 50	-156	0	1835	0.53	-5.24	-0.01
130	SLU 51	-143	2	1807	-1.37	-4.83	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
130	SLU 52	-187	3	1903	-2.37	-6.19	-0.02
130	SLU 53	-208	-1	1949	0.8	-6.87	-0.01
130	SLU 54	-195	2	1921	-1.1	-6.46	-0.01
130	SLU 55	-187	3	1903	-2.37	-6.19	-0.02
130	SLU 56	-208	-1	1949	0.8	-6.87	-0.01
130	SLU 57	-195	2	1921	-1.1	-6.46	-0.01
130	SLU 58	-208	-1	1949	0.8	-6.87	-0.01
130	SLU 59	-195	2	1921	-1.1	-6.46	-0.01
130	SLU 60	-230	-1	1998	0.91	-7.57	-0.01
130	SLU 61	-217	1	1970	-0.99	-7.16	-0.01
130	SLU 62	-230	-1	1998	0.91	-7.57	-0.01
130	SLU 63	-217	1	1970	-0.99	-7.16	-0.01
130	SLU 64	-187	0	1899	0.65	-6.24	-0.01
130	SLU 65	-166	3	1853	-2.52	-5.57	-0.02
130	SLU 66	-187	0	1899	0.65	-6.24	-0.01
130	SLU 67	-175	2	1871	-1.25	-5.84	-0.01
130	SLU 68	-166	3	1853	-2.52	-5.57	-0.02
130	SLU 69	-187	0	1899	0.65	-6.24	-0.01
130	SLU 70	-175	2	1871	-1.25	-5.84	-0.01
130	SLU 71	-187	0	1899	0.65	-6.24	-0.01
130	SLU 72	-175	2	1871	-1.25	-5.84	-0.01
130	SLU 73	-218	3	1967	-2.25	-7.2	-0.02
130	SLU 74	-239	-1	2013	0.91	-7.87	-0.01
130	SLU 75	-227	1	1985	-0.98	-7.47	-0.01
130	SLU 76	-218	3	1967	-2.25	-7.2	-0.02
130	SLU 77	-239	-1	2013	0.91	-7.87	-0.01
130	SLU 78	-227	1	1985	-0.98	-7.47	-0.01
130	SLU 79	-239	-1	2013	0.91	-7.87	-0.01
130	SLU 80	-227	1	1985	-0.98	-7.47	-0.01
130	SLU 81	-261	-1	2062	1.03	-8.57	-0.01
130	SLU 82	-249	1	2034	-0.87	-8.17	-0.02
130	SLU 83	-261	-1	2062	1.03	-8.57	-0.01
130	SLU 84	-249	1	2034	-0.87	-8.17	-0.02
130	SLE RA 1	-137	0	1447	0.47	-4.58	0
130	SLE RA 2	-123	2	1416	-1.64	-4.13	-0.01
130	SLE RA 3	-137	0	1447	0.47	-4.58	0
130	SLE RA 4	-129	1	1428	-0.79	-4.31	-0.01
130	SLE RA 5	-123	2	1416	-1.64	-4.13	-0.01
130	SLE RA 6	-137	0	1447	0.47	-4.58	0
130	SLE RA 7	-129	1	1428	-0.79	-4.31	-0.01
130	SLE RA 8	-137	0	1447	0.47	-4.58	0
130	SLE RA 9	-129	1	1428	-0.79	-4.31	-0.01
130	SLE RA 10	-158	2	1492	-1.46	-5.22	-0.01
130	SLE RA 11	-172	0	1523	0.65	-5.67	-0.01
130	SLE RA 12	-163	1	1504	-0.62	-5.4	-0.01
130	SLE RA 13	-158	2	1492	-1.46	-5.22	-0.01
130	SLE RA 14	-172	0	1523	0.65	-5.67	-0.01
130	SLE RA 15	-163	1	1504	-0.62	-5.4	-0.01
130	SLE RA 16	-172	0	1523	0.65	-5.67	-0.01
130	SLE RA 17	-163	1	1504	-0.62	-5.4	-0.01
130	SLE RA 18	-187	-1	1556	0.73	-6.13	-0.01
130	SLE RA 19	-178	1	1537	-0.54	-5.86	-0.01
130	SLE RA 20	-187	-1	1556	0.73	-6.13	-0.01
130	SLE RA 21	-178	1	1537	-0.54	-5.86	-0.01
130	SLE FR 1	-137	0	1447	0.47	-4.58	0
130	SLE FR 2	-134	0	1441	0.05	-4.49	-0.01
130	SLE FR 3	-137	0	1447	0.47	-4.58	0
130	SLE FR 4	-149	0	1473	0.13	-4.96	-0.01
130	SLE FR 5	-152	0	1479	0.55	-5.05	-0.01
130	SLE FR 6	-162	0	1501	0.6	-5.36	-0.01
130	SLE QP 1	-137	0	1447	0.47	-4.58	0
130	SLE QP 2	-152	0	1479	0.55	-5.05	-0.01
130	SLD 1	-225	9	1433	4.02	-0.05	-0.04
130	SLD 2	-225	9	1433	4.02	-0.05	-0.04
130	SLD 3	-292	6	1600	6.14	-2.12	-0.03
130	SLD 4	-292	6	1600	6.14	-2.12	-0.03
130	SLD 5	-71	7	1211	-1.62	-0.4	-0.03
130	SLD 6	-71	7	1211	-1.62	-0.4	-0.03
130	SLD 7	-296	-3	1770	5.44	-7.32	0
130	SLD 8	-296	-3	1770	5.44	-7.32	0
130	SLD 9	-8	2	1189	-4.34	-2.77	-0.01
130	SLD 10	-8	2	1189	-4.34	-2.77	-0.01
130	SLD 11	-233	-7	1747	2.72	-9.7	0.02
130	SLD 12	-233	-7	1747	2.72	-9.7	0.02
130	SLD 13	-12	-7	1358	-5.04	-7.97	0.02
130	SLD 14	-12	-7	1358	-5.04	-7.97	0.02
130	SLD 15	-79	-9	1526	-2.92	-10.05	0.03
130	SLD 16	-79	-9	1526	-2.92	-10.05	0.03
130	SLV 1	-327	23	1379	9.4	6.76	-0.08
130	SLV 2	-327	23	1379	9.4	6.76	-0.08
130	SLV 3	-482	16	1763	14.65	1.98	-0.06
130	SLV 4	-482	16	1763	14.65	1.98	-0.06
130	SLV 5	31	17	866	-4.75	5.74	-0.06
130	SLV 6	31	17	866	-4.75	5.74	-0.06
130	SLV 7	-486	-6	2148	12.73	-10.19	0.01
130	SLV 8	-486	-6	2148	12.73	-10.19	0.01
130	SLV 9	182	5	811	-11.64	0.09	-0.02
130	SLV 10	182	5	811	-11.64	0.09	-0.02
130	SLV 11	-335	-18	2093	5.85	-15.84	0.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
130	SLV 12	-335	-18	2093	5.85	-15.84	0.05
130	SLV 13	178	-16	1196	-13.55	-12.08	0.05
130	SLV 14	178	-16	1196	-13.55	-12.08	0.05
130	SLV 15	23	-23	1580	-8.31	-16.86	0.07
130	SLV 16	23	-23	1580	-8.31	-16.86	0.07
131	SLU 1	-68	0	1445	0.23	-2.72	0
131	SLU 2	-53	4	1417	-3.69	-2.24	-0.01
131	SLU 3	-68	0	1445	0.23	-2.72	0
131	SLU 4	-59	2	1428	-2.12	-2.43	-0.01
131	SLU 5	-53	4	1417	-3.69	-2.24	-0.01
131	SLU 6	-68	0	1445	0.23	-2.72	0
131	SLU 7	-59	2	1428	-2.12	-2.43	-0.01
131	SLU 8	-68	0	1445	0.23	-2.72	0
131	SLU 9	-59	2	1428	-2.12	-2.43	-0.01
131	SLU 10	-85	4	1493	-3.54	-3.4	-0.01
131	SLU 11	-100	0	1521	0.38	-3.88	0
131	SLU 12	-91	2	1504	-1.97	-3.6	-0.01
131	SLU 13	-85	4	1493	-3.54	-3.4	-0.01
131	SLU 14	-100	0	1521	0.38	-3.88	0
131	SLU 15	-91	2	1504	-1.97	-3.6	-0.01
131	SLU 16	-100	0	1521	0.38	-3.88	0
131	SLU 17	-91	2	1504	-1.97	-3.6	-0.01
131	SLU 18	-114	0	1554	0.45	-4.38	0
131	SLU 19	-105	2	1537	-1.9	-4.1	-0.01
131	SLU 20	-114	0	1554	0.45	-4.38	0
131	SLU 21	-105	2	1537	-1.9	-4.1	-0.01
131	SLU 22	-88	0	1487	0.29	-3.45	0
131	SLU 23	-73	4	1459	-3.63	-2.97	-0.01
131	SLU 24	-88	0	1487	0.29	-3.45	0
131	SLU 25	-79	2	1470	-2.06	-3.16	-0.01
131	SLU 26	-73	4	1459	-3.63	-2.97	-0.01
131	SLU 27	-88	0	1487	0.29	-3.45	0
131	SLU 28	-79	2	1470	-2.06	-3.16	-0.01
131	SLU 29	-88	0	1487	0.29	-3.45	0
131	SLU 30	-79	2	1470	-2.06	-3.16	-0.01
131	SLU 31	-105	4	1535	-3.47	-4.13	-0.01
131	SLU 32	-120	0	1563	0.45	-4.61	0
131	SLU 33	-111	2	1546	-1.9	-4.33	-0.01
131	SLU 34	-105	4	1535	-3.47	-4.13	-0.01
131	SLU 35	-120	0	1563	0.45	-4.61	0
131	SLU 36	-111	2	1546	-1.9	-4.33	-0.01
131	SLU 37	-120	0	1563	0.45	-4.61	0
131	SLU 38	-111	2	1546	-1.9	-4.33	-0.01
131	SLU 39	-134	0	1596	0.51	-5.11	0
131	SLU 40	-125	2	1579	-1.84	-4.83	-0.01
131	SLU 41	-134	0	1596	0.51	-5.11	0
131	SLU 42	-125	2	1579	-1.84	-4.83	-0.01
131	SLU 43	-81	0	1864	0.28	-3.28	0
131	SLU 44	-67	4	1836	-3.64	-2.8	-0.01
131	SLU 45	-81	0	1864	0.28	-3.28	0
131	SLU 46	-72	2	1847	-2.08	-3	-0.01
131	SLU 47	-67	4	1836	-3.64	-2.8	-0.01
131	SLU 48	-81	0	1864	0.28	-3.28	0
131	SLU 49	-72	2	1847	-2.08	-3	-0.01
131	SLU 50	-81	0	1864	0.28	-3.28	0
131	SLU 51	-72	2	1847	-2.08	-3	-0.01
131	SLU 52	-99	4	1912	-3.49	-3.97	-0.01
131	SLU 53	-113	0	1940	0.43	-4.45	0
131	SLU 54	-104	2	1923	-1.92	-4.16	-0.01
131	SLU 55	-99	4	1912	-3.49	-3.97	-0.01
131	SLU 56	-113	0	1940	0.43	-4.45	0
131	SLU 57	-104	2	1923	-1.92	-4.16	-0.01
131	SLU 58	-113	0	1940	0.43	-4.45	0
131	SLU 59	-104	2	1923	-1.92	-4.16	-0.01
131	SLU 60	-127	0	1973	0.49	-4.95	0
131	SLU 61	-118	2	1956	-1.86	-4.66	-0.01
131	SLU 62	-127	0	1973	0.49	-4.95	0
131	SLU 63	-118	2	1956	-1.86	-4.66	-0.01
131	SLU 64	-101	0	1906	0.34	-4.01	0
131	SLU 65	-87	4	1878	-3.58	-3.53	-0.01
131	SLU 66	-101	0	1906	0.34	-4.01	0
131	SLU 67	-93	2	1889	-2.01	-3.73	-0.01
131	SLU 68	-87	4	1878	-3.58	-3.53	-0.01
131	SLU 69	-101	0	1906	0.34	-4.01	0
131	SLU 70	-93	2	1889	-2.01	-3.73	-0.01
131	SLU 71	-101	0	1906	0.34	-4.01	0
131	SLU 72	-93	2	1889	-2.01	-3.73	-0.01
131	SLU 73	-119	4	1954	-3.43	-4.7	-0.01
131	SLU 74	-133	0	1982	0.49	-5.18	0
131	SLU 75	-125	2	1965	-1.86	-4.89	-0.01
131	SLU 76	-119	4	1954	-3.43	-4.7	-0.01
131	SLU 77	-133	0	1982	0.49	-5.18	0
131	SLU 78	-125	2	1965	-1.86	-4.89	-0.01
131	SLU 79	-133	0	1982	0.49	-5.18	0
131	SLU 80	-125	2	1965	-1.86	-4.89	-0.01
131	SLU 81	-147	0	2015	0.56	-5.68	0
131	SLU 82	-138	2	1998	-1.79	-5.39	-0.01
131	SLU 83	-147	0	2015	0.56	-5.68	0
131	SLU 84	-138	2	1998	-1.79	-5.39	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
131	SLE RA 1	-74	0	1457	0.25	-2.93	0
131	SLE RA 2	-64	2	1438	-2.37	-2.61	-0.01
131	SLE RA 3	-74	0	1457	0.25	-2.93	0
131	SLE RA 4	-68	1	1446	-1.32	-2.73	0
131	SLE RA 5	-64	2	1438	-2.37	-2.61	-0.01
131	SLE RA 6	-74	0	1457	0.25	-2.93	0
131	SLE RA 7	-68	1	1446	-1.32	-2.73	0
131	SLE RA 8	-74	0	1457	0.25	-2.93	0
131	SLE RA 9	-68	1	1446	-1.32	-2.73	0
131	SLE RA 10	-85	2	1489	-2.26	-3.38	-0.01
131	SLE RA 11	-95	0	1508	0.35	-3.7	0
131	SLE RA 12	-89	1	1496	-1.22	-3.51	0
131	SLE RA 13	-85	2	1489	-2.26	-3.38	-0.01
131	SLE RA 14	-95	0	1508	0.35	-3.7	0
131	SLE RA 15	-89	1	1496	-1.22	-3.51	0
131	SLE RA 16	-95	0	1508	0.35	-3.7	0
131	SLE RA 17	-89	1	1496	-1.22	-3.51	0
131	SLE RA 18	-104	0	1529	0.39	-4.04	0
131	SLE RA 19	-98	1	1518	-1.17	-3.84	0
131	SLE RA 20	-104	0	1529	0.39	-4.04	0
131	SLE RA 21	-98	1	1518	-1.17	-3.84	0
131	SLE FR 1	-74	0	1457	0.25	-2.93	0
131	SLE FR 2	-72	0	1453	-0.27	-2.86	0
131	SLE FR 3	-74	0	1457	0.25	-2.93	0
131	SLE FR 4	-81	0	1475	-0.23	-3.2	0
131	SLE FR 5	-83	0	1479	0.29	-3.26	0
131	SLE FR 6	-89	0	1493	0.32	-3.48	0
131	SLE QP 1	-74	0	1457	0.25	-2.93	0
131	SLE QP 2	-83	0	1479	0.29	-3.26	0
131	SLD 1	45	-8	1371	4.97	-5.98	0.03
131	SLD 2	45	-8	1371	4.97	-5.98	0.03
131	SLD 3	-11	-6	1472	7.66	-7.91	0.02
131	SLD 4	-11	-6	1472	7.66	-7.91	0.02
131	SLD 5	40	-7	1294	-2.38	-1.15	0.02
131	SLD 6	40	-7	1294	-2.38	-1.15	0.02
131	SLD 7	-145	2	1629	6.58	-7.58	-0.01
131	SLD 8	-145	2	1629	6.58	-7.58	-0.01
131	SLD 9	-20	-3	1328	-5.99	1.07	0.01
131	SLD 10	-20	-3	1328	-5.99	1.07	0.01
131	SLD 11	-205	7	1664	2.96	-5.37	-0.02
131	SLD 12	-205	7	1664	2.96	-5.37	-0.02
131	SLD 13	-154	5	1485	-7.07	1.39	-0.02
131	SLD 14	-154	5	1485	-7.07	1.39	-0.02
131	SLD 15	-210	8	1586	-4.39	-0.54	-0.03
131	SLD 16	-210	8	1586	-4.39	-0.54	-0.03
131	SLV 1	217	-21	1219	12.19	-9.8	0.07
131	SLV 2	217	-21	1219	12.19	-9.8	0.07
131	SLV 3	90	-14	1451	18.79	-14.23	0.05
131	SLV 4	90	-14	1451	18.79	-14.23	0.05
131	SLV 5	201	-17	1049	-6.15	1.5	0.06
131	SLV 6	201	-17	1049	-6.15	1.5	0.06
131	SLV 7	-224	6	1822	15.85	-13.27	-0.02
131	SLV 8	-224	6	1822	15.85	-13.27	-0.02
131	SLV 9	59	-6	1136	-15.27	6.75	0.02
131	SLV 10	59	-6	1136	-15.27	6.75	0.02
131	SLV 11	-366	17	1908	6.73	-8.01	-0.06
131	SLV 12	-366	17	1908	6.73	-8.01	-0.06
131	SLV 13	-255	14	1507	-18.21	7.71	-0.05
131	SLV 14	-255	14	1507	-18.21	7.71	-0.05
131	SLV 15	-383	21	1739	-11.61	3.28	-0.07
131	SLV 16	-383	21	1739	-11.61	3.28	-0.07
132	SLU 1	-53	0	1550	0.2	-2.33	0
132	SLU 2	-45	4	1529	-3.92	-2	-0.01
132	SLU 3	-53	0	1550	0.2	-2.33	0
132	SLU 4	-48	2	1538	-2.27	-2.13	0
132	SLU 5	-45	4	1529	-3.92	-2	-0.01
132	SLU 6	-53	0	1550	0.2	-2.33	0
132	SLU 7	-48	2	1538	-2.27	-2.13	0
132	SLU 8	-53	0	1550	0.2	-2.33	0
132	SLU 9	-48	2	1538	-2.27	-2.13	0
132	SLU 10	-55	4	1600	-3.79	-2.34	-0.01
132	SLU 11	-63	0	1621	0.33	-2.66	0
132	SLU 12	-58	2	1608	-2.14	-2.47	0
132	SLU 13	-55	4	1600	-3.79	-2.34	-0.01
132	SLU 14	-63	0	1621	0.33	-2.66	0
132	SLU 15	-58	2	1608	-2.14	-2.47	0
132	SLU 16	-63	0	1621	0.33	-2.66	0
132	SLU 17	-58	2	1608	-2.14	-2.47	0
132	SLU 18	-68	0	1651	0.39	-2.8	0
132	SLU 19	-62	2	1639	-2.09	-2.61	0
132	SLU 20	-68	0	1651	0.39	-2.8	0
132	SLU 21	-62	2	1639	-2.09	-2.61	0
132	SLU 22	-61	0	1588	0.25	-2.59	0
132	SLU 23	-53	4	1567	-3.86	-2.26	-0.01
132	SLU 24	-61	0	1588	0.25	-2.59	0
132	SLU 25	-56	2	1576	-2.22	-2.39	0
132	SLU 26	-53	4	1567	-3.86	-2.26	-0.01
132	SLU 27	-61	0	1588	0.25	-2.59	0
132	SLU 28	-56	2	1576	-2.22	-2.39	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
132	SLU 29	-61	0	1588	0.25	-2.59	0
132	SLU 30	-56	2	1576	-2.22	-2.39	0
132	SLU 31	-62	3	1638	-3.74	-2.6	-0.01
132	SLU 32	-71	0	1659	0.38	-2.92	0
132	SLU 33	-66	2	1646	-2.09	-2.73	0
132	SLU 34	-62	3	1638	-3.74	-2.6	-0.01
132	SLU 35	-71	0	1659	0.38	-2.92	0
132	SLU 36	-66	2	1646	-2.09	-2.73	0
132	SLU 37	-71	0	1659	0.38	-2.92	0
132	SLU 38	-66	2	1646	-2.09	-2.73	0
132	SLU 39	-75	0	1689	0.44	-3.06	0
132	SLU 40	-70	2	1677	-2.03	-2.87	0
132	SLU 41	-75	0	1689	0.44	-3.06	0
132	SLU 42	-70	2	1677	-2.03	-2.87	0
132	SLU 43	-67	0	2002	0.24	-2.94	0
132	SLU 44	-58	4	1981	-3.88	-2.61	-0.01
132	SLU 45	-67	0	2002	0.24	-2.94	0
132	SLU 46	-62	2	1989	-2.23	-2.74	0
132	SLU 47	-58	4	1981	-3.88	-2.61	-0.01
132	SLU 48	-67	0	2002	0.24	-2.94	0
132	SLU 49	-62	2	1989	-2.23	-2.74	0
132	SLU 50	-67	0	2002	0.24	-2.94	0
132	SLU 51	-62	2	1989	-2.23	-2.74	0
132	SLU 52	-68	4	2052	-3.75	-2.95	-0.01
132	SLU 53	-77	0	2072	0.37	-3.27	0
132	SLU 54	-72	2	2060	-2.1	-3.07	0
132	SLU 55	-68	4	2052	-3.75	-2.95	-0.01
132	SLU 56	-77	0	2072	0.37	-3.27	0
132	SLU 57	-72	2	2060	-2.1	-3.07	0
132	SLU 58	-77	0	2072	0.37	-3.27	0
132	SLU 59	-72	2	2060	-2.1	-3.07	0
132	SLU 60	-81	0	2103	0.43	-3.41	0
132	SLU 61	-76	2	2091	-2.04	-3.22	0
132	SLU 62	-81	0	2103	0.43	-3.41	0
132	SLU 63	-76	2	2091	-2.04	-3.22	0
132	SLU 64	-75	0	2040	0.3	-3.2	0
132	SLU 65	-66	4	2019	-3.82	-2.87	-0.01
132	SLU 66	-75	0	2040	0.3	-3.2	0
132	SLU 67	-69	2	2027	-2.18	-3	0
132	SLU 68	-66	4	2019	-3.82	-2.87	-0.01
132	SLU 69	-75	0	2040	0.3	-3.2	0
132	SLU 70	-69	2	2027	-2.18	-3	0
132	SLU 71	-75	0	2040	0.3	-3.2	0
132	SLU 72	-69	2	2027	-2.18	-3	0
132	SLU 73	-76	3	2090	-3.69	-3.21	-0.01
132	SLU 74	-84	0	2110	0.43	-3.53	0
132	SLU 75	-79	2	2098	-2.05	-3.33	0
132	SLU 76	-76	3	2090	-3.69	-3.21	-0.01
132	SLU 77	-84	0	2110	0.43	-3.53	0
132	SLU 78	-79	2	2098	-2.05	-3.33	0
132	SLU 79	-84	0	2110	0.43	-3.53	0
132	SLU 80	-79	2	2098	-2.05	-3.33	0
132	SLU 81	-89	0	2141	0.48	-3.67	0
132	SLU 82	-83	2	2129	-1.99	-3.48	0
132	SLU 83	-89	0	2141	0.48	-3.67	0
132	SLU 84	-83	2	2129	-1.99	-3.48	0
132	SLE RA 1	-56	0	1561	0.22	-2.4	0
132	SLE RA 2	-50	2	1547	-2.53	-2.19	0
132	SLE RA 3	-56	0	1561	0.22	-2.4	0
132	SLE RA 4	-52	1	1552	-1.43	-2.27	0
132	SLE RA 5	-50	2	1547	-2.53	-2.19	0
132	SLE RA 6	-56	0	1561	0.22	-2.4	0
132	SLE RA 7	-52	1	1552	-1.43	-2.27	0
132	SLE RA 8	-56	0	1561	0.22	-2.4	0
132	SLE RA 9	-52	1	1552	-1.43	-2.27	0
132	SLE RA 10	-56	2	1594	-2.44	-2.41	0
132	SLE RA 11	-62	0	1608	0.3	-2.62	0
132	SLE RA 12	-59	1	1600	-1.35	-2.49	0
132	SLE RA 13	-56	2	1594	-2.44	-2.41	0
132	SLE RA 14	-62	0	1608	0.3	-2.62	0
132	SLE RA 15	-59	1	1600	-1.35	-2.49	0
132	SLE RA 16	-62	0	1608	0.3	-2.62	0
132	SLE RA 17	-59	1	1600	-1.35	-2.49	0
132	SLE RA 18	-65	0	1628	0.34	-2.72	0
132	SLE RA 19	-62	1	1620	-1.31	-2.59	0
132	SLE RA 20	-65	0	1628	0.34	-2.72	0
132	SLE RA 21	-62	1	1620	-1.31	-2.59	0
132	SLE FR 1	-56	0	1561	0.22	-2.4	0
132	SLE FR 2	-55	0	1558	-0.33	-2.36	0
132	SLE FR 3	-56	0	1561	0.22	-2.4	0
132	SLE FR 4	-57	0	1578	-0.3	-2.45	0
132	SLE FR 5	-58	0	1581	0.25	-2.5	0
132	SLE FR 6	-60	0	1594	0.28	-2.56	0
132	SLE QP 1	-56	0	1561	0.22	-2.4	0
132	SLE QP 2	-58	0	1581	0.25	-2.5	0
132	SLD 1	56	-11	1470	6.47	1.71	0.01
132	SLD 2	56	-11	1470	6.47	1.71	0.01
132	SLD 3	15	-8	1536	9.49	0.39	0.01
132	SLD 4	15	-8	1536	9.49	0.39	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
132	SLD 5	38	-8	1446	-2.45	0.76	0.01
132	SLD 6	38	-8	1446	-2.45	0.76	0.01
132	SLD 7	-99	3	1669	7.59	-3.63	0
132	SLD 8	-99	3	1669	7.59	-3.63	0
132	SLD 9	-18	-3	1493	-7.08	-1.36	0
132	SLD 10	-18	-3	1493	-7.08	-1.36	0
132	SLD 11	-155	8	1715	2.95	-5.76	-0.01
132	SLD 12	-155	8	1715	2.95	-5.76	-0.01
132	SLD 13	-132	8	1625	-8.98	-5.38	-0.01
132	SLD 14	-132	8	1625	-8.98	-5.38	-0.01
132	SLD 15	-173	11	1692	-5.97	-6.7	-0.01
132	SLD 16	-173	11	1692	-5.97	-6.7	-0.01
132	SLV 1	213	-28	1304	16.07	7.54	0.04
132	SLV 2	213	-28	1304	16.07	7.54	0.04
132	SLV 3	118	-20	1459	23.42	4.5	0.03
132	SLV 4	118	-20	1459	23.42	4.5	0.03
132	SLV 5	166	-21	1262	-6.15	5.11	0.03
132	SLV 6	166	-21	1262	-6.15	5.11	0.03
132	SLV 7	-149	6	1780	18.35	-4.99	-0.01
132	SLV 8	-149	6	1780	18.35	-4.99	-0.01
132	SLV 9	32	-7	1381	-17.85	0	0.01
132	SLV 10	32	-7	1381	-17.85	0	0.01
132	SLV 11	-283	21	1900	6.66	-10.1	-0.03
132	SLV 12	-283	21	1900	6.66	-10.1	-0.03
132	SLV 13	-235	19	1702	-22.91	-9.5	-0.02
132	SLV 14	-235	19	1702	-22.91	-9.5	-0.02
132	SLV 15	-330	27	1858	-15.56	-12.53	-0.04
132	SLV 16	-330	27	1858	-15.56	-12.53	-0.04
133	SLU 1	-93	0	1675	0.26	-4.01	0
133	SLU 2	-89	3	1654	-3.44	-3.89	0
133	SLU 3	-93	0	1675	0.26	-4.01	0
133	SLU 4	-91	2	1662	-1.96	-3.94	0
133	SLU 5	-89	3	1654	-3.44	-3.89	0
133	SLU 6	-93	0	1675	0.26	-4.01	0
133	SLU 7	-91	2	1662	-1.96	-3.94	0
133	SLU 8	-93	0	1675	0.26	-4.01	0
133	SLU 9	-91	2	1662	-1.96	-3.94	0
133	SLU 10	-85	3	1746	-3.3	-3.91	0
133	SLU 11	-89	0	1766	0.39	-4.04	0
133	SLU 12	-86	1	1754	-1.83	-3.97	0
133	SLU 13	-85	3	1746	-3.3	-3.91	0
133	SLU 14	-89	0	1766	0.39	-4.04	0
133	SLU 15	-86	1	1754	-1.83	-3.97	0
133	SLU 16	-89	0	1766	0.39	-4.04	0
133	SLU 17	-86	1	1754	-1.83	-3.97	0
133	SLU 18	-87	0	1805	0.45	-4.06	0
133	SLU 19	-85	1	1793	-1.77	-3.98	0
133	SLU 20	-87	0	1805	0.45	-4.06	0
133	SLU 21	-85	1	1793	-1.77	-3.98	0
133	SLU 22	-93	0	1722	0.31	-4.1	0
133	SLU 23	-89	3	1702	-3.38	-3.97	0
133	SLU 24	-93	0	1722	0.31	-4.1	0
133	SLU 25	-90	2	1710	-1.9	-4.02	0
133	SLU 26	-89	3	1702	-3.38	-3.97	0
133	SLU 27	-93	0	1722	0.31	-4.1	0
133	SLU 28	-90	2	1710	-1.9	-4.02	0
133	SLU 29	-93	0	1722	0.31	-4.1	0
133	SLU 30	-90	2	1710	-1.9	-4.02	0
133	SLU 31	-84	3	1793	-3.25	-4	0
133	SLU 32	-89	0	1814	0.45	-4.12	0
133	SLU 33	-86	1	1801	-1.77	-4.05	0
133	SLU 34	-84	3	1793	-3.25	-4	0
133	SLU 35	-89	0	1814	0.45	-4.12	0
133	SLU 36	-86	1	1801	-1.77	-4.05	0
133	SLU 37	-89	0	1814	0.45	-4.12	0
133	SLU 38	-86	1	1801	-1.77	-4.05	0
133	SLU 39	-87	-1	1853	0.51	-4.14	0
133	SLU 40	-84	1	1841	-1.71	-4.06	0
133	SLU 41	-87	-1	1853	0.51	-4.14	0
133	SLU 42	-84	1	1841	-1.71	-4.06	0
133	SLU 43	-121	0	2161	0.31	-5.19	0
133	SLU 44	-117	3	2140	-3.39	-5.06	0
133	SLU 45	-121	0	2161	0.31	-5.19	0
133	SLU 46	-119	2	2148	-1.91	-5.11	0
133	SLU 47	-117	3	2140	-3.39	-5.06	0
133	SLU 48	-121	0	2161	0.31	-5.19	0
133	SLU 49	-119	2	2148	-1.91	-5.11	0
133	SLU 50	-121	0	2161	0.31	-5.19	0
133	SLU 51	-119	2	2148	-1.91	-5.11	0
133	SLU 52	-113	3	2232	-3.25	-5.09	0
133	SLU 53	-117	0	2252	0.45	-5.22	0
133	SLU 54	-114	1	2240	-1.77	-5.14	0
133	SLU 55	-113	3	2232	-3.25	-5.09	0
133	SLU 56	-117	0	2252	0.45	-5.22	0
133	SLU 57	-114	1	2240	-1.77	-5.14	0
133	SLU 58	-117	0	2252	0.45	-5.22	0
133	SLU 59	-114	1	2240	-1.77	-5.14	0
133	SLU 60	-115	-1	2291	0.51	-5.23	0
133	SLU 61	-113	1	2279	-1.71	-5.15	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
133	SLU 62	-115	-1	2291	0.51	-5.23	0
133	SLU 63	-113	1	2279	-1.71	-5.15	0
133	SLU 64	-121	0	2208	0.37	-5.27	0
133	SLU 65	-117	3	2188	-3.33	-5.14	0
133	SLU 66	-121	0	2208	0.37	-5.27	0
133	SLU 67	-118	2	2196	-1.85	-5.19	0
133	SLU 68	-117	3	2188	-3.33	-5.14	0
133	SLU 69	-121	0	2208	0.37	-5.27	0
133	SLU 70	-118	2	2196	-1.85	-5.19	0
133	SLU 71	-121	0	2208	0.37	-5.27	0
133	SLU 72	-118	2	2196	-1.85	-5.19	0
133	SLU 73	-112	3	2279	-3.19	-5.17	0
133	SLU 74	-117	-1	2300	0.51	-5.3	0
133	SLU 75	-114	1	2287	-1.71	-5.22	0
133	SLU 76	-112	3	2279	-3.19	-5.17	0
133	SLU 77	-117	-1	2300	0.51	-5.3	0
133	SLU 78	-114	1	2287	-1.71	-5.22	0
133	SLU 79	-117	-1	2300	0.51	-5.3	0
133	SLU 80	-114	1	2287	-1.71	-5.22	0
133	SLU 81	-115	-1	2339	0.57	-5.31	0
133	SLU 82	-112	1	2327	-1.65	-5.24	0
133	SLU 83	-115	-1	2339	0.57	-5.31	0
133	SLU 84	-112	1	2327	-1.65	-5.24	0
133	SLE RA 1	-93	0	1688	0.27	-4.04	0
133	SLE RA 2	-90	2	1674	-2.19	-3.95	0
133	SLE RA 3	-93	0	1688	0.27	-4.04	0
133	SLE RA 4	-91	1	1680	-1.21	-3.99	0
133	SLE RA 5	-90	2	1674	-2.19	-3.95	0
133	SLE RA 6	-93	0	1688	0.27	-4.04	0
133	SLE RA 7	-91	1	1680	-1.21	-3.99	0
133	SLE RA 8	-93	0	1688	0.27	-4.04	0
133	SLE RA 9	-91	1	1680	-1.21	-3.99	0
133	SLE RA 10	-87	2	1735	-2.1	-3.97	0
133	SLE RA 11	-90	0	1749	0.36	-4.06	0
133	SLE RA 12	-89	1	1741	-1.11	-4.01	0
133	SLE RA 13	-87	2	1735	-2.1	-3.97	0
133	SLE RA 14	-90	0	1749	0.36	-4.06	0
133	SLE RA 15	-89	1	1741	-1.11	-4.01	0
133	SLE RA 16	-90	0	1749	0.36	-4.06	0
133	SLE RA 17	-89	1	1741	-1.11	-4.01	0
133	SLE RA 18	-89	0	1775	0.4	-4.06	0
133	SLE RA 19	-87	1	1767	-1.08	-4.01	0
133	SLE RA 20	-89	0	1775	0.4	-4.06	0
133	SLE RA 21	-87	1	1767	-1.08	-4.01	0
133	SLE FR 1	-93	0	1688	0.27	-4.04	0
133	SLE FR 2	-92	0	1685	-0.22	-4.02	0
133	SLE FR 3	-93	0	1688	0.27	-4.04	0
133	SLE FR 4	-91	0	1712	-0.18	-4.03	0
133	SLE FR 5	-92	0	1714	0.31	-4.04	0
133	SLE FR 6	-91	0	1732	0.34	-4.05	0
133	SLE QP 1	-93	0	1688	0.27	-4.04	0
133	SLE QP 2	-92	0	1714	0.31	-4.04	0
133	SLD 1	19	-16	1600	7.93	-0.02	0.01
133	SLD 2	19	-16	1600	7.93	-0.02	0.01
133	SLD 3	-20	-12	1653	10.84	-1.44	0
133	SLD 4	-20	-12	1653	10.84	-1.44	0
133	SLD 5	0	-10	1599	-1.81	-0.68	0.01
133	SLD 6	0	-10	1599	-1.81	-0.68	0.01
133	SLD 7	-130	1	1777	7.88	-5.42	0
133	SLD 8	-130	1	1777	7.88	-5.42	0
133	SLD 9	-54	-2	1652	-7.26	-2.67	0.01
133	SLD 10	-54	-2	1652	-7.26	-2.67	0.01
133	SLD 11	-184	10	1830	2.44	-7.41	-0.01
133	SLD 12	-184	10	1830	2.44	-7.41	-0.01
133	SLD 13	-163	12	1776	-10.22	-6.65	0
133	SLD 14	-163	12	1776	-10.22	-6.65	0
133	SLD 15	-202	15	1829	-7.31	-8.07	-0.01
133	SLD 16	-202	15	1829	-7.31	-8.07	-0.01
133	SLV 1	171	-40	1424	19.67	5.53	0.02
133	SLV 2	171	-40	1424	19.67	5.53	0.02
133	SLV 3	81	-31	1553	26.78	2.23	0.01
133	SLV 4	81	-31	1553	26.78	2.23	0.01
133	SLV 5	123	-26	1432	-4.67	3.82	0.02
133	SLV 6	123	-26	1432	-4.67	3.82	0.02
133	SLV 7	-176	4	1862	19.03	-7.16	-0.01
133	SLV 8	-176	4	1862	19.03	-7.16	-0.01
133	SLV 9	-7	-5	1567	-18.41	-0.93	0.01
133	SLV 10	-7	-5	1567	-18.41	-0.93	0.01
133	SLV 11	-307	25	1997	5.29	-11.91	-0.02
133	SLV 12	-307	25	1997	5.29	-11.91	-0.02
133	SLV 13	-265	30	1876	-26.15	-10.32	-0.01
133	SLV 14	-265	30	1876	-26.15	-10.32	-0.01
133	SLV 15	-355	39	2005	-19.04	-13.62	-0.02
133	SLV 16	-355	39	2005	-19.04	-13.62	-0.02
134	SLU 1	-156	0	1789	0.44	-6.03	0.01
134	SLU 2	-152	2	1765	-2.3	-5.8	0
134	SLU 3	-156	0	1789	0.44	-6.03	0.01
134	SLU 4	-154	1	1774	-1.2	-5.89	0
134	SLU 5	-152	2	1765	-2.3	-5.8	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
134	SLU 6	-156	0	1789	0.44	-6.03	0.01
134	SLU 7	-154	1	1774	-1.2	-5.89	0
134	SLU 8	-156	0	1789	0.44	-6.03	0.01
134	SLU 9	-154	1	1774	-1.2	-5.89	0
134	SLU 10	-137	1	1896	-2.14	-5.44	0
134	SLU 11	-142	-1	1920	0.6	-5.67	0.01
134	SLU 12	-139	1	1906	-1.04	-5.53	0.01
134	SLU 13	-137	1	1896	-2.14	-5.44	0
134	SLU 14	-142	-1	1920	0.6	-5.67	0.01
134	SLU 15	-139	1	1906	-1.04	-5.53	0.01
134	SLU 16	-142	-1	1920	0.6	-5.67	0.01
134	SLU 17	-139	1	1906	-1.04	-5.53	0.01
134	SLU 18	-136	-1	1977	0.67	-5.52	0.01
134	SLU 19	-133	1	1962	-0.97	-5.37	0.01
134	SLU 20	-136	-1	1977	0.67	-5.52	0.01
134	SLU 21	-133	1	1962	-0.97	-5.37	0.01
134	SLU 22	-150	0	1856	0.51	-5.89	0.01
134	SLU 23	-146	2	1832	-2.23	-5.65	0
134	SLU 24	-150	0	1856	0.51	-5.89	0.01
134	SLU 25	-148	1	1842	-1.13	-5.75	0
134	SLU 26	-146	2	1832	-2.23	-5.65	0
134	SLU 27	-150	0	1856	0.51	-5.89	0.01
134	SLU 28	-148	1	1842	-1.13	-5.75	0
134	SLU 29	-150	0	1856	0.51	-5.89	0.01
134	SLU 30	-148	1	1842	-1.13	-5.75	0
134	SLU 31	-131	1	1964	-2.06	-5.29	0
134	SLU 32	-136	-1	1988	0.68	-5.53	0.01
134	SLU 33	-133	1	1974	-0.97	-5.39	0.01
134	SLU 34	-131	1	1964	-2.06	-5.29	0
134	SLU 35	-136	-1	1988	0.68	-5.53	0.01
134	SLU 36	-133	1	1974	-0.97	-5.39	0.01
134	SLU 37	-136	-1	1988	0.68	-5.53	0.01
134	SLU 38	-133	1	1974	-0.97	-5.39	0.01
134	SLU 39	-130	-1	2045	0.75	-5.37	0.01
134	SLU 40	-127	0	2030	-0.9	-5.23	0.01
134	SLU 41	-130	-1	2045	0.75	-5.37	0.01
134	SLU 42	-127	0	2030	-0.9	-5.23	0.01
134	SLU 43	-205	0	2302	0.55	-7.89	0.01
134	SLU 44	-201	2	2278	-2.19	-7.66	0
134	SLU 45	-205	0	2302	0.55	-7.89	0.01
134	SLU 46	-203	1	2287	-1.1	-7.75	0.01
134	SLU 47	-201	2	2278	-2.19	-7.66	0
134	SLU 48	-205	0	2302	0.55	-7.89	0.01
134	SLU 49	-203	1	2287	-1.1	-7.75	0.01
134	SLU 50	-205	0	2302	0.55	-7.89	0.01
134	SLU 51	-203	1	2287	-1.1	-7.75	0.01
134	SLU 52	-186	1	2410	-2.03	-7.3	0.01
134	SLU 53	-191	-1	2434	0.71	-7.53	0.01
134	SLU 54	-188	1	2419	-0.93	-7.39	0.01
134	SLU 55	-186	1	2410	-2.03	-7.3	0.01
134	SLU 56	-191	-1	2434	0.71	-7.53	0.01
134	SLU 57	-188	1	2419	-0.93	-7.39	0.01
134	SLU 58	-191	-1	2434	0.71	-7.53	0.01
134	SLU 59	-188	1	2419	-0.93	-7.39	0.01
134	SLU 60	-185	-1	2490	0.78	-7.38	0.01
134	SLU 61	-182	1	2476	-0.86	-7.23	0.01
134	SLU 62	-185	-1	2490	0.78	-7.38	0.01
134	SLU 63	-182	1	2476	-0.86	-7.23	0.01
134	SLU 64	-199	0	2370	0.62	-7.75	0.01
134	SLU 65	-195	2	2346	-2.12	-7.51	0.01
134	SLU 66	-199	0	2370	0.62	-7.75	0.01
134	SLU 67	-197	1	2355	-1.02	-7.61	0.01
134	SLU 68	-195	2	2346	-2.12	-7.51	0.01
134	SLU 69	-199	0	2370	0.62	-7.75	0.01
134	SLU 70	-197	1	2355	-1.02	-7.61	0.01
134	SLU 71	-199	0	2370	0.62	-7.75	0.01
134	SLU 72	-197	1	2355	-1.02	-7.61	0.01
134	SLU 73	-180	1	2478	-1.96	-7.15	0.01
134	SLU 74	-185	-1	2501	0.78	-7.39	0.01
134	SLU 75	-182	1	2487	-0.86	-7.25	0.01
134	SLU 76	-180	1	2478	-1.96	-7.15	0.01
134	SLU 77	-185	-1	2501	0.78	-7.39	0.01
134	SLU 78	-182	1	2487	-0.86	-7.25	0.01
134	SLU 79	-185	-1	2501	0.78	-7.39	0.01
134	SLU 80	-182	1	2487	-0.86	-7.25	0.01
134	SLU 81	-179	-1	2558	0.85	-7.23	0.01
134	SLU 82	-176	0	2544	-0.79	-7.09	0.01
134	SLU 83	-179	-1	2558	0.85	-7.23	0.01
134	SLU 84	-176	0	2544	-0.79	-7.09	0.01
134	SLE RA 1	-155	0	1808	0.46	-5.99	0.01
134	SLE RA 2	-152	1	1792	-1.37	-5.84	0
134	SLE RA 3	-155	0	1808	0.46	-5.99	0.01
134	SLE RA 4	-153	0	1798	-0.63	-5.9	0
134	SLE RA 5	-152	1	1792	-1.37	-5.84	0
134	SLE RA 6	-155	0	1808	0.46	-5.99	0.01
134	SLE RA 7	-153	0	1798	-0.63	-5.9	0
134	SLE RA 8	-155	0	1808	0.46	-5.99	0.01
134	SLE RA 9	-153	0	1798	-0.63	-5.9	0
134	SLE RA 10	-142	1	1880	-1.26	-5.59	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
134	SLE RA 11	-145	-1	1896	0.57	-5.75	0.01
134	SLE RA 12	-143	0	1886	-0.53	-5.66	0.01
134	SLE RA 13	-142	1	1880	-1.26	-5.59	0
134	SLE RA 14	-145	-1	1896	0.57	-5.75	0.01
134	SLE RA 15	-143	0	1886	-0.53	-5.66	0.01
134	SLE RA 16	-145	-1	1896	0.57	-5.75	0.01
134	SLE RA 17	-143	0	1886	-0.53	-5.66	0.01
134	SLE RA 18	-141	-1	1933	0.62	-5.65	0.01
134	SLE RA 19	-139	0	1924	-0.48	-5.55	0.01
134	SLE RA 20	-141	-1	1933	0.62	-5.65	0.01
134	SLE RA 21	-139	0	1924	-0.48	-5.55	0.01
134	SLE FR 1	-155	0	1808	0.46	-5.99	0.01
134	SLE FR 2	-154	0	1805	0.1	-5.96	0.01
134	SLE FR 3	-155	0	1808	0.46	-5.99	0.01
134	SLE FR 4	-150	0	1842	0.14	-5.86	0.01
134	SLE FR 5	-151	0	1846	0.51	-5.89	0.01
134	SLE FR 6	-148	0	1871	0.54	-5.82	0.01
134	SLE QP 1	-155	0	1808	0.46	-5.99	0.01
134	SLE QP 2	-151	0	1846	0.51	-5.89	0.01
134	SLD 1	-38	-19	1722	8.18	-1.66	0.01
134	SLD 2	-38	-19	1722	8.18	-1.66	0.01
134	SLD 3	-76	-16	1776	10.51	-2.91	0.01
134	SLD 4	-76	-16	1776	10.51	-2.91	0.01
134	SLD 5	-60	-11	1726	-0.71	-2.73	0.01
134	SLD 6	-60	-11	1726	-0.71	-2.73	0.01
134	SLD 7	-185	0	1908	7.03	-6.88	0
134	SLD 8	-185	0	1908	7.03	-6.88	0
134	SLD 9	-116	-1	1784	-6.02	-4.89	0.01
134	SLD 10	-116	-1	1784	-6.02	-4.89	0.01
134	SLD 11	-241	10	1966	1.73	-9.05	0
134	SLD 12	-241	10	1966	1.73	-9.05	0
134	SLD 13	-225	15	1915	-9.49	-8.87	0
134	SLD 14	-225	15	1915	-9.49	-8.87	0
134	SLD 15	-263	18	1969	-7.17	-10.12	0
134	SLD 16	-263	18	1969	-7.17	-10.12	0
134	SLV 1	119	-47	1532	19.98	4.32	0.02
134	SLV 2	119	-47	1532	19.98	4.32	0.02
134	SLV 3	33	-39	1671	25.69	1.43	0.01
134	SLV 4	33	-39	1671	25.69	1.43	0.01
134	SLV 5	62	-27	1542	-2.31	1.54	0.02
134	SLV 6	62	-27	1542	-2.31	1.54	0.02
134	SLV 7	-227	0	2003	16.72	-8.06	0
134	SLV 8	-227	0	2003	16.72	-8.06	0
134	SLV 9	-74	-1	1688	-15.71	-3.72	0.02
134	SLV 10	-74	-1	1688	-15.71	-3.72	0.02
134	SLV 11	-363	26	2150	3.32	-13.32	-0.01
134	SLV 12	-363	26	2150	3.32	-13.32	-0.01
134	SLV 13	-334	38	2020	-24.68	-13.21	0
134	SLV 14	-334	38	2020	-24.68	-13.21	0
134	SLV 15	-420	46	2159	-18.97	-16.09	-0.01
134	SLV 16	-420	46	2159	-18.97	-16.09	-0.01
135	SLU 1	-231	-3	2005	1.04	-10.31	-0.01
135	SLU 2	-226	-2	1974	-0.41	-10.17	-0.01
135	SLU 3	-231	-3	2005	1.04	-10.31	-0.01
135	SLU 4	-228	-3	1987	0.17	-10.22	-0.01
135	SLU 5	-226	-2	1974	-0.41	-10.17	-0.01
135	SLU 6	-231	-3	2005	1.04	-10.31	-0.01
135	SLU 7	-228	-3	1987	0.17	-10.22	-0.01
135	SLU 8	-231	-3	2005	1.04	-10.31	-0.01
135	SLU 9	-228	-3	1987	0.17	-10.22	-0.01
135	SLU 10	-209	-3	2179	-0.15	-10.05	-0.01
135	SLU 11	-213	-4	2209	1.3	-10.19	-0.01
135	SLU 12	-211	-3	2191	0.43	-10.1	-0.01
135	SLU 13	-209	-3	2179	-0.15	-10.05	-0.01
135	SLU 14	-213	-4	2209	1.3	-10.19	-0.01
135	SLU 15	-211	-3	2191	0.43	-10.1	-0.01
135	SLU 16	-213	-4	2209	1.3	-10.19	-0.01
135	SLU 17	-211	-3	2191	0.43	-10.1	-0.01
135	SLU 18	-206	-4	2296	1.41	-10.14	-0.01
135	SLU 19	-203	-4	2278	0.54	-10.05	-0.01
135	SLU 20	-206	-4	2296	1.41	-10.14	-0.01
135	SLU 21	-203	-4	2278	0.54	-10.05	-0.01
135	SLU 22	-223	-4	2110	1.17	-10.28	-0.01
135	SLU 23	-218	-3	2079	-0.28	-10.14	-0.01
135	SLU 24	-223	-4	2110	1.17	-10.28	-0.01
135	SLU 25	-220	-3	2091	0.3	-10.2	-0.01
135	SLU 26	-218	-3	2079	-0.28	-10.14	-0.01
135	SLU 27	-223	-4	2110	1.17	-10.28	-0.01
135	SLU 28	-220	-3	2091	0.3	-10.2	-0.01
135	SLU 29	-223	-4	2110	1.17	-10.28	-0.01
135	SLU 30	-220	-3	2091	0.3	-10.2	-0.01
135	SLU 31	-201	-3	2283	-0.02	-10.02	-0.01
135	SLU 32	-206	-4	2314	1.43	-10.17	-0.01
135	SLU 33	-203	-4	2296	0.56	-10.08	-0.01
135	SLU 34	-201	-3	2283	-0.02	-10.02	-0.01
135	SLU 35	-206	-4	2314	1.43	-10.17	-0.01
135	SLU 36	-203	-4	2296	0.56	-10.08	-0.01
135	SLU 37	-206	-4	2314	1.43	-10.17	-0.01
135	SLU 38	-203	-4	2296	0.56	-10.08	-0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
135	SLU 39	-198	-5	2401	1.54	-10.12	-0.02
135	SLU 40	-195	-4	2383	0.67	-10.03	-0.02
135	SLU 41	-198	-5	2401	1.54	-10.12	-0.02
135	SLU 42	-195	-4	2383	0.67	-10.03	-0.02
135	SLU 43	-302	-4	2570	1.31	-13.41	-0.02
135	SLU 44	-298	-3	2540	-0.14	-13.27	-0.02
135	SLU 45	-302	-4	2570	1.31	-13.41	-0.02
135	SLU 46	-300	-3	2552	0.44	-13.32	-0.02
135	SLU 47	-298	-3	2540	-0.14	-13.27	-0.02
135	SLU 48	-302	-4	2570	1.31	-13.41	-0.02
135	SLU 49	-300	-3	2552	0.44	-13.32	-0.02
135	SLU 50	-302	-4	2570	1.31	-13.41	-0.02
135	SLU 51	-300	-3	2552	0.44	-13.32	-0.02
135	SLU 52	-281	-4	2744	0.12	-13.15	-0.02
135	SLU 53	-285	-5	2774	1.57	-13.29	-0.02
135	SLU 54	-282	-4	2756	0.7	-13.21	-0.02
135	SLU 55	-281	-4	2744	0.12	-13.15	-0.02
135	SLU 56	-285	-5	2774	1.57	-13.29	-0.02
135	SLU 57	-282	-4	2756	0.7	-13.21	-0.02
135	SLU 58	-285	-5	2774	1.57	-13.29	-0.02
135	SLU 59	-282	-4	2756	0.7	-13.21	-0.02
135	SLU 60	-278	-5	2862	1.68	-13.24	-0.02
135	SLU 61	-275	-4	2844	0.81	-13.16	-0.02
135	SLU 62	-278	-5	2862	1.68	-13.24	-0.02
135	SLU 63	-275	-4	2844	0.81	-13.16	-0.02
135	SLU 64	-295	-4	2675	1.44	-13.39	-0.02
135	SLU 65	-290	-3	2645	-0.01	-13.24	-0.02
135	SLU 66	-295	-4	2675	1.44	-13.39	-0.02
135	SLU 67	-292	-4	2657	0.57	-13.3	-0.02
135	SLU 68	-290	-3	2645	-0.01	-13.24	-0.02
135	SLU 69	-295	-4	2675	1.44	-13.39	-0.02
135	SLU 70	-292	-4	2657	0.57	-13.3	-0.02
135	SLU 71	-295	-4	2675	1.44	-13.39	-0.02
135	SLU 72	-292	-4	2657	0.57	-13.3	-0.02
135	SLU 73	-273	-4	2849	0.25	-13.12	-0.02
135	SLU 74	-277	-5	2879	1.7	-13.27	-0.02
135	SLU 75	-275	-4	2861	0.83	-13.18	-0.02
135	SLU 76	-273	-4	2849	0.25	-13.12	-0.02
135	SLU 77	-277	-5	2879	1.7	-13.27	-0.02
135	SLU 78	-275	-4	2861	0.83	-13.18	-0.02
135	SLU 79	-277	-5	2879	1.7	-13.27	-0.02
135	SLU 80	-275	-4	2861	0.83	-13.18	-0.02
135	SLU 81	-270	-5	2967	1.81	-13.22	-0.02
135	SLU 82	-267	-5	2948	0.94	-13.13	-0.02
135	SLU 83	-270	-5	2967	1.81	-13.22	-0.02
135	SLU 84	-267	-5	2948	0.94	-13.13	-0.02
135	SLE RA 1	-228	-3	2035	1.08	-10.3	-0.01
135	SLE RA 2	-225	-3	2015	0.11	-10.21	-0.01
135	SLE RA 3	-228	-3	2035	1.08	-10.3	-0.01
135	SLE RA 4	-226	-3	2023	0.5	-10.24	-0.01
135	SLE RA 5	-225	-3	2015	0.11	-10.21	-0.01
135	SLE RA 6	-228	-3	2035	1.08	-10.3	-0.01
135	SLE RA 7	-226	-3	2023	0.5	-10.24	-0.01
135	SLE RA 8	-228	-3	2035	1.08	-10.3	-0.01
135	SLE RA 9	-226	-3	2023	0.5	-10.24	-0.01
135	SLE RA 10	-214	-3	2151	0.28	-10.13	-0.01
135	SLE RA 11	-217	-4	2171	1.25	-10.22	-0.01
135	SLE RA 12	-215	-3	2159	0.67	-10.17	-0.01
135	SLE RA 13	-214	-3	2151	0.28	-10.13	-0.01
135	SLE RA 14	-217	-4	2171	1.25	-10.22	-0.01
135	SLE RA 15	-215	-3	2159	0.67	-10.17	-0.01
135	SLE RA 16	-217	-4	2171	1.25	-10.22	-0.01
135	SLE RA 17	-215	-3	2159	0.67	-10.17	-0.01
135	SLE RA 18	-212	-4	2229	1.33	-10.19	-0.01
135	SLE RA 19	-210	-4	2217	0.74	-10.13	-0.01
135	SLE RA 20	-212	-4	2229	1.33	-10.19	-0.01
135	SLE RA 21	-210	-4	2217	0.74	-10.13	-0.01
135	SLE FR 1	-228	-3	2035	1.08	-10.3	-0.01
135	SLE FR 2	-228	-3	2031	0.89	-10.28	-0.01
135	SLE FR 3	-228	-3	2035	1.08	-10.3	-0.01
135	SLE FR 4	-223	-3	2089	0.96	-10.25	-0.01
135	SLE FR 5	-223	-4	2093	1.15	-10.27	-0.01
135	SLE FR 6	-220	-4	2132	1.2	-10.25	-0.01
135	SLE QP 1	-228	-3	2035	1.08	-10.3	-0.01
135	SLE QP 2	-223	-4	2093	1.15	-10.27	-0.01
135	SLD 1	-117	-17	1926	6.24	-6.27	0.01
135	SLD 2	-117	-17	1926	6.24	-6.27	0.01
135	SLD 3	-155	-15	2005	7.56	-7.61	0.01
135	SLD 4	-155	-15	2005	7.56	-7.61	0.01
135	SLD 5	-133	-11	1922	0.68	-7.03	0
135	SLD 6	-133	-11	1922	0.68	-7.03	0
135	SLD 7	-261	-4	2187	5.07	-11.51	-0.01
135	SLD 8	-261	-4	2187	5.07	-11.51	-0.01
135	SLD 9	-186	-3	1999	-2.77	-9.02	-0.01
135	SLD 10	-186	-3	1999	-2.77	-9.02	-0.01
135	SLD 11	-313	4	2264	1.62	-13.51	-0.02
135	SLD 12	-313	4	2264	1.62	-13.51	-0.02
135	SLD 13	-292	8	2181	-5.25	-12.92	-0.03
135	SLD 14	-292	8	2181	-5.25	-12.92	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
135	SLD 15	-330	10	2260	-3.94	-14.27	-0.04
135	SLD 16	-330	10	2260	-3.94	-14.27	-0.04
135	SLV 1	32	-38	1678	14.05	-0.72	0.04
135	SLV 2	32	-38	1678	14.05	-0.72	0.04
135	SLV 3	-57	-33	1878	17.31	-3.84	0.03
135	SLV 4	-57	-33	1878	17.31	-3.84	0.03
135	SLV 5	-12	-22	1665	0.08	-2.68	0.02
135	SLV 6	-12	-22	1665	0.08	-2.68	0.02
135	SLV 7	-308	-4	2332	10.95	-13.06	-0.01
135	SLV 8	-308	-4	2332	10.95	-13.06	-0.01
135	SLV 9	-139	-3	1854	-8.64	-7.47	-0.01
135	SLV 10	-139	-3	1854	-8.64	-7.47	-0.01
135	SLV 11	-434	15	2521	2.23	-17.86	-0.04
135	SLV 12	-434	15	2521	2.23	-17.86	-0.04
135	SLV 13	-390	26	2308	-15	-16.7	-0.06
135	SLV 14	-390	26	2308	-15	-16.7	-0.06
135	SLV 15	-478	31	2508	-11.74	-19.81	-0.07
135	SLV 16	-478	31	2508	-11.74	-19.81	-0.07
136	SLU 1	-311	-381	2574	10.59	-8.18	0.02
136	SLU 2	-302	-382	2534	10.64	-8.16	0.02
136	SLU 3	-311	-381	2574	10.59	-8.18	0.02
136	SLU 4	-305	-382	2550	10.62	-8.17	0.02
136	SLU 5	-302	-382	2534	10.64	-8.16	0.02
136	SLU 6	-311	-381	2574	10.59	-8.18	0.02
136	SLU 7	-305	-382	2550	10.62	-8.17	0.02
136	SLU 8	-311	-381	2574	10.59	-8.18	0.02
136	SLU 9	-305	-382	2550	10.62	-8.17	0.02
136	SLU 10	-316	-464	2869	13.17	-8.35	0.04
136	SLU 11	-325	-463	2909	13.12	-8.38	0.05
136	SLU 12	-320	-463	2885	13.15	-8.36	0.05
136	SLU 13	-316	-464	2869	13.17	-8.35	0.04
136	SLU 14	-325	-463	2909	13.12	-8.38	0.05
136	SLU 15	-320	-463	2885	13.15	-8.36	0.05
136	SLU 16	-325	-463	2909	13.12	-8.38	0.05
136	SLU 17	-320	-463	2885	13.15	-8.36	0.05
136	SLU 18	-331	-498	3052	14.21	-8.46	0.06
136	SLU 19	-326	-498	3028	14.24	-8.44	0.05
136	SLU 20	-331	-498	3052	14.21	-8.46	0.06
136	SLU 21	-326	-498	3028	14.24	-8.44	0.05
136	SLU 22	-318	-423	2746	11.88	-8.3	0.04
136	SLU 23	-310	-424	2706	11.93	-8.27	0.03
136	SLU 24	-318	-423	2746	11.88	-8.3	0.04
136	SLU 25	-313	-424	2722	11.91	-8.28	0.03
136	SLU 26	-310	-424	2706	11.93	-8.27	0.03
136	SLU 27	-318	-423	2746	11.88	-8.3	0.04
136	SLU 28	-313	-424	2722	11.91	-8.28	0.03
136	SLU 29	-318	-423	2746	11.88	-8.3	0.04
136	SLU 30	-313	-424	2722	11.91	-8.28	0.03
136	SLU 31	-324	-506	3041	14.46	-8.47	0.06
136	SLU 32	-332	-504	3081	14.41	-8.49	0.06
136	SLU 33	-327	-505	3057	14.44	-8.48	0.06
136	SLU 34	-324	-506	3041	14.46	-8.47	0.06
136	SLU 35	-332	-504	3081	14.41	-8.49	0.06
136	SLU 36	-327	-505	3057	14.44	-8.48	0.06
136	SLU 37	-332	-504	3081	14.41	-8.49	0.06
136	SLU 38	-327	-505	3057	14.44	-8.48	0.06
136	SLU 39	-338	-539	3225	15.5	-8.57	0.07
136	SLU 40	-333	-540	3201	15.53	-8.56	0.07
136	SLU 41	-338	-539	3225	15.5	-8.57	0.07
136	SLU 42	-333	-540	3201	15.53	-8.56	0.07
136	SLU 43	-401	-481	3287	13.33	-10.6	0.03
136	SLU 44	-393	-482	3247	13.38	-10.58	0.03
136	SLU 45	-401	-481	3287	13.33	-10.6	0.03
136	SLU 46	-396	-482	3263	13.36	-10.59	0.03
136	SLU 47	-393	-482	3247	13.38	-10.58	0.03
136	SLU 48	-401	-481	3287	13.33	-10.6	0.03
136	SLU 49	-396	-482	3263	13.36	-10.59	0.03
136	SLU 50	-401	-481	3287	13.33	-10.6	0.03
136	SLU 51	-396	-482	3263	13.36	-10.59	0.03
136	SLU 52	-407	-564	3582	15.91	-10.77	0.05
136	SLU 53	-415	-563	3622	15.86	-10.79	0.05
136	SLU 54	-410	-563	3598	15.89	-10.78	0.05
136	SLU 55	-407	-564	3582	15.91	-10.77	0.05
136	SLU 56	-415	-563	3622	15.86	-10.79	0.05
136	SLU 57	-410	-563	3598	15.89	-10.78	0.05
136	SLU 58	-415	-563	3622	15.86	-10.79	0.05
136	SLU 59	-410	-563	3598	15.89	-10.78	0.05
136	SLU 60	-421	-598	3765	16.94	-10.88	0.06
136	SLU 61	-416	-598	3741	16.98	-10.86	0.06
136	SLU 62	-421	-598	3765	16.94	-10.88	0.06
136	SLU 63	-416	-598	3741	16.98	-10.86	0.06
136	SLU 64	-409	-523	3459	14.62	-10.71	0.04
136	SLU 65	-400	-524	3419	14.67	-10.69	0.04
136	SLU 66	-409	-523	3459	14.62	-10.71	0.04
136	SLU 67	-404	-524	3435	14.65	-10.7	0.04
136	SLU 68	-400	-524	3419	14.67	-10.69	0.04
136	SLU 69	-409	-523	3459	14.62	-10.71	0.04
136	SLU 70	-404	-524	3435	14.65	-10.7	0.04
136	SLU 71	-409	-523	3459	14.62	-10.71	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
136	SLU 72	-404	-524	3435	14.65	-10.7	0.04
136	SLU 73	-414	-606	3754	17.2	-10.88	0.06
136	SLU 74	-423	-604	3794	17.15	-10.91	0.06
136	SLU 75	-418	-605	3770	17.18	-10.89	0.06
136	SLU 76	-414	-606	3754	17.2	-10.88	0.06
136	SLU 77	-423	-604	3794	17.15	-10.91	0.06
136	SLU 78	-418	-605	3770	17.18	-10.89	0.06
136	SLU 79	-423	-604	3794	17.15	-10.91	0.06
136	SLU 80	-418	-605	3770	17.18	-10.89	0.06
136	SLU 81	-429	-639	3938	18.23	-10.99	0.07
136	SLU 82	-424	-640	3914	18.26	-10.97	0.07
136	SLU 83	-429	-639	3938	18.23	-10.99	0.07
136	SLU 84	-424	-640	3914	18.26	-10.97	0.07
136	SLE RA 1	-313	-393	2623	10.96	-8.22	0.03
136	SLE RA 2	-307	-394	2596	11	-8.2	0.03
136	SLE RA 3	-313	-393	2623	10.96	-8.22	0.03
136	SLE RA 4	-309	-394	2607	10.98	-8.21	0.03
136	SLE RA 5	-307	-394	2596	11	-8.2	0.03
136	SLE RA 6	-313	-393	2623	10.96	-8.22	0.03
136	SLE RA 7	-309	-394	2607	10.98	-8.21	0.03
136	SLE RA 8	-313	-393	2623	10.96	-8.22	0.03
136	SLE RA 9	-309	-394	2607	10.98	-8.21	0.03
136	SLE RA 10	-317	-448	2820	12.68	-8.33	0.04
136	SLE RA 11	-322	-447	2846	12.65	-8.35	0.04
136	SLE RA 12	-319	-448	2830	12.67	-8.34	0.04
136	SLE RA 13	-317	-448	2820	12.68	-8.33	0.04
136	SLE RA 14	-322	-447	2846	12.65	-8.35	0.04
136	SLE RA 15	-319	-448	2830	12.67	-8.34	0.04
136	SLE RA 16	-322	-447	2846	12.65	-8.35	0.04
136	SLE RA 17	-319	-448	2830	12.67	-8.34	0.04
136	SLE RA 18	-326	-471	2942	13.37	-8.4	0.05
136	SLE RA 19	-323	-471	2926	13.39	-8.39	0.05
136	SLE RA 20	-326	-471	2942	13.37	-8.4	0.05
136	SLE RA 21	-323	-471	2926	13.39	-8.39	0.05
136	SLE FR 1	-313	-393	2623	10.96	-8.22	0.03
136	SLE FR 2	-312	-393	2617	10.97	-8.21	0.03
136	SLE FR 3	-313	-393	2623	10.96	-8.22	0.03
136	SLE FR 4	-316	-417	2713	11.69	-8.27	0.03
136	SLE FR 5	-317	-416	2719	11.69	-8.27	0.03
136	SLE FR 6	-319	-432	2782	12.17	-8.31	0.04
136	SLE QP 1	-313	-393	2623	10.96	-8.22	0.03
136	SLE QP 2	-317	-416	2719	11.69	-8.27	0.03
136	SLD 1	-251	-413	2467	13.4	-5.56	0.05
136	SLD 2	-251	-413	2467	13.4	-5.56	0.05
136	SLD 3	-270	-447	2592	12.13	-6.23	0.06
136	SLD 4	-270	-447	2592	12.13	-6.23	0.06
136	SLD 5	-267	-365	2454	14.12	-6.44	0.01
136	SLD 6	-267	-365	2454	14.12	-6.44	0.01
136	SLD 7	-333	-476	2870	9.9	-8.67	0.07
136	SLD 8	-333	-476	2870	9.9	-8.67	0.07
136	SLD 9	-301	-356	2567	13.47	-7.87	0
136	SLD 10	-301	-356	2567	13.47	-7.87	0
136	SLD 11	-366	-468	2983	9.25	-10.1	0.05
136	SLD 12	-366	-468	2983	9.25	-10.1	0.05
136	SLD 13	-363	-386	2845	11.24	-10.32	0
136	SLD 14	-363	-386	2845	11.24	-10.32	0
136	SLD 15	-383	-419	2970	9.97	-10.98	0.02
136	SLD 16	-383	-419	2970	9.97	-10.98	0.02
136	SLV 1	-157	-410	2106	15.93	-1.66	0.07
136	SLV 2	-157	-410	2106	15.93	-1.66	0.07
136	SLV 3	-204	-489	2412	12.85	-3.22	0.1
136	SLV 4	-204	-489	2412	12.85	-3.22	0.1
136	SLV 5	-198	-295	2070	17.62	-3.91	-0.01
136	SLV 6	-198	-295	2070	17.62	-3.91	-0.01
136	SLV 7	-354	-557	3092	7.37	-9.13	0.11
136	SLV 8	-354	-557	3092	7.37	-9.13	0.11
136	SLV 9	-280	-275	2345	16	-7.41	-0.04
136	SLV 10	-280	-275	2345	16	-7.41	-0.04
136	SLV 11	-435	-537	3367	5.75	-12.63	0.08
136	SLV 12	-435	-537	3367	5.75	-12.63	0.08
136	SLV 13	-430	-344	3025	10.52	-13.32	-0.04
136	SLV 14	-430	-344	3025	10.52	-13.32	-0.04
136	SLV 15	-476	-422	3331	7.44	-14.89	0
136	SLV 16	-476	-422	3331	7.44	-14.89	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: 0.925727  
Traslazione Y: 0.9155  
Traslazione Z: 0  
Rotazione X: 0.946211  
Rotazione Y: 0.991883  
Rotazione Z: 0.760274

