



Full wwPDB EM Validation Report ⓘ

Dec 16, 2022 – 07:49 am GMT

PDB ID : 7R5J
EMDB ID : EMD-14321
Title : Human nuclear pore complex (dilated)
Authors : Mosalaganti, S.; Obarska-Kosinska, A.; Siggel, M.; Taniguchi, R.; Turonova, B.; Zimmerli, C.E.; Buczak, K.; Schmidt, F.H.; Margiotta, E.; Mackmull, M.T.; Hagen, W.J.H.; Hummer, G.; Kosinski, J.; Beck, M.
Deposited on : 2022-02-10
Resolution : 50.00 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

EMDB validation analysis : 0.0.1.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.3

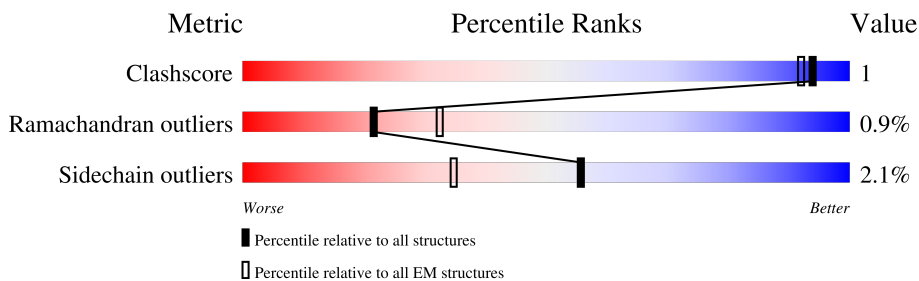
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 50.00 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	00	3224	
1	01	3224	
1	02	3224	
1	03	3224	
1	04	3224	
2	10	1887	
2	11	1887	
2	12	1887	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
2	13	1887	40% 94% 5% . .
2	14	1887	68% 92% 5% .
2	15	1887	27% 92% 5% .
2	16	1887	25% 92% 5% .
2	17	1887	39% 93% . .
3	40	546	66% 30%
3	41	546	66% 30%
4	A0	819	7% 89% 10%
4	A1	819	14% 92% 7% .
4	A2	819	9% 91% 8% .
4	A3	819	12% 92% 7% .
4	A4	819	14% 81% 8% 11%
4	A5	819	20% 82% 6% 11%
4	A6	819	8% 80% 8% 11%
5	B0	1749	15% 94% 6%
5	B1	1749	14% 94% 5% .
6	C0	2012	18% 92% 7% .
6	C1	2012	15% 92% 7%
6	C2	2012	16% 93% 6% .
6	C3	2012	14% 93% 7% .
6	C4	2012	17% 93% 6% .
7	D0	1391	13% 87% 7% 6%
7	D1	1391	18% 86% 8% . 6%
7	D2	1391	9% 87% 7% . 6%
7	D3	1391	21% 87% 7% . 6%

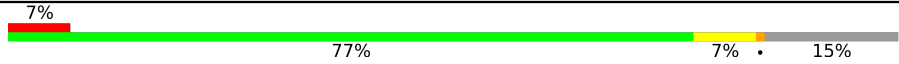
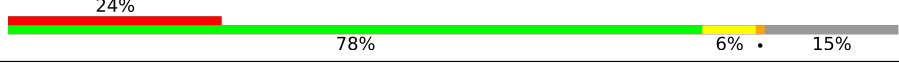
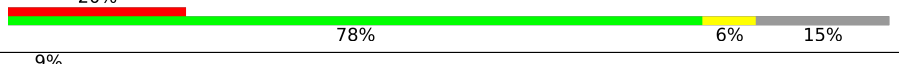


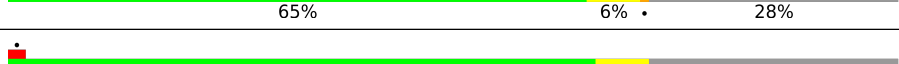
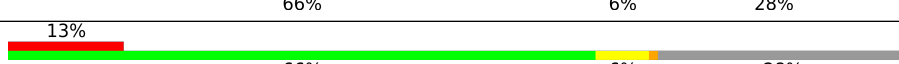
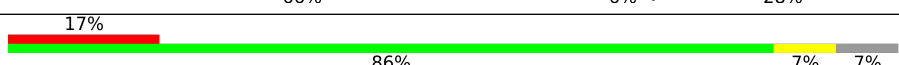


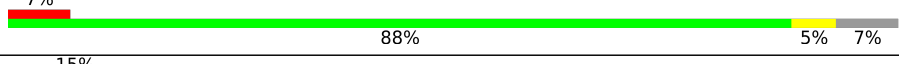
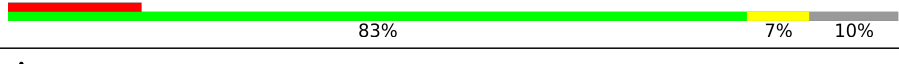
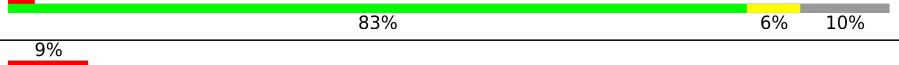

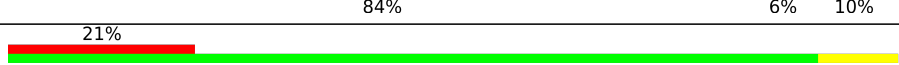
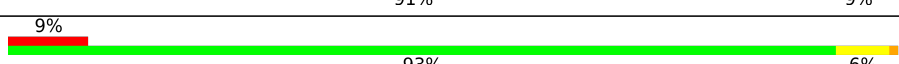
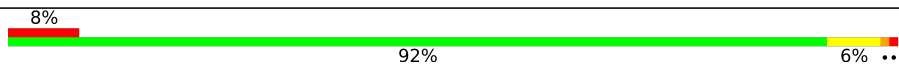
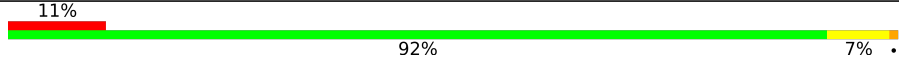




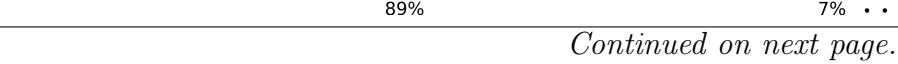


Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
7	D4	1391	
7	D5	1391	
8	E0	674	
8	E1	674	
9	F0	326	
9	F1	326	
9	F2	326	
9	F3	326	
10	H0	507	
10	H1	507	
10	H2	507	
10	H3	507	
11	I0	599	
11	I1	599	
11	I2	599	
11	I3	599	
12	J0	522	
12	J1	522	
12	J2	522	
12	J3	522	
12	J4	522	
13	K0	1156	
13	K1	1156	
13	K2	1156	
13	K3	1156	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
14	L0	925	
14	L1	925	
14	L2	925	
14	L3	925	
15	M0	937	
15	M1	937	
15	M2	937	
15	M3	937	
16	N0	322	
16	N1	322	
16	N2	322	
16	N3	322	
17	O0	360	
17	O1	360	
17	O2	360	
17	O3	360	
18	P0	656	
18	P1	656	
18	P2	656	
18	P3	656	
19	Q0	380	
19	Q1	380	
19	Q2	380	
19	Q3	380	
20	R0	1436	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
20	R1	1436	12% 89% 8% .
20	R2	1436	5% 90% 7% .
20	R3	1436	5% 90% 7% .
21	S0	326	6% 92% 6% ..
21	S1	326	5% 92% 6% ..
21	S2	326	. 93% 6% ..
21	S3	326	. 92% 6% .
22	T0	2266	15% 42% . 56%
22	T1	2266	36% 42% . 56%
23	U0	880	9% 15% . 83%
23	U1	880	. .. 98%
23	U2	880	. .. 98%
23	U3	880	. .. 98%
23	U4	880	. .. 98%
23	U5	880	. .. 98%
23	U6	880	. .. 98%
24	V0	2090	. 12% . 87%
25	W0	741	18% 92% 6% ..

2 Entry composition [i](#)

There are 25 unique types of molecules in this entry. The entry contains 617133 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called E3 SUMO-protein ligase RanBP2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	00	756	Total 6085	C 3866	N 1045	O 1147	S 27	0	0
1	01	756	Total 6085	C 3866	N 1045	O 1147	S 27	0	0
1	02	756	Total 6085	C 3866	N 1045	O 1147	S 27	0	0
1	03	756	Total 6085	C 3866	N 1045	O 1147	S 27	0	0
1	04	756	Total 6085	C 3866	N 1045	O 1147	S 27	0	0

- Molecule 2 is a protein called Nuclear pore membrane glycoprotein 210.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	10	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	11	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	12	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	13	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	14	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	15	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	16	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	17	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0

- Molecule 3 is a protein called Aladin.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	40	383	2922	1864	509	533	16	0	0
3	41	383	2922	1864	509	533	16	0	0

- Molecule 4 is a protein called Nuclear pore complex protein Nup93.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	A0	818	6568	4136	1145	1259	28	0	0
4	A1	818	6568	4136	1145	1259	28	0	0
4	A2	818	6568	4136	1145	1259	28	0	0
4	A3	818	6568	4136	1145	1259	28	0	0
4	A4	726	5860	3705	1018	1109	28	0	0
4	A5	726	5860	3705	1018	1109	28	0	0
4	A6	726	5860	3705	1018	1109	28	0	0

- Molecule 5 is a protein called Nucleoporin NUP188 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	B0	1748	13746	8743	2353	2559	91	0	0
5	B1	1748	13746	8743	2353	2559	91	0	0

- Molecule 6 is a protein called Nuclear pore complex protein Nup205.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	C0	2011	16013	10208	2753	2965	87	0	0
6	C1	2011	16013	10208	2753	2965	87	0	0
6	C2	2011	16013	10208	2753	2965	87	0	0
6	C3	2011	16013	10208	2753	2965	87	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
6	C4	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		

- Molecule 7 is a protein called Nuclear pore complex protein Nup155.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	D0	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D1	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D2	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D3	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D4	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D5	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		

- Molecule 8 is a protein called Nucleoporin NDC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	E0	548	Total	C	N	O	S	0	0
			4432	2923	729	758	22		
8	E1	548	Total	C	N	O	S	0	0
			4432	2923	729	758	22		

- Molecule 9 is a protein called Nucleoporin NUP35.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	F0	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		
9	F1	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		
9	F2	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		
9	F3	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		

- Molecule 10 is a protein called Nucleoporin p54.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	H0	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		
10	H1	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		
10	H2	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		
10	H3	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		

- Molecule 11 is a protein called Nucleoporin p58/p45.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	I0	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		
11	I1	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		
11	I2	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		
11	I3	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		

- Molecule 12 is a protein called Nuclear pore glycoprotein p62.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	J0	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J1	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J2	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J3	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J4	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		

- Molecule 13 is a protein called Nuclear pore complex protein Nup133.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	K0	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		
13	K1	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	K2	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		
13	K3	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		

- Molecule 14 is a protein called Nuclear pore complex protein Nup107.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	L0	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		
14	L1	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		
14	L2	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		
14	L3	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		

- Molecule 15 is a protein called Nuclear pore complex protein Nup96.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	M0	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		
15	M1	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		
15	M2	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		
15	M3	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		

- Molecule 16 is a protein called Protein SEC13 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	N0	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		
16	N1	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		
16	N2	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		
16	N3	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		

- Molecule 17 is a protein called Nucleoporin SEH1.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	O0	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		
17	O1	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		
17	O2	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		
17	O3	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		

- Molecule 18 is a protein called Nuclear pore complex protein Nup85.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	P0	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		
18	P1	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		
18	P2	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		
18	P3	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		

- Molecule 19 is a protein called Nucleoporin Nup43.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	Q0	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		
19	Q1	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		
19	Q2	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		
19	Q3	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		

- Molecule 20 is a protein called Nuclear pore complex protein Nup160.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	R0	1399	Total	C	N	O	S	0	0
			11132	7093	1878	2088	73		
20	R1	1399	Total	C	N	O	S	0	0
			11132	7093	1878	2088	73		
20	R2	1399	Total	C	N	O	S	0	0
			11132	7093	1878	2088	73		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
20	R3	1399	11132	7093	1878	2088	73	0	0

- Molecule 21 is a protein called Nucleoporin Nup37.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
21	S0	322	2552	1626	436	475	15	0	0
21	S1	322	2552	1626	436	475	15	0	0
21	S2	322	2552	1626	436	475	15	0	0
21	S3	322	2552	1626	436	475	15	0	0

- Molecule 22 is a protein called Protein ELYS.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
22	T0	1004	7960	5069	1359	1490	42	0	0
22	T1	1004	7960	5069	1359	1490	42	0	0

- Molecule 23 is a protein called Nuclear pore complex protein Nup98.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
23	U0	150	1193	756	205	229	3	0	0
23	U1	19	151	98	27	26		0	0
23	U2	19	151	98	27	26		0	0
23	U3	19	151	98	27	26		0	0
23	U4	19	151	98	27	26		0	0
23	U5	19	151	98	27	26		0	0
23	U6	19	151	98	27	26		0	0

- Molecule 24 is a protein called Nuclear pore complex protein Nup214.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
24	V0	273	2203	1376	398	423	6	0	0

- Molecule 25 is a protein called Nuclear pore complex protein Nup88.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
25	W0	735	5836	3714	988	1103	31	0	0

D432	G501	G561	L621	T687	P749	E810	S870	A930	K993	Q1053	S1230	S1349
G433	G502	L562	V622	D688	S750	S811	A871	D931	T994	T1054	P1234	T1350
G434	V502	M563	S623	S689	R751	T812	H872	V932	V995	S1055	S1235	E1351
V435	M503	P564	Y624	I690	L752	R813	T873	V933	K996	L1056	Q1236	I1352
H436	T504	P565	H625	G691	T753	R814	R874	V934	A997	T1057	R1246	V1353
I437	T505	G566	H626	L692	L754	V815	Q875	V935	Y998	A1058	A1259	I1354
L438	G506	A567	S632	A693	A755	L816	P876	A936	V999	S1059	A1260	A1355
Q439	S507	S568	A633	L694	P756	A817	H877	Y937	R1000	V1060	V1261	Q1356
V440	D508	E569	K634	F695	V757	S818	D878	R941	V1001	T1061	L1262	E1357
P441	I509	V570	K634	A696	V758	T819	P879	G942	L1002	N1062	L1263	P1358
V442	G510	V571	I635	P697	T759	E820	L880	G943	D1003	K1063	T1263	F1359
I452	G511	V571	T636	H698	S760	P821	V881	V943	L1004	A1064	S1264	G1360
P453	F511	T572	I637	S699	P761	E822	P882	A944	H1005	Q1065	R1272	A1361
I454	S512	L573	A638	S700	Q762	L823	L883	R945	K1006	Q1066	E1362	Q1363
T455	V513	S574	A639	R701	L763	P824	S884	V946	K1007	I1067	N1303	T1364
T456	I514	D575	Y640	N702	D764	W825	A885	H947	F1008	I1068	S1304	I1365
Y457	Q515	C576	L641	Y703	M765	Q826	S886	P948	P1009	M1069	Y1305	S1382
Y457	A516	S577	P642	Q704	T766	L827	T887	L949	L1010	S1070	I1306	P1383
P458	H517	F579	L643	Q705	C767	W828	E888	L950	A1011	A1071	I1307	V1384
S459	D518	F579	K644	H706	P768	S829	L889	L951	K1012	P1072	K1307	L1385
I460	W521	D580	A645	W707	L769	Q830	R890	P951	Y1013	Q1073	L1308	L1385
L461	P522	L581	V646	I708	L769	D832	L890	G952	F1014	Q1074	Q1309	H1386
T462	L523	A582	D647	L709	L709	E833	W892	S953	P1015	Q1075	T1310	T1387
P463	H524	V583	P648	V710	V710	S834	E893	T955	F1016	I1075	L1311	Q1388
P464	F525	E584	S649	T711	T711	G835	D894	T956	M1016	E1076	R1312	K1388
W465	G526	V585	S650	C712	Q712	S836	W895	R957	M1017	V1077	D1313	N1389
Q466	G526	E586	S650	T711	Q712	Q836	R896	R957	L1018	R1086	G1314	K1390
P467	E527	N587	V651	Q713	Q713	K837	W897	H959	L1019	Q1086	G1314	E1391
K468	M528	Q588	A652	A714	A714	X838	S898	D960	K1020	Q1105	A1315	A1392
T469	K529	G589	L653	L715	P778	L839	P899	L961	R1022	P1106	A1316	L1393
G470	V530	V590	V654	G716	V779	H840	E900	C962	A1023	Q1107	L1317	V1394
A471	Y531	F591	T655	E717	S780	G841	E901	C962	A1024	K1151	L1318	A1395
Y472	V532	Q592	L656	Q718	H782	L842	V902	V964	S1025	V1152	S1319	V1396
Q473	I533	P593	G657	L722	R783	Q843	T903	V966	P1026	A1124	Y1320	P1397
Y474	E534	L594	S658	S723	W784	A844	I904	P966	I1027	D1146	R1321	L1398
T475	P535	P595	S659	T724	P785	T845	Y905	A967	I1028	T1149	L1322	G1399
I476	H536	G596	K660	G725	R786	L846	N906	P968	T1029	H907	L1323	M1400
R477	M538	R597	M662	M726	L787	V847	P908	A969	L1030	P908	D1324	V1401
A478	E539	P599	L663	K727	D788	H848	F908	K970	V1031	K1150	G1325	V1402
H479	F540	P600	F664	P728	L789	E849	G909	A971	A1032	V1151	P1326	T1403
G480	A541	G601	E665	S729	A790	A850	I910	V972	L1033	L1152	E1327	S1421
G481	P542	G601	G666	L730	A791	S951	Q911	Y973	D1034	L1166	K1328	D1430
S482	P543	E603	G667	T731	Y792	G852	A912	Y974	E1035	R1171	V1329	D1431
H484	C543	H604	P668	M732	Q793	T853	E913	Y975	A1036	M1203	P1330	F1432
F485	Q544	H604	R669	P733	D794	T854	L914	S976	L1037	A1204	V1331	V1433
S486	V545	C605	P670	F734	Q795	A855	R915	D977	D1038	V1205	V1332	Q1434
W487	A547	S606	W671	P735	G796	I856	I916	V978	N1039	P1206	H1334	I1435
S488	Y548	I608	I672	A736	R797	T857	R917	Q979	Y1040	G1207	D1335	K1436
S489	V549	R609	L673	V737	R798	A858	E918	E980	T1041	D1218	E1336	K1437
S490	G550	E674	E674	E738	F799	T859	T859	L981	I1042	L1043	K1337	G1438
S491	Q551	K611	P675	P739	D900	A860	S920	Y982	F1043	F1044	G1338	P1439
H492	A552	A612	S676	A740	N801	T861	G921	I983	L1045	L1045	F1339	T1440
L493	L553	E613	K677	V741	F802	G862	Y922	V985	I1046	I1046	L1340	M1441
V494	L555	A614	F678	V742	S803	Y863	F923	V986	R1047	R1047	A1341	T1442
A495	P556	Q615	F679	F744	S804	Q864	F924	I986	G1048	G1048	S1342	T1443
V496	L557	G616	Q680	V745	S805	E865	L925	N926	V1049	V1049	C1443	C1444
V497	R558	S617	T618	V745	S806	H867	T927	T927	A1050	A1050	S1344	M1445
T498	I559	S617	E685	C746	I607	L868	S928	G992	I1051	I1051	C1444	
V499	S560	L620	D686	P748	W809	S869	T929		G1052			

V1446	R1447	T1448	V1449	S1450	G1451	G1452	L1472	P1473	V1474	L1475	Q1476	A1477	I1478	S1479	P1480	E1481	L1482	S1483	G1484	T1485	H1486	V1487	V1488	G1489	D1490	V1491	L1492	C1493	L1494	A1495	T1496	V1497	L1498	T1499	S1500	E1502	G1503	L1504	S1505	G1506	T1507	S1508	S1509	S1510	S1511	A1512	N1513	S1514	L1515	L1516	H1517	I1518	D1519	P1520	K1521	T1522	G1523		
V1524	A1525	V1526	A1527	R1528	A1529	V1530	G1531	S1532	V1533	T1534	V1535	Y1536	Y1537	E1538	V1539	A1540	G1541	H1542	L1543	R1544	T1545	Y1546	K1547	E1548	V1549	V1550	V1551	S1552	V1553	P1554	A1555	R1556	I1557	M1558	A1559	R1560	H1561	L1562	H1563	P1564	I1565	Q1566	T1567	S1568	F1569	Q1570	E1571	A1572	T1573	A1574	S1575	K1576	V1577	I1578	V1579	A1580	K1581	G1582	D1583
R1584	S1585	S1586	N1587	L1588	R1589	I1590	E1591	C1592	N1593	P1594	T1595	Q1596	R1597	E1598	V1599	I1600	Q1601	A1602	L1603	H1604	P1605	E1606	T1607	L1608	I1609	S1610	C1611	S1612	Q1613	Q1614	P1615	K1616	P1617	A1618	V1619	F1620	I1621	F1622	P1623	S1624	Q1625	D1626	V1627	F1628	T1629	V1630	E1631	P1632	Q1633	F1634	D1635	T1636	E1637	L1638	Q1639	Q1640	F1642	C1643	
S1644	I1645	T1646	M1647	H1648	R1649	L1650	T1651	D1652	K1653	Q1654	R1655	K1656	H1657	L1658	S1659	M1660	K1661	K1662	L1663	A1664	L1665	V1666	V1667	S1668	I1669	S1670	L1671	S1672	S1673	S1674	H1675	F1676	F1677	T1678	E1679	Q1680	G1682	A1683	E1684	V1685	P1686	F1687	S1688	T1689	G1690	L1691	F1692	A1693	D1694	Q1695	A1696	E1697	I1698	L1699	L1700	S1701	N1702	H1703	
Y1704	T1705	S1706	S1707	E1708	I1709	R1710	V1711	F1712	G1713	A1714	P1715	E1716	V1717	L1718	E1719	M1720	L1721	E1722	V1723	K1724	L1725	G1726	S1727	S1728	A1729	V1730	L1731	A1732	F1733	A1734	K1735	E1736	K1737	S1738	F1739	W1740	G1742	S1743	F1744	I1745	T1746	Y1747	T1748	V1749	G1750	L1751	L1752	D1753	P1754	A1755	A1756	G1757	S1758	Q1759	G1760	L1762	S1763		
T1764	T1765	L1766	T1767	S1768	F1769	S1770	P1771	V1772	T1773	M1774	Q1775	A1776	I1777	A1778	I1779	P1780	V1781	T1782	V1783	A1784	F1785	D1788	R1789	P1792	G1793	P1794	H1795	G1796	L1799	F1800	Q1801	H1802	A1819	G1820	T1821	A1822	V1823	R1824	I1825	T1826	A1827	Y1828	H1829	T1830	V1831	C1832	THR	PRO	ARG	ASP	LEU	ALA	VAL	PRO	ALA				
ALA	LEU	THR	PRO	ARG	ALA	SER	PRO	HIS	TYR	PHE	ALA	ALA	SER	SER	PRO	THR	SER	ASN	LEU	PRO	ALA	ARG	LYS	ALA	PRO	PRO	SER	GLY	LEU	TRP	SER	PRO	ALA	ALA	ALA	SER	HIS																						

● Molecule 2: Nuclear pore membrane glycoprotein 210

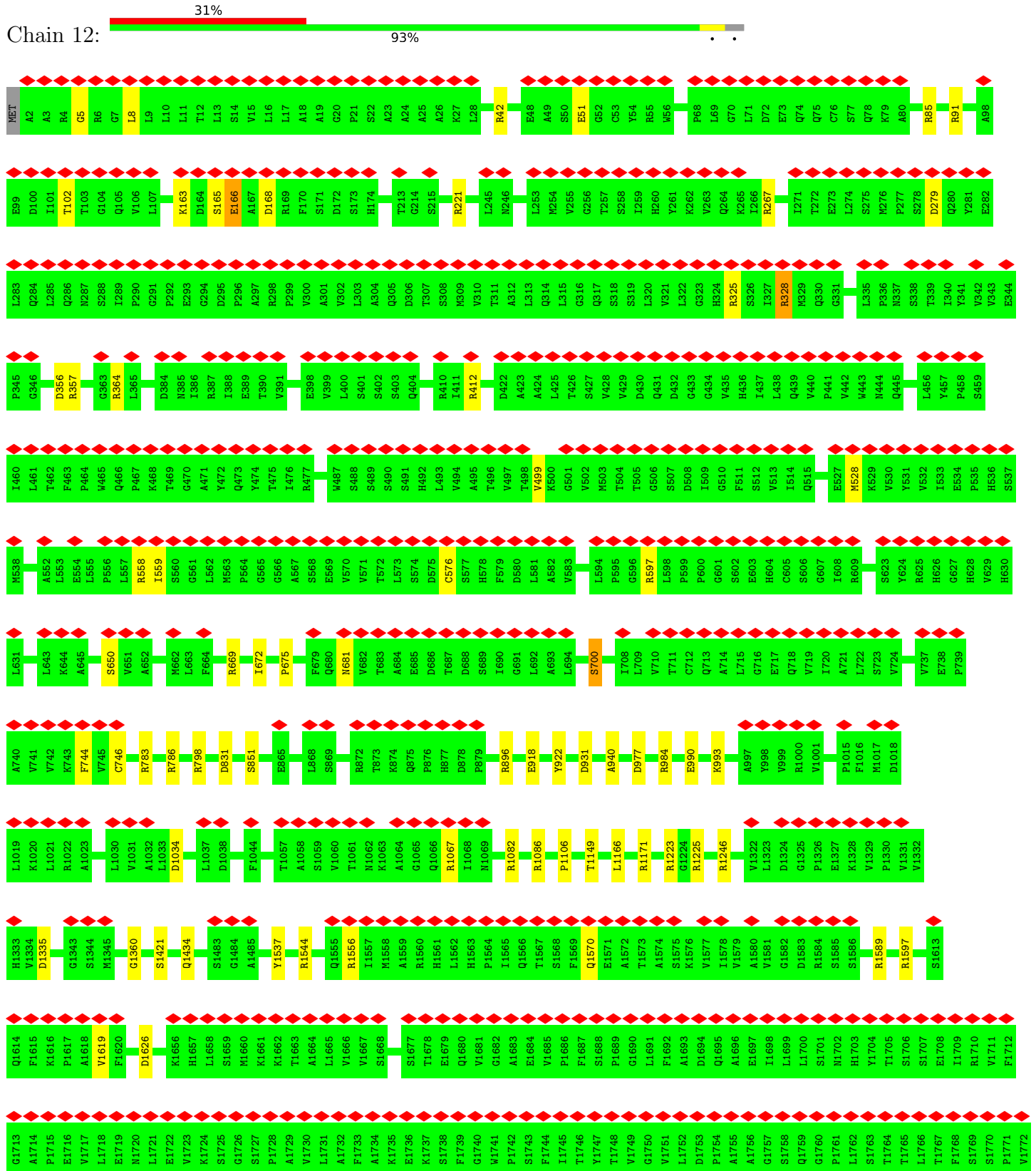


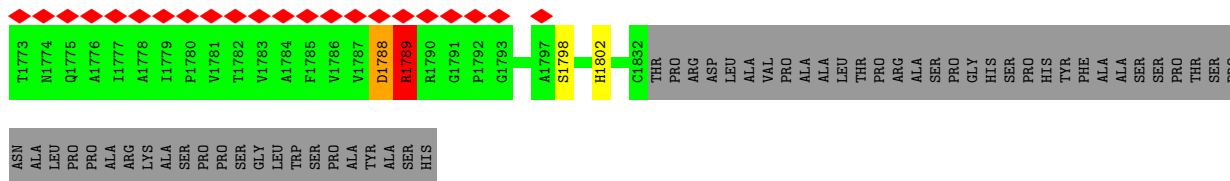
ME1	A2	A3	R4	G5	R6	S17	L8	L9	L10	L11	T12	L13	S14	V15	L16	L17	A18	A19	R39	A40	T41	R42	E51	R85	R91	T102	I119	Q120	I121	T125	R126	E127	L135	E136	L137	K138	I139	G154	L155	V156	E158	W159	T160	I161	V162	K163	D164	S165	E166										
A167	D168	R169	F170	D172	S173	H174	M175	A176	L177	R178	I179	L180	T181	F182	L183	E184	S185	F189	I193	S194	E195	M196	E197	K198	A199	A200	K201	Q202	G203	D204	T205	L206	L207	V208	G214	S215	S216	K217	L218	K219	A220	R221	Q223	E224	A225	V226	Y227	K228	N229	V230	R231	A232	E234						
V235	R236	L237	L238	L245	M246	P247	D250	V251	Y252	L253	M254	V255	Q256	T257	S258	I259	Y261	K262	R267	M276	P277	S278	D279	Q280	Y281	I340	E282	L283	Q284	L285	Q286	M287	S288	I289	P290	G291	P292	E293	G294	D295	P296	A297	R298	V300	A301	V302	L303	A304	Q305	D306	K375	F376	S308	M309	V310				
T311	A312	L313	Q314	L315	G316	Q317	S318	S319	L320	V321	L322	G323	H324	R325	S326	I327	R328	M329	Q330	G331	A332	S333	R334	L335	P336	N337	S338	T339	I340	Y341	V342	V343	E344	P345	G346	Y347	L348	P354	G355	D356	L360	E361	T362	G363	R364	L365	Y366	E367	V372	F373	D374	K375	F376	V380	Y381				
V382	S383	D384	N385	I386	R387	I388	E389	T390	V391	L392	P393	A394	E395	F396	F397	E398	V399	L400	S401	S402	S403	Q404	M405	G406	S407	Y408	H409	R410	I411	R412	A413	L414	L415	R416	G417	Q418	T419	A420	I421	D422	A423	A424	L425	T426	S427	V428	W429	D430	Q431	D432	G433	G434	W435	H436	I437	L438	Q439	W440	P441

V443	V444	N444	Q445	Q446	E447	V448	E449	I450	H451	I452	P453	I454	T455	L456	Y457	P458	S459	I460	L461	T462	F463	P464	W465	W466	P467	K468	T469	C470	A471	Y472	Q473	A474	T475	I476	R477	A478	H479	G480	G481	S482	G483	N484	F485	S486	W487	S488	S489	S490	S491	H492	L493	V494	A495	T496	V497	T498	V499	K500	G501
V502	T504	T505	G506	S507	D508	I509	G510	F511	S512	V513	I514	Q515	A516	H524	F525	G526	E527	M528	K529	V530	Y531	G601	V532	E603	I533	E534	P535	H536	S537	M538	E539	F540	A541	P542	C543	Q544	V545	E546	A547	R548	Q551	A552	L553	E554	L555	P556	L557	R558	I559	S560	G561	L562	M563	P564	G565	G566	A567	S568	
E569	V570	V571	T572	L573	S574	D575	C576	S577	H578	F579	D580	L581	A582	V583	L594	P595	G596	R597	L598	P599	P600	G601	S602	E603	H604	C605	S606	G607	I608	R609	V610	L621	V622	S623	Y624	R625	H626	G627	H628	V629	H630	L631	S632	A633	K634	I635	T636	I637	A638	L643	K644	A645	S650	V651	A652				
L653	V654	T655	L656	G657	S658	S659	K660	E661	M662	L663	F664	G667	P668	R669	P670	W671	I672	E674	P675	S676	K677	F678	F679	Q680	H681	V682	T683	A684	E685	D686	T687	D688	S689	I690	G691	L692	A693	L694	F695	A696	P697	H698	S699	S700	Y703	H706	W707	I708	L709	K644	A645	S650	V651	A652					
G716	E717	Q718	V719	I720	A721	L722	S723	G724	V725	M726	K727	F728	L730	T731	M732	P733	F734	P735	A736	V737	E738	P739	A740	V741	V742	K743	F744	V745	C746	A747	P748	Q762	L763	D764	N773	R783	R786	R797	R798	H801	F802	S803	S804	L805	S806	P821	E822	L823	D831	V832	A714	L715							
S851	G862	Y863	Q864	E865	S866	H867	L868	S869	S870	A871	R872	T873	K874	Q875	H877	D878	R879	L880	V881	D894	V895	R896	V897	S898	P899	E900	E901	V902	T903	I904	Y905	N906	H907	P908	G909	I910	Q911	A912	E913	L914	R915	I916	R917	E918	F923	F924	L925	N926	T927	S928	T929	A930	D931	V932	V933				
K934	V935	A936	Y937	Q938	E939	A940	R941	G942	V943	A944	M945	V946	H947	P948	L949	P951	G952	S953	S954	T955	I956	M957	I958	H959	D960	F965	P966	A967	P968	A969	K970	A971	V972	V973	Y974	V975	D976	D977	I978	Q979	E980	L981	R982	I983	R984	V999	R1000	V1001	L1002	D1003	L1004	H1005	K1006	K1007	P1008	F1009			
L1010	A1011	K1012	Y1013	F1014	P1015	F1016	M1017	D1018	L1019	K1020	L1021	R1022	M1032	L1033	D1034	E1035	A1036	L1037	D1038	N1039	I1040	T1041	I1042	T1043	T1057	A1058	S1059	V1060	T1061	N1062	K1063	G1065	Q1066	I1067	I1068	N1069	S1070	R1086	L1166	R1171	M1177	K1216	R1217	D1218	R1223	R1225	G1325	P1326											
E1327	K1328	V1329	P1330	H1333	V1334	D1335	E1336	S1344	S1421	L1482	S1483	G1484	A1485	M1486	V1487	V1488	G1489	D1490	V1491	L1492	C1493	S1514	I1515	L1516	H1517	I1518	D1519	V1524	A1525	V1526	A1527	L1528	A1529	V1530	Y1537	R1544	V1551	S1552	V1553	P1554	Q1555	R1556	I1557	M1558	A1559	R1560	H1561	L1562	H1563										
F1569	Q1570	I1578	V1579	A1580	V1581	G1582	D1583	R1584	S1585	S1586	M1587	L1588	R1589	G1590	E1591	C1592	T1595	Q1596	A1597	E1598	V1599	I1600	Q1601	A1602	L1603	H1604	P1605	E1606	T1607	L1608	L1609	S1610	C1611	Q1612	S1613	Q1614	F1615	K1616	P1617	A1618	V1619	F1620	D1621	F1622	P1623	S1624	Q1625	D1626	V1627	F1628	T1629	A1693	D1694	E1631	P1632	Q1633	F1634	D1635	
T1636	A1637	L1638	G1639	Q1640	Y1641	F1642	C1643	R1649	L1650	T1651	D1652	K1653	Q1654	R1655	K1656	H1657	L1658	S1659	M1660	K1661	K1662	T1663	A1664	L1665	V1666	V1667	S1668	A1669	S1670	L1671	S1672	S1673	S1674	H1675	F1676	S1677	L1678	E1679	Q1680	V1681	G1682	V1683	F1684	E1684	V1685	P1686	F1687	S1688	P1689	G1690	L1691	F1692	A1693	D1694	A1695	A1696	E1697	L1698	L1699
L1700	S1701	M1702	H1703	V1704	T1705	S1706	S1707	E1708	I1709	R1710	V1711	F1712	G1713	A1714	P1715	E1716	V1717	L1718	E1719	M1720	L1721	E1722	V1723	K1724	L1725	G1726	S1727	P1728	A1729	V1730	L1731	S1732	A1733	A1734	K1735	E1736	S1738	F1739	G1740	V1741	G1742	A1743	E1744	V1745	P1746	Y1747	V1748	V1749	G1750	V1751	L1752	D1753	P1754	A1755	A1756	G1757	S1758	Q1759	
G1760	P1761	L1762	S1763	T1764	T1765	L1766	T1767	F1768	S1769	S1770	P1771	Q1775	A1776	I1777	A1778	I1779	P1780	V1781	T1782	V1783	A1784	F1785	V1786	V1787	D1788	R1789	R1790	G1791	P1792	G1793	P1794	Y1795	H1802	C1852	THR	PRD	ARG	ASP	LEU	VAL	PRO	ALA	LEU	THR	PRD	ARG	ALA	PRO	GLY	HIS	PRD	HIS							

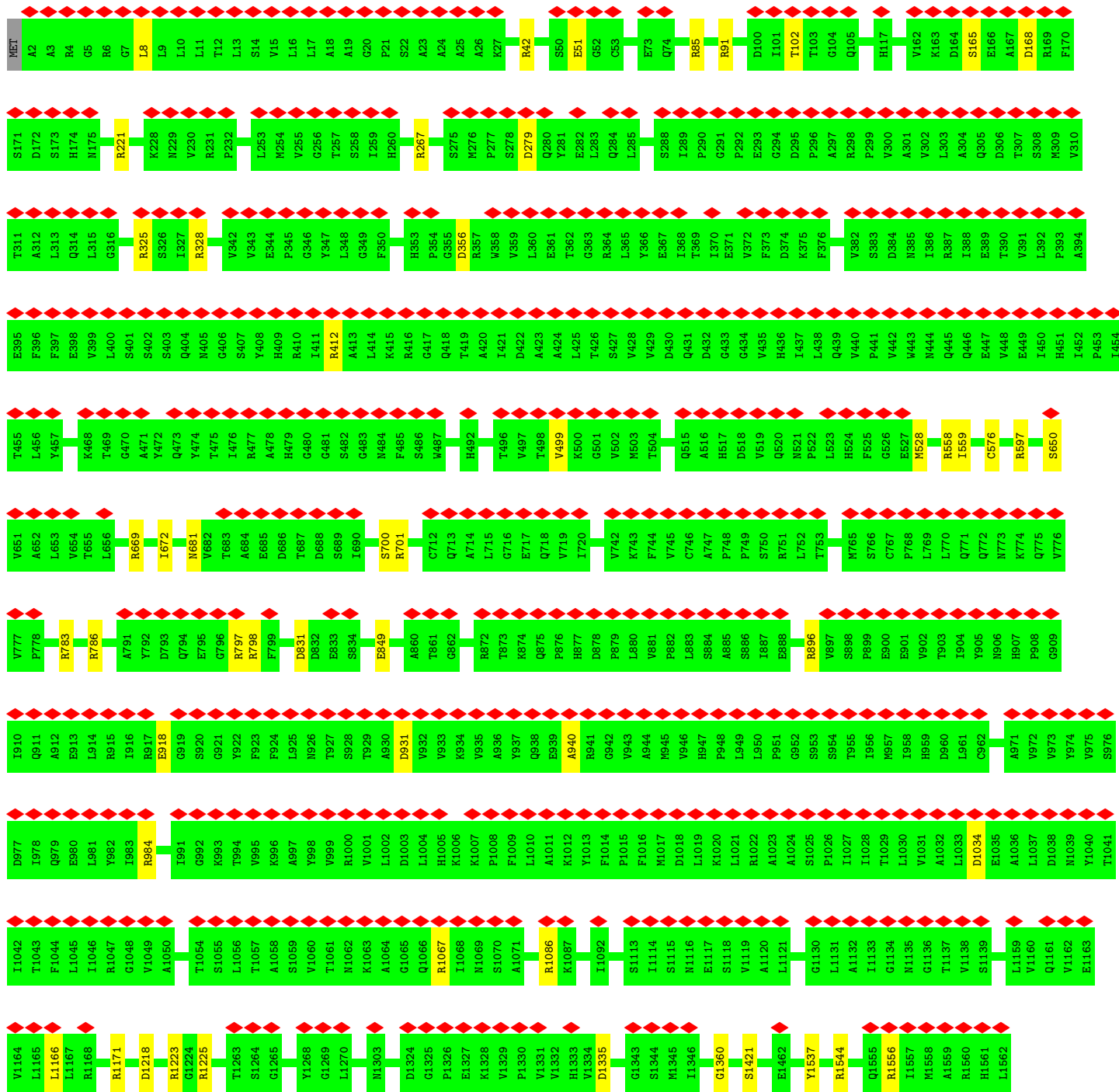
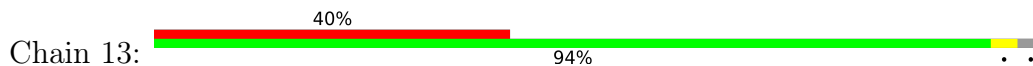
TYR PHE
ALA ALA
SER SER
PRO PRO
THR SER
PRO PRO
ASN ASN
ALA ALA
LEU LEU
PRO PRO
PRO PRO
ALA ALA
ALA ALA
ARG ARG
LYS LYS
ALA ALA
SER SER
PRO PRO
PRO PRO
GLY GLY
LEU LEU
TRP TRP
SER SER
PRO PRO
ALA ALA
TYR TYR
ALA ALA
SER SER
HIS HIS

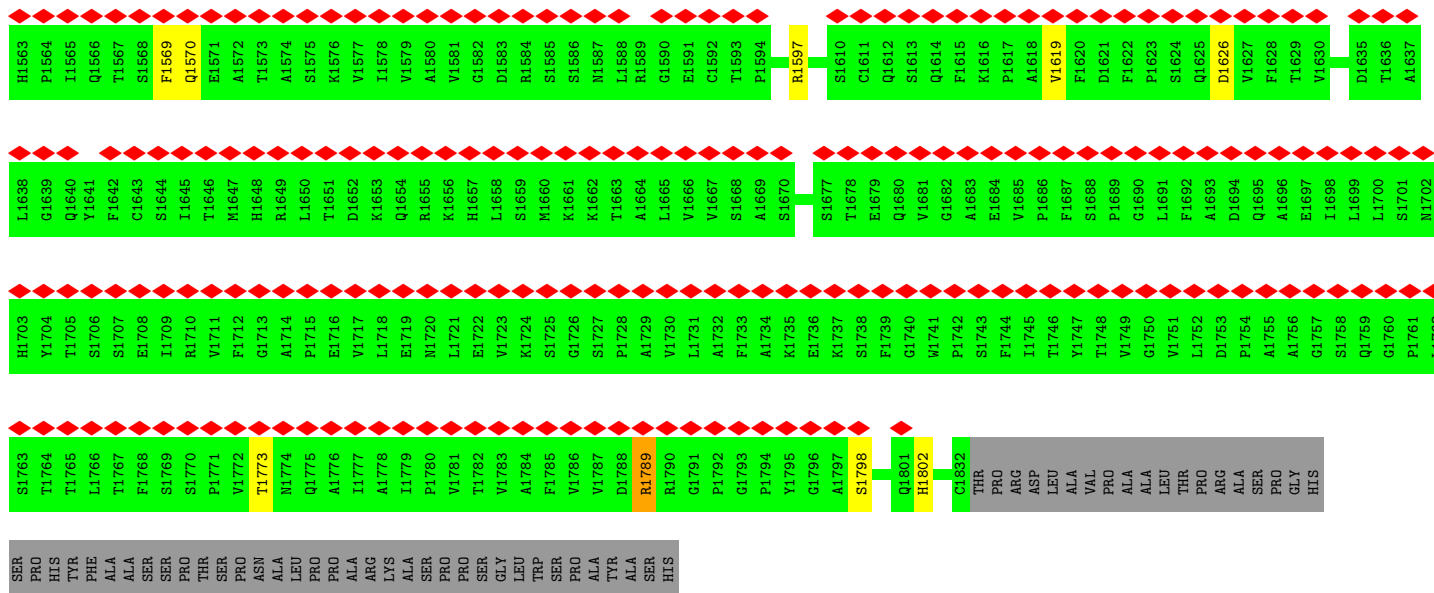
● Molecule 2: Nuclear pore membrane glycoprotein 210



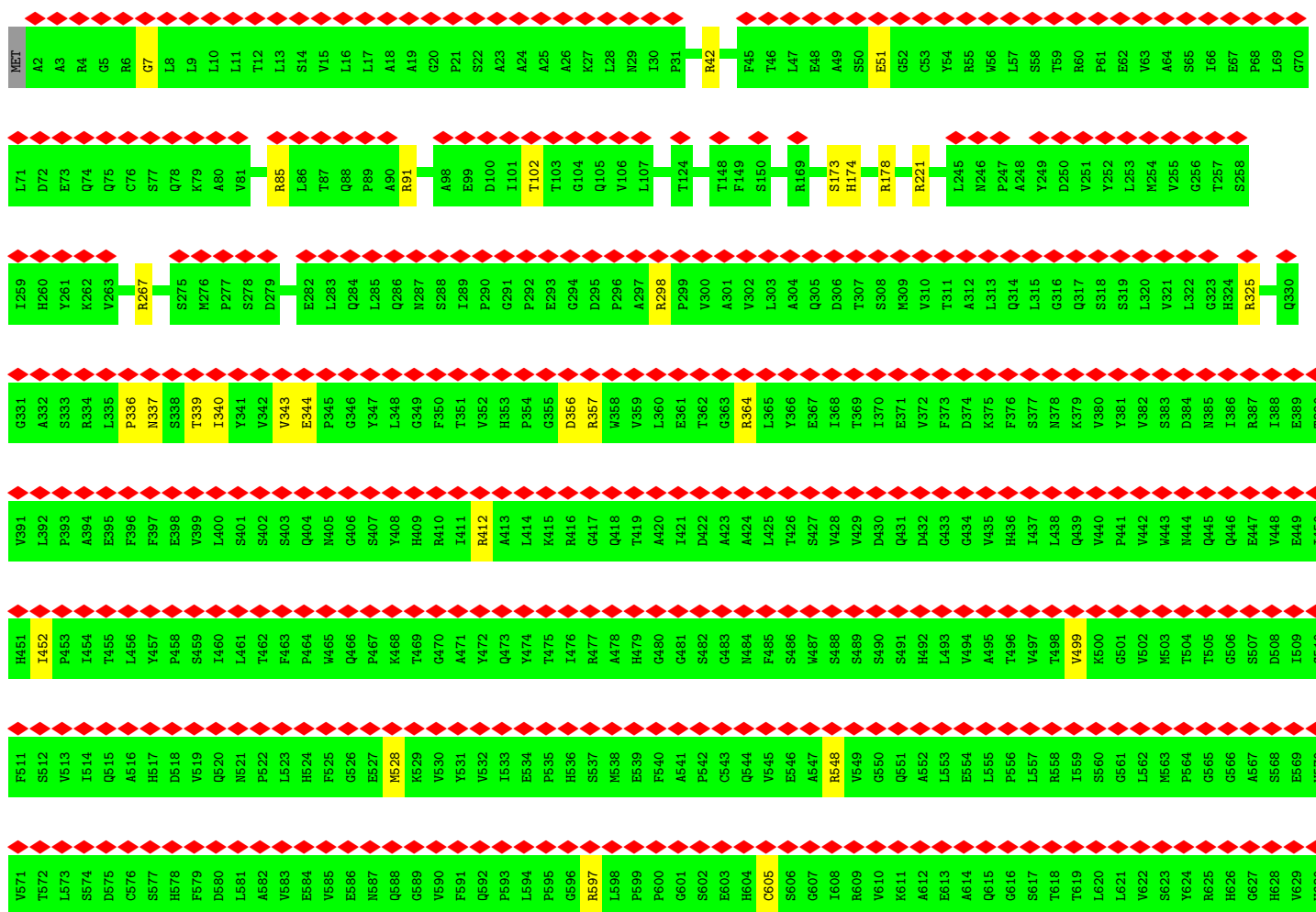
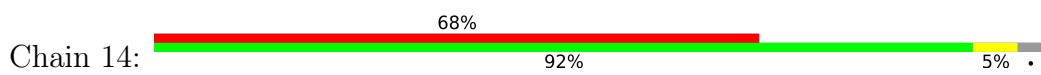