Modo	Periodo	Massa X	Massa Y	Massa Z	Massa rot. X	Massa rot. Y	Massa rot. Z	Massa sX	Massa sY
1	5.254654968	0.13052689	0.000000001	0	0.000002967	0.288991929	0.010361978	0.13052689	0.000000001
2	3.628907226	0.135163965	0.000058848	0	0.000130972	0.232861982	0.004608962	0.135163965	0.000058848
3	2.866139105	0.032367796	0.000270781	0	0.000591579	0.062878273	0.057181897	0.032367796	0.000270781
4	2.523632911	0.00066052	0.084937284	0	0.154652972	0.001748014	0.008525486	0.00066052	0.084937284
5	2.27875658	0.092711053	0.013637573	0	0.02421347	0.190201635	0.016684969	0.092711053	0.013637573
6	2.224040195	0.000669417	0.065835957	0	0.002121495	0.00136341	0.04374249	0.000669417	0.065835957
7	2.108112514	0.000043517	0.209567897	0	0.396704421	0.000090694	0.250686522	0.000043517	0.209567897
8	1.924884373	0.034708422	0.010513046	0	0.013791968	0.090978296	0.053922329	0.034708422	0.010513046
9	1.556038052	0.009813035	0.01073231	0	0.017421439	0.016455256	0.00284042	0.009813035	0.01073231
10	1.504007066	0.000246243	0.000956022	0	0.000553556	0.000836406	0.001489161	0.000246243	0.000956022
11	1.274966985	0.001849498	0.02644194	0	0.015256995	0.002234226	0.000434377	0.001849498	0.02644194
12	1.192120373	0.000516294	0.000087873	0	0.000039549	0.001309374	0.000176788	0.000516294	0.000087873
13	1.179603864	0.01198887	0.001447205	0	0.000451334	0.021548556	0.030615018	0.01198887	0.001447205
14	1.075290715	0.063963856	0.000011218	0	0.000036991	0.006885967	0.017440022	0.063963856	0.000011218
15	1.048695118	0.001932461	0.000000989	0	0.000055374	0.000037402	0.005008948	0.001932461	0.000000989
16	1.030219461	0.012177819	0.000615048	0	0.000802026	0.034762607	0.017356344	0.012177819	0.000615048
17	0.982944179	0.038407171	0.000268507	0	0.000001077	0.000464684	0.010294661	0.038407171	0.000268507
18	0.875377511	0.011659362	0.025456108	0	0.000716349	0.004716712	0.009137526	0.011659362	0.025456108
19	0.846513581	0.009345397	0.005686105	0	0.000309866	0.011313804	0.026597027	0.009345397	0.005686105
20	0.814715	0.005385423	0.019110803	0	0.000806381	0.000081251	0.003336205	0.005385423	0.019110803
21	0.776236571	0.006346034	0.004949163	0	0.000307133	0.001011908	0.016310646	0.006346034	0.004949163
22	0.766717704	0.016291123	0.000962028	0	0.000124105	0.001230897	0.000129337	0.016291123	0.000962028
23	0.735557386	0.000001453	0.01204237	0	0.002428005	0.000196531	0.006291368	0.000001453	0.01204237
24	0.705765929	0.000550388	0.000082194	0	0.000146783	0.000023298	0.0006429	0.000550388	0.000082194
25	0.699298405	0.00011869	0.016825658	0	0.005684746	0.000260457	0.00002893	0.00011869	0.016825658
26	0.697367225	0.000002362	0.002657894	0	0.001124198	0.000165916	0.007583923	0.000002362	0.002657894
27	0.638340651	0.003307274	0.008798915	0	0.000777501	0.000510862	0.003142528	0.003307274	0.008798915
28	0.637315431	0.00062107	0.009274592	0	0.000678107	0.000028563	0.008335688	0.00062107	0.009274592
29	0.610748527	0.002613159	0.001668171	0	0.001673253	0.000362025	0.00002603	0.002613159	0.001668171
30	0.585692096	0.000020317	0.002012747	0	0.000937382	0.000378195	0.003506653	0.000020317	0.002012747
31	0.571388216	0.000108951	0.005338994	0	0.004342352	0.000012008	0.000001387	0.000108951	0.005338994
32	0.499146104	0.000056734	0.000162367	0	0.000013444	0.000013913	0.00279543	0.000056734	0.000162367
33	0.497869326	0.001295058	0.001004231	0	0.00144191	0.000112047	0.000009172	0.001295058	0.001004231
34	0.479568729	0.000606488	0.000042844	0	0.00003187	0.000000614	0.003847077	0.000606488	0.000042844
35	0.455941673	0.00122752	0.000944207	0	0.002544892	0.000006252	0.001022645	0.00122752	0.000944207
36	0.448722289	0.010105936	0.000012434	0	0.000145555	0.000017184	0.001301774	0.010105936	0.000012434
37	0.426108894	0.001136799	0.007135903	0	0.00184108	0.000256564	0.000007727	0.001136799	0.007135903
38	0.4069832	0.001379535	0.004506543	0	0.000620535	0.000188372	0.001474937	0.001379535	0.004506543
39	0.381008747	0.001121675	0.004979006	0	0.000380346	0.000035037	0.001154906	0.001121675	0.004979006
40	0.359035914	0.00516334	0.004621869	0	0.000389324	0.000329257	0.00051217	0.00516334	0.004621869
41	0.337670037	0.00300434	0.007698485	0	0.001530728	0.00002581	0.008795559	0.00300434	0.007698485
42	0.32759627	0.010298482	0.002287983	0	0.001209224	0.000256809	0.000544038	0.010298482	0.002287983
43	0.293917136	0.003299822	0.009160247	0	0.001003495	0.00005908	0.00643269	0.003299822	0.009160247
44	0.277793962	0.005530244	0.002999965	0	0.001054631	0.000108732	0.000204273	0.005530244	0.002999965
45	0.242830475	0.007721522	0.002217166	0	0.00000278	0.000558407	0.006230884	0.007721522	0.002217166
46	0.219360219	0.005128844	0.006790243	0	0.000334709	0.000309586	0.000032614	0.005128844	0.006790243
47	0.184852915	0.001268106	0.017927686	0	0.00299958	0.00001113	0.003264089	0.001268106	0.017927686
48	0.177545655	0.005474918	0.00271602	0	0.000026901	0.000020412	0.000000142	0.005474918	0.00271602
49	0.139407138	0.002965337	0.021568293	0	0.006346239	0.000125903	0.003993691	0.002965337	0.021568293
50	0.129633849	0.006925443	0.010519295	0	0.007910041	0.000217038	0.000379801	0.006925443	0.010519295
51	0.10277923	0.000030398	0.145839763	0	0.265205761	0.000002975	0.011599812	0.000030398	0.145839763
52	0.083766158	0.028420751	0.000112817	0	0.000195966	0.004809002	0.013641053	0.028420751	0.000112817
53	0.031636968	0.00341027	0.119098842	0	0.003458436	0.000412627	0.028509705	0.00341027	0.119098842
54	0.030438662	0.194527828	0.001211217	0	0.000001066	0.009986169	0.046545768	0.194527828	0.001211217
55	0.009992103	0.00038296	0.000733357	0	0.000002169	0.000002669	0.000078636	0.00038296	0.000733357
56	0.008419145	0.000271735	0.000038076	0	0.000010671	0.000000019	0.000020016	0.000271735	0.000038076
57	0.007353513	0.000090961	0.000432727	0	0.000431956	0.000000303	0.000077683	0.000090961	0.000432727
58	0.007244952	0.000002383	0.000005373	0	0.000017812	0.000019328	0.000416409	0.000002383	0.000005373
59	0.0070685	0.000203977	0.000038766	0	0.000026878	0.00002799	0.000020137	0.000203977	0.000038766
60	0.006602723	0.000119164	0.000097982	0	0.000002361	0.000000093	0.000221727	0.000119164	0.000097982
61	0.006284809	0.000199692	0.000168899	0	0.000017192	0.000020174	0.000319528	0.000199692	0.000168899
62	0.006049026	0.0000566	0.000148219	0	0.000079949	0.000000024	0.000042656	0.0000566	0.000148219
63	0.005944059	0.000001723	0.000009209	0	0.000001955	0.000001907	0.000317417	0.000001723	0.000009209
64	0.005290257	0.000180474	0.000020029	0	0.000006436	0.000005893	0.000018154	0.000180474	0.000020029
65	0.005106276	0.000000125	0.000001237	0	0.000041176	0.000000744	0.000026809	0.000000125	0.000001237

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	-9.404	5.708	-206325.432	-492344.1	-604538.01	-13.26
Reazioni	9.404	-5.708	206325.432	492344.1	604538.01	13.26
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	-43611.339	-98044.17	-132575.24	0
Reazioni	0	0	43611.339	98044.17	132575.24	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	-56945.112	-128004.44	-173604.77	0
Reazioni	0	0	56945.112	128004.44	173604.77	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	-1072.506	0	2723.03	0	3256.56
Reazioni	0	1072.506	0	-2723.03	0	-3256.56
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	52497.364	0	0	0	186283.39	-119810.67
Reazioni	-52497.364	0	0	0	-186283.39	119810.67
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	17110.641	0	-60715.97	0	-49793.24
Reazioni	0	-17110.641	0	60715.97	0	49793.24
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	22155.646	0	0	0	78617.83	-50564.12
Reazioni	-22155.646	0	0	0	-78617.83	50564.12
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	5914.932	0	-20988.74	0	-17212.89
Reazioni	0	-5914.932	0	20988.74	0	17212.89
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
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	12097.63	1306.3	0	2763.8081	1.337E04	3.934E04	12098.72	1	13996.62	90	0	0
SLV Y	1306.3	13996.62	0	4.073E04	3035.0111	4.040E04	12098.72	1	13996.62	90	0	0
X SLD	5024.41	521.54	0	1047.2346	5130.9575	1.633E04	5024.64	1	5838.04	90	0	0
Y SLD	521.54	5838.04	0	1.716E04	1089.6922	1.559E04	5024.64	1	5838.04	90	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	12102
Elemento min. diagonale	1856.87665471
Elemento max diagonale	4993464940.93925
Rapporto max/min	2689174.27998043
Elementi non nulli	474684

# 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). [m²]





**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 (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 1,03 (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 > 999 (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	0.51	0.03	10.03	0				99.9681	99.9681	1	10.03	10.03	1	9999	1	9999
Primo	4.56	0.03	9.88	0				97.058	97.058	1	9.88	9.88	1	9999	1	9999

### Verifiche di regolarità in elevazione

Rapporto di regolarità per la condizione D (Altezza elementi sismoresistenti): 4.05/4.05=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	4.56	0.51	68674	66679	1.03							20.8	0	∞	0.08	10.03	0.01	0.08	10.03	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	0.51	SLV 1	90482	-8266	10.9	102825	-4946	20.8
Rialzato	0.51	SLV 2	90482	-8266	10.9	102825	-4946	20.8
Rialzato	0.51	SLV 3	91723	-8741	10.5	103552	6097	17
Rialzato	0.51	SLV 4	91723	-8741	10.5	103552	6097	17
Rialzato	0.51	SLV 5	90195	-1764	51.1	98235	-18229	5.4
Rialzato	0.51	SLV 6	90195	-1764	51.1	98235	-18229	5.4
Rialzato	0.51	SLV 7	92608	-3347	27.7	103498	18580	5.6
Rialzato	0.51	SLV 8	92608	-3347	27.7	103498	18580	5.6
Rialzato	0.51	SLV 9	89502	3334	26.8	97003	-18572	5.2
Rialzato	0.51	SLV 10	89502	3334	26.8	97003	-18572	5.2
Rialzato	0.51	SLV 11	91746	1751	52.4	102491	18237	5.6
Rialzato	0.51	SLV 12	91746	1751	52.4	102491	18237	5.6
Rialzato	0.51	SLV 13	90257	8729	10.3	99117	-6089	16.3
Rialzato	0.51	SLV 14	90257	8729	10.3	99117	-6089	16.3
Rialzato	0.51	SLV 15	89801	8254	10.9	100620	4954	20.3
Rialzato	0.51	SLV 16	89801	8254	10.9	100620	4954	20.3
Primo	4.56	SLV 3	0	-4073	0	1125	3067	0.4
Primo	4.56	SLV 4	0	-4073	0	1125	3067	0.4
Primo	4.56	SLV 7	0	-959	0	3157	10602	0.3
Primo	4.56	SLV 8	0	-959	0	3157	10602	0.3
Primo	4.56	SLV 11	0	1537	0	3299	10677	0.3
Primo	4.56	SLV 12	0	1537	0	3299	10677	0.3
Primo	4.56	SLV 15	0	4247	0	2066	3317	0.6
Primo	4.56	SLV 16	0	4247	0	2066	3317	0.6

## 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 (ZE):** 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\*S\*ST) PGA,SLOrif = 0.081

Accelerazione di aggancio SLD (ag/g\_SLD\*S\*ST) PGA,SLDrif = 0.101

Accelerazione di aggancio SLV (ag/g\_SLV\*S\*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 ζE corrisponde al valore di I.R. PGA secondo quanto riportato nella Circolare 7 21-01-19 §C8.3)

#### Rottura a taglio

Moltiplicatore: 0

Maschio 24

Lunghezza: 4.605; altezza: 4.05; spessore: 0.15; sezione a quota: 4.56

Combinazione SLV 1 N = -4366 V par. = 5591 l' = 0.1589 fvd = 16250 Vt scorrimento = 387 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 6

Lunghezza: 2.535; altezza: 2.4; spessore: 0.45 sezione a quota 0.51

Combinazione SLV 7 N = -446 M = -564.26 σ0 = 391 fd = 143750 Mu = 563.5

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: 0.717

Maschio 21

Lunghezza: 1.995; altezza: 4.05; spessore: 0.3; sezione a quota: 2.535

Combinazione SLV 3 fd = 143750 Ta = 0.09 Wa = 540 N = -1614 M = 236.52 Mc = 236.78

Tempo di ritorno 192 anni

Indicatore iTr=(Tr/Tr,SLVrif)^.41 = 0.69

PGA 0.173

Indicatore iPGA=PGA/PGA,SLVrif = 0.71

Fattore di accelerazione fa = 0.7084

#### Rottura per meccanismi locali di collasso

Moltiplicatore: 0.027

Maschio 21

Lunghezza: 1.995; altezza: 4.05; spessore: 0.3 f.agg. = 0 a.lim. = 0.491075

Combinazione SLV 13 N top = 0 N base = -4390 T orto = 1 α0 = 0.074 M\* = 444.8 e\* = 1 a0\* = 0.5364

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 (ζE)	TR	(TR/TRrif)^.41	fa
Maschio 6	PF	0	SLV 7	0	0	0	0	0
Maschio 24	V	0	SLV 1	0	0	0	0	0
Maschio 21	PFFP	0.717	SLV 3	0.1734	0.7097	192	0.6898	0.7084
Maschio 21	R	0.027	SLV 13	0	0	0	0	0
Trave di accoppiamento 10	PF	0	SLV 1	0	0	0	0	0
Trave di accoppiamento 3	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	8.557	SLU 40	Si
Maschio 1	V SLU	12.384	SLU 82	Si
Maschio 1	PF	5.13	SLV 9	Si
Maschio 1	V	6.961	SLV 9	Si
Maschio 1	PFFP	15.463	SLV 11	Si
Maschio 1	R	0.133	SLV 15	No
Maschio 2	PF SLU	27.93	SLU 81	Si
Maschio 2	V SLU	1000	SLU 1	Si
Maschio 2	PFFP	15.228	SLV 7	Si
Maschio 2	R	0.165	SLV 3	No
Maschio 3	PF SLU	19.257	SLU 40	Si
Maschio 3	V SLU	40.779	SLU 81	Si
Maschio 3	PF	32.755	SLV 7	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 3	V	7.311	SLV 11	Si
Maschio 3	PFFP	16.344	SLV 9	Si
Maschio 3	R	0.175	SLV 15	No
Maschio 4	PF SLU	2.629	SLU 40	Si
Maschio 4	V SLU	179.345	SLU 2	Si
Maschio 4	PF	1.855	SLV 1	Si
Maschio 4	V	6.961	SLV 15	Si
Maschio 4	PFFP	12.878	SLV 11	Si
Maschio 4	R	0.069	SLV 15	No
Maschio 5	PF SLU	24.266	SLU 64	Si
Maschio 5	V SLU	112.694	SLU 82	Si
Maschio 5	PF	15.984	SLV 15	Si
Maschio 5	V	11.767	SLV 15	Si
Maschio 5	PFFP	19.389	SLV 15	Si
Maschio 5	R	0.167	SLV 1	No
Maschio 6	PF SLU	0.995	SLU 81	No
Maschio 6	V SLU	0.615	SLU 73	No
Maschio 6	PF	0	SLV 12	No
Maschio 6	V	0	SLV 7	No
Maschio 6	PFFP	4.209	SLV 11	Si
Maschio 6	R	0	SLV 12	No
Maschio 7	PF SLU	5.302	SLU 65	Si
Maschio 7	V SLU	12.245	SLU 65	Si
Maschio 7	PF	4.225	SLV 1	Si
Maschio 7	V	4.402	SLV 1	Si
Maschio 7	PFFP	16.496	SLV 13	Si
Maschio 7	R	0.171	SLV 1	No
Maschio 8	PF SLU	11.966	SLU 31	Si
Maschio 8	V SLU	27.919	SLU 73	Si
Maschio 8	PF	2.323	SLV 9	Si
Maschio 8	V	6.248	SLV 13	Si
Maschio 8	PFFP	14.288	SLV 5	Si
Maschio 8	R	0.164	SLV 3	No
Maschio 9	PF SLU	7.544	SLU 44	Si
Maschio 9	V SLU	55.189	SLU 43	Si
Maschio 9	PF	4.958	SLV 15	Si
Maschio 9	V	7.374	SLV 11	Si
Maschio 9	PFFP	12.386	SLV 1	Si
Maschio 9	R	0.117	SLV 1	No
Maschio 10	PF SLU	7.367	SLU 18	Si
Maschio 10	V SLU	1000	SLU 1	Si
Maschio 10	PFFP	15.792	SLV 7	Si
Maschio 10	R	0	SLV 1	No
Maschio 11	PF SLU	1.103	SLU 82	Si
Maschio 11	V SLU	1.108	SLU 82	Si
Maschio 11	PF	1.179	SLV 13	Si
Maschio 11	V	1.032	SLV 9	Si
Maschio 11	PFFP	10.681	SLV 7	Si
Maschio 11	R	0.063	SLV 1	No
Maschio 12	PF SLU	2.38	SLU 40	Si
Maschio 12	V SLU	2.292	SLU 81	Si
Maschio 12	PF	1.475	SLV 9	Si
Maschio 12	V	1.553	SLV 11	Si
Maschio 12	PFFP	18.136	SLV 5	Si
Maschio 12	R	0.093	SLV 13	No
Maschio 13	PF SLU	13.049	SLU 40	Si
Maschio 13	V SLU	24.24	SLU 39	Si
Maschio 13	PF	2.871	SLV 15	Si
Maschio 13	V	3.62	SLV 1	Si
Maschio 13	PFFP	15.515	SLV 3	Si
Maschio 13	R	0.01	SLV 13	No
Maschio 14	PF SLU	47.895	SLU 40	Si
Maschio 14	V SLU	73.33	SLU 2	Si
Maschio 14	PF	15.922	SLV 13	Si
Maschio 14	V	7.743	SLV 7	Si
Maschio 14	PFFP	20.755	SLV 1	Si
Maschio 14	R	0.17	SLV 13	No
Maschio 15	PF SLU	5.185	SLU 82	Si
Maschio 15	V SLU	28.553	SLU 2	Si
Maschio 15	PFFP	1.906	SLV 11	Si
Maschio 15	R	0.168	SLV 11	No
Maschio 16	PF SLU	6.177	SLU 82	Si
Maschio 16	V SLU	95.676	SLU 2	Si
Maschio 16	PFFP	3.493	SLV 5	Si
Maschio 16	R	0.036	SLV 15	No
Maschio 17	PF SLU	2.896	SLU 81	Si
Maschio 17	V SLU	64.515	SLU 2	Si
Maschio 17	PFFP	2.897	SLV 7	Si
Maschio 17	R	0.199	SLV 11	No
Maschio 18	PF SLU	3.126	SLU 81	Si
Maschio 18	V SLU	21.542	SLU 2	Si
Maschio 18	PFFP	2.044	SLV 9	Si
Maschio 18	R	0	SLV 3	No
Maschio 19	PF SLU	2.33	SLU 82	Si
Maschio 19	V SLU	689.441	SLU 82	Si
Maschio 19	PFFP	1.33	SLV 13	Si
Maschio 19	R	0.054	SLV 7	No
Maschio 20	PF SLU	5.607	SLU 44	Si
Maschio 20	V SLU	82.106	SLU 31	Si
Maschio 20	PFFP	0	SLV 9	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 20	R	0	SLV 10	No
Maschio 21	PF SLU	5.731	SLU 44	Si
Maschio 21	V SLU	100.297	SLU 81	Si
Maschio 21	PFFP	0	SLV 1	No
Maschio 21	R	0	SLV 16	No
Maschio 22	PF SLU	2.179	SLU 39	Si
Maschio 22	V SLU	42.812	SLU 39	Si
Maschio 22	PFFP	0	SLV 9	No
Maschio 22	R	0.064	SLV 5	No
Maschio 23	PF SLU	5.043	SLU 44	Si
Maschio 23	V SLU	350.234	SLU 73	Si
Maschio 23	PFFP	0	SLV 1	No
Maschio 23	R	0	SLV 6	No
Maschio 24	PF SLU	0.835	SLU 82	No
Maschio 24	V SLU	0.008	SLU 44	No
Maschio 24	PF	0	SLV 1	No
Maschio 24	V	0	SLV 1	No
Maschio 24	PFFP	1.328	SLV 5	Si
Maschio 24	R	0.054	SLV 7	No
Maschio 25	PF SLU	12.192	SLU 82	Si
Maschio 25	V SLU	308.328	SLU 31	Si
Maschio 25	PFFP	1.355	SLV 3	Si
Maschio 25	R	0.146	SLV 9	No
Maschio 26	PF SLU	165.964	SLU 81	Si
Maschio 26	V SLU	250.169	SLU 31	Si
Maschio 26	PFFP	1.567	SLV 1	Si
Maschio 26	R	0	SLV 1	No

Verifica maschi in muratura

Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
1	PF	2.738	SLV 7	0.362	1.483	1618	1.653	Si
	V	2.582	SLV 7	0.362	1.483	1618	1.653	Si
	PFFP	3.393	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.176	SLV 15	0.041	0.169	6	0.167	No
2	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.191	SLV 3	0.044	0.181	7	0.177	No
3	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	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.188	SLV 1	0.044	0.181	7	0.177	No
4	PF	1.384	SLV 15	0.337	1.379	1272	1.498	Si
	V	1.368	SLV 15	0.333	1.363	1224	1.474	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.092	SLV 15	0.02	0.08	1	0.08	No
5	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	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.177	SLV 1	0.041	0.169	6	0.167	No
6	PF	0	SLV 7	0	0	0	0	No
	V	0.008	SLV 11	0	0	0	0	No
	PFFP	2.103	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.249	SLV 1	0.059	0.242	14	0.236	No
7	PF	2.943	SLV 13	0.362	1.483	1618	1.653	Si
	V	2.868	SLV 13	0.362	1.483	1618	1.653	Si
	PFFP	3.529	SLV 13	0.362	1.483	1618	1.653	Si
	R	0.181	SLV 1	0.041	0.169	6	0.167	No
8	PF	1.889	SLV 9	0.362	1.483	1618	1.653	Si
	V	1.838	SLV 9	0.362	1.483	1618	1.653	Si
	PFFP	3.207	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.183	SLV 3	0.041	0.169	6	0.167	No
9	PF	2.516	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.424	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	3.116	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.188	SLV 1	0.044	0.181	7	0.177	No
10	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.087	SLV 13	0.02	0.08	1	0.08	No
11	PF	1.333	SLV 7	0.315	1.289	1018	1.367	Si
	V	1.036	SLV 9	0.252	1.032	522	1.039	Si
	PFFP	2.147	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.11	SLV 15	0.02	0.08	1	0.08	No
12	PF	1.495	SLV 9	0.347	1.422	1408	1.561	Si
	V	1.241	SLV 9	0.296	1.212	843	1.265	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.106	SLV 3	0.02	0.08	1	0.08	No
13	PF	2.314	SLV 3	0.362	1.483	1618	1.653	Si
	V	2.008	SLV 3	0.362	1.483	1618	1.653	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.144	SLV 13	0.031	0.127	3	0.125	No
14	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	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.181	SLV 1	0.041	0.169	6	0.167	No
15	PFFP	1.632	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.192	SLV 5	0.062	0.256	17	0.255	No
16	PFFP	2.813	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.167	SLV 5	0.055	0.226	12	0.221	No
17	PFFP	2.244	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.21	SLV 7	0.067	0.275	20	0.273	No
18	PFFP	1.687	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.17	SLV 9	0.057	0.234	13	0.229	No



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
19	PFFP	1.328	SLV 13	0.323	1.323	1111	1.417	Si
	R	0.179	SLV 7	0.059	0.242	14	0.236	No
20	PFFP	0.82	SLV 13	0.199	0.815	276	0.8	No
	R	0.222	SLV 5	0.07	0.286	22	0.284	No
21	PFFP	0.717	SLV 3	0.173	0.71	192	0.69	No
	R	0.027	SLV 13	0	0	0	0	No
22	PFFP	0.718	SLV 13	0.174	0.711	193	0.691	No
	R	0.201	SLV 11	0.064	0.262	18	0.261	No
23	PFFP	0.832	SLV 1	0.202	0.827	287	0.813	No
	R	0.202	SLV 5	0.066	0.269	19	0.267	No
24	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	1.243	SLV 5	0.296	1.213	846	1.267	Si
	R	0.075	SLV 7	0.026	0.107	2	0.106	No
25	PFFP	1.33	SLV 3	0.324	1.325	1116	1.419	Si
	R	0.206	SLV 9	0.066	0.269	19	0.267	No
26	PFFP	1.561	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.199	SLV 7	0.064	0.262	18	0.261	No

#### Verifica travi di collegamento in muratura

Trave	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
1	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.813	SLV 5	0.203	0.832	291	0.818	No
2	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.767	SLV 7	0.362	1.483	1618	1.653	Si
3	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
4	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	3.501	SLV 1	0.362	1.483	1618	1.653	Si
5	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.971	SLV 13	0.237	0.97	437	0.966	No
6	F	2.948	SLV 3	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
7	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
8	F	3.708	SLV 9	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
9	F	0.969	SLV 9	0.237	0.972	440	0.969	No
	V	0	SLV 1	0	0	0	0	No
10	F	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
11	F	1.801	SLV 7	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
12	F	2.686	SLV 11	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
13	F	3.434	SLV 5	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
14	F	1.989	SLV 9	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
15	F	2.779	SLV 9	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
16	F	2.56	SLV 15	0.362	1.483	1618	1.653	Si
	V	0.277	SLV 13	0.066	0.269	19	0.267	No
17	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.391	SLV 3	0.093	0.38	43	0.373	No
18	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.633	SLV 15	0.153	0.625	143	0.611	No
19	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.933	SLV 9	0.23	0.94	402	0.934	No
20	F	3.224	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.653	SLV 1	0.157	0.644	154	0.63	No
21	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.487	SLV 15	0.116	0.477	75	0.469	No

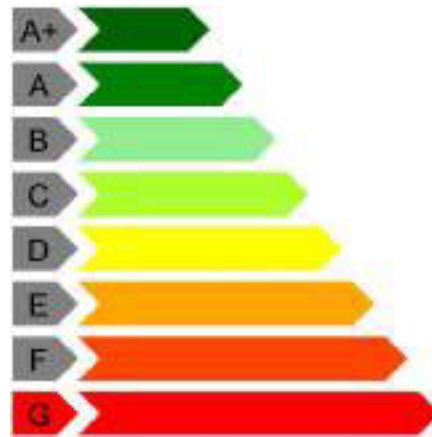
#### Periodi di ritorno e accelerazioni di aggancio per gli Stati Limite

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

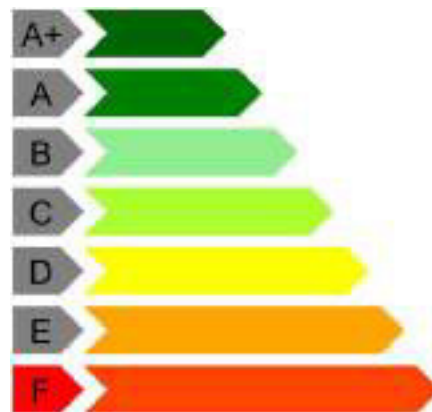
#### Coefficienti relativi alle Linee guida per la classificazione del rischio sismico delle costruzioni secondo il D.M. 24 09/01/2020

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

Classe PAM



Classe IS-V



## 2.3 Verifiche maschi in muratura

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

*X ini.*: coordinate del punto iniziale del maschio. [m]

*Y ini.*: coordinate del punto iniziale del maschio. [m]

*X fin.*: coordinate del punto finale del maschio. [m]

*Y fin.*: 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 netta*: altezza netta (a filo solai). [m]

*h ini.*: altezza nel modello al punto iniziale. [m]

*h fin.*: 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]

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

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

*fvk0*: resistenza caratteristica a taglio in assenza di carichi verticali. [daN/m<sup>2</sup>]

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

*τ0*: resistenza media a taglio in assenza di azioni normali [C8.7.1.16]. [daN/m<sup>2</sup>]

*fv0*: resistenza media a taglio in assenza di azioni normali [C8.7.1.17]. [daN/m<sup>2</sup>]

*μ*: coefficiente di attrito [C8.7.1.17].

*φ*: coefficiente di ammortamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.

*fv,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]

*σ0*: tensione media di compressione. [daN/m<sup>2</sup>]



**Mu:** 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]

**fvd:** resistenza a taglio di calcolo. [daN/m<sup>2</sup>]

**Vt scorr.:** taglio ultimo per verifica a scorrimento. [daN]

**Vt fess.diag.:** taglio ultimo per verifica a fessurazione diagonale regolare [C8.7.1.17]. [daN]

**Vt,lim:** taglio limite [C8.7.1.18]. [daN]

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

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

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

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

**Mc:** 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 cinematisimo. [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>]

**aLim:** 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
-7.836	-2.564	-7.836	-0.539	L1	L2	2.025	0.45	2.4	2.4	2.4			

### 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 41	-0.49	-13782	1141.8	15124	11363.49	9.952	Si
SLU 41	-0.09	-13292	1247.95	14587	11048.44	8.853	Si
SLU 39	-0.49	-13782	1141.8	15124	11363.49	9.952	Si
SLU 39	-0.09	-13292	1247.95	14587	11048.44	8.853	Si
SLU 82	-0.49	-16005	1283.34	17563	12710.74	9.904	Si
SLU 82	-0.09	-15335	1416.4	16829	12319.24	8.698	Si
SLU 21	-0.49	-12689	1057.42	13925	10651.55	10.073	Si
SLU 21	-0.09	-12189	1163.23	13376	10315.02	8.868	Si
SLU 31	-0.49	-12712	1043.75	13950	10666.76	10.22	Si
SLU 31	-0.09	-12197	1163.69	13385	10320.52	8.869	Si
SLU 19	-0.49	-12689	1057.42	13925	10651.55	10.073	Si
SLU 19	-0.09	-12189	1163.23	13376	10315.02	8.868	Si
SLU 40	-0.49	-13889	1178.99	15241	11431.17	9.696	Si
SLU 40	-0.09	-13400	1299.28	14705	11118.08	8.557	Si
SLU 84	-0.49	-16005	1283.34	17563	12710.74	9.904	Si
SLU 84	-0.09	-15335	1416.4	16829	12319.24	8.698	Si
SLU 42	-0.49	-13889	1178.99	15241	11431.17	9.696	Si
SLU 42	-0.09	-13400	1299.28	14705	11118.08	8.557	Si
SLU 34	-0.49	-12712	1043.75	13950	10666.76	10.22	Si
SLU 34	-0.09	-12197	1163.69	13385	10320.52	8.869	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 9	-0.49	-12031	1562.85	13202	10864.8	6.952	Si
SLV 9	-0.09	-11267	1998.7	12364	10253.29	5.13	Si
SLV 5	-0.49	-12269	1303.42	13464	11053.6	8.48	Si
SLV 5	-0.09	-11454	1715.75	12569	10404.08	6.064	Si
SLV 14	-0.49	-9966	1302.07	10937	9187.53	7.056	Si
SLV 14	-0.09	-9418	1517.31	10335	8728.89	5.753	Si
SLV 10	-0.49	-12031	1562.85	13202	10864.8	6.952	Si
SLV 10	-0.09	-11267	1998.7	12364	10253.29	5.13	Si
SLV 16	-0.49	-8435	819.12	9257	7893.61	9.637	Si
SLV 16	-0.09	-8020	821.74	8801	7535.23	9.17	Si
SLV 7	-0.49	-7166	-306.42	7864	6788.48	22.154	Si
SLV 7	-0.09	-6794	-602.81	7456	6459.58	10.716	Si
SLV 6	-0.49	-12269	1303.42	13464	11053.6	8.48	Si
SLV 6	-0.09	-11454	1715.75	12569	10404.08	6.064	Si
SLV 13	-0.49	-9966	1302.07	10937	9187.53	7.056	Si
SLV 13	-0.09	-9418	1517.31	10335	8728.89	5.753	Si





Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 8	-0.49	-7166	-306.42	7864	6788.48	22.154	Si
SLV 8	-0.09	-6794	-602.81	7456	6459.58	10.716	Si
SLV 15	-0.49	-8435	819.12	9257	7893.61	9.637	Si
SLV 15	-0.09	-8020	821.74	8801	7535.23	9.17	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'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	-0.49	-15898	-536	1246.16		17446	2.025	7882	7182			13.39	Si
SLU 81	-0.09	-15228	-535	1365.07		16711	2.025	7784	7093			13.25	Si
SLU 82	-0.49	-16005	-574	1283.34		17563	2.025	7897	7196			12.55	Si
SLU 82	-0.09	-15335	-574	1416.4		16829	2.025	7799	7107			12.38	Si
SLU 42	-0.49	-13889	-551	1178.99		15241	2.025	7588	6914			12.54	Si
SLU 42	-0.09	-13400	-552	1299.28		14705	2.025	7516	6849			12.41	Si
SLU 84	-0.49	-16005	-574	1283.34		17563	2.025	7897	7196			12.55	Si
SLU 84	-0.09	-15335	-574	1416.4		16829	2.025	7799	7107			12.38	Si
SLU 63	-0.49	-14805	-510	1161.77		16247	2.025	7722	7037			13.81	Si
SLU 63	-0.09	-14125	-510	1280.35		15501	2.025	7622	6946			13.62	Si
SLU 40	-0.49	-13889	-551	1178.99		15241	2.025	7588	6914			12.54	Si
SLU 40	-0.09	-13400	-552	1299.28		14705	2.025	7516	6849			12.41	Si
SLU 41	-0.49	-13782	-514	1141.8		15124	2.025	7572	6900			13.42	Si
SLU 41	-0.09	-13292	-513	1247.95		14587	2.025	7500	6835			13.32	Si
SLU 39	-0.49	-13782	-514	1141.8		15124	2.025	7572	6900			13.42	Si
SLU 39	-0.09	-13292	-513	1247.95		14587	2.025	7500	6835			13.32	Si
SLU 83	-0.49	-15898	-536	1246.16		17446	2.025	7882	7182			13.39	Si
SLU 83	-0.09	-15228	-535	1365.07		16711	2.025	7784	7093			13.25	Si
SLU 61	-0.49	-14805	-510	1161.77		16247	2.025	7722	7037			13.81	Si
SLU 61	-0.09	-14125	-510	1280.35		15501	2.025	7622	6946			13.62	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 10	-0.49	-12031	-1372	1562.85		13202	2.025	10974	10000			7.29	Si
SLV 10	-0.09	-11267	-1415	1998.7		12364	2.025	10806	9847			6.96	Si
SLV 8	-0.49	-7166	920	-306.42		7864	2.025	9906	9027			9.81	Si
SLV 8	-0.09	-6794	963	-602.81		7456	2.025	9825	8953			9.29	Si
SLV 7	-0.49	-7166	920	-306.42		7864	2.025	9906	9027			9.81	Si
SLV 7	-0.09	-6794	963	-602.81		7456	2.025	9825	8953			9.29	Si
SLV 9	-0.49	-12031	-1372	1562.85		13202	2.025	10974	10000			7.29	Si
SLV 9	-0.09	-11267	-1415	1998.7		12364	2.025	10806	9847			6.96	Si
SLV 12	-0.49	-6927	879	-46.99		7602	2.025	9854	8979			10.21	Si
SLV 12	-0.09	-6607	892	-319.86		7251	2.025	9784	8915			9.99	Si
SLV 13	-0.49	-9966	-632	1302.07		10937	2.025	10521	9587			15.17	Si
SLV 13	-0.09	-9418	-690	1517.31		10335	2.025	10400	9477			13.74	Si
SLV 14	-0.49	-9966	-632	1302.07		10937	2.025	10521	9587			15.17	Si
SLV 14	-0.09	-9418	-690	1517.31		10335	2.025	10400	9477			13.74	Si
SLV 5	-0.49	-12269	-1332	1303.42		13464	2.025	11026	10048			7.55	Si
SLV 5	-0.09	-11454	-1344	1715.75		12569	2.025	10847	9885			7.36	Si
SLV 11	-0.49	-6927	879	-46.99		7602	2.025	9854	8979			10.21	Si
SLV 11	-0.09	-6607	892	-319.86		7251	2.025	9784	8915			9.99	Si
SLV 6	-0.49	-12269	-1332	1303.42		13464	2.025	11026	10048			7.55	Si
SLV 6	-0.09	-11454	-1344	1715.75		12569	2.025	10847	9885			7.36	Si

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

quota -0.69  $W_a 0.08$  denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\alpha 0$	N	M	Mc	Coeff.s.	Verifica
SLV 12	143750	0.24	7744	-7057	96.18	1487.18	15.46	Si
SLV 11	143750	0.24	7744	-7057	96.18	1487.18	15.46	Si
SLV 7	143750	0.24	8111	-7391	96.18	1552.57	16.14	Si
SLV 8	143750	0.24	8111	-7391	96.18	1552.57	16.14	Si
SLV 16	143750	0.24	8982	-8185	96.18	1706.17	17.74	Si
SLV 15	143750	0.24	8982	-8185	96.18	1706.17	17.74	Si
SLV 4	143750	0.24	10203	-9298	96.18	1917.31	19.94	Si
SLV 3	143750	0.24	10203	-9298	96.18	1917.31	19.94	Si
SLV 14	143750	0.24	10409	-9485	96.18	1952.35	20.3	Si
SLV 13	143750	0.24	10409	-9485	96.18	1952.35	20.3	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -0.69  $W_a = 0.08$   $T_a = 0.0214$

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 15	-6321	-9584	292	0.081	958.8	0.917	1.28068	9.59705	No
SLV 16	-6321	-9584	292	0.081	958.8	0.917	1.28068	9.59705	No
SLV 1	-7923	-12725	-273	0.085	1119.7	0.926	1.33128	9.59705	No
SLV 2	-7923	-12725	-273	0.085	1119.7	0.926	1.33128	9.59705	No
SLV 14	-7322	-10884	248	0.087	1059.3	0.923	1.36944	9.59705	No
SLV 13	-7322	-10884	248	0.087	1059.3	0.923	1.36944	9.59705	No
SLV 4	-6922	-11426	-228	0.089	1019	0.921	1.40209	9.59705	No
SLV 3	-6922	-11426	-228	0.089	1019	0.921	1.40209	9.59705	No
SLV 5	-8882	-13596	-142	0.098	1216.3	0.931	1.5245	2.39674	No
SLV 6	-8882	-13596	-142	0.098	1216.3	0.931	1.5245	2.39674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	8.557	SLU 40	Si
V_SLU	12.384	SLU 82	Si
PF_SLV	5.13	SLV 9	Si
V_SLV	6.961	SLV 9	Si
PFFP_SLV	15.463	SLV 11	Si
R_SLV	0.133	SLV 15	No



## Maschio 2

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)  
Maschio considerato membratura sismica secondaria

### 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
-7.836	-0.039	-7.836	0.281	L1	L2	0.32	0.45	2.4	2.4	2.4			

### 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	-0.49	-4873	16.13	33841	455.78	28.252	Si
SLU 83	-0.09	-4738	16.18	32905	451.89	27.93	Si
SLU 41	-0.49	-4301	14.97	29869	435.84	29.117	Si
SLU 41	-0.09	-4197	15.01	29149	431.27	28.731	Si
SLU 62	-0.49	-4455	14.23	30934	442.06	31.071	Si
SLU 62	-0.09	-4320	14.27	29998	436.63	30.599	Si
SLU 18	-0.49	-3883	13.06	26963	415.6	31.814	Si
SLU 18	-0.09	-3779	13.1	26243	409.84	31.285	Si
SLU 39	-0.49	-4301	14.97	29869	435.84	29.117	Si
SLU 39	-0.09	-4197	15.01	29149	431.27	28.731	Si
SLU 77	-0.49	-4424	14.03	30721	440.87	31.42	Si
SLU 77	-0.09	-4289	14.07	29785	435.32	30.933	Si
SLU 79	-0.49	-4424	14.03	30721	440.87	31.42	Si
SLU 79	-0.09	-4289	14.07	29785	435.32	30.933	Si
SLU 74	-0.49	-4424	14.03	30721	440.87	31.42	Si
SLU 74	-0.09	-4289	14.07	29785	435.32	30.933	Si
SLU 60	-0.49	-4455	14.23	30934	442.06	31.071	Si
SLU 60	-0.09	-4320	14.27	29998	436.63	30.599	Si
SLU 81	-0.49	-4873	16.13	33841	455.78	28.252	Si
SLU 81	-0.09	-4738	16.18	32905	451.89	27.93	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 58	-0.49	-4005	0	12.13		27814	0.32	9264	1334			1000	Si
SLU 58	-0.09	-3870	0	12.16		26878	0.32	9139	1316			1000	Si
SLU 61	-0.49	-4453	0	9.59		30925	0.32	9679	1394			1000	Si
SLU 61	-0.09	-4318	0	9.63		29989	0.32	9554	1376			1000	Si
SLU 56	-0.49	-4005	0	12.13		27814	0.32	9264	1334			1000	Si
SLU 56	-0.09	-3870	0	12.16		26878	0.32	9139	1316			1000	Si
SLU 55	-0.49	-4003	0	4.4		27798	0.32	9262	1334			1000	Si
SLU 55	-0.09	-3868	0	4.43		26862	0.32	9137	1316			1000	Si
SLU 57	-0.49	-4004	0	7.49		27804	0.32	9263	1334			1000	Si
SLU 57	-0.09	-3869	0	7.52		26868	0.32	9138	1316			1000	Si
SLU 60	-0.49	-4455	0	14.23		30934	0.32	9680	1394			1000	Si
SLU 60	-0.09	-4320	0	14.27		29998	0.32	9555	1376			1000	Si
SLU 53	-0.49	-4005	0	12.13		27814	0.32	9264	1334			1000	Si
SLU 53	-0.09	-3870	0	12.16		26878	0.32	9139	1316			1000	Si
SLU 1	-0.49	-2385	0	6.06		16561	0.32	7764	1118			1000	Si
SLU 1	-0.09	-2281	0	6.08		15841	0.32	7668	1104			1000	Si
SLU 54	-0.49	-4004	0	7.49		27804	0.32	9263	1334			1000	Si
SLU 54	-0.09	-3869	0	7.52		26868	0.32	9138	1316			1000	Si
SLU 59	-0.49	-4004	0	7.49		27804	0.32	9263	1334			1000	Si
SLU 59	-0.09	-3869	0	7.52		26868	0.32	9138	1316			1000	Si

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

quota -0.69 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 7	143750	0.24	7618	-1097	15.2	231.45	15.23	Si
SLV 8	143750	0.24	7618	-1097	15.2	231.45	15.23	Si
SLV 11	143750	0.24	7668	-1104	15.2	232.86	15.32	Si
SLV 12	143750	0.24	7668	-1104	15.2	232.86	15.32	Si
SLV 4	143750	0.24	7681	-1106	15.2	233.22	15.34	Si
SLV 3	143750	0.24	7681	-1106	15.2	233.22	15.34	Si
SLV 1	143750	0.24	7784	-1121	15.2	236.14	15.54	Si
SLV 2	143750	0.24	7784	-1121	15.2	236.14	15.54	Si
SLV 15	143750	0.24	7847	-1130	15.2	237.91	15.65	Si
SLV 16	143750	0.24	7847	-1130	15.2	237.91	15.65	Si

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

forza di aggancio al piano = 0 quota mezzeria = -0.69 Wa = 0.08 Ta = 0.0214

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 3	-896	-1463	-22	0.099	141.2	0.913	1.5808	9.59705	No
SLV 4	-896	-1463	-22	0.099	141.2	0.913	1.5808	9.59705	No
SLV 13	-783	-1464	23	0.099	130	0.908	1.59185	9.59705	No
SLV 14	-783	-1464	23	0.099	130	0.908	1.59185	9.59705	No
SLV 15	-829	-1456	20	0.102	134.6	0.91	1.62294	9.59705	No
SLV 16	-829	-1456	20	0.102	134.6	0.91	1.62294	9.59705	No
SLV 1	-850	-1471	-20	0.102	136.6	0.911	1.62544	9.59705	No
SLV 2	-850	-1471	-20	0.102	136.6	0.911	1.62544	9.59705	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 7	-926	-1451	-11	0.109	144.2	0.914	1.72753	2.39674	No
SLV 8	-926	-1451	-11	0.109	144.2	0.914	1.72753	2.39674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	27.93	SLU 81	Si
V_SLU	1000	SLU 1	Si
PFFP_SLV	15.228	SLV 7	Si
R_SLV	0.165	SLV 3	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	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-7.836	0.781	-7.836	7.016	L1	L2	6.235	0.45	2.4	2.4	2.4			

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 39	-0.49	-38867	-5150.45	13852	100561.48	19.525	Si
SLU 39	-0.09	-37092	-4792.69	13220	96866.85	20.211	Si
SLU 31	-0.49	-34872	-4170.07	12429	92125.62	22.092	Si
SLU 31	-0.09	-33046	-3723.04	11778	88124.98	23.67	Si
SLU 40	-0.49	-38834	-5218.58	13841	100493.97	19.257	Si
SLU 40	-0.09	-37044	-4777.18	13203	96766.96	20.256	Si
SLU 41	-0.49	-38867	-5150.45	13852	100561.48	19.525	Si
SLU 41	-0.09	-37092	-4792.69	13220	96866.85	20.211	Si
SLU 33	-0.49	-34894	-4124.66	12436	92172.99	22.347	Si
SLU 33	-0.09	-33077	-3733.38	11789	88195.03	23.623	Si
SLU 34	-0.49	-34872	-4170.07	12429	92125.62	22.092	Si
SLU 34	-0.09	-33046	-3723.04	11778	88124.98	23.67	Si
SLU 36	-0.49	-34894	-4124.66	12436	92172.99	22.347	Si
SLU 36	-0.09	-33077	-3733.38	11789	88195.03	23.623	Si
SLU 42	-0.49	-38834	-5218.58	13841	100493.97	19.257	Si
SLU 42	-0.09	-37044	-4777.18	13203	96766.96	20.256	Si
SLU 82	-0.49	-44101	-4964.05	15718	110955.4	22.352	Si
SLU 82	-0.09	-41770	-4516.29	14887	106419.13	23.563	Si
SLU 38	-0.49	-34894	-4124.66	12436	92172.99	22.347	Si
SLU 38	-0.09	-33077	-3733.38	11789	88195.03	23.623	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 3	-0.49	-27461	-1912.82	9787	78751.96	41.171	Si
SLV 3	-0.09	-25471	-1984.23	9078	73504.99	37.045	Si
SLV 4	-0.49	-27461	-1912.82	9787	78751.96	41.171	Si
SLV 4	-0.09	-25471	-1984.23	9078	73504.99	37.045	Si
SLV 1	-0.49	-26171	-1999.75	9328	75360.3	37.685	Si
SLV 1	-0.09	-24081	-1438.33	8583	69799.51	48.528	Si
SLV 11	-0.49	-27429	-1152.17	9776	78668.3	68.278	Si
SLV 11	-0.09	-25834	-2062.45	9207	74467.79	36.106	Si
SLV 7	-0.49	-28138	-1456.43	10029	80520.88	55.286	Si
SLV 7	-0.09	-26414	-2320.3	9414	76001.78	32.755	Si
SLV 8	-0.49	-28138	-1456.43	10029	80520.88	55.286	Si
SLV 8	-0.09	-26414	-2320.3	9414	76001.78	32.755	Si
SLV 5	-0.49	-23839	-1746.2	8497	69150.67	39.601	Si
SLV 5	-0.09	-21783	-500.62	7764	63593.11	127.028	Si
SLV 12	-0.49	-27429	-1152.17	9776	78668.3	68.278	Si
SLV 12	-0.09	-25834	-2062.45	9207	74467.79	36.106	Si
SLV 2	-0.49	-26171	-1999.75	9328	75360.3	37.685	Si
SLV 2	-0.09	-24081	-1438.33	8583	69799.51	48.528	Si
SLV 6	-0.49	-23839	-1746.2	8497	69150.67	39.601	Si
SLV 6	-0.09	-21783	-500.62	7764	63593.11	127.028	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	-0.49	-38867	497	-5150.45		13852	6.235	7403	20770			41.76	Si
SLU 39	-0.09	-37092	497	-4792.69		13220	6.235	7318	20533			41.32	Si
SLU 20	-0.49	-35051	436	-4052.63		12493	6.235	7221	20261			46.44	Si
SLU 20	-0.09	-33304	436	-3773.96		11870	6.235	7138	20028			45.95	Si
SLU 79	-0.49	-40193	432	-3802.01		14325	6.235	7466	20947			48.53	Si
SLU 79	-0.09	-37851	431	-3487.98		13490	6.235	7354	20634			47.85	Si
SLU 83	-0.49	-44133	519	-4895.93		15730	6.235	7653	21472			41.33	Si
SLU 83	-0.09	-41817	519	-4531.79		14904	6.235	7543	21163			40.78	Si
SLU 81	-0.49	-44133	519	-4895.93		15730	6.235	7653	21472			41.33	Si
SLU 81	-0.09	-41817	519	-4531.79		14904	6.235	7543	21163			40.78	Si
SLU 41	-0.49	-38867	497	-5150.45		13852	6.235	7403	20770			41.76	Si
SLU 41	-0.09	-37092	497	-4792.69		13220	6.235	7318	20533			41.32	Si
SLU 60	-0.49	-40318	458	-3798.11		14370	6.235	7472	20963			45.73	Si
SLU 60	-0.09	-38029	458	-3513.07		13554	6.235	7363	20658			45.11	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 18	-0.49	-35051	436	-4052.63		12493	6.235	7221	20261			46.44	Si
SLU 18	-0.09	-33304	436	-3773.96		11870	6.235	7138	20028			45.95	Si
SLU 77	-0.49	-40193	432	-3802.01		14325	6.235	7466	20947			48.53	Si
SLU 77	-0.09	-37851	431	-3487.98		13490	6.235	7354	20634			47.85	Si
SLU 62	-0.49	-40318	458	-3798.11		14370	6.235	7472	20963			45.73	Si
SLU 62	-0.09	-38029	458	-3513.07		13554	6.235	7363	20658			45.11	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 10	-0.49	-23130	-3368	-1441.94		8244	6.235	9982	28007			8.32	Si
SLV 10	-0.09	-21202	-2682	-242.78		7557	6.235	9845	27622			10.3	Si
SLV 15	-0.49	-25097	1553	-898.61		8945	6.235	10122	28401			18.28	Si
SLV 15	-0.09	-23535	1392	-1124.74		8388	6.235	10011	28088			20.19	Si
SLV 11	-0.49	-27429	3949	-1152.17		9776	6.235	10289	28867			7.31	Si
SLV 11	-0.09	-25834	3286	-2062.45		9207	6.235	10175	28548			8.69	Si
SLV 9	-0.49	-23130	-3368	-1441.94		8244	6.235	9982	28007			8.32	Si
SLV 9	-0.09	-21202	-2682	-242.78		7557	6.235	9845	27622			10.3	Si
SLV 12	-0.49	-27429	3949	-1152.17		9776	6.235	10289	28867			7.31	Si
SLV 12	-0.09	-25834	3286	-2062.45		9207	6.235	10175	28548			8.69	Si
SLV 7	-0.49	-28138	3807	-1456.43		10029	6.235	10339	29009			7.62	Si
SLV 7	-0.09	-26414	3120	-2320.3		9414	6.235	10216	28664			9.19	Si
SLV 5	-0.49	-23839	-3510	-1746.2		8497	6.235	10033	28149			8.02	Si
SLV 5	-0.09	-21783	-2848	-500.62		7764	6.235	9886	27738			9.74	Si
SLV 8	-0.49	-28138	3807	-1456.43		10029	6.235	10339	29009			7.62	Si
SLV 8	-0.09	-26414	3120	-2320.3		9414	6.235	10216	28664			9.19	Si
SLV 6	-0.49	-23839	-3510	-1746.2		8497	6.235	10033	28149			8.02	Si
SLV 6	-0.09	-21783	-2848	-500.62		7764	6.235	9886	27738			9.74	Si
SLV 16	-0.49	-25097	1553	-898.61		8945	6.235	10122	28401			18.28	Si
SLV 16	-0.09	-23535	1392	-1124.74		8388	6.235	10011	28088			20.19	Si

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

quota -0.69 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	143750	0.24	8220	-23062	296.13	4839.96	16.34	Si
SLV 10	143750	0.24	8220	-23062	296.13	4839.96	16.34	Si
SLV 13	143750	0.24	8269	-23200	296.13	4866.66	16.43	Si
SLV 14	143750	0.24	8269	-23200	296.13	4866.66	16.43	Si
SLV 5	143750	0.24	8534	-23944	296.13	5011.03	16.92	Si
SLV 6	143750	0.24	8534	-23944	296.13	5011.03	16.92	Si
SLV 16	143750	0.24	8625	-24198	296.13	5060.29	17.09	Si
SLV 15	143750	0.24	8625	-24198	296.13	5060.29	17.09	Si
SLV 2	143750	0.24	9315	-26137	296.13	5432.4	18.34	Si
SLV 1	143750	0.24	9315	-26137	296.13	5432.4	18.34	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -0.69 Wa = 0.08 Ta = 0.0214

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 15	-19547	-29752	248	0.106	2960.7	0.917	1.68386	9.59705	No
SLV 16	-19547	-29752	248	0.106	2960.7	0.917	1.68386	9.59705	No
SLV 1	-19465	-33760	-249	0.106	2952.5	0.917	1.68416	9.59705	No
SLV 2	-19465	-33760	-249	0.106	2952.5	0.917	1.68416	9.59705	No
SLV 3	-20252	-34898	-234	0.106	3031.3	0.919	1.68428	9.59705	No
SLV 4	-20252	-34898	-234	0.106	3031.3	0.919	1.68428	9.59705	No
SLV 13	-18760	-28615	233	0.107	2882	0.916	1.70269	9.59705	No
SLV 14	-18760	-28615	233	0.107	2882	0.916	1.70269	9.59705	No
SLV 12	-20712	-32880	97	0.111	3077.4	0.919	1.76025	2.39674	No
SLV 11	-20712	-32880	97	0.111	3077.4	0.919	1.76025	2.39674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	19.257	SLU 40	Si
V_SLU	40.779	SLU 81	Si
PF_SLV	32.755	SLV 7	Si
V_SLV	7.311	SLV 11	Si
PFFP_SLV	16.344	SLV 9	Si
R_SLV	0.175	SLV 15	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
-7.836	2.261	-1.481	2.261	L1	L2	6.355	0.26	2.4	2.4	2.4			

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 41	-1.89	-38813	24726.5	23490	87764.03	3.549	Si
SLU 41	0.51	-35730	31692.3	21624	83393.02	2.631	Si



Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 84	-1.89	-43275	25908.46	26191	93294.55	3.601	Si
SLU 84	0.51	-38319	33079	23191	87094.05	2.633	Si
SLU 42	-1.89	-38823	24864.34	23496	87777.09	3.53	Si
SLU 42	0.51	-35711	31711.66	21613	83365.46	2.629	Si
SLU 83	-1.89	-43265	25770.62	26185	93283.53	3.62	Si
SLU 83	0.51	-38338	33059.64	23203	87119.34	2.635	Si
SLU 19	-1.89	-33547	20957.03	20303	80026.32	3.819	Si
SLU 19	0.51	-29696	26920.47	17972	73539.97	2.732	Si
SLU 40	-1.89	-38823	24864.34	23496	87777.09	3.53	Si
SLU 40	0.51	-35711	31711.66	21613	83365.46	2.629	Si
SLU 21	-1.89	-33547	20957.03	20303	80026.32	3.819	Si
SLU 21	0.51	-29696	26920.47	17972	73539.97	2.732	Si
SLU 81	-1.89	-43265	25770.62	26185	93283.53	3.62	Si
SLU 81	0.51	-38338	33059.64	23203	87119.34	2.635	Si
SLU 39	-1.89	-38813	24726.5	23490	87764.03	3.549	Si
SLU 39	0.51	-35730	31692.3	21624	83393.02	2.631	Si
SLU 82	-1.89	-43275	25908.46	26191	93294.55	3.601	Si
SLU 82	0.51	-38319	33079	23191	87094.05	2.633	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 6	-1.89	-27949	20185.46	16915	76513.02	3.791	Si
SLV 6	0.51	-26609	35012.99	16104	73406.22	2.097	Si
SLV 3	-1.89	-26191	13672.39	15852	72426.72	5.297	Si
SLV 3	0.51	-26518	34735.9	16049	73194.3	2.107	Si
SLV 16	-1.89	-22169	5231.98	13417	62707.61	11.985	Si
SLV 16	0.51	-11196	-13027.62	6776	33602.44	2.579	Si
SLV 1	-1.89	-27652	18041.87	16736	75830.43	4.203	Si
SLV 1	0.51	-29035	42579.43	17573	78991.18	1.855	Si
SLV 5	-1.89	-27949	20185.46	16915	76513.02	3.791	Si
SLV 5	0.51	-26609	35012.99	16104	73406.22	2.097	Si
SLV 10	-1.89	-26742	17653.34	16185	73717.5	4.176	Si
SLV 10	0.51	-22012	20683.93	13322	62317.72	3.013	Si
SLV 15	-1.89	-22169	5231.98	13417	62707.61	11.985	Si
SLV 15	0.51	-11196	-13027.62	6776	33602.44	2.579	Si
SLV 9	-1.89	-26742	17653.34	16185	73717.5	4.176	Si
SLV 9	0.51	-22012	20683.93	13322	62317.72	3.013	Si
SLV 4	-1.89	-26191	13672.39	15852	72426.72	5.297	Si
SLV 4	0.51	-26518	34735.9	16049	73194.3	2.107	Si
SLV 2	-1.89	-27652	18041.87	16736	75830.43	4.203	Si
SLV 2	0.51	-29035	42579.43	17573	78991.18	1.855	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 26	-1.89	-26162	-39	12082.94		15834	6.355	7667	12668			325.98	Si
SLU 26	0.51	-21552	-66	14856.92		13044	6.355	7295	12053			183.79	Si
SLU 5	-1.89	-20886	-38	8175.63		12641	6.355	7241	11964			313.02	Si
SLU 5	0.51	-15537	-63	10065.74		9403	6.355	6809	11251			179.35	Si
SLU 44	-1.89	-25338	-37	9219.75		15335	6.355	7600	12558			342.69	Si
SLU 44	0.51	-18145	-64	11433.08		10981	6.355	7020	11599			182.44	Si
SLU 2	-1.89	-20886	-38	8175.63		12641	6.355	7241	11964			313.02	Si
SLU 2	0.51	-15537	-63	10065.74		9403	6.355	6809	11251			179.35	Si
SLU 13	-1.89	-29753	-44	17186.94		18007	6.355	7956	13147			301.36	Si
SLU 13	0.51	-25440	-69	21873.08		15396	6.355	7608	12571			181.12	Si
SLU 47	-1.89	-25338	-37	9219.75		15335	6.355	7600	12558			342.69	Si
SLU 47	0.51	-18145	-64	11433.08		10981	6.355	7020	11599			182.44	Si
SLU 55	-1.89	-34205	-42	18231.06		20701	6.355	8316	13740			326.78	Si
SLU 55	0.51	-28047	-70	23240.43		16975	6.355	7819	12919			183.9	Si
SLU 10	-1.89	-29753	-44	17186.94		18007	6.355	7956	13147			301.36	Si
SLU 10	0.51	-25440	-69	21873.08		15396	6.355	7608	12571			181.12	Si
SLU 23	-1.89	-26162	-39	12082.94		15834	6.355	7667	12668			325.98	Si
SLU 23	0.51	-21552	-66	14856.92		13044	6.355	7295	12053			183.79	Si
SLU 52	-1.89	-34205	-42	18231.06		20701	6.355	8316	13740			326.78	Si
SLU 52	0.51	-28047	-70	23240.43		16975	6.355	7819	12919			183.9	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	-1.89	-22169	995	5231.98		13417	6.355	11017	18203			18.29	Si
SLV 15	0.51	-11196	2202	-13027.62		7127	6.0417	9759	15330			6.96	Si
SLV 1	-1.89	-27652	-990	18041.87		16736	6.355	11680	19300			19.5	Si
SLV 1	0.51	-29035	-2220	42579.43		21756	5.1331	12684	16929			7.63	Si
SLV 16	-1.89	-22169	995	5231.98		13417	6.355	11017	18203			18.29	Si
SLV 16	0.51	-11196	2202	-13027.62		7127	6.0417	9759	15330			6.96	Si
SLV 2	-1.89	-27652	-990	18041.87		16736	6.355	11680	19300			19.5	Si
SLV 2	0.51	-29035	-2220	42579.43		21756	5.1331	12684	16929			7.63	Si
SLV 12	-1.89	-21873	559	3088.39		13238	6.355	10981	18144			32.47	Si
SLV 12	0.51	-13622	1172	-5461.18		8245	6.355	9982	16494			14.08	Si
SLV 11	-1.89	-21873	559	3088.39		13238	6.355	10981	18144			32.47	Si
SLV 11	0.51	-13622	1172	-5461.18		8245	6.355	9982	16494			14.08	Si
SLV 4	-1.89	-26191	-819	13672.39		15852	6.355	11504	19007			23.2	Si
SLV 4	0.51	-26518	-1879	34735.9		18204	5.6029	11974	17443			9.29	Si
SLV 14	-1.89	-23630	825	9601.47		14301	6.355	11194	18495			22.42	Si
SLV 14	0.51	-13713	1861	-5184.09		8299	6.355	9993	16512			8.87	Si
SLV 13	-1.89	-23630	825	9601.47		14301	6.355	11194	18495			22.42	Si
SLV 13	0.51	-13713	1861	-5184.09		8299	6.355	9993	16512			8.87	Si
SLV 3	-1.89	-26191	-819	13672.39		15852	6.355	11504	19007			23.2	Si
SLV 3	0.51	-26518	-1879	34735.9		18204	5.6029	11974	17443			9.29	Si



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

quota -0.69 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 11	143750	0.24	11546	-19077	174.39	2245.72	12.88	Si
SLV 12	143750	0.24	11546	-19077	174.39	2245.72	12.88	Si
SLV 16	143750	0.24	11712	-19352	174.39	2274.58	13.04	Si
SLV 15	143750	0.24	11712	-19352	174.39	2274.58	13.04	Si
SLV 8	143750	0.24	12342	-20392	174.39	2383.24	13.67	Si
SLV 7	143750	0.24	12342	-20392	174.39	2383.24	13.67	Si
SLV 13	143750	0.24	12650	-20902	174.39	2435.89	13.97	Si
SLV 14	143750	0.24	12650	-20902	174.39	2435.89	13.97	Si
SLV 3	143750	0.24	14365	-23735	174.39	2722.76	15.61	Si
SLV 4	143750	0.24	14365	-23735	174.39	2722.76	15.61	Si

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

forza di aggancio al piano = 0 quota mezzeria = -0.69 Wa = 0.05 Ta = 0.037

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 16	-11196	-22169	344	0.044	1712	0.916	0.69726	10.17037	No
SLV 15	-11196	-22169	344	0.044	1712	0.916	0.69726	10.17037	No
SLV 1	-29035	-27652	-309	0.051	3516	0.954	0.77174	10.17037	No
SLV 2	-29035	-27652	-309	0.051	3516	0.954	0.77174	10.17037	No
SLV 4	-26518	-26191	113	0.057	3260.4	0.95	0.86921	10.17037	No
SLV 3	-26518	-26191	113	0.057	3260.4	0.95	0.86921	10.17037	No
SLV 13	-13713	-23630	-77	0.061	1964.5	0.924	0.95728	10.17037	No
SLV 14	-13713	-23630	-77	0.061	1964.5	0.924	0.95728	10.17037	No
SLV 11	-13622	-21873	755	0.021	1955.4	0.924	0.33808	2.39674	No
SLV 12	-13622	-21873	755	0.021	1955.4	0.924	0.33808	2.39674	No

## Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.629	SLU 40	Si
V_SLU	179.345	SLU 2	Si
PF_SLV	1.855	SLV 1	Si
V_SLV	6.961	SLV 15	Si
PFFP_SLV	12.878	SLV 11	Si
R_SLV	0.069	SLV 15	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	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
0.949	-2.564	-7.836	-2.564	L1	L2	8.785	0.45	2.4	2.4	2.4			

### 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	-1.89	-57487	5127.55	14542	207433.3	40.455	Si
SLU 43	0.51	-35402	5672.63	8955	138408.41	24.399	Si
SLU 69	-1.89	-61622	5408.7	15588	218879.88	40.468	Si
SLU 69	0.51	-39291	6244.52	9939	151528.12	24.266	Si
SLU 71	-1.89	-61622	5408.7	15588	218879.88	40.468	Si
SLU 71	0.51	-39291	6244.52	9939	151528.12	24.266	Si
SLU 45	-1.89	-57487	5127.55	14542	207433.3	40.455	Si
SLU 45	0.51	-35402	5672.63	8955	138408.41	24.399	Si
SLU 64	-1.89	-61622	5408.7	15588	218879.88	40.468	Si
SLU 64	0.51	-39291	6244.52	9939	151528.12	24.266	Si
SLU 48	-1.89	-57487	5127.55	14542	207433.3	40.455	Si
SLU 48	0.51	-35402	5672.63	8955	138408.41	24.399	Si
SLU 50	-1.89	-57487	5127.55	14542	207433.3	40.455	Si
SLU 50	0.51	-35402	5672.63	8955	138408.41	24.399	Si
SLU 67	-1.89	-61638	5494.49	15592	218923.23	39.844	Si
SLU 67	0.51	-39315	6177.69	9945	151608.41	24.541	Si
SLU 70	-1.89	-61638	5494.49	15592	218923.23	39.844	Si
SLU 70	0.51	-39315	6177.69	9945	151608.41	24.541	Si
SLU 66	-1.89	-61622	5408.7	15588	218879.88	40.468	Si
SLU 66	0.51	-39291	6244.52	9939	151528.12	24.266	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 3	-1.89	-50178	-3989.51	12693	197509.8	49.507	Si
SLV 3	0.51	-30899	3920.57	7816	127043.58	32.404	Si
SLV 16	-1.89	-46485	11545.26	11759	184535.07	15.984	Si
SLV 16	0.51	-31545	4434.58	7979	129510.99	29.205	Si
SLV 13	-1.89	-47186	11139.54	11936	187017.75	16.789	Si
SLV 13	0.51	-31756	4320.15	8033	130317.29	30.165	Si
SLV 7	-1.89	-48067	1921	12159	190124.82	98.972	Si
SLV 7	0.51	-30879	4233.98	7811	126964.45	29.987	Si
SLV 12	-1.89	-46959	6581.43	11879	186215.92	28.294	Si
SLV 12	0.51	-31072	4388.18	7860	127705.54	29.102	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 14	-1.89	-47186	11139.54	11936	187017.75	16.789	Si
SLV 14	0.51	-31756	4320.15	8033	130317.29	30.165	Si
SLV 15	-1.89	-46485	11545.26	11759	184535.07	15.984	Si
SLV 15	0.51	-31545	4434.58	7979	129510.99	29.205	Si
SLV 8	-1.89	-48067	1921	12159	190124.82	98.972	Si
SLV 8	0.51	-30879	4233.98	7811	126964.45	29.987	Si
SLV 4	-1.89	-50178	-3989.51	12693	197509.8	49.507	Si
SLV 4	0.51	-30899	3920.57	7816	127043.58	32.404	Si
SLV 11	-1.89	-46959	6581.43	11879	186215.92	28.294	Si
SLV 11	0.51	-31072	4388.18	7860	127705.54	29.102	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	-1.89	-72583	-34	2875.81		18360	8.785	8004	31640			920.33	Si
SLU 84	0.51	-49108	-253	3390.55		12422	8.785	7212	28510			112.69	Si
SLU 81	-1.89	-72567	-35	2790.02		18356	8.785	8003	31638			908.22	Si
SLU 81	0.51	-49083	-239	3457.38		12416	8.785	7211	28507			119.49	Si
SLU 82	-1.89	-72583	-34	2875.81		18360	8.785	8004	31640			920.33	Si
SLU 82	0.51	-49108	-253	3390.55		12422	8.785	7212	28510			112.69	Si
SLU 40	-1.89	-60408	-38	1766.68		15281	8.785	7593	30017			784.35	Si
SLU 40	0.51	-41964	-233	2232.31		10615	8.785	6971	27558			118.07	Si
SLU 42	-1.89	-60408	-38	1766.68		15281	8.785	7593	30017			784.35	Si
SLU 42	0.51	-41964	-233	2232.31		10615	8.785	6971	27558			118.07	Si
SLU 61	-1.89	-68448	-25	2594.67		17314	8.785	7864	31089			1000	Si
SLU 61	0.51	-45219	-226	2818.67		11438	8.785	7081	27992			124.04	Si
SLU 63	-1.89	-68448	-25	2594.67		17314	8.785	7864	31089			1000	Si
SLU 63	0.51	-45219	-226	2818.67		11438	8.785	7081	27992			124.04	Si
SLU 76	-1.89	-69310	-25	3718.61		17532	8.785	7893	31204			1000	Si
SLU 76	0.51	-46186	-234	4182.14		11683	8.785	7113	28121			120.14	Si
SLU 83	-1.89	-72567	-35	2790.02		18356	8.785	8003	31638			908.22	Si
SLU 83	0.51	-49083	-239	3457.38		12416	8.785	7211	28507			119.49	Si
SLU 73	-1.89	-69310	-25	3718.61		17532	8.785	7893	31204			1000	Si
SLU 73	0.51	-46186	-234	4182.14		11683	8.785	7113	28121			120.14	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 4	-1.89	-50178	3587	-3989.51		12693	8.785	10872	42979			11.98	Si
SLV 4	0.51	-30899	2996	3920.57		7816	8.785	9897	39124			13.06	Si
SLV 1	-1.89	-50879	3576	-4395.23		12870	8.785	10907	43120			12.06	Si
SLV 1	0.51	-31111	2821	3806.14		7870	8.785	9907	39166			13.88	Si
SLV 15	-1.89	-46485	-3590	11545.26		11759	8.785	10685	42241			11.77	Si
SLV 15	0.51	-31545	-3068	4434.58		7979	8.785	9929	39253			12.79	Si
SLV 3	-1.89	-50178	3587	-3989.51		12693	8.785	10872	42979			11.98	Si
SLV 3	0.51	-30899	2996	3920.57		7816	8.785	9897	39124			13.06	Si
SLV 9	-1.89	-49297	-1101	5229.03		12470	8.785	10827	42803			38.87	Si
SLV 9	0.51	-31776	-1325	4006.74		8038	8.785	9941	39299			29.66	Si
SLV 13	-1.89	-47186	-3601	11139.54		11936	8.785	10721	42381			11.77	Si
SLV 13	0.51	-31756	-3243	4320.15		8033	8.785	9940	39295			12.12	Si
SLV 16	-1.89	-46485	-3590	11545.26		11759	8.785	10685	42241			11.77	Si
SLV 16	0.51	-31545	-3068	4434.58		7979	8.785	9929	39253			12.79	Si
SLV 14	-1.89	-47186	-3601	11139.54		11936	8.785	10721	42381			11.77	Si
SLV 14	0.51	-31756	-3243	4320.15		8033	8.785	9940	39295			12.12	Si
SLV 2	-1.89	-50879	3576	-4395.23		12870	8.785	10907	43120			12.06	Si
SLV 2	0.51	-31111	2821	3806.14		7870	8.785	9907	39166			13.88	Si
SLV 10	-1.89	-49297	-1101	5229.03		12470	8.785	10827	42803			38.87	Si
SLV 10	0.51	-31776	-1325	4006.74		8038	8.785	9941	39299			29.66	Si

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

quota -0.69 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 16	143750	0.24	9897	-39125	417.24	8090.03	19.39	Si
SLV 15	143750	0.24	9897	-39125	417.24	8090.03	19.39	Si
SLV 14	143750	0.24	9926	-39239	417.24	8111.53	19.44	Si
SLV 13	143750	0.24	9926	-39239	417.24	8111.53	19.44	Si
SLV 12	143750	0.24	10268	-40594	417.24	8366	20.05	Si
SLV 11	143750	0.24	10268	-40594	417.24	8366	20.05	Si
SLV 9	143750	0.24	10365	-40974	417.24	8437.1	20.22	Si
SLV 10	143750	0.24	10365	-40974	417.24	8437.1	20.22	Si
SLV 7	143750	0.24	10616	-41967	417.24	8622.15	20.66	Si
SLV 8	143750	0.24	10616	-41967	417.24	8622.15	20.66	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -0.69 Wa = 0.08 Ta = 0.0214

Comb.	N top	N base	V orto	$\sigma_0$	M*	e*	a0*	aLim	Verifica
SLV 1	-31111	-50879	-489	0.102	4529.5	0.922	1.60165	9.59705	No
SLV 2	-31111	-50879	-489	0.102	4529.5	0.922	1.60165	9.59705	No
SLV 4	-30899	-50178	-376	0.105	4508.3	0.922	1.64791	9.59705	No
SLV 3	-30899	-50178	-376	0.105	4508.3	0.922	1.64791	9.59705	No
SLV 16	-31545	-46485	140	0.11	4573.1	0.923	1.73621	9.59705	No
SLV 15	-31545	-46485	140	0.11	4573.1	0.923	1.73621	9.59705	No
SLV 13	-31756	-47186	27	0.113	4594.3	0.923	1.77844	9.59705	No
SLV 14	-31756	-47186	27	0.113	4594.3	0.923	1.77844	9.59705	No
SLV 6	-31583	-50404	-440	0.103	4577	0.923	1.61831	2.39674	No
SLV 5	-31583	-50404	-440	0.103	4577	0.923	1.61831	2.39674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	24.266	SLU 64	Si



Stato limite	Coeff.s.	Comb.	Verifica
V SLU	112.694	SLU 82	Si
PF SLV	15.984	SLV 15	Si
V SLV	11.767	SLV 15	Si
PFFP SLV	19.389	SLV 15	Si
R SLV	0.167	SLV 1	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	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-3.416	7.016	-3.416	4.481	L1	L2	2.535	0.45	2.4	2.4	2.4			

### 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 58	-1.89	-8317	-2413.9	7290	9597.89	3.976	Si
SLU 58	0.51	-588	-744.09	516	740.77	0.996	No, M>Mu
SLU 56	-1.89	-8317	-2413.9	7290	9597.89	3.976	Si
SLU 56	0.51	-588	-744.09	516	740.77	0.996	No, M>Mu
SLU 77	-1.89	-8493	-2636.51	7445	9780.95	3.71	Si
SLU 77	0.51	-639	-808.81	560	804.78	0.995	No, M>Mu
SLU 60	-1.89	-8421	-2545.97	7382	9706.76	3.813	Si
SLU 60	0.51	-619	-782.8	542	779.08	0.995	No, M>Mu
SLU 81	-1.89	-8598	-2768.58	7537	9889.32	3.572	Si
SLU 81	0.51	-670	-847.53	587	843.05	0.995	No, M>Mu
SLU 53	-1.89	-8317	-2413.9	7290	9597.89	3.976	Si
SLU 53	0.51	-588	-744.09	516	740.77	0.996	No, M>Mu
SLU 74	-1.89	-8493	-2636.51	7445	9780.95	3.71	Si
SLU 74	0.51	-639	-808.81	560	804.78	0.995	No, M>Mu
SLU 62	-1.89	-8421	-2545.97	7382	9706.76	3.813	Si
SLU 62	0.51	-619	-782.8	542	779.08	0.995	No, M>Mu
SLU 79	-1.89	-8493	-2636.51	7445	9780.95	3.71	Si
SLU 79	0.51	-639	-808.81	560	804.78	0.995	No, M>Mu
SLU 83	-1.89	-8598	-2768.58	7537	9889.32	3.572	Si
SLU 83	0.51	-670	-847.53	587	843.05	0.995	No, M>Mu

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 13	-1.89	-6355	-1808.85	5571	7687.32	4.25	Si
SLV 13	0.51	-389	-513.22	0	0	0	No, e>l/2
SLV 3	-1.89	-6398	-1851.46	5608	7736.69	4.179	Si
SLV 3	0.51	-503	-615.3	441	635.08	1.032	Si
SLV 15	-1.89	-5596	-2814.12	4906	6808.41	2.419	Si
SLV 15	0.51	-131	-220.39	0	0	0	No, e>l/2
SLV 8	-1.89	-5232	-3361.21	4587	6382.88	1.899	Si
SLV 8	0.51	-72	-135.45	0	0	0	No, e>l/2
SLV 4	-1.89	-6398	-1851.46	5608	7736.69	4.179	Si
SLV 4	0.51	-503	-615.3	441	635.08	1.032	Si
SLV 7	-1.89	-5232	-3361.21	4587	6382.88	1.899	Si
SLV 7	0.51	-72	-135.45	0	0	0	No, e>l/2
SLV 14	-1.89	-6355	-1808.85	5571	7687.32	4.25	Si
SLV 14	0.51	-389	-513.22	0	0	0	No, e>l/2
SLV 11	-1.89	-4992	-3650.01	4376	6100.53	1.671	Si
SLV 11	0.51	40	-16.97	0	0	0	No, Trazione
SLV 12	-1.89	-4992	-3650.01	4376	6100.53	1.671	Si
SLV 12	0.51	40	-16.97	0	0	0	No, Trazione
SLV 16	-1.89	-5596	-2814.12	4906	6808.41	2.419	Si
SLV 16	0.51	-131	-220.39	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, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 65	-1.89	-8716	369	-1811.23		7640	2.535	6574	7500			20.3	Si
SLU 65	0.51	-829	634	-1017.99		15765	0.1168	7658	402			0.63	No, Vu<V
SLU 73	-1.89	-8960	370	-2119.4		7855	2.535	6603	7532			20.36	Si
SLU 73	0.51	-900	636	-1108.32		18470	0.1083	8018	391			0.61	No, Vu<V
SLU 44	-1.89	-8539	369	-1588.62		7486	2.535	6554	7476			20.26	Si
SLU 44	0.51	-777	633	-953.26		13939	0.1239	7414	414			0.65	No, Vu<V
SLU 55	-1.89	-8784	370	-1896.78		7700	2.535	6582	7509			20.32	Si
SLU 55	0.51	-849	635	-1043.6		16501	0.1143	7756	399			0.63	No, Vu<V
SLU 31	-1.89	-7144	368	-1692.17		6262	2.535	6391	7290			19.81	Si
SLU 31	0.51	-794	635	-974.52		14489	0.1218	7487	410			0.65	No, Vu<V
SLU 68	-1.89	-8716	369	-1811.23		7640	2.535	6574	7500			20.3	Si
SLU 68	0.51	-829	634	-1017.99		15765	0.1168	7658	402			0.63	No, Vu<V
SLU 34	-1.89	-7144	368	-1692.17		6262	2.535	6391	7290			19.81	Si
SLU 34	0.51	-794	635	-974.52		14489	0.1218	7487	410			0.65	No, Vu<V
SLU 52	-1.89	-8784	370	-1896.78		7700	2.535	6582	7509			20.32	Si
SLU 52	0.51	-849	635	-1043.6		16501	0.1143	7756	399			0.63	No, Vu<V
SLU 76	-1.89	-8960	370	-2119.4		7855	2.535	6603	7532			20.36	Si
SLU 76	0.51	-900	636	-1108.32		18470	0.1083	8018	391			0.61	No, Vu<V
SLU 47	-1.89	-8539	369	-1588.62		7486	2.535	6554	7476			20.26	Si





Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 47	0.51	-777	633	-953.26		13939	0.1239	7414	414			0.65	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	-1.89	-7520	1247	-299.1		6592	2.535	9652	11010			8.83	Si
SLV 10	0.51	-820	1032	-993.07		10695	0.1704	10472	803			0.78	No, Vu<V
SLV 11	-1.89	-4992	-1464	-3650.01		6895	1.6089	9712	7032			4.8	Si
SLV 11	0.51	40	-1298	-16.97		0	0	8333	0			0	No, Vu<V
SLV 12	-1.89	-4992	-1464	-3650.01		6895	1.6089	9712	7032			4.8	Si
SLV 12	0.51	40	-1298	-16.97		0	0	8333	0			0	No, Vu<V
SLV 15	-1.89	-5596	-785	-2814.12		5421	2.2939	9418	9721			12.38	Si
SLV 15	0.51	-131	-800	-220.39		0	0	8333	0			0	No, Vu<V
SLV 9	-1.89	-7520	1247	-299.1		6592	2.535	9652	11010			8.83	Si
SLV 9	0.51	-820	1032	-993.07		10695	0.1704	10472	803			0.78	No, Vu<V
SLV 7	-1.89	-5232	-1233	-3361.21		6200	1.8753	9573	8079			6.55	Si
SLV 7	0.51	-72	-1026	-135.45		0	0	8333	0			0	No, Vu<V
SLV 8	-1.89	-5232	-1233	-3361.21		6200	1.8753	9573	8079			6.55	Si
SLV 8	0.51	-72	-1026	-135.45		0	0	8333	0			0	No, Vu<V
SLV 16	-1.89	-5596	-785	-2814.12		5421	2.2939	9418	9721			12.38	Si
SLV 16	0.51	-131	-800	-220.39		0	0	8333	0			0	No, Vu<V
SLV 13	-1.89	-6355	28	-1808.85		5571	2.535	9447	10777			384	Si
SLV 13	0.51	-389	-101	-513.22		0	0	8333	0			0	No, Vu<V
SLV 14	-1.89	-6355	28	-1808.85		5571	2.535	9447	10777			384	Si
SLV 14	0.51	-389	-101	-513.22		0	0	8333	0			0	No, Vu<V

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

quota -0.69 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 12	143750	0.24	2007	-2290	120.4	506.72	4.21	Si
SLV 11	143750	0.24	2007	-2290	120.4	506.72	4.21	Si
SLV 7	143750	0.24	2242	-2557	120.4	564.78	4.69	Si
SLV 8	143750	0.24	2242	-2557	120.4	564.78	4.69	Si
SLV 15	143750	0.24	2293	-2616	120.4	577.53	4.8	Si
SLV 16	143750	0.24	2293	-2616	120.4	577.53	4.8	Si
SLV 14	143750	0.24	2773	-3163	120.4	695.49	5.78	Si
SLV 13	143750	0.24	2773	-3163	120.4	695.49	5.78	Si
SLV 4	143750	0.24	3074	-3507	120.4	769.23	6.39	Si
SLV 3	143750	0.24	3074	-3507	120.4	769.23	6.39	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -0.69 Wa = 0.08 Ta = 0.0214

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 11	40	-4992	148	0	0	0	0	2.39674	No, Trazione
SLV 12	40	-4992	148	0	0	0	0	2.39674	No, Trazione
SLV 16	-131	-5596	206	0.103	503.6	0.977	1.54017	9.59705	No
SLV 15	-131	-5596	206	0.103	503.6	0.977	1.54017	9.59705	No
SLV 1	-761	-7156	-206	0.101	532	0.917	1.60676	9.59705	No
SLV 2	-761	-7156	-206	0.101	532	0.917	1.60676	9.59705	No
SLV 14	-389	-6355	149	0.123	511.9	0.944	1.88699	9.59705	No
SLV 13	-389	-6355	149	0.123	511.9	0.944	1.88699	9.59705	No
SLV 4	-503	-6398	-149	0.121	517.2	0.934	1.8873	9.59705	No
SLV 3	-503	-6398	-149	0.121	517.2	0.934	1.8873	9.59705	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.995	SLU 81	No
V_SLU	0.615	SLU 73	No
PF_SLV	0	SLV 12	No
V_SLV	0	SLV 7	No
PFFP_SLV	4.209	SLV 11	Si
R_SLV	0	SLV 12	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-7.836	7.016	-6.041	7.016	L1	L2	1.795	0.45	2.4	2.4	2.4			

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 78	-0.49	-13544	1606.23	16767	9653.43	6.01	Si
SLU 78	-0.09	-12515	1710.9	15494	9096.08	5.317	Si
SLU 73	-0.49	-13489	1601.92	16700	9624.72	6.008	Si
SLU 73	-0.09	-12466	1708.59	15433	9068.62	5.308	Si
SLU 76	-0.49	-13489	1601.92	16700	9624.72	6.008	Si
SLU 76	-0.09	-12466	1708.59	15433	9068.62	5.308	Si
SLU 84	-0.49	-14180	1647.33	17555	9983.78	6.061	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 84	-0.09	-13125	1776.42	16248	9429.69	5.308	Si
SLU 68	-0.49	-12005	1506.01	14863	8808.78	5.849	Si
SLU 68	-0.09	-11045	1555.72	13674	8248.93	5.302	Si
SLU 65	-0.49	-12005	1506.01	14863	8808.78	5.849	Si
SLU 65	-0.09	-11045	1555.72	13674	8248.93	5.302	Si
SLU 82	-0.49	-14180	1647.33	17555	9983.78	6.061	Si
SLU 82	-0.09	-13125	1776.42	16248	9429.69	5.308	Si
SLU 70	-0.49	-12060	1510.32	14930	8839.69	5.853	Si
SLU 70	-0.09	-11094	1558.04	13735	8278.3	5.313	Si
SLU 72	-0.49	-12060	1510.32	14930	8839.69	5.853	Si
SLU 72	-0.09	-11094	1558.04	13735	8278.3	5.313	Si
SLU 67	-0.49	-12060	1510.32	14930	8839.69	5.853	Si
SLU 67	-0.09	-11094	1558.04	13735	8278.3	5.313	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	-0.49	-11139	1445.29	13791	8869.2	6.137	Si
SLV 7	-0.09	-10356	1576.04	12821	8319.55	5.279	Si
SLV 5	-0.49	-9311	1269.19	11527	7568.47	5.963	Si
SLV 5	-0.09	-8524	1354.29	10553	6989.89	5.161	Si
SLV 3	-0.49	-12075	1827.62	14949	9511.32	5.204	Si
SLV 3	-0.09	-11241	2091.53	13916	8939.46	4.274	Si
SLV 12	-0.49	-9789	1064.75	12119	7914.31	7.433	Si
SLV 12	-0.09	-9049	1067.66	11203	7376.82	6.909	Si
SLV 6	-0.49	-9311	1269.19	11527	7568.47	5.963	Si
SLV 6	-0.09	-8524	1354.29	10553	6989.89	5.161	Si
SLV 11	-0.49	-9789	1064.75	12119	7914.31	7.433	Si
SLV 11	-0.09	-9049	1067.66	11203	7376.82	6.909	Si
SLV 4	-0.49	-12075	1827.62	14949	9511.32	5.204	Si
SLV 4	-0.09	-11241	2091.53	13916	8939.46	4.274	Si
SLV 8	-0.49	-11139	1445.29	13791	8869.2	6.137	Si
SLV 8	-0.09	-10356	1576.04	12821	8319.55	5.279	Si
SLV 2	-0.49	-11526	1774.79	14270	9136.81	5.148	Si
SLV 2	-0.09	-10691	2025.01	13236	8555.81	4.225	Si
SLV 1	-0.49	-11526	1774.79	14270	9136.81	5.148	Si
SLV 1	-0.09	-10691	2025.01	13236	8555.81	4.225	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 75	-0.49	-13544	-461	1606.23		16767	1.795	7791	6293			13.65	Si
SLU 75	-0.09	-12515	-468	1710.9		15494	1.795	7621	6156			13.15	Si
SLU 65	-0.49	-12005	-475	1506.01		14863	1.795	7537	6088			12.81	Si
SLU 65	-0.09	-11045	-487	1555.72		13674	1.795	7379	5960			12.25	Si
SLU 68	-0.49	-12005	-475	1506.01		14863	1.795	7537	6088			12.81	Si
SLU 68	-0.09	-11045	-487	1555.72		13674	1.795	7379	5960			12.25	Si
SLU 67	-0.49	-12060	-460	1510.32		14930	1.795	7546	6095			13.25	Si
SLU 67	-0.09	-11094	-467	1558.04		13735	1.795	7387	5967			12.78	Si
SLU 76	-0.49	-13489	-476	1601.92		16700	1.795	7782	6286			13.2	Si
SLU 76	-0.09	-12466	-488	1708.59		15433	1.795	7613	6150			12.61	Si
SLU 78	-0.49	-13544	-461	1606.23		16767	1.795	7791	6293			13.65	Si
SLU 78	-0.09	-12515	-468	1710.9		15494	1.795	7621	6156			13.15	Si
SLU 80	-0.49	-13544	-461	1606.23		16767	1.795	7791	6293			13.65	Si
SLU 80	-0.09	-12515	-468	1710.9		15494	1.795	7621	6156			13.15	Si
SLU 70	-0.49	-12060	-460	1510.32		14930	1.795	7546	6095			13.25	Si
SLU 70	-0.09	-11094	-467	1558.04		13735	1.795	7387	5967			12.78	Si
SLU 73	-0.49	-13489	-476	1601.92		16700	1.795	7782	6286			13.2	Si
SLU 73	-0.09	-12466	-488	1708.59		15433	1.795	7613	6150			12.61	Si
SLU 72	-0.49	-12060	-460	1510.32		14930	1.795	7546	6095			13.25	Si
SLU 72	-0.09	-11094	-467	1558.04		13735	1.795	7387	5967			12.78	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	-0.49	-11526	-2053	1774.79		14270	1.795	11187	9037			4.4	Si
SLV 2	-0.09	-10691	-1233	2025.01		13236	1.795	10980	8869			7.19	Si
SLV 1	-0.49	-11526	-2053	1774.79		14270	1.795	11187	9037			4.4	Si
SLV 1	-0.09	-10691	-1233	2025.01		13236	1.795	10980	8869			7.19	Si
SLV 5	-0.49	-9311	-1157	1269.19		11527	1.795	10639	8594			7.43	Si
SLV 5	-0.09	-8524	-759	1354.29		10553	1.795	10444	8436			11.11	Si
SLV 16	-0.49	-7574	1401	559.16		9377	1.795	10209	8246			5.89	Si
SLV 16	-0.09	-6882	581	396.94		8520	1.795	10037	8108			13.95	Si
SLV 3	-0.49	-12075	-1847	1827.62		14949	1.795	11323	9146			4.95	Si
SLV 3	-0.09	-11241	-1127	2091.53		13916	1.795	11117	8979			7.96	Si
SLV 15	-0.49	-7574	1401	559.16		9377	1.795	10209	8246			5.89	Si
SLV 15	-0.09	-6882	581	396.94		8520	1.795	10037	8108			13.95	Si
SLV 6	-0.49	-9311	-1157	1269.19		11527	1.795	10639	8594			7.43	Si
SLV 6	-0.09	-8524	-759	1354.29		10553	1.795	10444	8436			11.11	Si
SLV 4	-0.49	-12075	-1847	1827.62		14949	1.795	11323	9146			4.95	Si
SLV 4	-0.09	-11241	-1127	2091.53		13916	1.795	11117	8979			7.96	Si
SLV 13	-0.49	-7026	1195	506.33		8698	1.795	10073	8136			6.81	Si
SLV 13	-0.09	-6333	475	330.41		7840	1.795	9901	7998			16.84	Si
SLV 14	-0.49	-7026	1195	506.33		8698	1.795	10073	8136			6.81	Si
SLV 14	-0.09	-6333	475	330.41		7840	1.795	9901	7998			16.84	Si

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

quota -0.69 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 13	143750	0.24	8302	-6706	85.25	1406.38	16.5	Si
SLV 14	143750	0.24	8302	-6706	85.25	1406.38	16.5	Si



Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 15	143750	0.24	8976	-7250	85.25	1511.42	17.73	Si
SLV 16	143750	0.24	8976	-7250	85.25	1511.42	17.73	Si
SLV 10	143750	0.24	9114	-7362	85.25	1532.86	17.98	Si
SLV 9	143750	0.24	9114	-7362	85.25	1532.86	17.98	Si
SLV 6	143750	0.24	10483	-8468	85.25	1741.74	20.43	Si
SLV 5	143750	0.24	10483	-8468	85.25	1741.74	20.43	Si
SLV 12	143750	0.24	11358	-9174	85.25	1872.34	21.96	Si
SLV 11	143750	0.24	11358	-9174	85.25	1872.34	21.96	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = -0.69  $W_a = 0.08$   $T_a = 0.0214$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 1	-8110	-11473	-50	0.105	1102.1	0.932	1.64165	9.59705	No
SLV 2	-8110	-11473	-50	0.105	1102.1	0.932	1.64165	9.59705	No
SLV 4	-8553	-12127	24	0.107	1146.9	0.934	1.66963	9.59705	No
SLV 3	-8553	-12127	24	0.107	1146.9	0.934	1.66963	9.59705	No
SLV 15	-5581	-8613	49	0.109	847.7	0.917	1.73345	9.59705	No
SLV 16	-5581	-8613	49	0.109	847.7	0.917	1.73345	9.59705	No
SLV 13	-5139	-7959	-24	0.114	803.5	0.914	1.8132	9.59705	No
SLV 14	-5139	-7959	-24	0.114	803.5	0.914	1.8132	9.59705	No
SLV 7	-8029	-11660	119	0.098	1094	0.932	1.5343	2.39674	No
SLV 8	-8029	-11660	119	0.098	1094	0.932	1.5343	2.39674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.302	SLU 65	Si
V_SLU	12.245	SLU 65	Si
PF_SLV	4.225	SLV 1	Si
V_SLV	4.402	SLV 1	Si
PFFP_SLV	16.496	SLV 13	Si
R_SLV	0.171	SLV 1	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
-5.041	7.016	-1.281	7.016	L1	L2	3.76	0.45	2.4	2.4	2.4			