• Molecule 2: Nuclear pore membrane glycoprotein 210

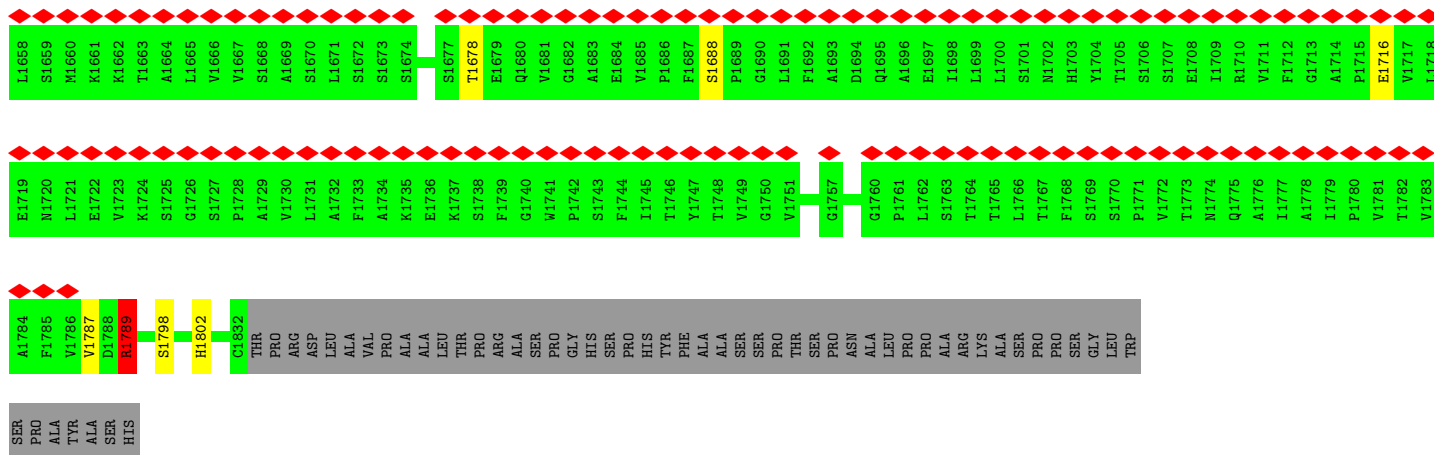




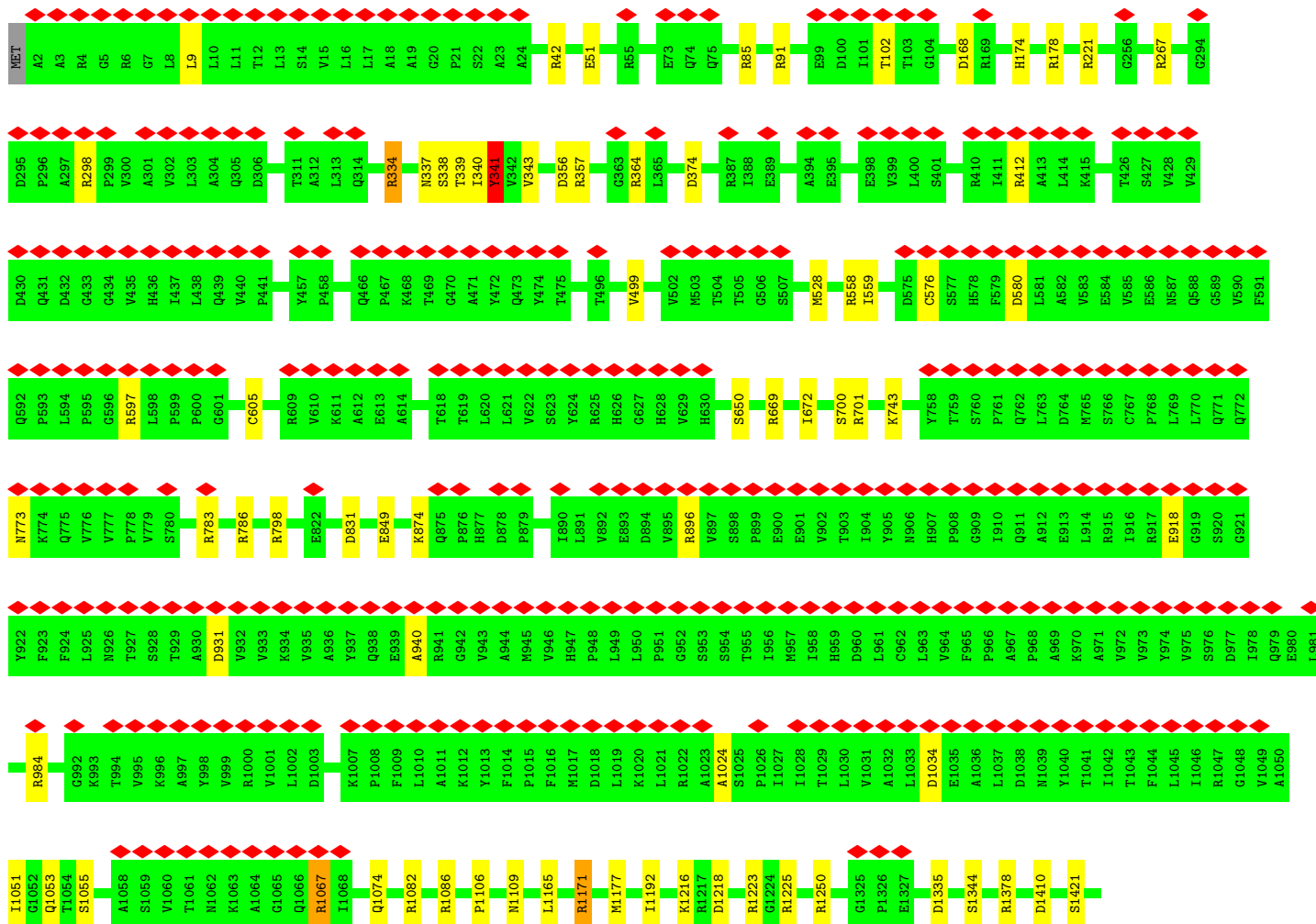
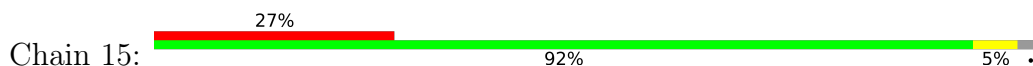
• Molecule 2: Nuclear pore membrane glycoprotein 210

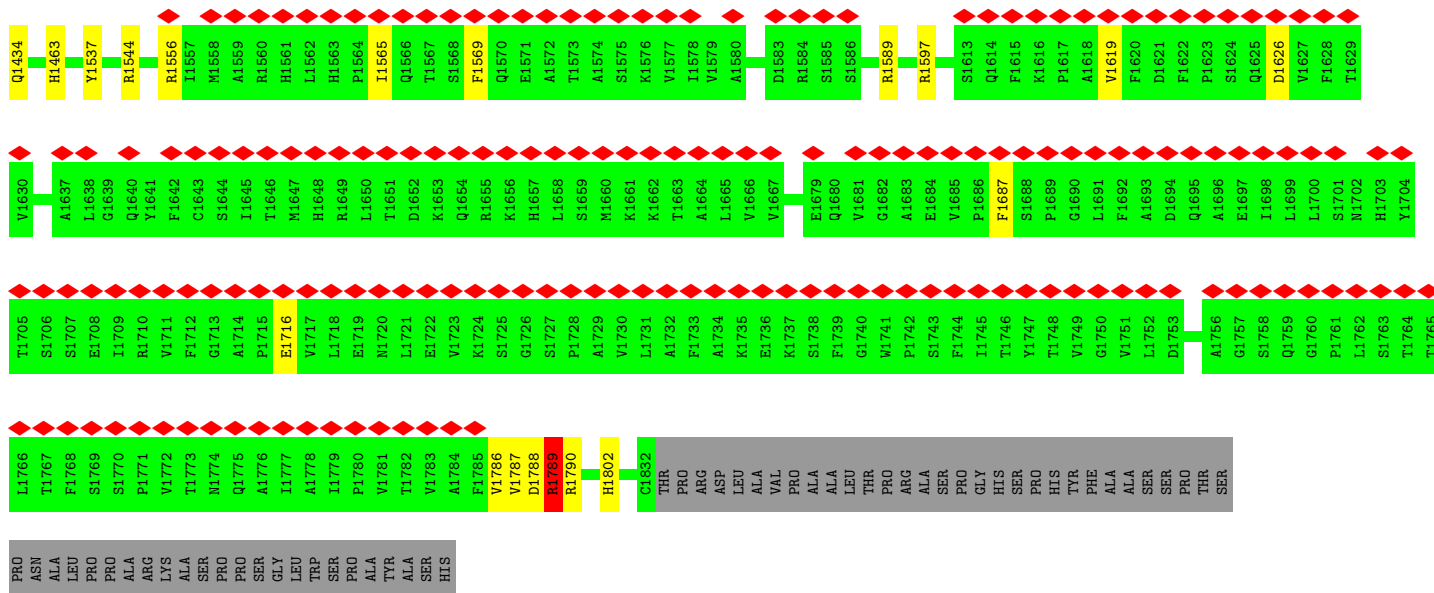


E1588	E1589	I1600	Q1601	A1602	L1603	H1604	P1605	E1606	T1607	L1608	I1609	S1610	Q1611	S1612	S1613	Q1614	F1615	K1616	P1617	A1618	V1619	F1620	D1621	F1622	P1623	S1624	Q1625	D1626	F1627	F1628	T1629	V1630	E1631	P1632	Q1633	F1634	F1635	T1636	L1637	L1638	P1639	Q1640	Y1641	F1642	S1643	S1644	T1645	T1646	H1647	H1648	R1649	L1650	T1651	D1652	K1653	Q1654	P1655	K1656	P1657
K1521	T1522	G1523	V1524	A1525	V1526	A1527	R1528	Y1537	E1538	V1539	A1540	R1544	P1554	Q1555	I1557	M1558	A1559	H1561	L1562	H1563	P1564	L1565	Q1566	T1567	S1568	F1569	Q1570	E1571	A1572	D1490	V1491	L1492	C1493	L1494	A1495	T1496	V1497	L1498	T1499	S1500	L1501	E1502	G1503	L1504	S1505	G1506	V1507	H1508	H1517	L1518	D1519	T1595	Q1596	R1597					
L1385	H1386	T1387	Q1388	L1389	E1391	A1392	L1393	V1394	A1395	D1410	N1411	S1421	D1430	Q1434	E1462	A1477	I1478	S1479	P1480	E1481	L1482	S1483	G1484	M1486	V1487	V1488	G1489	D1490	V1491	L1492	C1493	L1494	A1495	T1496	V1497	L1498	T1499	S1500	L1501	E1502	G1503	L1504	S1505	G1506	V1507	H1508	H1517	L1518	D1519	T1595	Q1596	R1597							
L1253	R1254	V1255	V1256	V1257	K1258	Y1268	G1269	L1270	A1271	R1272	E1273	L1274	S1275	D1276	E1277	I1278	Q1279	V1280	Q1281	V1282	F1283	E1284	K1285	L1286	Q1287	L1288	L1289	M1290	P1291	E1292	R1321	V1322	L1323	D1324	P1325	G1326	E1327	K1328	V1329	P1330	V1331	V1332	H1333	V1334	D1335	G1343	S1344	M1345	T1346	G1347	T1348	S1349	R1378	V1384					
I1176	M1177	R1178	M1179	R1180	T1181	G1182	I1187	T1190	G1191	I1192	T1193	N1194	H1195	Q1196	T1209	F1210	H1211	W1212	S1213	V1214	T1215	K1216	R1217	D1218	V1219	L1220	D1221	L1222	R1223	G1224	H1226	H1227	D1228	A1229	S1230	I1231	L1232	P1233	P1234	S1235	M1238	M1241	N1242	V1243	L1244	G1245	R1246	V1247	K1248	G1249	R1250	T1251	G1252						
L1067	A1071	V1077	F1078	P1079	P1080	F1081	R1082	R1066	Q1105	Q1106	H1109	S1113	I1114	S1115	M1116	E1117	S1118	V1119	A1132	I1133	G1134	N1135	G1136	T1137	V1138	S1139	T1149	G1150	I1154	L1155	S1156	Q1157	D1158	L1159	V1160	Q1161	E1162	E1163	L1164	L1165	L1166	L1167	R1168	A1169	V1170	R1171	I1172	R1173	A1174	P1175									
K986	A987	Y988	V989	R1000	A936	Y937	Q938	E939	A940	R941	G942	V943	M945	V946	H947	P948	L949	L950	P951	G952	S953	S954	T955	I956	M957	I958	H959	E960	L961	C962	L963	I964	F965	P966	A967	P968	A969	K970	I971	A972	V972	E973	Y974	R975	S976	R977	E983	R984	V985	Y986	H989	E990	I991	G992	K993	T994	V995		
D931	V932	V933	K934	V935	A936	Y937	Q938	E939	A940	R941	G942	V943	M945	V946	H947	P948	L949	L950	P951	G952	S953	S954	T955	I956	M957	I958	H959	E960	L961	C962	L963	I964	F965	P966	A967	P968	A969	K970	I971	A972	V972	E973	Y974	R975	S976	R977	E983	R984	V985	Y986	H989	E990	I991	G992	K993	T994	V995		
A871	R872	T873	K874	R875	Q876	H877	D878	P879	L880	V881	P882	L883	M885	S886	I887	E888	L889	I890	L891	V892	E893	D894	V895	I896	M897	S898	P899	E900	E901	V902	T903	I904	Y905	N906	H907	P908	G909	I910	Q911	A912	E913	L914	R915	I916	R917	E918	G919	S920	G921	Y922	F923	F924	L925	N926	T927	S928	T929	A930	
S811	T812	P814	V815	L816	A817	S818	I819	E820	P821	E822	L823	P824	M825	Q826	L827	V828	S829	Q830	D831	E832	E833	S834	G835	Q836	K837	K838	L839	H840	G841	L842	Q843	Q844	I845	L846	H847	H848	E849	A850	S851	G852	S853	L854	A855	I856	T857	A858	S859	A860	N861	F862	S863	Q864	L865	S866	H867	L868	S869	S870	
R751	L752	T753	L754	F755	P756	V757	Y758	T759	S760	P761	Q762	L763	D764	M765	S766	C767	P768	L769	L770	Q771	Q772	N773	K774	Q775	V776	V777	P778	V779	S780	L781	H782	R783	A784	P785	R786	D787	L788	L789	A790	A791	Y792	D793	Q794	E795	G796	R797	R798	F799	D800	A801	F802	S803	Q804	L805	S806	L807	P808	L809	E810
G691	L692	A693	L694	F695	A696	P697	H698	S699	S700	R701	N702	Y703	Q704	Q705	H706	I707	L708	V709	T710	T711	C712	Q713	A714	L715	G716	E717	Q718	V719	I720	A721	L722	S723	V724	G725	N726	K727	P728	S729	L730	T731	N732	P733	F734	E735	P736	K737	F738	P739	A740	V741	V742	K743	A744	V745	C746	L747	P748	P749	S750
L631	S632	A633	K634	I635	T636	I637	A638	A639	V640	L641	P642	L643	L644	A645	V646	D647	P648	S649	S650	V651	A652	L653	V654	T655	L656	G657	S658	S659	K660	E661	M662	L663	F664	E665	G666	G667	P668	R669	P670	M671	L672	L673	E674	P675	S676	K677	F678	F679	Q680	M681	V682	T683	A684	E685	D686	L687	L688	S689	I690

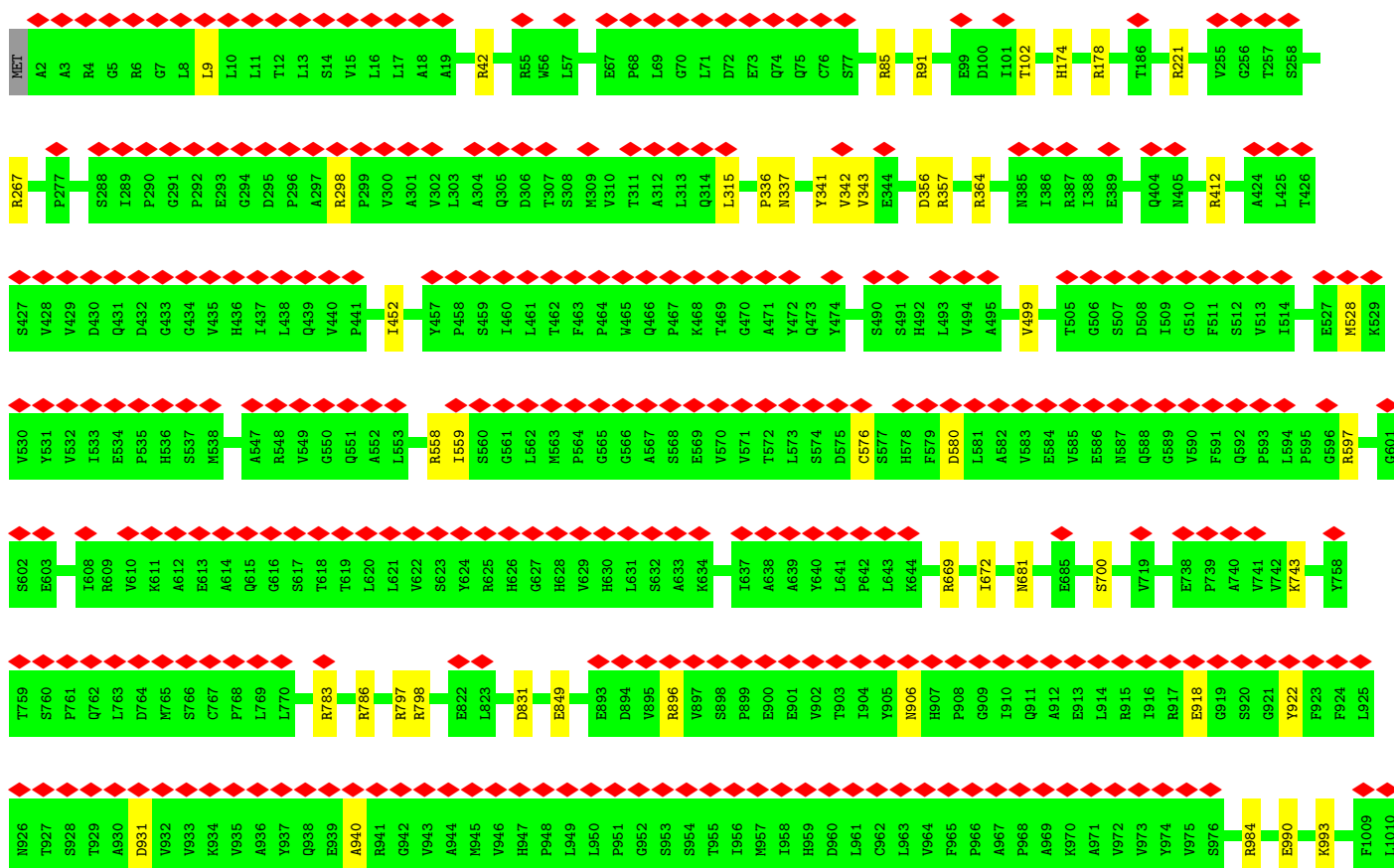


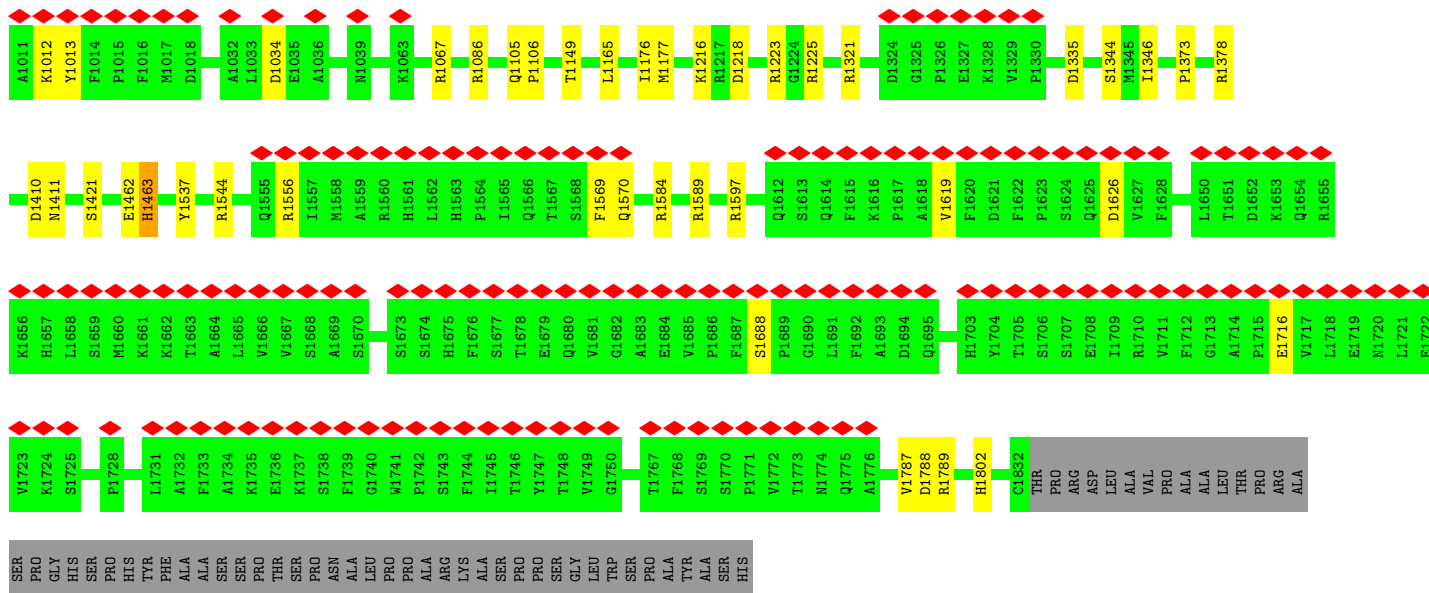
• Molecule 2: Nuclear pore membrane glycoprotein 210





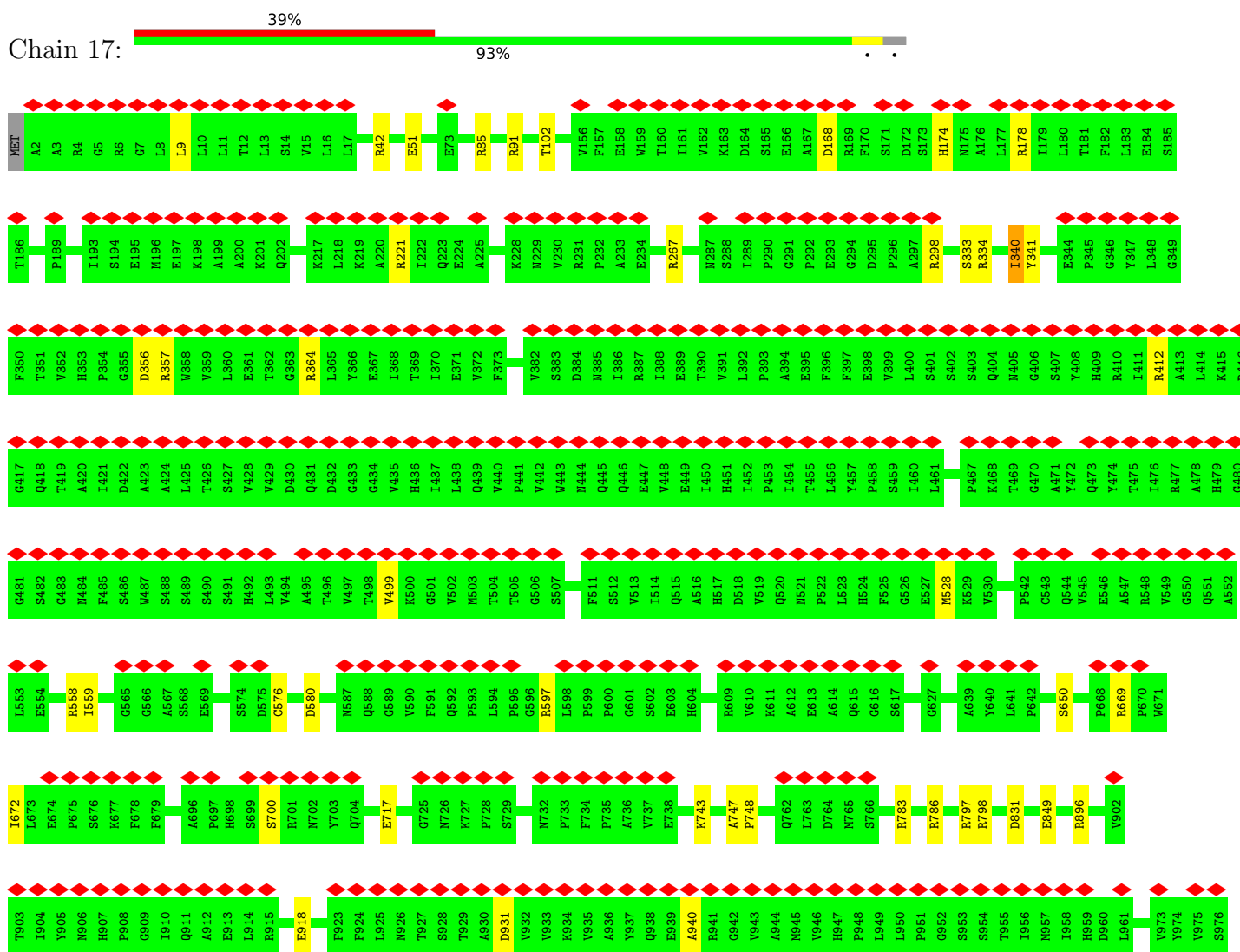
● Molecule 2: Nuclear pore membrane glycoprotein 210

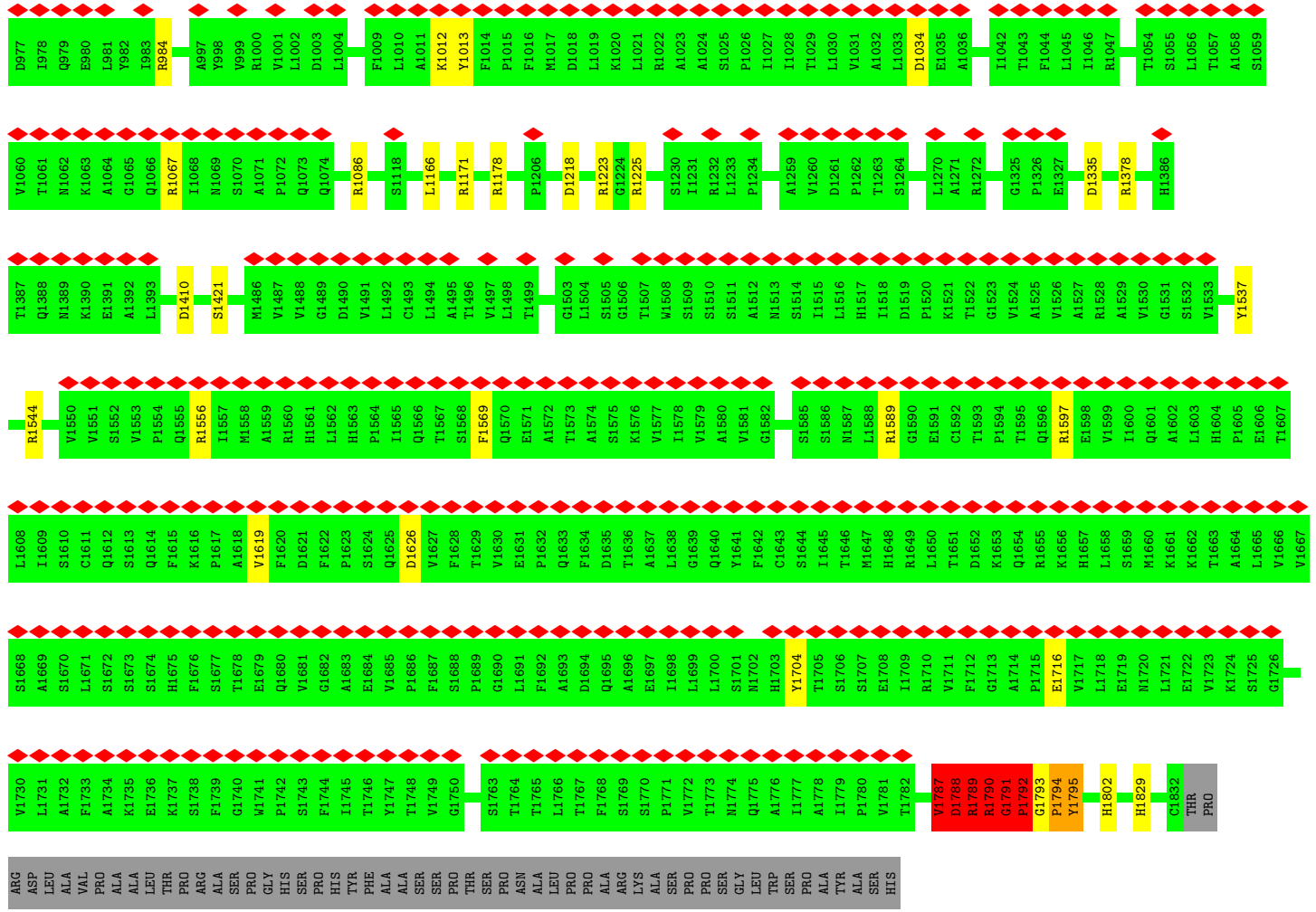




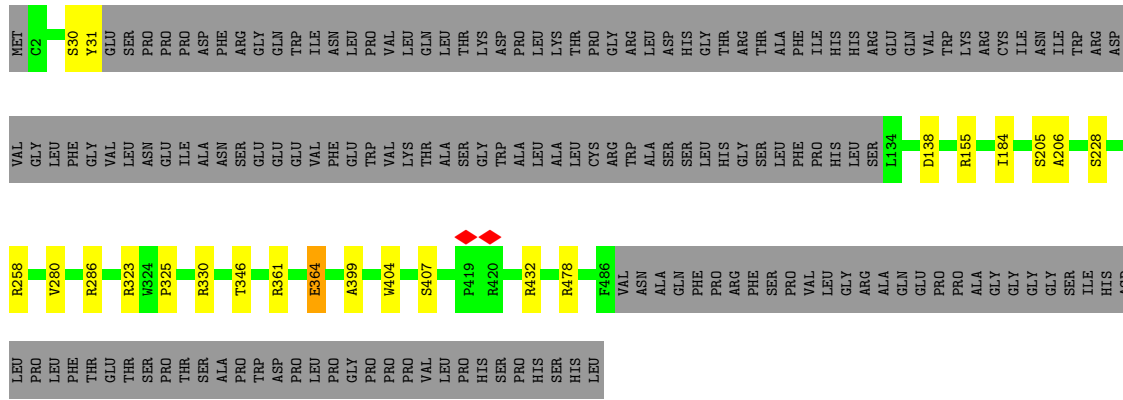
• Molecule 2: Nuclear pore membrane glycoprotein 210

Chain 17:



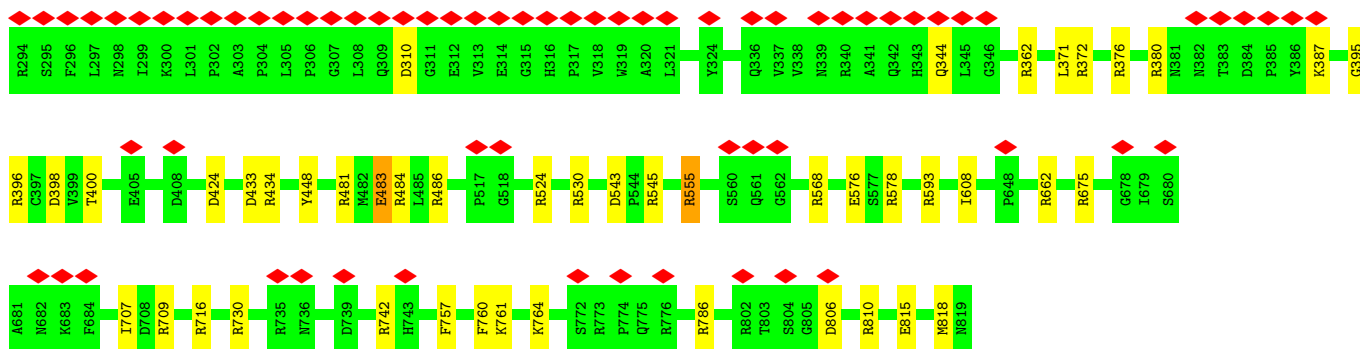


• Molecule 3: Aladin

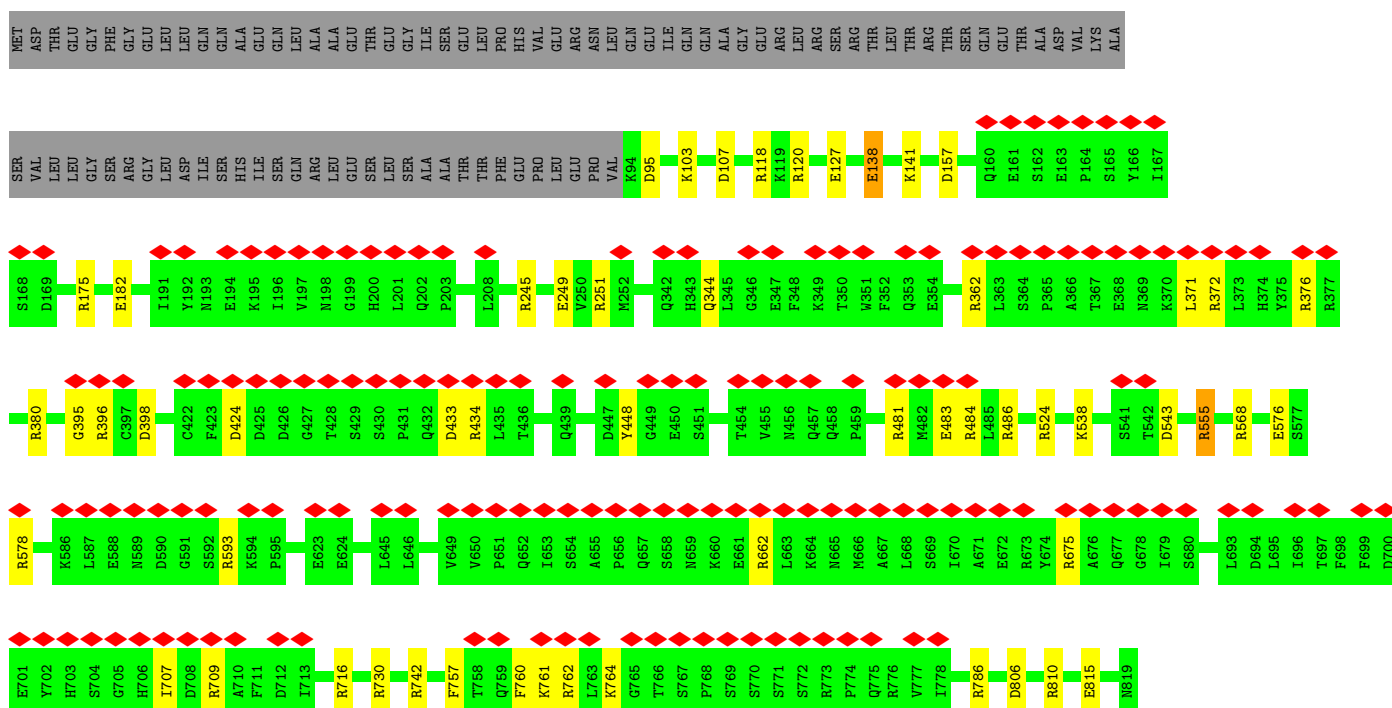
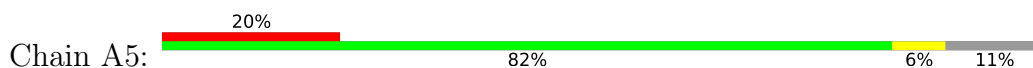


• Molecule 3: Aladin

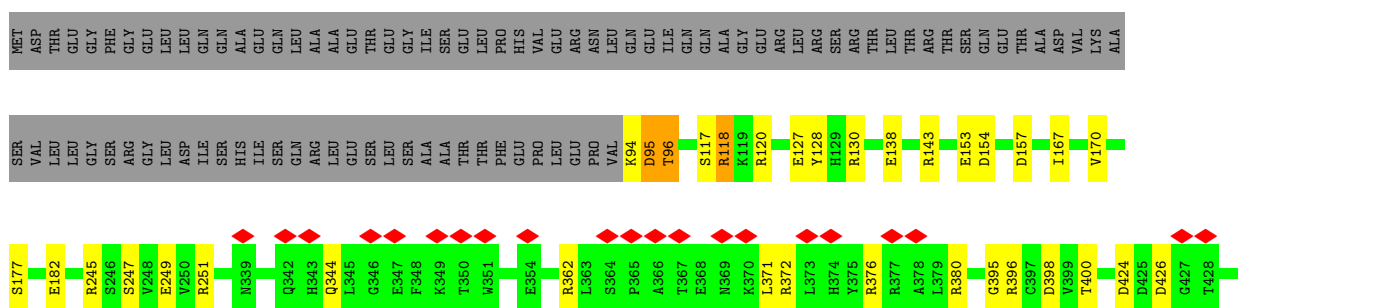
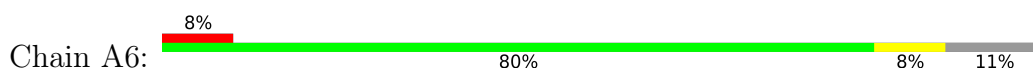


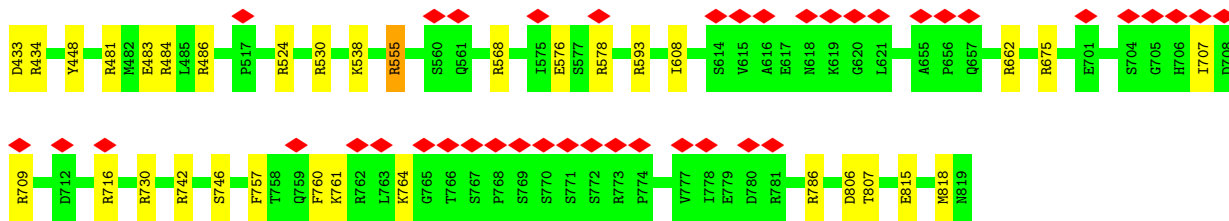


• Molecule 4: Nuclear pore complex protein Nup93

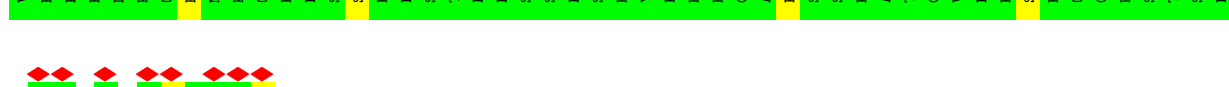
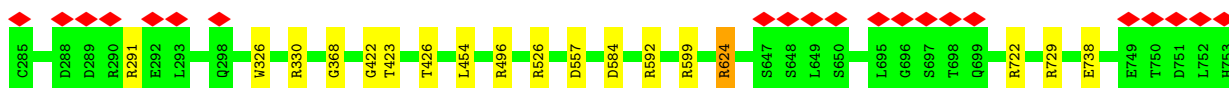
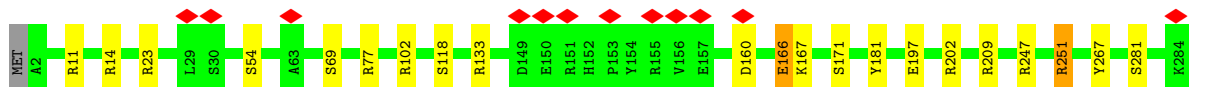


• Molecule 4: Nuclear pore complex protein Nup93



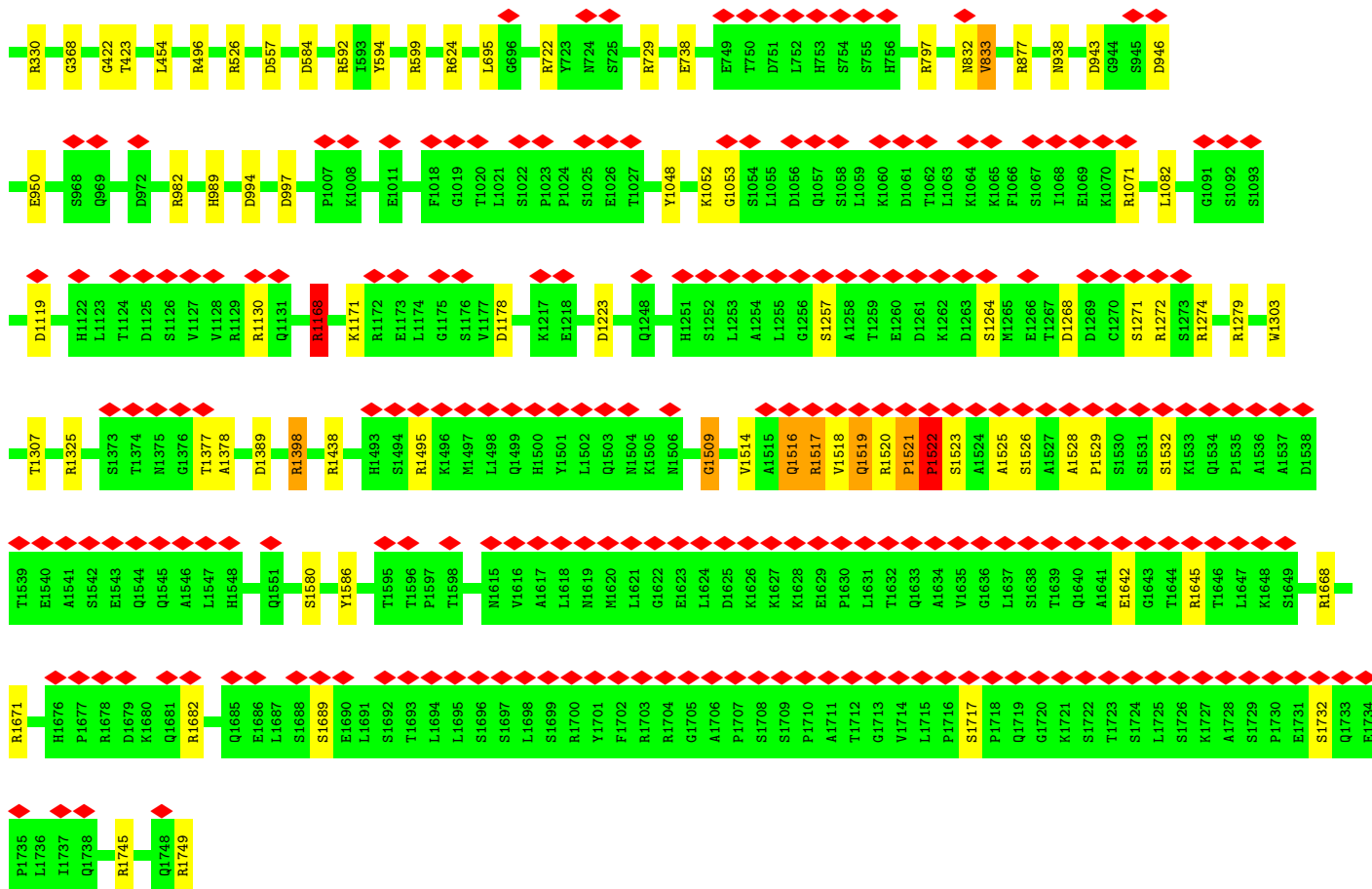


• Molecule 5: Nucleoporin NUP188 homolog

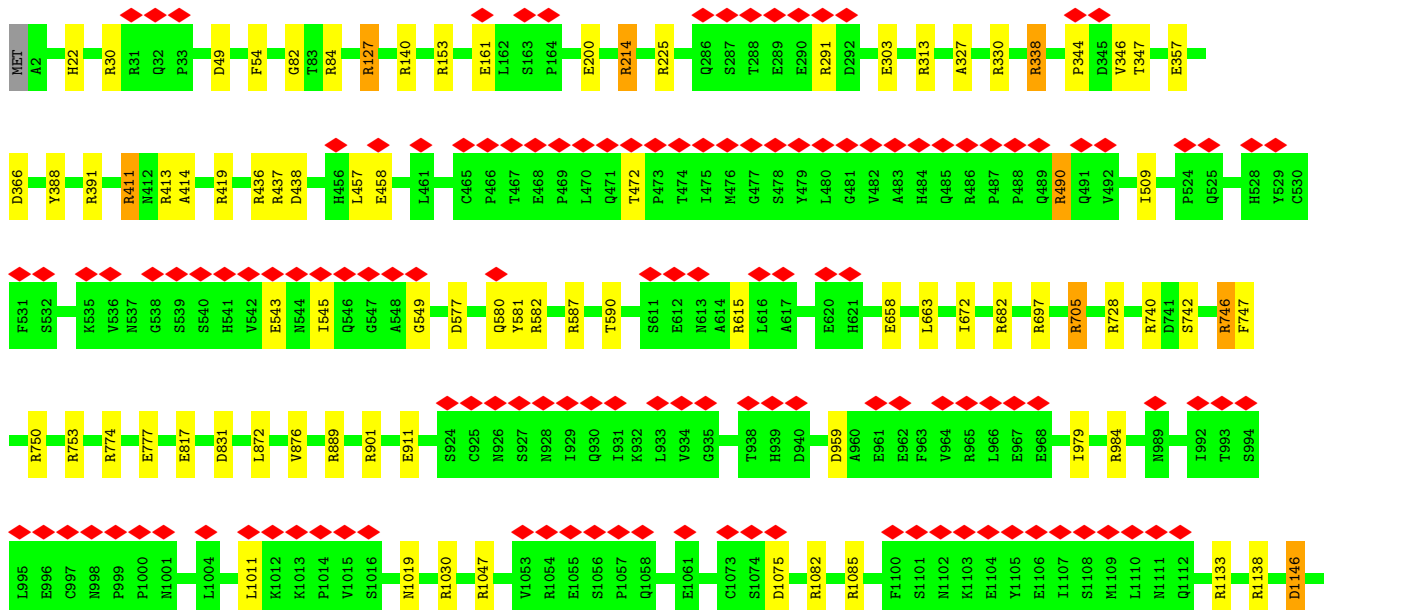


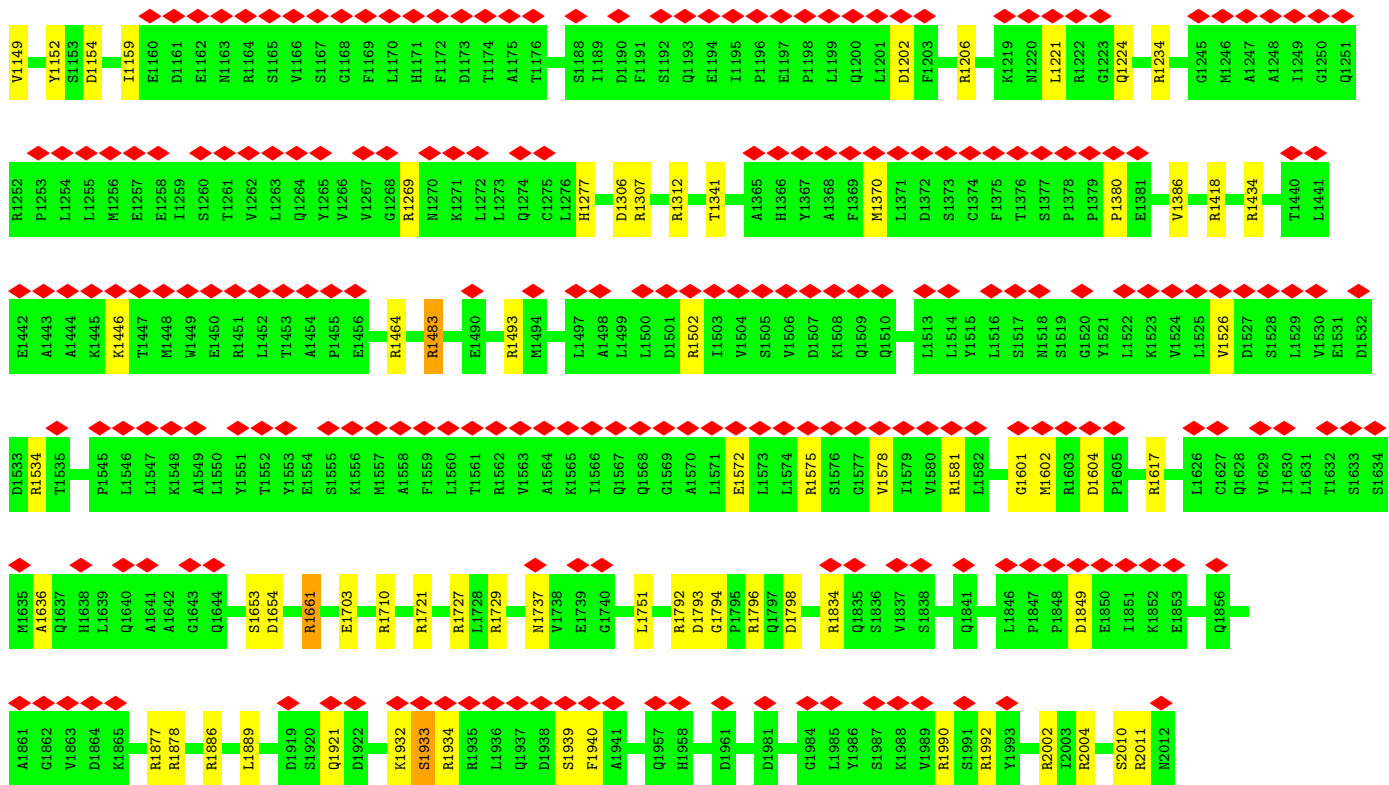
• Molecule 5: Nucleoporin NUP188 homolog