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>	t <sub>0</sub>	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 23	-0.49	-17264	-2275.04	10203	28390.7	12.479	Si
SLU 23	-0.09	-16260	-2208.32	9610	26963.13	12.21	Si
SLU 73	-0.49	-23861	-2943.71	14102	37092.74	12.601	Si
SLU 73	-0.09	-22572	-2846.71	13341	35486.23	12.466	Si
SLU 42	-0.49	-20728	-2551.84	12251	33108.32	12.974	Si
SLU 42	-0.09	-19776	-2501.77	11688	31844.05	12.729	Si
SLU 40	-0.49	-20728	-2551.84	12251	33108.32	12.974	Si
SLU 40	-0.09	-19776	-2501.77	11688	31844.05	12.729	Si
SLU 10	-0.49	-17935	-2256.83	10600	29330.43	12.996	Si
SLU 10	-0.09	-16943	-2178.24	10013	27936.81	12.825	Si
SLU 13	-0.49	-17935	-2256.83	10600	29330.43	12.996	Si
SLU 13	-0.09	-16943	-2178.24	10013	27936.81	12.825	Si
SLU 31	-0.49	-19520	-2568.67	11537	31500.6	12.263	Si
SLU 31	-0.09	-18558	-2523.12	10968	30191.72	11.966	Si
SLU 76	-0.49	-23861	-2943.71	14102	37092.74	12.601	Si
SLU 76	-0.09	-22572	-2846.71	13341	35486.23	12.466	Si
SLU 26	-0.49	-17264	-2275.04	10203	28390.7	12.479	Si
SLU 26	-0.09	-16260	-2208.32	9610	26963.13	12.21	Si
SLU 34	-0.49	-19520	-2568.67	11537	31500.6	12.263	Si
SLU 34	-0.09	-18558	-2523.12	10968	30191.72	11.966	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 9	-0.49	-13689	-9161.57	8091	24031.51	2.623	Si
SLV 9	-0.09	-12587	-9565.65	7439	22222.08	2.323	Si
SLV 3	-0.49	-17547	4136.55	10371	30188.75	7.298	Si
SLV 3	-0.09	-16833	4804.75	9949	29069.24	6.05	Si
SLV 14	-0.49	-17210	-7695.56	10171	29661.24	3.854	Si
SLV 14	-0.09	-15857	-8127.27	9372	27524.46	3.387	Si
SLV 10	-0.49	-13689	-9161.57	8091	24031.51	2.623	Si
SLV 10	-0.09	-12587	-9565.65	7439	22222.08	2.323	Si
SLV 4	-0.49	-17547	4136.55	10371	30188.75	7.298	Si
SLV 4	-0.09	-16833	4804.75	9949	29069.24	6.05	Si
SLV 7	-0.49	-21068	5602.55	12451	35571.45	6.349	Si
SLV 7	-0.09	-20103	6243.12	11881	34119.05	5.465	Si
SLV 6	-0.49	-13071	-6721.06	7725	23019.12	3.425	Si
SLV 6	-0.09	-12165	-6865.85	7190	21524.29	3.135	Si
SLV 13	-0.49	-17210	-7695.56	10171	29661.24	3.854	Si



Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 13	-0.09	-15857	-8127.27	9372	27524.46	3.387	Si
SLV 8	-0.49	-21068	5602.55	12451	35571.45	6.349	Si
SLV 8	-0.09	-20103	6243.12	11881	34119.05	5.465	Si
SLV 5	-0.49	-13071	-6721.06	7725	23019.12	3.425	Si
SLV 5	-0.09	-12165	-6865.85	7190	21524.29	3.135	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'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	-0.49	-23861	440	-2943.71		14102	3.76	7436	12581			28.57	Si
SLU 73	-0.09	-22572	444	-2846.71		13341	3.76	7334	12410			27.92	Si
SLU 65	-0.49	-21605	414	-2650.07		12769	3.76	7258	12281			29.67	Si
SLU 65	-0.09	-20275	418	-2531.91		11983	3.76	7153	12103			28.97	Si
SLU 68	-0.49	-21605	414	-2650.07		12769	3.76	7258	12281			29.67	Si
SLU 68	-0.09	-20275	418	-2531.91		11983	3.76	7153	12103			28.97	Si
SLU 84	-0.49	-25069	423	-2926.88		14816	3.76	7531	12743			30.11	Si
SLU 84	-0.09	-23790	426	-2825.36		14060	3.76	7430	12572			29.51	Si
SLU 80	-0.49	-24102	412	-2801.03		14245	3.76	7455	12614			30.63	Si
SLU 80	-0.09	-22805	415	-2690.44		13478	3.76	7353	12441			30.01	Si
SLU 78	-0.49	-24102	412	-2801.03		14245	3.76	7455	12614			30.63	Si
SLU 78	-0.09	-22805	415	-2690.44		13478	3.76	7353	12441			30.01	Si
SLU 82	-0.49	-25069	423	-2926.88		14816	3.76	7531	12743			30.11	Si
SLU 82	-0.09	-23790	426	-2825.36		14060	3.76	7430	12572			29.51	Si
SLU 31	-0.49	-19520	393	-2568.67		11537	3.76	7094	12003			30.57	Si
SLU 31	-0.09	-18558	397	-2523.12		10968	3.76	7018	11874			29.94	Si
SLU 34	-0.49	-19520	393	-2568.67		11537	3.76	7094	12003			30.57	Si
SLU 34	-0.09	-18558	397	-2523.12		10968	3.76	7018	11874			29.94	Si
SLU 76	-0.49	-23861	440	-2943.71		14102	3.76	7436	12581			28.57	Si
SLU 76	-0.09	-22572	444	-2846.71		13341	3.76	7334	12410			27.92	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 3	-0.49	-17547	-2293	4136.55		10371	3.76	10407	17609			7.68	Si
SLV 3	-0.09	-16833	-1925	4804.75		9949	3.76	10323	17467			9.08	Si
SLV 2	-0.49	-15148	-1588	439.46		8953	3.76	10124	17130			10.79	Si
SLV 2	-0.09	-14451	-1160	872.06		8541	3.76	10042	16990			14.64	Si
SLV 13	-0.49	-17210	2808	-7695.56		10171	3.76	10368	17542			6.25	Si
SLV 13	-0.09	-15857	2440	-8127.27		9372	3.76	10208	17271			7.08	Si
SLV 16	-0.49	-19609	2102	-3998.48		11589	3.76	10651	18022			8.57	Si
SLV 16	-0.09	-18238	1676	-4194.58		10779	3.76	10489	17748			10.59	Si
SLV 14	-0.49	-17210	2808	-7695.56		10171	3.76	10368	17542			6.25	Si
SLV 14	-0.09	-15857	2440	-8127.27		9372	3.76	10208	17271			7.08	Si
SLV 1	-0.49	-15148	-1588	439.46		8953	3.76	10124	17130			10.79	Si
SLV 1	-0.09	-14451	-1160	872.06		8541	3.76	10042	16990			14.64	Si
SLV 4	-0.49	-17547	-2293	4136.55		10371	3.76	10407	17609			7.68	Si
SLV 4	-0.09	-16833	-1925	4804.75		9949	3.76	10323	17467			9.08	Si
SLV 10	-0.49	-13689	2092	-9161.57		8375	3.6322	10008	16359			7.82	Si
SLV 10	-0.09	-12587	2071	-9565.65		8324	3.36	9998	15117			7.3	Si
SLV 9	-0.49	-13689	2092	-9161.57		8375	3.6322	10008	16359			7.82	Si
SLV 9	-0.09	-12587	2071	-9565.65		8324	3.36	9998	15117			7.3	Si
SLV 15	-0.49	-19609	2102	-3998.48		11589	3.76	10651	18022			8.57	Si
SLV 15	-0.09	-18238	1676	-4194.58		10779	3.76	10489	17748			10.59	Si

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

quota -0.69 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\alpha 0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	143750	0.24	7117	-12041	178.58	2551.53	14.29	Si
SLV 5	143750	0.24	7117	-12041	178.58	2551.53	14.29	Si
SLV 9	143750	0.24	7297	-12346	178.58	2611.96	14.63	Si
SLV 10	143750	0.24	7297	-12346	178.58	2611.96	14.63	Si
SLV 1	143750	0.24	8618	-14582	178.58	3049.45	17.08	Si
SLV 2	143750	0.24	8618	-14582	178.58	3049.45	17.08	Si
SLV 14	143750	0.24	9218	-15596	178.58	3244.47	18.17	Si
SLV 13	143750	0.24	9218	-15596	178.58	3244.47	18.17	Si
SLV 3	143750	0.24	10085	-17063	178.58	3522.36	19.72	Si
SLV 4	143750	0.24	10085	-17063	178.58	3522.36	19.72	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = -0.69 Wa = 0.08 Ta = 0.0214

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 3	-13316	-19697	235	0.1	1938.7	0.922	1.5776	9.59705	No
SLV 4	-13316	-19697	235	0.1	1938.7	0.922	1.5776	9.59705	No
SLV 16	-14344	-20251	-214	0.101	2042	0.925	1.58461	9.59705	No
SLV 15	-14344	-20251	-214	0.101	2042	0.925	1.58461	9.59705	No
SLV 14	-12784	-17027	-232	0.101	1885.3	0.92	1.58698	9.59705	No
SLV 13	-12784	-17027	-232	0.101	1885.3	0.92	1.58698	9.59705	No
SLV 1	-11757	-16473	218	0.102	1782.3	0.917	1.61402	9.59705	No
SLV 2	-11757	-16473	218	0.102	1782.3	0.917	1.61402	9.59705	No
SLV 8	-15495	-23652	98	0.107	2158	0.928	1.66801	2.39674	No
SLV 7	-15495	-23652	98	0.107	2158	0.928	1.66801	2.39674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	11.966	SLU 31	Si
V_SLU	27.919	SLU 73	Si
PF_SLV	2.323	SLV 9	Si
V_SLV	6.248	SLV 13	Si
PFFP_SLV	14.288	SLV 5	Si
R_SLV	0.164	SLV 3	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	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-0.281	7.016	1.744	7.016	L1	L2	2.025	0.45	2.4	2.4	2.4			

### 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 47	-0.49	-9313	-883.28	10220	8246.01	9.336	Si
SLU 47	-0.09	-8461	-1006.15	9285	7590.41	7.544	Si
SLU 65	-0.49	-9507	-839.81	10433	8393.23	9.994	Si
SLU 65	-0.09	-8615	-998.99	9454	7710.12	7.718	Si
SLU 51	-0.49	-9355	-877.62	10266	8278.08	9.432	Si
SLU 51	-0.09	-8503	-1005.47	9331	7622.8	7.581	Si
SLU 43	-0.49	-9418	-869.12	10336	8326.1	9.58	Si
SLU 43	-0.09	-8565	-1004.45	9399	7671.31	7.637	Si
SLU 50	-0.49	-9418	-869.12	10336	8326.1	9.58	Si
SLU 50	-0.09	-8565	-1004.45	9399	7671.31	7.637	Si
SLU 46	-0.49	-9355	-877.62	10266	8278.08	9.432	Si
SLU 46	-0.09	-8503	-1005.47	9331	7622.8	7.581	Si
SLU 44	-0.49	-9313	-883.28	10220	8246.01	9.336	Si
SLU 44	-0.09	-8461	-1006.15	9285	7590.41	7.544	Si
SLU 49	-0.49	-9355	-877.62	10266	8278.08	9.432	Si
SLU 49	-0.09	-8503	-1005.47	9331	7622.8	7.581	Si
SLU 48	-0.49	-9418	-869.12	10336	8326.1	9.58	Si
SLU 48	-0.09	-8565	-1004.45	9399	7671.31	7.637	Si
SLU 45	-0.49	-9418	-869.12	10336	8326.1	9.58	Si
SLU 45	-0.09	-8565	-1004.45	9399	7671.31	7.637	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 7	-0.49	-8524	-703.18	9354	7969.7	11.334	Si
SLV 7	-0.09	-7792	-1043.03	8550	7336.9	7.034	Si
SLV 11	-0.49	-9561	-1017.38	10492	8848.96	8.698	Si
SLV 11	-0.09	-8772	-1491.72	9626	8181.74	5.485	Si
SLV 16	-0.49	-9663	-1215.91	10604	8934.88	7.348	Si
SLV 16	-0.09	-8849	-1663.46	9711	8247.8	4.958	Si
SLV 8	-0.49	-8524	-703.18	9354	7969.7	11.334	Si
SLV 8	-0.09	-7792	-1043.03	8550	7336.9	7.034	Si
SLV 13	-0.49	-8714	-1071.88	9563	8132.72	7.587	Si
SLV 13	-0.09	-7936	-1361.96	8708	7462.06	5.479	Si
SLV 9	-0.49	-6398	-537.26	7021	6105.5	11.364	Si
SLV 9	-0.09	-5726	-486.74	6283	5499.27	11.298	Si
SLV 10	-0.49	-6398	-537.26	7021	6105.5	11.364	Si
SLV 10	-0.09	-5726	-486.74	6283	5499.27	11.298	Si
SLV 14	-0.49	-8714	-1071.88	9563	8132.72	7.587	Si
SLV 14	-0.09	-7936	-1361.96	8708	7462.06	5.479	Si
SLV 15	-0.49	-9663	-1215.91	10604	8934.88	7.348	Si
SLV 15	-0.09	-8849	-1663.46	9711	8247.8	4.958	Si
SLV 12	-0.49	-9561	-1017.38	10492	8848.96	8.698	Si
SLV 12	-0.09	-8772	-1491.72	9626	8181.74	5.485	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 71	-0.49	-9613	100	-825.65		10549	2.025	6962	6344			63.65	Si
SLU 71	-0.09	-8718	99	-997.29		9568	2.025	6831	6225			62.92	Si
SLU 43	-0.49	-9418	113	-869.12		10336	2.025	6934	6318			55.91	Si
SLU 43	-0.09	-8565	112	-1004.45		9399	2.025	6809	6204			55.19	Si
SLU 51	-0.49	-9355	98	-877.62		10266	2.025	6924	6310			64.56	Si
SLU 51	-0.09	-8503	96	-1005.47		9331	2.025	6800	6196			64.23	Si
SLU 49	-0.49	-9355	98	-877.62		10266	2.025	6924	6310			64.56	Si
SLU 49	-0.09	-8503	96	-1005.47		9331	2.025	6800	6196			64.23	Si
SLU 64	-0.49	-9613	100	-825.65		10549	2.025	6962	6344			63.65	Si
SLU 64	-0.09	-8718	99	-997.29		9568	2.025	6831	6225			62.92	Si
SLU 66	-0.49	-9613	100	-825.65		10549	2.025	6962	6344			63.65	Si
SLU 66	-0.09	-8718	99	-997.29		9568	2.025	6831	6225			62.92	Si
SLU 45	-0.49	-9418	113	-869.12		10336	2.025	6934	6318			55.91	Si
SLU 45	-0.09	-8565	112	-1004.45		9399	2.025	6809	6204			55.19	Si
SLU 50	-0.49	-9418	113	-869.12		10336	2.025	6934	6318			55.91	Si
SLU 50	-0.09	-8565	112	-1004.45		9399	2.025	6809	6204			55.19	Si
SLU 48	-0.49	-9418	113	-869.12		10336	2.025	6934	6318			55.91	Si
SLU 48	-0.09	-8565	112	-1004.45		9399	2.025	6809	6204			55.19	Si
SLU 69	-0.49	-9613	100	-825.65		10549	2.025	6962	6344			63.65	Si
SLU 69	-0.09	-8718	99	-997.29		9568	2.025	6831	6225			62.92	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 15	-0.49	-9663	1106	-1215.91		10604	2.025	10454	9526			8.62	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	-0.09	-8849	1059	-1663.46		9711	2.025	10276	9364			8.84	Si
SLV 11	-0.49	-9561	883	-1017.38		10492	2.025	10432	9506			10.77	Si
SLV 11	-0.09	-8772	1268	-1491.72		9626	2.025	10259	9348			7.37	Si
SLV 8	-0.49	-8524	362	-703.18		9354	2.025	10204	9299			25.66	Si
SLV 8	-0.09	-7792	854	-1043.03		8550	2.025	10043	9152			10.72	Si
SLV 5	-0.49	-5361	-736	-223.06		5883	2.025	9510	8666			11.77	Si
SLV 5	-0.09	-4746	-1123	-38.04		5208	2.025	9375	8543			7.61	Si
SLV 1	-0.49	-5258	-959	-24.53		5770	2.025	9487	8645			9.01	Si
SLV 1	-0.09	-4668	-914	133.69		5123	2.025	9358	8527			9.33	Si
SLV 12	-0.49	-9561	883	-1017.38		10492	2.025	10432	9506			10.77	Si
SLV 12	-0.09	-8772	1268	-1491.72		9626	2.025	10259	9348			7.37	Si
SLV 6	-0.49	-5361	-736	-223.06		5883	2.025	9510	8666			11.77	Si
SLV 6	-0.09	-4746	-1123	-38.04		5208	2.025	9375	8543			7.61	Si
SLV 7	-0.49	-8524	362	-703.18		9354	2.025	10204	9299			25.66	Si
SLV 7	-0.09	-7792	854	-1043.03		8550	2.025	10043	9152			10.72	Si
SLV 2	-0.49	-5258	-959	-24.53		5770	2.025	9487	8645			9.01	Si
SLV 2	-0.09	-4668	-914	133.69		5123	2.025	9358	8527			9.33	Si
SLV 16	-0.49	-9663	1106	-1215.91		10604	2.025	10454	9526			8.62	Si
SLV 16	-0.09	-8849	1059	-1663.46		9711	2.025	10276	9364			8.84	Si

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

quota -0.69 Wa 0.08 denominatore  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 1	143750	0.24	6116	-5573	96.18	1191.24	12.39	Si
SLV 2	143750	0.24	6116	-5573	96.18	1191.24	12.39	Si
SLV 5	143750	0.24	6180	-5631	96.18	1202.97	12.51	Si
SLV 6	143750	0.24	6180	-5631	96.18	1202.97	12.51	Si
SLV 3	143750	0.24	7086	-6457	96.18	1368.52	14.23	Si
SLV 4	143750	0.24	7086	-6457	96.18	1368.52	14.23	Si
SLV 9	143750	0.24	7204	-6564	96.18	1389.92	14.45	Si
SLV 10	143750	0.24	7204	-6564	96.18	1389.92	14.45	Si
SLV 7	143750	0.24	9411	-8576	96.18	1780.95	18.52	Si
SLV 8	143750	0.24	9411	-8576	96.18	1780.95	18.52	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = -0.69 Wa = 0.08 Ta = 0.0214

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 1	-3331	-7439	314	0.069	663.4	0.895	1.12504	9.59705	No
SLV 2	-3331	-7439	314	0.069	663.4	0.895	1.12504	9.59705	No
SLV 15	-5997	-11220	-301	0.079	926.4	0.915	1.25619	9.59705	No
SLV 16	-5997	-11220	-301	0.079	926.4	0.915	1.25619	9.59705	No
SLV 13	-5504	-10334	-93	0.106	877.2	0.912	1.69004	9.59705	No
SLV 14	-5504	-10334	-93	0.106	877.2	0.912	1.69004	9.59705	No
SLV 4	-3825	-8326	106	0.107	711.4	0.899	1.73558	9.59705	No
SLV 3	-3825	-8326	106	0.107	711.4	0.899	1.73558	9.59705	No
SLV 6	-3516	-7418	415	0.052	681.3	0.897	0.83909	2.39674	No
SLV 5	-3516	-7418	415	0.052	681.3	0.897	0.83909	2.39674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.544	SLU 44	Si
V_SLU	55.189	SLU 43	Si
PF_SLV	4.958	SLV 15	Si
V_SLV	7.374	SLV 11	Si
PFFP_SLV	12.386	SLV 1	Si
R_SLV	0.117	SLV 1	No

## Maschio 10

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

Maschio considerato membratura sismica secondaria

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
-1.481	-2.189	-1.481	-2.564	L1	L2	0.375	0.3	2.4	2.4	2.4			

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>med</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 21	-1.89	-2189	-26.1	19457	312.38	11.969	Si
SLU 21	0.17	-2133	41.51	18958	306.83	7.392	Si
SLU 83	-1.89	-2847	-36.95	25305	367.96	9.959	Si
SLU 83	0.17	-2743	45.08	24381	360.36	7.994	Si
SLU 39	-1.89	-2484	-34.12	22081	339.52	9.95	Si
SLU 39	0.17	-2496	46.21	22188	340.54	7.37	Si
SLU 19	-1.89	-2189	-26.1	19457	312.38	11.969	Si
SLU 19	0.17	-2133	41.51	18958	306.83	7.392	Si
SLU 18	-1.89	-2187	-25.91	19443	312.23	12.049	Si
SLU 18	0.17	-2131	41.62	18941	306.64	7.367	Si
SLU 41	-1.89	-2484	-34.12	22081	339.52	9.95	Si
SLU 41	0.17	-2496	46.21	22188	340.54	7.37	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 81	-1.89	-2847	-36.95	25305	367.96	9.959	Si
SLU 81	0.17	-2743	45.08	24381	360.36	7.994	Si
SLU 42	-1.89	-2486	-34.31	22095	339.65	9.901	Si
SLU 42	0.17	-2498	46.09	22205	340.71	7.392	Si
SLU 20	-1.89	-2187	-25.91	19443	312.23	12.049	Si
SLU 20	0.17	-2131	41.62	18941	306.64	7.367	Si
SLU 40	-1.89	-2486	-34.31	22095	339.65	9.901	Si
SLU 40	0.17	-2498	46.09	22205	340.71	7.392	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 58	-1.89	-2358	0	-26.61		20962	0.375	8350	939			1000	Si
SLU 58	0.17	-2110	0	28.45		18758	0.375	8057	906			1000	Si
SLU 1	-1.89	-1548	0	-18.81		13761	0.375	7390	831			1000	Si
SLU 1	0.17	-1240	0	1.47		11020	0.375	7025	790			1000	Si
SLU 61	-1.89	-2552	0	-28.93		22680	0.375	8580	965			1000	Si
SLU 61	0.17	-2380	0	40.38		21151	0.375	8376	942			1000	Si
SLU 56	-1.89	-2358	0	-26.61		20962	0.375	8350	939			1000	Si
SLU 56	0.17	-2110	0	28.45		18758	0.375	8057	906			1000	Si
SLU 59	-1.89	-2360	0	-26.8		20976	0.375	8352	940			1000	Si
SLU 59	0.17	-2112	0	28.33		18775	0.375	8059	907			1000	Si
SLU 57	-1.89	-2360	0	-26.8		20976	0.375	8352	940			1000	Si
SLU 57	0.17	-2112	0	28.33		18775	0.375	8059	907			1000	Si
SLU 55	-1.89	-2361	0	-26.92		20985	0.375	8354	940			1000	Si
SLU 55	0.17	-2113	0	28.26		18787	0.375	8060	907			1000	Si
SLU 54	-1.89	-2360	0	-26.8		20976	0.375	8352	940			1000	Si
SLU 54	0.17	-2112	0	28.33		18775	0.375	8059	907			1000	Si
SLU 53	-1.89	-2358	0	-26.61		20962	0.375	8350	939			1000	Si
SLU 53	0.17	-2110	0	28.45		18758	0.375	8057	906			1000	Si
SLU 60	-1.89	-2550	0	-28.74		22666	0.375	8578	965			1000	Si
SLU 60	0.17	-2378	0	40.5		21134	0.375	8373	942			1000	Si

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

quota -0.69 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 7	143750	0.24	12362	-1391	11.87	187.5	15.79	Si
SLV 8	143750	0.24	12362	-1391	11.87	187.5	15.79	Si
SLV 12	143750	0.24	12491	-1405	11.87	189.24	15.94	Si
SLV 11	143750	0.24	12491	-1405	11.87	189.24	15.94	Si
SLV 4	143750	0.24	13518	-1521	11.87	202.87	17.09	Si
SLV 3	143750	0.24	13518	-1521	11.87	202.87	17.09	Si
SLV 16	143750	0.24	13947	-1569	11.87	208.49	17.56	Si
SLV 15	143750	0.24	13947	-1569	11.87	208.49	17.56	Si
SLV 2	143750	0.24	14637	-1647	11.87	217.41	18.31	Si
SLV 1	143750	0.24	14637	-1647	11.87	217.41	18.31	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -0.69 Wa = 0.05 Ta = 0.0321

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 3	-930	-1675	256	0	133.4	0.924	0	10.17037	No
SLV 1	-1156	-1800	221	0	156.2	0.933	0	10.17037	No
SLV 16	-1239	-1722	-222	0	164.6	0.936	0	10.17037	No
SLV 13	-1465	-1847	-258	0	187.4	0.942	0	10.17037	No
SLV 8	-776	-1545	130	0	117.9	0.917	0	2.39674	No
SLV 15	-1239	-1722	-222	0	164.6	0.936	0	10.17037	No
SLV 7	-776	-1545	130	0	117.9	0.917	0	2.39674	No
SLV 14	-1465	-1847	-258	0	187.4	0.942	0	10.17037	No
SLV 4	-930	-1675	256	0	133.4	0.924	0	10.17037	No
SLV 2	-1156	-1800	221	0	156.2	0.933	0	10.17037	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	7.367	SLU 18	Si
V_SLV	1000	SLU 1	Si
PFFP_SLV	15.792	SLV 7	Si
R_SLV	0	SLV 1	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1.481	2.541	-1.481	-0.779	L1	L2	3.32	0.3	2.4	2.4	2.4			

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 40	-1.89	-26959	-13298.83	27067	29881.54	2.247	Si
SLU 40	0.31	-21640	-23692.85	21727	26340.82	1.112	Si



Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 61	-1.89	-26098	-11798.74	26203	29386.93	2.491	Si
SLU 61	0.31	-19688	-21276.63	19767	24751.61	1.163	Si
SLU 81	-1.89	-29434	-13846.04	29552	31134.22	2.249	Si
SLU 81	0.31	-22713	-24414.96	22804	27148.14	1.112	Si
SLU 84	-1.89	-29625	-13826.79	29744	31220.55	2.258	Si
SLU 84	0.31	-22950	-24767.33	23042	27320.31	1.103	Si
SLU 82	-1.89	-29625	-13826.79	29744	31220.55	2.258	Si
SLU 82	0.31	-22950	-24767.33	23042	27320.31	1.103	Si
SLU 63	-1.89	-26098	-11798.74	26203	29386.93	2.491	Si
SLU 63	0.31	-19688	-21276.63	19767	24751.61	1.163	Si
SLU 42	-1.89	-26959	-13298.83	27067	29881.54	2.247	Si
SLU 42	0.31	-21640	-23692.85	21727	26340.82	1.112	Si
SLU 39	-1.89	-26768	-13318.08	26875	29774.37	2.236	Si
SLU 39	0.31	-21402	-23340.47	21488	26155.93	1.121	Si
SLU 83	-1.89	-29434	-13846.04	29552	31134.22	2.249	Si
SLU 83	0.31	-22713	-24414.96	22804	27148.14	1.112	Si
SLU 41	-1.89	-26768	-13318.08	26875	29774.37	2.236	Si
SLU 41	0.31	-21402	-23340.47	21488	26155.93	1.121	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 14	-1.89	-19243	-7106.92	19320	26892.66	3.784	Si
SLV 14	0.31	-17429	-21033.44	17499	24789.22	1.179	Si
SLV 6	-1.89	-22272	-5870.06	22362	30205.87	5.146	Si
SLV 6	0.31	-15248	-16764.58	15309	22140.04	1.321	Si
SLV 16	-1.89	-15247	-7066.9	15309	22139.41	3.133	Si
SLV 16	0.31	-14055	-16220.61	14111	20636.47	1.272	Si
SLV 9	-1.89	-23026	-6462.47	23118	30991.08	4.796	Si
SLV 9	0.31	-18072	-21326.35	18144	25544.52	1.198	Si
SLV 10	-1.89	-23026	-6462.47	23118	30991.08	4.796	Si
SLV 10	0.31	-18072	-21326.35	18144	25544.52	1.198	Si
SLV 11	-1.89	-9706	-6329.05	9745	14827.51	2.343	Si
SLV 11	0.31	-6823	-5283.58	6850	10690.93	2.023	Si
SLV 12	-1.89	-9706	-6329.05	9745	14827.51	2.343	Si
SLV 12	0.31	-6823	-5283.58	6850	10690.93	2.023	Si
SLV 5	-1.89	-22272	-5870.06	22362	30205.87	5.146	Si
SLV 5	0.31	-15248	-16764.58	15309	22140.04	1.321	Si
SLV 13	-1.89	-19243	-7106.92	19320	26892.66	3.784	Si
SLV 13	0.31	-17429	-21033.44	17499	24789.22	1.179	Si
SLV 15	-1.89	-15247	-7066.9	15309	22139.41	3.133	Si
SLV 15	0.31	-14055	-16220.61	14111	20636.47	1.272	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	-1.89	-29625	4297	-13826.79		29744	3.32	9521	9483			2.21	Si
SLU 82	0.31	-22950	5112	-24767.33		43904	1.7424	10833	5663			1.11	Si
SLU 73	-1.89	-26655	3788	-11650.24		26762	3.32	9124	9087			2.4	Si
SLU 73	0.31	-20094	4536	-21318.61		37270	1.7971	10525	5674			1.25	Si
SLU 81	-1.89	-29434	4154	-13846.04		29552	3.32	9496	9458			2.28	Si
SLU 81	0.31	-22713	4973	-24414.96		43135	1.7551	10833	5704			1.15	Si
SLU 84	-1.89	-29625	4297	-13826.79		29744	3.32	9521	9483			2.21	Si
SLU 84	0.31	-22950	5112	-24767.33		43904	1.7424	10833	5663			1.11	Si
SLU 83	-1.89	-29434	4154	-13846.04		29552	3.32	9496	9458			2.28	Si
SLU 83	0.31	-22713	4973	-24414.96		43135	1.7551	10833	5704			1.15	Si
SLU 76	-1.89	-26655	3788	-11650.24		26762	3.32	9124	9087			2.4	Si
SLU 76	0.31	-20094	4536	-21318.61		37270	1.7971	10525	5674			1.25	Si
SLU 40	-1.89	-26959	4096	-13298.83		27067	3.32	9165	9128			2.23	Si
SLU 40	0.31	-21640	4828	-23692.85		42547	1.6954	10833	5510			1.14	Si
SLU 41	-1.89	-26768	3953	-13318.08		26875	3.32	9139	9102			2.3	Si
SLU 41	0.31	-21402	4689	-23340.47		41761	1.7084	10833	5552			1.18	Si
SLU 39	-1.89	-26768	3953	-13318.08		26875	3.32	9139	9102			2.3	Si
SLU 39	0.31	-21402	4689	-23340.47		41761	1.7084	10833	5552			1.18	Si
SLU 42	-1.89	-26959	4096	-13298.83		27067	3.32	9165	9128			2.23	Si
SLU 42	0.31	-21640	4828	-23692.85		42547	1.6954	10833	5510			1.14	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	-1.89	-23026	6395	-6462.47		23118	3.32	12957	12905			2.02	Si
SLV 9	0.31	-18072	6801	-21326.35		41840	1.4397	16250	7019			1.03	Si
SLV 15	-1.89	-15247	1396	-7066.9		15309	3.32	11395	11349			8.13	Si
SLV 15	0.31	-14055	1863	-16220.61		30869	1.5177	14507	6605			3.55	Si
SLV 1	-1.89	-16732	2442	-5132.21		16799	3.32	11693	11646			4.77	Si
SLV 1	0.31	-8016	2938	-5827.55		9546	2.799	10243	8601			2.93	Si
SLV 2	-1.89	-16732	2442	-5132.21		16799	3.32	11693	11646			4.77	Si
SLV 2	0.31	-8016	2938	-5827.55		9546	2.799	10243	8601			2.93	Si
SLV 5	-1.89	-22272	5944	-5870.06		22362	3.32	12806	12754			2.15	Si
SLV 5	0.31	-15248	6370	-16764.58		30225	1.6816	14378	7253			1.14	Si
SLV 6	-1.89	-22272	5944	-5870.06		22362	3.32	12806	12754			2.15	Si
SLV 6	0.31	-15248	6370	-16764.58		30225	1.6816	14378	7253			1.14	Si
SLV 16	-1.89	-15247	1396	-7066.9		15309	3.32	11395	11349			8.13	Si
SLV 16	0.31	-14055	1863	-16220.61		30869	1.5177	14507	6605			3.55	Si
SLV 13	-1.89	-19243	3946	-7106.92		19320	3.32	12197	12149			3.08	Si
SLV 13	0.31	-17429	4374	-21033.44		42729	1.3597	16250	6628			1.52	Si
SLV 10	-1.89	-23026	6395	-6462.47		23118	3.32	12957	12905			2.02	Si
SLV 10	0.31	-18072	6801	-21326.35		41840	1.4397	16250	7019			1.03	Si
SLV 14	-1.89	-19243	3946	-7106.92		19320	3.32	12197	12149			3.08	Si
SLV 14	0.31	-17429	4374	-21033.44		42729	1.3597	16250	6628			1.52	Si





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

quota -0.69 Wa 0.05 denominatore 8  $\gamma M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 7	143750	0.24	8045	-8013	105.12	1122.82	10.68	Si
SLV 8	143750	0.24	8045	-8013	105.12	1122.82	10.68	Si
SLV 11	143750	0.24	8667	-8633	105.12	1203.05	11.44	Si
SLV 12	143750	0.24	8667	-8633	105.12	1203.05	11.44	Si
SLV 4	143750	0.24	11074	-11029	105.12	1504.46	14.31	Si
SLV 3	143750	0.24	11074	-11029	105.12	1504.46	14.31	Si
SLV 16	143750	0.24	13147	-13095	105.12	1752.86	16.67	Si
SLV 15	143750	0.24	13147	-13095	105.12	1752.86	16.67	Si
SLV 2	143750	0.24	14291	-14234	105.12	1885.4	17.94	Si
SLV 1	143750	0.24	14291	-14234	105.12	1885.4	17.94	Si

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

forza di aggancio al piano = 0 quota mezzeria = -0.69 Wa = 0.05 Ta = 0.0321

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 2	-3270	-16732	260	0.039	689.4	0.893	0.63908	10.17037	No
SLV 1	-3270	-16732	260	0.039	689.4	0.893	0.63908	10.17037	No
SLV 15	-13646	-15247	-267	0.054	1728	0.944	0.83299	10.17037	No
SLV 16	-13646	-15247	-267	0.054	1728	0.944	0.83299	10.17037	No
SLV 4	-664	-12736	159	0.054	464.5	0.917	0.85208	10.17037	No
SLV 3	-664	-12736	159	0.054	464.5	0.917	0.85208	10.17037	No
SLV 13	-16252	-19243	-165	0.061	1992.4	0.951	0.92962	10.17037	No
SLV 14	-16252	-19243	-165	0.061	1992.4	0.951	0.92962	10.17037	No
SLV 11	-6062	-9706	-236	0.05	963.5	0.912	0.79922	2.39674	No
SLV 12	-6062	-9706	-236	0.05	963.5	0.912	0.79922	2.39674	No

## Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.103	SLU 82	Si
V_SLU	1.108	SLU 82	Si
PF_SLV	1.179	SLV 13	Si
V_SLV	1.032	SLV 9	Si
PFFP_SLV	10.681	SLV 7	Si
R_SLV	0.063	SLV 1	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	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1.481	7.016	-1.481	3.541	L1	L2	3.475	0.3	2.4	2.4	2.4			

### 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 41	-1.89	-29592	8063.15	28386	33499.28	4.155	Si
SLU 41	0.31	-27702	13397.24	26572	32430.66	2.421	Si
SLU 31	-1.89	-26480	7428.63	25401	31662.71	4.262	Si
SLU 31	0.31	-23982	11545.83	23005	29901.46	2.59	Si
SLU 82	-1.89	-33085	8738.53	31736	35088.81	4.015	Si
SLU 82	0.31	-29967	14051.16	28745	33693.6	2.398	Si
SLU 83	-1.89	-32996	8334.16	31651	35054.76	4.206	Si
SLU 83	0.31	-30076	13849.98	28850	33749.15	2.437	Si
SLU 84	-1.89	-33085	8738.53	31736	35088.81	4.015	Si
SLU 84	0.31	-29967	14051.16	28745	33693.6	2.398	Si
SLU 34	-1.89	-26480	7428.63	25401	31662.71	4.262	Si
SLU 34	0.31	-23982	11545.83	23005	29901.46	2.59	Si
SLU 42	-1.89	-29680	8467.51	28470	33545.64	3.962	Si
SLU 42	0.31	-27592	13598.41	26468	32364.51	2.38	Si
SLU 39	-1.89	-29592	8063.15	28386	33499.28	4.155	Si
SLU 39	0.31	-27702	13397.24	26572	32430.66	2.421	Si
SLU 81	-1.89	-32996	8334.16	31651	35054.76	4.206	Si
SLU 81	0.31	-30076	13849.98	28850	33749.15	2.437	Si
SLU 40	-1.89	-29680	8467.51	28470	33545.64	3.962	Si
SLU 40	0.31	-27592	13598.41	26468	32364.51	2.38	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 6	-1.89	-18534	12075.9	17778	27517.3	2.279	Si
SLV 6	0.31	-10882	10386.12	10438	17292.2	1.665	Si
SLV 15	-1.89	-20004	2907.13	19189	29298.81	10.078	Si
SLV 15	0.31	-18375	8069.99	17626	27320.58	3.385	Si
SLV 14	-1.89	-20374	8323.29	19544	29738.24	3.573	Si
SLV 14	0.31	-15810	11343.1	15166	24060.49	2.121	Si
SLV 10	-1.89	-19583	13260.32	18784	28794.29	2.171	Si
SLV 10	0.31	-11776	12590.25	11296	18568.64	1.475	Si
SLV 16	-1.89	-20004	2907.13	19189	29298.81	10.078	Si
SLV 16	0.31	-18375	8069.99	17626	27320.58	3.385	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 5	-1.89	-18534	12075.9	17778	27517.3	2.279	Si
SLV 5	0.31	-10882	10386.12	10438	17292.2	1.665	Si
SLV 7	-1.89	-17300	-5977.98	16594	25976.01	4.345	Si
SLV 7	0.31	-19430	-524.23	18638	28610.68	54.577	Si
SLV 9	-1.89	-19583	13260.32	18784	28794.29	2.171	Si
SLV 9	0.31	-11776	12590.25	11296	18568.64	1.475	Si
SLV 13	-1.89	-20374	8323.29	19544	29738.24	3.573	Si
SLV 13	0.31	-15810	11343.1	15166	24060.49	2.121	Si
SLV 8	-1.89	-17300	-5977.98	16594	25976.01	4.345	Si
SLV 8	0.31	-19430	-524.23	18638	28610.68	54.577	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 83	-1.89	-32996	-4230	8334.16		31651	3.475	9776	10191			2.41	Si
SLU 83	0.31	-30076	-4276	13849.98		28850	3.475	9402	9802			2.29	Si
SLU 60	-1.89	-29552	-3626	7028.32		28347	3.475	9335	9732			2.68	Si
SLU 60	0.31	-26344	-3667	11703.73		25270	3.475	8925	9304			2.54	Si
SLU 42	-1.89	-29680	-3789	8467.51		28470	3.475	9352	9749			2.57	Si
SLU 42	0.31	-27592	-3794	13598.41		26468	3.475	9085	9471			2.5	Si
SLU 62	-1.89	-29552	-3626	7028.32		28347	3.475	9335	9732			2.68	Si
SLU 62	0.31	-26344	-3667	11703.73		25270	3.475	8925	9304			2.54	Si
SLU 40	-1.89	-29680	-3789	8467.51		28470	3.475	9352	9749			2.57	Si
SLU 40	0.31	-27592	-3794	13598.41		26468	3.475	9085	9471			2.5	Si
SLU 84	-1.89	-33085	-3993	8738.53		31736	3.475	9787	10203			2.56	Si
SLU 84	0.31	-29967	-4003	14051.16		28745	3.475	9388	9787			2.44	Si
SLU 41	-1.89	-29592	-4026	8063.15		28386	3.475	9340	9737			2.42	Si
SLU 41	0.31	-27702	-4068	13397.24		26572	3.475	9099	9485			2.33	Si
SLU 82	-1.89	-33085	-3993	8738.53		31736	3.475	9787	10203			2.56	Si
SLU 82	0.31	-29967	-4003	14051.16		28745	3.475	9388	9787			2.44	Si
SLU 39	-1.89	-29592	-4026	8063.15		28386	3.475	9340	9737			2.42	Si
SLU 39	0.31	-27702	-4068	13397.24		26572	3.475	9099	9485			2.33	Si
SLU 81	-1.89	-32996	-4230	8334.16		31651	3.475	9776	10191			2.41	Si
SLU 81	0.31	-30076	-4276	13849.98		28850	3.475	9402	9802			2.29	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	-1.89	-20004	-4280	2907.13		19189	3.475	12171	12688			2.96	Si
SLV 15	0.31	-18375	-4288	8069.99		17626	3.475	11858	12362			2.88	Si
SLV 16	-1.89	-20004	-4280	2907.13		19189	3.475	12171	12688			2.96	Si
SLV 16	0.31	-18375	-4288	8069.99		17626	3.475	11858	12362			2.88	Si
SLV 8	-1.89	-17300	-7486	-5977.98		16594	3.475	11652	12147			1.62	Si
SLV 8	0.31	-19430	-7925	-524.23		18638	3.475	12061	12574			1.59	Si
SLV 7	-1.89	-17300	-7486	-5977.98		16594	3.475	11652	12147			1.62	Si
SLV 7	0.31	-19430	-7925	-524.23		18638	3.475	12061	12574			1.59	Si
SLV 6	-1.89	-18534	3945	12075.9		18964	3.2578	12126	11851			3	Si
SLV 6	0.31	-10882	4255	10386.12		15441	2.3492	11421	8049			1.89	Si
SLV 11	-1.89	-18349	-7853	-4793.56		17600	3.475	11853	12357			1.57	Si
SLV 11	0.31	-20324	-8214	1679.89		19496	3.475	12232	12752			1.55	Si
SLV 5	-1.89	-18534	3945	12075.9		18964	3.2578	12126	11851			3	Si
SLV 5	0.31	-10882	4255	10386.12		15441	2.3492	11421	8049			1.89	Si
SLV 10	-1.89	-19583	3578	13260.32		20520	3.1811	12437	11869			3.32	Si
SLV 10	0.31	-11776	3967	12590.25		19578	2.0049	12249	7367			1.86	Si
SLV 9	-1.89	-19583	3578	13260.32		20520	3.1811	12437	11869			3.32	Si
SLV 9	0.31	-11776	3967	12590.25		19578	2.0049	12249	7367			1.86	Si
SLV 12	-1.89	-18349	-7853	-4793.56		17600	3.475	11853	12357			1.57	Si
SLV 12	0.31	-20324	-8214	1679.89		19496	3.475	12232	12752			1.55	Si

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

quota -0.69  $W_a$  0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	143750	0.24	14476	-15091	110.03	1995.53	18.14	Si
SLV 5	143750	0.24	14476	-15091	110.03	1995.53	18.14	Si
SLV 1	143750	0.24	14533	-15151	110.03	2002.35	18.2	Si
SLV 2	143750	0.24	14533	-15151	110.03	2002.35	18.2	Si
SLV 10	143750	0.24	15430	-16086	110.03	2108.14	19.16	Si
SLV 9	143750	0.24	15430	-16086	110.03	2108.14	19.16	Si
SLV 3	143750	0.24	15536	-16196	110.03	2120.54	19.27	Si
SLV 4	143750	0.24	15536	-16196	110.03	2120.54	19.27	Si
SLV 14	143750	0.24	17712	-18465	110.03	2368.2	21.52	Si
SLV 13	143750	0.24	17712	-18465	110.03	2368.2	21.52	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -0.69  $W_a$  = 0.05  $T_a$  = 0.0321

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	$\alpha_{lim}$	Verifica
SLV 14	-13433	-20374	157	0.061	1722.5	0.942	0.94775	10.17037	No
SLV 13	-13433	-20374	157	0.061	1722.5	0.942	0.94775	10.17037	No
SLV 4	-14120	-16508	-155	0.062	1792.1	0.944	0.9489	10.17037	No
SLV 3	-14120	-16508	-155	0.062	1792.1	0.944	0.9489	10.17037	No
SLV 16	-16125	-20004	102	0.065	1995.5	0.949	0.98932	10.17037	No
SLV 15	-16125	-20004	102	0.065	1995.5	0.949	0.98932	10.17037	No
SLV 2	-11428	-16878	-100	0.066	1519.5	0.936	1.01749	10.17037	No
SLV 1	-11428	-16878	-100	0.066	1519.5	0.936	1.01749	10.17037	No
SLV 8	-17963	-17300	-129	0.063	2182.1	0.953	0.96183	2.39674	No
SLV 7	-17963	-17300	-129	0.063	2182.1	0.953	0.96183	2.39674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLU	2.38	SLU 40	Si



Stato limite	Coeff.s.	Comb.	Verifica
V SLU	2.292	SLU 81	Si
PF SLV	1.475	SLV 9	Si
V SLV	1.553	SLV 11	Si
PFFP SLV	18.136	SLV 5	Si
R SLV	0.093	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	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
0.949	-2.564	1.744	-1.329	L1	L2	1.469	0.45	2.4	2.4	2.4			

### 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 36	-1.89	-9526	359.01	14413	5758.12	16.039	Si
SLU 36	0.51	-6290	289.93	9517	4079.66	14.071	Si
SLU 38	-1.89	-9526	359.01	14413	5758.12	16.039	Si
SLU 38	0.51	-6290	289.93	9517	4079.66	14.071	Si
SLU 34	-1.89	-9552	362.13	14452	5770.1	15.934	Si
SLU 34	0.51	-6286	297.54	9511	4077.45	13.704	Si
SLU 33	-1.89	-9526	359.01	14413	5758.12	16.039	Si
SLU 33	0.51	-6290	289.93	9517	4079.66	14.071	Si
SLU 82	-1.89	-12141	434.49	18369	6905.42	15.893	Si
SLU 82	0.51	-7939	353.15	12012	4970.59	14.075	Si
SLU 41	-1.89	-9995	408.04	15122	5977.41	14.649	Si
SLU 41	0.51	-6807	322.97	10298	4366.67	13.52	Si
SLU 31	-1.89	-9552	362.13	14452	5770.1	15.934	Si
SLU 31	0.51	-6286	297.54	9511	4077.45	13.704	Si
SLU 40	-1.89	-10033	412.72	15180	5994.89	14.525	Si
SLU 40	0.51	-6801	334.38	10289	4363.45	13.049	Si
SLU 39	-1.89	-9995	408.04	15122	5977.41	14.649	Si
SLU 39	0.51	-6807	322.97	10298	4366.67	13.52	Si
SLU 42	-1.89	-10033	412.72	15180	5994.89	14.525	Si
SLU 42	0.51	-6801	334.38	10289	4363.45	13.049	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	-1.89	-8490	1943.62	12846	5579.62	2.871	Si
SLV 15	0.51	-5265	59.53	7966	3614.6	60.721	Si
SLV 11	-1.89	-6866	794.05	10388	4613.53	5.81	Si
SLV 11	0.51	-5180	-103.08	7837	3559.88	34.535	Si
SLV 13	-1.89	-9436	1902.68	14276	6119.71	3.216	Si
SLV 13	0.51	-5203	216.37	7872	3574.88	16.522	Si
SLV 3	-1.89	-7000	-1477.31	10591	4695.14	3.178	Si
SLV 3	0.51	-4814	117.72	7283	3324.33	28.239	Si
SLV 16	-1.89	-8490	1943.62	12846	5579.62	2.871	Si
SLV 16	0.51	-5265	59.53	7966	3614.6	60.721	Si
SLV 4	-1.89	-7000	-1477.31	10591	4695.14	3.178	Si
SLV 4	0.51	-4814	117.72	7283	3324.33	28.239	Si
SLV 12	-1.89	-6866	794.05	10388	4613.53	5.81	Si
SLV 12	0.51	-5180	-103.08	7837	3559.88	34.535	Si
SLV 1	-1.89	-7945	-1518.25	12021	5260.85	3.465	Si
SLV 1	0.51	-4751	274.56	7189	3284.1	11.961	Si
SLV 2	-1.89	-7945	-1518.25	12021	5260.85	3.465	Si
SLV 2	0.51	-4751	274.56	7189	3284.1	11.961	Si
SLV 14	-1.89	-9436	1902.68	14276	6119.71	3.216	Si
SLV 14	0.51	-5203	216.37	7872	3574.88	16.522	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 40	-1.89	-10033	-182	412.72		15180	1.4688	7579	5010			27.54	Si
SLU 40	0.51	-6801	-183	334.38		10289	1.4688	6927	4579			25.01	Si
SLU 18	-1.89	-9398	-155	335.03		14218	1.4688	7451	4925			31.7	Si
SLU 18	0.51	-6195	-158	270.59		9373	1.4688	6805	4498			28.52	Si
SLU 84	-1.89	-12141	-198	434.49		18369	1.4688	8005	5291			26.72	Si
SLU 84	0.51	-7939	-187	353.15		12012	1.4688	7157	4730			25.36	Si
SLU 42	-1.89	-10033	-182	412.72		15180	1.4688	7579	5010			27.54	Si
SLU 42	0.51	-6801	-183	334.38		10289	1.4688	6927	4579			25.01	Si
SLU 41	-1.89	-9995	-179	408.04		15122	1.4688	7572	5005			28.01	Si
SLU 41	0.51	-6807	-189	322.97		10298	1.4688	6929	4579			24.24	Si
SLU 20	-1.89	-9398	-155	335.03		14218	1.4688	7451	4925			31.7	Si
SLU 20	0.51	-6195	-158	270.59		9373	1.4688	6805	4498			28.52	Si
SLU 82	-1.89	-12141	-198	434.49		18369	1.4688	8005	5291			26.72	Si
SLU 82	0.51	-7939	-187	353.15		12012	1.4688	7157	4730			25.36	Si
SLU 81	-1.89	-12103	-195	429.81		18312	1.4688	7997	5286			27.13	Si
SLU 81	0.51	-7945	-192	341.75		12021	1.4688	7158	4731			24.59	Si
SLU 39	-1.89	-9995	-179	408.04		15122	1.4688	7572	5005			28.01	Si
SLU 39	0.51	-6807	-189	322.97		10298	1.4688	6929	4579			24.24	Si
SLU 83	-1.89	-12103	-195	429.81		18312	1.4688	7997	5286			27.13	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	0.51	-7945	-192	341.75		12021	1.4688	7158	4731			24.59	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	-1.89	-9436	1448	1902.68		14276	1.4688	11189	7395			5.11	Si
SLV 13	0.51	-5203	1472	216.37		7872	1.4688	9908	6548			4.45	Si
SLV 16	-1.89	-8490	1756	1943.62		12846	1.4688	10903	7206			4.1	Si
SLV 16	0.51	-5265	1488	59.53		7966	1.4688	9927	6561			4.41	Si
SLV 14	-1.89	-9436	1448	1902.68		14276	1.4688	11189	7395			5.11	Si
SLV 14	0.51	-5203	1472	216.37		7872	1.4688	9908	6548			4.45	Si
SLV 15	-1.89	-8490	1756	1943.62		12846	1.4688	10903	7206			4.1	Si
SLV 15	0.51	-5265	1488	59.53		7966	1.4688	9927	6561			4.41	Si
SLV 5	-1.89	-9570	-1127	-368.68		14479	1.4688	11229	7422			6.59	Si
SLV 5	0.51	-4837	-572	437.17		7318	1.4688	9797	6475			11.33	Si
SLV 3	-1.89	-7000	-1652	-1477.31		10591	1.4688	10452	6908			4.18	Si
SLV 3	0.51	-4814	-1629	117.72		7283	1.4688	9790	6471			3.97	Si
SLV 4	-1.89	-7000	-1652	-1477.31		10591	1.4688	10452	6908			4.18	Si
SLV 4	0.51	-4814	-1629	117.72		7283	1.4688	9790	6471			3.97	Si
SLV 6	-1.89	-9570	-1127	-368.68		14479	1.4688	11229	7422			6.59	Si
SLV 6	0.51	-4837	-572	437.17		7318	1.4688	9797	6475			11.33	Si
SLV 1	-1.89	-7945	-1960	-1518.25		12021	1.4688	10738	7097			3.62	Si
SLV 1	0.51	-4751	-1644	274.56		7189	1.4688	9771	6458			3.93	Si
SLV 2	-1.89	-7945	-1960	-1518.25		12021	1.4688	10738	7097			3.62	Si
SLV 2	0.51	-4751	-1644	274.56		7189	1.4688	9771	6458			3.93	Si

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

quota -0.69 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.24	7772	-5137	69.76	1082.29	15.51	Si
SLV 3	143750	0.24	7772	-5137	69.76	1082.29	15.51	Si
SLV 7	143750	0.24	7969	-5267	69.76	1107.77	15.88	Si
SLV 8	143750	0.24	7969	-5267	69.76	1107.77	15.88	Si
SLV 1	143750	0.24	8342	-5514	69.76	1155.89	16.57	Si
SLV 2	143750	0.24	8342	-5514	69.76	1155.89	16.57	Si
SLV 11	143750	0.24	8707	-5755	69.76	1202.62	17.24	Si
SLV 12	143750	0.24	8707	-5755	69.76	1202.62	17.24	Si
SLV 5	143750	0.24	9869	-6523	69.76	1349.11	19.34	Si
SLV 6	143750	0.24	9869	-6523	69.76	1349.11	19.34	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -0.69 Wa = 0.08 Ta = 0.0214

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 14	-5203	-9436	717	0.006	757.5	0.922	0.09259	9.59705	No
SLV 13	-5203	-9436	717	0.006	757.5	0.922	0.09259	9.59705	No
SLV 3	-4814	-7000	-559	0.026	718.4	0.919	0.40614	9.59705	No
SLV 4	-4814	-7000	-559	0.026	718.4	0.919	0.40614	9.59705	No
SLV 16	-5265	-8490	482	0.042	763.7	0.923	0.65693	9.59705	No
SLV 15	-5265	-8490	482	0.042	763.7	0.923	0.65693	9.59705	No
SLV 1	-4751	-7945	-324	0.063	712.1	0.918	0.99565	9.59705	No
SLV 2	-4751	-7945	-324	0.063	712.1	0.918	0.99565	9.59705	No
SLV 10	-4973	-10017	626	0.017	734.3	0.92	0.26712	2.39674	No
SLV 9	-4973	-10017	626	0.017	734.3	0.92	0.26712	2.39674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	13.049	SLU 40	Si
V_SLU	24.24	SLU 39	Si
PF_SLV	2.871	SLV 15	Si
V_SLV	3.62	SLV 1	Si
PFFP_SLV	15.515	SLV 3	Si
R_SLV	0.01	SLV 13	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
1.744	7.016	1.744	-1.329	L1	L2	8.345	0.45	2.4	2.4	2.4			

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 39	-1.89	-60916	4079.47	16222	203556.73	49.898	Si
SLU 39	0.51	-46368	1108.85	12348	164144.04	148.031	Si
SLU 82	-1.89	-72538	4266.39	19316	230892.1	54.119	Si
SLU 82	0.51	-53259	1107.58	14183	183533.57	165.706	Si
SLU 40	-1.89	-60920	4250.3	16223	203566.78	47.895	Si
SLU 40	0.51	-46382	1049.3	12351	164184.22	156.47	Si
SLU 42	-1.89	-60920	4250.3	16223	203566.78	47.895	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 42	0.51	-46382	1049.3	12351	164184.22	156.47	Si
SLU 34	-1.89	-57160	3693.06	15221	193934.11	52.513	Si
SLU 34	0.51	-42414	855.87	11294	152432.94	178.103	Si
SLU 36	-1.89	-57157	3579.18	15221	193927.14	54.182	Si
SLU 36	0.51	-42404	895.57	11292	152405.16	170.177	Si
SLU 31	-1.89	-57160	3693.06	15221	193934.11	52.513	Si
SLU 31	0.51	-42414	855.87	11294	152432.94	178.103	Si
SLU 41	-1.89	-60916	4079.47	16222	203556.73	49.898	Si
SLU 41	0.51	-46368	1108.85	12348	164144.04	148.031	Si
SLU 38	-1.89	-57157	3579.18	15221	193927.14	54.182	Si
SLU 38	0.51	-42404	895.57	11292	152405.16	170.177	Si
SLU 84	-1.89	-72538	4266.39	19316	230892.1	54.119	Si
SLU 84	0.51	-53259	1107.58	14183	183533.57	165.706	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	-1.89	-47053	-7854.75	12530	176197.13	22.432	Si
SLV 7	0.51	-31990	870.76	8519	124171.89	142.602	Si
SLV 13	-1.89	-49759	11625.35	13250	185102.77	15.922	Si
SLV 13	0.51	-32732	781.64	8716	126833.36	162.266	Si
SLV 4	-1.89	-45573	-8238.19	12136	171267.9	20.79	Si
SLV 4	0.51	-32001	348.07	8522	124210.98	356.858	Si
SLV 9	-1.89	-48278	11241.91	12856	180246.35	16.033	Si
SLV 9	0.51	-32743	258.95	8719	126872.31	489.957	Si
SLV 15	-1.89	-49769	7294.27	13253	185135.76	25.381	Si
SLV 15	0.51	-32556	1026.21	8670	126203.36	122.98	Si
SLV 16	-1.89	-49769	7294.27	13253	185135.76	25.381	Si
SLV 16	0.51	-32556	1026.21	8670	126203.36	122.98	Si
SLV 10	-1.89	-48278	11241.91	12856	180246.35	16.033	Si
SLV 10	0.51	-32743	258.95	8719	126872.31	489.957	Si
SLV 8	-1.89	-47053	-7854.75	12530	176197.13	22.432	Si
SLV 8	0.51	-31990	870.76	8519	124171.89	142.602	Si
SLV 14	-1.89	-49759	11625.35	13250	185102.77	15.922	Si
SLV 14	0.51	-32732	781.64	8716	126833.36	162.266	Si
SLV 3	-1.89	-45573	-8238.19	12136	171267.9	20.79	Si
SLV 3	0.51	-32001	348.07	8522	124210.98	356.858	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 47	-1.89	-55495	102	1308.47		14778	8.345	7526	28262			277.53	Si
SLU 47	0.51	-35258	347	367.78		9389	8.345	6807	25564			73.77	Si
SLU 26	-1.89	-48380	109	2127.13		12883	8.345	7273	27313			249.62	Si
SLU 26	0.51	-33133	333	497.16		8823	8.345	6732	25280			75.83	Si
SLU 65	-1.89	-59998	90	2143.23		15977	8.345	7686	28862			319.77	Si
SLU 65	0.51	-40010	344	555.44		10655	8.345	6976	26197			76.2	Si
SLU 2	-1.89	-43878	121	1292.37		11684	8.345	7113	26713			220.78	Si
SLU 2	0.51	-28380	336	309.5		7557	8.345	6563	24647			73.33	Si
SLU 23	-1.89	-48380	109	2127.13		12883	8.345	7273	27313			249.62	Si
SLU 23	0.51	-33133	333	497.16		8823	8.345	6732	25280			75.83	Si
SLU 5	-1.89	-43878	121	1292.37		11684	8.345	7113	26713			220.78	Si
SLU 5	0.51	-28380	336	309.5		7557	8.345	6563	24647			73.33	Si
SLU 10	-1.89	-52657	97	2858.3		14022	8.345	7425	27883			286.94	Si
SLU 10	0.51	-37661	330	668.21		10029	8.345	6893	25884			78.46	Si
SLU 68	-1.89	-59998	90	2143.23		15977	8.345	7686	28862			319.77	Si
SLU 68	0.51	-40010	344	555.44		10655	8.345	6976	26197			76.2	Si
SLU 44	-1.89	-55495	102	1308.47		14778	8.345	7526	28262			277.53	Si
SLU 44	0.51	-35258	347	367.78		9389	8.345	6807	25564			73.77	Si
SLU 13	-1.89	-52657	97	2858.3		14022	8.345	7425	27883			286.94	Si
SLU 13	0.51	-37661	330	668.21		10029	8.345	6893	25884			78.46	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 4	-1.89	-45573	-3165	-8238.19		12136	8.345	10761	40408			12.77	Si
SLV 4	0.51	-32001	-2353	348.07		8522	8.345	10038	37694			16.02	Si
SLV 9	-1.89	-48278	5083	11241.91		12856	8.345	10905	40949			8.06	Si
SLV 9	0.51	-32743	3629	258.95		8719	8.345	10077	37842			10.43	Si
SLV 8	-1.89	-47053	-5257	-7854.75		12530	8.345	10839	40704			7.74	Si
SLV 8	0.51	-31990	-3570	870.76		8519	8.345	10037	37692			10.56	Si
SLV 3	-1.89	-45573	-3165	-8238.19		12136	8.345	10761	40408			12.77	Si
SLV 3	0.51	-32001	-2353	348.07		8522	8.345	10038	37694			16.02	Si
SLV 6	-1.89	-47020	4076	6582.17		12521	8.345	10838	40698			9.98	Si
SLV 6	0.51	-32577	2770	55.5		8675	8.345	10068	37809			13.65	Si
SLV 5	-1.89	-47020	4076	6582.17		12521	8.345	10838	40698			9.98	Si
SLV 5	0.51	-32577	2770	55.5		8675	8.345	10068	37809			13.65	Si
SLV 12	-1.89	-48312	-4251	-3195.01		12865	8.345	10906	40956			9.63	Si
SLV 12	0.51	-32157	-2712	1074.2		8563	8.345	10046	37725			13.91	Si
SLV 11	-1.89	-48312	-4251	-3195.01		12865	8.345	10906	40956			9.63	Si
SLV 11	0.51	-32157	-2712	1074.2		8563	8.345	10046	37725			13.91	Si
SLV 7	-1.89	-47053	-5257	-7854.75		12530	8.345	10839	40704			7.74	Si
SLV 7	0.51	-31990	-3570	870.76		8519	8.345	10037	37692			10.56	Si
SLV 10	-1.89	-48278	5083	11241.91		12856	8.345	10905	40949			8.06	Si
SLV 10	0.51	-32743	3629	258.95		8719	8.345	10077	37842			10.43	Si

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

quota -0.69 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 1	143750	0.24	10667	-40058	396.35	8226.16	20.76	Si
SLV 2	143750	0.24	10667	-40058	396.35	8226.16	20.76	Si



Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 3	143750	0.24	10734	-40308	396.35	8272.54	20.87	Si
SLV 4	143750	0.24	10734	-40308	396.35	8272.54	20.87	Si
SLV 5	143750	0.24	10785	-40500	396.35	8308.12	20.96	Si
SLV 6	143750	0.24	10785	-40500	396.35	8308.12	20.96	Si
SLV 10	143750	0.24	10952	-41128	396.35	8424.39	21.26	Si
SLV 9	143750	0.24	10952	-41128	396.35	8424.39	21.26	Si
SLV 8	143750	0.24	11007	-41333	396.35	8462.11	21.35	Si
SLV 7	143750	0.24	11007	-41333	396.35	8462.11	21.35	Si

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

forza di aggancio al piano = 0 quota mezzeria = -0.69  $W_a = 0.08$   $T_a = 0.0214$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 14	-32732	-49759	344	0.104	4622.5	0.926	1.63085	9.59705	No
SLV 13	-32732	-49759	344	0.104	4622.5	0.926	1.63085	9.59705	No
SLV 16	-32556	-49769	338	0.104	4604.8	0.926	1.63429	9.59705	No
SLV 15	-32556	-49769	338	0.104	4604.8	0.926	1.63429	9.59705	No
SLV 4	-32001	-45573	-337	0.104	4548.8	0.925	1.63834	9.59705	No
SLV 3	-32001	-45573	-337	0.104	4548.8	0.925	1.63834	9.59705	No
SLV 1	-32177	-45563	-331	0.104	4566.5	0.926	1.6396	9.59705	No
SLV 2	-32177	-45563	-331	0.104	4566.5	0.926	1.6396	9.59705	No
SLV 10	-32743	-48278	115	0.11	4623.6	0.926	1.71872	2.39674	No
SLV 9	-32743	-48278	115	0.11	4623.6	0.926	1.71872	2.39674	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	47.895	SLU 40	Si
V_SLU	73.33	SLU 2	Si
PF_SLV	15.922	SLV 13	Si
V_SLV	7.743	SLV 7	Si
PFFP_SLV	20.755	SLV 1	Si
R_SLV	0.17	SLV 13	No

## Maschio 15

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

Maschio considerato membratura sismica secondaria

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota l.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-7.836	-2.564	-7.836	-0.424	L2	L3	2.14	0.3	4.05	4.05	4.05			

#### 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 81	1.51	-13519	1668.2	21058	10725.97	6.43	Si
SLU 81	3.41	-10509	1697.38	16369	8985.12	5.294	Si
SLU 73	1.51	-12099	1456.21	18846	9950.74	6.833	Si
SLU 73	3.41	-9152	1525.87	14256	8079.18	5.295	Si
SLU 34	1.51	-10766	1368.5	16769	9147.99	6.685	Si
SLU 34	3.41	-8514	1432.4	13262	7626.83	5.325	Si
SLU 31	1.51	-10766	1368.5	16769	9147.99	6.685	Si
SLU 31	3.41	-8514	1432.4	13262	7626.83	5.325	Si
SLU 76	1.51	-12099	1456.21	18846	9950.74	6.833	Si
SLU 76	3.41	-9152	1525.87	14256	8079.18	5.295	Si
SLU 42	1.51	-12208	1598.6	19015	10012.99	6.264	Si
SLU 42	3.41	-9930	1646.77	15468	8607.86	5.227	Si
SLU 84	1.51	-13541	1686.31	21091	10737.09	6.367	Si
SLU 84	3.41	-10569	1740.25	16462	9023.21	5.185	Si
SLU 40	1.51	-12208	1598.6	19015	10012.99	6.264	Si
SLU 40	3.41	-9930	1646.77	15468	8607.86	5.227	Si
SLU 82	1.51	-13541	1686.31	21091	10737.09	6.367	Si
SLU 82	3.41	-10569	1740.25	16462	9023.21	5.185	Si
SLU 83	1.51	-13519	1668.2	21058	10725.97	6.43	Si
SLU 83	3.41	-10509	1697.38	16369	8985.12	5.294	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	$\sigma_0$	$\sigma_N$	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 5	1.51	-6020	-113	579.03		9377	2.14	6806	4369			38.8	Si
SLU 5	3.41	-3768	-143	640.36		5869	2.14	6338	4069			28.55	Si
SLU 65	1.51	-8701	-114	891.15		13553	2.14	7363	4727			41.46	Si
SLU 65	3.41	-5755	-144	959		8964	2.14	6751	4334			30.18	Si
SLU 47	1.51	-7353	-113	666.74		11454	2.14	7083	4547			40.27	Si
SLU 47	3.41	-4407	-143	733.84		6864	2.14	6471	4154			29.11	Si
SLU 68	1.51	-8701	-114	891.15		13553	2.14	7363	4727			41.46	Si
SLU 68	3.41	-5755	-144	959		8964	2.14	6751	4334			30.18	Si
SLU 44	1.51	-7353	-113	666.74		11454	2.14	7083	4547			40.27	Si
SLU 44	3.41	-4407	-143	733.84		6864	2.14	6471	4154			29.11	Si
SLU 2	1.51	-6020	-113	579.03		9377	2.14	6806	4369			38.8	Si
SLU 2	3.41	-3768	-143	640.36		5869	2.14	6338	4069			28.55	Si
SLU 10	1.51	-9418	-115	1144.09		14669	2.14	7511	4822			41.81	Si
SLU 10	3.41	-7166	-145	1207.23		11162	2.14	7044	4522			31.25	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	1.51	-7368	-114	803.44		11477	2.14	7086	4549			40	Si
SLU 26	3.41	-5116	-143	865.52		7969	2.14	6618	4249			29.63	Si
SLU 23	1.51	-7368	-114	803.44		11477	2.14	7086	4549			40	Si
SLU 23	3.41	-5116	-143	865.52		7969	2.14	6618	4249			29.63	Si
SLU 13	1.51	-9418	-115	1144.09		14669	2.14	7511	4822			41.81	Si
SLU 13	3.41	-7166	-145	1207.23		11162	2.14	7044	4522			31.25	Si

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

quota 2.535 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 12	143750	0.45	7458	-4788	353.86	674.33	1.91	Si
SLV 11	143750	0.45	7458	-4788	353.86	674.33	1.91	Si
SLV 8	143750	0.45	7570	-4860	353.86	683.86	1.93	Si
SLV 7	143750	0.45	7570	-4860	353.86	683.86	1.93	Si
SLV 16	143750	0.45	8534	-5479	353.86	764.44	2.16	Si
SLV 15	143750	0.45	8534	-5479	353.86	764.44	2.16	Si
SLV 4	143750	0.45	8910	-5720	353.86	795.5	2.25	Si
SLV 3	143750	0.45	8910	-5720	353.86	795.5	2.25	Si
SLV 13	143750	0.45	9570	-6144	353.86	849.4	2.4	Si
SLV 14	143750	0.45	9570	-6144	353.86	849.4	2.4	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 2.535 Wa = 0.05 Ta = 0.0913

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 11	-2864	-5926	-41	0.046	684.3	0.89	0.74794	4.44334	No
SLV 12	-2864	-5926	-41	0.046	684.3	0.89	0.74794	4.44334	No
SLV 6	-2805	-8806	40	0.046	678.9	0.89	0.75161	4.44334	No
SLV 5	-2805	-8806	40	0.046	678.9	0.89	0.75161	4.44334	No
SLV 15	-2824	-6862	-104	0.034	680.6	0.89	0.55027	2.99685	No
SLV 16	-2824	-6862	-104	0.034	680.6	0.89	0.55027	2.99685	No
SLV 8	-2877	-5974	19	0.05	685.5	0.89	0.81605	4.44334	No
SLV 7	-2877	-5974	19	0.05	685.5	0.89	0.81605	4.44334	No
SLV 10	-2792	-8758	-20	0.05	677.7	0.89	0.81791	4.44334	No
SLV 9	-2792	-8758	-20	0.05	677.7	0.89	0.81791	4.44334	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.185	SLU 82	Si
V_SLU	28.553	SLU 2	Si
PFFP_SLV	1.906	SLV 11	Si
R_SLV	0.168	SLV 11	No

## Maschio 16

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

Maschio considerato membratura sismica secondaria

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota l.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-7.836	0.576	-7.836	1.726	L2	L3	1.15	0.3	4.05	4.05	4.05			

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	1.51	-11530	14.41	33420	3909.7	271.242	Si
SLU 42	3.73	-9154	564.06	26532	3548.97	6.292	Si
SLU 81	1.51	-12540	-3.48	36349	3993.1	1000	Si
SLU 81	3.73	-9644	564.85	27953	3642.34	6.448	Si
SLU 40	1.51	-11530	14.41	33420	3909.7	271.242	Si
SLU 40	3.73	-9154	564.06	26532	3548.97	6.292	Si
SLU 76	1.51	-10923	4.24	31661	3839.55	905.634	Si
SLU 76	3.73	-8193	519.75	23749	3337.68	6.422	Si
SLU 83	1.51	-12540	-3.48	36349	3993.1	1000	Si
SLU 83	3.73	-9644	564.85	27953	3642.34	6.448	Si
SLU 34	1.51	-9945	13.39	28827	3694.85	275.914	Si
SLU 34	3.73	-7718	494.57	22370	3218.96	6.509	Si
SLU 73	1.51	-10923	4.24	31661	3839.55	905.634	Si
SLU 73	3.73	-8193	519.75	23749	3337.68	6.422	Si
SLU 82	1.51	-12507	5.26	36253	3991.03	758.401	Si
SLU 82	3.73	-9629	589.24	27911	3639.72	6.177	Si
SLU 84	1.51	-12507	5.26	36253	3991.03	758.401	Si
SLU 84	3.73	-9629	589.24	27911	3639.72	6.177	Si
SLU 31	1.51	-9945	13.39	28827	3694.85	275.914	Si
SLU 31	3.73	-7718	494.57	22370	3218.96	6.509	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	1.51	-5832	-27	-17.97		16905	1.15	7810	2694			100.57	Si
SLU 44	3.73	-3546	21	240.39		10278	1.15	6926	2389			115.48	Si
SLU 2	1.51	-4855	-27	-8.82		14072	1.15	7432	2564			95.68	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 2	3.73	-3070	20	215.2		8899	1.15	6742	2326			117.23	Si
SLU 5	1.51	-4855	-27	-8.82		14072	1.15	7432	2564			95.68	Si
SLU 5	3.73	-3070	20	215.2		8899	1.15	6742	2326			117.23	Si
SLU 13	1.51	-8500	-27	7.17		24638	1.15	8841	3050			112.94	Si
SLU 13	3.73	-6398	20	415.29		18545	1.15	8028	2770			135.34	Si
SLU 26	1.51	-6300	-27	-2.6		18261	1.15	7990	2757			102.55	Si
SLU 26	3.73	-4390	20	294.48		12723	1.15	7252	2502			124.41	Si
SLU 23	1.51	-6300	-27	-2.6		18261	1.15	7990	2757			102.55	Si
SLU 23	3.73	-4390	20	294.48		12723	1.15	7252	2502			124.41	Si
SLU 65	1.51	-7278	-27	-11.75		21095	1.15	8368	2887			107.43	Si
SLU 65	3.73	-4865	21	319.66		14103	1.15	7436	2565			122.39	Si
SLU 47	1.51	-5832	-27	-17.97		16905	1.15	7810	2694			100.57	Si
SLU 47	3.73	-3546	21	240.39		10278	1.15	6926	2389			115.48	Si
SLU 10	1.51	-8500	-27	7.17		24638	1.15	8841	3050			112.94	Si
SLU 10	3.73	-6398	20	415.29		18545	1.15	8028	2770			135.34	Si
SLU 68	1.51	-7278	-27	-11.75		21095	1.15	8368	2887			107.43	Si
SLU 68	3.73	-4865	21	319.66		14103	1.15	7436	2565			122.39	Si

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

quota 2.535 Wa 0.05 denominatore 8  $\gamma M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	143750	0.45	14574	-5028	190.16	664.26	3.49	Si
SLV 5	143750	0.45	14574	-5028	190.16	664.26	3.49	Si
SLV 10	143750	0.45	14717	-5077	190.16	669.88	3.52	Si
SLV 9	143750	0.45	14717	-5077	190.16	669.88	3.52	Si
SLV 1	143750	0.45	15581	-5375	190.16	703.49	3.7	Si
SLV 2	143750	0.45	15581	-5375	190.16	703.49	3.7	Si
SLV 14	143750	0.45	16057	-5540	190.16	721.74	3.8	Si
SLV 13	143750	0.45	16057	-5540	190.16	721.74	3.8	Si
SLV 4	143750	0.45	16586	-5722	190.16	741.82	3.9	Si
SLV 3	143750	0.45	16586	-5722	190.16	741.82	3.9	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 2.535 Wa = 0.05 Ta = 0.0913

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 16	-1847	-6215	-141	0.007	396.8	0.892	0.10863	2.99685	No
SLV 15	-1847	-6215	-141	0.007	396.8	0.892	0.10863	2.99685	No
SLV 2	-1993	-5434	141	0.008	410.8	0.894	0.13131	2.99685	No
SLV 1	-1993	-5434	141	0.008	410.8	0.894	0.13131	2.99685	No
SLV 12	-1691	-7207	-108	0.016	382	0.891	0.26201	4.44334	No
SLV 11	-1691	-7207	-108	0.016	382	0.891	0.26201	4.44334	No
SLV 6	-2149	-4443	108	0.019	425.8	0.896	0.30698	4.44334	No
SLV 5	-2149	-4443	108	0.019	425.8	0.896	0.30698	4.44334	No
SLV 3	-1856	-6268	97	0.021	397.7	0.893	0.3388	2.99685	No
SLV 4	-1856	-6268	97	0.021	397.7	0.893	0.3388	2.99685	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	6.177	SLU 82	Si
V_SLU	95.676	SLU 2	Si
PFFP_SLV	3.493	SLV 5	Si
R_SLV	0.036	SLV 15	No

## Maschio 17

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

Maschio considerato membratura sismica secondaria

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
-7.836	3.126	-7.836	4.276	L2	L3	1.15	0.3	4.05	4.05	4.05			

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 40	1.51	-9988	-327.09	28950	3701.92	11.318	Si
SLU 40	3.73	-7140	-1032.19	20694	3062.31	2.967	Si
SLU 83	1.51	-10878	-325.36	31531	3833.77	11.783	Si
SLU 83	3.73	-7517	-1093.13	21789	3166.25	2.896	Si
SLU 81	1.51	-10878	-325.36	31531	3833.77	11.783	Si
SLU 81	3.73	-7517	-1093.13	21789	3166.25	2.896	Si
SLU 42	1.51	-9988	-327.09	28950	3701.92	11.318	Si
SLU 42	3.73	-7140	-1032.19	20694	3062.31	2.967	Si
SLU 60	1.51	-9663	-274.53	28009	3645.8	13.28	Si
SLU 60	3.73	-6488	-942.41	18805	2869.29	3.045	Si
SLU 82	1.51	-10888	-334.89	31559	3835.03	11.452	Si
SLU 82	3.73	-7510	-1084.78	21768	3164.25	2.917	Si
SLU 84	1.51	-10888	-334.89	31559	3835.03	11.452	Si
SLU 84	3.73	-7510	-1084.78	21768	3164.25	2.917	Si
SLU 39	1.51	-9978	-317.56	28922	3700.3	11.652	Si
SLU 39	3.73	-7147	-1040.55	20716	3064.42	2.945	Si





Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 41	1.51	-9978	-317.56	28922	3700.3	11.652	Si
SLU 41	3.73	-7147	-1040.55	20716	3064.42	2.945	Si
SLU 62	1.51	-9663	-274.53	28009	3645.8	13.28	Si
SLU 62	3.73	-6488	-942.41	18805	2869.29	3.045	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 47	1.51	-5305	-30	-107.77		15378	1.15	7606	2624			86.31	Si
SLU 47	3.73	-2769	34	-386.19		8026	1.15	6626	2286			66.52	Si
SLU 68	1.51	-6520	-30	-158.59		18899	1.15	8075	2786			91.99	Si
SLU 68	3.73	-3799	34	-536.92		11010	1.15	7024	2423			71.72	Si
SLU 5	1.51	-4405	-30	-99.97		12769	1.15	7258	2504			82.2	Si
SLU 5	3.73	-2399	35	-333.61		6953	1.15	6483	2236			64.51	Si
SLU 65	1.51	-6520	-30	-158.59		18899	1.15	8075	2786			91.99	Si
SLU 65	3.73	-3799	34	-536.92		11010	1.15	7024	2423			71.72	Si
SLU 10	1.51	-7467	-30	-227.83		21644	1.15	8441	2912			96.51	Si
SLU 10	3.73	-4993	33	-713.21		14473	1.15	7485	2582			77.8	Si
SLU 44	1.51	-5305	-30	-107.77		15378	1.15	7606	2624			86.31	Si
SLU 44	3.73	-2769	34	-386.19		8026	1.15	6626	2286			66.52	Si
SLU 13	1.51	-7467	-30	-227.83		21644	1.15	8441	2912			96.51	Si
SLU 13	3.73	-4993	33	-713.21		14473	1.15	7485	2582			77.8	Si
SLU 2	1.51	-4405	-30	-99.97		12769	1.15	7258	2504			82.2	Si
SLU 2	3.73	-2399	35	-333.61		6953	1.15	6483	2236			64.51	Si
SLU 26	1.51	-5620	-30	-150.79		16290	1.15	7728	2666			87.85	Si
SLU 26	3.73	-3428	34	-484.33		9937	1.15	6880	2374			69.63	Si
SLU 23	1.51	-5620	-30	-150.79		16290	1.15	7728	2666			87.85	Si
SLU 23	3.73	-3428	34	-484.33		9937	1.15	6880	2374			69.63	Si

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

quota 2.535 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 7	143750	0.45	11779	-4064	190.16	550.79	2.9	Si
SLV 8	143750	0.45	11779	-4064	190.16	550.79	2.9	Si
SLV 12	143750	0.45	11913	-4110	190.16	556.39	2.93	Si
SLV 11	143750	0.45	11913	-4110	190.16	556.39	2.93	Si
SLV 3	143750	0.45	13198	-4553	190.16	609.2	3.2	Si
SLV 4	143750	0.45	13198	-4553	190.16	609.2	3.2	Si
SLV 16	143750	0.45	13645	-4708	190.16	627.27	3.3	Si
SLV 15	143750	0.45	13645	-4708	190.16	627.27	3.3	Si
SLV 1	143750	0.45	14548	-5019	190.16	663.21	3.49	Si
SLV 2	143750	0.45	14548	-5019	190.16	663.21	3.49	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 2.535 Wa = 0.05 Ta = 0.0913

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 11	-1132	-4388	6	0.054	330.5	0.889	0.88467	4.44334	No
SLV 12	-1132	-4388	6	0.054	330.5	0.889	0.88467	4.44334	No
SLV 8	-1132	-4366	5	0.054	330.5	0.889	0.88789	4.44334	No
SLV 7	-1132	-4366	5	0.054	330.5	0.889	0.88789	4.44334	No
SLV 6	-791	-6274	-6	0.057	301.3	0.894	0.92221	4.44334	No
SLV 5	-791	-6274	-6	0.057	301.3	0.894	0.92221	4.44334	No
SLV 9	-791	-6296	-6	0.057	301.3	0.894	0.92598	4.44334	No
SLV 10	-791	-6296	-6	0.057	301.3	0.894	0.92598	4.44334	No
SLV 15	-1012	-5082	2	0.057	320	0.89	0.92344	2.99685	No
SLV 16	-1012	-5082	2	0.057	320	0.89	0.92344	2.99685	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.896	SLU 81	Si
V_SLU	64.515	SLU 2	Si
PFFP_SLV	2.897	SLV 7	Si
R_SLV	0.199	SLV 11	No

## Maschio 18

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

Maschio considerato membratura sismica secondaria

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
-7.836	5.276	-7.836	7.016	L2	L3	1.74	0.3	4.05	4.05	4.05			

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 41	1.51	-10904	-1957.17	20890	7053.98	3.604	Si
SLU 41	3.41	-9051	-1960.32	17338	6198.02	3.162	Si
SLU 82	1.51	-12007	-2106.95	23003	7496.53	3.558	Si
SLU 82	3.41	-9614	-2038.48	18417	6472.94	3.175	Si
SLU 40	1.51	-10873	-1999.38	20829	7040.54	3.521	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 40	3.41	-9039	-1926.31	17316	6192.27	3.215	Si
SLU 39	1.51	-10904	-1957.17	20890	7053.98	3.604	Si
SLU 39	3.41	-9051	-1960.32	17338	6198.02	3.162	Si
SLU 60	1.51	-10799	-1786.47	20688	7009.21	3.923	Si
SLU 60	3.41	-8383	-1796.3	16060	5855.54	3.26	Si
SLU 83	1.51	-12039	-2064.74	23063	7508.5	3.637	Si
SLU 83	3.41	-9625	-2072.48	18439	6478.43	3.126	Si
SLU 81	1.51	-12039	-2064.74	23063	7508.5	3.637	Si
SLU 81	3.41	-9625	-2072.48	18439	6478.43	3.126	Si
SLU 62	1.51	-10799	-1786.47	20688	7009.21	3.923	Si
SLU 62	3.41	-8383	-1796.3	16060	5855.54	3.26	Si
SLU 42	1.51	-10873	-1999.38	20829	7040.54	3.521	Si
SLU 42	3.41	-9039	-1926.31	17316	6192.27	3.215	Si
SLU 84	1.51	-12007	-2106.95	23003	7496.53	3.558	Si
SLU 84	3.41	-9614	-2038.48	18417	6472.94	3.175	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	1.51	-6281	-167	-854.49		12033	1.74	7160	3737			22.44	Si
SLU 44	3.41	-3891	-35	-745		7453	1.74	6549	3419			97.36	Si
SLU 2	1.51	-5146	-166	-746.92		9859	1.74	6870	3586			21.54	Si
SLU 2	3.41	-3316	-35	-632.83		6352	1.74	6403	3342			95.4	Si
SLU 5	1.51	-5146	-166	-746.92		9859	1.74	6870	3586			21.54	Si
SLU 5	3.41	-3316	-35	-632.83		6352	1.74	6403	3342			95.4	Si
SLU 13	1.51	-8272	-167	-1448.56		15847	1.74	7669	4003			23.9	Si
SLU 13	3.41	-6447	-36	-1329.07		12351	1.74	7202	3760			103.37	Si
SLU 10	1.51	-8272	-167	-1448.56		15847	1.74	7669	4003			23.9	Si
SLU 10	3.41	-6447	-36	-1329.07		12351	1.74	7202	3760			103.37	Si
SLU 65	1.51	-7521	-167	-1132.75		14408	1.74	7477	3903			23.38	Si
SLU 65	3.41	-5133	-36	-1021.18		9833	1.74	6867	3584			100.55	Si
SLU 26	1.51	-6386	-167	-1025.19		12234	1.74	7187	3751			22.48	Si
SLU 26	3.41	-4558	-36	-909.02		8732	1.74	6720	3508			98.63	Si
SLU 23	1.51	-6386	-167	-1025.19		12234	1.74	7187	3751			22.48	Si
SLU 23	3.41	-4558	-36	-909.02		8732	1.74	6720	3508			98.63	Si
SLU 47	1.51	-6281	-167	-854.49		12033	1.74	7160	3737			22.44	Si
SLU 47	3.41	-3891	-35	-745		7453	1.74	6549	3419			97.36	Si
SLU 68	1.51	-7521	-167	-1132.75		14408	1.74	7477	3903			23.38	Si
SLU 68	3.41	-5133	-36	-1021.18		9833	1.74	6867	3584			100.55	Si

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

quota 2.535 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 10	143750	0.45	8038	-4196	287.72	587.98	2.04	Si
SLV 9	143750	0.45	8038	-4196	287.72	587.98	2.04	Si
SLV 6	143750	0.45	8252	-4308	287.72	602.51	2.09	Si
SLV 5	143750	0.45	8252	-4308	287.72	602.51	2.09	Si
SLV 14	143750	0.45	9228	-4817	287.72	667.97	2.32	Si
SLV 13	143750	0.45	9228	-4817	287.72	667.97	2.32	Si
SLV 2	143750	0.45	9941	-5189	287.72	715.08	2.49	Si
SLV 1	143750	0.45	9941	-5189	287.72	715.08	2.49	Si
SLV 15	143750	0.45	10462	-5461	287.72	749.02	2.6	Si
SLV 16	143750	0.45	10462	-5461	287.72	749.02	2.6	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 2.535 Wa = 0.05 Ta = 0.0913

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 4	-2758	-7373	254	0	596.9	0.892	0	2.99685	No
SLV 14	-2418	-5574	-257	0	564.8	0.89	0	2.99685	No
SLV 13	-2418	-5574	-257	0	564.8	0.89	0	2.99685	No
SLV 3	-2758	-7373	254	0	596.9	0.892	0	2.99685	No
SLV 15	-2582	-6973	-202	0.008	580.2	0.891	0.12481	2.99685	No
SLV 16	-2582	-6973	-202	0.008	580.2	0.891	0.12481	2.99685	No
SLV 2	-2594	-5973	199	0.008	581.4	0.891	0.13686	2.99685	No
SLV 1	-2594	-5973	199	0.008	581.4	0.891	0.13686	2.99685	No
SLV 9	-2289	-4080	-161	0.015	552.7	0.89	0.25225	4.44334	No
SLV 10	-2289	-4080	-161	0.015	552.7	0.89	0.25225	4.44334	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.126	SLU 81	Si
V_SLU	21.542	SLU 2	Si
PFFP_SLV	2.044	SLV 9	Si
R_SLV	0	SLV 3	No

## Maschio 19

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

Maschio considerato membratura sismica secondaria

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
-7.836	-2.564	0.984	-2.564	L2	L3	8.82	0.3	4.05	4.05	4.05			

Caratteristiche del materiale

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

Sismicad 12.19 - Licenza assegnata a Sidel ingegneria Srl - Via Isonzo, 13 - Villanova di Castenaso (BO)



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 63	0.51	-33141	14857.45	12525	123678.62	8.324	Si
SLU 63	4.56	-8027	14516.22	3034	34079.45	2.348	Si
SLU 42	0.51	-28645	17211.12	10826	109535.36	6.364	Si
SLU 42	4.56	-9324	16872.39	3524	39339.3	2.332	Si
SLU 81	0.51	-34628	17682.51	13087	128174.6	7.249	Si
SLU 81	4.56	-9531	17240.18	3602	40173.91	2.33	Si
SLU 41	0.51	-28629	17269.4	10820	109484.12	6.34	Si
SLU 41	4.56	-9325	16872.46	3524	39343.2	2.332	Si
SLU 82	0.51	-34644	17624.23	13093	128221.95	7.275	Si
SLU 82	4.56	-9530	17240.11	3602	40170.02	2.33	Si
SLU 84	0.51	-34644	17624.23	13093	128221.95	7.275	Si
SLU 84	4.56	-9530	17240.11	3602	40170.02	2.33	Si
SLU 39	0.51	-28629	17269.4	10820	109484.12	6.34	Si
SLU 39	4.56	-9325	16872.46	3524	39343.2	2.332	Si
SLU 83	0.51	-34628	17682.51	13087	128174.6	7.249	Si
SLU 83	4.56	-9531	17240.18	3602	40173.91	2.33	Si
SLU 61	0.51	-33141	14857.45	12525	123678.62	8.324	Si
SLU 61	4.56	-8027	14516.22	3034	34079.45	2.348	Si
SLU 40	0.51	-28645	17211.12	10826	109535.36	6.364	Si
SLU 40	4.56	-9324	16872.39	3524	39339.3	2.332	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	0.51	-34644	15	17624.23		13093	8.82	7301	19319			1000	Si
SLU 84	4.56	-9530	21	17240.11		4071	7.803	6098	14276			689.44	Si
SLU 42	0.51	-28645	13	17211.12		10826	8.82	6999	18519			1000	Si
SLU 42	4.56	-9324	20	16872.39		3984	7.8012	6087	14245			706.69	Si
SLU 40	0.51	-28645	13	17211.12		10826	8.82	6999	18519			1000	Si
SLU 40	4.56	-9324	20	16872.39		3984	7.8012	6087	14245			706.69	Si
SLU 63	0.51	-33141	13	14857.45		12525	8.82	7226	19119			1000	Si
SLU 63	4.56	-8027	18	14516.22		3428	7.8045	6013	14078			778.63	Si
SLU 82	0.51	-34644	15	17624.23		13093	8.82	7301	19319			1000	Si
SLU 82	4.56	-9530	21	17240.11		4071	7.803	6098	14276			689.44	Si
SLU 76	0.51	-33030	6	14596.32		12483	8.82	7220	19104			1000	Si
SLU 76	4.56	-7905	20	14297.11		3376	7.8043	6006	14061			704.81	Si
SLU 31	0.51	-27032	4	14183.21		10216	8.82	6918	18304			1000	Si
SLU 31	4.56	-7699	19	13929.39		3289	7.8021	5994	14030			723.14	Si
SLU 34	0.51	-27032	4	14183.21		10216	8.82	6918	18304			1000	Si
SLU 34	4.56	-7699	19	13929.39		3289	7.8021	5994	14030			723.14	Si
SLU 73	0.51	-33030	6	14596.32		12483	8.82	7220	19104			1000	Si
SLU 73	4.56	-7905	20	14297.11		3376	7.8043	6006	14061			704.81	Si
SLU 61	0.51	-33141	13	14857.45		12525	8.82	7226	19119			1000	Si
SLU 61	4.56	-8027	18	14516.22		3428	7.8045	6013	14078			778.63	Si

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

quota 2.535 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma 0$	N	M	Mc	Coeff.s.	Verifica
SLV 13	143750	0.45	5101	-13497	1458.42	1940.02	1.33	Si
SLV 14	143750	0.45	5101	-13497	1458.42	1940.02	1.33	Si
SLV 16	143750	0.45	5106	-13511	1458.42	1941.97	1.33	Si
SLV 15	143750	0.45	5106	-13511	1458.42	1941.97	1.33	Si
SLV 10	143750	0.45	5107	-13514	1458.42	1942.39	1.33	Si
SLV 9	143750	0.45	5107	-13514	1458.42	1942.39	1.33	Si
SLV 5	143750	0.45	5118	-13543	1458.42	1946.38	1.33	Si
SLV 6	143750	0.45	5118	-13543	1458.42	1946.38	1.33	Si
SLV 11	143750	0.45	5125	-13562	1458.42	1948.9	1.34	Si
SLV 12	143750	0.45	5125	-13562	1458.42	1948.9	1.34	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 2.535 Wa = 0.05 Ta = 0.0913

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	$\alpha 0^*$	aLim	Verifica
SLV 8	-4012	-22674	-658	0.015	2152	0.906	0.24138	4.44334	No
SLV 7	-4012	-22674	-658	0.015	2152	0.906	0.24138	4.44334	No
SLV 12	-3993	-22818	-653	0.015	2150.6	0.906	0.24666	4.44334	No
SLV 11	-3993	-22818	-653	0.015	2150.6	0.906	0.24666	4.44334	No
SLV 9	-3826	-23776	498	0.027	2138.9	0.908	0.42568	4.44334	No
SLV 10	-3826	-23776	498	0.027	2138.9	0.908	0.42568	4.44334	No
SLV 5	-3845	-23633	493	0.027	2140.2	0.908	0.43187	4.44334	No
SLV 6	-3845	-23633	493	0.027	2140.2	0.908	0.43187	4.44334	No
SLV 4	-3976	-22842	-261	0.044	2149.4	0.906	0.70767	2.99685	No
SLV 3	-3976	-22842	-261	0.044	2149.4	0.906	0.70767	2.99685	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.33	SLU 82	Si
V_SLV	689.441	SLU 82	Si
PFFP_SLV	1.33	SLV 13	Si
R_SLV	0.054	SLV 7	No



## Maschio 20

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)  
Maschio considerato membratura sismica secondaria

### 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
-6.041	7.016	-7.836	7.016	L2	L3	1.795	0.3	4.05	4.05	4.05			

### 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 51	1.51	-4482	-256.56	8323	3611.6	14.077	Si
SLU 51	3.41	-1953	-291.82	3627	1675.07	5.74	Si
SLU 7	1.51	-3458	-189.71	6422	2858.97	15.07	Si
SLU 7	3.41	-1508	-220.13	2800	1306.69	5.936	Si
SLU 4	1.51	-3458	-189.71	6422	2858.97	15.07	Si
SLU 4	3.41	-1508	-220.13	2800	1306.69	5.936	Si
SLU 49	1.51	-4482	-256.56	8323	3611.6	14.077	Si
SLU 49	3.41	-1953	-291.82	3627	1675.07	5.74	Si
SLU 46	1.51	-4482	-256.56	8323	3611.6	14.077	Si
SLU 46	3.41	-1953	-291.82	3627	1675.07	5.74	Si
SLU 2	1.51	-3458	-186.27	6422	2858.92	15.348	Si
SLU 2	3.41	-1494	-225.1	2775	1295.41	5.755	Si
SLU 44	1.51	-4482	-253.12	8323	3611.55	14.268	Si
SLU 44	3.41	-1940	-296.78	3602	1664.03	5.607	Si
SLU 5	1.51	-3458	-186.27	6422	2858.92	15.348	Si
SLU 5	3.41	-1494	-225.1	2775	1295.41	5.755	Si
SLU 9	1.51	-3458	-189.71	6422	2858.97	15.07	Si
SLU 9	3.41	-1508	-220.13	2800	1306.69	5.936	Si
SLU 47	1.51	-4482	-253.12	8323	3611.55	14.268	Si
SLU 47	3.41	-1940	-296.78	3602	1664.03	5.607	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 2	1.51	-3458	-41	-186.27		6422	1.795	6412	3453			84.78	Si
SLU 2	3.41	-1494	-1	-225.1		2775	1.795	5926	3191			1000	Si
SLU 13	1.51	-3556	-42	-124.46		6603	1.795	6436	3466			82.81	Si
SLU 13	3.41	-1587	-2	-167.15		2946	1.795	5948	3203			1000	Si
SLU 34	1.51	-3595	-42	-99.99		6677	1.795	6446	3471			82.11	Si
SLU 34	3.41	-1624	-2	-144.17		3016	1.795	5958	3208			1000	Si
SLU 23	1.51	-3498	-41	-161.8		6495	1.795	6422	3458			84.04	Si
SLU 23	3.41	-1532	-1	-202.12		2844	1.795	5935	3196			1000	Si
SLU 31	1.51	-3595	-42	-99.99		6677	1.795	6446	3471			82.11	Si
SLU 31	3.41	-1624	-2	-144.17		3016	1.795	5958	3208			1000	Si
SLU 76	1.51	-4619	-42	-166.84		8578	1.795	6699	3608			85.33	Si
SLU 76	3.41	-2069	-2	-215.85		3843	1.795	6068	3268			1000	Si
SLU 5	1.51	-3458	-41	-186.27		6422	1.795	6412	3453			84.78	Si
SLU 5	3.41	-1494	-1	-225.1		2775	1.795	5926	3191			1000	Si
SLU 73	1.51	-4619	-42	-166.84		8578	1.795	6699	3608			85.33	Si
SLU 73	3.41	-2069	-2	-215.85		3843	1.795	6068	3268			1000	Si
SLU 10	1.51	-3556	-42	-124.46		6603	1.795	6436	3466			82.81	Si
SLU 10	3.41	-1587	-2	-167.15		2946	1.795	5948	3203			1000	Si
SLU 26	1.51	-3498	-41	-161.8		6495	1.795	6422	3458			84.04	Si
SLU 26	3.41	-1532	-1	-202.12		2844	1.795	5935	3196			1000	Si

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

quota 2.535 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 10	143750	0.45	0	-1721	296.81	0	0	No, e>t/2
SLV 13	143750	0.45	0	-1520	296.81	0	0	No, e>t/2
SLV 9	143750	0.45	0	-1721	296.81	0	0	No, e>t/2
SLV 16	143750	0.45	0	-1761	296.81	0	0	No, e>t/2
SLV 15	143750	0.45	0	-1761	296.81	0	0	No, e>t/2
SLV 14	143750	0.45	0	-1520	296.81	0	0	No, e>t/2
SLV 6	143750	0.45	3961	-2133	296.81	309.57	1.04	Si
SLV 5	143750	0.45	3961	-2133	296.81	309.57	1.04	Si
SLV 12	143750	0.45	4686	-2523	296.81	363.96	1.23	Si
SLV 11	143750	0.45	4686	-2523	296.81	363.96	1.23	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 2.535 Wa = 0.05 Ta = 0.0913

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 10	1	-3307	3	0	0	0	0	4.44334	No, Trazione
SLV 9	1	-3307	3	0	0	0	0	4.44334	No, Trazione
SLV 16	-87	-3192	-91	0.028	400.9	0.98	0.42016	2.99685	No
SLV 15	-87	-3192	-91	0.028	400.9	0.98	0.42016	2.99685	No
SLV 2	-198	-4853	91	0.028	403.6	0.96	0.4291	2.99685	No
SLV 1	-198	-4853	91	0.028	403.6	0.96	0.4291	2.99685	No
SLV 6	-54	-3882	53	0.047	400.5	0.987	0.69105	4.44334	No
SLV 5	-54	-3882	53	0.047	400.5	0.987	0.69105	4.44334	No
SLV 12	-231	-4163	-52	0.047	404.7	0.955	0.70872	4.44334	No
SLV 11	-231	-4163	-52	0.047	404.7	0.955	0.70872	4.44334	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.607	SLU 44	Si
V_SLU	82.106	SLU 31	Si
PFFP_SLV	0	SLV 9	No
R_SLV	0	SLV 10	No

Maschio 21

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)  
Maschio considerato membratura sismica secondaria

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
-3.046	7.016	-5.041	7.016	L2	L3	1.995	0.3	4.05	4.05	4.05			

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 50	2.51	-3367	102.16	5625	3126.41	30.603	Si
SLU 50	3.41	-2044	332.57	3415	1953.07	5.873	Si
SLU 44	2.51	-3374	112.75	5637	3132.28	27.781	Si
SLU 44	3.41	-2056	342.78	3435	1964.36	5.731	Si
SLU 51	2.51	-3371	108.51	5632	3129.93	28.844	Si
SLU 51	3.41	-2051	338.69	3427	1959.85	5.786	Si
SLU 5	2.51	-2596	85.98	4338	2451.91	28.516	Si
SLU 5	3.41	-1584	263.31	2646	1528.34	5.804	Si
SLU 47	2.51	-3374	112.75	5637	3132.28	27.781	Si
SLU 47	3.41	-2056	342.78	3435	1964.36	5.731	Si
SLU 48	2.51	-3367	102.16	5625	3126.41	30.603	Si
SLU 48	3.41	-2044	332.57	3415	1953.07	5.873	Si
SLU 49	2.51	-3371	108.51	5632	3129.93	28.844	Si
SLU 49	3.41	-2051	338.69	3427	1959.85	5.786	Si
SLU 2	2.51	-2596	85.98	4338	2451.91	28.516	Si
SLU 2	3.41	-1584	263.31	2646	1528.34	5.804	Si
SLU 45	2.51	-3367	102.16	5625	3126.41	30.603	Si
SLU 45	3.41	-2044	332.57	3415	1953.07	5.873	Si
SLU 46	2.51	-3371	108.51	5632	3129.93	28.844	Si
SLU 46	3.41	-2051	338.69	3427	1959.85	5.786	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 62	2.51	-3364	-4	61.29		5621	1.995	6305	3774			970.84	Si
SLU 62	3.41	-2035	31	297.81		3401	1.995	6009	3596			115.01	Si
SLU 39	2.51	-2586	-4	22.43		4321	1.995	6132	3670			843.05	Si
SLU 39	3.41	-1560	33	208.04		2607	1.995	5903	3533			106.39	Si
SLU 77	2.51	-3364	-4	61.46		5621	1.995	6305	3773			983.88	Si
SLU 77	3.41	-2035	31	297.93		3400	1.995	6009	3596			114.24	Si
SLU 74	2.51	-3364	-4	61.46		5621	1.995	6305	3773			983.88	Si
SLU 74	3.41	-2035	31	297.93		3400	1.995	6009	3596			114.24	Si
SLU 41	2.51	-2586	-4	22.43		4321	1.995	6132	3670			843.05	Si
SLU 41	3.41	-1560	33	208.04		2607	1.995	5903	3533			106.39	Si
SLU 84	2.51	-3367	-8	55.55		5626	1.995	6306	3774			472.44	Si
SLU 84	3.41	-2040	32	293.64		3408	1.995	6010	3597			112.12	Si
SLU 79	2.51	-3364	-4	61.46		5621	1.995	6305	3773			983.88	Si
SLU 79	3.41	-2035	31	297.93		3400	1.995	6009	3596			114.24	Si
SLU 82	2.51	-3367	-8	55.55		5626	1.995	6306	3774			472.44	Si
SLU 82	3.41	-2040	32	293.64		3408	1.995	6010	3597			112.12	Si
SLU 81	2.51	-3363	-5	49.2		5619	1.995	6305	3773			831.54	Si
SLU 81	3.41	-2033	36	287.51		3396	1.995	6008	3596			100.3	Si
SLU 83	2.51	-3363	-5	49.2		5619	1.995	6305	3773			831.54	Si
SLU 83	3.41	-2033	36	287.51		3396	1.995	6008	3596			100.3	Si

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

quota 2.535 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.45	0	-1230	329.88	0	0	No, e>t/2
SLV 2	143750	0.45	0	-1289	329.88	0	0	No, e>t/2
SLV 1	143750	0.45	0	-1289	329.88	0	0	No, e>t/2
SLV 8	143750	0.45	0	-2091	329.88	0	0	No, e>t/2
SLV 3	143750	0.45	0	-1230	329.88	0	0	No, e>t/2
SLV 7	143750	0.45	0	-2091	329.88	0	0	No, e>t/2
SLV 6	143750	0.45	3823	-2288	329.88	332.51	1.01	Si
SLV 5	143750	0.45	3823	-2288	329.88	332.51	1.01	Si
SLV 12	143750	0.45	4827	-2889	329.88	416.24	1.26	Si
SLV 11	143750	0.45	4827	-2889	329.88	416.24	1.26	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 2.535 Wa = 0.05 Ta = 0.0913

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 9	81	-4308	-15	0	0	0	0	4.44334	No, Trazione



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 16	100	-4317	26	0	0	0	0	2.99685	No, Trazione
SLV 13	129	-4283	14	0	0	0	0	2.99685	No, Trazione
SLV 15	100	-4317	26	0	0	0	0	2.99685	No, Trazione
SLV 6	10	-4364	-27	0	0	0	0	4.44334	No, Trazione
SLV 10	81	-4308	-15	0	0	0	0	4.44334	No, Trazione
SLV 14	129	-4283	14	0	0	0	0	2.99685	No, Trazione
SLV 5	10	-4364	-27	0	0	0	0	4.44334	No, Trazione
SLV 11	-17	-4422	27	0.061	444.8	0.996	0.89718	4.44334	No
SLV 12	-17	-4422	27	0.061	444.8	0.996	0.89718	4.44334	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.731	SLU 44	Si
V_SLU	100.297	SLU 81	Si
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 16	No

## Maschio 22

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

Maschio considerato membratura sismica secondaria

### 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
-1.281	7.016	-2.546	7.016	L2	L3	1.265	0.3	4.05	4.05	4.05			

### 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	$\alpha 0$	Mu	c.s.	Verifica
SLU 41	2.51	-2509	-411.27	6610	1457.99	3.545	Si
SLU 41	3.41	-1966	-534.37	5180	1164.26	2.179	Si
SLU 42	2.51	-2471	-390.87	6510	1437.87	3.679	Si
SLU 42	3.41	-1942	-525.79	5116	1150.96	2.189	Si
SLU 19	2.51	-2353	-327.98	6200	1374.97	4.192	Si
SLU 19	3.41	-1797	-462.08	4734	1070.28	2.316	Si
SLU 39	2.51	-2509	-411.27	6610	1457.99	3.545	Si
SLU 39	3.41	-1966	-534.37	5180	1164.26	2.179	Si
SLU 83	2.51	-3057	-425.58	8054	1742.14	4.094	Si
SLU 83	3.41	-2304	-584.17	6072	1348.89	2.309	Si
SLU 81	2.51	-3057	-425.58	8054	1742.14	4.094	Si
SLU 81	3.41	-2304	-584.17	6072	1348.89	2.309	Si
SLU 20	2.51	-2391	-348.38	6300	1395.28	4.005	Si
SLU 20	3.41	-1821	-470.66	4797	1083.73	2.303	Si
SLU 21	2.51	-2353	-327.98	6200	1374.97	4.192	Si
SLU 21	3.41	-1797	-462.08	4734	1070.28	2.316	Si
SLU 40	2.51	-2471	-390.87	6510	1437.87	3.679	Si
SLU 40	3.41	-1942	-525.79	5116	1150.96	2.189	Si
SLU 18	2.51	-2391	-348.38	6300	1395.28	4.005	Si
SLU 18	3.41	-1821	-470.66	4797	1083.73	2.303	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'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 20	2.51	-2391	-4	-348.38		6300	1.265	6396	2427			608.67	Si
SLU 20	3.41	-1821	-38	-470.66		5409	1.122	6277	2113			55.54	Si
SLU 81	2.51	-3057	-5	-425.58		8054	1.265	6629	2516			517.25	Si
SLU 81	3.41	-2304	-46	-584.17		6756	1.137	6456	2202			48.08	Si
SLU 82	2.51	-3019	-4	-405.18		7954	1.265	6616	2511			658.33	Si
SLU 82	3.41	-2280	-41	-575.59		6666	1.1403	6444	2204			53.27	Si
SLU 84	2.51	-3019	-4	-405.18		7954	1.265	6616	2511			658.33	Si
SLU 84	3.41	-2280	-41	-575.59		6666	1.1403	6444	2204			53.27	Si
SLU 18	2.51	-2391	-4	-348.38		6300	1.265	6396	2427			608.67	Si
SLU 18	3.41	-1821	-38	-470.66		5409	1.122	6277	2113			55.54	Si
SLU 40	2.51	-2471	-4	-390.87		6510	1.265	6424	2438			670.61	Si
SLU 40	3.41	-1942	-44	-525.79		5964	1.0851	6351	2067			47.18	Si
SLU 83	2.51	-3057	-5	-425.58		8054	1.265	6629	2516			517.25	Si
SLU 83	3.41	-2304	-46	-584.17		6756	1.137	6456	2202			48.08	Si
SLU 41	2.51	-2509	-5	-411.27		6610	1.265	6437	2443			521.39	Si
SLU 41	3.41	-1966	-48	-534.37		6056	1.082	6363	2065			42.81	Si
SLU 39	2.51	-2509	-5	-411.27		6610	1.265	6437	2443			521.39	Si
SLU 39	3.41	-1966	-48	-534.37		6056	1.082	6363	2065			42.81	Si
SLU 42	2.51	-2471	-4	-390.87		6510	1.265	6424	2438			670.61	Si
SLU 42	3.41	-1942	-44	-525.79		5964	1.0851	6351	2067			47.18	Si

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

quota 2.535 Wa 0.05 denominatore 8  $\gamma M = 2$

Comb.	fd	Sa	$\alpha 0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	143750	0.45	0	-978	209.18	0	0	No, $e > t/2$
SLV 10	143750	0.45	0	-978	209.18	0	0	No, $e > t/2$
SLV 14	143750	0.45	0	-609	209.18	0	0	No, $e > t/2$
SLV 13	143750	0.45	0	-609	209.18	0	0	No, $e > t/2$
SLV 15	143750	0.45	0	-1045	209.18	0	0	No, $e > t/2$



Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 16	143750	0.45	0	-1045	209.18	0	0	No, $e > t/2$
SLV 6	143750	0.45	4559	-1730	209.18	249.84	1.19	Si
SLV 5	143750	0.45	4559	-1730	209.18	249.84	1.19	Si
SLV 11	143750	0.45	6406	-2431	209.18	345.52	1.65	Si
SLV 12	143750	0.45	6406	-2431	209.18	345.52	1.65	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 2.535  $W_a = 0.05$   $T_a = 0.0913$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 6	-78	-1228	-78	0.019	282.8	0.975	0.28335	4.44334	No
SLV 5	-78	-1228	-78	0.019	282.8	0.975	0.28335	4.44334	No
SLV 12	-333	-4066	80	0.02	293	0.928	0.31397	4.44334	No
SLV 11	-333	-4066	80	0.02	293	0.928	0.31397	4.44334	No
SLV 1	-63	-1757	-74	0.022	282.5	0.98	0.31964	2.99685	No
SLV 2	-63	-1757	-74	0.022	282.5	0.98	0.31964	2.99685	No
SLV 15	-348	-3538	76	0.022	293.9	0.926	0.35266	2.99685	No
SLV 16	-348	-3538	76	0.022	293.9	0.926	0.35266	2.99685	No
SLV 8	-264	-3760	47	0.04	289.4	0.937	0.6186	4.44334	No
SLV 7	-264	-3760	47	0.04	289.4	0.937	0.6186	4.44334	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.179	SLU 39	Si
V_SLU	42.812	SLU 39	Si
PFFP_SLV	0	SLV 9	No
R_SLV	0.064	SLV 5	No