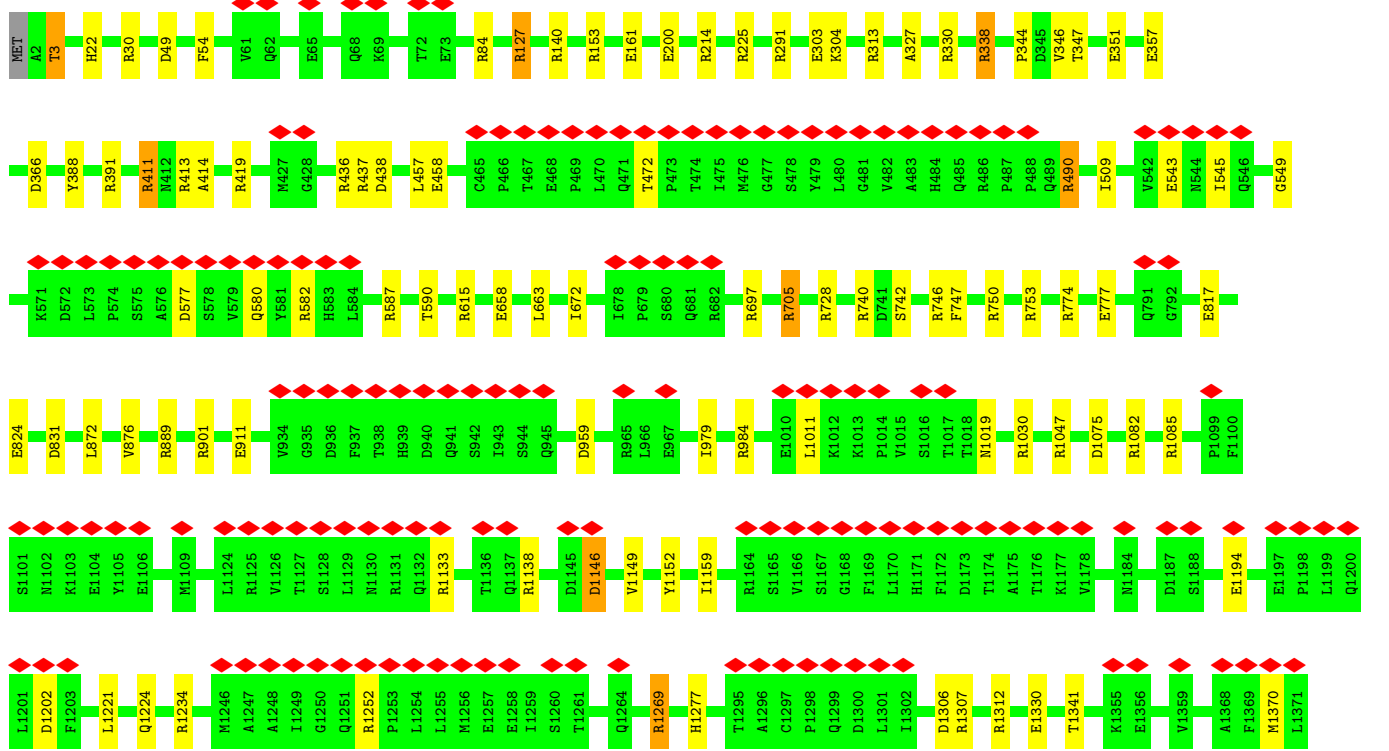


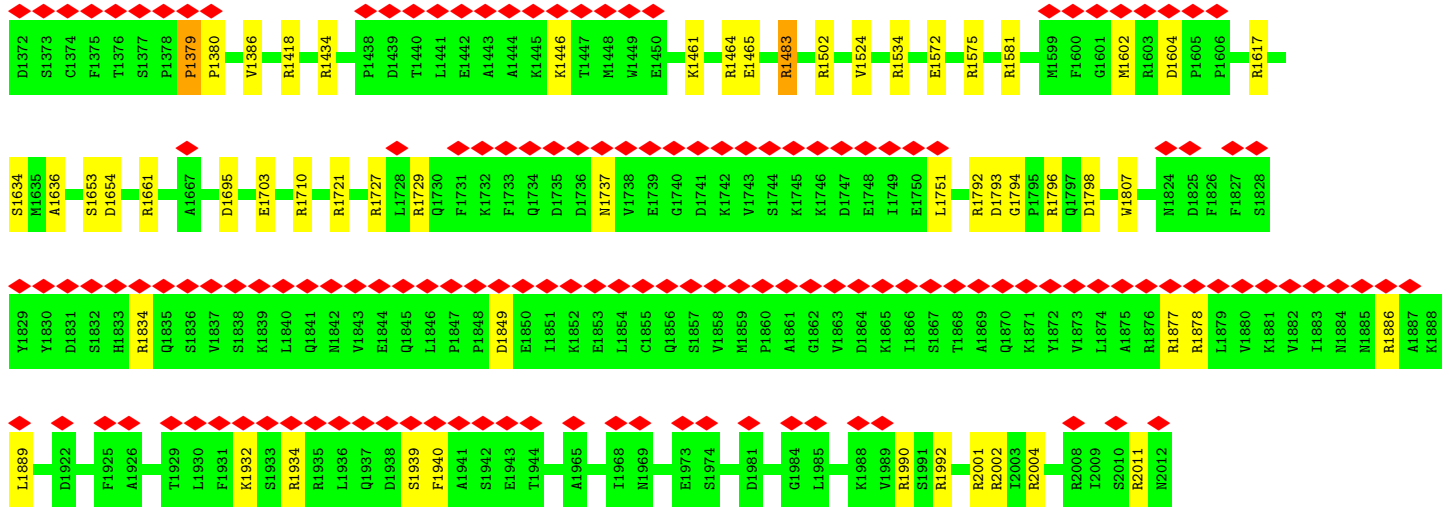
• Molecule 6: Nuclear pore complex protein Nup205



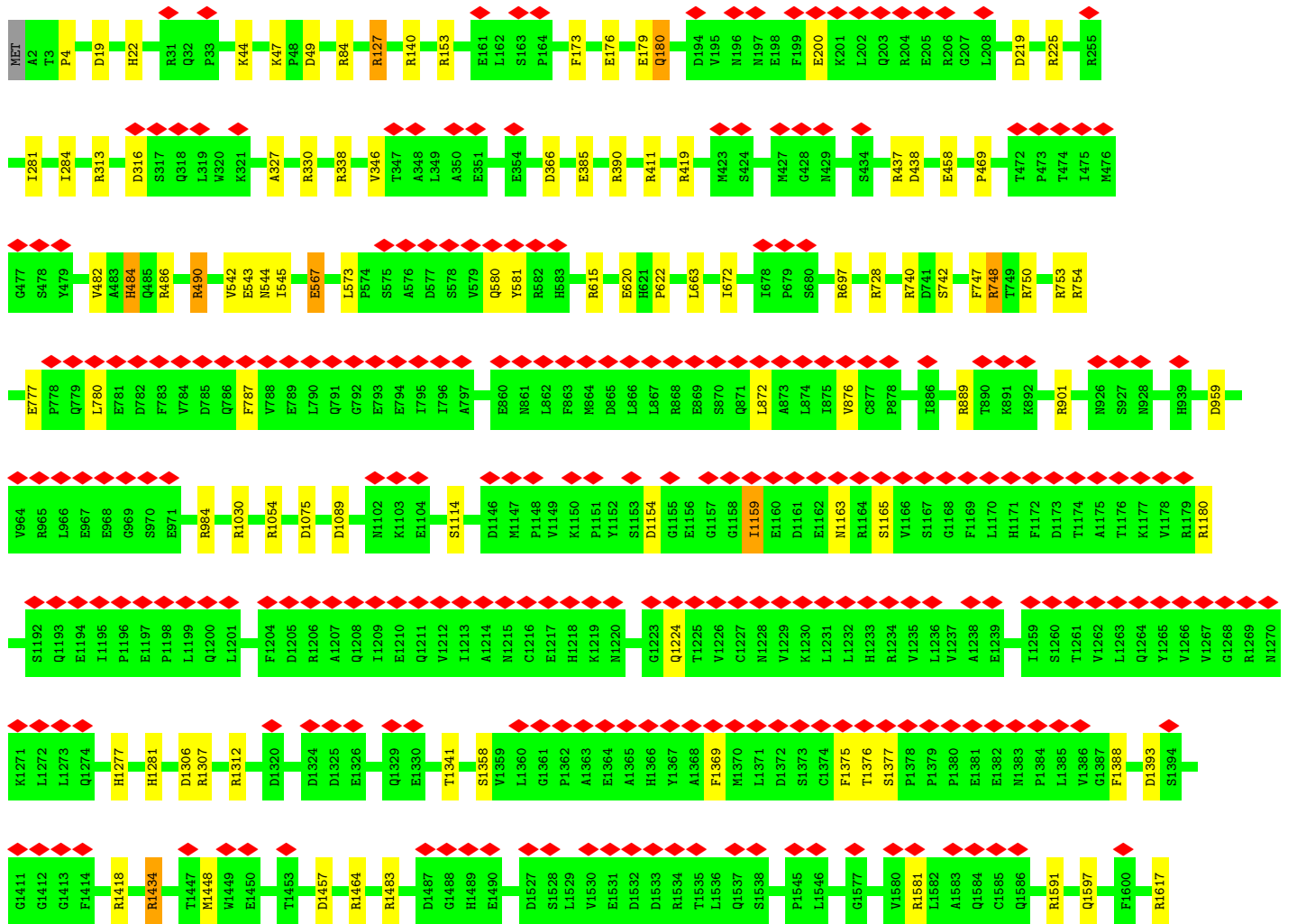


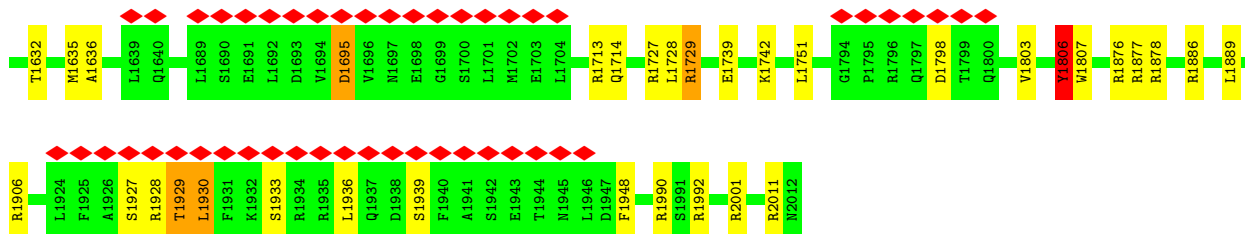
• Molecule 6: Nuclear pore complex protein Nup205



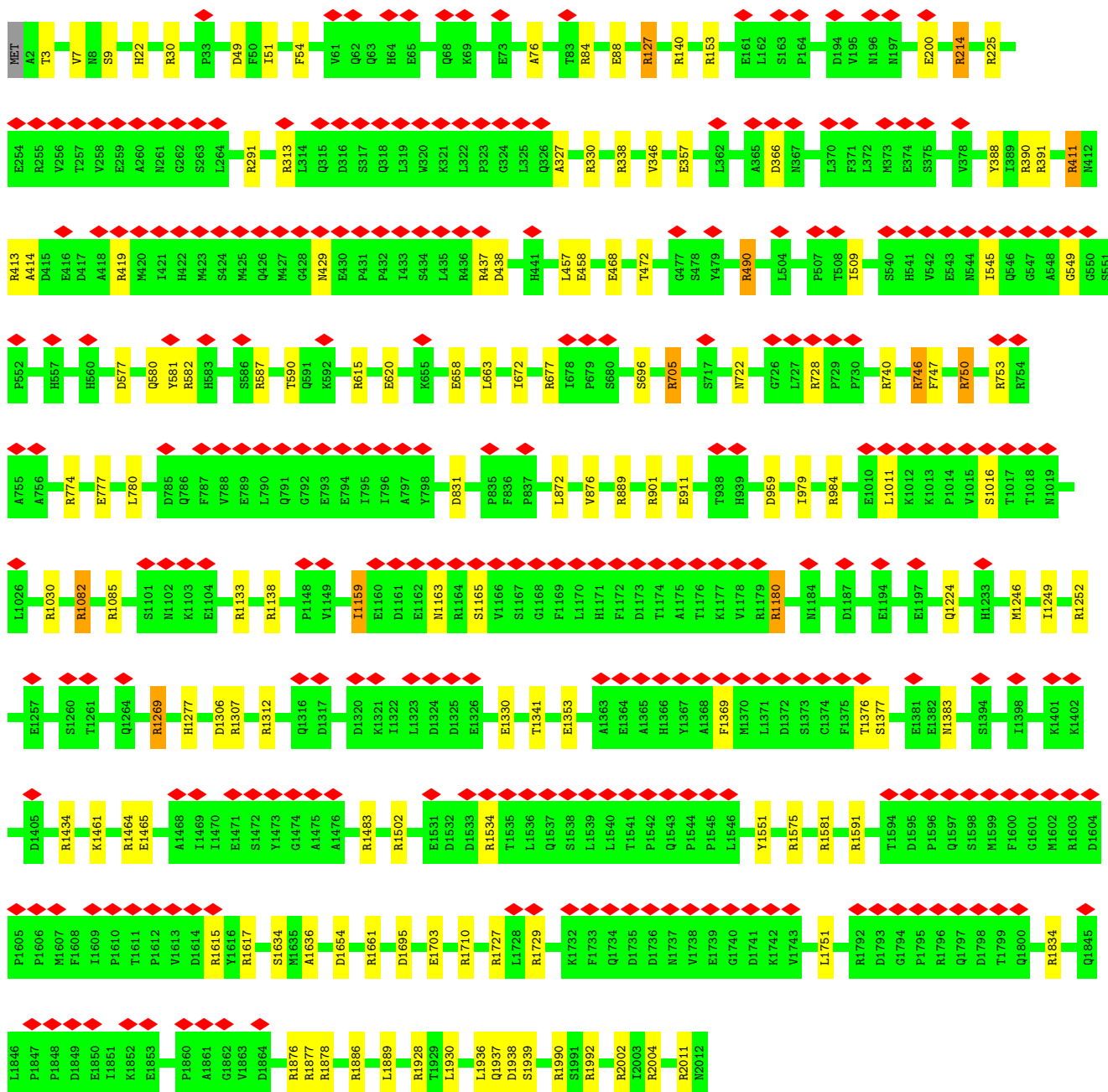


• Molecule 6: Nuclear pore complex protein Nup205

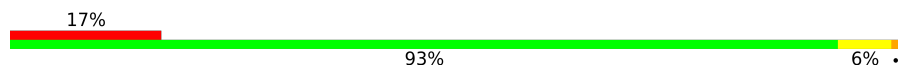


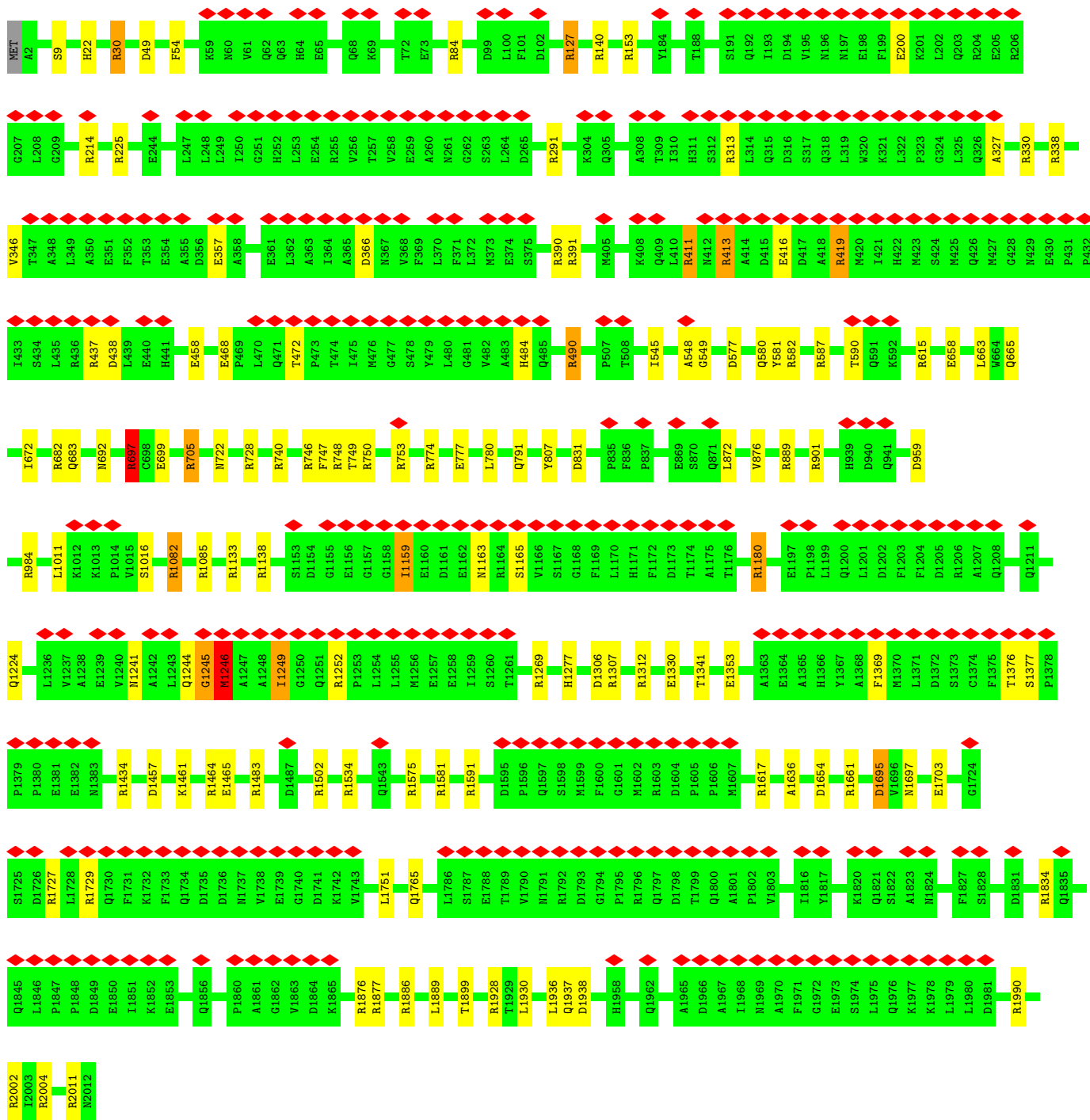


• Molecule 6: Nuclear pore complex protein Nup205




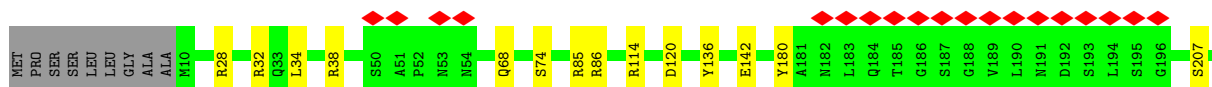
• Molecule 6: Nuclear pore complex protein Nup205

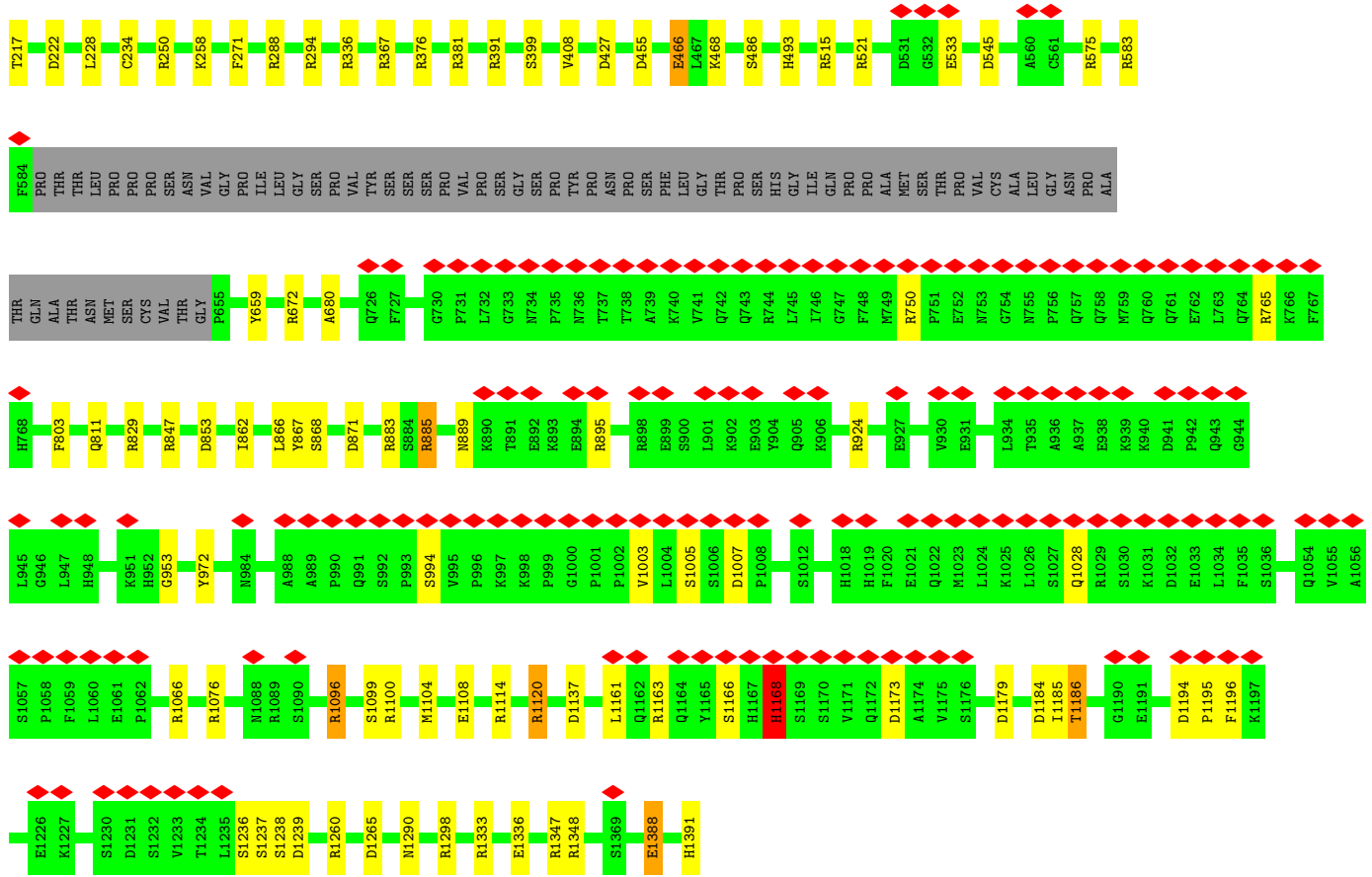
Chain C4: 



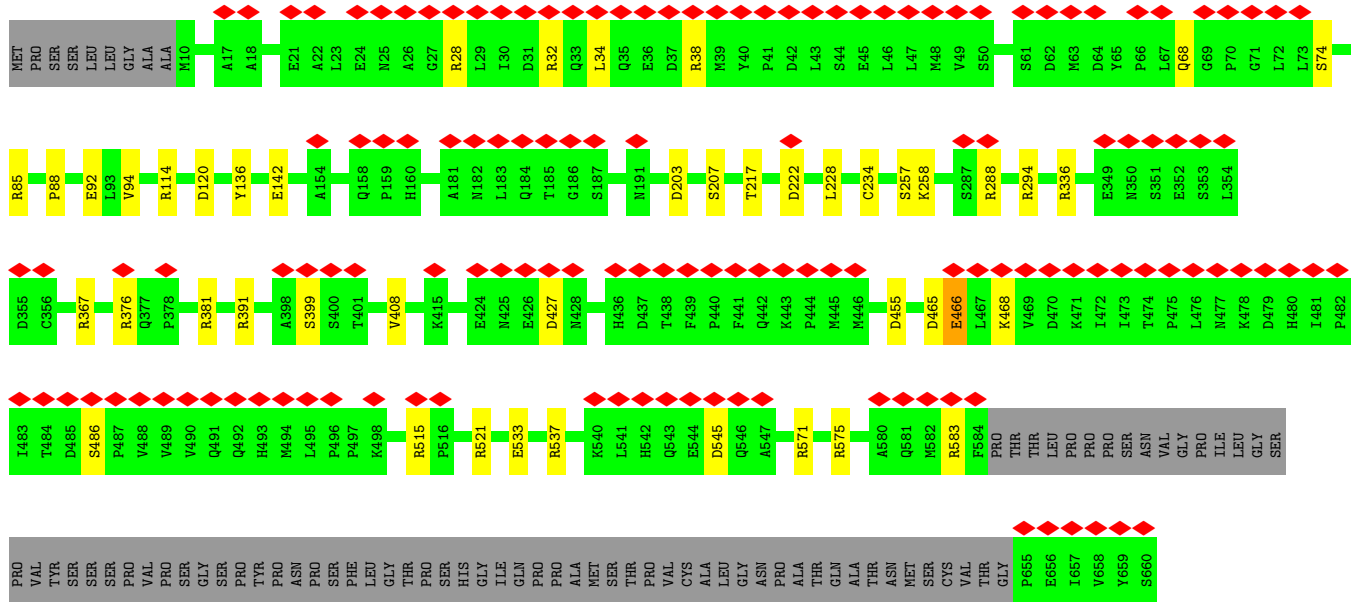
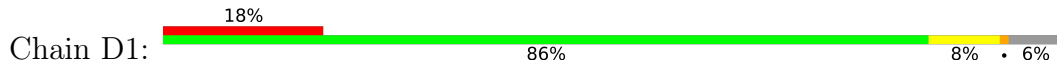
• Molecule 7: Nuclear pore complex protein Nup155

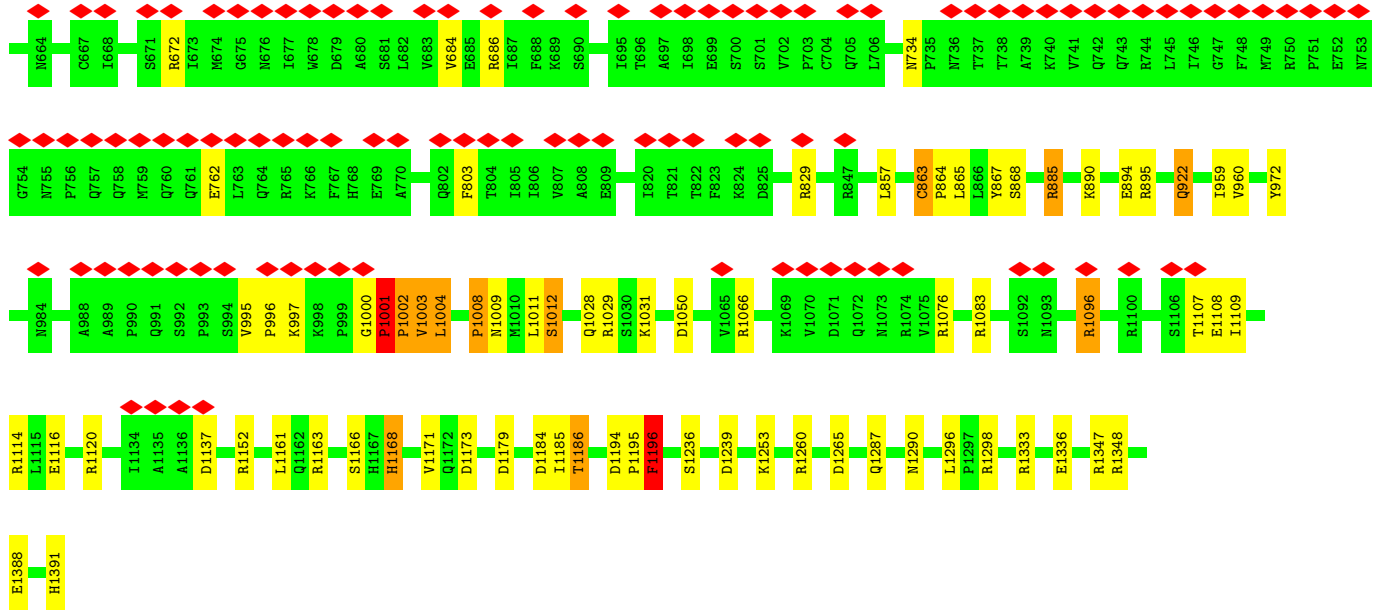
Chain D0: 



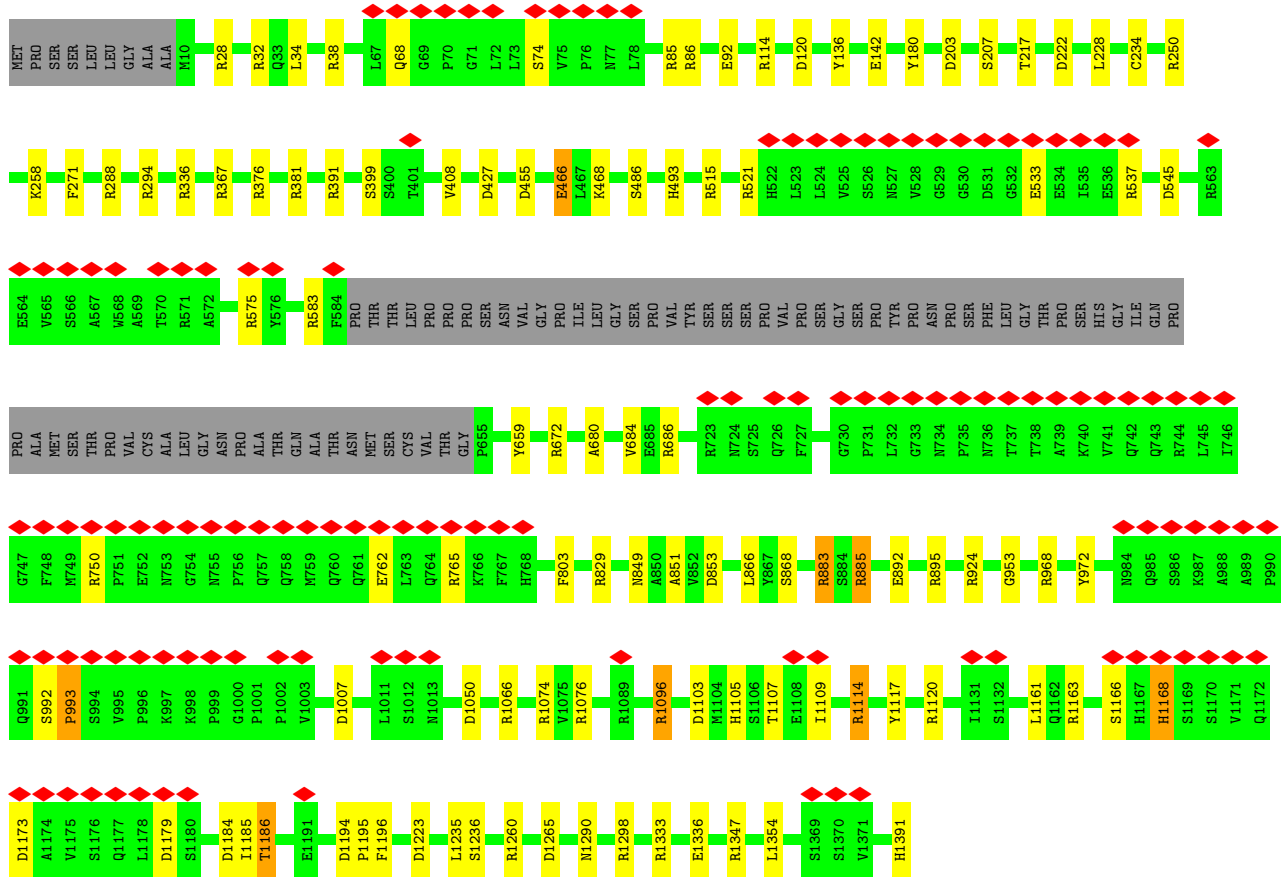
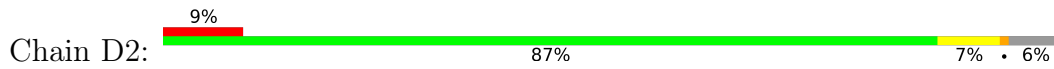


• Molecule 7: Nuclear pore complex protein Nup155

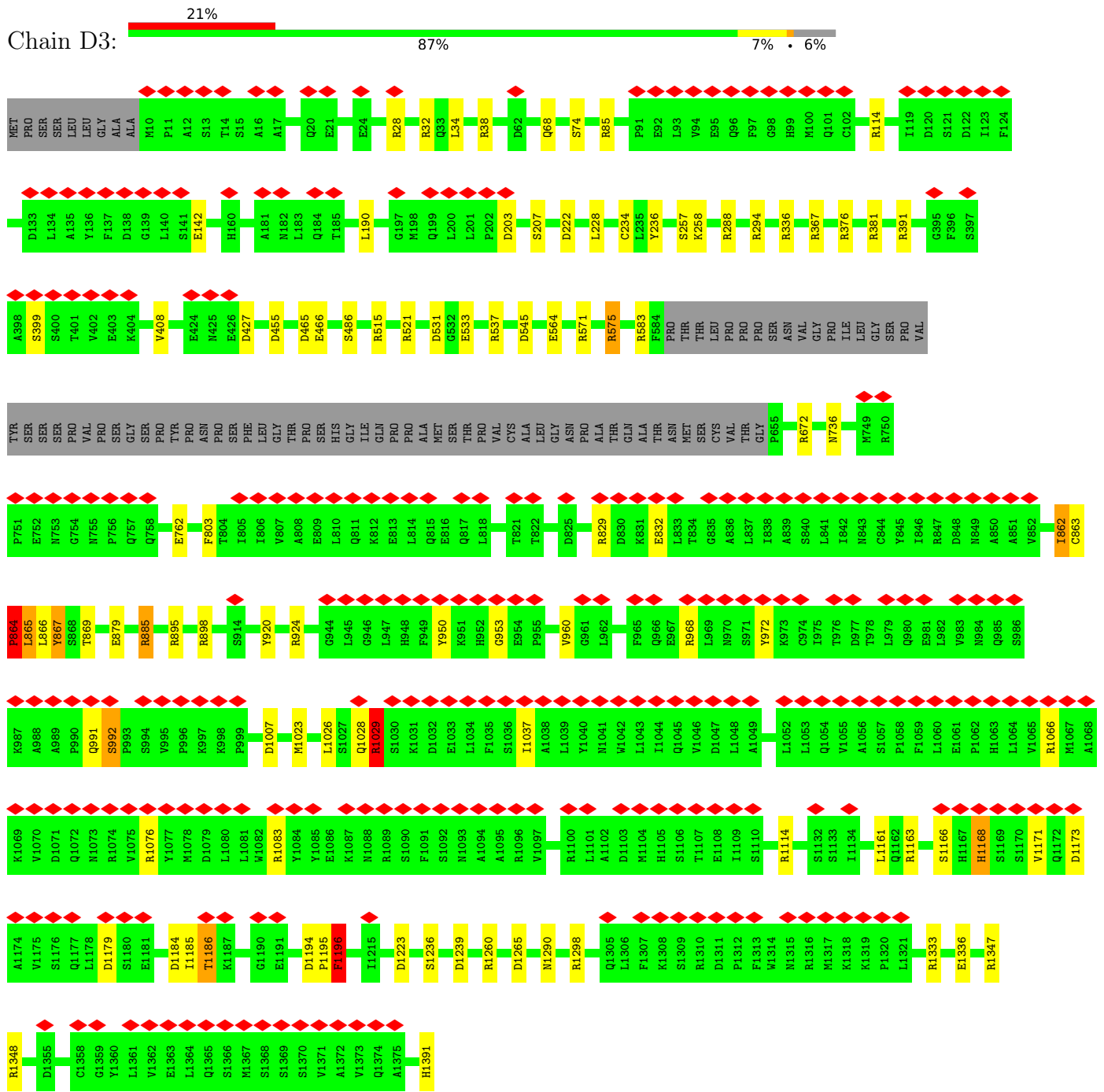




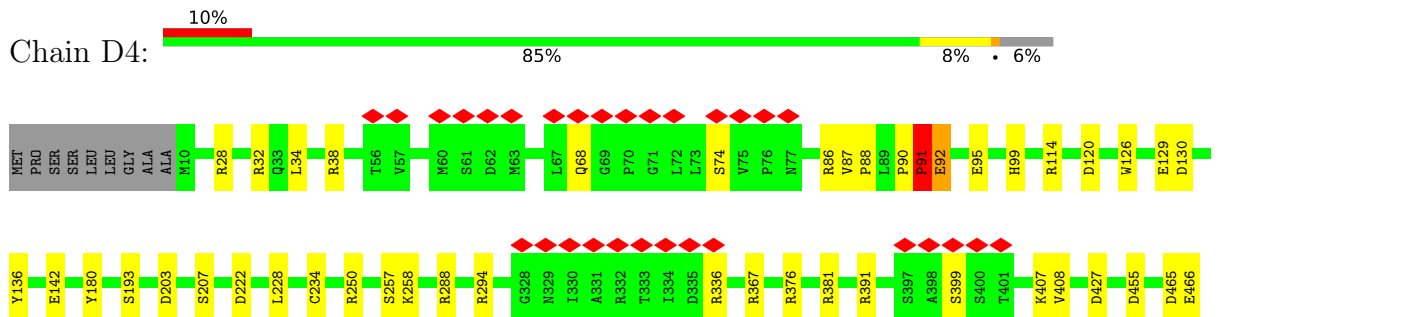
• Molecule 7: Nuclear pore complex protein Nup155

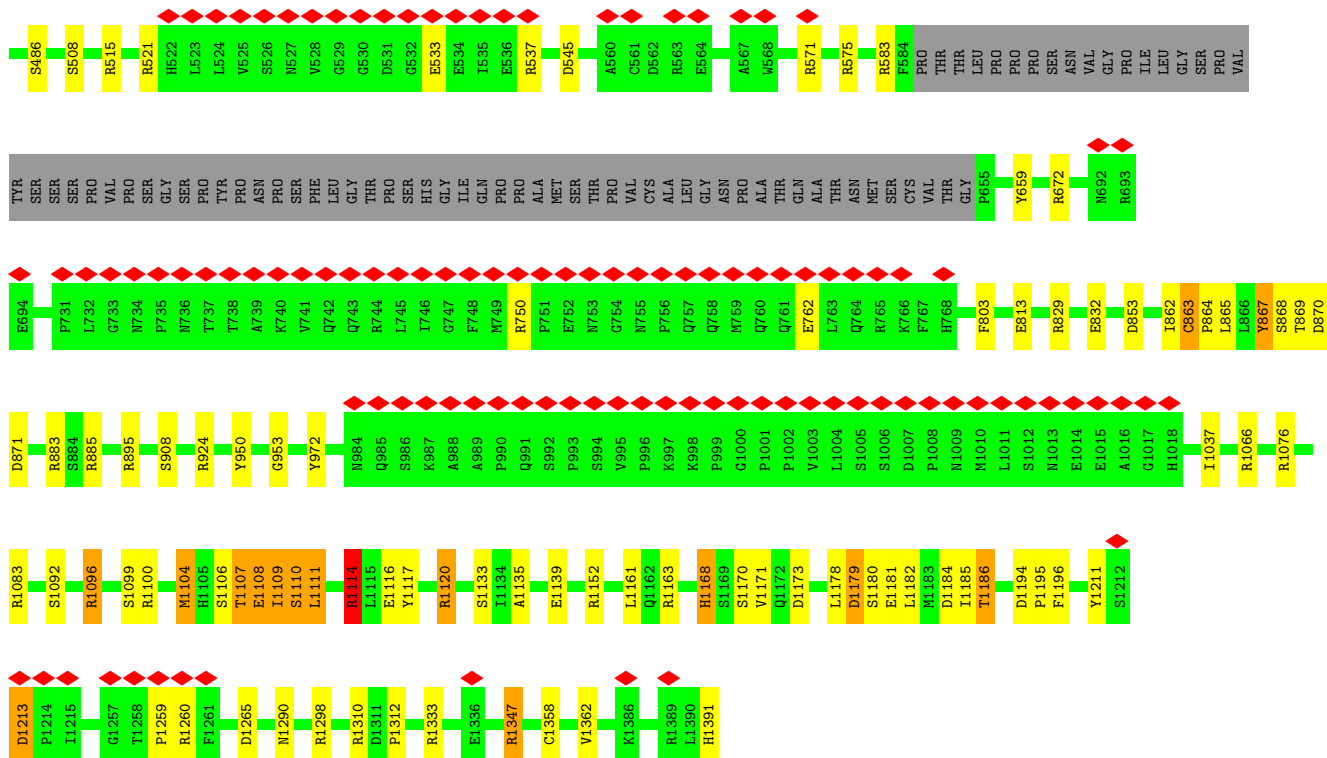


• Molecule 7: Nuclear pore complex protein Nup155

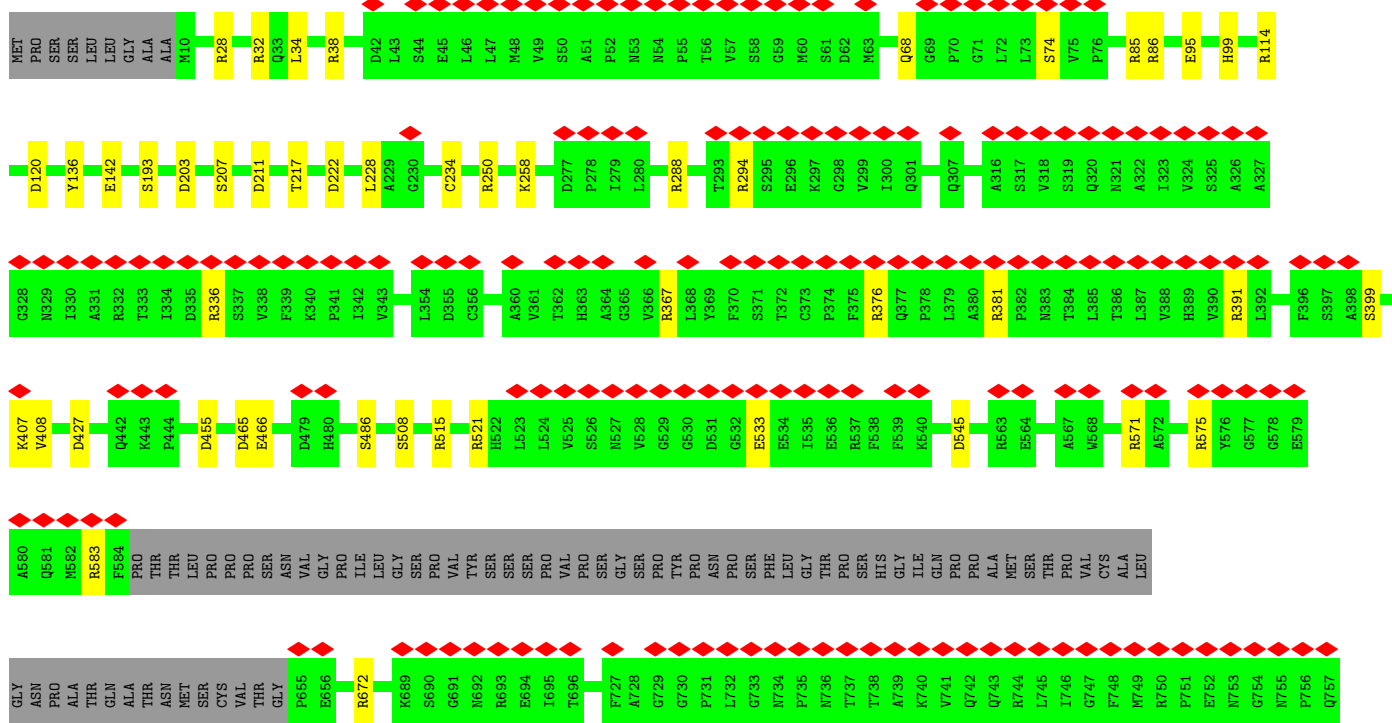
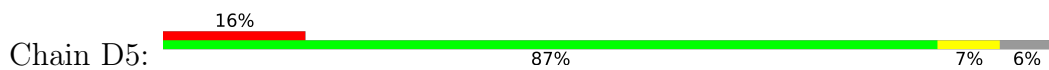


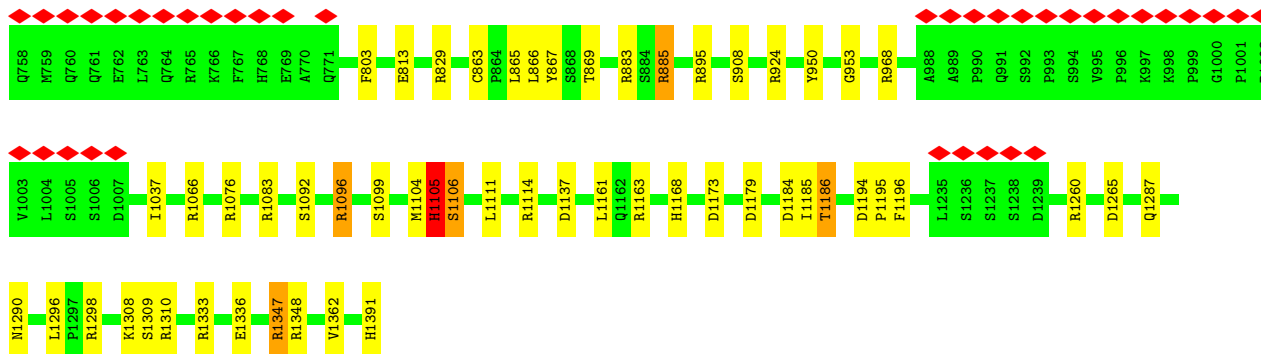
• Molecule 7: Nuclear pore complex protein Nup155