## Maschio 23

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

Maschio considerato membratura sismica secondaria

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
1.744	7.016	-0.281	7.016	L2	L3	2.025	0.3	4.05	4.05	4.05			

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 44	1.51	-4984	394.64	8204	4538.21	11.5	Si
SLU 44	3.41	-2158	414.43	3553	2090.14	5.043	Si
SLU 49	1.51	-4988	389.76	8210	4540.95	11.65	Si
SLU 49	3.41	-2158	412.15	3552	2089.63	5.07	Si
SLU 46	1.51	-4988	389.76	8210	4540.95	11.65	Si
SLU 46	3.41	-2158	412.15	3552	2089.63	5.07	Si
SLU 47	1.51	-4984	394.64	8204	4538.21	11.5	Si
SLU 47	3.41	-2158	414.43	3553	2090.14	5.043	Si
SLU 51	1.51	-4988	389.76	8210	4540.95	11.65	Si
SLU 51	3.41	-2158	412.15	3552	2089.63	5.07	Si
SLU 48	1.51	-4993	382.45	8218	4545.05	11.884	Si
SLU 48	3.41	-2157	408.75	3551	2088.87	5.11	Si
SLU 45	1.51	-4993	382.45	8218	4545.05	11.884	Si
SLU 45	3.41	-2157	408.75	3551	2088.87	5.11	Si
SLU 2	1.51	-3838	303.79	6318	3584.86	11.8	Si
SLU 2	3.41	-1667	317.53	2744	1631.05	5.137	Si
SLU 43	1.51	-4993	382.45	8218	4545.05	11.884	Si
SLU 43	3.41	-2157	408.75	3551	2088.87	5.11	Si
SLU 50	1.51	-4993	382.45	8218	4545.05	11.884	Si
SLU 50	3.41	-2157	408.75	3551	2088.87	5.11	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 10	1.51	-3896	-6	276.68		6413	2.025	6411	3894			641.51	Si
SLU 10	3.41	-1726	-9	290.59		2841	2.025	5934	3605			381.68	Si
SLU 76	1.51	-5066	-7	357.71		8339	2.025	6667	4050			566.38	Si
SLU 76	3.41	-2241	-10	377.75		3689	2.025	6047	3674			350.23	Si
SLU 31	1.51	-3920	-7	266.86		6452	2.025	6416	3898			575.44	Si
SLU 31	3.41	-1750	-10	280.86		2880	2.025	5940	3608			355.32	Si
SLU 34	1.51	-3920	-7	266.86		6452	2.025	6416	3898			575.44	Si
SLU 34	3.41	-1750	-10	280.86		2880	2.025	5940	3608			355.32	Si
SLU 52	1.51	-5042	-6	367.53		8299	2.025	6662	4047			627.59	Si
SLU 52	3.41	-2217	-10	387.48		3650	2.025	6042	3671			375.33	Si
SLU 55	1.51	-5042	-6	367.53		8299	2.025	6662	4047			627.59	Si
SLU 55	3.41	-2217	-10	387.48		3650	2.025	6042	3671			375.33	Si
SLU 82	1.51	-5094	-7	341.22		8385	2.025	6674	4054			583.52	Si
SLU 82	3.41	-2266	-9	363.93		3730	2.025	6053	3677			410.6	Si
SLU 73	1.51	-5066	-7	357.71		8339	2.025	6667	4050			566.38	Si
SLU 73	3.41	-2241	-10	377.75		3689	2.025	6047	3674			350.23	Si
SLU 84	1.51	-5094	-7	341.22		8385	2.025	6674	4054			583.52	Si
SLU 84	3.41	-2266	-9	363.93		3730	2.025	6053	3677			410.6	Si
SLU 13	1.51	-3896	-6	276.68		6413	2.025	6411	3894			641.51	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 13	3.41	-1726	-9	290.59		2841	2.025	5934	3605			381.68	Si

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

quota 2.535 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 2	143750	0.45	0	-1775	334.84	0	0	No, $e > t/2$
SLV 5	143750	0.45	0	-2012	334.84	0	0	No, $e > t/2$
SLV 4	143750	0.45	0	-1978	334.84	0	0	No, $e > t/2$
SLV 6	143750	0.45	0	-2012	334.84	0	0	No, $e > t/2$
SLV 3	143750	0.45	0	-1978	334.84	0	0	No, $e > t/2$
SLV 2	143750	0.45	0	-1775	334.84	0	0	No, $e > t/2$
SLV 9	143750	0.45	3979	-2417	334.84	350.75	1.05	Si
SLV 10	143750	0.45	3979	-2417	334.84	350.75	1.05	Si
SLV 8	143750	0.45	4424	-2688	334.84	388.56	1.16	Si
SLV 7	143750	0.45	4424	-2688	334.84	388.56	1.16	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 2.535 Wa = 0.05 Ta = 0.0913

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$a_0^*$	aLim	Verifica
SLV 2	118	-3817	-59	0	0	0	0	2.99685	No, Trazione
SLV 1	118	-3817	-59	0	0	0	0	2.99685	No, Trazione
SLV 4	72	-3820	12	0	0	0	0	2.99685	No, Trazione
SLV 5	46	-4248	-126	0	0	0	0	4.44334	No, Trazione
SLV 6	46	-4248	-126	0	0	0	0	4.44334	No, Trazione
SLV 3	72	-3820	12	0	0	0	0	2.99685	No, Trazione
SLV 11	-215	-4631	123	0.02	455	0.961	0.30202	4.44334	No
SLV 12	-215	-4631	123	0.02	455	0.961	0.30202	4.44334	No
SLV 9	-61	-4621	-113	0.023	451.8	0.987	0.3438	4.44334	No
SLV 10	-61	-4621	-113	0.023	451.8	0.987	0.3438	4.44334	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.043	SLU 44	Si
V_SLU	350.234	SLU 73	Si
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 6	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
-1.481	7.016	-1.481	2.411	L2	L3	4.605	0.15	4.05	4.05	4.05			

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 42	0.51	-24620	7904.54	35643	31883.72	4.034	Si
SLU 42	4.56	-10391	-23200.83	15043	19506.46	0.841	No, M>Mu
SLU 61	0.51	-23252	6232.7	33662	31413.79	5.04	Si
SLU 61	4.56	-8936	-20021.84	12937	17307.68	0.864	No, M>Mu
SLU 84	0.51	-26467	7646.72	38316	32275.2	4.221	Si
SLU 84	4.56	-10617	-23746.11	15370	19832.96	0.835	No, M>Mu
SLU 41	0.51	-24679	7434.9	35728	31900.52	4.291	Si
SLU 41	4.56	-10408	-23214.87	15068	19532.01	0.841	No, M>Mu
SLU 63	0.51	-23252	6232.7	33662	31413.79	5.04	Si
SLU 63	4.56	-8936	-20021.84	12937	17307.68	0.864	No, M>Mu
SLU 39	0.51	-24679	7434.9	35728	31900.52	4.291	Si
SLU 39	4.56	-10408	-23214.87	15068	19532.01	0.841	No, M>Mu
SLU 40	0.51	-24620	7904.54	35643	31883.72	4.034	Si
SLU 40	4.56	-10391	-23200.83	15043	19506.46	0.841	No, M>Mu
SLU 83	0.51	-26526	7177.09	38401	32283.1	4.498	Si
SLU 83	4.56	-10635	-23760.15	15396	19858.18	0.836	No, M>Mu
SLU 82	0.51	-26467	7646.72	38316	32275.2	4.221	Si
SLU 82	4.56	-10617	-23746.11	15370	19832.96	0.835	No, M>Mu
SLU 81	0.51	-26526	7177.09	38401	32283.1	4.498	Si
SLU 81	4.56	-10635	-23760.15	15396	19858.18	0.836	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 13	0.51	-14540	11214.7	21050	27711.52	2.471	Si
SLV 13	4.56	-4430	-10399.07	0	0	0	No, $e > l/2$
SLV 3	0.51	-11610	-6787.69	16808	23054.7	3.397	Si
SLV 3	4.56	-4302	-9243.57	6228	9400.68	1.017	Si
SLV 10	0.51	-10627	16327.32	15384	21387.38	1.31	Si
SLV 10	4.56	-3958	-11455.36	0	0	0	No, $e > l/2$
SLV 6	0.51	-9176	13184.21	13285	18831.42	1.428	Si
SLV 6	4.56	-3836	-11397.64	0	0	0	No, $e > l/2$
SLV 5	0.51	-9176	13184.21	13285	18831.42	1.428	Si





Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 5	4.56	-3836	-11397.64	0	0	0	No, e>l/2
SLV 14	0.51	-14540	11214.7	21050	27711.52	2.471	Si
SLV 14	4.56	-4430	-10399.07	0	0	0	No, e>l/2
SLV 9	0.51	-10627	16327.32	15384	21387.38	1.31	Si
SLV 9	4.56	-3958	-11455.36	0	0	0	No, e>l/2
SLV 2	0.51	-9706	737.67	14051	19777.66	26.811	Si
SLV 2	4.56	-4021	-10206.68	0	0	0	No, e>l/2
SLV 4	0.51	-11610	-6787.69	16808	23054.7	3.397	Si
SLV 4	4.56	-4302	-9243.57	6228	9400.68	1.017	Si
SLV 1	0.51	-9706	737.67	14051	19777.66	26.811	Si
SLV 1	4.56	-4021	-10206.68	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 5	0.51	-9732	694	1539.37		14088	4.605	7434	5135			7.4	Si
SLU 5	4.56	-2646	3475	-6050.5		372518	0.0474	10833	77			0.02	No, Vu<V
SLU 47	0.51	-11578	699	1281.56		16762	4.605	7790	5381			7.7	Si
SLU 47	4.56	-2872	3762	-6595.78		1046866	0.0183	10833	30			0.01	No, Vu<V
SLU 44	0.51	-11578	699	1281.56		16762	4.605	7790	5381			7.7	Si
SLU 44	4.56	-2872	3762	-6595.78		1046866	0.0183	10833	30			0.01	No, Vu<V
SLU 49	0.51	-11618	449	968.47		16819	4.605	7798	5387			12.01	Si
SLU 49	4.56	-2884	3741	-6605.14		525537	0.0366	10833	59			0.02	No, Vu<V
SLU 84	0.51	-26467	707	7646.72		38316	4.605	10664	7366			10.41	Si
SLU 84	4.56	-10617	13660	-23746.11		358139	0.1976	10833	321			0.02	No, Vu<V
SLU 2	0.51	-9732	694	1539.37		14088	4.605	7434	5135			7.4	Si
SLU 2	4.56	-2646	3475	-6050.5		372518	0.0474	10833	77			0.02	No, Vu<V
SLU 81	0.51	-26526	333	7177.09		38401	4.605	10676	7374			22.18	Si
SLU 81	4.56	-10635	13628	-23760.15		346217	0.2048	10833	333			0.02	No, Vu<V
SLU 46	0.51	-11618	449	968.47		16819	4.605	7798	5387			12.01	Si
SLU 46	4.56	-2884	3741	-6605.14		525537	0.0366	10833	59			0.02	No, Vu<V
SLU 51	0.51	-11618	449	968.47		16819	4.605	7798	5387			12.01	Si
SLU 51	4.56	-2884	3741	-6605.14		525537	0.0366	10833	59			0.02	No, Vu<V
SLU 82	0.51	-26467	707	7646.72		38316	4.605	10664	7366			10.41	Si
SLU 82	4.56	-10617	13660	-23746.11		358139	0.1976	10833	321			0.02	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 13	0.51	-14540	3737	11214.7		21102	4.5937	12554	8650			2.32	Si
SLV 13	4.56	-4430	7767	-10399.07		0	0	8333	0			0	No, Vu<V
SLV 14	0.51	-14540	3737	11214.7		21102	4.5937	12554	8650			2.32	Si
SLV 14	4.56	-4430	7767	-10399.07		0	0	8333	0			0	No, Vu<V
SLV 5	0.51	-9176	8510	13184.21		23554	2.5972	13044	5082			0.6	No, Vu<V
SLV 5	4.56	-3836	11897	-11397.64		0	0	8333	0			0	No, Vu<V
SLV 3	0.51	-11610	-3487	-6787.69		16808	4.605	11695	8078			2.32	Si
SLV 3	4.56	-4302	3415	-9243.57		62126	0.4617	16250	1125			0.33	No, Vu<V
SLV 9	0.51	-10627	9114	16327.32		30826	2.2982	14499	4998			0.55	No, Vu<V
SLV 9	4.56	-3958	12053	-11455.36		0	0	8333	0			0	No, Vu<V
SLV 6	0.51	-9176	8510	13184.21		23554	2.5972	13044	5082			0.6	No, Vu<V
SLV 6	4.56	-3836	11897	-11397.64		0	0	8333	0			0	No, Vu<V
SLV 10	0.51	-10627	9114	16327.32		30826	2.2982	14499	4998			0.55	No, Vu<V
SLV 10	4.56	-3958	12053	-11455.36		0	0	8333	0			0	No, Vu<V
SLV 2	0.51	-9706	1725	737.67		14051	4.605	11144	7697			4.46	Si
SLV 2	4.56	-4021	7245	-10206.68		0	0	8333	0			0	No, Vu<V
SLV 1	0.51	-9706	1725	737.67		14051	4.605	11144	7697			4.46	Si
SLV 1	4.56	-4021	7245	-10206.68		0	0	8333	0			0	No, Vu<V
SLV 4	0.51	-11610	-3487	-6787.69		16808	4.605	11695	8078			2.32	Si
SLV 4	4.56	-4302	3415	-9243.57		62126	0.4617	16250	1125			0.33	No, Vu<V

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

quota 2.535 Wa 0.03 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	143750	0.45	10694	-7387	380.73	505.52	1.33	Si
SLV 5	143750	0.45	10694	-7387	380.73	505.52	1.33	Si
SLV 10	143750	0.45	11283	-7794	380.73	530.56	1.39	Si
SLV 9	143750	0.45	11283	-7794	380.73	530.56	1.39	Si
SLV 2	143750	0.45	11953	-8257	380.73	558.67	1.47	Si
SLV 1	143750	0.45	11953	-8257	380.73	558.67	1.47	Si
SLV 3	143750	0.45	13622	-9409	380.73	627.02	1.65	Si
SLV 4	143750	0.45	13622	-9409	380.73	627.02	1.65	Si
SLV 13	143750	0.45	13918	-9614	380.73	638.9	1.68	Si
SLV 14	143750	0.45	13918	-9614	380.73	638.9	1.68	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 2.535 Wa = 0.03 Ta = 0.1826

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 7	-4773	-15524	-52	0.018	898.4	0.898	0.28817	5.30055	No
SLV 8	-4773	-15524	-52	0.018	898.4	0.898	0.28817	5.30055	No
SLV 10	-3958	-10627	51	0.018	819.5	0.894	0.29019	5.30055	No
SLV 9	-3958	-10627	51	0.018	819.5	0.894	0.29019	5.30055	No
SLV 12	-4896	-16974	-26	0.021	910.3	0.899	0.34404	5.30055	No
SLV 11	-4896	-16974	-26	0.021	910.3	0.899	0.34404	5.30055	No
SLV 6	-3836	-9176	25	0.022	807.7	0.893	0.35588	5.30055	No
SLV 5	-3836	-9176	25	0.022	807.7	0.893	0.35588	5.30055	No
SLV 3	-4302	-11610	-55	0.017	852.6	0.896	0.28125	2.39674	No
SLV 4	-4302	-11610	-55	0.017	852.6	0.896	0.28125	2.39674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
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Sismicad 12.19 - Licenza assegnata a Sidel ingegneria Srl - Via Isonzo, 13 - Villanova di Castenaso (BO)



Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.835	SLU 82	No
V_SLU	0.008	SLU 44	No
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	1.328	SLV 5	Si
R_SLV	0.054	SLV 7	No

## Maschio 25

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)  
Maschio considerato membratura sismica secondaria

### 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
0.984	-2.564	1.744	-1.333	L2	L3	1.447	0.3	4.05	4.05	4.05			

### 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 39	0.51	-5084	123.2	11715	3148.47	25.555	Si
SLU 39	4.56	-1956	109.5	4508	1336.63	12.207	Si
SLU 61	0.51	-5747	100.07	13242	3481.06	34.787	Si
SLU 61	4.56	-1674	93.72	3858	1153.78	12.311	Si
SLU 83	0.51	-6062	130.02	13968	3632.73	27.94	Si
SLU 83	4.56	-1993	111.54	4592	1360.28	12.196	Si
SLU 42	0.51	-5087	110.72	11721	3149.94	28.449	Si
SLU 42	4.56	-1957	109.57	4509	1337.04	12.203	Si
SLU 82	0.51	-6065	117.54	13975	3634.08	30.918	Si
SLU 82	4.56	-1994	111.6	4594	1360.69	12.192	Si
SLU 84	0.51	-6065	117.54	13975	3634.08	30.918	Si
SLU 84	4.56	-1994	111.6	4594	1360.69	12.192	Si
SLU 41	0.51	-5084	123.2	11715	3148.47	25.555	Si
SLU 41	4.56	-1956	109.5	4508	1336.63	12.207	Si
SLU 63	0.51	-5747	100.07	13242	3481.06	34.787	Si
SLU 63	4.56	-1674	93.72	3858	1153.78	12.311	Si
SLU 81	0.51	-6062	130.02	13968	3632.73	27.94	Si
SLU 81	4.56	-1993	111.54	4592	1360.28	12.196	Si
SLU 40	0.51	-5087	110.72	11721	3149.94	28.449	Si
SLU 40	4.56	-1957	109.57	4509	1337.04	12.203	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 73	0.51	-5723	-10	90.31		13188	1.4466	7314	3174			320.21	Si
SLU 73	4.56	-1649	-5	92.33		3800	1.4466	6062	2631			514.51	Si
SLU 23	0.51	-3945	-9	39.36		9090	1.4466	6768	2937			338.44	Si
SLU 23	4.56	-808	-3	45.22		1861	1.4466	5804	2519			789.06	Si
SLU 55	0.51	-5406	-9	72.84		12456	1.4466	7216	3132			331.83	Si
SLU 55	4.56	-1330	-4	74.45		3065	1.4466	5964	2588			591.69	Si
SLU 34	0.51	-4746	-10	83.49		10935	1.4466	7014	3044			308.33	Si
SLU 34	4.56	-1612	-5	90.3		3715	1.4466	6051	2626			521.73	Si
SLU 76	0.51	-5723	-10	90.31		13188	1.4466	7314	3174			320.21	Si
SLU 76	4.56	-1649	-5	92.33		3800	1.4466	6062	2631			514.51	Si
SLU 13	0.51	-4428	-9	66.02		10203	1.4466	6916	3001			319.4	Si
SLU 13	4.56	-1293	-4	72.41		2980	1.4466	5953	2583			601.6	Si
SLU 31	0.51	-4746	-10	83.49		10935	1.4466	7014	3044			308.33	Si
SLU 31	4.56	-1612	-5	90.3		3715	1.4466	6051	2626			521.73	Si
SLU 52	0.51	-5406	-9	72.84		12456	1.4466	7216	3132			331.83	Si
SLU 52	4.56	-1330	-4	74.45		3065	1.4466	5964	2588			591.69	Si
SLU 10	0.51	-4428	-9	66.02		10203	1.4466	6916	3001			319.4	Si
SLU 10	4.56	-1293	-4	72.41		2980	1.4466	5953	2583			601.6	Si
SLU 26	0.51	-3945	-9	39.36		9090	1.4466	6768	2937			338.44	Si
SLU 26	4.56	-808	-3	45.22		1861	1.4466	5804	2519			789.06	Si

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

quota 2.535 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.45	5201	-2257	239.2	324.17	1.36	Si
SLV 3	143750	0.45	5201	-2257	239.2	324.17	1.36	Si
SLV 8	143750	0.45	5208	-2260	239.2	324.59	1.36	Si
SLV 7	143750	0.45	5208	-2260	239.2	324.59	1.36	Si
SLV 2	143750	0.45	5339	-2317	239.2	332.37	1.39	Si
SLV 1	143750	0.45	5339	-2317	239.2	332.37	1.39	Si
SLV 11	143750	0.45	5352	-2323	239.2	333.14	1.39	Si
SLV 12	143750	0.45	5352	-2323	239.2	333.14	1.39	Si
SLV 5	143750	0.45	5668	-2460	239.2	351.83	1.47	Si
SLV 6	143750	0.45	5668	-2460	239.2	351.83	1.47	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 2.535 Wa = 0.05 Ta = 0.0913

Comb.	N top	N base	V orto	α0	M*	e*	α0*	aLim	Verifica
SLV 10	-867	-4029	51	0.04	368.7	0.897	0.64754	4.44334	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 9	-867	-4029	51	0.04	368.7	0.897	0.64754	4.44334	No
SLV 8	-750	-3855	-50	0.041	359.7	0.902	0.65586	4.44334	No
SLV 7	-750	-3855	-50	0.041	359.7	0.902	0.65586	4.44334	No
SLV 6	-851	-4169	23	0.052	367.5	0.898	0.83402	4.44334	No
SLV 5	-851	-4169	23	0.052	367.5	0.898	0.83402	4.44334	No
SLV 12	-766	-3715	-22	0.053	360.9	0.901	0.84854	4.44334	No
SLV 11	-766	-3715	-22	0.053	360.9	0.901	0.84854	4.44334	No
SLV 14	-851	-3755	58	0.037	367.5	0.898	0.60081	2.99685	No
SLV 13	-851	-3755	58	0.037	367.5	0.898	0.60081	2.99685	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	12.192	SLU 82	Si
V_SLU	308.328	SLU 31	Si
PFFP_SLV	1.355	SLV 3	Si
R_SLV	0.146	SLV 9	No

## Maschio 26

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

Maschio considerato membratura sismica secondaria

### 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
1.744	7.016	1.744	-1.329	L2	L3	8.345	0.3	4.05	4.05	4.05			

### 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 41	0.51	-33139	380.98	13237	115802.51	303.956	Si
SLU 41	4.56	-14891	345.84	5948	57596.68	166.544	Si
SLU 83	0.51	-38895	392.98	15536	131336.12	334.203	Si
SLU 83	4.56	-15171	353.04	6060	58592.29	165.964	Si
SLU 39	0.51	-33139	380.98	13237	115802.51	303.956	Si
SLU 39	4.56	-14891	345.84	5948	57596.68	166.544	Si
SLU 84	0.51	-38900	474.89	15538	131348.15	276.589	Si
SLU 84	4.56	-15171	350.93	6060	58591.53	166.962	Si
SLU 62	0.51	-36466	333.61	14566	124946.97	374.532	Si
SLU 62	4.56	-12741	297.01	5089	49841.07	167.812	Si
SLU 40	0.51	-33143	462.89	13239	115815.64	250.203	Si
SLU 40	4.56	-14891	343.72	5948	57595.92	167.566	Si
SLU 81	0.51	-38895	392.98	15536	131336.12	334.203	Si
SLU 81	4.56	-15171	353.04	6060	58592.29	165.964	Si
SLU 60	0.51	-36466	333.61	14566	124946.97	374.532	Si
SLU 60	4.56	-12741	297.01	5089	49841.07	167.812	Si
SLU 42	0.51	-33143	462.89	13239	115815.64	250.203	Si
SLU 42	4.56	-14891	343.72	5948	57595.92	167.566	Si
SLU 82	0.51	-38900	474.89	15538	131348.15	276.589	Si
SLU 82	4.56	-15171	350.93	6060	58591.53	166.962	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	0.51	-28094	69	393.99	11222	8.345	7052	17654				254.54	Si
SLU 13	4.56	-9836	26	225.75	3929	8.345	6079	15220				588.58	Si
SLU 23	0.51	-24399	66	303.73	9746	8.345	6855	17162				261.67	Si
SLU 23	4.56	-6140	23	140.58	2452	8.345	5883	14727				630.12	Si
SLU 76	0.51	-36278	73	465.36	14491	8.345	7488	18745				255.73	Si
SLU 76	4.56	-12545	28	289	5011	8.345	6224	15581				562.3	Si
SLU 26	0.51	-24399	66	303.73	9746	8.345	6855	17162				261.67	Si
SLU 26	4.56	-6140	23	140.58	2452	8.345	5883	14727				630.12	Si
SLU 31	0.51	-30522	72	453.36	12192	8.345	7181	17978				250.17	Si
SLU 31	4.56	-12265	27	281.79	4899	8.345	6209	15544				565.43	Si
SLU 34	0.51	-30522	72	453.36	12192	8.345	7181	17978				250.17	Si
SLU 34	4.56	-12265	27	281.79	4899	8.345	6209	15544				565.43	Si
SLU 73	0.51	-36278	73	465.36	14491	8.345	7488	18745				255.73	Si
SLU 73	4.56	-12545	28	289	5011	8.345	6224	15581				562.3	Si
SLU 52	0.51	-33850	71	405.99	13521	8.345	7358	18422				260.22	Si
SLU 52	4.56	-10115	26	232.96	4041	8.345	6094	15257				585.06	Si
SLU 55	0.51	-33850	71	405.99	13521	8.345	7358	18422				260.22	Si
SLU 55	4.56	-10115	26	232.96	4041	8.345	6094	15257				585.06	Si
SLU 10	0.51	-28094	69	393.99	11222	8.345	7052	17654				254.54	Si
SLU 10	4.56	-9836	26	225.75	3929	8.345	6079	15220				588.58	Si

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

quota 2.535 Wa 0.05 denominatore 8  $\gamma M = 2$

Comb.	fd	Sa	$\sigma 0$	N	M	Mc	Coeff.s.	Verifica
SLV 2	143750	0.45	6060	-15172	1379.88	2162.91	1.57	Si
SLV 1	143750	0.45	6060	-15172	1379.88	2162.91	1.57	Si
SLV 6	143750	0.45	6072	-15201	1379.88	2166.89	1.57	Si
SLV 5	143750	0.45	6072	-15201	1379.88	2166.89	1.57	Si
SLV 4	143750	0.45	6072	-15201	1379.88	2166.9	1.57	Si



Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 3	143750	0.45	6072	-15201	1379.88	2166.9	1.57	Si
SLV 10	143750	0.45	6094	-15256	1379.88	2174.29	1.58	Si
SLV 9	143750	0.45	6094	-15256	1379.88	2174.29	1.58	Si
SLV 7	143750	0.45	6111	-15300	1379.88	2180.19	1.58	Si
SLV 8	143750	0.45	6111	-15300	1379.88	2180.19	1.58	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 2.535  $W_a = 0.05$   $T_a = 0.0913$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 16	-6179	-24606	1086	0	2222.7	0.893	0	2.99685	No
SLV 14	-6169	-24619	1113	0	2221.9	0.893	0	2.99685	No
SLV 3	-6140	-24192	-1114	0	2219.4	0.893	0	2.99685	No
SLV 4	-6140	-24192	-1114	0	2219.4	0.893	0	2.99685	No
SLV 13	-6169	-24619	1113	0	2221.9	0.893	0	2.99685	No
SLV 1	-6130	-24206	-1087	0	2218.7	0.893	0	2.99685	No
SLV 2	-6130	-24206	-1087	0	2218.7	0.893	0	2.99685	No
SLV 15	-6179	-24606	1086	0	2222.7	0.893	0	2.99685	No
SLV 7	-6164	-24322	-376	0.035	2221.5	0.893	0.56297	4.44334	No
SLV 8	-6164	-24322	-376	0.035	2221.5	0.893	0.56297	4.44334	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	165.964	SLV 81	Si
V_SLV	250.169	SLV 31	Si
PFFP_SLV	1.567	SLV 1	Si
R_SLV	0	SLV 1	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 ini.:** coordinata punto iniziale. [m]

**Y ini.:** coordinata punto iniziale. [m]

**Z ini.inf.:** coordinata punto iniziale. [m]

**Z ini.sup.:** coordinata punto iniziale. [m]

**H ini.:** altezza della sezione iniziale. [m]

**X fin.:** coordinata punto finale. [m]

**Y fin.:** coordinata punto finale. [m]

**Z fin.inf.:** coordinata punto finale. [m]

**Z fin.sup.:** coordinata punto finale. [m]

**H fin.:** 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>]

**fhk:** resistenza caratteristica a compressione della muratura utilizzata in direzione orizzontale. [daN/m<sup>2</sup>]

**fvk0:** resistenza caratteristica a taglio in assenza di carichi verticali. [daN/m<sup>2</sup>]

**fhmmedio:** 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>]

**fv0:** 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.

**fvk,lim:** 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]

**Vt:** resistenza a taglio secondo [7.8.4]. [daN]

**Vp:** resistenza a taglio secondo [7.8.6]. [daN]

**Vt fess. diag.:** resistenza a taglio per fessurazione diagonale secondo §C8.7.1.3.1.1 formule [C8.7.1.16] ovvero [C8.7.1.17]. [daN]

**Vt,lim:** 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
-7.836	-0.539	-1.89	-0.49	1.4	-7.836	-0.039	-1.89	-0.49	1.4	0.5	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	fthmedio	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	γM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1516	-185.5	4474.85	SLU 76	24.12	Si
fin.	3	-1342	110.37	4474.85	SLU 76	40.54	Si
ini.	3	-1628	-195.37	4474.85	SLU 83	22.9	Si
fin.	3	-1444	119.89	4474.85	SLU 83	37.32	Si
ini.	3	-1637	-196.7	4474.85	SLU 84	22.75	Si
fin.	3	-1454	121.82	4474.85	SLU 84	36.73	Si
ini.	3	-1509	-184.61	4474.85	SLU 80	24.24	Si
fin.	3	-1335	109.09	4474.85	SLU 80	41.02	Si
ini.	3	-1516	-185.5	4474.85	SLU 73	24.12	Si
fin.	3	-1342	110.37	4474.85	SLU 73	40.54	Si
ini.	3	-1637	-196.7	4474.85	SLU 82	22.75	Si
fin.	3	-1454	121.82	4474.85	SLU 82	36.73	Si
ini.	3	-1513	-183.65	4474.85	SLU 63	24.37	Si
fin.	3	-1337	110.77	4474.85	SLU 63	40.4	Si
ini.	3	-1628	-195.37	4474.85	SLU 81	22.9	Si
fin.	3	-1444	119.89	4474.85	SLU 81	37.32	Si
ini.	3	-1509	-184.61	4474.85	SLU 75	24.24	Si
fin.	3	-1335	109.09	4474.85	SLU 75	41.02	Si
ini.	3	-1509	-184.61	4474.85	SLU 78	24.24	Si
fin.	3	-1335	109.09	4474.85	SLU 78	41.02	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	γM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-1513	-183.65	124			3031	1198	SLU 63	9.67	Si
fin.	3	-1337	110.77	2069			2961	1168	SLU 63	0.56	No
ini.	3	-1516	-185.5	132			3032	1198	SLU 76	9.11	Si
fin.	3	-1342	110.37	2066			2963	1169	SLU 76	0.57	No
ini.	3	-1503	-182.32	118			3028	1196	SLU 60	10.13	Si
fin.	3	-1327	108.85	2056			2957	1166	SLU 60	0.57	No
ini.	3	-1516	-185.5	132			3032	1198	SLU 73	9.11	Si
fin.	3	-1342	110.37	2066			2963	1169	SLU 73	0.57	No
ini.	3	-1513	-183.65	124			3031	1198	SLU 61	9.67	Si
fin.	3	-1337	110.77	2069			2961	1168	SLU 61	0.56	No
ini.	3	-1503	-182.32	118			3028	1196	SLU 62	10.13	Si
fin.	3	-1327	108.85	2056			2957	1166	SLU 62	0.57	No
ini.	3	-1628	-195.37	117			3077	1217	SLU 81	10.4	Si
fin.	3	-1444	119.89	2225			3004	1186	SLU 81	0.53	No
ini.	3	-1637	-196.7	123			3081	1218	SLU 82	9.93	Si
fin.	3	-1454	121.82	2238			3008	1188	SLU 82	0.53	No
ini.	3	-1628	-195.37	117			3077	1217	SLU 83	10.4	Si
fin.	3	-1444	119.89	2225			3004	1186	SLU 83	0.53	No
ini.	3	-1637	-196.7	123			3081	1218	SLU 84	9.93	Si
fin.	3	-1454	121.82	2238			3008	1188	SLU 84	0.53	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	γM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-877	-237.05	6712.28	SLV 10	28.32	Si
fin.	2	-983	103.3	6712.28	SLV 10	64.98	Si
ini.	2	-966	-205.69	6712.28	SLV 2	32.63	Si
fin.	2	-903	51.84	6712.28	SLV 2	129.49	Si
ini.	2	-966	-205.69	6712.28	SLV 1	32.63	Si
fin.	2	-903	51.84	6712.28	SLV 1	129.49	Si
ini.	2	-885	-263.16	6712.28	SLV 6	25.51	Si
fin.	2	-986	89.49	6712.28	SLV 6	75.01	Si
ini.	2	-939	-118.66	6712.28	SLV 13	56.57	Si
fin.	2	-892	97.9	6712.28	SLV 13	68.56	Si
ini.	2	-939	-118.66	6712.28	SLV 14	56.57	Si
fin.	2	-892	97.9	6712.28	SLV 14	68.56	Si
ini.	2	-1027	-130.32	6712.28	SLV 3	51.51	Si
fin.	2	-829	33.39	6712.28	SLV 3	201.05	Si
ini.	2	-885	-263.16	6712.28	SLV 5	25.51	Si
fin.	2	-986	89.49	6712.28	SLV 5	75.01	Si
ini.	2	-877	-237.05	6712.28	SLV 9	28.32	Si
fin.	2	-983	103.3	6712.28	SLV 9	64.98	Si
ini.	2	-1027	-130.32	6712.28	SLV 4	51.51	Si
fin.	2	-829	33.39	6712.28	SLV 4	201.05	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	γM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-939	-118.66	-8			4015	1560	SLV 13	191.81	Si
fin.	2	-892	97.9	1404			3996	1551	SLV 13	1.1	Si
ini.	2	-885	-263.16	66			3993	1550	SLV 5	23.52	Si
fin.	2	-986	89.49	1618			4034	1569	SLV 5	0.97	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-877	-237.05	12			3990	1549	SLV 10	128.39	Si
fin.	2	-983	103.3	1611			4032	1569	SLV 10	0.97	No
ini.	2	-877	-237.05	12			3990	1549	SLV 9	128.39	Si
fin.	2	-983	103.3	1611			4032	1569	SLV 9	0.97	No
ini.	2	-885	-263.16	66			3993	1550	SLV 6	23.52	Si
fin.	2	-986	89.49	1618			4034	1569	SLV 6	0.97	No
ini.	2	-966	-205.69	171			4026	1565	SLV 2	9.13	Si
fin.	2	-903	51.84	1428			4001	1554	SLV 2	1.09	Si
ini.	2	-939	-118.66	-8			4015	1560	SLV 14	191.81	Si
fin.	2	-892	97.9	1404			3996	1551	SLV 14	1.1	Si
ini.	2	-1027	-130.32	208			4050	1577	SLV 4	7.58	Si
fin.	2	-829	33.39	1258			3971	1539	SLV 4	1.22	Si
ini.	2	-966	-205.69	171			4026	1565	SLV 1	9.13	Si
fin.	2	-903	51.84	1428			4001	1554	SLV 1	1.09	Si
ini.	2	-1027	-130.32	208			4050	1577	SLV 3	7.58	Si
fin.	2	-829	33.39	1258			3971	1539	SLV 3	1.22	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	25.507	SLV 5	Si
V_SLV	0.97	SLV 5	No
PF_SLU	22.75	SLU 82	Si
V_SLU	0.531	SLU 82	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
-7.836	-0.539	-0.09	0.51	0.6	-7.836	-0.039	-0.09	0.51	0.6	0.5	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	fhmmedio	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	-768	-16.23	821.91	SLU 41	50.63	Si
fin.	3	-768	43.4	821.91	SLU 41	18.94	Si
ini.	3	-821	-18.59	821.91	SLU 83	44.21	Si
fin.	3	-821	45.38	821.91	SLU 83	18.11	Si
ini.	3	-732	-2.46	821.91	SLU 76	334.33	Si
fin.	3	-732	45.11	821.91	SLU 76	18.22	Si
ini.	3	-821	-18.59	821.91	SLU 81	44.21	Si
fin.	3	-821	45.38	821.91	SLU 81	18.11	Si
ini.	3	-768	-16.23	821.91	SLU 39	50.63	Si
fin.	3	-768	43.4	821.91	SLU 39	18.94	Si
ini.	3	-838	-9.5	821.91	SLU 82	86.49	Si
fin.	3	-838	49.41	821.91	SLU 82	16.63	Si
ini.	3	-784	-7.15	821.91	SLU 40	114.99	Si
fin.	3	-784	47.43	821.91	SLU 40	17.33	Si
ini.	3	-732	-2.46	821.91	SLU 73	334.33	Si
fin.	3	-732	45.11	821.91	SLU 73	18.22	Si
ini.	3	-784	-7.15	821.91	SLU 42	114.99	Si
fin.	3	-784	47.43	821.91	SLU 42	17.33	Si
ini.	3	-838	-9.5	821.91	SLU 84	86.49	Si
fin.	3	-838	49.41	821.91	SLU 84	16.63	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	-728	-16.21	269			1331	526	SLU 60	1.96	Si
fin.	3	-728	39.08	-47			1331	526	SLU 60	11.11	Si
ini.	3	-838	-9.5	276			1375	544	SLU 84	1.97	Si
fin.	3	-838	49.41	-40			1375	544	SLU 84	13.55	Si
ini.	3	-705	-17.6	270			1322	522	SLU 74	1.94	Si
fin.	3	-705	38.4	-46			1322	522	SLU 74	11.37	Si
ini.	3	-611	-15.23	253			1284	507	SLU 58	2.01	Si
fin.	3	-611	32.1	-63			1284	507	SLU 58	8.01	Si
ini.	3	-705	-17.6	270			1322	522	SLU 79	1.94	Si
fin.	3	-705	38.4	-46			1322	522	SLU 79	11.37	Si
ini.	3	-705	-17.6	270			1322	522	SLU 77	1.94	Si
fin.	3	-705	38.4	-46			1322	522	SLU 77	11.37	Si
ini.	3	-821	-18.59	286			1368	541	SLU 81	1.89	Si
fin.	3	-821	45.38	-30			1368	541	SLU 81	18.04	Si
ini.	3	-821	-18.59	286			1368	541	SLU 83	1.89	Si
fin.	3	-821	45.38	-30			1368	541	SLU 83	18.04	Si
ini.	3	-728	-16.21	269			1331	526	SLU 62	1.96	Si
fin.	3	-728	39.08	-47			1331	526	SLU 62	11.11	Si
ini.	3	-838	-9.5	276			1375	544	SLU 82	1.97	Si
fin.	3	-838	49.41	-40			1375	544	SLU 82	13.55	Si

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
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Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-766	207.21	1232.87	SLV 10	5.95	Si
fin.	2	-771	147.29	1232.87	SLV 10	8.37	Si
ini.	2	-128	-223.18	1232.87	SLV 12	5.52	Si
fin.	2	-123	-104.09	1232.87	SLV 12	11.84	Si
ini.	2	-103	-89.53	1232.87	SLV 4	13.77	Si
fin.	2	-103	-21.84	1232.87	SLV 4	56.45	Si
ini.	2	-652	199.37	1232.87	SLV 5	6.18	Si
fin.	2	-657	144.64	1232.87	SLV 5	8.52	Si
ini.	2	-652	199.37	1232.87	SLV 6	6.18	Si
fin.	2	-657	144.64	1232.87	SLV 6	8.52	Si
ini.	2	-14	-231.02	1232.87	SLV 7	5.34	Si
fin.	2	-9	-106.74	1232.87	SLV 7	11.55	Si
ini.	2	-14	-231.02	1232.87	SLV 8	5.34	Si
fin.	2	-9	-106.74	1232.87	SLV 8	11.55	Si
ini.	2	-766	207.21	1232.87	SLV 9	5.95	Si
fin.	2	-771	147.29	1232.87	SLV 9	8.37	Si
ini.	2	-103	-89.53	1232.87	SLV 3	13.77	Si
fin.	2	-103	-21.84	1232.87	SLV 3	56.45	Si
ini.	2	-128	-223.18	1232.87	SLV 11	5.52	Si
fin.	2	-123	-104.09	1232.87	SLV 11	11.84	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	-103	-89.53	290			1601	609	SLV 3	2.1	Si
fin.	2	-103	-21.84	52			1601	609	SLV 3	11.61	Si
ini.	2	-128	-223.18	346			1611	614	SLV 11	1.77	Si
fin.	2	-123	-104.09	36			1609	613	SLV 11	17.11	Si
ini.	2	-486	-63.4	188			1754	684	SLV 15	3.65	Si
fin.	2	-483	-13.02	-97			1753	684	SLV 15	7.02	Si
ini.	2	-14	-231.02	377			1565	590	SLV 7	1.56	Si
fin.	2	-9	-106.74	81			1563	589	SLV 7	7.29	Si
ini.	2	-486	-63.4	188			1754	684	SLV 16	3.65	Si
fin.	2	-483	-13.02	-97			1753	684	SLV 16	7.02	Si
ini.	2	-103	-89.53	290			1601	609	SLV 4	2.1	Si
fin.	2	-103	-21.84	52			1601	609	SLV 4	11.61	Si
ini.	2	-294	39.59	184			1677	648	SLV 1	3.52	Si
fin.	2	-297	53.57	-17			1679	648	SLV 1	38.56	Si
ini.	2	-128	-223.18	346			1611	614	SLV 12	1.77	Si
fin.	2	-123	-104.09	36			1609	613	SLV 12	17.11	Si
ini.	2	-14	-231.02	377			1565	590	SLV 8	1.56	Si
fin.	2	-9	-106.74	81			1563	589	SLV 8	7.29	Si
ini.	2	-294	39.59	184			1677	648	SLV 2	3.52	Si
fin.	2	-297	53.57	-17			1679	648	SLV 2	38.56	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	5.337	SLV 7	Si
V_SLV	1.565	SLV 7	Si
PF_SLU	16.634	SLU 82	Si
V_SLU	1.893	SLU 81	Si

## 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
-7.836	0.281	-1.89	-0.49	1.4	-7.836	0.781	-1.89	-0.49	1.4	0.5	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	-1669	-185.61	4474.85	SLU 77	24.11	Si
fin.	3	-1850	14.29	4474.85	SLU 77	313.25	Si
ini.	3	-1681	-185.53	4474.85	SLU 75	24.12	Si
fin.	3	-1869	16.62	4474.85	SLU 75	269.22	Si
ini.	3	-1832	-199.02	4474.85	SLU 84	22.48	Si
fin.	3	-2039	25.56	4474.85	SLU 84	175.06	Si
ini.	3	-1669	-185.61	4474.85	SLU 74	24.11	Si
fin.	3	-1850	14.29	4474.85	SLU 74	313.25	Si
ini.	3	-1681	-185.53	4474.85	SLU 78	24.12	Si
fin.	3	-1869	16.62	4474.85	SLU 78	269.22	Si
ini.	3	-1832	-199.02	4474.85	SLU 82	22.48	Si
fin.	3	-2039	25.56	4474.85	SLU 82	175.06	Si
ini.	3	-1669	-185.61	4474.85	SLU 79	24.11	Si
fin.	3	-1850	14.29	4474.85	SLU 79	313.25	Si
ini.	3	-1820	-199.1	4474.85	SLU 81	22.48	Si
fin.	3	-2021	23.23	4474.85	SLU 81	192.67	Si
ini.	3	-1820	-199.1	4474.85	SLU 83	22.48	Si
fin.	3	-2021	23.23	4474.85	SLU 83	192.67	Si
ini.	3	-1681	-185.53	4474.85	SLU 80	24.12	Si
fin.	3	-1869	16.62	4474.85	SLU 80	269.22	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	-1682	-183.89	194			3099	1225	SLU 63	6.33	Si
fin.	3	-1866	17.28	2750			3173	1255	SLU 63	0.46	No
ini.	3	-1681	-185.53	203			3098	1225	SLU 75	6.05	Si
fin.	3	-1869	16.62	2752			3174	1255	SLU 75	0.46	No
ini.	3	-1681	-185.53	203			3098	1225	SLU 78	6.05	Si
fin.	3	-1869	16.62	2752			3174	1255	SLU 78	0.46	No
ini.	3	-1832	-199.02	202			3159	1249	SLU 82	6.18	Si
fin.	3	-2039	25.56	3027			3242	1282	SLU 82	0.42	No
ini.	3	-1820	-199.1	187			3154	1247	SLU 81	6.66	Si
fin.	3	-2021	23.23	3019			3235	1279	SLU 81	0.42	No
ini.	3	-1681	-185.53	203			3098	1225	SLU 80	6.05	Si
fin.	3	-1869	16.62	2752			3174	1255	SLU 80	0.46	No
ini.	3	-1820	-199.1	187			3154	1247	SLU 83	6.66	Si
fin.	3	-2021	23.23	3019			3235	1279	SLU 83	0.42	No
ini.	3	-1832	-199.02	202			3159	1249	SLU 84	6.18	Si
fin.	3	-2039	25.56	3027			3242	1282	SLU 84	0.42	No
ini.	3	-1689	-185.48	213			3102	1226	SLU 73	5.77	Si
fin.	3	-1881	18.18	2758			3179	1257	SLU 73	0.46	No
ini.	3	-1689	-185.48	213			3102	1226	SLU 76	5.77	Si
fin.	3	-1881	18.18	2758			3179	1257	SLU 76	0.46	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1258	-178.06	6712.28	SLV 5	37.7	Si
fin.	2	-1487	-13.48	6712.28	SLV 5	498.02	Si
ini.	2	-1249	-155.91	6712.28	SLV 10	43.05	Si
fin.	2	-1436	-13.23	6712.28	SLV 10	507.52	Si
ini.	2	-1042	-148.32	6712.28	SLV 4	45.26	Si
fin.	2	-1197	2.39	6712.28	SLV 4	2805.69	Si
ini.	2	-1042	-148.32	6712.28	SLV 3	45.26	Si
fin.	2	-1197	2.39	6712.28	SLV 3	2805.69	Si
ini.	2	-1147	-173.97	6712.28	SLV 1	38.58	Si
fin.	2	-1358	-5.07	6712.28	SLV 1	1324.39	Si
ini.	2	-1249	-155.91	6712.28	SLV 9	43.05	Si
fin.	2	-1436	-13.23	6712.28	SLV 9	507.52	Si
ini.	2	-1258	-178.06	6712.28	SLV 6	37.7	Si
fin.	2	-1487	-13.48	6712.28	SLV 6	498.02	Si
ini.	2	-1117	-100.13	6712.28	SLV 13	67.03	Si
fin.	2	-1188	-4.23	6712.28	SLV 13	1587.8	Si
ini.	2	-1147	-173.97	6712.28	SLV 2	38.58	Si
fin.	2	-1358	-5.07	6712.28	SLV 2	1324.39	Si
ini.	2	-1117	-100.13	6712.28	SLV 14	67.03	Si
fin.	2	-1188	-4.23	6712.28	SLV 14	1587.8	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	-909	-92.55	142			4003	1555	SLV 8	10.91	Si
fin.	2	-950	11.39	2002			4019	1562	SLV 8	0.78	No
ini.	2	-1147	-173.97	231			4098	1600	SLV 1	6.92	Si
fin.	2	-1358	-5.07	1855			4183	1638	SLV 1	0.88	No
ini.	2	-900	-70.4	94			3999	1553	SLV 12	16.54	Si
fin.	2	-899	11.64	1896			3999	1553	SLV 12	0.82	No
ini.	2	-900	-70.4	94			3999	1553	SLV 11	16.54	Si
fin.	2	-899	11.64	1896			3999	1553	SLV 11	0.82	No
ini.	2	-1012	-74.48	54			4044	1574	SLV 16	28.96	Si
fin.	2	-1027	3.23	1626			4050	1577	SLV 16	0.97	No
ini.	2	-1147	-173.97	231			4098	1600	SLV 2	6.92	Si
fin.	2	-1358	-5.07	1855			4183	1638	SLV 2	0.88	No
ini.	2	-909	-92.55	142			4003	1555	SLV 7	10.91	Si
fin.	2	-950	11.39	2002			4019	1562	SLV 7	0.78	No
ini.	2	-1012	-74.48	54			4044	1574	SLV 15	28.96	Si
fin.	2	-1027	3.23	1626			4050	1577	SLV 15	0.97	No
ini.	2	-1042	-148.32	216			4056	1580	SLV 3	7.3	Si
fin.	2	-1197	2.39	1980			4118	1609	SLV 3	0.81	No
ini.	2	-1042	-148.32	216			4056	1580	SLV 4	7.3	Si
fin.	2	-1197	2.39	1980			4118	1609	SLV 4	0.81	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	37.697	SLV 5	Si
V_SLV	0.78	SLV 7	No
PF_SLU	22.476	SLU 81	Si
V_SLU	0.424	SLU 82	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
-7.836	0.281	-0.09	0.51	0.6	-7.836	0.781	-0.09	0.51	0.6	0.5	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>o</sub>	fhk	fvk0	fhmedio	τ0	fv0	μ	φ	fvk <sub>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	γM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-331	-67.98	821.91	SLU 63	12.09	Si
fin.	3	-331	61.07	821.91	SLU 63	13.46	Si
ini.	3	-313	-68.64	821.91	SLU 76	11.98	Si
fin.	3	-313	57.83	821.91	SLU 76	14.21	Si
ini.	3	-313	-68.64	821.91	SLU 73	11.98	Si
fin.	3	-313	57.83	821.91	SLU 73	14.21	Si
ini.	3	-311	-67.88	821.91	SLU 80	12.11	Si
fin.	3	-311	60.82	821.91	SLU 80	13.51	Si
ini.	3	-311	-67.88	821.91	SLU 78	12.11	Si
fin.	3	-311	60.82	821.91	SLU 78	13.51	Si
ini.	3	-374	-75.29	821.91	SLU 82	10.92	Si
fin.	3	-374	65.81	821.91	SLU 82	12.49	Si
ini.	3	-374	-75.29	821.91	SLU 84	10.92	Si
fin.	3	-374	65.81	821.91	SLU 84	12.49	Si
ini.	3	-371	-74.16	821.91	SLU 81	11.08	Si
fin.	3	-371	70.29	821.91	SLU 81	11.69	Si
ini.	3	-371	-74.16	821.91	SLU 83	11.08	Si
fin.	3	-371	70.29	821.91	SLU 83	11.69	Si
ini.	3	-331	-67.98	821.91	SLU 61	12.09	Si
fin.	3	-331	61.07	821.91	SLU 61	13.46	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	γM	N	M	V	Vt	Vp	Vt fess. diag.	Vt <sub>lim</sub>	Comb.	c.s.	Verifica
ini.	3	-328	-66.84	423			1171	457	SLU 60	1.08	Si
fin.	3	-328	65.55	107			1171	457	SLU 60	4.28	Si
ini.	3	-311	-67.88	415			1164	454	SLU 80	1.09	Si
fin.	3	-311	60.82	99			1164	454	SLU 80	4.56	Si
ini.	3	-328	-66.84	423			1171	457	SLU 62	1.08	Si
fin.	3	-328	65.55	107			1171	457	SLU 62	4.28	Si
ini.	3	-308	-66.74	422			1163	453	SLU 79	1.07	Si
fin.	3	-308	65.3	106			1163	453	SLU 79	4.27	Si
ini.	3	-371	-74.16	447			1188	465	SLU 81	1.04	Si
fin.	3	-371	70.29	131			1188	465	SLU 81	3.55	Si
ini.	3	-374	-75.29	440			1189	466	SLU 84	1.06	Si
fin.	3	-374	65.81	124			1189	466	SLU 84	3.75	Si
ini.	3	-371	-74.16	447			1188	465	SLU 83	1.04	Si
fin.	3	-371	70.29	131			1188	465	SLU 83	3.55	Si
ini.	3	-374	-75.29	440			1189	466	SLU 82	1.06	Si
fin.	3	-374	65.81	124			1189	466	SLU 82	3.75	Si
ini.	3	-308	-66.74	422			1163	453	SLU 77	1.07	Si
fin.	3	-308	65.3	106			1163	453	SLU 77	4.27	Si
ini.	3	-308	-66.74	422			1163	453	SLU 74	1.07	Si
fin.	3	-308	65.3	106			1163	453	SLU 74	4.27	Si

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	γM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-386	20.64	1232.87	SLV 11	59.73	Si
fin.	2	-237	154.8	1232.87	SLV 11	7.96	Si
ini.	2	-268	16.03	1232.87	SLV 7	76.92	Si
fin.	2	-122	161.86	1232.87	SLV 7	7.62	Si
ini.	2	74	-103.39	1232.87	SLV 6	11.92	Si
fin.	2	-75	-67.68	1232.87	SLV 6	18.22	Si
ini.	2	-44	-98.77	1232.87	SLV 10	12.48	Si
fin.	2	-190	-74.73	1232.87	SLV 10	16.5	Si
ini.	2	-268	16.03	1232.87	SLV 8	76.92	Si
fin.	2	-122	161.86	1232.87	SLV 8	7.62	Si
ini.	2	-44	-98.77	1232.87	SLV 9	12.48	Si
fin.	2	-190	-74.73	1232.87	SLV 9	16.5	Si
ini.	2	-10	-31.15	1232.87	SLV 4	39.58	Si
fin.	2	29	89.75	1232.87	SLV 4	13.74	Si
ini.	2	-10	-31.15	1232.87	SLV 3	39.58	Si
fin.	2	29	89.75	1232.87	SLV 3	13.74	Si
ini.	2	-386	20.64	1232.87	SLV 12	59.73	Si
fin.	2	-237	154.8	1232.87	SLV 12	7.96	Si
ini.	2	74	-103.39	1232.87	SLV 5	11.92	Si
fin.	2	-75	-67.68	1232.87	SLV 5	18.22	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	γM	N	M	V	Vt	Vp	Vt fess. diag.	Vt <sub>lim</sub>	Comb.	c.s.	Verifica
ini.	2	92	-66.97	323			1560	567	SLV 2	1.75	Si
fin.	2	43	20.89	71			1560	578	SLV 2	8.14	Si
ini.	2	74	-103.39	270			1560	571	SLV 5	2.11	Si
fin.	2	-75	-67.68	-17			1590	603	SLV 5	35.74	Si
ini.	2	-10	-31.15	343			1564	589	SLV 3	1.72	Si
fin.	2	29	89.75	118			1560	581	SLV 3	4.9	Si
ini.	2	-10	-31.15	343			1564	589	SLV 4	1.72	Si
fin.	2	29	89.75	118			1560	581	SLV 4	4.9	Si
ini.	2	-268	16.03	338			1667	643	SLV 8	1.9	Si
fin.	2	-122	161.86	141			1608	613	SLV 8	4.33	Si
ini.	2	-268	16.03	338			1667	643	SLV 7	1.9	Si
fin.	2	-122	161.86	141			1608	613	SLV 7	4.33	Si
ini.	2	74	-103.39	270			1560	571	SLV 6	2.11	Si
fin.	2	-75	-67.68	-17			1590	603	SLV 6	35.74	Si
ini.	2	92	-66.97	323			1560	567	SLV 1	1.75	Si
fin.	2	43	20.89	71			1560	578	SLV 1	8.14	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-386	20.64	312			1714	666	SLV 11	2.13	Si
fin.	2	-237	154.8	114			1655	636	SLV 11	5.6	Si
ini.	2	-386	20.64	312			1714	666	SLV 12	2.13	Si
fin.	2	-237	154.8	114			1655	636	SLV 12	5.6	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	7.617	SLV 7	Si
V_SLV	1.716	SLV 3	Si
PF_SLU	10.917	SLU 82	Si
V_SLU	1.041	SLU 81	Si

## 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
-6.041	7.016	-1.89	-0.49	1.4	-5.041	7.016	-1.89	-0.49	1.4	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	fhmmedio	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	-1222	-99.64	4474.85	SLU 83	44.91	Si
fin.	3	-1469	71.05	4474.85	SLU 83	62.98	Si
ini.	3	-1161	-92.63	4474.85	SLU 76	48.31	Si
fin.	3	-1391	64.23	4474.85	SLU 76	69.67	Si
ini.	3	-1161	-92.63	4474.85	SLU 73	48.31	Si
fin.	3	-1391	64.23	4474.85	SLU 73	69.67	Si
ini.	3	-1152	-92.05	4474.85	SLU 63	48.61	Si
fin.	3	-1378	64.26	4474.85	SLU 63	69.63	Si
ini.	3	-1222	-99.64	4474.85	SLU 81	44.91	Si
fin.	3	-1469	71.05	4474.85	SLU 81	62.98	Si
ini.	3	-980	-91.84	4474.85	SLU 40	48.72	Si
fin.	3	-1177	58.33	4474.85	SLU 40	76.71	Si
ini.	3	-980	-91.84	4474.85	SLU 42	48.72	Si
fin.	3	-1177	58.33	4474.85	SLU 42	76.71	Si
ini.	3	-1207	-101.82	4474.85	SLU 82	43.95	Si
fin.	3	-1448	69.28	4474.85	SLU 82	64.59	Si
ini.	3	-1152	-92.05	4474.85	SLU 61	48.61	Si
fin.	3	-1378	64.26	4474.85	SLU 61	69.63	Si
ini.	3	-1207	-101.82	4474.85	SLU 84	43.95	Si
fin.	3	-1448	69.28	4474.85	SLU 84	64.59	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	-1172	-91.18	-1491			2895	1140	SLU 80	0.76	No
fin.	3	-1405	65.42	1478			2988	1180	SLU 80	0.8	No
ini.	3	-1172	-91.18	-1491			2895	1140	SLU 78	0.76	No
fin.	3	-1405	65.42	1478			2988	1180	SLU 78	0.8	No
ini.	3	-1187	-89	-1500			2901	1142	SLU 79	0.76	No
fin.	3	-1426	67.19	1489			2997	1183	SLU 79	0.79	No
ini.	3	-1207	-101.82	-1561			2909	1146	SLU 82	0.73	No
fin.	3	-1448	69.28	1558			3005	1187	SLU 82	0.76	No
ini.	3	-1207	-101.82	-1561			2909	1146	SLU 84	0.73	No
fin.	3	-1448	69.28	1558			3005	1187	SLU 84	0.76	No
ini.	3	-1187	-89	-1500			2901	1142	SLU 74	0.76	No
fin.	3	-1426	67.19	1489			2997	1183	SLU 74	0.79	No
ini.	3	-1172	-91.18	-1491			2895	1140	SLU 75	0.76	No
fin.	3	-1405	65.42	1478			2988	1180	SLU 75	0.8	No
ini.	3	-1222	-99.64	-1570			2915	1148	SLU 83	0.73	No
fin.	3	-1469	71.05	1570			3014	1190	SLU 83	0.76	No
ini.	3	-1222	-99.64	-1570			2915	1148	SLU 81	0.73	No
fin.	3	-1469	71.05	1570			3014	1190	SLU 81	0.76	No
ini.	3	-1187	-89	-1500			2901	1142	SLU 77	0.76	No
fin.	3	-1426	67.19	1489			2997	1183	SLU 77	0.79	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-849	79.9	6712.28	SLV 1	84.01	Si
fin.	2	-1302	-173.3	6712.28	SLV 1	38.73	Si
ini.	2	-750	-219.32	6712.28	SLV 13	30.6	Si
fin.	2	-631	310.46	6712.28	SLV 13	21.62	Si
ini.	2	-849	79.9	6712.28	SLV 2	84.01	Si
fin.	2	-1302	-173.3	6712.28	SLV 2	38.73	Si
ini.	2	-643	-150.52	6712.28	SLV 9	44.59	Si
fin.	2	-712	193.31	6712.28	SLV 9	34.72	Si
ini.	2	-750	-219.32	6712.28	SLV 14	30.6	Si
fin.	2	-631	310.46	6712.28	SLV 14	21.62	Si
ini.	2	-872	-188.53	6712.28	SLV 16	35.6	Si
fin.	2	-764	265.75	6712.28	SLV 16	25.26	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-872	-188.53	6712.28	SLV 15	35.6	Si
fin.	2	-764	265.75	6712.28	SLV 15	25.26	Si
ini.	2	-970	110.7	6712.28	SLV 3	60.64	Si
fin.	2	-1435	-218.01	6712.28	SLV 3	30.79	Si
ini.	2	-970	110.7	6712.28	SLV 4	60.64	Si
fin.	2	-1435	-218.01	6712.28	SLV 4	30.79	Si
ini.	2	-643	-150.52	6712.28	SLV 10	44.59	Si
fin.	2	-712	193.31	6712.28	SLV 10	34.72	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	-643	-150.52	-731			3896	1503	SLV 9	2.06	Si
fin.	2	-712	193.31	1330			3924	1516	SLV 9	1.14	Si
ini.	2	-872	-188.53	-638			3988	1548	SLV 16	2.43	Si
fin.	2	-764	265.75	1415			3945	1527	SLV 16	1.08	Si
ini.	2	-970	110.7	-1566			4028	1566	SLV 4	1	Si
fin.	2	-1435	-218.01	537			4213	1652	SLV 4	3.08	Si
ini.	2	-750	-219.32	-531			3940	1524	SLV 13	2.87	Si
fin.	2	-631	310.46	1517			3892	1501	SLV 13	0.99	No
ini.	2	-872	-188.53	-638			3988	1548	SLV 15	2.43	Si
fin.	2	-764	265.75	1415			3945	1527	SLV 15	1.08	Si
ini.	2	-849	79.9	-1459			3979	1543	SLV 2	1.06	Si
fin.	2	-1302	-173.3	639			4160	1628	SLV 2	2.55	Si
ini.	2	-643	-150.52	-731			3896	1503	SLV 10	2.06	Si
fin.	2	-712	193.31	1330			3924	1516	SLV 10	1.14	Si
ini.	2	-750	-219.32	-531			3940	1524	SLV 14	2.87	Si
fin.	2	-631	310.46	1517			3892	1501	SLV 14	0.99	No
ini.	2	-849	79.9	-1459			3979	1543	SLV 1	1.06	Si
fin.	2	-1302	-173.3	639			4160	1628	SLV 1	2.55	Si
ini.	2	-970	110.7	-1566			4028	1566	SLV 3	1	Si
fin.	2	-1435	-218.01	537			4213	1652	SLV 3	3.08	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLV	21.62	SLV 13	Si
V SLV	0.989	SLV 13	No
PF SLU	43.95	SLU 82	Si
V SLU	0.732	SLU 81	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
-6.041	7.016	-0.09	0.51	0.6	-5.041	7.016	-0.09	0.51	0.6	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>	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	-270	-163.34	821.91	SLU 78	5.03	Si
fin.	3	-388	-75.03	821.91	SLU 78	10.96	Si
ini.	3	-270	-163.34	821.91	SLU 80	5.03	Si
fin.	3	-388	-75.03	821.91	SLU 80	10.96	Si
ini.	3	-267	-172.09	821.91	SLU 82	4.78	Si
fin.	3	-386	-78.47	821.91	SLU 82	10.47	Si
ini.	3	-257	-161.52	821.91	SLU 79	5.09	Si
fin.	3	-375	-80.76	821.91	SLU 79	10.18	Si
ini.	3	-267	-172.09	821.91	SLU 84	4.78	Si
fin.	3	-386	-78.47	821.91	SLU 84	10.47	Si
ini.	3	-270	-163.34	821.91	SLU 75	5.03	Si
fin.	3	-388	-75.03	821.91	SLU 75	10.96	Si
ini.	3	-253	-170.28	821.91	SLU 83	4.83	Si
fin.	3	-374	-84.21	821.91	SLU 83	9.76	Si
ini.	3	-253	-170.28	821.91	SLU 81	4.83	Si
fin.	3	-374	-84.21	821.91	SLU 81	9.76	Si
ini.	3	-279	-164.55	821.91	SLU 73	5	Si
fin.	3	-397	-71.2	821.91	SLU 73	11.54	Si
ini.	3	-279	-164.55	821.91	SLU 76	5	Si
fin.	3	-397	-71.2	821.91	SLU 76	11.54	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	-257	-161.52	1364			762	296	SLU 79	0.22	No
fin.	3	-375	-80.76	-1265			793	311	SLU 79	0.25	No
ini.	3	-257	-161.52	1364			762	296	SLU 74	0.22	No
fin.	3	-375	-80.76	-1265			793	311	SLU 74	0.25	No
ini.	3	-267	-172.09	1435			764	297	SLU 82	0.21	No
fin.	3	-386	-78.47	-1317			796	312	SLU 82	0.24	No
ini.	3	-270	-163.34	1366			765	297	SLU 78	0.22	No
fin.	3	-388	-75.03	-1260			797	312	SLU 78	0.25	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-253	-170.28	1433			761	295	SLU 81	0.21	No
fin.	3	-374	-84.21	-1323			793	310	SLU 81	0.23	No
ini.	3	-253	-170.28	1433			761	295	SLU 83	0.21	No
fin.	3	-374	-84.21	-1323			793	310	SLU 83	0.23	No
ini.	3	-267	-172.09	1435			764	297	SLU 84	0.21	No
fin.	3	-386	-78.47	-1317			796	312	SLU 84	0.24	No
ini.	3	-270	-163.34	1366			765	297	SLU 80	0.22	No
fin.	3	-388	-75.03	-1260			797	312	SLU 80	0.25	No
ini.	3	-270	-163.34	1366			765	297	SLU 75	0.22	No
fin.	3	-388	-75.03	-1260			797	312	SLU 75	0.25	No
ini.	3	-257	-161.52	1364			762	296	SLU 77	0.22	No
fin.	3	-375	-80.76	-1265			793	311	SLU 77	0.25	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-253	-320.35	1232.87	SLV 15	3.85	Si
fin.	2	-462	271.33	1232.87	SLV 15	4.54	Si
ini.	2	-137	96.64	1232.87	SLV 1	12.76	Si
fin.	2	-106	-384.48	1232.87	SLV 1	3.21	Si
ini.	2	-429	-330.2	1232.87	SLV 13	3.73	Si
fin.	2	-516	342.42	1232.87	SLV 13	3.6	Si
ini.	2	39	106.5	1232.87	SLV 3	11.58	Si
fin.	2	-51	-455.57	1232.87	SLV 3	2.71	Si
ini.	2	-429	-330.2	1232.87	SLV 14	3.73	Si
fin.	2	-516	342.42	1232.87	SLV 14	3.6	Si
ini.	2	39	106.5	1232.87	SLV 4	11.58	Si
fin.	2	-51	-455.57	1232.87	SLV 4	2.71	Si
ini.	2	142	-31.4	1232.87	SLV 8	39.26	Si
fin.	2	-132	-284.09	1232.87	SLV 8	4.34	Si
ini.	2	-137	96.64	1232.87	SLV 2	12.76	Si
fin.	2	-106	-384.48	1232.87	SLV 2	3.21	Si
ini.	2	-253	-320.35	1232.87	SLV 16	3.85	Si
fin.	2	-462	271.33	1232.87	SLV 16	4.54	Si
ini.	2	142	-31.4	1232.87	SLV 7	39.26	Si
fin.	2	-132	-284.09	1232.87	SLV 7	4.34	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	39	106.5	989			1040	386	SLV 4	0.39	No
fin.	2	-51	-455.57	-991			1054	399	SLV 4	0.4	No
ini.	2	39	106.5	989			1040	386	SLV 3	0.39	No
fin.	2	-51	-455.57	-991			1054	399	SLV 3	0.4	No
ini.	2	-444	-64.25	1010			1158	451	SLV 5	0.45	No
fin.	2	-313	-47.12	-812			1123	434	SLV 5	0.53	No
ini.	2	55	-159.46	886			1040	383	SLV 11	0.43	No
fin.	2	-255	-66.02	-960			1108	427	SLV 11	0.44	No
ini.	2	55	-159.46	886			1040	383	SLV 12	0.43	No
fin.	2	-255	-66.02	-960			1108	427	SLV 12	0.44	No
ini.	2	142	-31.4	919			1040	370	SLV 7	0.4	No
fin.	2	-132	-284.09	-1006			1075	410	SLV 7	0.41	No
ini.	2	142	-31.4	919			1040	370	SLV 8	0.4	No
fin.	2	-132	-284.09	-1006			1075	410	SLV 8	0.41	No
ini.	2	-444	-64.25	1010			1158	451	SLV 6	0.45	No
fin.	2	-313	-47.12	-812			1123	434	SLV 6	0.53	No
ini.	2	-137	96.64	1016			1076	411	SLV 1	0.4	No
fin.	2	-106	-384.48	-933			1068	406	SLV 1	0.44	No
ini.	2	-137	96.64	1016			1076	411	SLV 2	0.4	No
fin.	2	-106	-384.48	-933			1068	406	SLV 2	0.44	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.706	SLV 3	Si
V_SLV	0.39	SLV 3	No
PF_SLU	4.776	SLU 82	Si
V_SLU	0.206	SLU 81	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
-1.281	7.016	-1.89	-0.49	1.4	-0.281	7.016	-1.89	-0.49	1.4	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	-1766	245.09	4474.85	SLU 77	18.26	Si
fin.	3	-1146	-332.86	4474.85	SLU 77	13.44	Si
ini.	3	-1524	237.21	4474.85	SLU 41	18.86	Si
fin.	3	-926	-321.91	4474.85	SLU 41	13.9	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1804	254.65	4474.85	SLU 82	17.57	Si
fin.	3	-1157	-346.89	4474.85	SLU 82	12.9	Si
ini.	3	-1838	266.63	4474.85	SLU 83	16.78	Si
fin.	3	-1164	-363.69	4474.85	SLU 83	12.3	Si
ini.	3	-1804	254.65	4474.85	SLU 84	17.57	Si
fin.	3	-1157	-346.89	4474.85	SLU 84	12.9	Si
ini.	3	-1838	266.63	4474.85	SLU 81	16.78	Si
fin.	3	-1164	-363.69	4474.85	SLU 81	12.3	Si
ini.	3	-1766	245.09	4474.85	SLU 74	18.26	Si
fin.	3	-1146	-332.86	4474.85	SLU 74	13.44	Si
ini.	3	-1766	245.09	4474.85	SLU 79	18.26	Si
fin.	3	-1146	-332.86	4474.85	SLU 79	13.44	Si
ini.	3	-1729	235.21	4474.85	SLU 60	19.02	Si
fin.	3	-1129	-326.42	4474.85	SLU 60	13.71	Si
ini.	3	-1729	235.21	4474.85	SLU 62	19.02	Si
fin.	3	-1129	-326.42	4474.85	SLU 62	13.71	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	-1766	245.09	-3122			3133	1239	SLU 74	0.4	No
fin.	3	-1146	-332.86	-5			2884	1135	SLU 74	216.99	Si
ini.	3	-1838	266.63	-3301			3162	1250	SLU 83	0.38	No
fin.	3	-1164	-363.69	-46			2892	1138	SLU 83	24.8	Si
ini.	3	-1766	245.09	-3122			3133	1239	SLU 77	0.4	No
fin.	3	-1146	-332.86	-5			2884	1135	SLU 77	216.99	Si
ini.	3	-1729	235.21	-3067			3118	1233	SLU 62	0.4	No
fin.	3	-1129	-326.42	11			2878	1132	SLU 62	105.07	Si
ini.	3	-1766	245.09	-3122			3133	1239	SLU 79	0.4	No
fin.	3	-1146	-332.86	-5			2884	1135	SLU 79	216.99	Si
ini.	3	-1804	254.65	-3203			3148	1245	SLU 82	0.39	No
fin.	3	-1157	-346.89	-25			2889	1137	SLU 82	45.09	Si
ini.	3	-1729	235.21	-3067			3118	1233	SLU 60	0.4	No
fin.	3	-1129	-326.42	11			2878	1132	SLU 60	105.07	Si
ini.	3	-1732	233.11	-3025			3119	1233	SLU 78	0.41	No
fin.	3	-1139	-316.06	15			2882	1134	SLU 78	73.43	Si
ini.	3	-1804	254.65	-3203			3148	1245	SLU 84	0.39	No
fin.	3	-1157	-346.89	-25			2889	1137	SLU 84	45.09	Si
ini.	3	-1838	266.63	-3301			3162	1250	SLU 81	0.38	No
fin.	3	-1164	-363.69	-46			2892	1138	SLU 81	24.8	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1617	414.07	6712.28	SLV 3	16.21	Si
fin.	2	-1347	-622.79	6712.28	SLV 3	10.78	Si
ini.	2	-1312	259.09	6712.28	SLV 1	25.91	Si
fin.	2	-1343	-399.45	6712.28	SLV 1	16.8	Si
ini.	2	-683	-154.75	6712.28	SLV 10	43.37	Si
fin.	2	-698	248.58	6712.28	SLV 10	27	Si
ini.	2	-1698	361.83	6712.28	SLV 12	18.55	Si
fin.	2	-713	-495.88	6712.28	SLV 12	13.54	Si
ini.	2	-683	-154.75	6712.28	SLV 9	43.37	Si
fin.	2	-698	248.58	6712.28	SLV 9	27	Si
ini.	2	-1825	469.39	6712.28	SLV 8	14.3	Si
fin.	2	-1008	-674.71	6712.28	SLV 8	9.95	Si
ini.	2	-1698	361.83	6712.28	SLV 11	18.55	Si
fin.	2	-713	-495.88	6712.28	SLV 11	13.54	Si
ini.	2	-1617	414.07	6712.28	SLV 4	16.21	Si
fin.	2	-1347	-622.79	6712.28	SLV 4	10.78	Si
ini.	2	-1825	469.39	6712.28	SLV 7	14.3	Si
fin.	2	-1008	-674.71	6712.28	SLV 7	9.95	Si
ini.	2	-1312	259.09	6712.28	SLV 2	25.91	Si
fin.	2	-1343	-399.45	6712.28	SLV 2	16.8	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	-1617	414.07	-3362			4286	1685	SLV 4	0.5	No
fin.	2	-1347	-622.79	-160			4178	1636	SLV 4	10.24	Si
ini.	2	-1698	361.83	-4107			4319	1699	SLV 11	0.41	No
fin.	2	-713	-495.88	-473			3925	1517	SLV 11	3.2	Si
ini.	2	-1195	55.54	-2214			4117	1609	SLV 16	0.73	No
fin.	2	-363	-26.68	-57			3785	1446	SLV 16	25.23	Si
ini.	2	-1698	361.83	-4107			4319	1699	SLV 12	0.41	No
fin.	2	-713	-495.88	-473			3925	1517	SLV 12	3.2	Si
ini.	2	-1195	55.54	-2214			4117	1609	SLV 15	0.73	No
fin.	2	-363	-26.68	-57			3785	1446	SLV 15	25.23	Si
ini.	2	-1825	469.39	-4451			4369	1721	SLV 7	0.39	No
fin.	2	-1008	-674.71	-504			4043	1574	SLV 7	3.12	Si
ini.	2	-1825	469.39	-4451			4369	1721	SLV 8	0.39	No
fin.	2	-1008	-674.71	-504			4043	1574	SLV 8	3.12	Si
ini.	2	-1312	259.09	-2083			4164	1630	SLV 2	0.78	No
fin.	2	-1343	-399.45	166			4177	1636	SLV 2	9.86	Si
ini.	2	-1312	259.09	-2083			4164	1630	SLV 1	0.78	No
fin.	2	-1343	-399.45	166			4177	1636	SLV 1	9.86	Si
ini.	2	-1617	414.07	-3362			4286	1685	SLV 3	0.5	No
fin.	2	-1347	-622.79	-160			4178	1636	SLV 3	10.24	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	9.948	SLV 7	Si



Stato limite	Coeff.s.	Comb.	Verifica
V SLV	0.387	SLV 7	No
PF SLU	12.304	SLU 81	Si
V SLU	0.379	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
-1.281	7.016	-0.09	0.51	0.6	-0.281	7.016	-0.09	0.51	0.6	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>u</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	-129	6.35	821.91	SLU 80	129.38	Si
fin.	3	-3	-184.82	821.91	SLU 80	4.45	Si
ini.	3	-106	29.39	821.91	SLU 81	27.96	Si
fin.	3	-13	-210.61	821.91	SLU 81	3.9	Si
ini.	3	-135	16.44	821.91	SLU 62	50.01	Si
fin.	3	-17	-191.3	821.91	SLU 62	4.3	Si
ini.	3	-129	17.67	821.91	SLU 79	46.52	Si
fin.	3	-15	-194.92	821.91	SLU 79	4.22	Si
ini.	3	-106	18.08	821.91	SLU 82	45.47	Si
fin.	3	0	-200.52	821.91	SLU 82	4.1	Si
ini.	3	-135	16.44	821.91	SLU 60	50.01	Si
fin.	3	-17	-191.3	821.91	SLU 60	4.3	Si
ini.	3	-129	17.67	821.91	SLU 77	46.52	Si
fin.	3	-15	-194.92	821.91	SLU 77	4.22	Si
ini.	3	-106	29.39	821.91	SLU 83	27.96	Si
fin.	3	-13	-210.61	821.91	SLU 83	3.9	Si
ini.	3	-129	17.67	821.91	SLU 74	46.52	Si
fin.	3	-15	-194.92	821.91	SLU 74	4.22	Si
ini.	3	-106	18.08	821.91	SLU 84	45.47	Si
fin.	3	0	-200.52	821.91	SLU 84	4.1	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	-212	-41.5	1067			750	290	SLU 47	0.27	No
fin.	3	-4	-122.16	-754			694	261	SLU 47	0.35	No
ini.	3	-212	-33.96	1054			750	290	SLU 49	0.28	No
fin.	3	-12	-128.89	-771			696	263	SLU 49	0.34	No
ini.	3	-212	-33.96	1054			750	290	SLU 46	0.28	No
fin.	3	-12	-128.89	-771			696	263	SLU 46	0.34	No
ini.	3	-106	29.39	947			721	276	SLU 81	0.29	No
fin.	3	-13	-210.61	-986			697	263	SLU 81	0.27	No
ini.	3	-106	18.08	967			721	276	SLU 82	0.29	No
fin.	3	0	-200.52	-960			693	261	SLU 82	0.27	No
ini.	3	-183	-28.54	1040			742	286	SLU 68	0.28	No
fin.	3	0	-141.47	-803			693	261	SLU 68	0.33	No
ini.	3	-106	29.39	947			721	276	SLU 83	0.29	No
fin.	3	-13	-210.61	-986			697	263	SLU 83	0.27	No
ini.	3	-212	-41.5	1067			750	290	SLU 44	0.27	No
fin.	3	-4	-122.16	-754			694	261	SLU 44	0.35	No
ini.	3	-212	-33.96	1054			750	290	SLU 51	0.28	No
fin.	3	-12	-128.89	-771			696	263	SLU 51	0.34	No
ini.	3	-106	18.08	967			721	276	SLU 84	0.29	No
fin.	3	0	-200.52	-960			693	261	SLU 84	0.27	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	30	-334.3	1232.87	SLV 9	3.69	Si
fin.	2	611	146.58	1232.87	SLV 9	8.41	Si
ini.	2	-603	244	1232.87	SLV 4	5.05	Si
fin.	2	-303	-356.26	1232.87	SLV 4	3.46	Si
ini.	2	30	-334.3	1232.87	SLV 10	3.69	Si
fin.	2	611	146.58	1232.87	SLV 10	8.41	Si
ini.	2	-16	232.46	1232.87	SLV 12	5.3	Si
fin.	2	-576	-306.35	1232.87	SLV 12	4.02	Si
ini.	2	339	-248.96	1232.87	SLV 13	4.95	Si
fin.	2	272	100.28	1232.87	SLV 13	12.29	Si
ini.	2	-294	329.34	1232.87	SLV 7	3.74	Si
fin.	2	-642	-402.55	1232.87	SLV 7	3.06	Si
ini.	2	339	-248.96	1232.87	SLV 14	4.95	Si
fin.	2	272	100.28	1232.87	SLV 14	12.29	Si
ini.	2	-294	329.34	1232.87	SLV 8	3.74	Si
fin.	2	-642	-402.55	1232.87	SLV 8	3.06	Si
ini.	2	-603	244	1232.87	SLV 3	5.05	Si
fin.	2	-303	-356.26	1232.87	SLV 3	3.46	Si
ini.	2	-16	232.46	1232.87	SLV 11	5.3	Si
fin.	2	-576	-306.35	1232.87	SLV 11	4.02	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 <sub>lim</sub>	Comb.	c.s.	Verifica
ini.	2	-16	232.46	-30			1044	394	SLV 11	12.93	Si
fin.	2	-576	-306.35	-1565			1193	467	SLV 11	0.3	No
ini.	2	-294	329.34	431			1118	432	SLV 7	1	Si
fin.	2	-642	-402.55	-1564			1211	475	SLV 7	0.3	No
ini.	2	-589	73.98	1707			1197	469	SLV 1	0.27	No
fin.	2	53	-220.38	-395			1040	384	SLV 1	0.97	No
ini.	2	-589	73.98	1707			1197	469	SLV 2	0.27	No
fin.	2	53	-220.38	-395			1040	384	SLV 2	0.97	No
ini.	2	-248	-237.42	1567			1106	426	SLV 6	0.27	No
fin.	2	545	50.38	231			1040	302	SLV 6	1.31	Si
ini.	2	-16	232.46	-30			1044	394	SLV 12	12.93	Si
fin.	2	-576	-306.35	-1565			1193	467	SLV 12	0.3	No
ini.	2	-248	-237.42	1567			1106	426	SLV 5	0.27	No
fin.	2	545	50.38	231			1040	302	SLV 5	1.31	Si
ini.	2	-603	244	1366			1201	471	SLV 3	0.34	No
fin.	2	-303	-356.26	-933			1121	433	SLV 3	0.46	No
ini.	2	-603	244	1366			1201	471	SLV 4	0.34	No
fin.	2	-303	-356.26	-933			1121	433	SLV 4	0.46	No
ini.	2	-294	329.34	431			1118	432	SLV 8	1	Si
fin.	2	-642	-402.55	-1564			1211	475	SLV 8	0.3	No

## Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.063	SLV 7	Si
V_SLV	0.272	SLV 5	No
PF_SLU	3.902	SLU 81	Si
V_SLU	0.267	SLU 81	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
-1.481	-0.779	0.17	0.51	0.34	-1.481	-2.189	0.17	0.51	0.34	1.41	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	151	-246.66	175.95	SLU 80	0.71	No
fin.	3	151	-82.77	175.95	SLU 80	2.13	Si
ini.	3	178	-268.53	175.95	SLU 81	0.66	No
fin.	3	178	-95.97	175.95	SLU 81	1.83	Si
ini.	3	147	-247.64	175.95	SLU 77	0.71	No
fin.	3	147	-80.81	175.95	SLU 77	2.18	Si
ini.	3	183	-267.55	175.95	SLU 82	0.66	No
fin.	3	183	-97.93	175.95	SLU 82	1.8	Si
ini.	3	151	-246.66	175.95	SLU 78	0.71	No
fin.	3	151	-82.77	175.95	SLU 78	2.13	Si
ini.	3	147	-247.64	175.95	SLU 74	0.71	No
fin.	3	147	-80.81	175.95	SLU 74	2.18	Si
ini.	3	151	-246.66	175.95	SLU 75	0.71	No
fin.	3	151	-82.77	175.95	SLU 75	2.13	Si
ini.	3	183	-267.55	175.95	SLU 84	0.66	No
fin.	3	183	-97.93	175.95	SLU 84	1.8	Si
ini.	3	147	-247.64	175.95	SLU 79	0.71	No
fin.	3	147	-80.81	175.95	SLU 79	2.18	Si
ini.	3	178	-268.53	175.95	SLU 83	0.66	No
fin.	3	178	-95.97	175.95	SLU 83	1.83	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	155	-246	1021			262	73	SLU 76	0.07	No
fin.	3	155	-84.08	-773			262	73	SLU 76	0.09	No
ini.	3	176	-241.27	980			262	69	SLU 39	0.07	No
fin.	3	176	-92.89	-750			262	69	SLU 39	0.09	No
ini.	3	155	-246	1021			262	73	SLU 73	0.07	No
fin.	3	155	-84.08	-773			262	73	SLU 73	0.09	No
ini.	3	178	-268.53	1103			262	68	SLU 83	0.06	No
fin.	3	178	-95.97	-838			262	68	SLU 83	0.08	No
ini.	3	181	-240.29	978			262	67	SLU 42	0.07	No
fin.	3	181	-94.85	-752			262	67	SLU 42	0.09	No
ini.	3	183	-267.55	1101			262	67	SLU 84	0.06	No
fin.	3	183	-97.93	-840			262	67	SLU 84	0.08	No
ini.	3	178	-268.53	1103			262	68	SLU 81	0.06	No
fin.	3	178	-95.97	-838			262	68	SLU 81	0.08	No
ini.	3	183	-267.55	1101			262	67	SLU 82	0.06	No
fin.	3	183	-97.93	-840			262	67	SLU 82	0.08	No
ini.	3	176	-241.27	980			262	69	SLU 41	0.07	No
fin.	3	176	-92.89	-750			262	69	SLU 41	0.09	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	181	-240.29	978			262	67	SLU 40	0.07	No
fin.	3	181	-94.85	-752			262	67	SLU 40	0.09	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1433	-53.38	263.93	SLV 9	4.94	Si
fin.	2	1145	-270.89	263.93	SLV 9	0.97	No
ini.	2	-668	-214.36	263.93	SLV 4	1.23	Si
fin.	2	-525	107.45	263.93	SLV 4	2.46	Si
ini.	2	-1292	-263.9	263.93	SLV 7	1	Si
fin.	2	-1004	187.36	263.93	SLV 7	1.41	Si
ini.	2	1216	-69.29	263.93	SLV 6	3.81	Si
fin.	2	965	-217.83	263.93	SLV 6	1.21	Si
ini.	2	-1292	-263.9	263.93	SLV 8	1	Si
fin.	2	-1004	187.36	263.93	SLV 8	1.41	Si
ini.	2	-668	-214.36	263.93	SLV 3	1.23	Si
fin.	2	-525	107.45	263.93	SLV 3	2.46	Si
ini.	2	-1075	-247.99	263.93	SLV 11	1.06	Si
fin.	2	-824	134.31	263.93	SLV 11	1.97	Si
ini.	2	1433	-53.38	263.93	SLV 10	4.94	Si
fin.	2	1145	-270.89	263.93	SLV 10	0.97	No
ini.	2	-1075	-247.99	263.93	SLV 12	1.06	Si
fin.	2	-824	134.31	263.93	SLV 12	1.97	Si
ini.	2	1216	-69.29	263.93	SLV 5	3.81	Si
fin.	2	965	-217.83	263.93	SLV 5	1.21	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	1216	-69.29	517			393	0	SLV 6	0	No
fin.	2	965	-217.83	-669			393	0	SLV 6	0	No
ini.	2	1216	-69.29	517			393	0	SLV 5	0	No
fin.	2	965	-217.83	-669			393	0	SLV 5	0	No
ini.	2	1433	-53.38	474			393	0	SLV 9	0	No
fin.	2	1145	-270.89	-716			393	0	SLV 9	0	No
ini.	2	57	-161.31	646			393	139	SLV 16	0.22	No
fin.	2	75	-69.42	-511			393	136	SLV 16	0.27	No
ini.	2	84	-155.97	688			393	135	SLV 1	0.2	No
fin.	2	66	-14.11	-473			393	138	SLV 1	0.29	No
ini.	2	809	-102.93	543			393	0	SLV 14	0	No
fin.	2	666	-190.97	-631			393	0	SLV 14	0	No
ini.	2	809	-102.93	543			393	0	SLV 13	0	No
fin.	2	666	-190.97	-631			393	0	SLV 13	0	No
ini.	2	57	-161.31	646			393	139	SLV 15	0.22	No
fin.	2	75	-69.42	-511			393	136	SLV 15	0.27	No
ini.	2	84	-155.97	688			393	135	SLV 2	0.2	No
fin.	2	66	-14.11	-473			393	138	SLV 2	0.29	No
ini.	2	1433	-53.38	474			393	0	SLV 10	0	No
fin.	2	1145	-270.89	-716			393	0	SLV 10	0	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.974	SLV 9	No
V_SLV	0	SLV 5	No
PF_SLU	0.655	SLU 81	No
V_SLU	0.061	SLU 82	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
-1.481	3.541	0.31	0.51	0.2	-1.481	2.541	0.31	0.51	0.2	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	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	-2987	-299.94	60.88	SLU 81	0.2	No
fin.	3	-2404	-99.53	60.88	SLU 81	0.61	No
ini.	3	-2545	-256.99	60.88	SLU 62	0.24	No
fin.	3	-2060	-86.96	60.88	SLU 62	0.7	No
ini.	3	-2545	-256.99	60.88	SLU 60	0.24	No
fin.	3	-2060	-86.96	60.88	SLU 60	0.7	No
ini.	3	-3020	-299.24	60.88	SLU 84	0.2	No
fin.	3	-2489	-103.84	60.88	SLU 84	0.59	No
ini.	3	-2900	-284.41	60.88	SLU 42	0.21	No
fin.	3	-2381	-96.18	60.88	SLU 42	0.63	No
ini.	3	-2867	-285.11	60.88	SLU 39	0.21	No
fin.	3	-2296	-91.87	60.88	SLU 39	0.66	No
ini.	3	-2867	-285.11	60.88	SLU 41	0.21	No
fin.	3	-2296	-91.87	60.88	SLU 41	0.66	No





Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2987	-299.94	60.88	SLU 83	0.2	No
fin.	3	-2404	-99.53	60.88	SLU 83	0.61	No
ini.	3	-2900	-284.41	60.88	SLU 40	0.21	No
fin.	3	-2381	-96.18	60.88	SLU 40	0.63	No
ini.	3	-3020	-299.24	60.88	SLU 82	0.2	No
fin.	3	-2489	-103.84	60.88	SLU 82	0.59	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	-3020	-299.24	1520			959	233	SLU 84	0.15	No
fin.	3	-2489	-103.84	-775			818	213	SLU 84	0.27	No
ini.	3	-2867	-285.11	1442			919	227	SLU 41	0.16	No
fin.	3	-2296	-91.87	-698			766	205	SLU 41	0.29	No
ini.	3	-2987	-299.94	1525			951	231	SLU 83	0.15	No
fin.	3	-2404	-99.53	-752			795	209	SLU 83	0.28	No
ini.	3	-2900	-284.41	1438			927	228	SLU 40	0.16	No
fin.	3	-2381	-96.18	-720			789	208	SLU 40	0.29	No
ini.	3	-3020	-299.24	1520			959	233	SLU 82	0.15	No
fin.	3	-2489	-103.84	-775			818	213	SLU 82	0.27	No
ini.	3	-2900	-284.41	1438			927	228	SLU 42	0.16	No
fin.	3	-2381	-96.18	-720			789	208	SLU 42	0.29	No
ini.	3	-2530	-256.86	1312			829	214	SLU 74	0.16	No
fin.	3	-2045	-87.71	-659			699	194	SLU 74	0.29	No
ini.	3	-2530	-256.86	1312			829	214	SLU 77	0.16	No
fin.	3	-2045	-87.71	-659			699	194	SLU 77	0.29	No
ini.	3	-2987	-299.94	1525			951	231	SLU 81	0.15	No
fin.	3	-2404	-99.53	-752			795	209	SLU 81	0.28	No
ini.	3	-2867	-285.11	1442			919	227	SLU 39	0.16	No
fin.	3	-2296	-91.87	-698			766	205	SLU 39	0.29	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-766	-159.56	91.32	SLV 12	0.57	No
fin.	2	559	47.48	91.32	SLV 12	1.92	Si
ini.	2	-2035	-200.14	91.32	SLV 15	0.46	No
fin.	2	-1301	-11.48	91.32	SLV 15	7.95	Si
ini.	2	-766	-159.56	91.32	SLV 11	0.57	No
fin.	2	559	47.48	91.32	SLV 11	1.92	Si
ini.	2	-2548	-198.93	91.32	SLV 13	0.46	No
fin.	2	-2431	-68.77	91.32	SLV 13	1.33	Si
ini.	2	-1903	-119.51	91.32	SLV 5	0.76	No
fin.	2	-2742	-150.22	91.32	SLV 5	0.61	No
ini.	2	-2477	-155.51	91.32	SLV 10	0.59	No
fin.	2	-3207	-143.47	91.32	SLV 10	0.64	No
ini.	2	-2477	-155.51	91.32	SLV 9	0.59	No
fin.	2	-3207	-143.47	91.32	SLV 9	0.64	No
ini.	2	-1903	-119.51	91.32	SLV 6	0.76	No
fin.	2	-2742	-150.22	91.32	SLV 6	0.61	No
ini.	2	-2548	-198.93	91.32	SLV 14	0.46	No
fin.	2	-2431	-68.77	91.32	SLV 14	1.33	Si
ini.	2	-2035	-200.14	91.32	SLV 16	0.46	No
fin.	2	-1301	-11.48	91.32	SLV 16	7.95	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	-121	-80.13	572			263	103	SLV 3	0.18	No
fin.	2	247	-33.97	-201			231	36	SLV 3	0.18	No
ini.	2	-192	-123.55	1031			282	111	SLV 8	0.11	No
fin.	2	1024	40.73	129			231	0	SLV 8	0	No
ini.	2	-766	-159.56	1191			435	164	SLV 12	0.14	No
fin.	2	559	47.48	111			231	0	SLV 12	0	No
ini.	2	-766	-159.56	1191			435	164	SLV 11	0.14	No
fin.	2	559	47.48	111			231	0	SLV 11	0	No
ini.	2	-2035	-200.14	1105			774	243	SLV 15	0.22	No
fin.	2	-1301	-11.48	-261			578	201	SLV 15	0.77	No
ini.	2	-192	-123.55	1031			282	111	SLV 7	0.11	No
fin.	2	1024	40.73	129			231	0	SLV 7	0	No
ini.	2	-2035	-200.14	1105			774	243	SLV 16	0.22	No
fin.	2	-1301	-11.48	-261			578	201	SLV 16	0.77	No
ini.	2	-121	-80.13	572			263	103	SLV 4	0.18	No
fin.	2	247	-33.97	-201			231	36	SLV 4	0.18	No
ini.	2	-2548	-198.93	872			910	268	SLV 13	0.31	No
fin.	2	-2431	-68.77	-561			879	262	SLV 13	0.47	No
ini.	2	-2548	-198.93	872			910	268	SLV 14	0.31	No
fin.	2	-2431	-68.77	-561			879	262	SLV 14	0.47	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.456	SLV 15	No
V_SLV	0	SLV 7	No
PF_SLU	0.203	SLU 81	No
V_SLU	0.152	SLU 81	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
-7.836	-0.424	0.51	1.51	1	-7.836	0.576	0.51	1.51	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	324	35.31	1522.06	SLU 76	43.1	Si
fin.	3	-94	166.32	1522.06	SLU 76	9.15	Si
ini.	3	324	35.31	1522.06	SLU 73	43.1	Si
fin.	3	-94	166.32	1522.06	SLU 73	9.15	Si
ini.	3	303	71.25	1522.06	SLU 80	21.36	Si
fin.	3	-107	157.36	1522.06	SLU 80	9.67	Si
ini.	3	331	80.1	1522.06	SLU 84	19	Si
fin.	3	-132	175.34	1522.06	SLU 84	8.68	Si
ini.	3	299	134.01	1522.06	SLU 83	11.36	Si
fin.	3	-151	161.9	1522.06	SLU 83	9.4	Si
ini.	3	331	80.1	1522.06	SLU 82	19	Si
fin.	3	-132	175.34	1522.06	SLU 82	8.68	Si
ini.	3	303	71.25	1522.06	SLU 75	21.36	Si
fin.	3	-107	157.36	1522.06	SLU 75	9.67	Si
ini.	3	299	134.01	1522.06	SLU 81	11.36	Si
fin.	3	-151	161.9	1522.06	SLU 81	9.4	Si
ini.	3	300	61.17	1522.06	SLU 42	24.88	Si
fin.	3	-126	160.95	1522.06	SLU 42	9.46	Si
ini.	3	300	61.17	1522.06	SLU 40	24.88	Si
fin.	3	-126	160.95	1522.06	SLU 40	9.46	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	324	35.31	-848			1155	357	SLU 76	0.42	No
fin.	3	-94	166.32	1852			1193	455	SLU 76	0.25	No
ini.	3	268	115.09	-1080			1155	372	SLU 41	0.34	No
fin.	3	-145	147.51	1884			1213	465	SLU 41	0.25	No
ini.	3	299	134.01	-1136			1155	364	SLU 81	0.32	No
fin.	3	-151	161.9	2012			1216	467	SLU 81	0.23	No
ini.	3	299	134.01	-1136			1155	364	SLU 83	0.32	No
fin.	3	-151	161.9	2012			1216	467	SLU 83	0.23	No
ini.	3	331	80.1	-1063			1155	356	SLU 84	0.33	No
fin.	3	-132	175.34	2080			1208	463	SLU 84	0.22	No
ini.	3	300	61.17	-1008			1155	364	SLU 40	0.36	No
fin.	3	-126	160.95	1952			1206	461	SLU 40	0.24	No
ini.	3	300	61.17	-1008			1155	364	SLU 42	0.36	No
fin.	3	-126	160.95	1952			1206	461	SLU 42	0.24	No
ini.	3	268	115.09	-1080			1155	372	SLU 39	0.34	No
fin.	3	-145	147.51	1884			1213	465	SLU 39	0.25	No
ini.	3	324	35.31	-848			1155	357	SLU 73	0.42	No
fin.	3	-94	166.32	1852			1193	455	SLU 73	0.25	No
ini.	3	331	80.1	-1063			1155	356	SLU 82	0.33	No
fin.	3	-132	175.34	2080			1208	463	SLU 82	0.22	No

## Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	890	-1085.03	2283.09	SLV 5	2.1	Si
fin.	2	415	407.62	2283.09	SLV 5	5.6	Si
ini.	2	-551	1253.01	2283.09	SLV 11	1.82	Si
fin.	2	-544	-234.91	2283.09	SLV 11	9.72	Si
ini.	2	-567	1304.58	2283.09	SLV 7	1.75	Si
fin.	2	-477	-216.46	2283.09	SLV 7	10.55	Si
ini.	2	-551	1253.01	2283.09	SLV 12	1.82	Si
fin.	2	-544	-234.91	2283.09	SLV 12	9.72	Si
ini.	2	-76	528.37	2283.09	SLV 4	4.32	Si
fin.	2	-87	23.49	2283.09	SLV 4	97.19	Si
ini.	2	906	-1136.6	2283.09	SLV 9	2.01	Si
fin.	2	349	389.17	2283.09	SLV 9	5.87	Si
ini.	2	-567	1304.58	2283.09	SLV 8	1.75	Si
fin.	2	-477	-216.46	2283.09	SLV 8	10.55	Si
ini.	2	-76	528.37	2283.09	SLV 3	4.32	Si
fin.	2	-87	23.49	2283.09	SLV 3	97.19	Si
ini.	2	906	-1136.6	2283.09	SLV 10	2.01	Si
fin.	2	349	389.17	2283.09	SLV 10	5.87	Si
ini.	2	890	-1085.03	2283.09	SLV 6	2.1	Si
fin.	2	415	407.62	2283.09	SLV 6	5.6	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 <sub>lim</sub>	Comb.	c.s.	Verifica
ini.	2	-551	1253.01	-2115			1953	763	SLV 12	0.36	No
fin.	2	-544	-234.91	-458			1950	761	SLV 12	1.66	Si
ini.	2	906	-1136.6	1155			1733	410	SLV 10	0.36	No
fin.	2	349	389.17	2482			1733	571	SLV 10	0.23	No
ini.	2	-567	1304.58	-2199			1960	766	SLV 8	0.35	No
fin.	2	-477	-216.46	-536			1924	749	SLV 8	1.4	Si
ini.	2	890	-1085.03	1071			1733	416	SLV 5	0.39	No
fin.	2	415	407.62	2404			1733	555	SLV 5	0.23	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	890	-1085.03	1071			1733	416	SLV 6	0.39	No
fin.	2	415	407.62	2404			1733	555	SLV 6	0.23	No
ini.	2	-551	1253.01	-2115			1953	763	SLV 11	0.36	No
fin.	2	-544	-234.91	-458			1950	761	SLV 11	1.66	Si
ini.	2	415	-360.39	108			1733	555	SLV 13	5.13	Si
fin.	2	-41	149.22	1545			1750	661	SLV 13	0.43	No
ini.	2	-567	1304.58	-2199			1960	766	SLV 7	0.35	No
fin.	2	-477	-216.46	-536			1924	749	SLV 7	1.4	Si
ini.	2	415	-360.39	108			1733	555	SLV 14	5.13	Si
fin.	2	-41	149.22	1545			1750	661	SLV 14	0.43	No
ini.	2	906	-1136.6	1155			1733	410	SLV 9	0.36	No
fin.	2	349	389.17	2482			1733	571	SLV 9	0.23	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.75	SLV 7	Si
V_SLV	0.23	SLV 9	No
PF_SLU	8.681	SLU 82	Si
V_SLU	0.222	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
-7.836	-0.424	3.41	4.56	1.15	-7.836	0.576	3.41	4.56	1.15	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	-50	-14.67	2012.92	SLU 84	137.25	Si
fin.	3	-50	-574.35	2012.92	SLU 84	3.5	Si
ini.	3	1	34.62	2012.92	SLU 83	58.14	Si
fin.	3	1	-573.47	2012.92	SLU 83	3.51	Si
ini.	3	-51	-16.07	2012.92	SLU 61	125.24	Si
fin.	3	-51	-495.34	2012.92	SLU 61	4.06	Si
ini.	3	1	28.49	2012.92	SLU 39	70.66	Si
fin.	3	1	-546.14	2012.92	SLU 39	3.69	Si
ini.	3	1	34.62	2012.92	SLU 81	58.14	Si
fin.	3	1	-573.47	2012.92	SLU 81	3.51	Si
ini.	3	1	28.49	2012.92	SLU 41	70.66	Si
fin.	3	1	-546.14	2012.92	SLU 41	3.69	Si
ini.	3	-51	-20.8	2012.92	SLU 42	96.77	Si
fin.	3	-51	-547.03	2012.92	SLU 42	3.68	Si
ini.	3	-50	-14.67	2012.92	SLU 82	137.25	Si
fin.	3	-50	-574.35	2012.92	SLU 82	3.5	Si
ini.	3	-51	-20.8	2012.92	SLU 40	96.77	Si
fin.	3	-51	-547.03	2012.92	SLU 40	3.68	Si
ini.	3	-51	-16.07	2012.92	SLU 63	125.24	Si
fin.	3	-51	-495.34	2012.92	SLU 63	4.06	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	-51	-20.8	1255			1349	511	SLU 42	0.41	No
fin.	3	-51	-547.03	-2093			1349	511	SLU 42	0.24	No
ini.	3	1	28.49	1206			1329	500	SLU 41	0.41	No
fin.	3	1	-546.14	-2142			1329	500	SLU 41	0.23	No
ini.	3	1	33.22	1130			1329	500	SLU 60	0.44	No
fin.	3	1	-494.45	-2017			1329	500	SLU 60	0.25	No
ini.	3	1	28.49	1206			1329	500	SLU 39	0.41	No
fin.	3	1	-546.14	-2142			1329	500	SLU 39	0.23	No
ini.	3	-51	-20.8	1255			1349	511	SLU 40	0.41	No
fin.	3	-51	-547.03	-2093			1349	511	SLU 40	0.24	No
ini.	3	1	33.22	1130			1329	500	SLU 62	0.44	No
fin.	3	1	-494.45	-2017			1329	500	SLU 62	0.25	No
ini.	3	-50	-14.67	1340			1349	511	SLU 84	0.38	No
fin.	3	-50	-574.35	-2250			1349	511	SLU 84	0.23	No
ini.	3	1	34.62	1291			1329	500	SLU 83	0.39	No
fin.	3	1	-573.47	-2299			1329	500	SLU 83	0.22	No
ini.	3	-50	-14.67	1340			1349	511	SLU 82	0.38	No
fin.	3	-50	-574.35	-2250			1349	511	SLU 82	0.23	No
ini.	3	1	34.62	1291			1329	500	SLU 81	0.39	No
fin.	3	1	-573.47	-2299			1329	500	SLU 81	0.22	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	219	1138.47	3019.38	SLV 12	2.65	Si
fin.	2	5	-131.65	3019.38	SLV 12	22.93	Si
ini.	2	-66	492.03	3019.38	SLV 16	6.14	Si
fin.	2	-288	-173.37	3019.38	SLV 16	17.42	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	306	1050.07	3019.38	SLV 8	2.88	Si
fin.	2	197	-163.9	3019.38	SLV 8	18.42	Si
ini.	2	-305	-1003.14	3019.38	SLV 9	3.01	Si
fin.	2	-196	-358.33	3019.38	SLV 9	8.43	Si
ini.	2	306	1050.07	3019.38	SLV 7	2.88	Si
fin.	2	197	-163.9	3019.38	SLV 7	18.42	Si
ini.	2	-218	-1091.53	3019.38	SLV 5	2.77	Si
fin.	2	-4	-390.58	3019.38	SLV 5	7.73	Si
ini.	2	-218	-1091.53	3019.38	SLV 6	2.77	Si
fin.	2	-4	-390.58	3019.38	SLV 6	7.73	Si
ini.	2	-66	492.03	3019.38	SLV 15	6.14	Si
fin.	2	-288	-173.37	3019.38	SLV 15	17.42	Si
ini.	2	-305	-1003.14	3019.38	SLV 10	3.01	Si
fin.	2	-196	-358.33	3019.38	SLV 10	8.43	Si
ini.	2	219	1138.47	3019.38	SLV 11	2.65	Si
fin.	2	5	-131.65	3019.38	SLV 11	22.93	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	-305	-1003.14	1613			2115	814	SLV 10	0.5	No
fin.	2	-196	-358.33	-132			2071	791	SLV 10	6.01	Si
ini.	2	224	197.39	462			1993	700	SLV 3	1.52	Si
fin.	2	349	-280.86	-1445			1993	670	SLV 3	0.46	No
ini.	2	-305	-1003.14	1613			2115	814	SLV 9	0.5	No
fin.	2	-196	-358.33	-132			2071	791	SLV 9	6.01	Si
ini.	2	306	1050.07	-356			1993	680	SLV 8	1.91	Si
fin.	2	197	-163.9	-2125			1993	706	SLV 8	0.33	No
ini.	2	224	197.39	462			1993	700	SLV 4	1.52	Si
fin.	2	349	-280.86	-1445			1993	670	SLV 4	0.46	No
ini.	2	219	1138.47	-440			1993	701	SLV 12	1.59	Si
fin.	2	5	-131.65	-2114			1993	749	SLV 12	0.35	No
ini.	2	-218	-1091.53	1698			2080	796	SLV 5	0.47	No
fin.	2	-4	-390.58	-143			1995	751	SLV 5	5.24	Si
ini.	2	219	1138.47	-440			1993	701	SLV 11	1.59	Si
fin.	2	5	-131.65	-2114			1993	749	SLV 11	0.35	No
ini.	2	306	1050.07	-356			1993	680	SLV 7	1.91	Si
fin.	2	197	-163.9	-2125			1993	706	SLV 7	0.33	No
ini.	2	-218	-1091.53	1698			2080	796	SLV 6	0.47	No
fin.	2	-4	-390.58	-143			1995	751	SLV 6	5.24	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.652	SLV 11	Si
V_SLV	0.332	SLV 7	No
PF_SLU	3.505	SLU 82	Si
V_SLU	0.217	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
-7.836	1.726	3.73	4.56	0.83	-7.836	3.126	3.73	4.56	0.83	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_	fhk	fvk0	fthmedio	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	-67	-306.12	1048.55	SLU 42	3.43	Si
fin.	3	-67	265.26	1048.55	SLU 42	3.95	Si
ini.	3	0	-295.79	1048.55	SLU 83	3.54	Si
fin.	3	0	281.23	1048.55	SLU 83	3.73	Si
ini.	3	-112	-289.95	1048.55	SLU 76	3.62	Si
fin.	3	-112	235.85	1048.55	SLU 76	4.45	Si
ini.	3	0	-282.59	1048.55	SLU 39	3.71	Si
fin.	3	0	267.47	1048.55	SLU 39	3.92	Si
ini.	3	-67	-319.31	1048.55	SLU 82	3.28	Si
fin.	3	-67	279.03	1048.55	SLU 82	3.76	Si
ini.	3	0	-295.79	1048.55	SLU 81	3.54	Si
fin.	3	0	281.23	1048.55	SLU 81	3.73	Si
ini.	3	-112	-289.95	1048.55	SLU 73	3.62	Si
fin.	3	-112	235.85	1048.55	SLU 73	4.45	Si
ini.	3	0	-282.59	1048.55	SLU 41	3.71	Si
fin.	3	0	267.47	1048.55	SLU 41	3.92	Si
ini.	3	-67	-319.31	1048.55	SLU 84	3.28	Si
fin.	3	-67	279.03	1048.55	SLU 84	3.76	Si
ini.	3	-67	-306.12	1048.55	SLU 40	3.43	Si
fin.	3	-67	265.26	1048.55	SLU 40	3.95	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	0	-282.59	3408			639	241	SLU 39	0.07	No
fin.	3	0	267.47	-2605			639	241	SLU 39	0.09	No
ini.	3	-67	-306.12	3423			657	250	SLU 40	0.07	No
fin.	3	-67	265.26	-2590			657	250	SLU 40	0.1	No
ini.	3	-67	-319.31	3583			657	250	SLU 84	0.07	No
fin.	3	-67	279.03	-2708			657	250	SLU 84	0.09	No
ini.	3	0	-254.52	3068			639	241	SLU 62	0.08	No
fin.	3	0	242.69	-2338			639	241	SLU 62	0.1	No
ini.	3	0	-282.59	3408			639	241	SLU 41	0.07	No
fin.	3	0	267.47	-2605			639	241	SLU 41	0.09	No
ini.	3	0	-295.79	3568			639	241	SLU 81	0.07	No
fin.	3	0	281.23	-2723			639	241	SLU 81	0.09	No
ini.	3	-67	-319.31	3583			657	250	SLU 82	0.07	No
fin.	3	-67	279.03	-2708			657	250	SLU 82	0.09	No
ini.	3	0	-254.52	3068			639	241	SLU 60	0.08	No
fin.	3	0	242.69	-2338			639	241	SLU 60	0.1	No
ini.	3	0	-295.79	3568			639	241	SLU 83	0.07	No
fin.	3	0	281.23	-2723			639	241	SLU 83	0.09	No
ini.	3	-67	-306.12	3423			657	250	SLU 42	0.07	No
fin.	3	-67	265.26	-2590			657	250	SLU 42	0.1	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-95	-535.85	1572.82	SLV 10	2.94	Si
fin.	2	-306	129.19	1572.82	SLV 10	12.17	Si
ini.	2	-95	-535.85	1572.82	SLV 9	2.94	Si
fin.	2	-306	129.19	1572.82	SLV 9	12.17	Si
ini.	2	95	269.88	1572.82	SLV 7	5.83	Si
fin.	2	307	128.28	1572.82	SLV 7	12.26	Si
ini.	2	190	-552.18	1572.82	SLV 6	2.85	Si
fin.	2	-13	183.81	1572.82	SLV 6	8.56	Si
ini.	2	488	-283.51	1572.82	SLV 1	5.55	Si
fin.	2	442	228.1	1572.82	SLV 1	6.9	Si
ini.	2	190	-552.18	1572.82	SLV 5	2.85	Si
fin.	2	-13	183.81	1572.82	SLV 5	8.56	Si
ini.	2	488	-283.51	1572.82	SLV 2	5.55	Si
fin.	2	442	228.1	1572.82	SLV 2	6.9	Si
ini.	2	-189	286.21	1572.82	SLV 11	5.5	Si
fin.	2	13	73.66	1572.82	SLV 11	21.35	Si
ini.	2	95	269.88	1572.82	SLV 8	5.83	Si
fin.	2	307	128.28	1572.82	SLV 8	12.26	Si
ini.	2	-189	286.21	1572.82	SLV 12	5.5	Si
fin.	2	13	73.66	1572.82	SLV 12	21.35	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	-95	-535.85	2082			984	374	SLV 10	0.18	No
fin.	2	-306	129.19	-680			1041	403	SLV 10	0.59	No
ini.	2	488	-283.51	1675			959	281	SLV 1	0.17	No
fin.	2	442	228.1	-1147			959	290	SLV 1	0.25	No
ini.	2	190	-552.18	2040			959	332	SLV 6	0.16	No
fin.	2	-13	183.81	-729			962	363	SLV 6	0.5	No
ini.	2	488	-283.51	1675			959	281	SLV 2	0.17	No
fin.	2	442	228.1	-1147			959	290	SLV 2	0.25	No
ini.	2	95	269.88	1137			959	347	SLV 7	0.3	No
fin.	2	307	128.28	-1762			959	313	SLV 7	0.18	No
ini.	2	460	-36.89	1404			959	287	SLV 3	0.2	No
fin.	2	538	211.44	-1457			959	272	SLV 3	0.19	No
ini.	2	95	269.88	1137			959	347	SLV 8	0.3	No
fin.	2	307	128.28	-1762			959	313	SLV 8	0.18	No
ini.	2	-95	-535.85	2082			984	374	SLV 9	0.18	No
fin.	2	-306	129.19	-680			1041	403	SLV 9	0.59	No
ini.	2	190	-552.18	2040			959	332	SLV 5	0.16	No
fin.	2	-13	183.81	-729			962	363	SLV 5	0.5	No
ini.	2	460	-36.89	1404			959	287	SLV 4	0.2	No
fin.	2	538	211.44	-1457			959	272	SLV 4	0.19	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLV	2.848	SLV 5	Si
V SLV	0.163	SLV 5	No
PF SLU	3.284	SLU 82	Si
V SLU	0.067	SLU 81	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
-7.836	4.276	0.51	1.51	1	-7.836	5.276	0.51	1.51	1	1	0.3	30000