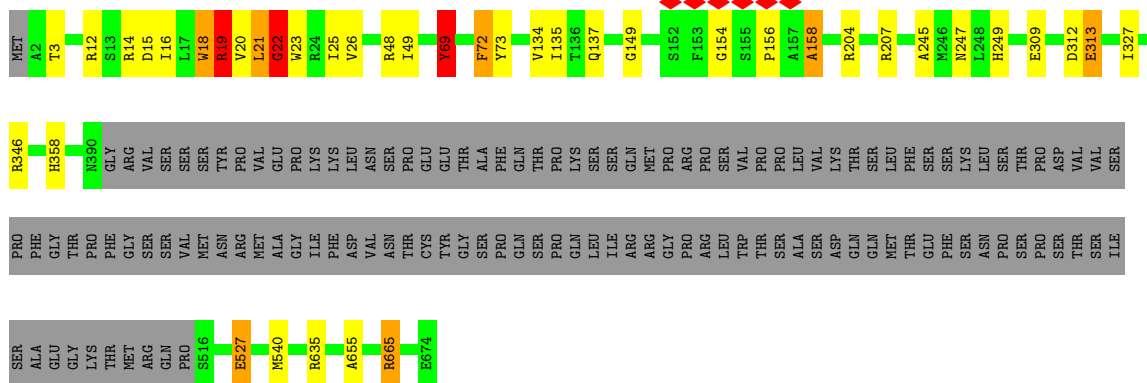
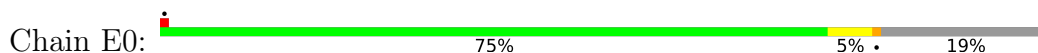


● Molecule 7: Nuclear pore complex protein Nup155

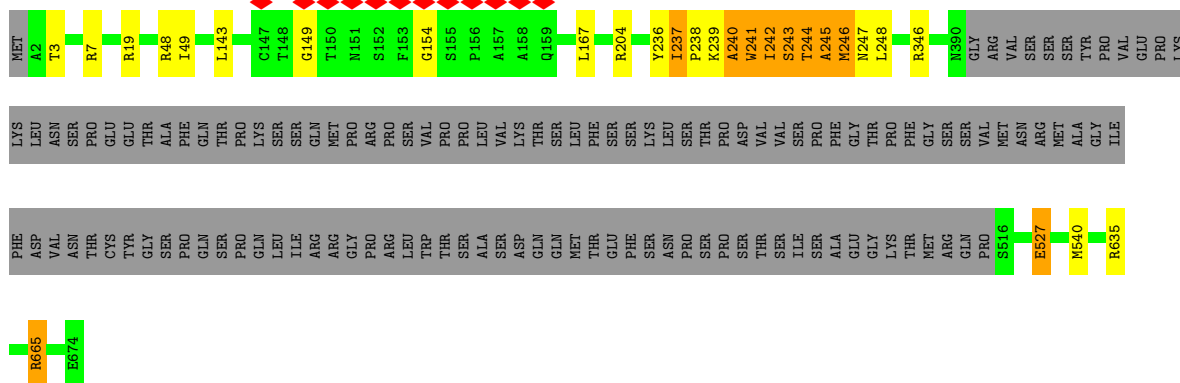
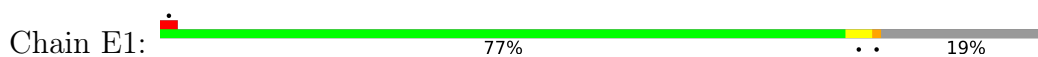




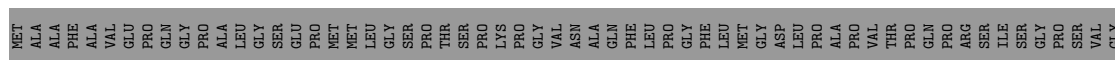
● Molecule 8: Nucleoporin NDC1



● Molecule 8: Nucleoporin NDC1

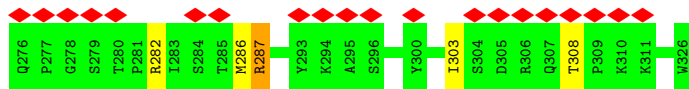
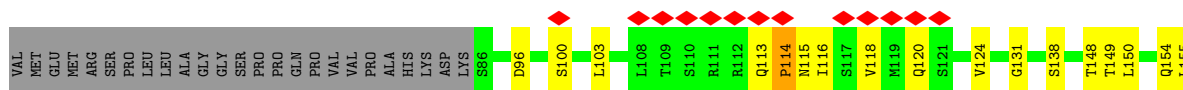


● Molecule 9: Nucleoporin NUP35

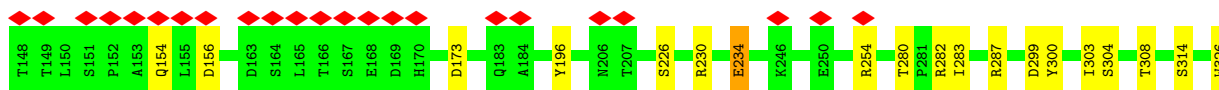
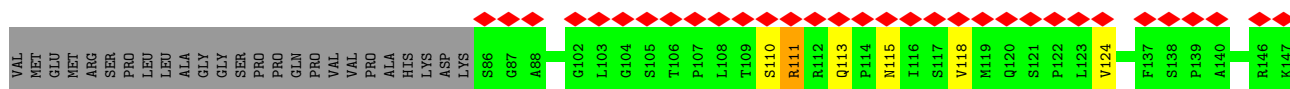
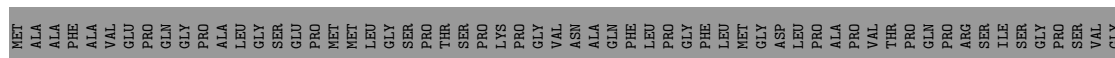




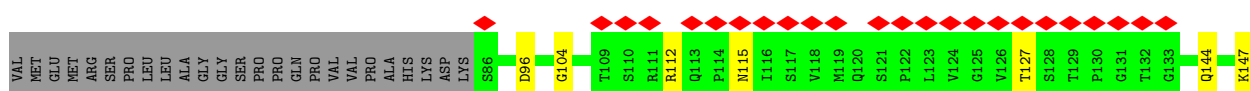
• Molecule 9: Nucleoporin NUP35

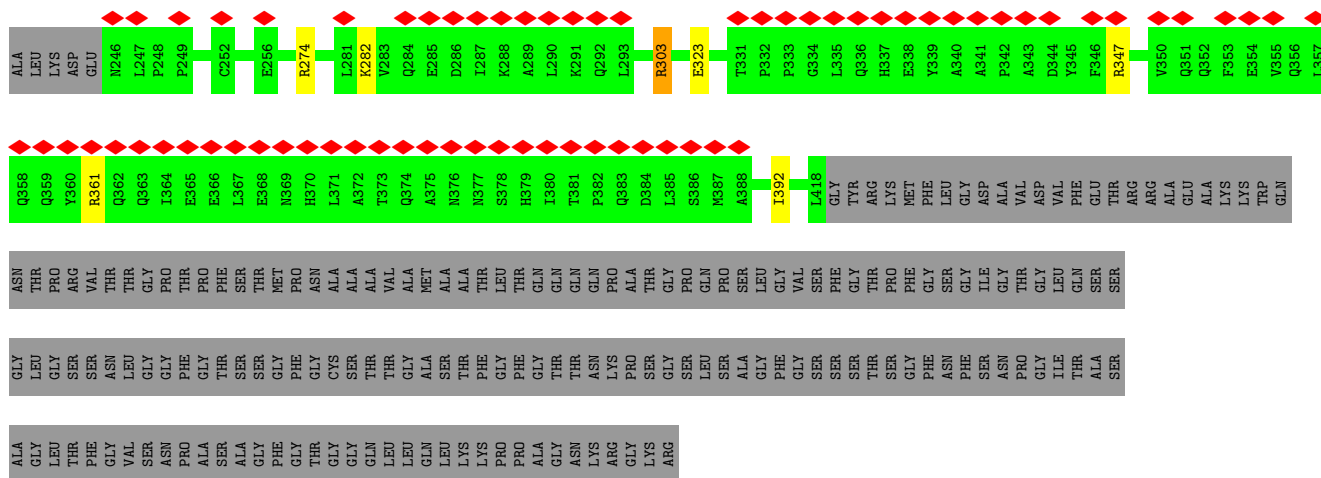


• Molecule 9: Nucleoporin NUP35

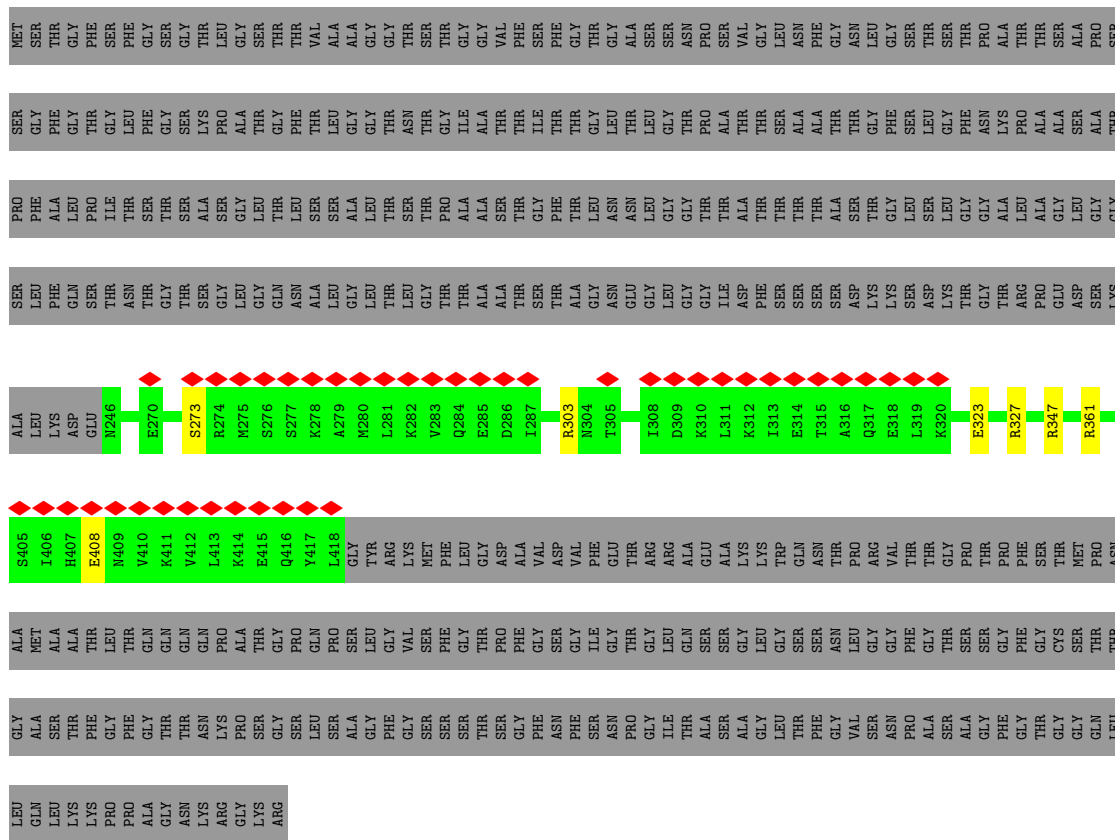


• Molecule 9: Nucleoporin NUP35



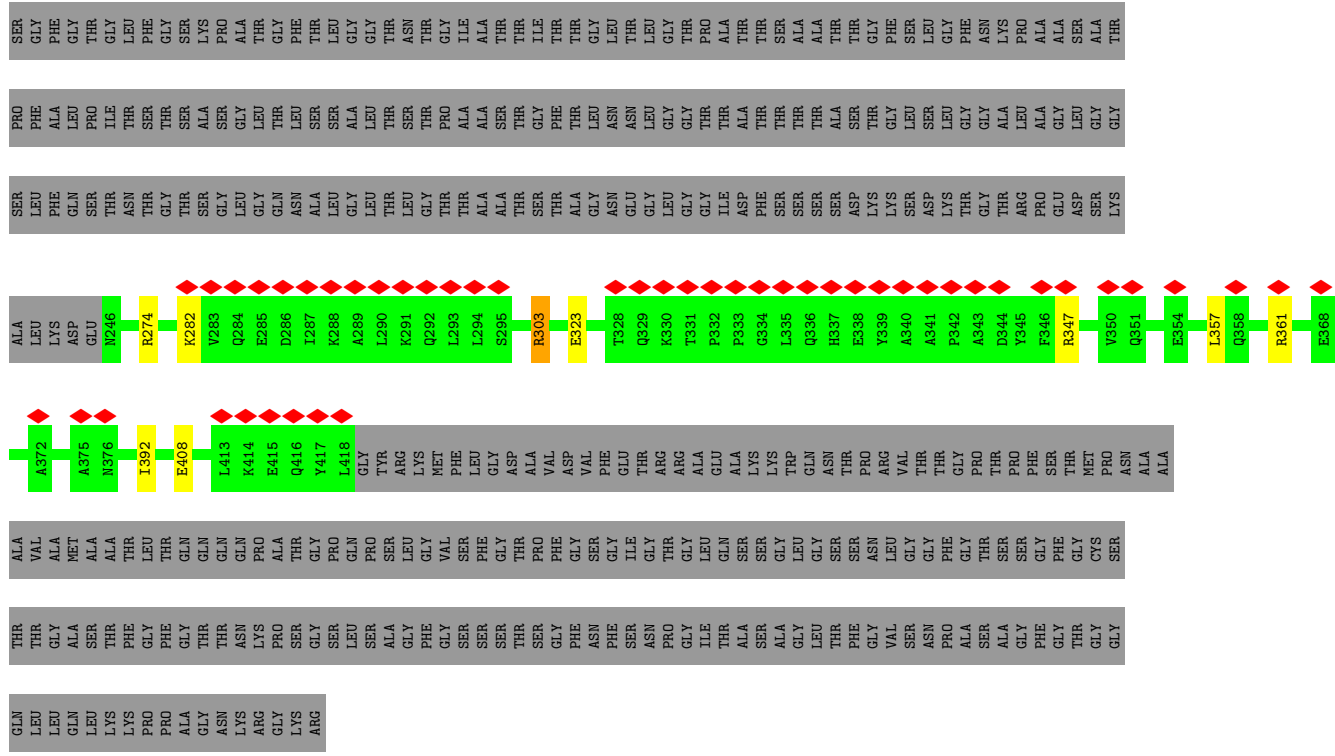


• Molecule 11: Nucleoporin p58/p45

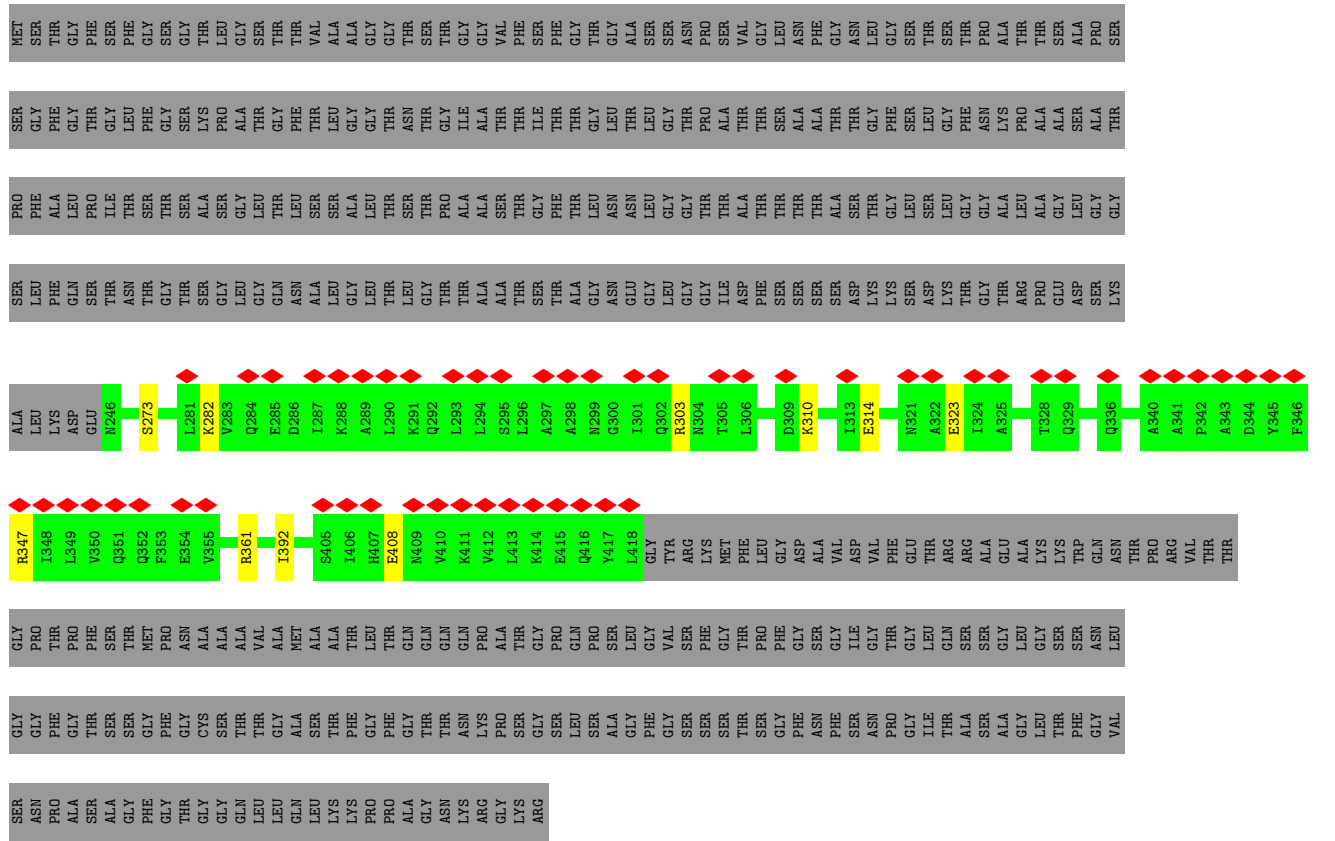


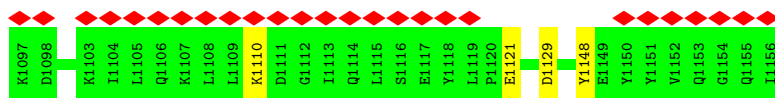
• Molecule 11: Nucleoporin p58/p45



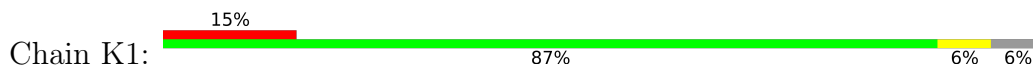


● Molecule 11: Nucleoporin p58/p45

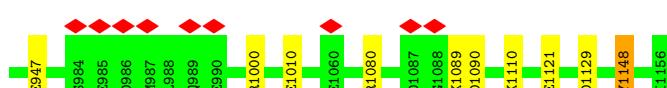
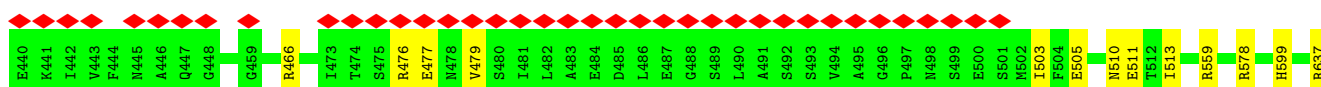
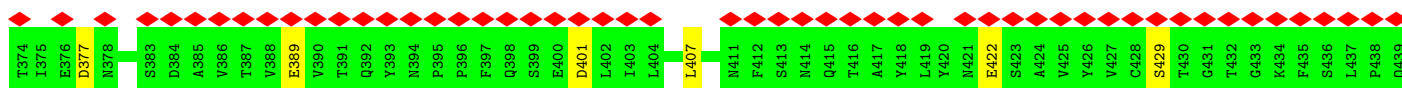
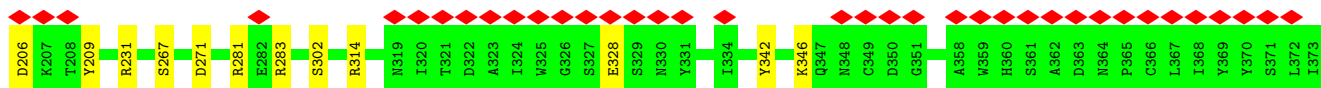
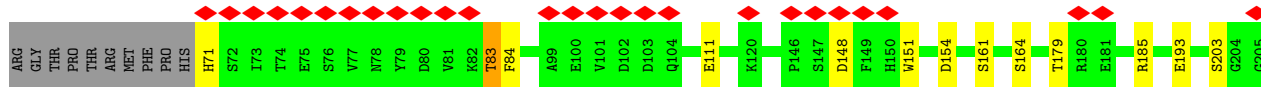




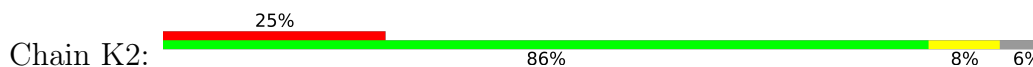
• Molecule 13: Nuclear pore complex protein Nup133



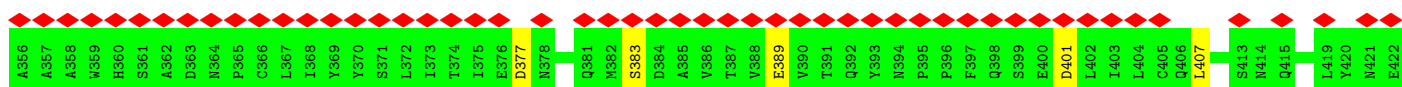
MET	PRO	PHE	ALA	ALA	PRO	PRO	ARG	THR	THR	GLY	THR	GLY	SER	ARG	ARG	GLY	PRO	LEU	ALA	ALA	THR	ARG	ARG	THR	PRO	ARG	ALA	VAL	SER	VAL	GLY	ARG	ARG	SER	SER	LEU	SER	SER
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

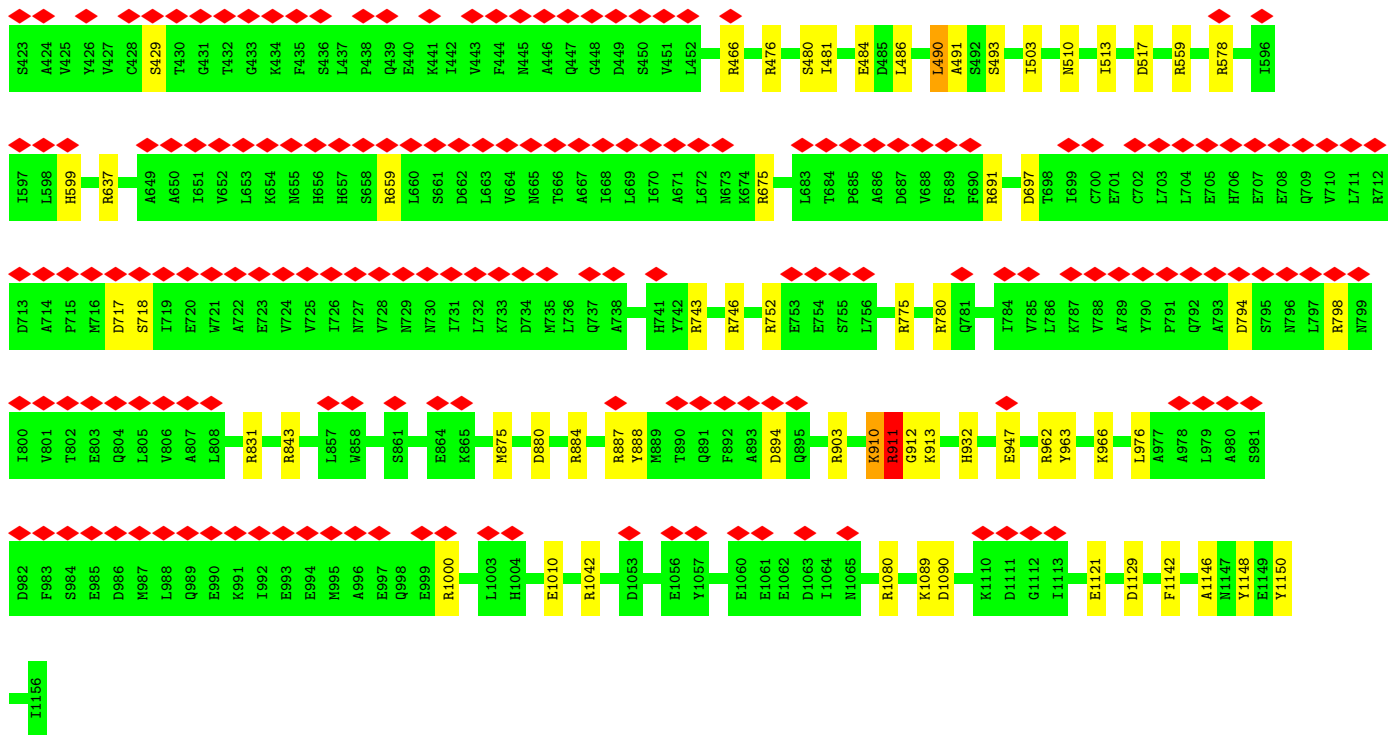


• Molecule 13: Nuclear pore complex protein Nup133

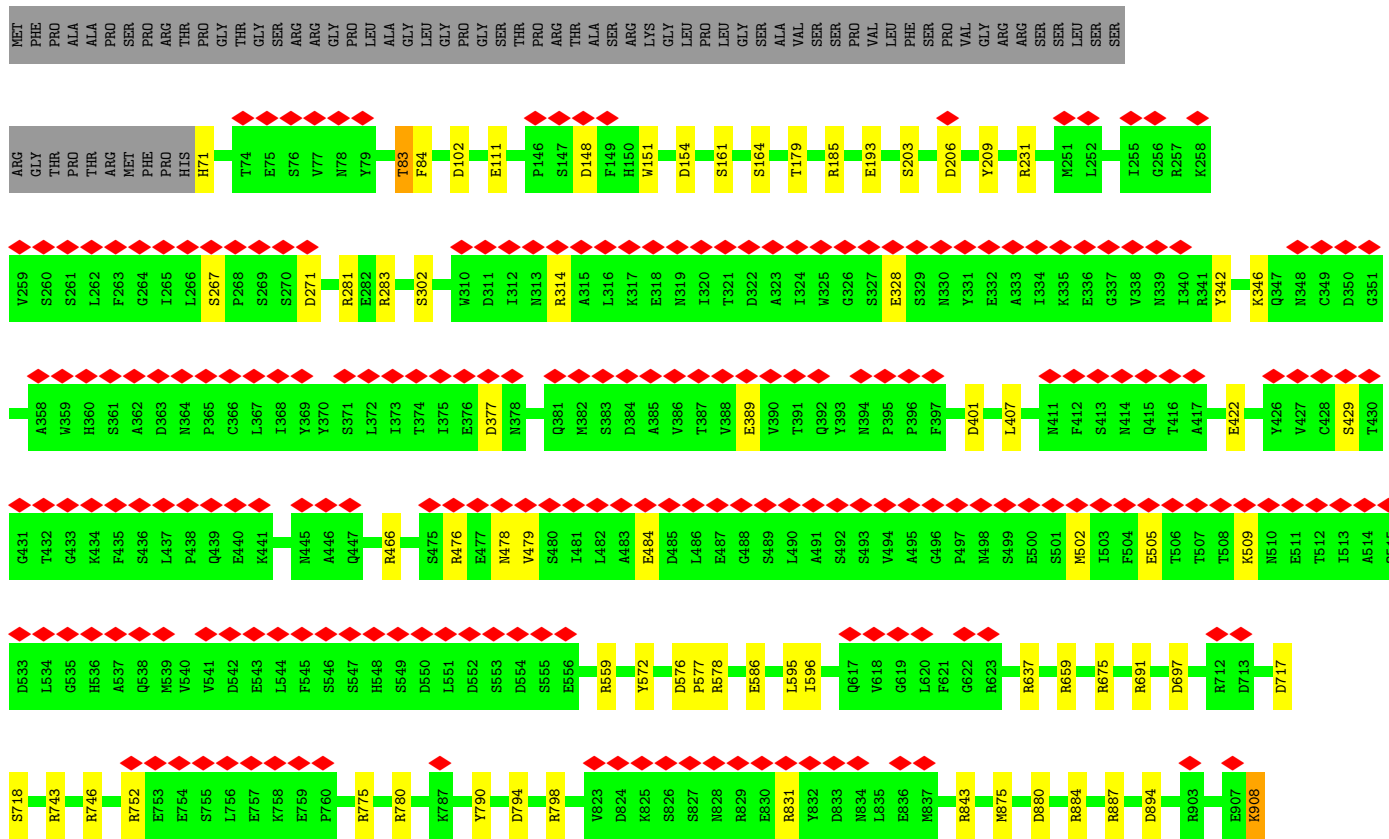
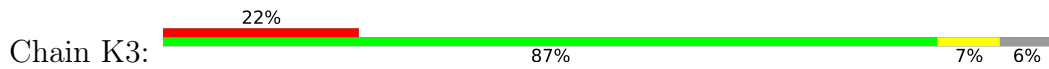


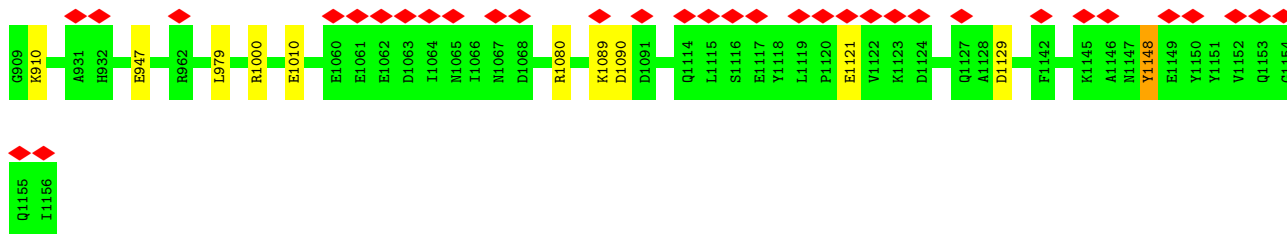
MET	PRO	PHE	ALA	ALA	PRO	PRO	ARG	THR	THR	GLY	THR	GLY	SER	ARG	ARG	GLY	PRO	LEU	ALA	ALA	THR	ARG	ARG	THR	PRO	ARG	ALA	VAL	SER	VAL	GLY	ARG	ARG	SER	SER	LEU	SER	SER
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



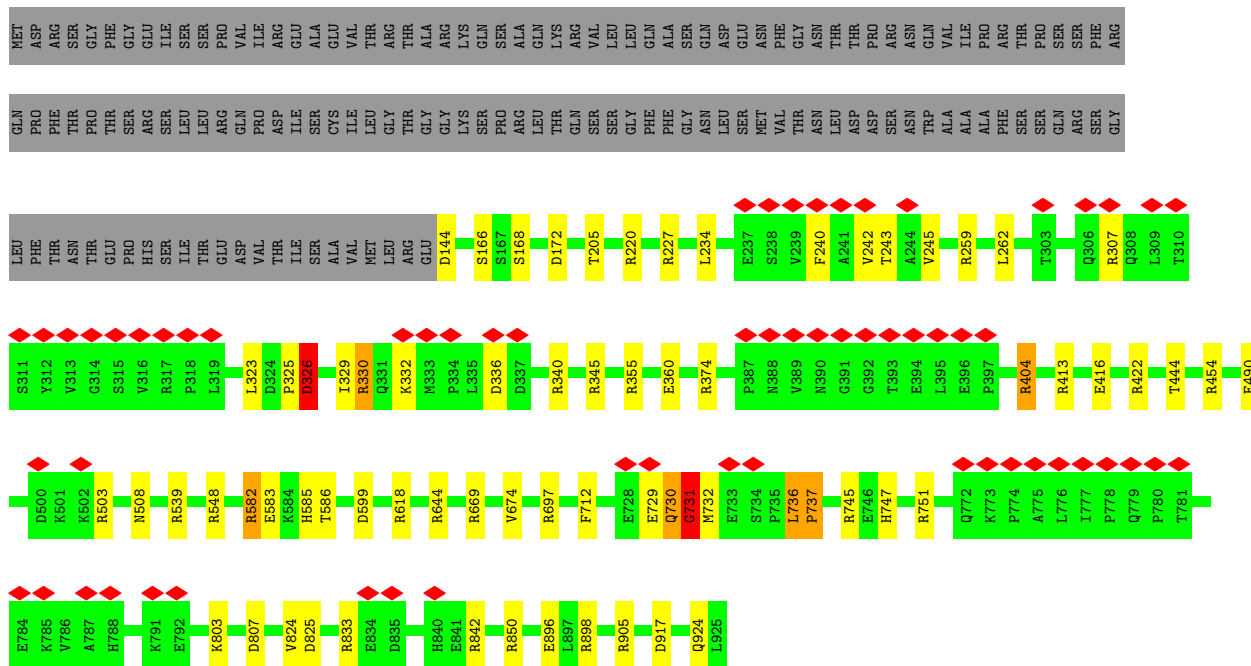
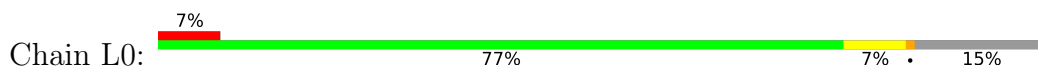


• Molecule 13: Nuclear pore complex protein Nup133

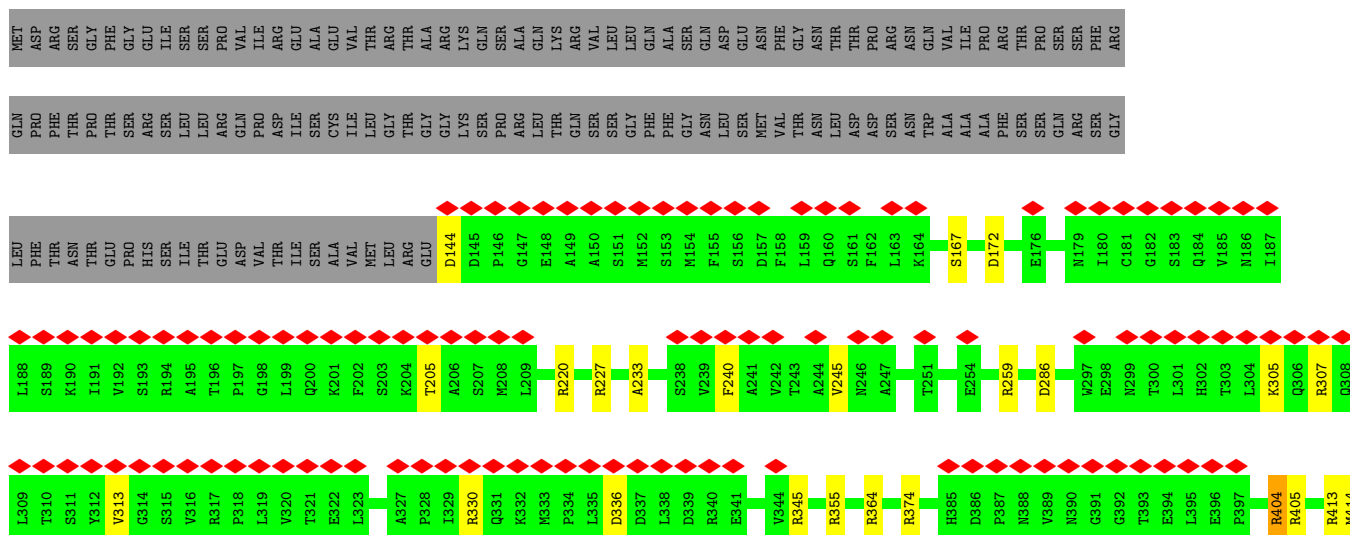
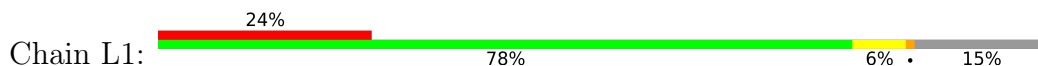


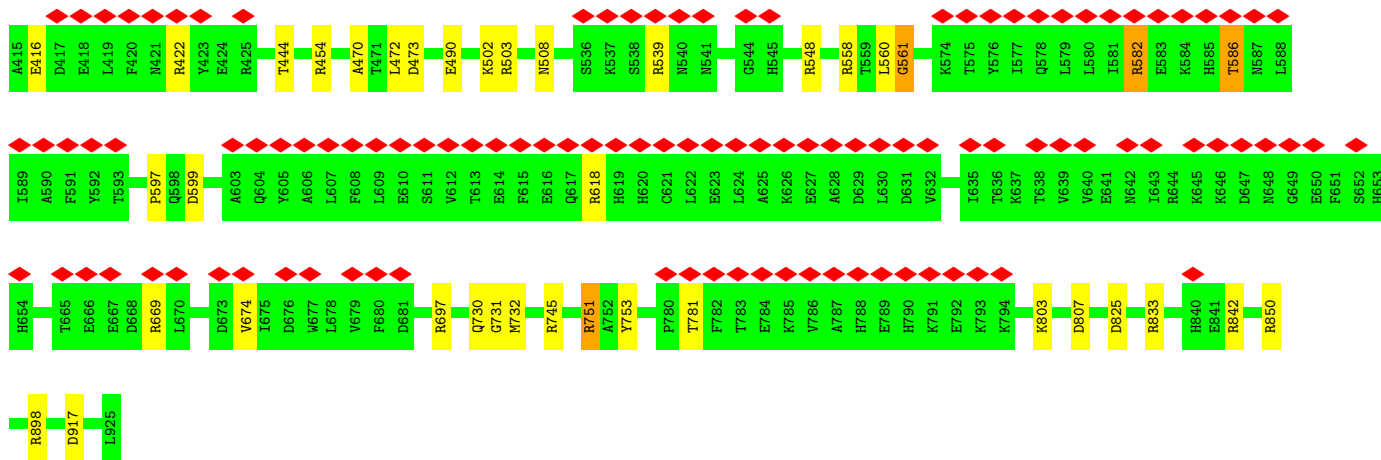


• Molecule 14: Nuclear pore complex protein Nup107

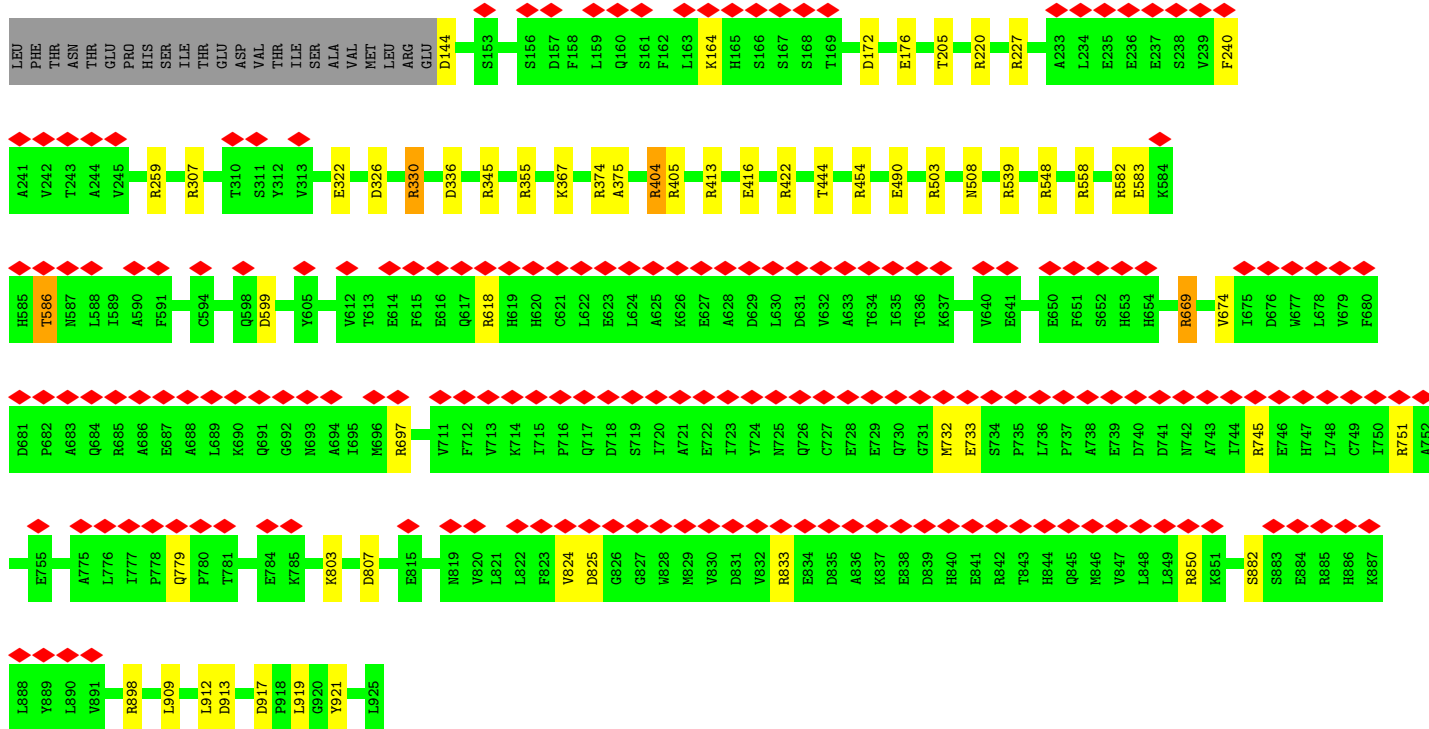
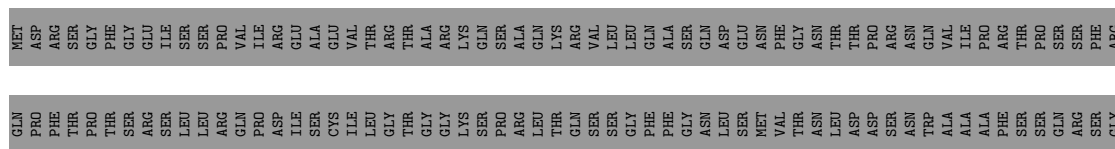
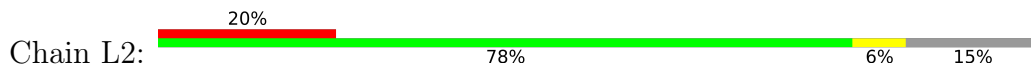


• Molecule 14: Nuclear pore complex protein Nup107

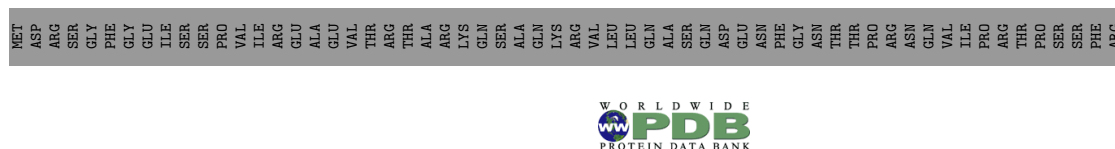
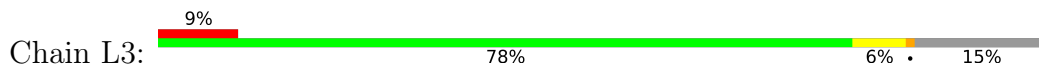


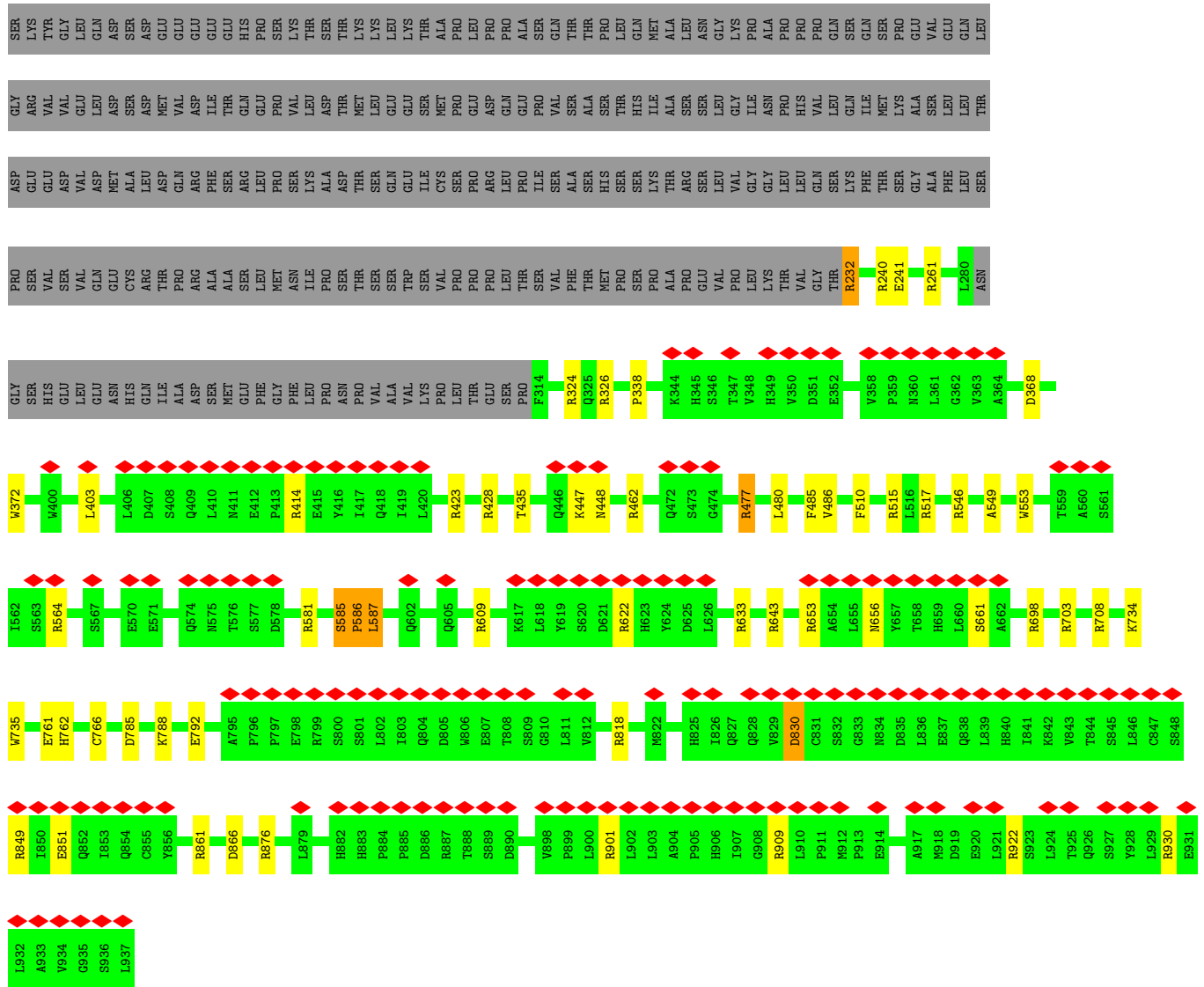


• Molecule 14: Nuclear pore complex protein Nup107

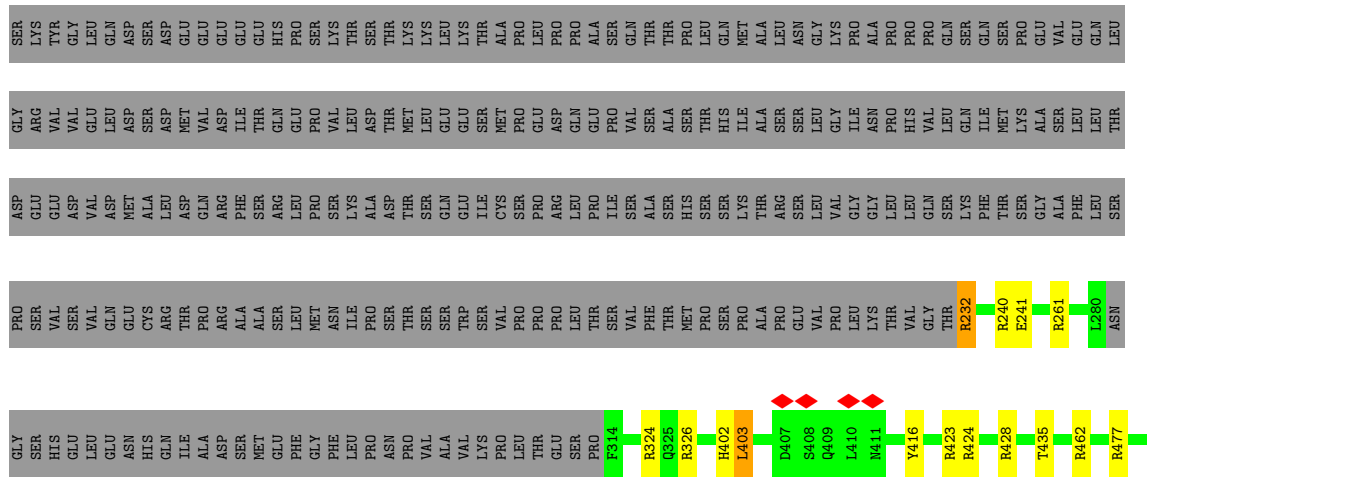


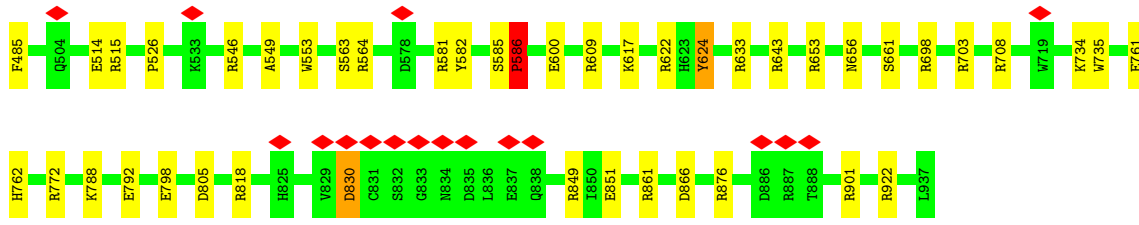
• Molecule 14: Nuclear pore complex protein Nup107