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) 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	23	-15.59	1522.06	SLU 44	97.62	Si
fin.	3	-40	200.92	1522.06	SLU 44	7.58	Si
ini.	3	23	-15.59	1522.06	SLU 47	97.62	Si
fin.	3	-40	200.92	1522.06	SLU 47	7.58	Si
ini.	3	26	-7.47	1522.06	SLU 52	203.77	Si
fin.	3	-65	206.2	1522.06	SLU 52	7.38	Si
ini.	3	19	-10.78	1522.06	SLU 31	141.17	Si
fin.	3	-89	197.3	1522.06	SLU 31	7.71	Si
ini.	3	31	-2.6	1522.06	SLU 76	585.95	Si
fin.	3	-69	210.6	1522.06	SLU 76	7.23	Si
ini.	3	19	-10.78	1522.06	SLU 34	141.17	Si
fin.	3	-89	197.3	1522.06	SLU 34	7.71	Si
ini.	3	26	-7.47	1522.06	SLU 55	203.77	Si
fin.	3	-65	206.2	1522.06	SLU 55	7.38	Si
ini.	3	28	-10.72	1522.06	SLU 68	141.98	Si
fin.	3	-45	205.32	1522.06	SLU 68	7.41	Si
ini.	3	28	-10.72	1522.06	SLU 65	141.98	Si
fin.	3	-45	205.32	1522.06	SLU 65	7.41	Si
ini.	3	31	-2.6	1522.06	SLU 73	585.95	Si
fin.	3	-69	210.6	1522.06	SLU 73	7.23	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	46	23.53	-2399			1155	425	SLU 82	0.18	No
fin.	3	-32	157.56	2094			1168	442	SLU 82	0.21	No
ini.	3	54	49.32	-2219			1155	423	SLU 41	0.19	No
fin.	3	21	61.3	1837			1155	430	SLU 41	0.23	No
ini.	3	61	52.64	-2151			1155	421	SLU 62	0.2	No
fin.	3	45	70.2	1738			1155	425	SLU 62	0.24	No
ini.	3	54	49.32	-2219			1155	423	SLU 39	0.19	No
fin.	3	21	61.3	1837			1155	430	SLU 39	0.23	No
ini.	3	61	52.64	-2151			1155	421	SLU 60	0.2	No
fin.	3	45	70.2	1738			1155	425	SLU 60	0.24	No
ini.	3	66	57.51	-2421			1155	420	SLU 83	0.17	No
fin.	3	40	74.6	1977			1155	426	SLU 83	0.22	No
ini.	3	34	15.35	-2198			1155	427	SLU 40	0.19	No
fin.	3	-51	144.26	1953			1176	446	SLU 40	0.23	No
ini.	3	34	15.35	-2198			1155	427	SLU 42	0.19	No
fin.	3	-51	144.26	1953			1176	446	SLU 42	0.23	No
ini.	3	46	23.53	-2399			1155	425	SLU 84	0.18	No
fin.	3	-32	157.56	2094			1168	442	SLU 84	0.21	No
ini.	3	66	57.51	-2421			1155	420	SLU 81	0.17	No
fin.	3	40	74.6	1977			1155	426	SLU 81	0.22	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	136	687.18	2283.09	SLV 7	3.32	Si
fin.	2	462	-1069.53	2283.09	SLV 7	2.13	Si
ini.	2	-43	-614.06	2283.09	SLV 9	3.72	Si
fin.	2	-358	1173.78	2283.09	SLV 9	1.95	Si
ini.	2	121	667.53	2283.09	SLV 12	3.42	Si
fin.	2	448	-1011.7	2283.09	SLV 12	2.26	Si
ini.	2	121	667.53	2283.09	SLV 11	3.42	Si
fin.	2	448	-1011.7	2283.09	SLV 11	2.26	Si
ini.	2	-4	-188.43	2283.09	SLV 14	12.12	Si
fin.	2	-93	476.33	2283.09	SLV 14	4.79	Si
ini.	2	136	687.18	2283.09	SLV 8	3.32	Si
fin.	2	462	-1069.53	2283.09	SLV 8	2.13	Si
ini.	2	-43	-614.06	2283.09	SLV 10	3.72	Si
fin.	2	-358	1173.78	2283.09	SLV 10	1.95	Si
ini.	2	-27	-594.41	2283.09	SLV 5	3.84	Si
fin.	2	-344	1115.95	2283.09	SLV 5	2.05	Si
ini.	2	-27	-594.41	2283.09	SLV 6	3.84	Si
fin.	2	-344	1115.95	2283.09	SLV 6	2.05	Si
ini.	2	-4	-188.43	2283.09	SLV 13	12.12	Si
fin.	2	-93	476.33	2283.09	SLV 13	4.79	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	-43	-614.06	-1368			1750	661	SLV 10	0.48	No
fin.	2	-358	1173.78	2397			1876	726	SLV 10	0.3	No
ini.	2	-4	-188.43	-1252			1734	653	SLV 13	0.52	No
fin.	2	-93	476.33	1450			1770	672	SLV 13	0.46	No
ini.	2	-27	-594.41	-1390			1744	658	SLV 6	0.47	No
fin.	2	-344	1115.95	2368			1870	723	SLV 6	0.31	No
ini.	2	48	-122.93	-1325			1733	642	SLV 1	0.48	No
fin.	2	-45	283.56	1353			1751	662	SLV 1	0.49	No
ini.	2	-27	-594.41	-1390			1744	658	SLV 5	0.47	No
fin.	2	-344	1115.95	2368			1870	723	SLV 5	0.31	No
ini.	2	97	261.55	-1248			1733	631	SLV 4	0.51	No
fin.	2	197	-372.09	512			1733	608	SLV 4	1.19	Si
ini.	2	-4	-188.43	-1252			1734	653	SLV 14	0.52	No
fin.	2	-93	476.33	1450			1770	672	SLV 14	0.46	No
ini.	2	-43	-614.06	-1368			1750	661	SLV 9	0.48	No
fin.	2	-358	1173.78	2397			1876	726	SLV 9	0.3	No
ini.	2	48	-122.93	-1325			1733	642	SLV 2	0.48	No
fin.	2	-45	283.56	1353			1751	662	SLV 2	0.49	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	97	261.55	-1248			1733	631	SLV 3	0.51	No
fin.	2	197	-372.09	512			1733	608	SLV 3	1.19	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.945	SLV 9	Si
V_SLV	0.303	SLV 9	No
PF_SLU	7.227	SLU 73	Si
V_SLU	0.174	SLU 81	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
-7.836	4.276	3.41	4.56	1.15	-7.836	5.276	3.41	4.56	1.15	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	1	291.41	2012.92	SLU 60	6.91	Si
fin.	3	1	68.91	2012.92	SLU 60	29.21	Si
ini.	3	-85	312.35	2012.92	SLU 42	6.44	Si
fin.	3	-85	91.24	2012.92	SLU 42	22.06	Si
ini.	3	1	316.85	2012.92	SLU 41	6.35	Si
fin.	3	1	70.78	2012.92	SLU 41	28.44	Si
ini.	3	-85	331.11	2012.92	SLU 82	6.08	Si
fin.	3	-85	97.85	2012.92	SLU 82	20.57	Si
ini.	3	-85	331.11	2012.92	SLU 84	6.08	Si
fin.	3	-85	97.85	2012.92	SLU 84	20.57	Si
ini.	3	1	316.85	2012.92	SLU 39	6.35	Si
fin.	3	1	70.78	2012.92	SLU 39	28.44	Si
ini.	3	1	335.61	2012.92	SLU 81	6	Si
fin.	3	1	77.39	2012.92	SLU 81	26.01	Si
ini.	3	1	291.41	2012.92	SLU 62	6.91	Si
fin.	3	1	68.91	2012.92	SLU 62	29.21	Si
ini.	3	-85	312.35	2012.92	SLU 40	6.44	Si
fin.	3	-85	91.24	2012.92	SLU 40	22.06	Si
ini.	3	1	335.61	2012.92	SLU 83	6	Si
fin.	3	1	77.39	2012.92	SLU 83	26.01	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	1	335.61	1524			1329	500	SLU 81	0.33	No
fin.	3	1	77.39	-2216			1329	500	SLU 81	0.23	No
ini.	3	-85	331.11	1549			1362	518	SLU 82	0.33	No
fin.	3	-85	97.85	-2191			1362	518	SLU 82	0.24	No
ini.	3	1	291.41	1358			1329	500	SLU 60	0.37	No
fin.	3	1	68.91	-1939			1329	500	SLU 60	0.26	No
ini.	3	1	316.85	1392			1329	500	SLU 41	0.36	No
fin.	3	1	70.78	-2072			1329	500	SLU 41	0.24	No
ini.	3	-85	312.35	1417			1363	518	SLU 40	0.37	No
fin.	3	-85	91.24	-2047			1363	518	SLU 40	0.25	No
ini.	3	-85	331.11	1549			1362	518	SLU 84	0.33	No
fin.	3	-85	97.85	-2191			1362	518	SLU 84	0.24	No
ini.	3	1	316.85	1392			1329	500	SLU 39	0.36	No
fin.	3	1	70.78	-2072			1329	500	SLU 39	0.24	No
ini.	3	-85	312.35	1417			1363	518	SLU 42	0.37	No
fin.	3	-85	91.24	-2047			1363	518	SLU 42	0.25	No
ini.	3	1	335.61	1524			1329	500	SLU 83	0.33	No
fin.	3	1	77.39	-2216			1329	500	SLU 83	0.23	No
ini.	3	1	291.41	1358			1329	500	SLU 62	0.37	No
fin.	3	1	68.91	-1939			1329	500	SLU 62	0.26	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-152	298.74	3019.38	SLV 11	10.11	Si
fin.	2	-384	-916.77	3019.38	SLV 11	3.29	Si
ini.	2	37	31.9	3019.38	SLV 9	94.67	Si
fin.	2	282	1111.91	3019.38	SLV 9	2.72	Si
ini.	2	37	31.9	3019.38	SLV 10	94.67	Si
fin.	2	282	1111.91	3019.38	SLV 10	2.72	Si
ini.	2	-152	298.74	3019.38	SLV 12	10.11	Si
fin.	2	-384	-916.77	3019.38	SLV 12	3.29	Si
ini.	2	-36	283.36	3019.38	SLV 8	10.66	Si
fin.	2	-281	-1031.37	3019.38	SLV 8	2.93	Si
ini.	2	-164	143.24	3019.38	SLV 13	21.08	Si
fin.	2	-72	535.58	3019.38	SLV 13	5.64	Si
ini.	2	-36	283.36	3019.38	SLV 7	10.66	Si
fin.	2	-281	-1031.37	3019.38	SLV 7	2.93	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	153	16.51	3019.38	SLV 5	182.91	Si
fin.	2	386	997.31	3019.38	SLV 5	3.03	Si
ini.	2	153	16.51	3019.38	SLV 6	182.91	Si
fin.	2	386	997.31	3019.38	SLV 6	3.03	Si
ini.	2	-164	143.24	3019.38	SLV 14	21.08	Si
fin.	2	-72	535.58	3019.38	SLV 14	5.64	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	166	172.01	333			1993	713	SLV 4	2.14	Si
fin.	2	73	-455.03	-1428			1993	734	SLV 4	0.51	No
ini.	2	-36	283.36	-400			2007	758	SLV 8	1.9	Si
fin.	2	-281	-1031.37	-2282			2105	809	SLV 8	0.35	No
ini.	2	-36	283.36	-400			2007	758	SLV 7	1.9	Si
fin.	2	-281	-1031.37	-2282			2105	809	SLV 7	0.35	No
ini.	2	153	16.51	1924			1993	716	SLV 5	0.37	No
fin.	2	386	997.31	137			1993	661	SLV 5	4.84	Si
ini.	2	37	31.9	1993			1993	742	SLV 9	0.37	No
fin.	2	282	1111.91	130			1993	686	SLV 9	5.29	Si
ini.	2	153	16.51	1924			1993	716	SLV 6	0.37	No
fin.	2	386	997.31	137			1993	661	SLV 6	4.84	Si
ini.	2	-152	298.74	-331			2054	782	SLV 12	2.36	Si
fin.	2	-384	-916.77	-2289			2147	829	SLV 12	0.36	No
ini.	2	-152	298.74	-331			2054	782	SLV 11	2.36	Si
fin.	2	-384	-916.77	-2289			2147	829	SLV 11	0.36	No
ini.	2	37	31.9	1993			1993	742	SLV 10	0.37	No
fin.	2	282	1111.91	130			1993	686	SLV 10	5.29	Si
ini.	2	166	172.01	333			1993	713	SLV 3	2.14	Si
fin.	2	73	-455.03	-1428			1993	734	SLV 3	0.51	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.715	SLV 9	Si
V_SLV	0.354	SLV 7	No
PF_SLU	5.998	SLU 81	Si
V_SLU	0.226	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
-5.041	7.016	0.51	1.51	1	-6.041	7.016	0.51	1.51	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	-87	-125.07	1522.06	SLU 80	12.17	Si
fin.	3	-205	-74.61	1522.06	SLU 80	20.4	Si
ini.	3	-89	-128.1	1522.06	SLU 84	11.88	Si
fin.	3	-209	-76.63	1522.06	SLU 84	19.86	Si
ini.	3	-89	-128.1	1522.06	SLU 82	11.88	Si
fin.	3	-209	-76.63	1522.06	SLU 82	19.86	Si
ini.	3	-87	-125.07	1522.06	SLU 78	12.17	Si
fin.	3	-205	-74.61	1522.06	SLU 78	20.4	Si
ini.	3	-95	-123.92	1522.06	SLU 68	12.28	Si
fin.	3	-209	-54.73	1522.06	SLU 68	27.81	Si
ini.	3	-101	-131	1522.06	SLU 76	11.62	Si
fin.	3	-219	-59.46	1522.06	SLU 76	25.6	Si
ini.	3	-101	-131	1522.06	SLU 73	11.62	Si
fin.	3	-219	-59.46	1522.06	SLU 73	25.6	Si
ini.	3	-84	-122.92	1522.06	SLU 52	12.38	Si
fin.	3	-199	-49.79	1522.06	SLU 52	30.57	Si
ini.	3	-95	-123.92	1522.06	SLU 65	12.28	Si
fin.	3	-209	-54.73	1522.06	SLU 65	27.81	Si
ini.	3	-87	-125.07	1522.06	SLU 75	12.17	Si
fin.	3	-205	-74.61	1522.06	SLU 75	20.4	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	-84	-122.92	297			1189	453	SLU 55	1.53	Si
fin.	3	-199	-49.79	55			1235	476	SLU 55	8.67	Si
ini.	3	-101	-131	325			1196	456	SLU 76	1.4	Si
fin.	3	-219	-59.46	29			1243	480	SLU 76	16.56	Si
ini.	3	-89	-128.1	324			1191	454	SLU 84	1.4	Si
fin.	3	-209	-76.63	0			1239	478	SLU 84	1281.29	Si
ini.	3	-68	-119.2	295			1182	449	SLU 83	1.52	Si
fin.	3	-188	-99.36	-26			1231	474	SLU 83	18.37	Si
ini.	3	-87	-125.07	306			1190	453	SLU 80	1.48	Si
fin.	3	-205	-74.61	12			1237	477	SLU 80	39.66	Si





Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	-87	-125.07	306			1190	453	SLU 75	1.48	Si
fin.	3	-205	-74.61	12			1237	477	SLU 75	39.66	Si
ini.	3	-89	-128.1	324			1191	454	SLU 82	1.4	Si
fin.	3	-209	-76.63	0			1239	478	SLU 82	1281.29	Si
ini.	3	-87	-125.07	306			1190	453	SLU 78	1.48	Si
fin.	3	-205	-74.61	12			1237	477	SLU 78	39.66	Si
ini.	3	-68	-119.2	295			1182	449	SLU 81	1.52	Si
fin.	3	-188	-99.36	-26			1231	474	SLU 81	18.37	Si
ini.	3	-101	-131	325			1196	456	SLU 73	1.4	Si
fin.	3	-219	-59.46	29			1243	480	SLU 73	16.56	Si

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-259	707.18	2283.09	SLV 3	3.23	Si
fin.	2	-245	-757.91	2283.09	SLV 3	3.01	Si
ini.	2	173	-875.51	2283.09	SLV 14	2.61	Si
fin.	2	-19	616.99	2283.09	SLV 14	3.7	Si
ini.	2	953	-943.19	2283.09	SLV 16	2.42	Si
fin.	2	-71	449.85	2283.09	SLV 16	5.08	Si
ini.	2	-259	707.18	2283.09	SLV 4	3.23	Si
fin.	2	-245	-757.91	2283.09	SLV 4	3.01	Si
ini.	2	953	-943.19	2283.09	SLV 15	2.42	Si
fin.	2	-71	449.85	2283.09	SLV 15	5.08	Si
ini.	2	-1040	774.86	2283.09	SLV 2	2.95	Si
fin.	2	-194	-590.77	2283.09	SLV 2	3.86	Si
ini.	2	1076	50.59	2283.09	SLV 8	45.13	Si
fin.	2	-244	-530.19	2283.09	SLV 8	4.31	Si
ini.	2	173	-875.51	2283.09	SLV 13	2.61	Si
fin.	2	-19	616.99	2283.09	SLV 13	3.7	Si
ini.	2	1076	50.59	2283.09	SLV 7	45.13	Si
fin.	2	-244	-530.19	2283.09	SLV 7	4.31	Si
ini.	2	-1040	774.86	2283.09	SLV 1	2.95	Si
fin.	2	-194	-590.77	2283.09	SLV 1	3.86	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	-259	707.18	-1475			1837	706	SLV 4	0.48	No
fin.	2	-245	-757.91	-1473			1831	704	SLV 4	0.48	No
ini.	2	173	-875.51	1848			1733	613	SLV 13	0.33	No
fin.	2	-19	616.99	1492			1741	656	SLV 13	0.44	No
ini.	2	-259	707.18	-1475			1837	706	SLV 3	0.48	No
fin.	2	-245	-757.91	-1473			1831	704	SLV 3	0.48	No
ini.	2	953	-943.19	1562			1733	394	SLV 15	0.25	No
fin.	2	-71	449.85	1238			1761	667	SLV 15	0.54	No
ini.	2	1076	50.59	-745			1733	347	SLV 8	0.47	No
fin.	2	-244	-530.19	-820			1831	703	SLV 8	0.86	No
ini.	2	-1040	774.86	-1189			2149	849	SLV 1	0.71	No
fin.	2	-194	-590.77	-1220			1811	693	SLV 1	0.57	No
ini.	2	1076	50.59	-745			1733	347	SLV 7	0.47	No
fin.	2	-244	-530.19	-820			1831	703	SLV 7	0.86	No
ini.	2	953	-943.19	1562			1733	394	SLV 16	0.25	No
fin.	2	-71	449.85	1238			1761	667	SLV 16	0.54	No
ini.	2	-1040	774.86	-1189			2149	849	SLV 2	0.71	No
fin.	2	-194	-590.77	-1220			1811	693	SLV 2	0.57	No
ini.	2	173	-875.51	1848			1733	613	SLV 14	0.33	No
fin.	2	-19	616.99	1492			1741	656	SLV 14	0.44	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.421	SLV 15	Si
V_SLV	0.252	SLV 15	No
PF_SLU	11.619	SLU 73	Si
V_SLU	1.402	SLU 82	Si

## 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
-5.041	7.016	3.41	4.56	1.15	-6.041	7.016	3.41	4.56	1.15	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	-12	96.19	2012.92	SLU 84	20.93	Si
fin.	3	-12	48.83	2012.92	SLU 84	41.22	Si
ini.	3	2	90.43	2012.92	SLU 41	22.26	Si
fin.	3	2	40.33	2012.92	SLU 41	49.91	Si
ini.	3	2	95.52	2012.92	SLU 77	21.07	Si
fin.	3	2	48	2012.92	SLU 77	41.94	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	2	103.75	2012.92	SLU 83	19.4	Si
fin.	3	2	49.6	2012.92	SLU 83	40.59	Si
ini.	3	-12	96.19	2012.92	SLU 82	20.93	Si
fin.	3	-12	48.83	2012.92	SLU 82	41.22	Si
ini.	3	2	95.07	2012.92	SLU 60	21.17	Si
fin.	3	2	47.67	2012.92	SLU 60	42.23	Si
ini.	3	2	95.52	2012.92	SLU 79	21.07	Si
fin.	3	2	48	2012.92	SLU 79	41.94	Si
ini.	3	2	95.52	2012.92	SLU 74	21.07	Si
fin.	3	2	48	2012.92	SLU 74	41.94	Si
ini.	3	2	95.07	2012.92	SLU 62	21.17	Si
fin.	3	2	47.67	2012.92	SLU 62	42.23	Si
ini.	3	2	103.75	2012.92	SLU 81	19.4	Si
fin.	3	2	49.6	2012.92	SLU 81	40.59	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	2	95.52	449			1329	500	SLU 74	1.11	Si
fin.	3	2	48	-533			1329	500	SLU 74	0.94	No
ini.	3	1	86.84	456			1329	500	SLU 53	1.1	Si
fin.	3	1	46.07	-526			1329	500	SLU 53	0.95	No
ini.	3	-12	96.19	449			1333	503	SLU 84	1.12	Si
fin.	3	-12	48.83	-533			1333	503	SLU 84	0.94	No
ini.	3	2	103.75	442			1329	500	SLU 83	1.13	Si
fin.	3	2	49.6	-539			1329	500	SLU 83	0.93	No
ini.	3	2	95.07	449			1329	500	SLU 60	1.11	Si
fin.	3	2	47.67	-533			1329	500	SLU 60	0.94	No
ini.	3	2	95.07	449			1329	500	SLU 62	1.11	Si
fin.	3	2	47.67	-533			1329	500	SLU 62	0.94	No
ini.	3	-12	96.19	449			1333	503	SLU 82	1.12	Si
fin.	3	-12	48.83	-533			1333	503	SLU 82	0.94	No
ini.	3	2	95.52	449			1329	500	SLU 77	1.11	Si
fin.	3	2	48	-533			1329	500	SLU 77	0.94	No
ini.	3	2	95.52	449			1329	500	SLU 79	1.11	Si
fin.	3	2	48	-533			1329	500	SLU 79	0.94	No
ini.	3	2	103.75	442			1329	500	SLU 81	1.13	Si
fin.	3	2	49.6	-539			1329	500	SLU 81	0.93	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-428	-531.78	3019.38	SLV 15	5.68	Si
fin.	2	62	121.9	3019.38	SLV 15	24.77	Si
ini.	2	16	619.55	3019.38	SLV 3	4.87	Si
fin.	2	436	-211.4	3019.38	SLV 3	14.28	Si
ini.	2	624	-49.11	3019.38	SLV 9	61.48	Si
fin.	2	-881	349.5	3019.38	SLV 9	8.64	Si
ini.	2	624	-49.11	3019.38	SLV 10	61.48	Si
fin.	2	-881	349.5	3019.38	SLV 10	8.64	Si
ini.	2	-14	-495	3019.38	SLV 13	6.1	Si
fin.	2	-434	280.79	3019.38	SLV 13	10.75	Si
ini.	2	430	656.34	3019.38	SLV 1	4.6	Si
fin.	2	-60	-52.51	3019.38	SLV 1	57.5	Si
ini.	2	430	656.34	3019.38	SLV 2	4.6	Si
fin.	2	-60	-52.51	3019.38	SLV 2	57.5	Si
ini.	2	16	619.55	3019.38	SLV 4	4.87	Si
fin.	2	436	-211.4	3019.38	SLV 4	14.28	Si
ini.	2	-428	-531.78	3019.38	SLV 16	5.68	Si
fin.	2	62	121.9	3019.38	SLV 16	24.77	Si
ini.	2	-14	-495	3019.38	SLV 14	6.1	Si
fin.	2	-434	280.79	3019.38	SLV 14	10.75	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	624	-49.11	892			1993	599	SLV 10	0.67	No
fin.	2	-881	349.5	-18			2345	922	SLV 10	50.95	Si
ini.	2	-14	-495	1130			1999	753	SLV 13	0.67	No
fin.	2	-434	280.79	394			2167	839	SLV 13	2.13	Si
ini.	2	430	656.34	-220			1993	650	SLV 2	2.95	Si
fin.	2	-60	-52.51	-1100			2017	763	SLV 2	0.69	No
ini.	2	-622	173.67	-183			2242	875	SLV 7	4.78	Si
fin.	2	883	-280.11	-783			1993	524	SLV 7	0.67	No
ini.	2	16	619.55	-421			1993	747	SLV 3	1.77	Si
fin.	2	436	-211.4	-1195			1993	648	SLV 3	0.54	No
ini.	2	430	656.34	-220			1993	650	SLV 1	2.95	Si
fin.	2	-60	-52.51	-1100			2017	763	SLV 1	0.69	No
ini.	2	624	-49.11	892			1993	599	SLV 9	0.67	No
fin.	2	-881	349.5	-18			2345	922	SLV 9	50.95	Si
ini.	2	-622	173.67	-183			2242	875	SLV 8	4.78	Si
fin.	2	883	-280.11	-783			1993	524	SLV 8	0.67	No
ini.	2	-14	-495	1130			1999	753	SLV 14	0.67	No
fin.	2	-434	280.79	394			2167	839	SLV 14	2.13	Si
ini.	2	16	619.55	-421			1993	747	SLV 4	1.77	Si
fin.	2	436	-211.4	-1195			1993	648	SLV 4	0.54	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.6	SLV 1	Si
V_SLV	0.543	SLV 3	No
PF_SLU	19.402	SLU 81	Si



Stato limite	Coeff.s.	Comb.	Verifica
V_SLU	0.926	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
-2.546	7.016	0.51	2.51	2	-3.046	7.016	0.51	2.51	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 <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	192	197.34	6088.24	SLU 83	30.85	Si
fin.	3	380	288.59	6088.24	SLU 83	21.1	Si
ini.	3	178	182.28	6088.24	SLU 76	33.4	Si
fin.	3	366	288.56	6088.24	SLU 76	21.1	Si
ini.	3	184	191.98	6088.24	SLU 84	31.71	Si
fin.	3	382	298.07	6088.24	SLU 84	20.43	Si
ini.	3	192	197.34	6088.24	SLU 81	30.85	Si
fin.	3	380	288.59	6088.24	SLU 81	21.1	Si
ini.	3	184	191.98	6088.24	SLU 82	31.71	Si
fin.	3	382	298.07	6088.24	SLU 82	20.43	Si
ini.	3	178	182.28	6088.24	SLU 73	33.4	Si
fin.	3	366	288.56	6088.24	SLU 73	21.1	Si
ini.	3	187	187.27	6088.24	SLU 63	32.51	Si
fin.	3	362	279.07	6088.24	SLU 63	21.82	Si
ini.	3	183	185.85	6088.24	SLU 75	32.76	Si
fin.	3	365	282.24	6088.24	SLU 75	21.57	Si
ini.	3	183	185.85	6088.24	SLU 78	32.76	Si
fin.	3	365	282.24	6088.24	SLU 78	21.57	Si
ini.	3	183	185.85	6088.24	SLU 80	32.76	Si
fin.	3	365	282.24	6088.24	SLU 80	21.57	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	192	197.34	-631			2311	827	SLU 83	1.31	Si
fin.	3	380	288.59	779			2311	783	SLU 83	1.01	Si
ini.	3	183	185.85	-629			2311	829	SLU 80	1.32	Si
fin.	3	365	282.24	771			2311	786	SLU 80	1.02	Si
ini.	3	184	191.98	-630			2311	829	SLU 84	1.32	Si
fin.	3	382	298.07	777			2311	782	SLU 84	1.01	Si
ini.	3	191	191.2	-630			2311	827	SLU 77	1.31	Si
fin.	3	363	272.76	773			2311	787	SLU 77	1.02	Si
ini.	3	191	191.2	-630			2311	827	SLU 79	1.31	Si
fin.	3	363	272.76	773			2311	787	SLU 79	1.02	Si
ini.	3	191	191.2	-630			2311	827	SLU 74	1.31	Si
fin.	3	363	272.76	773			2311	787	SLU 74	1.02	Si
ini.	3	184	191.98	-630			2311	829	SLU 82	1.32	Si
fin.	3	382	298.07	777			2311	782	SLU 82	1.01	Si
ini.	3	195	192.63	-630			2311	826	SLU 62	1.31	Si
fin.	3	361	269.59	773			2311	787	SLU 62	1.02	Si
ini.	3	195	192.63	-630			2311	826	SLU 60	1.31	Si
fin.	3	361	269.59	773			2311	787	SLU 60	1.02	Si
ini.	3	192	197.34	-631			2311	827	SLU 81	1.31	Si
fin.	3	380	288.59	779			2311	783	SLU 81	1.01	Si

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-285	941.33	9132.35	SLV 2	9.7	Si
fin.	2	-447	-696.74	9132.35	SLV 2	13.11	Si
ini.	2	-148	599.63	9132.35	SLV 5	15.23	Si
fin.	2	-832	-198.27	9132.35	SLV 5	46.06	Si
ini.	2	579	-663.1	9132.35	SLV 16	13.77	Si
fin.	2	958	1072.29	9132.35	SLV 16	8.52	Si
ini.	2	579	-663.1	9132.35	SLV 15	13.77	Si
fin.	2	958	1072.29	9132.35	SLV 15	8.52	Si
ini.	2	-285	941.33	9132.35	SLV 1	9.7	Si
fin.	2	-447	-696.74	9132.35	SLV 1	13.11	Si
ini.	2	-176	796.37	9132.35	SLV 3	11.47	Si
fin.	2	131	-617.16	9132.35	SLV 3	14.8	Si
ini.	2	-148	599.63	9132.35	SLV 6	15.23	Si
fin.	2	-832	-198.27	9132.35	SLV 6	46.06	Si
ini.	2	-176	796.37	9132.35	SLV 4	11.47	Si
fin.	2	131	-617.16	9132.35	SLV 4	14.8	Si
ini.	2	470	-518.14	9132.35	SLV 13	17.63	Si
fin.	2	380	992.71	9132.35	SLV 13	9.2	Si
ini.	2	470	-518.14	9132.35	SLV 14	17.63	Si
fin.	2	380	992.71	9132.35	SLV 14	9.2	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	-176	796.37	-1766			3536	1342	SLV 4	0.76	No
fin.	2	131	-617.16	16			3466	1275	SLV 4	78.81	Si
ini.	2	442	-321.4	-466			3466	1205	SLV 12	2.58	Si
fin.	2	1343	573.83	1310			3466	969	SLV 12	0.74	No
ini.	2	579	-663.1	596			3466	1172	SLV 15	1.96	Si
fin.	2	958	1072.29	1462			3466	1076	SLV 15	0.74	No
ini.	2	442	-321.4	-466			3466	1205	SLV 11	2.58	Si
fin.	2	1343	573.83	1310			3466	969	SLV 11	0.74	No
ini.	2	470	-518.14	798			3466	1198	SLV 14	1.5	Si
fin.	2	380	992.71	1159			3466	1219	SLV 14	1.05	Si
ini.	2	579	-663.1	596			3466	1172	SLV 16	1.96	Si
fin.	2	958	1072.29	1462			3466	1076	SLV 16	0.74	No
ini.	2	-176	796.37	-1766			3536	1342	SLV 3	0.76	No
fin.	2	131	-617.16	16			3466	1275	SLV 3	78.81	Si
ini.	2	-285	941.33	-1565			3580	1365	SLV 2	0.87	No
fin.	2	-447	-696.74	-287			3645	1398	SLV 2	4.86	Si
ini.	2	470	-518.14	798			3466	1198	SLV 13	1.5	Si
fin.	2	380	992.71	1159			3466	1219	SLV 13	1.05	Si
ini.	2	-285	941.33	-1565			3580	1365	SLV 1	0.87	No
fin.	2	-447	-696.74	-287			3645	1398	SLV 1	4.86	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	8.517	SLV 15	Si
V_SLV	0.736	SLV 15	No
PF_SLU	20.425	SLU 82	Si
V_SLU	1.005	SLU 81	Si

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
-2.546	7.016	3.31	4.56	1.25	-3.046	7.016	3.31	4.56	1.25	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	fmedio	τ0	fν0	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	6	70.05	2378.22	SLU 77	33.95	Si
fin.	3	6	60.33	2378.22	SLU 77	39.42	Si
ini.	3	-4	76.06	2378.22	SLU 82	31.27	Si
fin.	3	-4	64.74	2378.22	SLU 82	36.74	Si
ini.	3	6	70.05	2378.22	SLU 74	33.95	Si
fin.	3	6	60.33	2378.22	SLU 74	39.42	Si
ini.	3	6	79.17	2378.22	SLU 39	30.04	Si
fin.	3	6	65.79	2378.22	SLU 39	36.15	Si
ini.	3	-4	76.06	2378.22	SLU 84	31.27	Si
fin.	3	-4	64.74	2378.22	SLU 84	36.74	Si
ini.	3	-4	72.78	2378.22	SLU 40	32.68	Si
fin.	3	-4	60.74	2378.22	SLU 40	39.15	Si
ini.	3	7	82.45	2378.22	SLU 81	28.84	Si
fin.	3	7	69.78	2378.22	SLU 81	34.08	Si
ini.	3	6	79.17	2378.22	SLU 41	30.04	Si
fin.	3	6	65.79	2378.22	SLU 41	36.15	Si
ini.	3	-4	72.78	2378.22	SLU 42	32.68	Si
fin.	3	-4	60.74	2378.22	SLU 42	39.15	Si
ini.	3	7	82.45	2378.22	SLU 83	28.84	Si
fin.	3	7	69.78	2378.22	SLU 83	34.08	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	6	70.05	138			1444	542	SLU 79	3.94	Si
fin.	3	6	60.33	-234			1444	542	SLU 79	2.32	Si
ini.	3	7	82.45	132			1444	542	SLU 83	4.11	Si
fin.	3	7	69.78	-240			1444	542	SLU 83	2.26	Si
ini.	3	-4	76.06	135			1446	544	SLU 82	4.05	Si
fin.	3	-4	64.74	-237			1446	544	SLU 82	2.3	Si
ini.	3	6	69.88	137			1444	542	SLU 62	3.95	Si
fin.	3	6	60	-234			1444	542	SLU 62	2.32	Si
ini.	3	6	70.05	138			1444	542	SLU 77	3.94	Si
fin.	3	6	60.33	-234			1444	542	SLU 77	2.32	Si
ini.	3	-5	63.49	140			1446	545	SLU 61	3.89	Si
fin.	3	-5	54.95	-231			1446	545	SLU 61	2.35	Si
ini.	3	6	69.88	137			1444	542	SLU 60	3.95	Si
fin.	3	6	60	-234			1444	542	SLU 60	2.32	Si
ini.	3	6	70.05	138			1444	542	SLU 74	3.94	Si
fin.	3	6	60.33	-234			1444	542	SLU 74	2.32	Si
ini.	3	-4	76.06	135			1446	544	SLU 84	4.05	Si
fin.	3	-4	64.74	-237			1446	544	SLU 84	2.3	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	7	82.45	132			1444	542	SLU 81	4.11	Si
fin.	3	7	69.78	-240			1444	542	SLU 81	2.26	Si

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1044	168.09	3567.33	SLV 11	21.22	Si
fin.	2	-1686	-268.02	3567.33	SLV 11	13.31	Si
ini.	2	154	131.23	3567.33	SLV 1	27.18	Si
fin.	2	49	343.16	3567.33	SLV 1	10.4	Si
ini.	2	-149	-56.95	3567.33	SLV 16	62.64	Si
fin.	2	-44	-275.96	3567.33	SLV 16	12.93	Si
ini.	2	-1044	168.09	3567.33	SLV 12	21.22	Si
fin.	2	-1686	-268.02	3567.33	SLV 12	13.31	Si
ini.	2	154	131.23	3567.33	SLV 2	27.18	Si
fin.	2	49	343.16	3567.33	SLV 2	10.4	Si
ini.	2	-1151	256.03	3567.33	SLV 8	13.93	Si
fin.	2	-1990	-123.57	3567.33	SLV 8	28.87	Si
ini.	2	-149	-56.95	3567.33	SLV 15	62.64	Si
fin.	2	-44	-275.96	3567.33	SLV 15	12.93	Si
ini.	2	1050	-93.82	3567.33	SLV 5	38.02	Si
fin.	2	1692	335.21	3567.33	SLV 5	10.64	Si
ini.	2	1050	-93.82	3567.33	SLV 6	38.02	Si
fin.	2	1692	335.21	3567.33	SLV 6	10.64	Si
ini.	2	-1151	256.03	3567.33	SLV 7	13.93	Si
fin.	2	-1990	-123.57	3567.33	SLV 7	28.87	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	154	131.23	825			2166	781	SLV 2	0.95	No
fin.	2	49	343.16	303			2166	804	SLV 2	2.66	Si
ini.	2	-506	236.18	802			2369	919	SLV 3	1.15	Si
fin.	2	-1055	205.53	83			2588	1019	SLV 3	12.32	Si
ini.	2	154	131.23	825			2166	781	SLV 1	0.95	No
fin.	2	49	343.16	303			2166	804	SLV 1	2.66	Si
ini.	2	512	-161.91	-574			2166	695	SLV 14	1.21	Si
fin.	2	1061	-138.33	-426			2166	537	SLV 14	1.26	Si
ini.	2	512	-161.91	-574			2166	695	SLV 13	1.21	Si
fin.	2	1061	-138.33	-426			2166	537	SLV 13	1.26	Si
ini.	2	-506	236.18	802			2369	919	SLV 4	1.15	Si
fin.	2	-1055	205.53	83			2588	1019	SLV 4	12.32	Si
ini.	2	1050	-93.82	362			2166	541	SLV 6	1.49	Si
fin.	2	1692	335.21	304			2166	255	SLV 6	0.84	No
ini.	2	1157	-181.76	-58			2166	504	SLV 10	8.73	Si
fin.	2	1995	190.76	86			2166	0	SLV 10	0	No
ini.	2	1157	-181.76	-58			2166	504	SLV 9	8.73	Si
fin.	2	1995	190.76	86			2166	0	SLV 9	0	No
ini.	2	1050	-93.82	362			2166	541	SLV 5	1.49	Si
fin.	2	1692	335.21	304			2166	255	SLV 5	0.84	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	10.396	SLV 1	Si
V_SLV	0	SLV 9	No
PF_SLU	28.845	SLU 81	Si
V_SLU	2.263	SLU 81	Si

### 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
-0.281	7.016	0.51	1.51	1	-1.281	7.016	0.51	1.51	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	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	-56	-43.33	1522.06	SLU 81	35.13	Si
fin.	3	36	58.51	1522.06	SLU 81	26.01	Si
ini.	3	-66	-47.07	1522.06	SLU 80	32.33	Si
fin.	3	60	57.99	1522.06	SLU 80	26.25	Si
ini.	3	-68	-48.45	1522.06	SLU 76	31.41	Si
fin.	3	67	58.97	1522.06	SLU 76	25.81	Si
ini.	3	-66	-47.07	1522.06	SLU 78	32.33	Si
fin.	3	60	57.99	1522.06	SLU 78	26.25	Si
ini.	3	-60	-45.4	1522.06	SLU 84	33.53	Si
fin.	3	46	59.98	1522.06	SLU 84	25.37	Si
ini.	3	-60	-45.4	1522.06	SLU 82	33.53	Si
fin.	3	46	59.98	1522.06	SLU 82	25.37	Si
ini.	3	-69	-48.29	1522.06	SLU 61	31.52	Si
fin.	3	62	56.81	1522.06	SLU 61	26.79	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-56	-43.33	1522.06	SLU 83	35.13	Si
fin.	3	36	58.51	1522.06	SLU 83	26.01	Si
ini.	3	-68	-48.45	1522.06	SLU 73	31.41	Si
fin.	3	67	58.97	1522.06	SLU 73	25.81	Si
ini.	3	-66	-47.07	1522.06	SLU 75	32.33	Si
fin.	3	60	57.99	1522.06	SLU 75	26.25	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
ini.	3	-66	-46.22	-75			1182	449	SLU 62	5.99	Si
fin.	3	52	55.34	432			1155	423	SLU 62	0.98	No
ini.	3	-56	-43.33	-71			1178	447	SLU 83	6.29	Si
fin.	3	36	58.51	457			1155	427	SLU 83	0.93	No
ini.	3	-63	-45	-73			1181	448	SLU 77	6.13	Si
fin.	3	51	56.51	431			1155	424	SLU 77	0.98	No
ini.	3	-66	-46.22	-75			1182	449	SLU 60	5.99	Si
fin.	3	52	55.34	432			1155	423	SLU 60	0.98	No
ini.	3	-63	-45	-73			1181	448	SLU 74	6.13	Si
fin.	3	51	56.51	431			1155	424	SLU 74	0.98	No
ini.	3	-69	-48.29	-78			1183	450	SLU 61	5.77	Si
fin.	3	62	56.81	423			1155	421	SLU 61	0.99	No
ini.	3	-60	-45.4	-74			1179	448	SLU 82	6.04	Si
fin.	3	46	59.98	449			1155	425	SLU 82	0.95	No
ini.	3	-56	-43.33	-71			1178	447	SLU 81	6.29	Si
fin.	3	36	58.51	457			1155	427	SLU 81	0.93	No
ini.	3	-63	-45	-73			1181	448	SLU 79	6.13	Si
fin.	3	51	56.51	431			1155	424	SLU 79	0.98	No
ini.	3	-60	-45.4	-74			1179	448	SLU 84	6.04	Si
fin.	3	46	59.98	449			1155	425	SLU 84	0.95	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	143	659.51	2283.09	SLV 3	3.46	Si
fin.	2	-144	241.61	2283.09	SLV 3	9.45	Si
ini.	2	-184	-591.55	2283.09	SLV 16	3.86	Si
fin.	2	-116	-154.86	2283.09	SLV 16	14.74	Si
ini.	2	68	517.27	2283.09	SLV 1	4.41	Si
fin.	2	232	235.9	2283.09	SLV 1	9.68	Si
ini.	2	-231	-461.86	2283.09	SLV 9	4.94	Si
fin.	2	690	-28.46	2283.09	SLV 9	80.23	Si
ini.	2	-184	-591.55	2283.09	SLV 15	3.86	Si
fin.	2	-116	-154.86	2283.09	SLV 15	14.74	Si
ini.	2	-259	-733.79	2283.09	SLV 13	3.11	Si
fin.	2	261	-160.56	2283.09	SLV 13	14.22	Si
ini.	2	-259	-733.79	2283.09	SLV 14	3.11	Si
fin.	2	261	-160.56	2283.09	SLV 14	14.22	Si
ini.	2	143	659.51	2283.09	SLV 4	3.46	Si
fin.	2	-144	241.61	2283.09	SLV 4	9.45	Si
ini.	2	-231	-461.86	2283.09	SLV 10	4.94	Si
fin.	2	690	-28.46	2283.09	SLV 10	80.23	Si
ini.	2	68	517.27	2283.09	SLV 2	4.41	Si
fin.	2	232	235.9	2283.09	SLV 2	9.68	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	68	517.27	-958			1733	637	SLV 2	0.66	No
fin.	2	232	235.9	5			1733	600	SLV 2	109.65	Si
ini.	2	68	517.27	-958			1733	637	SLV 1	0.66	No
fin.	2	232	235.9	5			1733	600	SLV 1	109.65	Si
ini.	2	-259	-733.79	698			1836	706	SLV 13	1.01	Si
fin.	2	261	-160.56	377			1733	593	SLV 13	1.57	Si
ini.	2	143	659.51	-816			1733	620	SLV 3	0.76	No
fin.	2	-144	241.61	216			1791	683	SLV 3	3.17	Si
ini.	2	17	12.26	426			1733	649	SLV 11	1.52	Si
fin.	2	-565	-9.44	702			1959	765	SLV 11	1.09	Si
ini.	2	-259	-733.79	698			1836	706	SLV 14	1.01	Si
fin.	2	261	-160.56	377			1733	593	SLV 14	1.57	Si
ini.	2	17	12.26	426			1733	649	SLV 12	1.52	Si
fin.	2	-565	-9.44	702			1959	765	SLV 12	1.09	Si
ini.	2	143	659.51	-816			1733	620	SLV 4	0.76	No
fin.	2	-144	241.61	216			1791	683	SLV 4	3.17	Si
ini.	2	-184	-591.55	840			1807	691	SLV 15	0.82	No
fin.	2	-116	-154.86	587			1779	677	SLV 15	1.15	Si
ini.	2	-184	-591.55	840			1807	691	SLV 16	0.82	No
fin.	2	-116	-154.86	587			1779	677	SLV 16	1.15	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.111	SLV 13	Si
V_SLV	0.665	SLV 1	No
PF_SLU	25.375	SLU 82	Si
V_SLU	0.933	SLU 81	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
-0.281	7.016	3.41	4.56	1.15	-1.281	7.016	3.41	4.56	1.15	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	-2	-2.01	2012.92	SLU 74	999.98	Si
fin.	3	-2	73.93	2012.92	SLU 74	27.23	Si
ini.	3	-3	-4.65	2012.92	SLU 84	432.75	Si
fin.	3	-3	80.09	2012.92	SLU 84	25.13	Si
ini.	3	-3	-2.46	2012.92	SLU 83	817.86	Si
fin.	3	-3	80.3	2012.92	SLU 83	25.07	Si
ini.	3	-3	-4.2	2012.92	SLU 75	478.89	Si
fin.	3	-3	73.73	2012.92	SLU 75	27.3	Si
ini.	3	-3	-4.2	2012.92	SLU 80	478.89	Si
fin.	3	-3	73.73	2012.92	SLU 80	27.3	Si
ini.	3	-3	-2.46	2012.92	SLU 81	817.86	Si
fin.	3	-3	80.3	2012.92	SLU 81	25.07	Si
ini.	3	-2	-2.01	2012.92	SLU 79	999.98	Si
fin.	3	-2	73.93	2012.92	SLU 79	27.23	Si
ini.	3	-3	-4.65	2012.92	SLU 82	432.75	Si
fin.	3	-3	80.09	2012.92	SLU 82	25.13	Si
ini.	3	-2	-2.01	2012.92	SLU 77	999.98	Si
fin.	3	-2	73.93	2012.92	SLU 77	27.23	Si
ini.	3	-3	-4.2	2012.92	SLU 78	478.89	Si
fin.	3	-3	73.73	2012.92	SLU 78	27.3	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	-3	-2.46	474			1330	501	SLU 81	1.06	Si
fin.	3	-3	80.3	-218			1330	501	SLU 81	2.29	Si
ini.	3	-3	-2.46	474			1330	501	SLU 83	1.06	Si
fin.	3	-3	80.3	-218			1330	501	SLU 83	2.29	Si
ini.	3	-3	-4.65	476			1330	501	SLU 84	1.05	Si
fin.	3	-3	80.09	-216			1330	501	SLU 84	2.31	Si
ini.	3	-3	-4.2	469			1330	501	SLU 75	1.07	Si
fin.	3	-3	73.73	-223			1330	501	SLU 75	2.24	Si
ini.	3	-3	-4.2	469			1330	501	SLU 80	1.07	Si
fin.	3	-3	73.73	-223			1330	501	SLU 80	2.24	Si
ini.	3	-3	-4.65	476			1330	501	SLU 82	1.05	Si
fin.	3	-3	80.09	-216			1330	501	SLU 82	2.31	Si
ini.	3	-3	-4.23	469			1330	501	SLU 61	1.07	Si
fin.	3	-3	73.26	-224			1330	501	SLU 61	2.24	Si
ini.	3	-3	-4.2	469			1330	501	SLU 78	1.07	Si
fin.	3	-3	73.73	-223			1330	501	SLU 78	2.24	Si
ini.	3	-3	-5.66	471			1330	501	SLU 76	1.06	Si
fin.	3	-3	73.59	-222			1330	501	SLU 76	2.26	Si
ini.	3	-3	-5.66	471			1330	501	SLU 73	1.06	Si
fin.	3	-3	73.59	-222			1330	501	SLU 73	2.26	Si

## Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	194	-393.67	3019.38	SLV 12	7.67	Si
fin.	2	-363	473.09	3019.38	SLV 12	6.38	Si
ini.	2	-141	422.86	3019.38	SLV 2	7.14	Si
fin.	2	132	-581.38	3019.38	SLV 2	5.19	Si
ini.	2	139	-424.76	3019.38	SLV 16	7.11	Si
fin.	2	-135	677.75	3019.38	SLV 16	4.46	Si
ini.	2	139	-424.76	3019.38	SLV 15	7.11	Si
fin.	2	-135	677.75	3019.38	SLV 15	4.46	Si
ini.	2	-40	247.75	3019.38	SLV 4	12.19	Si
fin.	2	-80	-425.75	3019.38	SLV 4	7.09	Si
ini.	2	-141	422.86	3019.38	SLV 1	7.14	Si
fin.	2	132	-581.38	3019.38	SLV 1	5.19	Si
ini.	2	-40	247.75	3019.38	SLV 3	12.19	Si
fin.	2	-80	-425.75	3019.38	SLV 3	7.09	Si
ini.	2	38	-249.66	3019.38	SLV 13	12.09	Si
fin.	2	77	522.11	3019.38	SLV 13	5.78	Si
ini.	2	194	-393.67	3019.38	SLV 11	7.67	Si
fin.	2	-363	473.09	3019.38	SLV 11	6.38	Si
ini.	2	38	-249.66	3019.38	SLV 14	12.09	Si
fin.	2	77	522.11	3019.38	SLV 14	5.78	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	-141	422.86	-438			2050	780	SLV 1	1.78	Si
fin.	2	132	-581.38	-922			1993	721	SLV 1	0.78	No
ini.	2	139	-424.76	1139			1993	719	SLV 16	0.63	No
fin.	2	-135	677.75	556			2047	779	SLV 16	1.4	Si
ini.	2	194	-393.67	888			1993	707	SLV 12	0.8	No
fin.	2	-363	473.09	193			2138	825	SLV 12	4.27	Si
ini.	2	-141	422.86	-438			2050	780	SLV 2	1.78	Si
fin.	2	132	-581.38	-922			1993	721	SLV 2	0.78	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	-40	247.75	-239			2009	759	SLV 3	3.17	Si
fin.	2	-80	-425.75	-820			2025	767	SLV 3	0.94	No
ini.	2	139	-424.76	1139			1993	719	SLV 15	0.63	No
fin.	2	-135	677.75	556			2047	779	SLV 15	1.4	Si
ini.	2	194	-393.67	888			1993	707	SLV 11	0.8	No
fin.	2	-363	473.09	193			2138	825	SLV 11	4.27	Si
ini.	2	38	-249.66	940			1993	742	SLV 14	0.79	No
fin.	2	77	522.11	455			1993	733	SLV 14	1.61	Si
ini.	2	-40	247.75	-239			2009	759	SLV 4	3.17	Si
fin.	2	-80	-425.75	-820			2025	767	SLV 4	0.94	No
ini.	2	38	-249.66	940			1993	742	SLV 13	0.79	No
fin.	2	77	522.11	455			1993	733	SLV 13	1.61	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.455	SLV 15	Si
V_SLV	0.632	SLV 15	No
PF_SLU	25.068	SLU 81	Si
V_SLU	1.051	SLU 82	Si