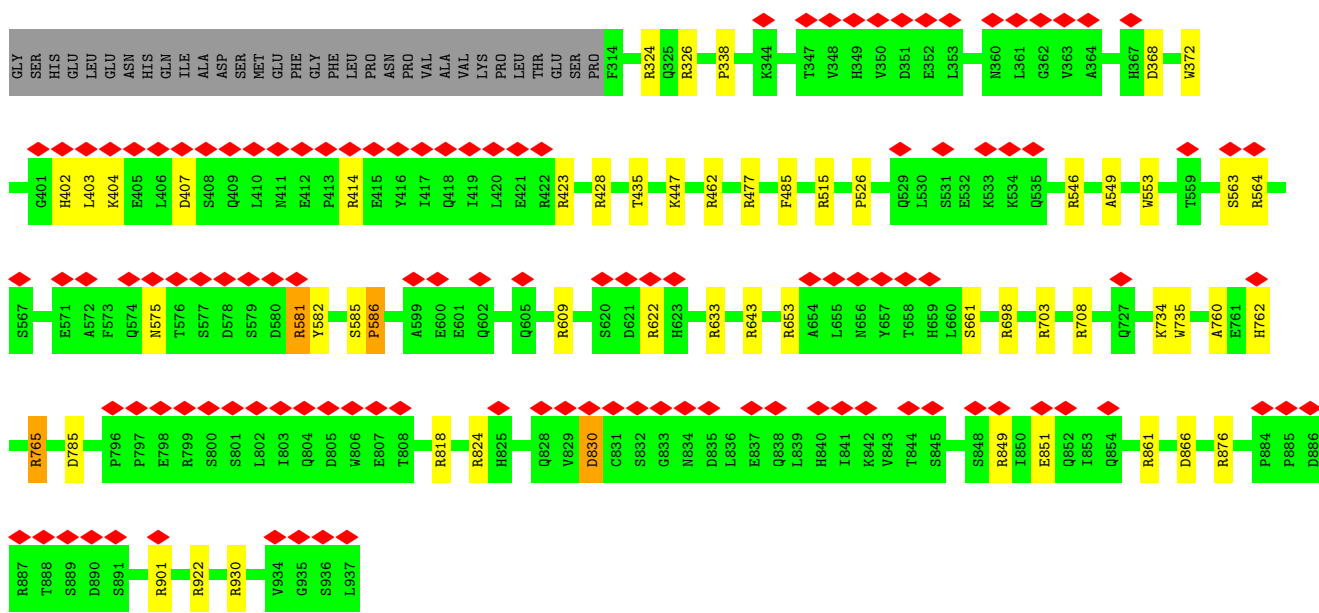
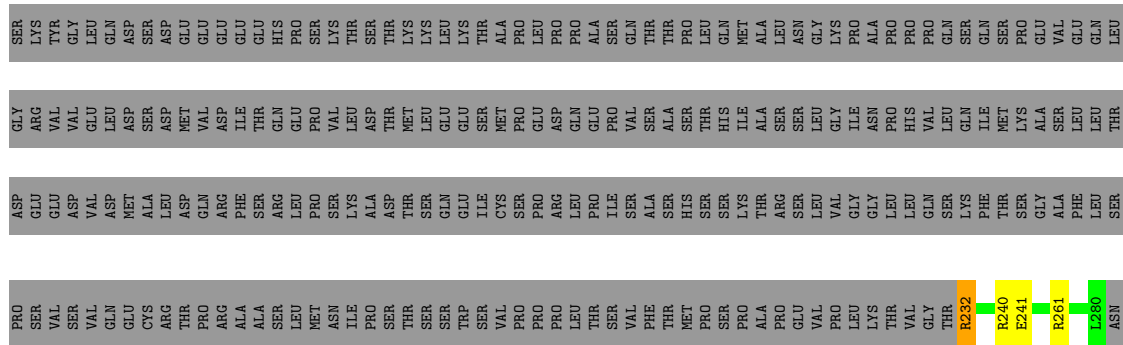


• Molecule 15: Nuclear pore complex protein Nup96

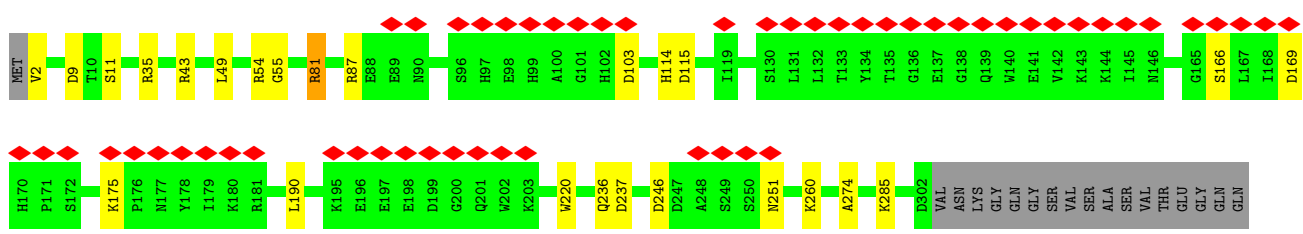
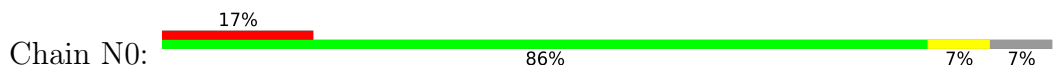




• Molecule 15: Nuclear pore complex protein Nup96

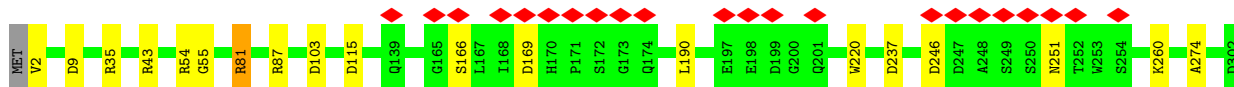
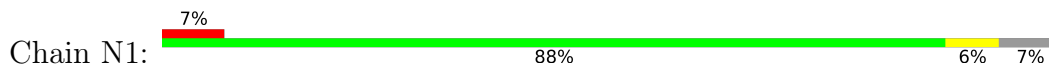


• Molecule 16: Protein SEC13 homolog



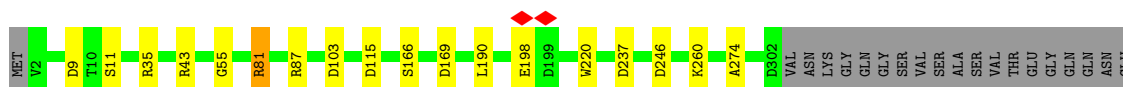
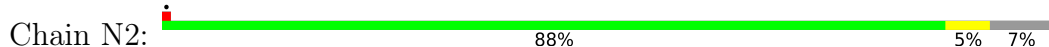
ASN
GLU
GLN

• Molecule 16: Protein SEC13 homolog



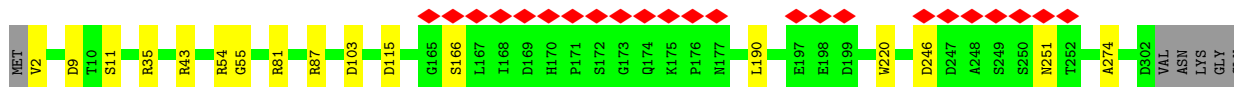
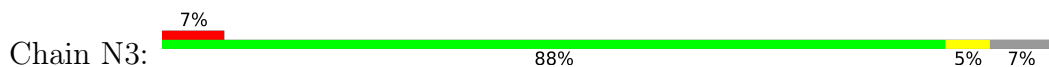
VAL
ASN
LYS
GLY
GLN
GLY
SER
VAL
SER
SER
ALA
SER
VAL
THR
GLU
GLY
GLN
GLN
ASN
GLU
GLN

• Molecule 16: Protein SEC13 homolog



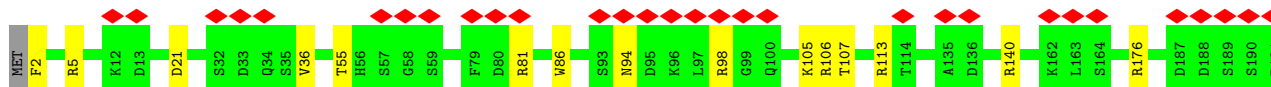
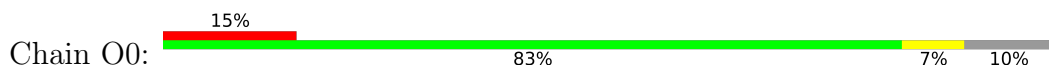
GLN

• Molecule 16: Protein SEC13 homolog



GLY
SER
VAL
SER
ALA
SER
VAL
THR
GLU
GLY
GLN
GLN
ASN
GLU
GLN

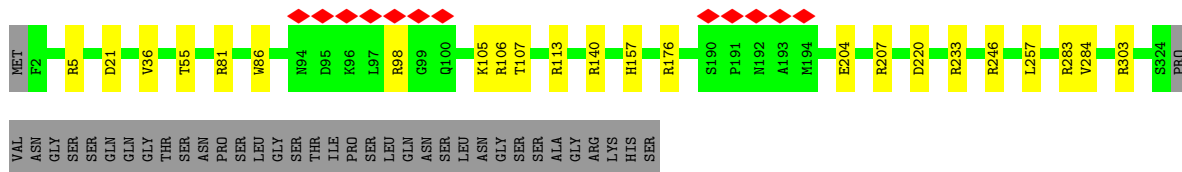
• Molecule 17: Nucleoporin SEH1



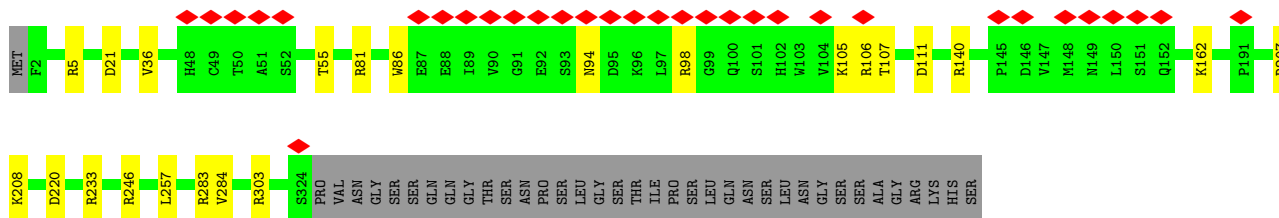
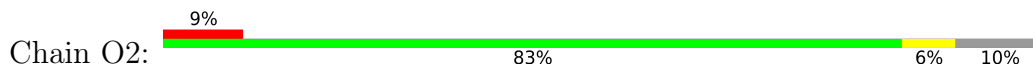
ASN
PRO
SER
LEU
GLY
SER
THR
ILE
PRO
SER
SER
LEU
GLN
ASN
SER
LEU
ASN
GLY
SER
SER
ALA
GLY
ARG
LYS
HIS
SER

• Molecule 17: Nucleoporin SEH1

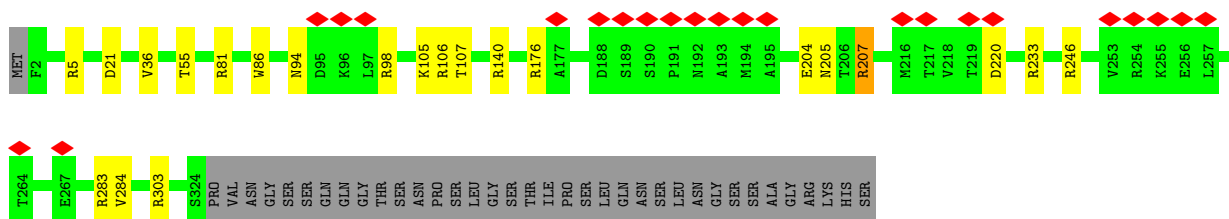
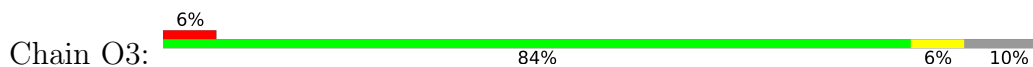




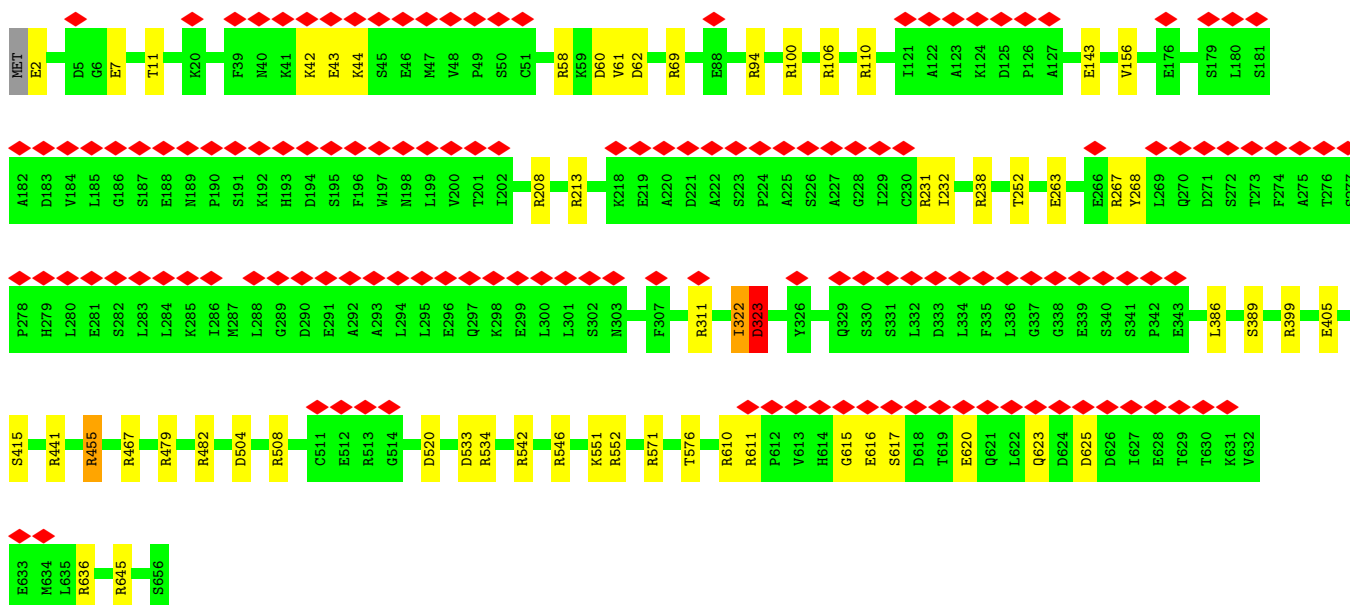
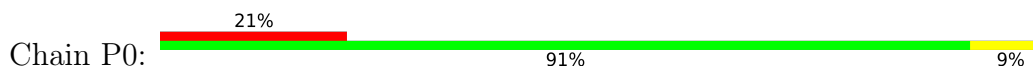
• Molecule 17: Nucleoporin SEH1



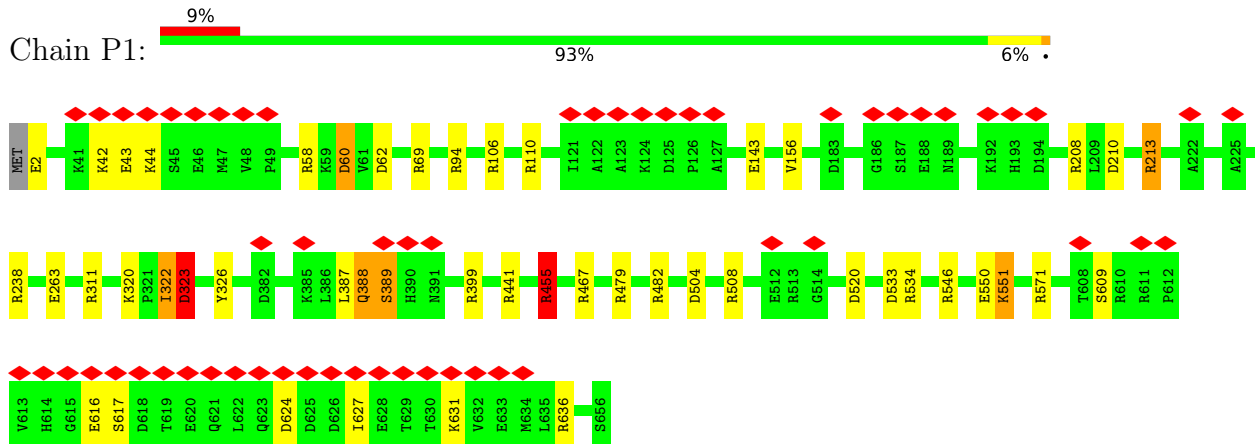
• Molecule 17: Nucleoporin SEH1



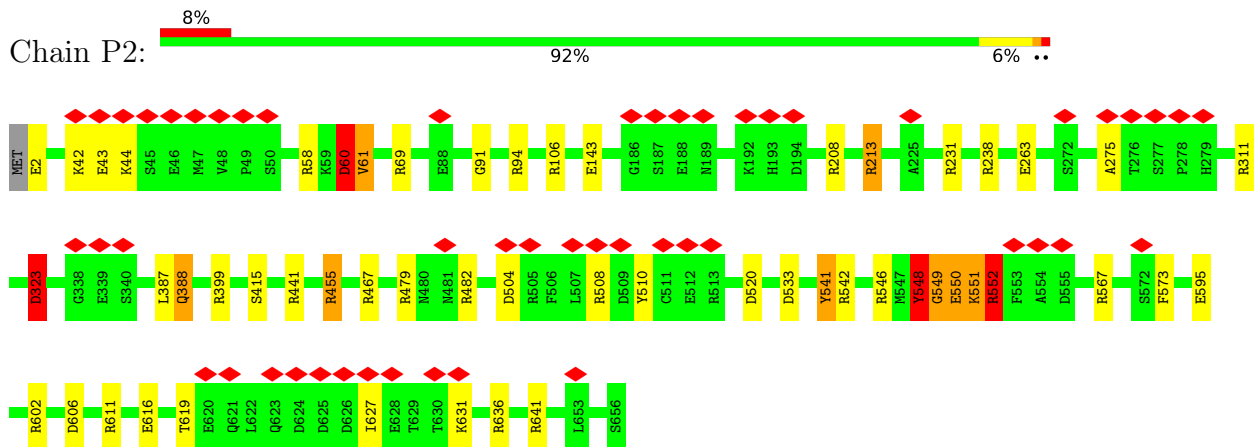
• Molecule 18: Nuclear pore complex protein Nup85



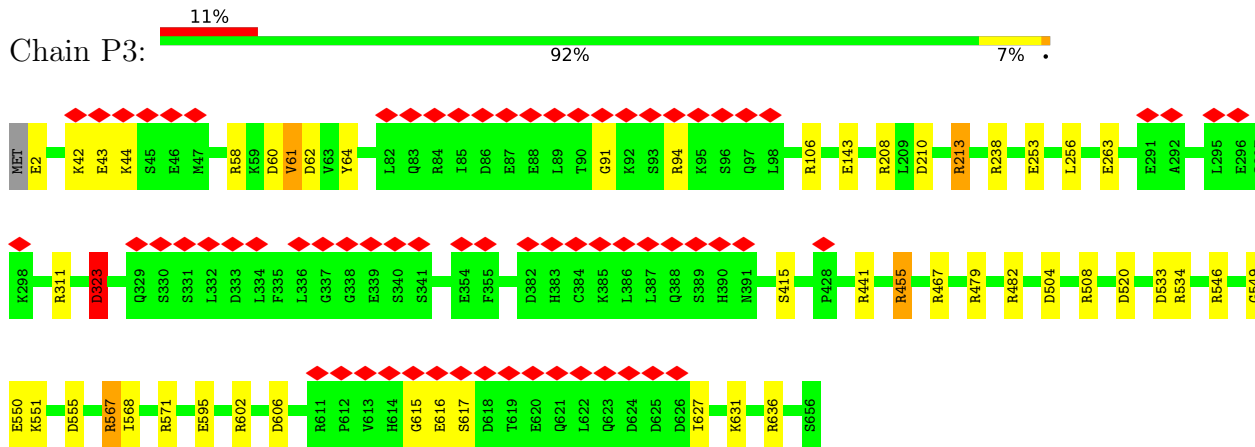
• Molecule 18: Nuclear pore complex protein Nup85



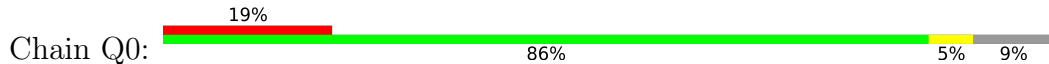
• Molecule 18: Nuclear pore complex protein Nup85

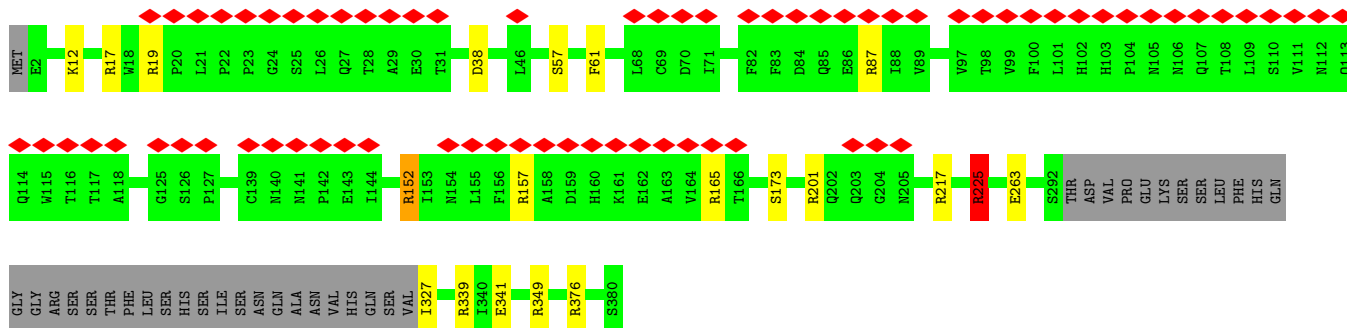


• Molecule 18: Nuclear pore complex protein Nup85

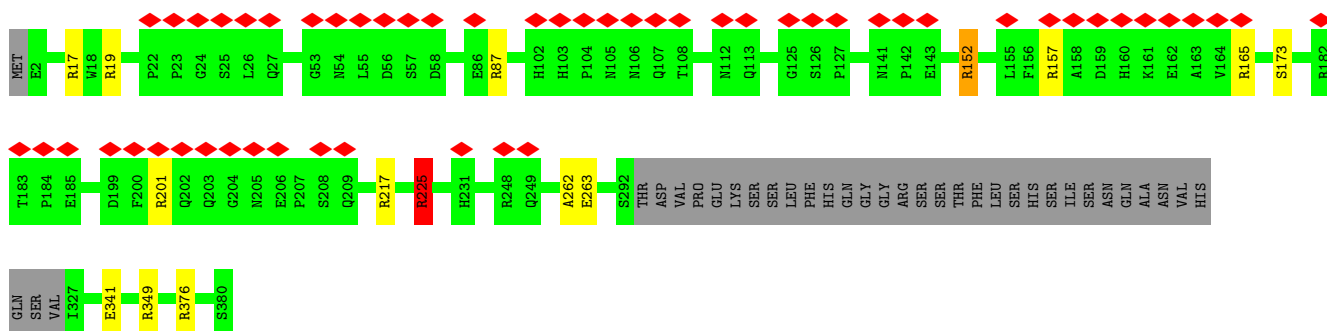
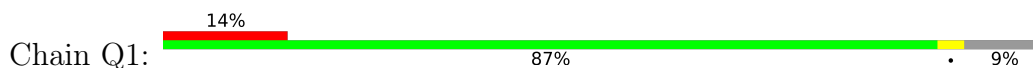


• Molecule 19: Nucleoporin Nup43

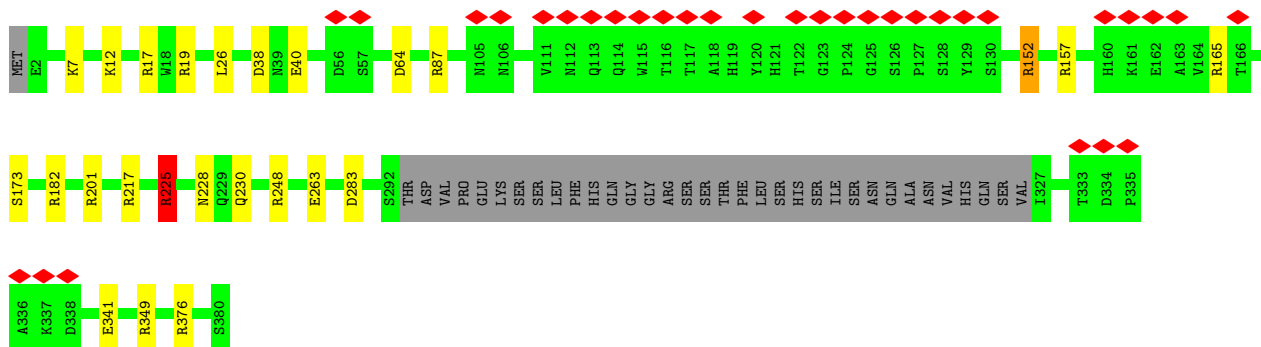
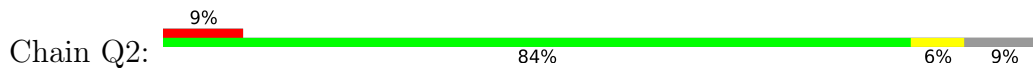




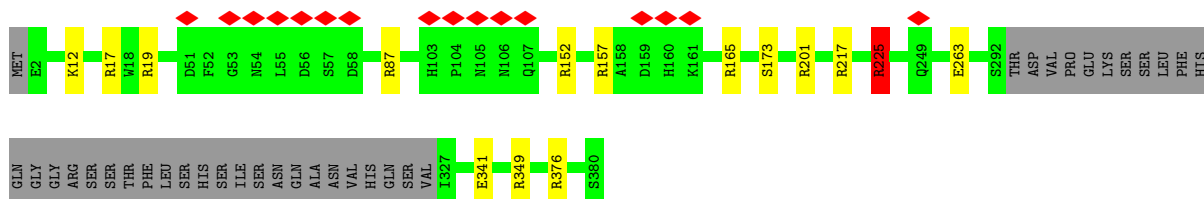
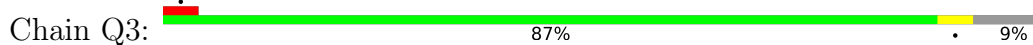
• Molecule 19: Nucleoporin Nup43



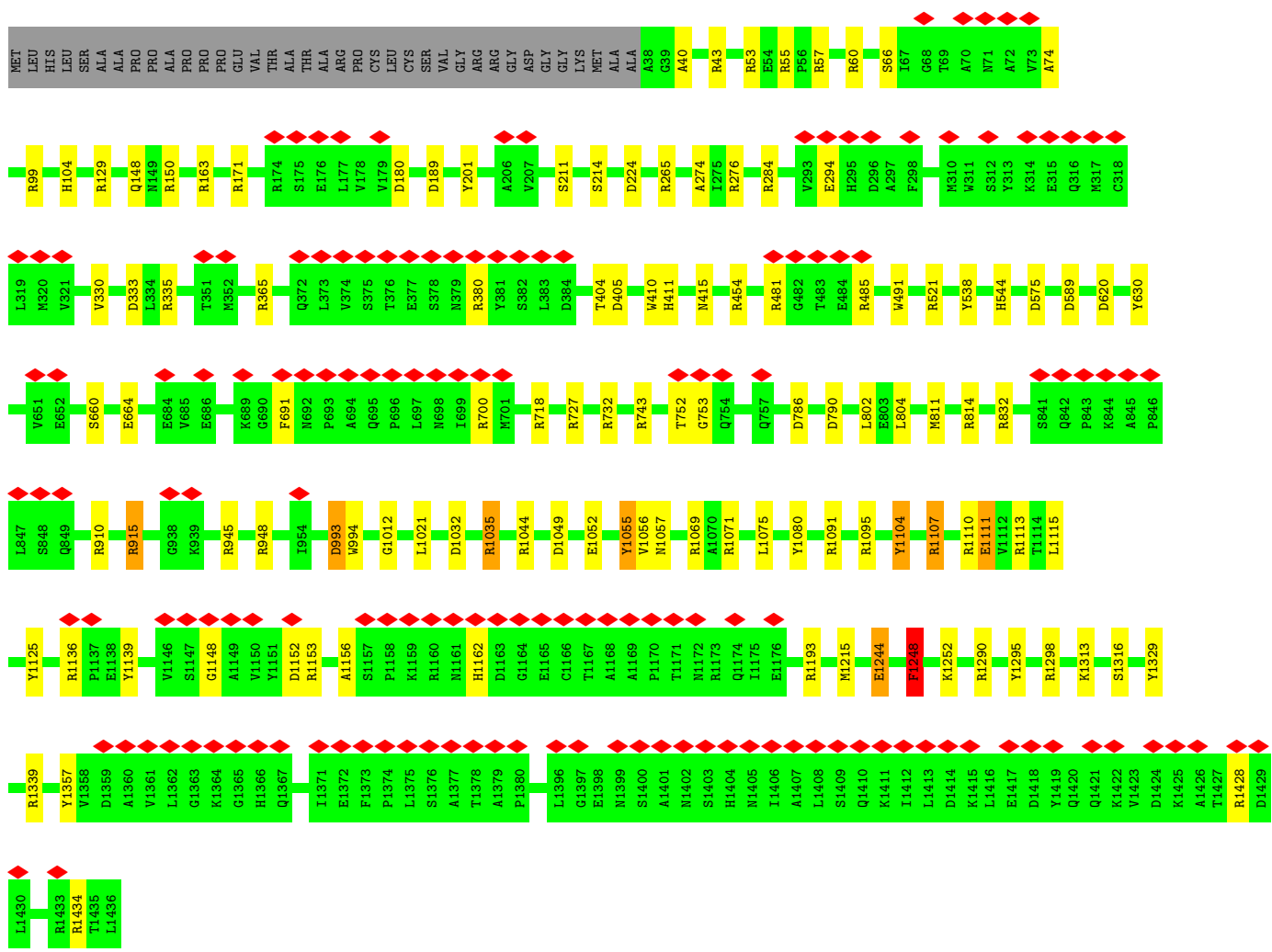
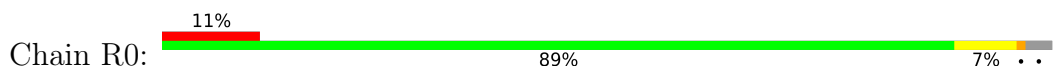
• Molecule 19: Nucleoporin Nup43



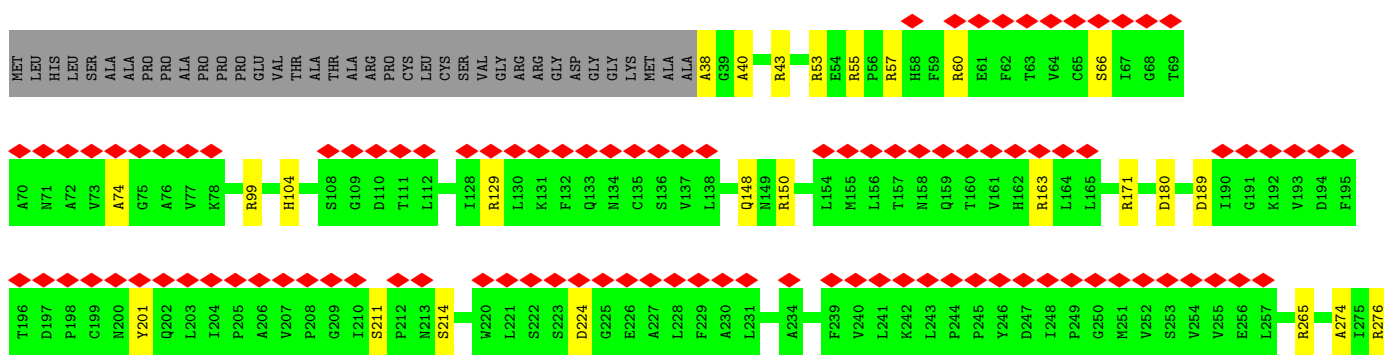
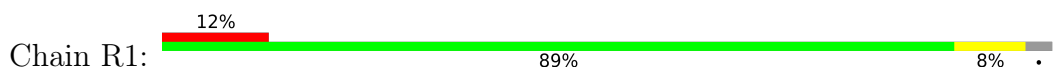
• Molecule 19: Nucleoporin Nup43

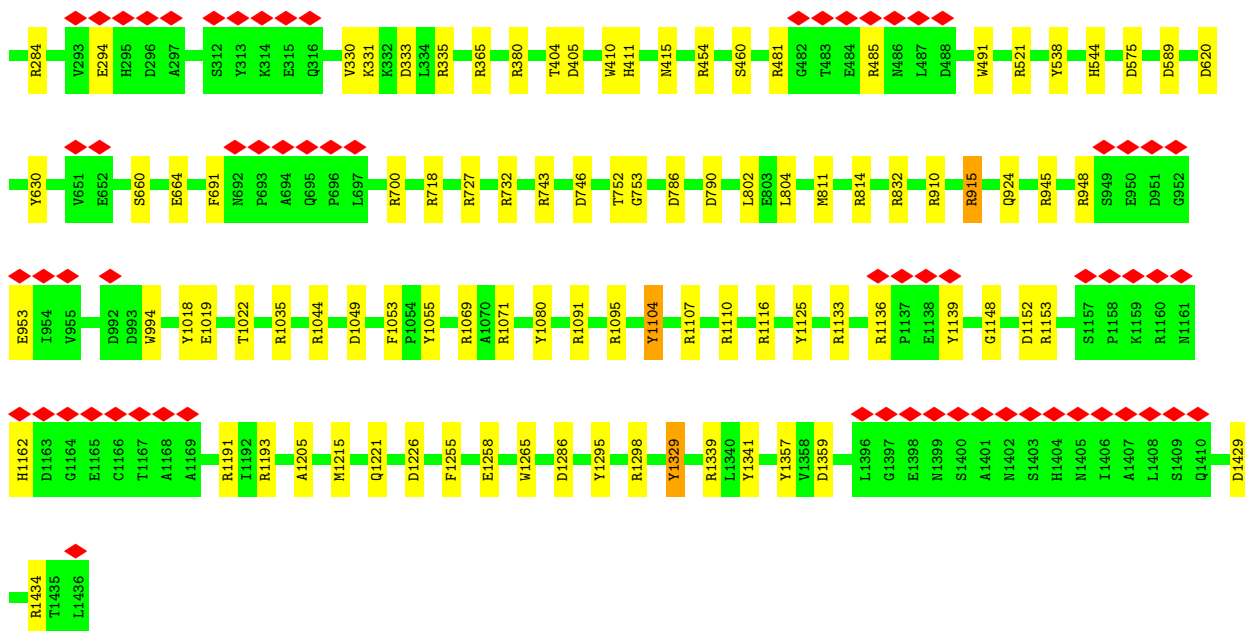


• Molecule 20: Nuclear pore complex protein Nup160

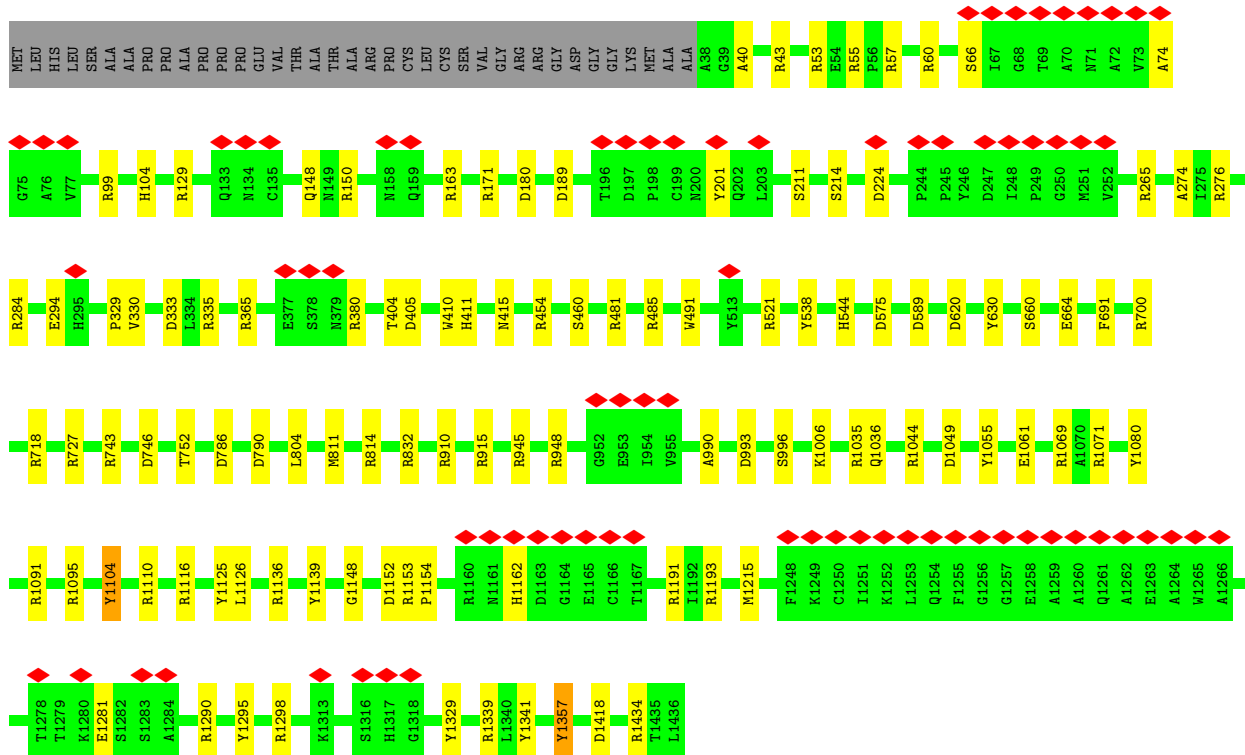
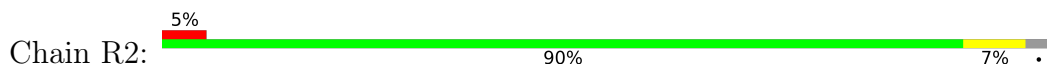


• Molecule 20: Nuclear pore complex protein Nup160

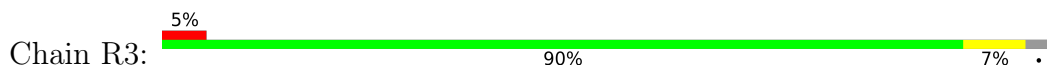


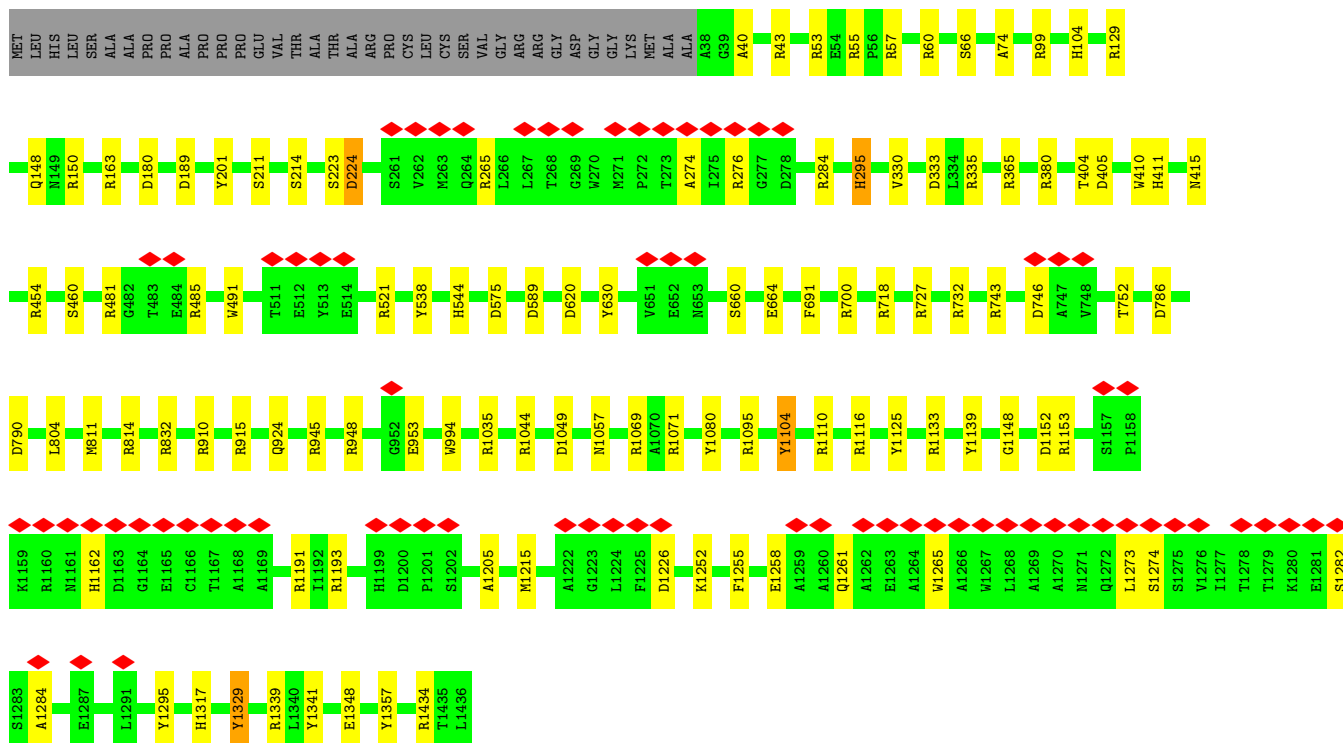


• Molecule 20: Nuclear pore complex protein Nup160

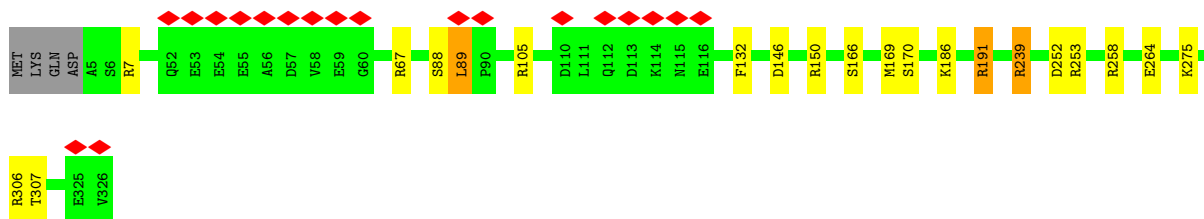
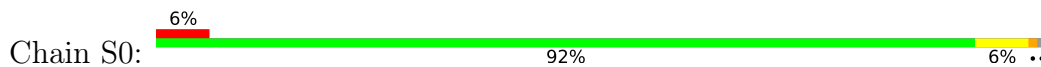


• Molecule 20: Nuclear pore complex protein Nup160

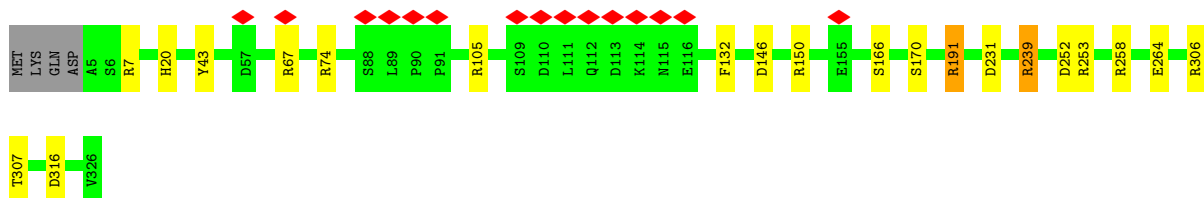




• Molecule 21: Nucleoporin Nup37

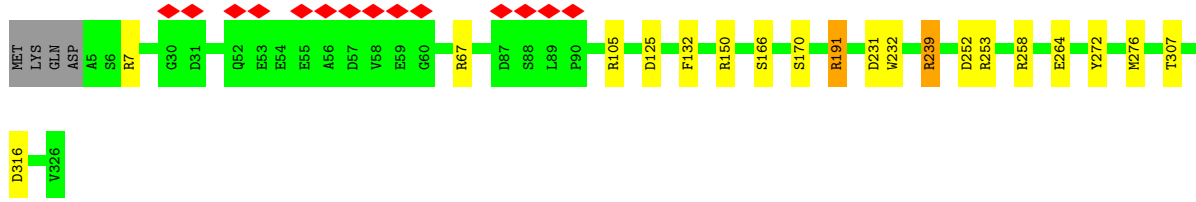


• Molecule 21: Nucleoporin Nup37

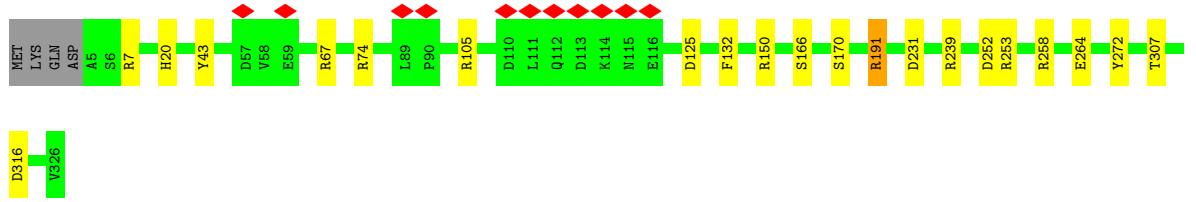


• Molecule 21: Nucleoporin Nup37

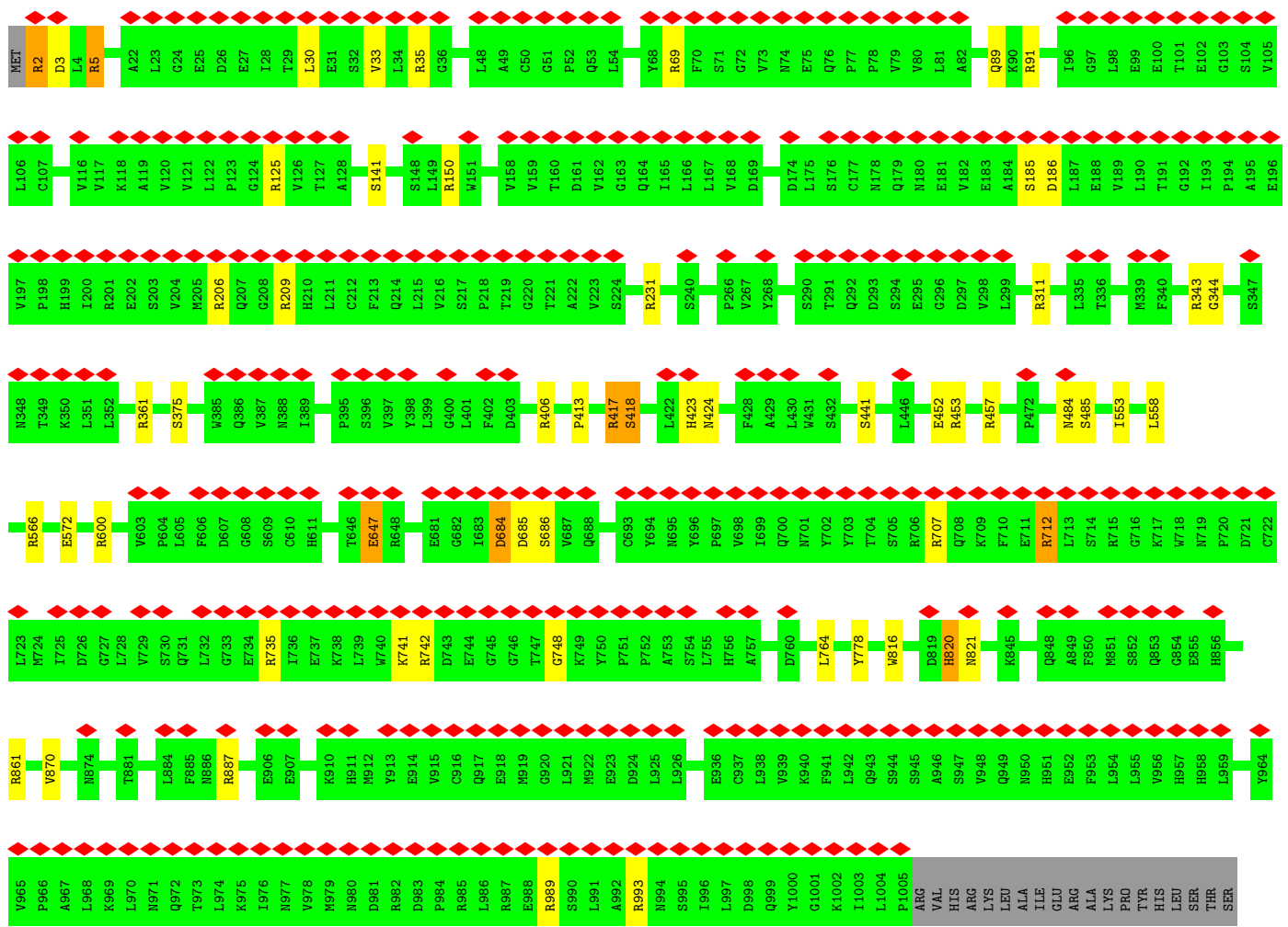
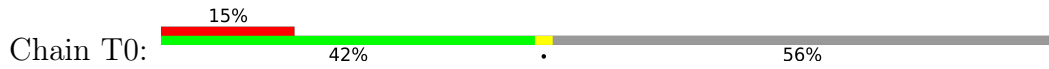




• Molecule 21: Nucleoporin Nup37



• Molecule 22: Protein ELYS

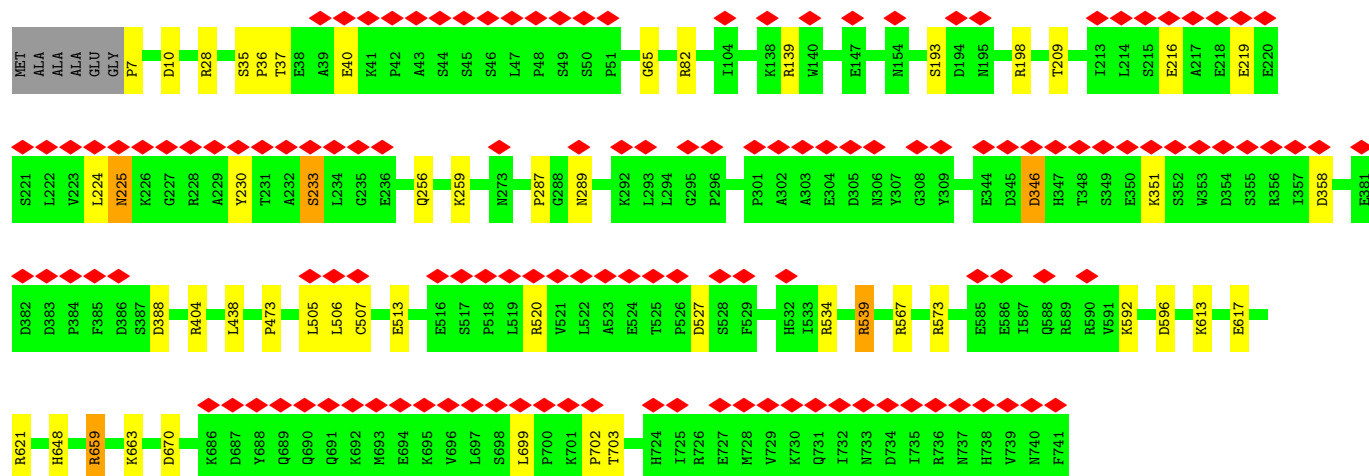


ALA	SER	PRO	ALA	ASP	GLY	VAL	LYS	SER	PRO	PRO	LYS	ARG	LYS	THR	THR	GLU	THR	GLY	THR	GLY	GLY	ARG	ASN	ARG	ARG	LYS	LYS	LEU	SER	SER	TYR	PRO	LYS	GLN	ILE	LEU	ARG	ARG	LYS	LYS	LEU
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

● Molecule 22: Protein ELYS



MET	R2	D3	L4	R5	A6	Q7	T19	A22	L23	G24	E25	D26	E27	T28	T29	L30	E31	S32	V33	L34	R35	G36	K37	F38	A39	A40	G41	K42	N43	G44	L45	A46	C47	L48	A49	C50	G51	P52	Q53	L54	E55	V56	V57	R64	L65	S66	Y68	R69	F70	S71	G72	V73	N74	E75	Q76	P77	P78	V79	V80	L81	A82	V83	K84	E85	F86	S87	W88	Q89	K90	R91	T92	G93	L94	L95	I96	G97	L98	E99	E100	E102	G103	S104	V105	G106	C107	L108	Y109	D110	L111	G112	I113	S114	K115	V116	V117	K118	A119	V120	V121	L122	P123	G124	R125	V126	T127	A128	I129	E130	P131	I132	I133	N134	H135	G136	G137	A138	S139	A140	S141	T142	Q143	H144	L145	H146	P147	S148	L149	R150	W151	L152	F153	G154	V155	A156	A157	V158	V159	T160	D161	E162	G163	Q164	I165	L166	L167	V168	D169	L170	C171	L172	D173	D174	L175	S176	C177	M178	Q179	M180	E181	V182	E183	A184	S185	D186	L187	E188	V189	M249	K250	N310	S251	M252	I253	P194	A195	E196	V197	P198	H199	I200	E201	R202	S203	V204	M205	R206	Q207	G208	R209	H210	L211	C212	F213	Q214	L215	V216	S217	P218	T219	G220	T221	A222	V223	S224	T225	L226	S227	Y228	L229	S230	R231	T232	N233	Q234	L235	A236	V237	G238	F239	S240	D241	G242	Y243	L244	A245	Q246	W247	N248	G249	N310	R311	K312	C313	L314	A315	S316	G317	Q318	I319	L320	E321	G322	G323	L324	Y325	Y326	C327	E328	E329	R330	Y331	T332	L333	D334	L335	T336	G337	M338	F339	F340	P341	L342	R343	G344	Q345	T346	S347	N348	T349	K350	L351	L352	G353	Q355	S356	I357	E358	K359	F360	R361	S362	H363	L364	D365	D366	E367	E368	G369	L370	N371	E372	A373	L374	S375	P376	D377	T378	S379	V380	S381	V382	F383	T384	W385	Q386	V387	N388	I389	Y390	P395	S396	V397	Y398	L399	G400	F401	D403	I404	M405	R406	W407	Y408	H409	A410	Q411	N412	P413	D414	S415	L416	R417	S418	G419	E420	Y421	L422	H423	W424	C425	S426	Y427	F428	A429	L430	W431	S432	G433	E434	S435	S441	G444	I445	L446	D447	I448	L449	V450	E451	R453	S454	L455	M456	R457	G458	V459	P460	S461	S462	Y463	P464	P465	P466	E467	Q468	F469	F470	M471	P472	S473	Y474	Y475	M476	F477	L482	L483	M484	S485	T491	C492	T493	G494	E495	L496	K497	E498	S499	S500	A501	A502	Q503	S504	T505	S506	S507	S508	S509	L510	N511	E512	L513	I514	P515	D516	G517	Y518	N519	R520	C521	L522	V523	A524	G525	L526	L527	S528	P529	R530	F531	V532	D533	V534	Q535	P536	S537	S538	L539	S540	Q541	E542	E543	Q544	L545	E546	A547	I548	L549	S550	A551	A552	I553	Q554	T555	S556	S557	L558	E571	E572	Q573	P574	N575	S576	A577	T578	N579	L580	R581	F582	V583	L584	E585	R600	V603	P604	L605	F606	D607	G608	S609	C610	H611	F612	E644	I645	T646	E647	R648	G649	L650	I651	D652	N655	L678	L679	P680	E681	G682	I683	D684	D685	S686	V687	Q688	L689	S690	R691	L692	C693	Y694	N695	Y696	P697	V698	I699	Q700	N701	Y702	Y703	T704	S705	R706	Y707	Q708	K709	F710	E711	R712	L713	S714	R715	G716	K717	W718	M719	P720	D721	C722	L723	W724	I725	T726	F727	G728	W729	S730	Q731	L732	G733	E734	R735	I736	E737	K738	L739	E740	K741	R742	D743	E744	G745	G746	T747	G748	K749	Y750	P751	P752	A753	S754	L755	H756	A757	V758	L759	D760	M761	Y762	L763	L764	D765	G766	V767	A771	K772	H773	S774	I775	T776	I777	Y778	L779	L780	L781	D782	I783	M784	Y785	S786	F787	F788	W789	K790	T791	D792	V809	R810	L811	I812	Q813	G814	F815	M816	L817	L818	D819	H820	N821	D822	Y823	E824	S825	G826	L827	D828	L829	L830	H841	Q842	H843	S844	K845	I846	I847	Q848	A849	F850	M851	S852	Q853	G854
-----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------



4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, Not provided	
Number of subtomograms used	150	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	130	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	3000	Depositor
Magnification	Not provided	
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	0.878	Depositor
Minimum map value	-0.768	Depositor
Average map value	0.004	Depositor
Map value standard deviation	0.063	Depositor
Recommended contour level	0.0891	Depositor
Map size (\AA)	1987.2001, 1987.2001, 1987.2001	wwPDB
Map dimensions	144, 144, 144	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	13.8, 13.8, 13.8	Depositor

5 Model quality

5.1 Standard geometry

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	00	0.69	0/6212	1.04	21/8405 (0.2%)
1	01	0.69	0/6212	1.04	20/8405 (0.2%)
1	02	0.69	0/6212	1.04	18/8405 (0.2%)
1	03	0.69	0/6212	1.04	19/8405 (0.2%)
1	04	0.69	0/6212	1.04	21/8405 (0.2%)
2	10	1.01	5/14350 (0.0%)	1.01	49/19560 (0.3%)
2	11	0.65	0/14350	0.97	32/19560 (0.2%)
2	12	0.65	0/14350	0.97	37/19560 (0.2%)
2	13	0.65	0/14350	0.97	35/19560 (0.2%)
2	14	0.66	0/14350	0.98	42/19560 (0.2%)
2	15	0.65	0/14350	0.98	38/19560 (0.2%)
2	16	0.65	0/14350	0.98	38/19560 (0.2%)
2	17	0.68	7/14350 (0.0%)	1.01	51/19560 (0.3%)
3	40	0.68	0/3007	1.04	7/4114 (0.2%)
3	41	0.68	0/3007	1.04	7/4114 (0.2%)
4	A0	0.71	0/6687	1.07	31/9036 (0.3%)
4	A1	0.70	0/6687	1.06	31/9036 (0.3%)
4	A2	0.71	0/6687	1.08	29/9036 (0.3%)
4	A3	0.70	0/6687	1.05	29/9036 (0.3%)
4	A4	0.71	0/5972	1.05	27/8068 (0.3%)
4	A5	0.71	0/5972	1.03	25/8068 (0.3%)
4	A6	0.71	0/5972	1.04	27/8068 (0.3%)
5	B0	0.68	0/14018	1.02	44/19022 (0.2%)
5	B1	0.68	0/14018	1.01	36/19022 (0.2%)
6	C0	0.69	0/16330	1.04	76/22131 (0.3%)
6	C1	0.69	0/16330	1.04	73/22131 (0.3%)
6	C2	0.92	5/16330 (0.0%)	1.00	52/22131 (0.2%)
6	C3	0.69	0/16330	1.03	69/22131 (0.3%)
6	C4	0.69	0/16330	1.03	67/22131 (0.3%)
7	D0	0.67	0/10568	1.03	42/14320 (0.3%)
7	D1	0.98	3/10568 (0.0%)	1.05	48/14320 (0.3%)
7	D2	0.67	0/10568	1.02	39/14320 (0.3%)
7	D3	0.68	0/10568	1.02	36/14320 (0.3%)
7	D4	0.85	5/10568 (0.0%)	1.05	46/14320 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
7	D5	0.67	0/10568	1.01	36/14320 (0.3%)
8	E0	1.17	11/4563 (0.2%)	1.11	28/6214 (0.5%)
8	E1	0.79	2/4563 (0.0%)	1.06	23/6214 (0.4%)
9	F0	0.70	0/1882	1.08	3/2556 (0.1%)
9	F1	0.70	0/1882	1.05	4/2556 (0.2%)
9	F2	0.71	0/1882	1.11	5/2556 (0.2%)
9	F3	0.72	0/1882	1.05	3/2556 (0.1%)
10	H0	0.64	0/3114	1.02	13/4211 (0.3%)
10	H1	0.64	0/3114	1.01	12/4211 (0.3%)
10	H2	0.64	0/3114	1.00	11/4211 (0.3%)
10	H3	0.64	0/3114	1.01	12/4211 (0.3%)
11	I0	0.65	0/1416	0.97	4/1911 (0.2%)
11	I1	0.65	0/1416	0.98	4/1911 (0.2%)
11	I2	0.65	0/1416	0.97	4/1911 (0.2%)
11	I3	0.65	0/1416	0.97	3/1911 (0.2%)
12	J0	0.63	0/1420	0.95	2/1915 (0.1%)
12	J1	0.63	0/1420	0.97	2/1915 (0.1%)
12	J2	0.64	0/1420	0.98	3/1915 (0.2%)
12	J3	0.63	0/1420	0.97	1/1915 (0.1%)
12	J4	0.63	0/1420	0.98	3/1915 (0.2%)
13	K0	0.68	0/8740	1.01	27/11848 (0.2%)
13	K1	0.68	0/8740	1.01	25/11848 (0.2%)
13	K2	0.68	0/8740	1.01	27/11848 (0.2%)
13	K3	0.68	0/8740	1.01	24/11848 (0.2%)
14	L0	0.71	0/6518	1.09	35/8819 (0.4%)
14	L1	0.70	0/6518	1.06	34/8819 (0.4%)
14	L2	0.70	0/6518	1.07	29/8819 (0.3%)
14	L3	0.71	0/6518	1.06	29/8819 (0.3%)
15	M0	0.70	0/5588	1.11	31/7581 (0.4%)
15	M1	0.70	0/5588	1.11	37/7581 (0.5%)
15	M2	0.70	0/5588	1.10	31/7581 (0.4%)
15	M3	0.70	0/5588	1.10	33/7581 (0.4%)
16	N0	0.67	0/2419	1.07	7/3301 (0.2%)
16	N1	0.67	0/2419	1.08	7/3301 (0.2%)
16	N2	0.67	0/2419	1.05	4/3301 (0.1%)
16	N3	0.67	0/2419	1.07	7/3301 (0.2%)
17	O0	0.68	0/2593	1.07	12/3520 (0.3%)
17	O1	0.68	0/2593	1.08	12/3520 (0.3%)
17	O2	0.67	0/2593	1.06	10/3520 (0.3%)
17	O3	0.67	0/2593	1.08	10/3520 (0.3%)
18	P0	0.70	0/5365	1.07	31/7257 (0.4%)
18	P1	0.70	0/5365	1.04	26/7257 (0.4%)
18	P2	0.71	0/5365	1.07	34/7257 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
18	P3	0.70	0/5365	1.03	20/7257 (0.3%)
19	Q0	0.67	0/2775	1.06	13/3786 (0.3%)
19	Q1	0.67	0/2775	1.05	12/3786 (0.3%)
19	Q2	0.67	0/2775	1.07	15/3786 (0.4%)
19	Q3	0.67	0/2775	1.05	12/3786 (0.3%)
20	R0	1.12	2/11371 (0.0%)	1.07	61/15446 (0.4%)
20	R1	0.70	0/11371	1.05	54/15446 (0.3%)
20	R2	0.70	0/11371	1.05	53/15446 (0.3%)
20	R3	0.70	0/11371	1.04	48/15446 (0.3%)
21	S0	0.70	0/2623	1.05	10/3568 (0.3%)
21	S1	0.70	0/2623	1.04	10/3568 (0.3%)
21	S2	0.70	0/2623	1.03	8/3568 (0.2%)
21	S3	0.70	0/2623	1.03	8/3568 (0.2%)
22	T0	0.70	0/8141	1.03	26/11065 (0.2%)
22	T1	0.70	0/8141	1.02	25/11065 (0.2%)
23	U0	0.72	0/1217	1.06	4/1644 (0.2%)
23	U1	0.94	0/152	1.56	5/204 (2.5%)
23	U2	0.95	0/152	1.45	3/204 (1.5%)
23	U3	0.93	0/152	1.51	4/204 (2.0%)
23	U4	1.03	0/152	1.48	3/204 (1.5%)
23	U5	0.95	0/152	1.54	5/204 (2.5%)
23	U6	0.92	0/152	1.40	3/204 (1.5%)
24	V0	0.67	0/2240	1.06	10/3019 (0.3%)
25	W0	0.69	0/5972	1.02	12/8105 (0.1%)
All	All	0.72	40/630097 (0.0%)	1.03	2384/855041 (0.3%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	00	0	4
1	01	0	4
1	02	0	3
1	03	0	3
1	04	0	1
2	10	1	9
2	11	0	3
2	12	1	7
2	13	1	3
2	14	0	8

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
2	15	0	7
2	16	0	7
2	17	0	8
3	40	0	5
3	41	0	4
4	A0	0	11
4	A1	0	12
4	A2	0	12
4	A3	0	9
4	A4	0	7
4	A5	0	6
4	A6	1	9
5	B0	0	22
5	B1	0	26
6	C0	1	17
6	C1	1	13
6	C2	1	17
6	C3	1	15
6	C4	1	15
7	D0	0	16
7	D1	0	13
7	D2	0	18
7	D3	0	14
7	D4	1	19
7	D5	0	15
8	E0	0	5
8	E1	0	2
9	F0	0	3
9	F1	0	2
9	F2	0	3
9	F3	0	1
10	H0	0	5
10	H1	0	1
10	H2	0	2
10	H3	0	2
12	J0	0	1
12	J1	0	1
12	J2	0	1
12	J3	0	1
13	K0	0	10
13	K1	0	9
13	K2	0	12

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
13	K3	0	8
14	L0	0	8
14	L1	0	5
14	L2	0	6
14	L3	0	6
15	M0	0	7
15	M1	0	5
15	M2	0	9
15	M3	1	6
16	N0	0	4
16	N1	0	2
16	N2	0	2
16	N3	0	2
17	O0	0	1
17	O1	0	2
17	O2	0	2
17	O3	0	2
18	P0	0	9
18	P1	0	10
18	P2	1	17
18	P3	0	10
19	Q0	0	3
19	Q1	0	3
19	Q2	0	3
19	Q3	0	2
20	R0	0	15
20	R1	0	16
20	R2	0	15
20	R3	0	15
21	S0	0	4
21	S1	0	5
21	S2	0	5
21	S3	0	5
22	T0	2	13
22	T1	2	14
24	V0	0	5
25	W0	0	7
All	All	16	676

All (40) bond length outliers are listed below:

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	R0	1111	GLU	CD-OE1	92.11	2.27	1.25
2	10	1824	MET	N-CA	90.35	3.27	1.46
7	D1	1002	PRO	CA-C	73.09	2.99	1.52
6	C2	484	HIS	CD2-NE2	41.61	2.29	1.38
6	C2	484	HIS	CG-CD2	39.34	2.02	1.35
6	C2	484	HIS	CG-ND1	37.11	2.20	1.38
8	E0	18	TRP	NE1-CE2	32.85	1.80	1.37
7	D4	91	PRO	N-CD	30.82	1.91	1.47
6	C2	484	HIS	CE1-NE2	29.60	2.00	1.32
8	E0	18	TRP	CD1-NE1	27.96	1.85	1.38
7	D4	91	PRO	CA-CB	27.20	2.08	1.53
7	D4	91	PRO	N-CA	27.17	1.93	1.47
6	C2	484	HIS	ND1-CE1	26.90	2.02	1.34
8	E0	18	TRP	CD2-CE2	25.54	1.72	1.41
8	E0	18	TRP	CG-CD2	22.56	1.81	1.43
8	E0	18	TRP	CG-CD1	19.63	1.64	1.36
7	D4	91	PRO	CG-CD	18.30	2.11	1.50
8	E1	244	THR	N-CA	11.33	1.69	1.46
7	D4	91	PRO	CB-CG	11.19	2.05	1.50
20	R0	1111	GLU	CG-CD	9.57	1.66	1.51
2	17	1789	ARG	N-CA	9.29	1.65	1.46
2	10	1824	MET	CA-C	8.68	1.75	1.52
2	17	1788	ASP	CA-C	8.67	1.75	1.52
8	E1	243	SER	C-N	8.13	1.52	1.34
2	17	1788	ASP	N-CA	7.97	1.62	1.46
8	E0	19	ARG	CA-CB	7.71	1.71	1.53
2	10	1828	TYR	N-CA	6.67	1.59	1.46
2	17	1790	ARG	N-CA	6.35	1.59	1.46
8	E0	19	ARG	CG-CD	6.32	1.67	1.51
2	17	1790	ARG	CA-CB	6.18	1.67	1.53
2	17	1788	ASP	C-N	6.14	1.48	1.34
2	10	1827	ALA	CA-CB	-5.91	1.40	1.52
8	E0	18	TRP	CB-CG	-5.75	1.40	1.50
8	E0	18	TRP	CA-C	5.55	1.67	1.52
2	17	1789	ARG	CA-C	5.52	1.67	1.52
8	E0	19	ARG	CB-CG	5.39	1.67	1.52
8	E0	19	ARG	N-CA	5.21	1.56	1.46
2	10	1827	ALA	C-N	5.20	1.46	1.34
7	D1	1000	GLY	C-N	5.12	1.44	1.34
7	D1	1002	PRO	CA-CB	5.02	1.63	1.53

All (2384) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	17	1788	ASP	C-N-CA	16.59	163.16	121.70
8	E1	240	ALA	CB-CA-C	14.66	132.09	110.10
20	R0	1111	GLU	CG-CD-OE2	-13.88	90.54	118.30
8	E0	19	ARG	NE-CZ-NH1	13.82	127.21	120.30
8	E1	243	SER	CA-C-O	-12.90	93.01	120.10
7	D1	1002	PRO	O-C-N	-12.75	102.30	122.70
8	E0	19	ARG	CA-CB-CG	12.62	141.16	113.40
2	17	1789	ARG	C-N-CA	12.36	152.61	121.70
2	14	783	ARG	NE-CZ-NH1	12.02	126.31	120.30
8	E0	19	ARG	CB-CG-CD	12.02	142.85	111.60
8	E0	19	ARG	CD-NE-CZ	11.95	140.32	123.60
2	17	1791	GLY	C-N-CD	-11.56	95.16	120.60
18	P0	542	ARG	NE-CZ-NH1	11.37	125.99	120.30
5	B0	102	ARG	NE-CZ-NH1	11.35	125.97	120.30
11	I2	361	ARG	NE-CZ-NH1	11.31	125.96	120.30
2	13	783	ARG	NE-CZ-NH1	11.27	125.94	120.30
11	I0	361	ARG	NE-CZ-NH1	11.27	125.93	120.30
15	M3	581	ARG	NE-CZ-NH1	11.23	125.92	120.30
14	L3	422	ARG	NE-CZ-NH1	11.21	125.90	120.30
2	16	783	ARG	NE-CZ-NH1	11.20	125.90	120.30
1	01	310	ARG	NE-CZ-NH1	11.18	125.89	120.30
1	03	310	ARG	NE-CZ-NH1	11.16	125.88	120.30
2	17	783	ARG	NE-CZ-NH1	11.16	125.88	120.30
11	I1	361	ARG	NE-CZ-NH1	11.14	125.87	120.30
14	L0	422	ARG	NE-CZ-NH1	11.03	125.81	120.30
14	L2	422	ARG	NE-CZ-NH1	11.02	125.81	120.30
2	17	1790	ARG	CA-CB-CG	10.99	137.59	113.40
14	L1	422	ARG	NE-CZ-NH1	10.98	125.79	120.30
6	C4	1249	ILE	CB-CA-C	10.85	133.30	111.60
2	10	1827	ALA	CA-C-O	-10.84	97.33	120.10
2	17	1787	VAL	C-N-CA	10.82	148.74	121.70
5	B1	102	ARG	NE-CZ-NH1	10.67	125.64	120.30
18	P0	482	ARG	NE-CZ-NH1	10.64	125.62	120.30
2	15	783	ARG	NE-CZ-NH1	10.61	125.60	120.30
20	R3	910	ARG	NE-CZ-NH1	10.60	125.60	120.30
1	00	310	ARG	NE-CZ-NH1	10.58	125.59	120.30
10	H0	439	ARG	NE-CZ-NH1	10.57	125.59	120.30
2	13	1225	ARG	NE-CZ-NH1	10.54	125.57	120.30
14	L2	413	ARG	NE-CZ-NH1	10.52	125.56	120.30
20	R2	910	ARG	NE-CZ-NH1	10.50	125.55	120.30
1	02	310	ARG	NE-CZ-NH1	10.49	125.54	120.30
18	P1	482	ARG	NE-CZ-NH1	10.48	125.54	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	12	1225	ARG	NE-CZ-NH1	10.45	125.53	120.30
8	E1	243	SER	CA-C-N	10.45	140.19	117.20
1	04	310	ARG	NE-CZ-NH1	10.44	125.52	120.30
2	10	1225	ARG	NE-CZ-NH1	10.43	125.52	120.30
20	R1	1069	ARG	NE-CZ-NH1	10.43	125.52	120.30
2	11	1225	ARG	NE-CZ-NH1	10.42	125.51	120.30
14	L2	227	ARG	NE-CZ-NH1	10.40	125.50	120.30
13	K3	1000	ARG	NE-CZ-NH1	10.35	125.48	120.30
18	P2	482	ARG	NE-CZ-NH1	10.34	125.47	120.30
6	C1	1729	ARG	NE-CZ-NH1	10.33	125.47	120.30
14	L3	227	ARG	NE-CZ-NH1	10.32	125.46	120.30
18	P3	482	ARG	NE-CZ-NH1	10.29	125.44	120.30
8	E0	18	TRP	CB-CA-C	10.28	130.96	110.40
14	L0	227	ARG	NE-CZ-NH1	10.26	125.43	120.30
14	L1	227	ARG	NE-CZ-NH1	10.24	125.42	120.30
2	17	1225	ARG	NE-CZ-NH1	10.18	125.39	120.30
2	15	1225	ARG	NE-CZ-NH1	10.15	125.38	120.30
11	I3	361	ARG	NE-CZ-NH1	10.13	125.36	120.30
20	R0	1111	GLU	OE1-CD-OE2	10.13	135.46	123.30
2	10	1795	TYR	CB-CG-CD2	-10.11	114.94	121.00
6	C0	1729	ARG	NE-CZ-NH1	10.09	125.34	120.30
2	13	798	ARG	NE-CZ-NH1	10.07	125.34	120.30
13	K1	1000	ARG	NE-CZ-NH1	10.06	125.33	120.30
2	10	783	ARG	NE-CZ-NH1	10.03	125.31	120.30
2	12	783	ARG	NE-CZ-NH1	10.03	125.31	120.30
2	11	798	ARG	NE-CZ-NH1	10.02	125.31	120.30
2	16	798	ARG	NE-CZ-NH1	10.02	125.31	120.30
6	C2	1464	ARG	NE-CZ-NH1	10.00	125.30	120.30
2	16	1225	ARG	NE-CZ-NH1	9.93	125.26	120.30
2	10	798	ARG	NE-CZ-NH1	9.92	125.26	120.30
14	L3	413	ARG	NE-CZ-NH1	9.88	125.24	120.30
4	A2	372	ARG	NE-CZ-NH1	9.87	125.24	120.30
7	D4	1076	ARG	NE-CZ-NH1	9.82	125.21	120.30
6	C1	984	ARG	NE-CZ-NH1	9.82	125.21	120.30
5	B1	1279	ARG	NE-CZ-NH1	9.80	125.20	120.30
4	A3	372	ARG	NE-CZ-NH1	9.80	125.20	120.30
4	A1	372	ARG	NE-CZ-NH1	9.79	125.19	120.30
5	B0	1749	ARG	NE-CZ-NH1	9.79	125.19	120.30
6	C3	1877	ARG	NE-CZ-NH1	9.78	125.19	120.30
4	A0	372	ARG	NE-CZ-NH1	9.78	125.19	120.30
2	15	798	ARG	NE-CZ-NH1	9.76	125.18	120.30
2	14	1225	ARG	NE-CZ-NH1	9.75	125.17	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A5	372	ARG	NE-CZ-NH1	9.73	125.17	120.30
4	A6	372	ARG	NE-CZ-NH1	9.72	125.16	120.30
2	12	798	ARG	NE-CZ-NH1	9.71	125.16	120.30
2	17	798	ARG	NE-CZ-NH1	9.70	125.15	120.30
4	A4	372	ARG	NE-CZ-NH1	9.69	125.15	120.30
14	L0	413	ARG	NE-CZ-NH1	9.69	125.14	120.30
6	C0	1877	ARG	NE-CZ-NH1	9.69	125.14	120.30
13	K0	1000	ARG	NE-CZ-NH1	9.68	125.14	120.30
2	11	783	ARG	NE-CZ-NH1	9.64	125.12	120.30
5	B0	1279	ARG	NE-CZ-NH1	9.62	125.11	120.30
9	F2	287	ARG	NE-CZ-NH1	9.62	125.11	120.30
6	C1	1877	ARG	NE-CZ-NH1	9.60	125.10	120.30
6	C0	984	ARG	NE-CZ-NH1	9.52	125.06	120.30
8	E1	244	THR	N-CA-C	9.52	136.70	111.00
6	C4	411	ARG	NE-CZ-NH1	9.50	125.05	120.30
6	C1	313	ARG	NE-CZ-NH1	9.48	125.04	120.30
9	F0	287	ARG	NE-CZ-NH1	9.47	125.03	120.30
6	C2	313	ARG	NE-CZ-NH1	9.46	125.03	120.30
1	03	601	ARG	NE-CZ-NH1	9.44	125.02	120.30
6	C3	411	ARG	NE-CZ-NH1	9.44	125.02	120.30
16	N1	81	ARG	NE-CZ-NH1	9.43	125.02	120.30
11	I0	303	ARG	NE-CZ-NH1	9.43	125.01	120.30
2	17	1788	ASP	N-CA-C	9.41	136.40	111.00
1	02	601	ARG	NE-CZ-NH1	9.37	124.99	120.30
2	14	798	ARG	NE-CZ-NH1	9.37	124.98	120.30
1	00	601	ARG	NE-CZ-NH1	9.36	124.98	120.30
6	C4	313	ARG	NE-CZ-NH1	9.36	124.98	120.30
16	N3	81	ARG	NE-CZ-NH1	9.34	124.97	120.30
18	P2	238	ARG	NE-CZ-NH1	9.33	124.97	120.30
6	C3	2011	ARG	NE-CZ-NH1	9.30	124.95	120.30
1	04	601	ARG	NE-CZ-NH1	9.30	124.95	120.30
20	R1	910	ARG	NE-CZ-NH1	9.30	124.95	120.30
1	01	601	ARG	NE-CZ-NH1	9.25	124.92	120.30
4	A3	50	ARG	NE-CZ-NH1	9.23	124.91	120.30
11	I2	303	ARG	NE-CZ-NH1	9.23	124.91	120.30
14	L1	330	ARG	NE-CZ-NH1	9.22	124.91	120.30
6	C4	2011	ARG	NE-CZ-NH1	9.22	124.91	120.30
6	C0	313	ARG	NE-CZ-NH1	9.20	124.90	120.30
2	13	267	ARG	NE-CZ-NH1	9.19	124.90	120.30
13	K2	911	ARG	NE-CZ-NH1	9.18	124.89	120.30
18	P3	238	ARG	NE-CZ-NH1	9.18	124.89	120.30
18	P1	238	ARG	NE-CZ-NH1	9.16	124.88	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	10	267	ARG	NE-CZ-NH1	9.16	124.88	120.30
6	C1	1661	ARG	NE-CZ-NH1	9.14	124.87	120.30
2	12	267	ARG	NE-CZ-NH1	9.13	124.86	120.30
6	C0	411	ARG	NE-CZ-NH1	9.12	124.86	120.30
20	R0	910	ARG	NE-CZ-NH1	9.12	124.86	120.30
6	C3	313	ARG	NE-CZ-NH1	9.11	124.86	120.30
3	40	361	ARG	NE-CZ-NH1	9.10	124.85	120.30
6	C1	1617	ARG	NE-CZ-NH1	9.10	124.85	120.30
2	11	267	ARG	NE-CZ-NH1	9.08	124.84	120.30
6	C1	2011	ARG	NE-CZ-NH1	9.08	124.84	120.30
7	D0	895	ARG	NE-CZ-NH1	9.07	124.83	120.30
2	14	178	ARG	NE-CZ-NH1	9.03	124.82	120.30
13	K2	1000	ARG	NE-CZ-NH1	9.01	124.81	120.30
6	C3	984	ARG	NE-CZ-NH1	9.00	124.80	120.30
15	M1	876	ARG	NE-CZ-NH1	8.99	124.79	120.30
6	C2	1877	ARG	NE-CZ-NH1	8.97	124.78	120.30
3	41	361	ARG	NE-CZ-NH1	8.96	124.78	120.30
1	00	563	ARG	NE-CZ-NH1	8.96	124.78	120.30
6	C2	330	ARG	NE-CZ-NH1	8.95	124.78	120.30
20	R2	1153	ARG	NE-CZ-NH1	8.94	124.77	120.30
6	C4	1877	ARG	NE-CZ-NH1	8.94	124.77	120.30
8	E1	243	SER	C-N-CA	8.94	144.04	121.70
1	01	563	ARG	NE-CZ-NH1	8.93	124.76	120.30
6	C0	2011	ARG	NE-CZ-NH1	8.92	124.76	120.30
4	A3	786	ARG	NE-CZ-NH1	8.92	124.76	120.30
21	S1	7	ARG	NE-CZ-NH1	8.91	124.76	120.30
14	L1	220	ARG	NE-CZ-NH1	8.91	124.76	120.30
14	L3	220	ARG	NE-CZ-NH1	8.91	124.75	120.30
6	C0	1617	ARG	NE-CZ-NH1	8.90	124.75	120.30
1	04	563	ARG	NE-CZ-NH1	8.88	124.74	120.30
6	C0	1661	ARG	NE-CZ-NH1	8.88	124.74	120.30
6	C2	1617	ARG	NE-CZ-NH2	-8.88	115.86	120.30
1	02	563	ARG	NE-CZ-NH1	8.88	124.74	120.30
4	A2	786	ARG	NE-CZ-NH1	8.84	124.72	120.30
25	W0	567	ARG	NE-CZ-NH1	8.84	124.72	120.30
5	B0	14	ARG	NE-CZ-NH1	8.84	124.72	120.30
14	L0	220	ARG	NE-CZ-NH1	8.83	124.71	120.30
4	A1	50	ARG	NE-CZ-NH1	8.81	124.70	120.30
5	B0	202	ARG	NE-CZ-NH1	8.80	124.70	120.30
15	M3	876	ARG	NE-CZ-NH1	8.80	124.70	120.30
6	C2	490	ARG	NE-CZ-NH1	8.77	124.69	120.30
21	S2	7	ARG	NE-CZ-NH1	8.77	124.69	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A2	50	ARG	NE-CZ-NH1	8.77	124.69	120.30
2	I1	328	ARG	NE-CZ-NH1	8.77	124.69	120.30
23	U0	796	ARG	NE-CZ-NH1	8.76	124.68	120.30
25	W0	659	ARG	NE-CZ-NH1	8.72	124.66	120.30
11	I3	303	ARG	NE-CZ-NH1	8.72	124.66	120.30
5	B1	14	ARG	NE-CZ-NH1	8.71	124.65	120.30
7	D3	1114	ARG	NE-CZ-NH1	8.71	124.65	120.30
6	C1	411	ARG	NE-CZ-NH1	8.70	124.65	120.30
14	L2	220	ARG	NE-CZ-NH1	8.70	124.65	120.30
2	14	267	ARG	NE-CZ-NH1	8.70	124.65	120.30
11	I1	303	ARG	NE-CZ-NH1	8.69	124.64	120.30
6	C4	984	ARG	NE-CZ-NH1	8.69	124.64	120.30
2	13	328	ARG	NE-CZ-NH1	8.67	124.64	120.30
2	16	178	ARG	NE-CZ-NH1	8.65	124.63	120.30
4	A0	802	ARG	NE-CZ-NH1	8.64	124.62	120.30
13	K2	1080	ARG	NE-CZ-NH1	8.63	124.61	120.30
7	D1	1076	ARG	NE-CZ-NH1	8.62	124.61	120.30
15	M2	876	ARG	NE-CZ-NH1	8.62	124.61	120.30
21	S3	7	ARG	NE-CZ-NH1	8.62	124.61	120.30
8	E0	18	TRP	N-CA-CB	-8.62	95.09	110.60
14	L0	259	ARG	NE-CZ-NH1	8.61	124.60	120.30
20	R1	1191	ARG	NE-CZ-NH1	8.61	124.60	120.30
2	10	1824	MET	N-CA-CB	8.60	126.08	110.60
2	16	267	ARG	NE-CZ-NH1	8.59	124.60	120.30
6	C4	1729	ARG	NE-CZ-NH1	8.57	124.58	120.30
2	15	178	ARG	NE-CZ-NH1	8.56	124.58	120.30
25	W0	82	ARG	NE-CZ-NH1	8.55	124.58	120.30
23	U1	610	LEU	CA-CB-CG	-8.55	95.64	115.30
4	A4	484	ARG	NE-CZ-NH1	8.54	124.57	120.30
2	15	267	ARG	NE-CZ-NH1	8.53	124.56	120.30
6	C3	1729	ARG	NE-CZ-NH1	8.52	124.56	120.30
10	H3	255	ARG	NE-CZ-NH1	8.52	124.56	120.30
4	A6	786	ARG	NE-CZ-NH1	8.51	124.56	120.30
7	D3	829	ARG	NE-CZ-NH1	8.50	124.55	120.30
6	C2	697	ARG	NE-CZ-NH1	8.50	124.55	120.30
14	L2	259	ARG	NE-CZ-NH1	8.50	124.55	120.30
6	C3	330	ARG	NE-CZ-NH1	8.49	124.55	120.30
6	C1	330	ARG	NE-CZ-NH1	8.48	124.54	120.30
4	A0	662	ARG	NE-CZ-NH1	8.47	124.53	120.30
17	O1	5	ARG	NE-CZ-NH1	8.47	124.53	120.30
4	A6	484	ARG	NE-CZ-NH1	8.46	124.53	120.30
6	C3	1661	ARG	NE-CZ-NH1	8.46	124.53	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D4	1109	ILE	CB-CA-C	8.45	128.50	111.60
6	C4	330	ARG	NE-CZ-NH1	8.45	124.52	120.30
10	H0	255	ARG	NE-CZ-NH1	8.43	124.51	120.30
15	M0	876	ARG	NE-CZ-NH1	8.42	124.51	120.30
7	D5	1348	ARG	NE-CZ-NH1	8.42	124.51	120.30
23	U5	610	LEU	CA-CB-CG	-8.36	96.07	115.30
8	E0	18	TRP	NE1-CE2-CZ2	8.35	139.59	130.40
6	C3	889	ARG	NE-CZ-NH1	8.34	124.47	120.30
4	A3	484	ARG	NE-CZ-NH1	8.34	124.47	120.30
10	H1	255	ARG	NE-CZ-NH1	8.34	124.47	120.30
7	D0	1096	ARG	NE-CZ-NH1	8.32	124.46	120.30
4	A4	786	ARG	NE-CZ-NH1	8.32	124.46	120.30
1	O1	161	ARG	NE-CZ-NH1	8.31	124.46	120.30
6	C1	1617	ARG	NE-CZ-NH2	-8.30	116.15	120.30
7	D1	1001	PRO	CA-N-CD	-8.30	99.88	111.50
2	17	178	ARG	NE-CZ-NH1	8.30	124.45	120.30
6	C0	330	ARG	NE-CZ-NH1	8.28	124.44	120.30
2	17	267	ARG	NE-CZ-NH1	8.27	124.44	120.30
11	I0	347	ARG	NE-CZ-NH1	8.27	124.44	120.30
17	O3	140	ARG	NE-CZ-NH1	8.26	124.43	120.30
7	D5	1333	ARG	NE-CZ-NH1	8.26	124.43	120.30
2	17	1789	ARG	N-CA-CB	8.26	125.46	110.60
11	I3	347	ARG	NE-CZ-NH1	8.26	124.43	120.30
20	R3	43	ARG	NE-CZ-NH1	8.25	124.42	120.30
14	L1	259	ARG	NE-CZ-NH1	8.23	124.42	120.30
25	W0	28	ARG	NE-CZ-NH1	8.23	124.41	120.30
7	D2	1096	ARG	NE-CZ-NH1	8.20	124.40	120.30
14	L2	558	ARG	NE-CZ-NH1	8.20	124.40	120.30
6	C0	1617	ARG	NE-CZ-NH2	-8.19	116.20	120.30
7	D1	829	ARG	NE-CZ-NH1	8.19	124.39	120.30
14	L3	259	ARG	NE-CZ-NH1	8.19	124.39	120.30
5	B1	202	ARG	NE-CZ-NH1	8.18	124.39	120.30
10	H2	255	ARG	NE-CZ-NH1	8.18	124.39	120.30
23	U5	610	LEU	CD1-CG-CD2	8.18	135.03	110.50
6	C4	889	ARG	NE-CZ-NH1	8.17	124.39	120.30
7	D4	829	ARG	NE-CZ-NH1	8.17	124.39	120.30
17	O2	140	ARG	NE-CZ-NH1	8.16	124.38	120.30
13	K0	887	ARG	NE-CZ-NH1	8.15	124.38	120.30
7	D3	85	ARG	NE-CZ-NH1	8.14	124.37	120.30
4	A5	484	ARG	NE-CZ-NH1	8.14	124.37	120.30
6	C1	437	ARG	NE-CZ-NH1	8.14	124.37	120.30
4	A3	481	ARG	NE-CZ-NH1	8.14	124.37	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D5	829	ARG	NE-CZ-NH1	8.14	124.37	120.30
7	D2	829	ARG	NE-CZ-NH1	8.13	124.37	120.30
4	A0	578	ARG	NE-CZ-NH1	8.12	124.36	120.30
17	O3	5	ARG	NE-CZ-NH1	8.12	124.36	120.30
4	A0	484	ARG	NE-CZ-NH1	8.12	124.36	120.30
8	E1	665	ARG	NE-CZ-NH1	8.11	124.35	120.30
6	C0	437	ARG	NE-CZ-NH1	8.11	124.35	120.30
20	R2	521	ARG	NE-CZ-NH1	8.10	124.35	120.30
17	O1	176	ARG	NE-CZ-NH1	8.09	124.34	120.30
5	B1	1168	ARG	NE-CZ-NH1	8.08	124.34	120.30
13	K1	887	ARG	NE-CZ-NH1	8.08	124.34	120.30
8	E0	665	ARG	NE-CZ-NH1	8.08	124.34	120.30
20	R1	53	ARG	NE-CZ-NH1	8.07	124.33	120.30
22	T0	993	ARG	NE-CZ-NH1	8.06	124.33	120.30
1	O3	161	ARG	NE-CZ-NH1	8.05	124.33	120.30
4	A1	484	ARG	NE-CZ-NH1	8.05	124.32	120.30
2	17	797	ARG	NE-CZ-NH1	8.04	124.32	120.30
7	D5	1076	ARG	NE-CZ-NH1	8.04	124.32	120.30
3	41	432	ARG	NE-CZ-NH1	8.03	124.31	120.30
18	P0	467	ARG	NE-CZ-NH1	8.02	124.31	120.30
21	S0	7	ARG	NE-CZ-NH1	8.02	124.31	120.30
25	W0	139	ARG	NE-CZ-NH1	8.01	124.31	120.30
13	K3	887	ARG	NE-CZ-NH1	8.00	124.30	120.30
7	D1	1001	PRO	N-CD-CG	8.00	115.20	103.20
18	P3	106	ARG	NE-CZ-NH1	8.00	124.30	120.30
6	C1	1502	ARG	NE-CZ-NH1	8.00	124.30	120.30
4	A0	786	ARG	NE-CZ-NH1	7.99	124.30	120.30
20	R1	1091	ARG	NE-CZ-NH1	7.98	124.29	120.30
6	C4	330	ARG	NE-CZ-NH2	-7.97	116.31	120.30
13	K1	1080	ARG	NE-CZ-NH1	7.97	124.29	120.30
7	D4	1333	ARG	NE-CZ-NH1	7.97	124.29	120.30
17	O0	140	ARG	NE-CZ-NH1	7.97	124.28	120.30
2	10	1827	ALA	CB-CA-C	7.96	122.04	110.10
6	C3	1249	ILE	CB-CA-C	7.96	127.52	111.60
14	L0	697	ARG	NE-CZ-NH1	7.96	124.28	120.30
20	R1	743	ARG	NE-CZ-NH1	7.95	124.28	120.30
6	C3	330	ARG	NE-CZ-NH2	-7.95	116.33	120.30
22	T1	993	ARG	NE-CZ-NH1	7.93	124.27	120.30
1	00	64	ARG	NE-CZ-NH1	7.93	124.26	120.30
4	A2	484	ARG	NE-CZ-NH1	7.92	124.26	120.30
6	C1	740	ARG	NE-CZ-NH1	7.92	124.26	120.30
23	U3	610	LEU	CA-CB-CG	-7.92	97.09	115.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	K3	1080	ARG	NE-CZ-NH1	7.91	124.26	120.30
4	A0	120	ARG	NE-CZ-NH1	7.91	124.26	120.30
18	P1	106	ARG	NE-CZ-NH1	7.91	124.25	120.30
17	O1	140	ARG	NE-CZ-NH1	7.90	124.25	120.30
18	P2	106	ARG	NE-CZ-NH1	7.90	124.25	120.30
19	Q2	182	ARG	CD-NE-CZ	7.90	134.66	123.60
19	Q3	217	ARG	NE-CZ-NH1	7.90	124.25	120.30
20	R0	743	ARG	NE-CZ-NH1	7.89	124.25	120.30
20	R3	53	ARG	NE-CZ-NH1	7.89	124.25	120.30
6	C2	2011	ARG	NE-CZ-NH1	7.89	124.24	120.30
6	C3	437	ARG	NE-CZ-NH1	7.88	124.24	120.30
23	U1	610	LEU	CD1-CG-CD2	7.88	134.15	110.50
2	10	1827	ALA	C-N-CA	7.88	141.40	121.70
19	Q2	217	ARG	NE-CZ-NH1	7.88	124.24	120.30
6	C0	740	ARG	NE-CZ-NH1	7.87	124.24	120.30
6	C3	1502	ARG	NE-CZ-NH1	7.87	124.24	120.30
14	L1	413	ARG	NE-CZ-NH1	7.87	124.23	120.30
15	M2	708	ARG	NE-CZ-NH1	7.86	124.23	120.30
6	C4	437	ARG	NE-CZ-NH1	7.86	124.23	120.30
3	40	323	ARG	NE-CZ-NH1	7.85	124.23	120.30
6	C0	1502	ARG	NE-CZ-NH1	7.85	124.23	120.30
6	C0	1534	ARG	NE-CZ-NH1	7.85	124.23	120.30
13	K0	1080	ARG	NE-CZ-NH1	7.85	124.23	120.30
15	M1	930	ARG	NE-CZ-NH1	7.84	124.22	120.30
3	40	432	ARG	NE-CZ-NH1	7.84	124.22	120.30
6	C0	330	ARG	NE-CZ-NH2	-7.84	116.38	120.30
6	C4	740	ARG	NE-CZ-NH1	7.84	124.22	120.30
4	A5	786	ARG	NE-CZ-NH1	7.83	124.22	120.30
5	B0	1168	ARG	NE-CZ-NH1	7.83	124.22	120.30
7	D0	829	ARG	NE-CZ-NH1	7.83	124.22	120.30
25	W0	198	ARG	NE-CZ-NH1	7.83	124.22	120.30
7	D2	895	ARG	NE-CZ-NH1	7.83	124.22	120.30
11	I2	347	ARG	NE-CZ-NH1	7.83	124.22	120.30
6	C0	889	ARG	NE-CZ-NH1	7.83	124.21	120.30
20	R0	53	ARG	NE-CZ-NH1	7.83	124.21	120.30
1	03	563	ARG	NE-CZ-NH1	7.82	124.21	120.30
1	04	64	ARG	NE-CZ-NH1	7.82	124.21	120.30
14	L2	330	ARG	NE-CZ-NH1	7.82	124.21	120.30
24	V0	865	ARG	NE-CZ-NH1	7.82	124.21	120.30
24	V0	874	ARG	NE-CZ-NH1	7.82	124.21	120.30
12	J2	446	ARG	NE-CZ-NH2	7.82	124.21	120.30
2	17	1792	PRO	CA-C-N	-7.81	100.58	116.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A1	786	ARG	NE-CZ-NH1	7.81	124.20	120.30
1	01	428	ARG	NE-CZ-NH1	7.80	124.20	120.30
6	C1	330	ARG	NE-CZ-NH2	-7.80	116.40	120.30
1	02	64	ARG	NE-CZ-NH1	7.79	124.20	120.30
2	10	91	ARG	NE-CZ-NH1	7.79	124.19	120.30
7	D5	1114	ARG	NE-CZ-NH1	7.78	124.19	120.30
6	C2	1483	ARG	NE-CZ-NH1	7.78	124.19	120.30
4	A2	120	ARG	NE-CZ-NH1	7.78	124.19	120.30
19	Q1	157	ARG	NE-CZ-NH1	7.78	124.19	120.30
7	D0	1120	ARG	NE-CZ-NH1	7.77	124.19	120.30
17	O1	207	ARG	NE-CZ-NH1	7.77	124.19	120.30
19	Q0	157	ARG	NE-CZ-NH1	7.77	124.19	120.30
15	M3	824	ARG	NE-CZ-NH1	7.76	124.18	120.30
6	C4	84	ARG	NE-CZ-NH1	7.75	124.18	120.30
12	J3	430	ARG	NE-CZ-NH1	7.75	124.17	120.30
6	C3	740	ARG	NE-CZ-NH1	7.74	124.17	120.30
18	P3	636	ARG	NE-CZ-NH1	7.74	124.17	120.30
1	03	64	ARG	NE-CZ-NH1	7.74	124.17	120.30
20	R3	99	ARG	NE-CZ-NH1	7.74	124.17	120.30
6	C2	1617	ARG	NE-CZ-NH1	7.74	124.17	120.30
7	D3	895	ARG	NE-CZ-NH1	7.74	124.17	120.30
1	01	64	ARG	NE-CZ-NH1	7.74	124.17	120.30
2	17	1789	ARG	NE-CZ-NH1	7.74	124.17	120.30
19	Q3	157	ARG	NE-CZ-NH1	7.74	124.17	120.30
20	R0	1111	GLU	CG-CD-OE1	7.74	133.77	118.30
11	I1	347	ARG	NE-CZ-NH1	7.73	124.17	120.30
19	Q2	182	ARG	NE-CZ-NH1	7.73	124.17	120.30
20	R2	53	ARG	NE-CZ-NH1	7.73	124.17	120.30
15	M0	708	ARG	NE-CZ-NH1	7.73	124.16	120.30
5	B1	526	ARG	CD-NE-CZ	7.72	134.41	123.60
19	Q1	217	ARG	NE-CZ-NH1	7.72	124.16	120.30
4	A0	50	ARG	NE-CZ-NH1	7.72	124.16	120.30
20	R0	1091	ARG	NE-CZ-NH1	7.72	124.16	120.30
3	40	478	ARG	NE-CZ-NH1	7.71	124.16	120.30
6	C1	889	ARG	NE-CZ-NH1	7.71	124.16	120.30
4	A5	120	ARG	NE-CZ-NH1	7.71	124.16	120.30
7	D0	1333	ARG	NE-CZ-NH1	7.70	124.15	120.30
20	R2	55	ARG	NE-CZ-NH1	7.70	124.15	120.30
7	D1	1120	ARG	NE-CZ-NH1	7.70	124.15	120.30
2	11	221	ARG	NE-CZ-NH1	7.70	124.15	120.30
2	13	221	ARG	NE-CZ-NH1	7.70	124.15	120.30
1	01	10	ARG	NE-CZ-NH1	7.69	124.14	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O3	428	ARG	NE-CZ-NH1	7.69	124.14	120.30
18	P0	106	ARG	NE-CZ-NH1	7.69	124.14	120.30
18	P1	69	ARG	NE-CZ-NH1	7.68	124.14	120.30
23	U4	610	LEU	CB-CG-CD1	-7.68	97.94	111.00
6	C4	1617	ARG	NE-CZ-NH2	-7.68	116.46	120.30
25	W0	534	ARG	NE-CZ-NH1	7.68	124.14	120.30
17	O0	106	ARG	NE-CZ-NH1	7.68	124.14	120.30
4	A4	130	ARG	NE-CZ-NH1	7.68	124.14	120.30
24	V0	948	ARG	NE-CZ-NH1	7.68	124.14	120.30
20	R1	55	ARG	NE-CZ-NH1	7.67	124.13	120.30
1	O4	10	ARG	NE-CZ-NH1	7.67	124.13	120.30
20	R2	743	ARG	NE-CZ-NH1	7.66	124.13	120.30
6	C3	490	ARG	NE-CZ-NH1	7.66	124.13	120.30
23	U4	610	LEU	CD1-CG-CD2	7.66	133.48	110.50
1	O2	428	ARG	NE-CZ-NH1	7.66	124.13	120.30
4	A4	555	ARG	NE-CZ-NH1	7.66	124.13	120.30
4	A6	555	ARG	NE-CZ-NH1	7.66	124.13	120.30
6	C4	1502	ARG	NE-CZ-NH1	7.66	124.13	120.30
15	M3	653	ARG	NE-CZ-NH1	7.65	124.12	120.30
6	C3	1483	ARG	NE-CZ-NH1	7.64	124.12	120.30
7	D2	367	ARG	NE-CZ-NH1	7.64	124.12	120.30
20	R1	99	ARG	NE-CZ-NH1	7.64	124.12	120.30
20	R0	284	ARG	NE-CZ-NH1	7.64	124.12	120.30
24	V0	788	ARG	NE-CZ-NH1	7.63	124.12	120.30
4	A6	120	ARG	NE-CZ-NH1	7.63	124.11	120.30
6	C0	1082	ARG	NE-CZ-NH1	7.63	124.11	120.30
7	D2	1333	ARG	NE-CZ-NH1	7.63	124.11	120.30
19	Q0	217	ARG	NE-CZ-NH1	7.63	124.11	120.30
23	U3	610	LEU	CD1-CG-CD2	7.63	133.38	110.50
20	R2	43	ARG	NE-CZ-NH1	7.62	124.11	120.30
6	C1	1534	ARG	NE-CZ-NH1	7.62	124.11	120.30
6	C3	1617	ARG	NE-CZ-NH2	-7.62	116.49	120.30
1	O3	10	ARG	NE-CZ-NH1	7.61	124.11	120.30
20	R1	284	ARG	NE-CZ-NH1	7.61	124.10	120.30
6	C1	1082	ARG	NE-CZ-NH1	7.61	124.10	120.30
6	C1	1990	ARG	NE-CZ-NH1	7.60	124.10	120.30
15	M2	586	PRO	CA-N-CD	-7.60	100.86	111.50
1	O0	428	ARG	NE-CZ-NH1	7.60	124.10	120.30
2	10	221	ARG	NE-CZ-NH1	7.59	124.10	120.30
15	M2	462	ARG	NE-CZ-NH1	7.58	124.09	120.30
2	12	221	ARG	NE-CZ-NH1	7.58	124.09	120.30
2	10	797	ARG	NE-CZ-NH1	7.57	124.08	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	M0	633	ARG	NE-CZ-NH1	7.56	124.08	120.30
6	C0	728	ARG	NE-CZ-NH1	7.56	124.08	120.30
20	R0	55	ARG	NE-CZ-NH1	7.56	124.08	120.30
7	D3	1029	ARG	CD-NE-CZ	7.56	134.18	123.60
1	00	10	ARG	NE-CZ-NH1	7.55	124.08	120.30
2	16	298	ARG	NE-CZ-NH2	-7.55	116.53	120.30
5	B1	833	VAL	CA-CB-CG2	-7.54	99.59	110.90
16	N0	81	ARG	NE-CZ-NH1	7.54	124.07	120.30
20	R2	284	ARG	NE-CZ-NH1	7.53	124.07	120.30
7	D2	1120	ARG	NE-CZ-NH1	7.53	124.07	120.30
20	R3	284	ARG	NE-CZ-NH1	7.53	124.06	120.30
3	41	478	ARG	NE-CZ-NH1	7.52	124.06	120.30
10	H0	336	ARG	NE-CZ-NH1	7.52	124.06	120.30
15	M0	546	ARG	NE-CZ-NH1	7.52	124.06	120.30
4	A0	396	ARG	NE-CZ-NH1	7.51	124.06	120.30
4	A2	396	ARG	NE-CZ-NH1	7.51	124.06	120.30
6	C4	1661	ARG	NE-CZ-NH1	7.50	124.05	120.30
2	14	91	ARG	NE-CZ-NH1	7.50	124.05	120.30
4	A1	396	ARG	NE-CZ-NH1	7.50	124.05	120.30
6	C0	490	ARG	NE-CZ-NH1	7.49	124.05	120.30
20	R0	99	ARG	NE-CZ-NH1	7.49	124.05	120.30
6	C2	330	ARG	NE-CZ-NH2	-7.48	116.56	120.30
1	04	428	ARG	NE-CZ-NH1	7.48	124.04	120.30
15	M1	462	ARG	NE-CZ-NH1	7.47	124.04	120.30
2	15	85	ARG	NE-CZ-NH1	7.47	124.03	120.30
2	10	1826	ILE	C-N-CA	-7.46	103.04	121.70
7	D1	1003	VAL	CA-C-O	-7.46	104.42	120.10
2	11	91	ARG	NE-CZ-NH1	7.46	124.03	120.30
6	C3	84	ARG	NE-CZ-NH1	7.45	124.03	120.30
15	M1	653	ARG	NE-CZ-NH1	7.45	124.03	120.30
17	O2	106	ARG	NE-CZ-NH1	7.45	124.03	120.30
1	03	250	ARG	NE-CZ-NH1	7.45	124.02	120.30
15	M3	930	ARG	NE-CZ-NH1	7.45	124.02	120.30
2	12	91	ARG	NE-CZ-NH1	7.44	124.02	120.30
4	A2	675	ARG	NE-CZ-NH1	7.44	124.02	120.30
15	M3	922	ARG	NE-CZ-NH1	7.44	124.02	120.30
4	A0	675	ARG	NE-CZ-NH1	7.44	124.02	120.30
7	D3	1333	ARG	NE-CZ-NH1	7.44	124.02	120.30
15	M3	708	ARG	NE-CZ-NH1	7.44	124.02	120.30
15	M3	849	ARG	NE-CZ-NH1	7.44	124.02	120.30
2	17	91	ARG	NE-CZ-NH1	7.43	124.02	120.30
2	15	91	ARG	NE-CZ-NH1	7.43	124.02	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A2	238	ALA	O-C-N	-7.43	110.81	122.70
20	R0	1193	ARG	NE-CZ-NH1	7.43	124.01	120.30
1	O2	10	ARG	NE-CZ-NH1	7.42	124.01	120.30
6	C1	1483	ARG	NE-CZ-NH1	7.42	124.01	120.30
2	I3	91	ARG	NE-CZ-NH1	7.42	124.01	120.30
15	M1	708	ARG	NE-CZ-NH1	7.42	124.01	120.30
18	P0	208	ARG	NE-CZ-NH2	-7.42	116.59	120.30
8	E0	18	TRP	CD2-CE2-CZ2	-7.42	113.39	122.30
6	C3	728	ARG	NE-CZ-NH1	7.41	124.01	120.30
14	L3	345	ARG	NE-CZ-NH1	7.41	124.01	120.30
6	C2	437	ARG	NE-CZ-NH1	7.41	124.01	120.30
15	M3	462	ARG	NE-CZ-NH1	7.41	124.01	120.30
5	B0	526	ARG	CD-NE-CZ	7.40	133.96	123.60
20	R3	55	ARG	NE-CZ-NH1	7.40	124.00	120.30
18	P2	58	ARG	NE-CZ-NH1	7.40	124.00	120.30
7	D4	1096	ARG	NE-CZ-NH1	7.40	124.00	120.30
8	E0	313	GLU	CB-CA-C	-7.40	95.60	110.40
15	M1	849	ARG	NE-CZ-NH1	7.39	124.00	120.30
2	I6	91	ARG	NE-CZ-NH1	7.39	124.00	120.30
4	A2	143	ARG	NE-CZ-NH1	7.39	124.00	120.30
6	C1	728	ARG	NE-CZ-NH1	7.39	124.00	120.30
4	A5	555	ARG	NE-CZ-NH1	7.39	123.99	120.30
20	R3	521	ARG	NE-CZ-NH1	7.39	123.99	120.30
6	C0	1990	ARG	NE-CZ-NH1	7.38	123.99	120.30
20	R2	99	ARG	NE-CZ-NH1	7.38	123.99	120.30
6	C4	728	ARG	NE-CZ-NH1	7.38	123.99	120.30
15	M0	462	ARG	NE-CZ-NH1	7.38	123.99	120.30
1	O4	250	ARG	NE-CZ-NH1	7.37	123.99	120.30
6	C4	1483	ARG	NE-CZ-NH1	7.37	123.99	120.30
6	C0	1464	ARG	NE-CZ-NH1	7.37	123.98	120.30
8	E0	204	ARG	NE-CZ-NH1	7.37	123.98	120.30
10	H3	336	ARG	NE-CZ-NH1	7.37	123.98	120.30
4	A1	709	ARG	NE-CZ-NH1	7.37	123.98	120.30
18	P0	322	ILE	CA-CB-CG1	7.37	124.99	111.00
15	M0	849	ARG	NE-CZ-NH1	7.36	123.98	120.30
6	C2	2001	ARG	NE-CZ-NH1	7.36	123.98	120.30
20	R3	743	ARG	NE-CZ-NH1	7.36	123.98	120.30
15	M2	849	ARG	NE-CZ-NH1	7.35	123.98	120.30
2	I2	1789	ARG	NE-CZ-NH1	7.35	123.97	120.30
6	C2	140	ARG	NE-CZ-NH1	7.35	123.97	120.30
13	K2	887	ARG	NE-CZ-NH1	7.35	123.97	120.30
15	M2	633	ARG	NE-CZ-NH1	7.35	123.97	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D2	521	ARG	NE-CZ-NH1	7.34	123.97	120.30
1	04	170	ARG	NE-CZ-NH1	7.33	123.97	120.30
20	R0	1248	PHE	CB-CG-CD2	-7.33	115.67	120.80
6	C4	1464	ARG	NE-CZ-NH1	7.33	123.97	120.30
18	P0	208	ARG	NE-CZ-NH1	7.33	123.97	120.30
7	D3	1076	ARG	NE-CZ-NH1	7.33	123.97	120.30
4	A0	742	ARG	NE-CZ-NH1	7.32	123.96	120.30
4	A5	396	ARG	NE-CZ-NH1	7.32	123.96	120.30
7	D1	1333	ARG	NE-CZ-NH1	7.31	123.96	120.30
2	10	1827	ALA	O-C-N	7.31	134.40	122.70
6	C2	728	ARG	NE-CZ-NH1	7.31	123.95	120.30
2	17	896	ARG	NE-CZ-NH1	7.30	123.95	120.30
15	M2	922	ARG	NE-CZ-NH1	7.30	123.95	120.30
8	E0	19	ARG	NH1-CZ-NH2	-7.30	111.38	119.40
2	17	669	ARG	NE-CZ-NH1	7.28	123.94	120.30
14	L3	548	ARG	NE-CZ-NH1	7.28	123.94	120.30
2	14	298	ARG	NE-CZ-NH2	-7.28	116.66	120.30
16	N1	54	ARG	NE-CZ-NH1	7.28	123.94	120.30
15	M2	653	ARG	NE-CZ-NH1	7.28	123.94	120.30
1	02	250	ARG	NE-CZ-NH1	7.27	123.94	120.30
2	15	1171	ARG	NE-CZ-NH1	7.27	123.94	120.30
8	E0	313	GLU	CA-CB-CG	7.27	129.40	113.40
2	14	85	ARG	NE-CZ-NH1	7.27	123.94	120.30
7	D5	1096	ARG	NE-CZ-NH1	7.27	123.93	120.30
18	P0	238	ARG	NE-CZ-NH1	7.26	123.93	120.30
4	A3	396	ARG	NE-CZ-NH1	7.26	123.93	120.30
6	C1	2004	ARG	NE-CZ-NH1	7.26	123.93	120.30
7	D5	895	ARG	NE-CZ-NH1	7.26	123.93	120.30
8	E1	204	ARG	NE-CZ-NH1	7.25	123.93	120.30
15	M0	653	ARG	NE-CZ-NH1	7.25	123.93	120.30
5	B0	23	ARG	NE-CZ-NH1	7.25	123.92	120.30
6	C3	1464	ARG	NE-CZ-NH1	7.25	123.93	120.30
20	R0	1125	TYR	CB-CG-CD2	-7.25	116.65	121.00
6	C2	225	ARG	NE-CZ-NH1	7.25	123.92	120.30
5	B1	1645	ARG	NE-CZ-NH1	7.25	123.92	120.30
10	H2	336	ARG	NE-CZ-NH1	7.25	123.92	120.30
6	C0	84	ARG	NE-CZ-NH1	7.24	123.92	120.30
13	K3	775	ARG	NE-CZ-NH1	7.24	123.92	120.30
20	R1	1125	TYR	CB-CG-CD2	-7.24	116.66	121.00
4	A4	396	ARG	NE-CZ-NH1	7.24	123.92	120.30
23	U6	610	LEU	CB-CG-CD1	-7.24	98.70	111.00
22	T0	91	ARG	NE-CZ-NH1	7.24	123.92	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O1	250	ARG	NE-CZ-NH1	7.24	123.92	120.30
2	I3	1171	ARG	NE-CZ-NH1	7.23	123.92	120.30
7	D0	367	ARG	NE-CZ-NH1	7.23	123.92	120.30
16	N0	54	ARG	NE-CZ-NH1	7.23	123.92	120.30
2	I3	85	ARG	NE-CZ-NH1	7.23	123.91	120.30
9	F3	287	ARG	NE-CZ-NH1	7.23	123.91	120.30
20	R0	1339	ARG	NE-CZ-NH1	7.23	123.91	120.30
15	M1	633	ARG	NE-CZ-NH1	7.23	123.91	120.30
23	U2	610	LEU	CB-CG-CD1	-7.22	98.72	111.00
2	I3	896	ARG	NE-CZ-NH1	7.22	123.91	120.30
17	O0	5	ARG	NE-CZ-NH1	7.21	123.91	120.30
1	O0	250	ARG	NE-CZ-NH1	7.21	123.91	120.30
4	A3	675	ARG	NE-CZ-NH1	7.21	123.90	120.30
6	C4	140	ARG	NE-CZ-NH1	7.21	123.90	120.30
18	P0	552	ARG	NE-CZ-NH1	7.21	123.90	120.30
2	I7	85	ARG	NE-CZ-NH1	7.20	123.90	120.30
4	A1	481	ARG	NE-CZ-NH1	7.20	123.90	120.30
6	C4	490	ARG	NE-CZ-NH1	7.20	123.90	120.30
2	I0	1171	ARG	NE-CZ-NH1	7.20	123.90	120.30
8	E0	19	ARG	CA-C-N	-7.20	101.37	117.20
16	N0	54	ARG	NE-CZ-NH2	-7.20	116.70	120.30
14	L0	345	ARG	NE-CZ-NH1	7.19	123.90	120.30
6	C1	1464	ARG	NE-CZ-NH1	7.19	123.89	120.30
14	L3	539	ARG	NE-CZ-NH1	7.19	123.89	120.30
14	L3	697	ARG	NE-CZ-NH1	7.19	123.89	120.30
16	N3	54	ARG	NE-CZ-NH1	7.19	123.89	120.30
12	J2	430	ARG	NE-CZ-NH1	7.18	123.89	120.30
7	D0	521	ARG	NE-CZ-NH1	7.18	123.89	120.30
7	D1	1096	ARG	NE-CZ-NH1	7.18	123.89	120.30
15	M1	546	ARG	NE-CZ-NH1	7.18	123.89	120.30
3	A1	323	ARG	NE-CZ-NH1	7.18	123.89	120.30
23	U2	610	LEU	CD1-CG-CD2	7.17	132.02	110.50
20	R0	1107	ARG	NE-CZ-NH1	7.17	123.89	120.30
2	I4	984	ARG	NE-CZ-NH2	-7.17	116.71	120.30
2	I2	984	ARG	NE-CZ-NH2	-7.17	116.72	120.30
14	L2	548	ARG	NE-CZ-NH1	7.17	123.88	120.30
2	I7	1790	ARG	N-CA-CB	7.17	123.50	110.60
2	I6	85	ARG	NE-CZ-NH1	7.16	123.88	120.30
18	P3	567	ARG	NE-CZ-NH1	7.16	123.88	120.30
2	I4	1171	ARG	NE-CZ-NH1	7.16	123.88	120.30
14	L1	345	ARG	NE-CZ-NH1	7.16	123.88	120.30
20	R1	1153	ARG	NE-CZ-NH1	7.16	123.88	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C1	1934	ARG	NE-CZ-NH1	7.16	123.88	120.30
8	E0	19	ARG	CG-CD-NE	7.16	126.83	111.80
13	K2	831	ARG	NE-CZ-NH1	7.16	123.88	120.30
20	R1	1339	ARG	NE-CZ-NH1	7.16	123.88	120.30
15	M1	581	ARG	NE-CZ-NH1	7.15	123.88	120.30
20	R0	1110	ARG	NE-CZ-NH1	7.15	123.87	120.30
2	10	984	ARG	NE-CZ-NH2	-7.14	116.73	120.30
10	H2	411	ARG	NE-CZ-NH1	7.13	123.87	120.30
15	M0	423	ARG	NE-CZ-NH2	7.13	123.87	120.30
20	R3	1125	TYR	CB-CG-CD2	-7.13	116.72	121.00
22	T0	600	ARG	NE-CZ-NH1	7.13	123.87	120.30
14	L0	548	ARG	NE-CZ-NH1	7.13	123.86	120.30
16	N1	54	ARG	NE-CZ-NH2	-7.13	116.74	120.30
20	R3	1339	ARG	NE-CZ-NH1	7.13	123.86	120.30
4	A0	42	ARG	NE-CZ-NH1	7.12	123.86	120.30
4	A4	120	ARG	NE-CZ-NH1	7.12	123.86	120.30
2	16	896	ARG	NE-CZ-NH1	7.12	123.86	120.30
15	M0	643	ARG	NE-CZ-NH1	7.12	123.86	120.30
1	00	161	ARG	NE-CZ-NH1	7.12	123.86	120.30
5	B1	23	ARG	NE-CZ-NH1	7.12	123.86	120.30
6	C4	2004	ARG	NE-CZ-NH1	7.12	123.86	120.30
12	J1	430	ARG	NE-CZ-NH1	7.12	123.86	120.30
6	C1	490	ARG	NE-CZ-NH1	7.11	123.86	120.30
4	A0	555	ARG	NE-CZ-NH1	7.11	123.85	120.30
13	K0	746	ARG	NE-CZ-NH1	7.10	123.85	120.30
16	N3	54	ARG	NE-CZ-NH2	-7.10	116.75	120.30
2	11	85	ARG	NE-CZ-NH1	7.10	123.85	120.30
13	K3	780	ARG	NE-CZ-NH1	7.10	123.85	120.30
20	R2	1339	ARG	NE-CZ-NH1	7.10	123.85	120.30
4	A3	742	ARG	NE-CZ-NH1	7.10	123.85	120.30
13	K1	775	ARG	NE-CZ-NH1	7.10	123.85	120.30
2	12	1171	ARG	NE-CZ-NH1	7.10	123.85	120.30
15	M2	581	ARG	NE-CZ-NH1	7.10	123.85	120.30
7	D4	895	ARG	NE-CZ-NH1	7.09	123.85	120.30
5	B1	1274	ARG	NE-CZ-NH1	7.09	123.85	120.30
7	D0	376	ARG	NE-CZ-NH1	7.09	123.84	120.30
8	E1	237	ILE	CA-CB-CG2	-7.09	96.72	110.90
22	T1	361	ARG	NE-CZ-NH1	7.09	123.84	120.30
2	16	797	ARG	NE-CZ-NH1	7.09	123.84	120.30
14	L2	345	ARG	NE-CZ-NH1	7.09	123.84	120.30
2	14	896	ARG	NE-CZ-NH1	7.08	123.84	120.30
4	A1	742	ARG	NE-CZ-NH1	7.08	123.84	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D5	376	ARG	NE-CZ-NH1	7.08	123.84	120.30
14	L1	548	ARG	NE-CZ-NH1	7.08	123.84	120.30
7	D3	367	ARG	NE-CZ-NH1	7.08	123.84	120.30
22	T1	712	ARG	NE-CZ-NH2	-7.08	116.76	120.30
2	15	896	ARG	NE-CZ-NH1	7.08	123.84	120.30
21	S3	191	ARG	NE-CZ-NH1	7.07	123.84	120.30
2	12	85	ARG	NE-CZ-NH1	7.07	123.83	120.30
13	K2	775	ARG	NE-CZ-NH1	7.07	123.83	120.30
6	C1	84	ARG	NE-CZ-NH1	7.07	123.83	120.30
6	C2	889	ARG	NE-CZ-NH1	7.07	123.83	120.30
12	J4	430	ARG	NE-CZ-NH1	7.07	123.83	120.30
2	10	85	ARG	NE-CZ-NH1	7.06	123.83	120.30
17	O3	207	ARG	NE-CZ-NH1	7.06	123.83	120.30
2	17	1171	ARG	NE-CZ-NH1	7.05	123.83	120.30
22	T1	600	ARG	NE-CZ-NH1	7.05	123.83	120.30
18	P2	208	ARG	NE-CZ-NH1	7.05	123.82	120.30
15	M0	922	ARG	NE-CZ-NH1	7.05	123.82	120.30
2	13	984	ARG	NE-CZ-NH2	-7.04	116.78	120.30
4	A6	396	ARG	NE-CZ-NH1	7.04	123.82	120.30
2	17	1792	PRO	C-N-CA	7.04	137.08	122.30
4	A1	555	ARG	NE-CZ-NH1	7.04	123.82	120.30
4	A1	735	ARG	NE-CZ-NH2	7.04	123.82	120.30
21	S0	191	ARG	NE-CZ-NH1	7.03	123.82	120.30
22	T1	91	ARG	NE-CZ-NH1	7.03	123.81	120.30
5	B0	1645	ARG	NE-CZ-NH1	7.03	123.81	120.30
2	16	221	ARG	NE-CZ-NH1	7.02	123.81	120.30
4	A2	742	ARG	NE-CZ-NH1	7.02	123.81	120.30
18	P2	552	ARG	NE-CZ-NH1	7.02	123.81	120.30
7	D1	1002	PRO	CB-CA-C	7.02	129.55	112.00
13	K0	780	ARG	NE-CZ-NH1	7.02	123.81	120.30
6	C3	140	ARG	NE-CZ-NH1	7.02	123.81	120.30
2	16	984	ARG	NE-CZ-NH2	-7.01	116.79	120.30
2	10	1824	MET	CG-SD-CE	7.01	111.42	100.20
15	M2	622	ARG	NE-CZ-NH1	7.01	123.81	120.30
2	11	984	ARG	NE-CZ-NH2	-7.01	116.80	120.30
15	M2	703	ARG	NE-CZ-NH1	7.01	123.80	120.30
6	C0	1727	ARG	NE-CZ-NH1	7.00	123.80	120.30
22	T0	361	ARG	NE-CZ-NH1	7.00	123.80	120.30
2	17	984	ARG	NE-CZ-NH2	-7.00	116.80	120.30
12	J0	430	ARG	NE-CZ-NH1	7.00	123.80	120.30
15	M0	622	ARG	NE-CZ-NH1	7.00	123.80	120.30
21	S1	191	ARG	NE-CZ-NH1	6.99	123.80	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	L0	454	ARG	NE-CZ-NH1	6.99	123.80	120.30
4	A2	42	ARG	NE-CZ-NH1	6.99	123.79	120.30
2	10	984	ARG	CD-NE-CZ	6.98	133.38	123.60
13	K3	746	ARG	NE-CZ-NH1	6.98	123.79	120.30
18	P0	94	ARG	NE-CZ-NH1	6.98	123.79	120.30
5	B1	526	ARG	NE-CZ-NH2	-6.98	116.81	120.30
7	D2	1114	ARG	NE-CZ-NH2	6.98	123.79	120.30
22	T0	707	ARG	NE-CZ-NH1	6.98	123.79	120.30
2	15	221	ARG	NE-CZ-NH1	6.98	123.79	120.30
13	K0	775	ARG	NE-CZ-NH1	6.98	123.79	120.30
22	T1	707	ARG	NE-CZ-NH1	6.97	123.79	120.30
4	A3	555	ARG	NE-CZ-NH1	6.97	123.78	120.30
14	L3	330	ARG	NE-CZ-NH1	6.97	123.78	120.30
4	A1	662	ARG	NE-CZ-NH1	6.96	123.78	120.30
14	L2	454	ARG	NE-CZ-NH1	6.96	123.78	120.30
6	C3	774	ARG	NE-CZ-NH1	6.96	123.78	120.30
10	H1	336	ARG	NE-CZ-NH1	6.96	123.78	120.30
9	F2	282	ARG	NE-CZ-NH1	6.96	123.78	120.30
20	R3	1193	ARG	NE-CZ-NH1	6.96	123.78	120.30
4	A2	709	ARG	NE-CZ-NH1	6.96	123.78	120.30
14	L1	454	ARG	NE-CZ-NH1	6.95	123.77	120.30
15	M1	423	ARG	NE-CZ-NH2	6.95	123.77	120.30
2	14	221	ARG	NE-CZ-NH1	6.94	123.77	120.30
6	C1	753	ARG	NE-CZ-NH1	6.94	123.77	120.30
2	17	221	ARG	NE-CZ-NH1	6.94	123.77	120.30
15	M0	428	ARG	NE-CZ-NH1	6.94	123.77	120.30
22	T0	406	ARG	NE-CZ-NH1	6.94	123.77	120.30
17	O0	233	ARG	NE-CZ-NH1	6.94	123.77	120.30
2	15	984	ARG	NE-CZ-NH2	-6.94	116.83	120.30
5	B1	1438	ARG	NE-CZ-NH1	6.93	123.77	120.30
10	H1	411	ARG	NE-CZ-NH1	6.93	123.77	120.30
23	U4	610	LEU	CA-CB-CG	-6.93	99.35	115.30
4	A2	555	ARG	NE-CZ-NH1	6.93	123.76	120.30
6	C3	2004	ARG	NE-CZ-NH1	6.93	123.76	120.30
9	F1	214	ARG	NE-CZ-NH1	6.92	123.76	120.30
7	D2	583	ARG	NE-CZ-NH1	6.92	123.76	120.30
18	P2	208	ARG	NE-CZ-NH2	-6.92	116.84	120.30
6	C3	1727	ARG	NE-CZ-NH1	6.92	123.76	120.30
14	L0	898	ARG	NE-CZ-NH1	6.92	123.76	120.30
22	T0	989	ARG	NE-CZ-NH1	6.92	123.76	120.30
4	A1	675	ARG	NE-CZ-NH1	6.91	123.76	120.30
6	C1	1727	ARG	NE-CZ-NH1	6.91	123.76	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	L3	454	ARG	NE-CZ-NH1	6.91	123.76	120.30
7	D4	885	ARG	NE-CZ-NH1	6.91	123.75	120.30
23	U0	867	ARG	NE-CZ-NH1	6.91	123.76	120.30
7	D4	367	ARG	NE-CZ-NH1	6.91	123.75	120.30
2	16	984	ARG	CD-NE-CZ	6.90	133.26	123.60
2	16	669	ARG	NE-CZ-NH1	6.89	123.75	120.30
2	11	1544	ARG	NE-CZ-NH1	6.89	123.75	120.30
15	M3	423	ARG	NE-CZ-NH2	6.89	123.75	120.30
18	P1	208	ARG	NE-CZ-NH1	6.89	123.75	120.30
13	K2	780	ARG	NE-CZ-NH1	6.89	123.74	120.30
4	A2	31	ARG	NE-CZ-NH1	6.88	123.74	120.30
20	R2	948	ARG	NE-CZ-NH1	6.88	123.74	120.30
2	13	1544	ARG	NE-CZ-NH1	6.87	123.74	120.30
2	14	364	ARG	NE-CZ-NH1	6.87	123.74	120.30
20	R1	1193	ARG	NE-CZ-NH1	6.87	123.74	120.30
18	P2	550	GLU	C-N-CA	6.87	138.88	121.70
21	S2	191	ARG	NE-CZ-NH1	6.87	123.73	120.30
14	L1	898	ARG	NE-CZ-NH1	6.86	123.73	120.30
17	O3	233	ARG	NE-CZ-NH1	6.86	123.73	120.30
2	10	1828	TYR	N-CA-C	6.86	129.52	111.00
1	03	180	ARG	NE-CZ-NH1	6.86	123.73	120.30
7	D4	1260	ARG	NE-CZ-NH1	6.86	123.73	120.30
14	L1	697	ARG	NE-CZ-NH1	6.85	123.73	120.30
22	T1	989	ARG	NE-CZ-NH1	6.85	123.73	120.30
20	R3	948	ARG	NE-CZ-NH1	6.85	123.72	120.30
7	D4	376	ARG	NE-CZ-NH1	6.84	123.72	120.30
2	14	984	ARG	CD-NE-CZ	6.84	133.18	123.60
2	12	984	ARG	CD-NE-CZ	6.84	133.17	123.60
4	A6	568	ARG	NE-CZ-NH2	-6.84	116.88	120.30
2	17	298	ARG	NE-CZ-NH2	-6.83	116.88	120.30
6	C0	291	ARG	NE-CZ-NH1	6.83	123.72	120.30
4	A6	434	ARG	NE-CZ-NH1	6.83	123.71	120.30
7	D1	376	ARG	NE-CZ-NH1	6.83	123.71	120.30
6	C0	1934	ARG	NE-CZ-NH1	6.83	123.71	120.30
6	C4	1617	ARG	NE-CZ-NH1	6.82	123.71	120.30
7	D2	376	ARG	NE-CZ-NH1	6.82	123.71	120.30
13	K1	746	ARG	NE-CZ-NH1	6.81	123.71	120.30
20	R2	335	ARG	NE-CZ-NH1	6.81	123.71	120.30
4	A0	14	GLU	CA-CB-CG	6.81	128.38	113.40
4	A2	14	GLU	CA-CB-CG	6.81	128.38	113.40
20	R1	521	ARG	NE-CZ-NH1	6.81	123.70	120.30
15	M0	515	ARG	NE-CZ-NH1	6.80	123.70	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C1	774	ARG	NE-CZ-NH1	6.80	123.70	120.30
2	17	364	ARG	NE-CZ-NH1	6.79	123.70	120.30
5	B0	1438	ARG	NE-CZ-NH1	6.79	123.70	120.30
13	K2	746	ARG	NE-CZ-NH1	6.79	123.70	120.30
20	R3	335	ARG	NE-CZ-NH1	6.79	123.70	120.30
6	C1	291	ARG	NE-CZ-NH1	6.79	123.69	120.30
3	41	155	ARG	NE-CZ-NH1	6.78	123.69	120.30
7	D1	367	ARG	NE-CZ-NH1	6.78	123.69	120.30
2	17	1544	ARG	NE-CZ-NH1	6.78	123.69	120.30
17	O1	233	ARG	NE-CZ-NH1	6.78	123.69	120.30
10	H0	411	ARG	NE-CZ-NH1	6.78	123.69	120.30
4	A4	568	ARG	NE-CZ-NH2	-6.77	116.92	120.30
18	P0	479	ARG	NE-CZ-NH1	6.76	123.68	120.30
18	P1	208	ARG	NE-CZ-NH2	-6.76	116.92	120.30
14	L0	539	ARG	NE-CZ-NH1	6.76	123.68	120.30
15	M1	922	ARG	NE-CZ-NH1	6.76	123.68	120.30
6	C0	753	ARG	NE-CZ-NH1	6.76	123.68	120.30
13	K1	780	ARG	NE-CZ-NH1	6.76	123.68	120.30
4	A0	31	ARG	NE-CZ-NH1	6.76	123.68	120.30
6	C4	774	ARG	NE-CZ-NH1	6.76	123.68	120.30
17	O2	233	ARG	NE-CZ-NH1	6.76	123.68	120.30
6	C4	291	ARG	NE-CZ-NH1	6.75	123.68	120.30
22	T1	406	ARG	NE-CZ-NH1	6.75	123.67	120.30
3	40	155	ARG	NE-CZ-NH1	6.75	123.67	120.30
6	C1	140	ARG	NE-CZ-NH1	6.75	123.67	120.30
14	L2	898	ARG	NE-CZ-NH1	6.75	123.67	120.30
6	C3	291	ARG	NE-CZ-NH1	6.74	123.67	120.30
9	F2	254	ARG	NE-CZ-NH1	6.74	123.67	120.30
15	M3	633	ARG	NE-CZ-NH1	6.74	123.67	120.30
14	L3	898	ARG	NE-CZ-NH1	6.74	123.67	120.30
20	R0	1044	ARG	NE-CZ-NH1	6.73	123.67	120.30
21	S0	67	ARG	NE-CZ-NH1	6.73	123.66	120.30
25	W0	621	ARG	NE-CZ-NH1	6.73	123.66	120.30
2	17	984	ARG	CD-NE-CZ	6.72	133.01	123.60
6	C4	127	ARG	NE-CZ-NH1	6.72	123.66	120.30
4	A0	709	ARG	NE-CZ-NH1	6.72	123.66	120.30
14	L0	644	ARG	NE-CZ-NH1	6.72	123.66	120.30
6	C1	413	ARG	NE-CZ-NH1	6.72	123.66	120.30
7	D1	1152	ARG	NE-CZ-NH1	6.72	123.66	120.30
17	O3	106	ARG	NE-CZ-NH1	6.71	123.66	120.30
6	C0	774	ARG	NE-CZ-NH1	6.71	123.66	120.30
10	H3	411	ARG	NE-CZ-NH1	6.71	123.66	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	17	1788	ASP	CA-C-N	6.71	131.96	117.20
7	D0	1066	ARG	NE-CZ-NH1	6.70	123.65	120.30
7	D5	85	ARG	NE-CZ-NH1	6.70	123.65	120.30
6	C0	140	ARG	NE-CZ-NH1	6.70	123.65	120.30
7	D0	583	ARG	NE-CZ-NH1	6.70	123.65	120.30
10	H0	172	ARG	NE-CZ-NH1	6.70	123.65	120.30
5	B0	1525	ALA	C-N-CA	6.70	138.44	121.70
20	R3	1434	ARG	NE-CZ-NH1	6.69	123.65	120.30
6	C0	1710	ARG	NE-CZ-NH1	6.69	123.65	120.30
6	C3	411	ARG	NE-CZ-NH2	-6.69	116.95	120.30
20	R2	1191	ARG	NE-CZ-NH1	6.69	123.65	120.30
6	C1	1796	ARG	NE-CZ-NH1	6.69	123.64	120.30
6	C3	1534	ARG	NE-CZ-NH1	6.68	123.64	120.30
7	D3	376	ARG	NE-CZ-NH1	6.68	123.64	120.30
4	A3	31	ARG	NE-CZ-NH1	6.68	123.64	120.30
15	M2	643	ARG	NE-CZ-NH1	6.68	123.64	120.30
6	C0	2004	ARG	NE-CZ-NH1	6.67	123.64	120.30
4	A1	434	ARG	NE-CZ-NH1	6.67	123.64	120.30
2	13	1556	ARG	NE-CZ-NH1	6.67	123.63	120.30
7	D4	1347	ARG	NE-CZ-NH1	6.67	123.63	120.30
15	M0	581	ARG	NE-CZ-NH1	6.67	123.63	120.30
2	10	896	ARG	NE-CZ-NH1	6.67	123.63	120.30
2	15	1544	ARG	NE-CZ-NH1	6.67	123.63	120.30
2	10	412	ARG	NE-CZ-NH1	6.66	123.63	120.30
20	R2	1104	TYR	CB-CG-CD2	-6.66	117.00	121.00
2	11	984	ARG	CD-NE-CZ	6.66	132.93	123.60
20	R0	521	ARG	NE-CZ-NH1	6.66	123.63	120.30
15	M1	622	ARG	NE-CZ-NH1	6.66	123.63	120.30
20	R1	948	ARG	NE-CZ-NH1	6.66	123.63	120.30
15	M3	261	ARG	NE-CZ-NH1	6.65	123.63	120.30
2	11	1556	ARG	NE-CZ-NH1	6.65	123.63	120.30
18	P0	58	ARG	NE-CZ-NH1	6.65	123.62	120.30
20	R2	163	ARG	NE-CZ-NH1	6.64	123.62	120.30
18	P1	58	ARG	NE-CZ-NH1	6.64	123.62	120.30
6	C3	127	ARG	NE-CZ-NH1	6.64	123.62	120.30
16	N1	87	ARG	NE-CZ-NH1	6.64	123.62	120.30
5	B1	1749	ARG	NE-CZ-NH1	6.63	123.62	120.30
4	A3	434	ARG	NE-CZ-NH1	6.63	123.62	120.30
7	D2	1066	ARG	NE-CZ-NH1	6.63	123.62	120.30
1	04	161	ARG	NE-CZ-NH1	6.63	123.61	120.30
6	C4	419	ARG	NE-CZ-NH1	6.63	123.61	120.30
23	U6	610	LEU	CD1-CG-CD2	6.63	130.38	110.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C0	411	ARG	NE-CZ-NH2	-6.63	116.99	120.30
6	C0	1796	ARG	NE-CZ-NH1	6.63	123.61	120.30
17	O2	5	ARG	NE-CZ-NH1	6.63	123.61	120.30
4	A4	434	ARG	NE-CZ-NH1	6.62	123.61	120.30
1	O3	328	ARG	NE-CZ-NH1	6.62	123.61	120.30
15	M2	546	ARG	NE-CZ-NH1	6.62	123.61	120.30
4	A3	662	ARG	NE-CZ-NH1	6.62	123.61	120.30
2	16	1544	ARG	NE-CZ-NH1	6.61	123.61	120.30
2	12	1556	ARG	NE-CZ-NH1	6.61	123.61	120.30
15	M2	861	ARG	NE-CZ-NH1	6.61	123.61	120.30
23	U2	610	LEU	CA-CB-CG	-6.61	100.09	115.30
8	E0	158	ALA	CB-CA-C	6.61	120.01	110.10
20	R0	1071	ARG	NE-CZ-NH1	6.61	123.60	120.30
2	15	984	ARG	CD-NE-CZ	6.60	132.85	123.60
1	01	328	ARG	NE-CZ-NH1	6.60	123.60	120.30
2	13	984	ARG	CD-NE-CZ	6.60	132.84	123.60
2	14	42	ARG	NE-CZ-NH1	6.60	123.60	120.30
1	04	421	ARG	NE-CZ-NH1	6.60	123.60	120.30
15	M2	423	ARG	NE-CZ-NH2	6.59	123.60	120.30
17	O0	98	ARG	NE-CZ-NH2	-6.59	117.00	120.30
6	C0	682	ARG	NE-CZ-NH1	6.59	123.59	120.30
21	S1	67	ARG	NE-CZ-NH1	6.59	123.59	120.30
4	A0	434	ARG	NE-CZ-NH1	6.58	123.59	120.30
7	D0	1260	ARG	NE-CZ-NH1	6.58	123.59	120.30
20	R3	1071	ARG	NE-CZ-NH1	6.58	123.59	120.30
6	C1	705	ARG	NE-CZ-NH1	6.58	123.59	120.30
6	C4	411	ARG	NE-CZ-NH2	-6.58	117.01	120.30
7	D3	521	ARG	NE-CZ-NH1	6.58	123.59	120.30
6	C1	697	ARG	NE-CZ-NH1	6.58	123.59	120.30
18	P1	94	ARG	NE-CZ-NH1	6.58	123.59	120.30
18	P2	479	ARG	NE-CZ-NH1	6.58	123.59	120.30
18	P3	479	ARG	NE-CZ-NH1	6.58	123.59	120.30
2	16	42	ARG	NE-CZ-NH1	6.58	123.59	120.30
15	M0	861	ARG	NE-CZ-NH1	6.57	123.59	120.30
22	T0	712	ARG	NE-CZ-NH1	6.57	123.59	120.30
7	D3	114	ARG	NE-CZ-NH1	6.57	123.58	120.30
10	H1	172	ARG	NE-CZ-NH1	6.57	123.58	120.30
10	H2	172	ARG	NE-CZ-NH1	6.57	123.59	120.30
1	04	229	ARG	NE-CZ-NH2	-6.57	117.02	120.30
6	C0	225	ARG	NE-CZ-NH1	6.57	123.58	120.30
15	M2	261	ARG	NE-CZ-NH1	6.57	123.58	120.30
20	R2	945	ARG	NE-CZ-NH1	6.57	123.58	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	R0	948	ARG	NE-CZ-NH1	6.56	123.58	120.30
6	C0	1047	ARG	NE-CZ-NH1	6.56	123.58	120.30
20	R3	163	ARG	NE-CZ-NH1	6.56	123.58	120.30
1	O3	350	ARG	NE-CZ-NH1	6.56	123.58	120.30
15	M1	643	ARG	NE-CZ-NH1	6.55	123.58	120.30
4	A6	742	ARG	NE-CZ-NH1	6.55	123.58	120.30
15	M3	414	ARG	NE-CZ-NH1	6.55	123.58	120.30
4	A0	245	ARG	NE-CZ-NH1	6.55	123.58	120.30
15	M0	564	ARG	NE-CZ-NH1	6.55	123.57	120.30
14	L0	730	GLN	C-N-CA	6.54	136.04	122.30
23	U0	769	ARG	NE-CZ-NH1	6.54	123.57	120.30
2	I0	1556	ARG	NE-CZ-NH1	6.54	123.57	120.30
18	P2	94	ARG	NE-CZ-NH1	6.54	123.57	120.30
6	C0	153	ARG	NE-CZ-NH1	6.54	123.57	120.30
16	N0	87	ARG	NE-CZ-NH1	6.54	123.57	120.30
16	N3	87	ARG	NE-CZ-NH1	6.54	123.57	120.30
1	O1	170	ARG	NE-CZ-NH1	6.53	123.56	120.30
2	I5	1223	ARG	NE-CZ-NH2	-6.53	117.03	120.30
20	R1	1110	ARG	NE-CZ-NH1	6.53	123.56	120.30
4	A1	14	GLU	CA-CB-CG	6.53	127.76	113.40
5	B0	1274	ARG	NE-CZ-NH1	6.53	123.56	120.30
19	Q0	339	ARG	NE-CZ-NH1	6.53	123.56	120.30
6	C3	419	ARG	NE-CZ-NH1	6.52	123.56	120.30
4	A1	31	ARG	NE-CZ-NH1	6.52	123.56	120.30
4	A3	14	GLU	CA-CB-CG	6.52	127.74	113.40
14	L0	730	GLN	CB-CA-C	6.52	123.44	110.40
18	P1	636	ARG	NE-CZ-NH1	6.52	123.56	120.30
15	M3	643	ARG	NE-CZ-NH1	6.52	123.56	120.30
6	C1	225	ARG	NE-CZ-NH1	6.52	123.56	120.30
6	C3	1617	ARG	NE-CZ-NH1	6.51	123.56	120.30
6	C1	1047	ARG	NE-CZ-NH1	6.51	123.56	120.30
7	D3	32	ARG	CD-NE-CZ	6.51	132.72	123.60
1	O0	229	ARG	NE-CZ-NH2	-6.51	117.05	120.30
15	M3	428	ARG	NE-CZ-NH1	6.51	123.55	120.30
17	O1	106	ARG	NE-CZ-NH1	6.51	123.55	120.30
20	R1	1298	ARG	NE-CZ-NH2	6.51	123.55	120.30
7	D1	521	ARG	NE-CZ-NH1	6.51	123.55	120.30
1	O1	350	ARG	NE-CZ-NH1	6.50	123.55	120.30
16	N2	87	ARG	NE-CZ-NH1	6.50	123.55	120.30
2	I3	412	ARG	NE-CZ-NH1	6.50	123.55	120.30
4	A4	742	ARG	NE-CZ-NH1	6.50	123.55	120.30
7	D5	367	ARG	NE-CZ-NH1	6.50	123.55	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	L2	374	ARG	NE-CZ-NH1	6.50	123.55	120.30
6	C3	753	ARG	NE-CZ-NH1	6.50	123.55	120.30
4	A5	568	ARG	NE-CZ-NH2	-6.49	117.06	120.30
19	Q3	217	ARG	NE-CZ-NH2	-6.49	117.06	120.30
10	H3	172	ARG	NE-CZ-NH1	6.49	123.54	120.30
6	C0	697	ARG	NE-CZ-NH1	6.49	123.54	120.30
22	T1	209	ARG	NE-CZ-NH1	6.49	123.54	120.30
14	L2	745	ARG	NE-CZ-NH1	6.49	123.54	120.30
13	K0	752	ARG	NE-CZ-NH1	6.48	123.54	120.30
2	I2	1544	ARG	NE-CZ-NH1	6.47	123.54	120.30
15	M1	477	ARG	NE-CZ-NH1	6.47	123.54	120.30
18	P2	467	ARG	NE-CZ-NH1	6.47	123.54	120.30
4	A2	434	ARG	NE-CZ-NH1	6.47	123.53	120.30
10	H0	452	ARG	NE-CZ-NH1	6.47	123.53	120.30
19	Q2	217	ARG	NE-CZ-NH2	-6.47	117.06	120.30
20	R2	1110	ARG	NE-CZ-NH1	6.47	123.53	120.30
4	A0	130	ARG	NE-CZ-NH1	6.46	123.53	120.30
6	C0	1792	ARG	NE-CZ-NH1	6.46	123.53	120.30
18	P1	213	ARG	NE-CZ-NH1	6.46	123.53	120.30
6	C1	153	ARG	NE-CZ-NH1	6.46	123.53	120.30
6	C1	582	ARG	NE-CZ-NH1	6.46	123.53	120.30
20	R0	945	ARG	NE-CZ-NH1	6.46	123.53	120.30
20	R3	1035	ARG	NE-CZ-NH1	6.46	123.53	120.30
14	L1	307	ARG	NE-CZ-NH1	6.46	123.53	120.30
2	I1	1556	ARG	NE-CZ-NH2	-6.45	117.07	120.30
2	I3	1789	ARG	NE-CZ-NH1	6.45	123.52	120.30
13	K3	831	ARG	NE-CZ-NH1	6.45	123.52	120.30
20	R0	163	ARG	NE-CZ-NH1	6.45	123.52	120.30
20	R1	1434	ARG	NE-CZ-NH1	6.45	123.52	120.30
6	C4	753	ARG	NE-CZ-NH1	6.45	123.52	120.30
2	I1	669	ARG	NE-CZ-NH1	6.45	123.52	120.30
2	I5	412	ARG	NE-CZ-NH1	6.45	123.52	120.30
2	I0	1556	ARG	NE-CZ-NH2	-6.44	117.08	120.30
18	P1	479	ARG	NE-CZ-NH1	6.44	123.52	120.30
2	I1	412	ARG	NE-CZ-NH1	6.44	123.52	120.30
18	P3	94	ARG	NE-CZ-NH1	6.44	123.52	120.30
7	D1	32	ARG	CD-NE-CZ	6.44	132.61	123.60
8	E0	18	TRP	CB-CG-CD2	-6.43	118.23	126.60
7	D1	114	ARG	NE-CZ-NH1	6.43	123.52	120.30
20	R2	1035	ARG	NE-CZ-NH1	6.43	123.52	120.30
14	L2	833	ARG	NE-CZ-NH1	6.43	123.52	120.30
2	I5	298	ARG	NE-CZ-NH2	-6.43	117.09	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	M1	261	ARG	NE-CZ-NH1	6.43	123.51	120.30
23	U1	610	LEU	CB-CG-CD2	-6.43	100.07	111.00
15	M2	564	ARG	NE-CZ-NH1	6.42	123.51	120.30
1	O2	350	ARG	NE-CZ-NH1	6.42	123.51	120.30
4	A1	245	ARG	NE-CZ-NH1	6.42	123.51	120.30
15	M3	622	ARG	NE-CZ-NH1	6.42	123.51	120.30
20	R0	335	ARG	NE-CZ-NH1	6.41	123.51	120.30
20	R3	1153	ARG	NE-CZ-NH1	6.41	123.50	120.30
1	O0	350	ARG	NE-CZ-NH1	6.41	123.50	120.30
20	R3	1110	ARG	NE-CZ-NH1	6.41	123.50	120.30
4	A6	524	ARG	NE-CZ-NH1	6.40	123.50	120.30
14	L1	539	ARG	NE-CZ-NH1	6.40	123.50	120.30
2	I2	669	ARG	NE-CZ-NH1	6.40	123.50	120.30
4	A5	434	ARG	NE-CZ-NH1	6.40	123.50	120.30
1	O4	58	ARG	NE-CZ-NH1	6.40	123.50	120.30
1	O4	350	ARG	NE-CZ-NH1	6.40	123.50	120.30
7	D0	85	ARG	NE-CZ-NH1	6.39	123.50	120.30
4	A5	245	ARG	NE-CZ-NH1	6.39	123.50	120.30
4	A5	742	ARG	NE-CZ-NH1	6.39	123.50	120.30
6	C2	542	VAL	C-N-CA	6.39	137.68	121.70
19	Q0	225	ARG	NE-CZ-NH1	6.39	123.50	120.30
14	L0	745	ARG	NE-CZ-NH1	6.39	123.49	120.30
20	R1	335	ARG	NE-CZ-NH1	6.39	123.49	120.30
6	C0	1581	ARG	NE-CZ-NH1	6.38	123.49	120.30
18	P3	213	ARG	NE-CZ-NH1	6.38	123.49	120.30
2	I4	1223	ARG	NE-CZ-NH2	-6.38	117.11	120.30
2	I6	412	ARG	NE-CZ-NH1	6.38	123.49	120.30
2	I2	1556	ARG	NE-CZ-NH2	-6.38	117.11	120.30
7	D1	583	ARG	NE-CZ-NH1	6.38	123.49	120.30
14	L0	404	ARG	NE-CZ-NH1	6.38	123.49	120.30
4	A4	555	ARG	NE-CZ-NH2	-6.38	117.11	120.30
6	C4	153	ARG	NE-CZ-NH1	6.38	123.49	120.30
7	D0	885	ARG	NE-CZ-NH1	6.37	123.49	120.30
20	R3	454	ARG	NE-CZ-NH1	6.37	123.49	120.30
15	M3	564	ARG	NE-CZ-NH1	6.37	123.48	120.30
13	K2	743	ARG	NE-CZ-NH1	6.36	123.48	120.30
14	L3	307	ARG	NE-CZ-NH1	6.36	123.48	120.30
2	I4	412	ARG	NE-CZ-NH1	6.36	123.48	120.30
2	I7	412	ARG	NE-CZ-NH1	6.36	123.48	120.30
2	I7	1223	ARG	NE-CZ-NH2	-6.35	117.12	120.30
15	M3	477	ARG	NE-CZ-NH1	6.35	123.48	120.30
13	K3	743	ARG	NE-CZ-NH1	6.35	123.48	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	L2	307	ARG	NE-CZ-NH1	6.34	123.47	120.30
6	C3	1082	ARG	NE-CZ-NH1	6.34	123.47	120.30
15	M1	564	ARG	NE-CZ-NH1	6.34	123.47	120.30
18	P2	213	ARG	NE-CZ-NH1	6.34	123.47	120.30
18	P3	58	ARG	NE-CZ-NH1	6.34	123.47	120.30
15	M0	261	ARG	NE-CZ-NH1	6.34	123.47	120.30
22	T0	209	ARG	NE-CZ-NH1	6.33	123.47	120.30
7	D4	1114	ARG	CA-CB-CG	6.33	127.33	113.40
15	M2	515	ARG	NE-CZ-NH1	6.33	123.47	120.30
6	C1	1792	ARG	NE-CZ-NH1	6.33	123.47	120.30
7	D1	1003	VAL	CA-C-N	6.33	131.12	117.20
15	M0	232	ARG	NE-CZ-NH1	6.33	123.46	120.30
15	M3	240	ARG	NE-CZ-NH1	6.33	123.47	120.30
18	P3	467	ARG	NE-CZ-NH1	6.33	123.46	120.30
7	D4	1117	TYR	CB-CG-CD2	-6.33	117.20	121.00
13	K1	743	ARG	NE-CZ-NH1	6.33	123.46	120.30
20	R2	1125	TYR	CB-CG-CD2	-6.33	117.20	121.00
1	00	328	ARG	NE-CZ-NH1	6.32	123.46	120.30
5	B0	1272	ARG	NE-CZ-NH1	6.32	123.46	120.30
4	A1	42	ARG	NE-CZ-NH1	6.32	123.46	120.30
14	L2	697	ARG	NE-CZ-NH1	6.32	123.46	120.30
6	C0	1483	ARG	NE-CZ-NH2	-6.32	117.14	120.30
10	H0	375	TYR	CB-CG-CD2	-6.32	117.21	121.00
7	D3	672	ARG	NE-CZ-NH1	6.32	123.46	120.30
14	L0	833	ARG	NE-CZ-NH1	6.32	123.46	120.30
14	L3	374	ARG	NE-CZ-NH1	6.32	123.46	120.30
15	M1	428	ARG	NE-CZ-NH1	6.32	123.46	120.30
9	F2	111	ARG	NE-CZ-NH1	6.31	123.46	120.30
6	C3	225	ARG	NE-CZ-NH1	6.31	123.45	120.30
2	16	364	ARG	NE-CZ-NH1	6.31	123.45	120.30
4	A4	245	ARG	NE-CZ-NH1	6.31	123.45	120.30
7	D1	85	ARG	NE-CZ-NH1	6.31	123.45	120.30
15	M2	232	ARG	NE-CZ-NH1	6.31	123.45	120.30
25	W0	520	ARG	NE-CZ-NH1	6.31	123.45	120.30
2	12	412	ARG	NE-CZ-NH1	6.30	123.45	120.30
2	13	325	ARG	NE-CZ-NH1	6.30	123.45	120.30
6	C4	225	ARG	NE-CZ-NH1	6.30	123.45	120.30
6	C4	1727	ARG	NE-CZ-NH1	6.30	123.45	120.30
7	D4	521	ARG	NE-CZ-NH1	6.30	123.45	120.30
7	D4	672	ARG	NE-CZ-NH1	6.30	123.45	120.30
14	L1	404	ARG	NE-CZ-NH1	6.30	123.45	120.30
1	02	229	ARG	NE-CZ-NH2	-6.29	117.15	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	R0	1104	TYR	CB-CG-CD2	-6.29	117.22	121.00
22	T0	742	ARG	NE-CZ-NH2	6.29	123.45	120.30
6	C0	1483	ARG	NE-CZ-NH1	6.29	123.45	120.30
4	A3	42	ARG	NE-CZ-NH1	6.29	123.45	120.30
7	D4	583	ARG	NE-CZ-NH1	6.29	123.45	120.30
19	Q3	225	ARG	NE-CZ-NH1	6.29	123.45	120.30
14	L1	374	ARG	NE-CZ-NH1	6.29	123.44	120.30
19	Q3	201	ARG	NE-CZ-NH1	6.29	123.44	120.30
4	A0	481	ARG	NE-CZ-NH1	6.29	123.44	120.30
5	B1	1272	ARG	NE-CZ-NH1	6.29	123.44	120.30
6	C0	413	ARG	NE-CZ-NH1	6.29	123.44	120.30
20	R1	163	ARG	NE-CZ-NH1	6.29	123.44	120.30
6	C0	705	ARG	NE-CZ-NH1	6.28	123.44	120.30
7	D5	336	ARG	NE-CZ-NH1	6.28	123.44	120.30
15	M1	477	ARG	NE-CZ-NH2	-6.28	117.16	120.30
20	R0	43	ARG	NE-CZ-NH1	6.28	123.44	120.30
4	A5	524	ARG	NE-CZ-NH1	6.28	123.44	120.30
6	C0	127	ARG	NE-CZ-NH1	6.28	123.44	120.30
17	O0	246	ARG	NE-CZ-NH2	-6.28	117.16	120.30
7	D1	672	ARG	NE-CZ-NH1	6.27	123.44	120.30
7	D2	114	ARG	NE-CZ-NH1	6.27	123.44	120.30
12	J4	388	ARG	NE-CZ-NH2	-6.27	117.16	120.30
20	R3	1191	ARG	NE-CZ-NH1	6.27	123.44	120.30
1	O1	229	ARG	NE-CZ-NH2	-6.27	117.16	120.30
2	17	1789	ARG	CD-NE-CZ	6.27	132.38	123.60
4	A2	245	ARG	NE-CZ-NH1	6.27	123.44	120.30
15	M0	414	ARG	NE-CZ-NH1	6.27	123.44	120.30
2	17	42	ARG	NE-CZ-NH1	6.26	123.43	120.30
6	C4	1990	ARG	NE-CZ-NH1	6.26	123.43	120.30
8	E1	48	ARG	NE-CZ-NH1	6.26	123.43	120.30
4	A4	716	ARG	NE-CZ-NH1	6.26	123.43	120.30
7	D4	32	ARG	CD-NE-CZ	6.26	132.37	123.60
6	C3	587	ARG	NE-CZ-NH1	6.26	123.43	120.30
4	A3	245	ARG	NE-CZ-NH1	6.26	123.43	120.30
2	12	896	ARG	NE-CZ-NH1	6.25	123.42	120.30
7	D2	32	ARG	CD-NE-CZ	6.25	132.35	123.60
2	15	42	ARG	NE-CZ-NH1	6.25	123.42	120.30
4	A1	802	ARG	NE-CZ-NH1	6.25	123.42	120.30
7	D4	86	ARG	NE-CZ-NH1	6.25	123.42	120.30
2	11	325	ARG	NE-CZ-NH1	6.25	123.42	120.30
5	B0	526	ARG	NE-CZ-NH2	-6.25	117.18	120.30
6	C1	127	ARG	NE-CZ-NH1	6.25	123.42	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	Q0	217	ARG	NE-CZ-NH2	-6.25	117.18	120.30
20	R2	1071	ARG	NE-CZ-NH1	6.25	123.42	120.30
14	L3	404	ARG	NE-CZ-NH1	6.24	123.42	120.30
19	Q0	376	ARG	NE-CZ-NH2	6.24	123.42	120.30
20	R1	945	ARG	NE-CZ-NH1	6.24	123.42	120.30
22	T1	742	ARG	NE-CZ-NH2	6.24	123.42	120.30
20	R1	454	ARG	NE-CZ-NH1	6.24	123.42	120.30
6	C2	1886	ARG	NE-CZ-NH1	6.24	123.42	120.30
13	K0	831	ARG	NE-CZ-NH1	6.24	123.42	120.30
19	Q1	225	ARG	NE-CZ-NH1	6.24	123.42	120.30
14	L0	731	GLY	C-N-CA	6.24	137.29	121.70
13	K3	659	ARG	NE-CZ-NH1	6.23	123.42	120.30
15	M1	414	ARG	NE-CZ-NH1	6.23	123.42	120.30
23	U1	610	LEU	CB-CA-C	6.23	122.04	110.20
2	12	325	ARG	NE-CZ-NH1	6.23	123.41	120.30
13	K1	831	ARG	NE-CZ-NH1	6.23	123.41	120.30
15	M1	861	ARG	NE-CZ-NH1	6.23	123.41	120.30
2	13	1556	ARG	NE-CZ-NH2	-6.23	117.19	120.30
2	16	1223	ARG	NE-CZ-NH2	-6.23	117.19	120.30
14	L1	833	ARG	NE-CZ-NH1	6.23	123.41	120.30
17	O2	246	ARG	NE-CZ-NH2	-6.23	117.19	120.30
20	R1	1071	ARG	NE-CZ-NH1	6.22	123.41	120.30
20	R2	1193	ARG	NE-CZ-NH1	6.22	123.41	120.30
22	T1	417	ARG	NE-CZ-NH1	6.22	123.41	120.30
6	C0	587	ARG	NE-CZ-NH1	6.22	123.41	120.30
6	C1	587	ARG	NE-CZ-NH1	6.22	123.41	120.30
1	O2	421	ARG	NE-CZ-NH1	6.22	123.41	120.30
14	L2	404	ARG	NE-CZ-NH1	6.22	123.41	120.30
20	R1	43	ARG	NE-CZ-NH1	6.22	123.41	120.30
6	C3	153	ARG	NE-CZ-NH1	6.21	123.41	120.30
19	Q3	376	ARG	NE-CZ-NH2	6.21	123.41	120.30
20	R0	1248	PHE	CA-CB-CG	6.21	128.81	113.90
23	U3	610	LEU	CB-CA-C	6.21	122.00	110.20
13	K1	659	ARG	NE-CZ-NH1	6.21	123.41	120.30
14	L0	374	ARG	NE-CZ-NH1	6.21	123.41	120.30
7	D0	1076	ARG	NE-CZ-NH1	6.21	123.41	120.30
22	T0	712	ARG	NE-CZ-NH2	-6.21	117.19	120.30
1	O2	328	ARG	NE-CZ-NH1	6.21	123.41	120.30
4	A4	524	ARG	NE-CZ-NH1	6.21	123.40	120.30
7	D3	28	ARG	NE-CZ-NH1	6.21	123.40	120.30
18	P1	322	ILE	CB-CA-C	6.21	124.01	111.60
8	E1	244	THR	CB-CA-C	-6.21	94.84	111.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	M2	772	ARG	NE-CZ-NH1	6.20	123.40	120.30
2	10	1822	ALA	C-N-CA	6.20	137.20	121.70
17	O2	207	ARG	NE-CZ-NH1	6.20	123.40	120.30
14	L0	330	ARG	NE-CZ-NH1	6.20	123.40	120.30
20	R2	814	ARG	NE-CZ-NH1	6.20	123.40	120.30
2	11	896	ARG	NE-CZ-NH1	6.20	123.40	120.30
19	Q1	201	ARG	NE-CZ-NH1	6.20	123.40	120.30
1	00	421	ARG	NE-CZ-NH1	6.20	123.40	120.30
5	B0	592	ARG	NE-CZ-NH1	6.19	123.40	120.30
19	Q2	225	ARG	NE-CZ-NH1	6.19	123.40	120.30
20	R3	129	ARG	NE-CZ-NH1	6.19	123.39	120.30
7	D5	583	ARG	NE-CZ-NH1	6.19	123.39	120.30
20	R2	1069	ARG	NE-CZ-NH1	6.19	123.39	120.30
6	C0	419	ARG	NE-CZ-NH1	6.18	123.39	120.30
15	M1	232	ARG	NE-CZ-NH1	6.18	123.39	120.30
19	Q1	217	ARG	NE-CZ-NH2	-6.18	117.21	120.30
6	C2	127	ARG	NE-CZ-NH1	6.17	123.39	120.30
22	T0	417	ARG	NE-CZ-NH1	6.17	123.39	120.30
23	U6	610	LEU	CA-CB-CG	-6.17	101.10	115.30
6	C0	582	ARG	NE-CZ-NH1	6.17	123.38	120.30
7	D0	114	ARG	NE-CZ-NH1	6.17	123.38	120.30
18	P0	106	ARG	NE-CZ-NH2	-6.17	117.22	120.30
7	D3	583	ARG	NE-CZ-NH1	6.16	123.38	120.30
22	T0	566	ARG	NE-CZ-NH1	6.16	123.38	120.30
1	04	328	ARG	NE-CZ-NH1	6.16	123.38	120.30
17	O1	246	ARG	NE-CZ-NH2	-6.16	117.22	120.30
20	R1	481	ARG	NE-CZ-NH1	6.16	123.38	120.30
5	B1	592	ARG	NE-CZ-NH1	6.16	123.38	120.30
7	D3	1066	ARG	NE-CZ-NH1	6.16	123.38	120.30
16	N3	2	VAL	CA-CB-CG1	6.16	120.13	110.90
4	A2	67	ARG	NE-CZ-NH1	6.15	123.38	120.30
6	C1	214	ARG	NE-CZ-NH1	6.15	123.37	120.30
5	B0	797	ARG	NE-CZ-NH1	6.14	123.37	120.30
19	Q2	19	ARG	NE-CZ-NH1	6.14	123.37	120.30
13	K1	281	ARG	NE-CZ-NH1	6.14	123.37	120.30
6	C4	587	ARG	NE-CZ-NH1	6.14	123.37	120.30
1	03	229	ARG	NE-CZ-NH2	-6.13	117.23	120.30
13	K0	281	ARG	NE-CZ-NH1	6.13	123.36	120.30
13	K2	281	ARG	NE-CZ-NH1	6.13	123.36	120.30
4	A6	245	ARG	NE-CZ-NH1	6.13	123.36	120.30
6	C2	419	ARG	NE-CZ-NH1	6.13	123.36	120.30
2	14	786	ARG	NE-CZ-NH1	6.13	123.36	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	16	1378	ARG	NE-CZ-NH2	6.12	123.36	120.30
2	10	325	ARG	NE-CZ-NH1	6.12	123.36	120.30
6	C0	1933	SER	CB-CA-C	6.12	121.73	110.10
7	D2	672	ARG	NE-CZ-NH1	6.12	123.36	120.30
14	L1	751	ARG	NE-CZ-NH2	-6.12	117.24	120.30
7	D1	1114	ARG	NE-CZ-NH1	6.12	123.36	120.30
5	B1	797	ARG	NE-CZ-NH1	6.12	123.36	120.30
2	17	1378	ARG	NE-CZ-NH2	6.11	123.36	120.30
7	D5	885	ARG	NE-CZ-NH1	6.11	123.36	120.30
18	P2	542	ARG	NE-CZ-NH1	6.11	123.36	120.30
7	D5	32	ARG	CD-NE-CZ	6.11	132.15	123.60
2	15	1597	ARG	NE-CZ-NH1	6.10	123.35	120.30
13	K3	281	ARG	NE-CZ-NH1	6.10	123.35	120.30
13	K3	752	ARG	NE-CZ-NH1	6.10	123.35	120.30
16	N1	2	VAL	CA-CB-CG1	6.10	120.05	110.90
20	R3	814	ARG	NE-CZ-NH1	6.10	123.35	120.30
4	A1	154	ASP	CB-CG-OD2	6.10	123.79	118.30
7	D2	85	ARG	NE-CZ-NH1	6.10	123.35	120.30
2	10	1246	ARG	NE-CZ-NH1	6.10	123.35	120.30
17	O3	283	ARG	NE-CZ-NH1	6.10	123.35	120.30
4	A5	175	ARG	NE-CZ-NH1	6.09	123.35	120.30
6	C2	153	ARG	NE-CZ-NH1	6.09	123.35	120.30
20	R0	1248	PHE	CB-CG-CD1	6.09	125.07	120.80
2	10	1824	MET	CA-CB-CG	6.09	123.66	113.30
6	C2	1727	ARG	NE-CZ-NH1	6.09	123.35	120.30
13	K1	843	ARG	NE-CZ-NH1	6.09	123.34	120.30
13	K2	752	ARG	NE-CZ-NH1	6.09	123.34	120.30
7	D5	1163	ARG	NE-CZ-NH1	6.09	123.34	120.30
20	R1	129	ARG	NE-CZ-NH1	6.08	123.34	120.30
18	P2	548	TYR	CB-CA-C	6.08	122.56	110.40
20	R0	129	ARG	NE-CZ-NH1	6.08	123.34	120.30
4	A3	130	ARG	CD-NE-CZ	6.08	132.11	123.60
5	B0	133	ARG	NE-CZ-NH1	6.08	123.34	120.30
14	L3	745	ARG	NE-CZ-NH1	6.08	123.34	120.30
12	J2	349	ARG	NE-CZ-NH1	6.07	123.34	120.30
2	10	1589	ARG	NE-CZ-NH1	6.07	123.34	120.30
9	F1	254	ARG	NE-CZ-NH1	6.07	123.34	120.30
15	M3	232	ARG	NE-CZ-NH1	6.07	123.34	120.30
21	S2	67	ARG	NE-CZ-NH1	6.07	123.33	120.30
22	T1	712	ARG	NE-CZ-NH1	6.07	123.33	120.30
13	K0	659	ARG	NE-CZ-NH1	6.07	123.33	120.30
13	K0	743	ARG	NE-CZ-NH1	6.06	123.33	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	M3	765	ARG	NE-CZ-NH1	6.06	123.33	120.30
5	B0	1325	ARG	NE-CZ-NH1	6.06	123.33	120.30
20	R1	814	ARG	NE-CZ-NH1	6.06	123.33	120.30
20	R2	129	ARG	NE-CZ-NH1	6.06	123.33	120.30
6	C3	1581	ARG	NE-CZ-NH1	6.05	123.33	120.30
20	R1	276	ARG	NE-CZ-NH1	6.05	123.33	120.30
7	D0	1114	ARG	NE-CZ-NH2	6.05	123.33	120.30
4	A6	130	ARG	NE-CZ-NH1	6.05	123.33	120.30
10	H2	385	ARG	NE-CZ-NH1	6.05	123.33	120.30
19	Q1	376	ARG	NE-CZ-NH2	6.05	123.33	120.30
4	A0	376	ARG	NE-CZ-NH1	6.05	123.33	120.30
6	C1	411	ARG	NE-CZ-NH2	-6.05	117.28	120.30
6	C1	1307	ARG	NE-CZ-NH1	6.05	123.32	120.30
7	D5	672	ARG	NE-CZ-NH1	6.05	123.32	120.30
15	M2	698	ARG	NE-CZ-NH1	6.05	123.32	120.30
18	P2	61	VAL	CA-CB-CG2	6.04	119.97	110.90
20	R2	1434	ARG	NE-CZ-NH1	6.04	123.32	120.30
7	D1	336	ARG	NE-CZ-NH1	6.04	123.32	120.30
18	P0	213	ARG	NE-CZ-NH1	6.04	123.32	120.30
19	Q0	17	ARG	NE-CZ-NH1	6.04	123.32	120.30
22	T1	735	ARG	NE-CZ-NH1	6.04	123.32	120.30
20	R1	365	ARG	CD-NE-CZ	6.04	132.06	123.60
6	C1	419	ARG	NE-CZ-NH1	6.04	123.32	120.30
7	D5	1260	ARG	NE-CZ-NH1	6.04	123.32	120.30
5	B1	1130	ARG	NE-CZ-NH1	6.04	123.32	120.30
20	R3	945	ARG	NE-CZ-NH1	6.04	123.32	120.30
21	S3	105	ARG	NE-CZ-NH1	6.04	123.32	120.30
15	M2	428	ARG	NE-CZ-NH1	6.03	123.32	120.30
20	R1	1035	ARG	NE-CZ-NH1	6.03	123.32	120.30
2	10	786	ARG	NE-CZ-NH1	6.03	123.31	120.30
17	O0	303	ARG	NE-CZ-NH1	6.03	123.31	120.30
4	A2	376	ARG	NE-CZ-NH1	6.03	123.31	120.30
14	L1	745	ARG	NE-CZ-NH1	6.03	123.31	120.30
2	15	357	ARG	NE-CZ-NH1	6.02	123.31	120.30
17	O2	283	ARG	NE-CZ-NH1	6.02	123.31	120.30
7	D1	1000	GLY	O-C-N	6.02	132.54	121.10
2	16	786	ARG	NE-CZ-NH1	6.02	123.31	120.30
2	17	1597	ARG	NE-CZ-NH1	6.02	123.31	120.30
7	D5	521	ARG	NE-CZ-NH1	6.02	123.31	120.30
10	H2	375	TYR	CB-CG-CD2	-6.02	117.39	121.00
7	D0	672	ARG	NE-CZ-NH1	6.02	123.31	120.30
19	Q1	19	ARG	NE-CZ-NH1	6.01	123.31	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	Q3	17	ARG	NE-CZ-NH1	6.01	123.31	120.30
6	C3	413	ARG	NE-CZ-NH1	6.01	123.30	120.30
15	M3	861	ARG	NE-CZ-NH1	6.01	123.30	120.30
7	D0	294	ARG	NE-CZ-NH1	6.01	123.30	120.30
6	C0	1312	ARG	NE-CZ-NH1	6.00	123.30	120.30
20	R0	814	ARG	NE-CZ-NH1	6.00	123.30	120.30
7	D0	32	ARG	CD-NE-CZ	6.00	132.00	123.60
1	O1	256	ARG	NE-CZ-NH1	6.00	123.30	120.30
5	B0	1517	ARG	NE-CZ-NH1	6.00	123.30	120.30
17	O1	303	ARG	NE-CZ-NH1	6.00	123.30	120.30
18	P0	100	ARG	NE-CZ-NH1	6.00	123.30	120.30
20	R2	1329	TYR	CB-CG-CD2	-6.00	117.40	121.00
7	D2	1260	ARG	NE-CZ-NH1	6.00	123.30	120.30
1	O3	256	ARG	NE-CZ-NH1	6.00	123.30	120.30
21	S3	67	ARG	NE-CZ-NH1	6.00	123.30	120.30
5	B0	1130	ARG	NE-CZ-NH1	5.99	123.30	120.30
7	D3	885	ARG	NE-CZ-NH1	5.99	123.30	120.30
7	D4	28	ARG	NE-CZ-NH1	5.99	123.30	120.30
10	H2	377	ARG	NE-CZ-NH1	5.99	123.30	120.30
6	C3	705	ARG	NE-CZ-NH1	5.99	123.29	120.30
4	A2	662	ARG	NE-CZ-NH1	5.99	123.29	120.30
7	D1	28	ARG	NE-CZ-NH1	5.99	123.29	120.30
23	U5	610	LEU	CB-CG-CD2	-5.99	100.82	111.00
6	C4	1886	ARG	NE-CZ-NH1	5.98	123.29	120.30
13	K2	659	ARG	NE-CZ-NH1	5.98	123.29	120.30
20	R1	1104	TYR	CB-CG-CD2	-5.98	117.41	121.00
2	I2	786	ARG	NE-CZ-NH1	5.98	123.29	120.30
20	R0	276	ARG	NE-CZ-NH1	5.98	123.29	120.30
23	U5	610	LEU	CB-CA-C	5.98	121.56	110.20
4	A1	376	ARG	NE-CZ-NH1	5.98	123.29	120.30
6	C2	740	ARG	NE-CZ-NH1	5.98	123.29	120.30
20	R0	365	ARG	CD-NE-CZ	5.98	131.97	123.60
4	A6	716	ARG	NE-CZ-NH1	5.97	123.29	120.30
8	E0	18	TRP	C-N-CA	5.97	136.64	121.70
1	O0	180	ARG	NE-CZ-NH1	5.97	123.29	120.30
4	A2	481	ARG	NE-CZ-NH1	5.97	123.29	120.30
7	D2	250	ARG	NE-CZ-NH1	5.97	123.29	120.30
20	R0	1329	TYR	CB-CG-CD2	-5.97	117.42	121.00
20	R1	265	ARG	NE-CZ-NH1	5.97	123.28	120.30
6	C1	1710	ARG	NE-CZ-NH1	5.97	123.28	120.30
15	M0	240	ARG	NE-CZ-NH1	5.97	123.28	120.30
20	R0	1434	ARG	NE-CZ-NH1	5.97	123.28	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A6	555	ARG	NE-CZ-NH2	-5.96	117.32	120.30
13	K2	843	ARG	NE-CZ-NH1	5.96	123.28	120.30
17	O3	246	ARG	NE-CZ-NH2	-5.96	117.32	120.30
8	E0	48	ARG	NE-CZ-NH1	5.96	123.28	120.30
24	V0	783	ARG	CD-NE-CZ	5.96	131.94	123.60
10	H3	375	TYR	CB-CG-CD2	-5.96	117.42	121.00
2	11	786	ARG	NE-CZ-NH1	5.96	123.28	120.30
14	L3	850	ARG	NE-CZ-NH1	5.96	123.28	120.30
7	D4	1100	ARG	NE-CZ-NH1	5.96	123.28	120.30
17	O2	303	ARG	NE-CZ-NH1	5.96	123.28	120.30
6	C3	1990	ARG	NE-CZ-NH1	5.95	123.28	120.30
7	D1	1066	ARG	NE-CZ-NH1	5.95	123.28	120.30
18	P3	546	ARG	NE-CZ-NH1	5.95	123.28	120.30
4	A6	376	ARG	NE-CZ-NH1	5.95	123.27	120.30
6	C4	1434	ARG	NE-CZ-NH1	5.95	123.27	120.30
19	Q2	201	ARG	NE-CZ-NH1	5.95	123.27	120.30
20	R3	1116	ARG	NE-CZ-NH1	5.95	123.27	120.30
2	15	267	ARG	NE-CZ-NH2	-5.95	117.33	120.30
7	D1	1163	ARG	NE-CZ-NH1	5.94	123.27	120.30
4	A2	130	ARG	NE-CZ-NH1	5.94	123.27	120.30
20	R3	1329	TYR	CB-CG-CD2	-5.94	117.44	121.00
2	10	1086	ARG	NE-CZ-NH1	5.94	123.27	120.30
7	D5	114	ARG	NE-CZ-NH1	5.94	123.27	120.30
14	L0	697	ARG	NE-CZ-NH2	-5.94	117.33	120.30
2	13	1597	ARG	NE-CZ-NH1	5.94	123.27	120.30
8	E1	240	ALA	N-CA-CB	-5.93	101.79	110.10
17	O3	303	ARG	NE-CZ-NH1	5.93	123.27	120.30
11	I1	327	ARG	NE-CZ-NH1	5.93	123.26	120.30
1	00	256	ARG	NE-CZ-NH1	5.93	123.26	120.30
20	R3	1095	ARG	NE-CZ-NH1	5.93	123.26	120.30
2	16	1789	ARG	NE-CZ-NH1	5.92	123.26	120.30
14	L2	539	ARG	NE-CZ-NH1	5.92	123.26	120.30
16	N0	43	ARG	NE-CZ-NH1	5.92	123.26	120.30
20	R0	454	ARG	NE-CZ-NH1	5.92	123.26	120.30
4	A3	376	ARG	NE-CZ-NH1	5.92	123.26	120.30
22	T1	311	ARG	NE-CZ-NH1	5.92	123.26	120.30
19	Q3	19	ARG	NE-CZ-NH1	5.92	123.26	120.30
22	T0	311	ARG	NE-CZ-NH1	5.92	123.26	120.30
25	W0	404	ARG	NE-CZ-NH1	5.92	123.26	120.30
7	D2	294	ARG	NE-CZ-NH1	5.92	123.26	120.30
5	B1	1325	ARG	NE-CZ-NH1	5.92	123.26	120.30
7	D5	28	ARG	NE-CZ-NH1	5.91	123.26	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	K0	843	ARG	NE-CZ-NH1	5.91	123.25	120.30
20	R2	265	ARG	NE-CZ-NH1	5.91	123.25	120.30
19	Q2	376	ARG	NE-CZ-NH2	5.91	123.25	120.30
4	A0	67	ARG	NE-CZ-NH1	5.91	123.25	120.30
17	O1	113	ARG	NE-CZ-NH1	5.91	123.25	120.30
20	R0	1298	ARG	NE-CZ-NH1	5.91	123.25	120.30
2	15	1223	ARG	NE-CZ-NH1	5.90	123.25	120.30
18	P2	546	ARG	NE-CZ-NH1	5.90	123.25	120.30
17	O0	283	ARG	NE-CZ-NH1	5.90	123.25	120.30
18	P1	571	ARG	NE-CZ-NH1	5.90	123.25	120.30
6	C1	1886	ARG	NE-CZ-NH1	5.89	123.25	120.30
1	01	310	ARG	CD-NE-CZ	5.89	131.85	123.60
4	A3	802	ARG	NE-CZ-NH1	5.89	123.25	120.30
15	M2	240	ARG	NE-CZ-NH1	5.89	123.25	120.30
20	R1	1329	TYR	CB-CG-CD2	-5.89	117.47	121.00
15	M0	546	ARG	NE-CZ-NH2	-5.89	117.36	120.30
17	O2	106	ARG	CD-NE-CZ	5.89	131.84	123.60
20	R2	276	ARG	NE-CZ-NH1	5.89	123.24	120.30
1	02	256	ARG	NE-CZ-NH1	5.88	123.24	120.30
2	14	1378	ARG	NE-CZ-NH2	5.88	123.24	120.30
10	H1	111	PRO	CA-N-CD	-5.88	103.26	111.50
17	O0	106	ARG	CD-NE-CZ	5.88	131.84	123.60
6	C3	1591	ARG	NE-CZ-NH1	5.88	123.24	120.30
8	E1	242	ILE	C-N-CA	5.88	136.40	121.70
12	J4	349	ARG	NE-CZ-NH1	5.88	123.24	120.30
2	16	1597	ARG	NE-CZ-NH1	5.88	123.24	120.30
13	K1	675	ARG	NE-CZ-NH1	5.88	123.24	120.30
4	A4	810	ARG	NE-CZ-NH1	5.88	123.24	120.30
2	17	786	ARG	NE-CZ-NH1	5.87	123.24	120.30
2	15	786	ARG	NE-CZ-NH1	5.87	123.24	120.30
13	K1	752	ARG	NE-CZ-NH1	5.87	123.24	120.30
19	Q2	17	ARG	NE-CZ-NH1	5.87	123.24	120.30
18	P2	106	ARG	NE-CZ-NH2	-5.87	117.37	120.30
6	C1	750	ARG	NE-CZ-NH1	5.86	123.23	120.30
6	C2	1876	ARG	NE-CZ-NH1	5.86	123.23	120.30
13	K2	675	ARG	NE-CZ-NH1	5.86	123.23	120.30
17	O1	283	ARG	NE-CZ-NH1	5.86	123.23	120.30
12	J0	349	ARG	NE-CZ-NH1	5.86	123.23	120.30
22	T0	735	ARG	NE-CZ-NH1	5.86	123.23	120.30
2	15	1378	ARG	NE-CZ-NH2	5.86	123.23	120.30
8	E0	22	GLY	N-CA-C	5.86	127.75	113.10
18	P1	106	ARG	NE-CZ-NH2	-5.86	117.37	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	04	256	ARG	NE-CZ-NH1	5.86	123.23	120.30
7	D1	1298	ARG	NE-CZ-NH1	5.86	123.23	120.30
20	R2	1298	ARG	NE-CZ-NH1	5.85	123.23	120.30
6	C4	413	ARG	NE-CZ-NH1	5.85	123.22	120.30
15	M0	698	ARG	NE-CZ-NH1	5.85	123.22	120.30
20	R0	1095	ARG	NE-CZ-NH1	5.85	123.22	120.30
13	K2	466	ARG	CD-NE-CZ	5.84	131.78	123.60
14	L1	850	ARG	NE-CZ-NH1	5.84	123.22	120.30
19	Q0	87	ARG	NE-CZ-NH2	-5.84	117.38	120.30
4	A6	143	ARG	NE-CZ-NH1	5.84	123.22	120.30
6	C4	1591	ARG	NE-CZ-NH1	5.84	123.22	120.30
2	10	597	ARG	NE-CZ-NH1	5.84	123.22	120.30
2	11	1789	ARG	NE-CZ-NH1	5.84	123.22	120.30
4	A5	716	ARG	NE-CZ-NH1	5.84	123.22	120.30
6	C2	753	ARG	NE-CZ-NH1	5.84	123.22	120.30
7	D4	114	ARG	NE-CZ-NH1	5.84	123.22	120.30
19	Q0	19	ARG	NE-CZ-NH1	5.84	123.22	120.30
14	L0	850	ARG	NE-CZ-NH1	5.84	123.22	120.30
2	13	786	ARG	NE-CZ-NH1	5.84	123.22	120.30
4	A2	716	ARG	NE-CZ-NH1	5.84	123.22	120.30
6	C1	1312	ARG	NE-CZ-NH1	5.84	123.22	120.30
6	C0	1307	ARG	NE-CZ-NH1	5.83	123.22	120.30
19	Q1	17	ARG	NE-CZ-NH1	5.83	123.22	120.30
20	R1	1095	ARG	NE-CZ-NH1	5.83	123.22	120.30
4	A0	524	ARG	NE-CZ-NH1	5.83	123.21	120.30
4	A3	709	ARG	NE-CZ-NH1	5.82	123.21	120.30
6	C0	391	ARG	NE-CZ-NH1	5.82	123.21	120.30
2	11	1597	ARG	NE-CZ-NH1	5.82	123.21	120.30
7	D5	924	ARG	NE-CZ-NH1	5.82	123.21	120.30
20	R3	832	ARG	NE-CZ-NH1	5.82	123.21	120.30
15	M3	515	ARG	NE-CZ-NH1	5.82	123.21	120.30
2	12	783	ARG	CD-NE-CZ	5.81	131.74	123.60
2	17	267	ARG	NE-CZ-NH2	-5.81	117.39	120.30
7	D0	1168	HIS	CB-CA-C	5.81	122.03	110.40
20	R2	380	ARG	NE-CZ-NH1	5.81	123.20	120.30
7	D5	1347	ARG	CD-NE-CZ	5.81	131.73	123.60
7	D4	1163	ARG	NE-CZ-NH1	5.81	123.20	120.30
2	10	1831	VAL	CA-CB-CG2	5.80	119.61	110.90
6	C0	2002	ARG	NE-CZ-NH1	5.80	123.20	120.30
6	C1	1575	ARG	NE-CZ-NH1	5.80	123.20	120.30
2	16	1086	ARG	NE-CZ-NH1	5.80	123.20	120.30
16	N2	81	ARG	NE-CZ-NH1	5.80	123.20	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O3	310	ARG	CD-NE-CZ	5.80	131.72	123.60
8	E1	19	ARG	NE-CZ-NH1	5.80	123.20	120.30
13	K3	843	ARG	NE-CZ-NH1	5.80	123.20	120.30
2	14	298	ARG	CD-NE-CZ	5.80	131.72	123.60
7	D2	1347	ARG	NE-CZ-NH1	5.80	123.20	120.30
14	L1	558	ARG	NE-CZ-NH1	5.80	123.20	120.30
20	R3	1104	TYR	CB-CG-CD2	-5.80	117.52	121.00
20	R3	276	ARG	NE-CZ-NH1	5.79	123.19	120.30
7	D2	885	ARG	NE-CZ-NH1	5.79	123.19	120.30
18	P0	69	ARG	NE-CZ-NH1	5.79	123.19	120.30
6	C0	750	ARG	NE-CZ-NH1	5.79	123.19	120.30
15	M1	240	ARG	NE-CZ-NH1	5.79	123.19	120.30
15	M1	698	ARG	NE-CZ-NH1	5.79	123.19	120.30
2	14	1321	ARG	NE-CZ-NH1	5.79	123.19	120.30
5	B0	722	ARG	NE-CZ-NH1	5.79	123.19	120.30
7	D5	1083	ARG	NE-CZ-NH1	5.79	123.19	120.30
18	P3	311	ARG	NE-CZ-NH1	5.78	123.19	120.30
21	S1	105	ARG	NE-CZ-NH1	5.78	123.19	120.30
6	C2	748	ARG	NE-CZ-NH1	5.78	123.19	120.30
6	C2	1393	ASP	CB-CG-OD2	-5.78	113.10	118.30
19	Q2	87	ARG	NE-CZ-NH2	-5.78	117.41	120.30
10	H1	375	TYR	CB-CG-CD2	-5.78	117.53	121.00
20	R3	1069	ARG	NE-CZ-NH1	5.78	123.19	120.30
20	R0	171	ARG	NE-CZ-NH1	5.78	123.19	120.30
21	S0	105	ARG	NE-CZ-NH1	5.78	123.19	120.30
6	C1	1379	PRO	O-C-N	-5.78	110.13	121.10
14	L1	330	ARG	NE-CZ-NH2	-5.78	117.41	120.30
10	H3	397	ARG	NE-CZ-NH1	5.77	123.19	120.30
16	N1	43	ARG	NE-CZ-NH1	5.77	123.19	120.30
6	C1	1418	ARG	NE-CZ-NH1	5.77	123.19	120.30
6	C3	391	ARG	NE-CZ-NH1	5.77	123.19	120.30
20	R3	380	ARG	NE-CZ-NH1	5.77	123.19	120.30
6	C3	338	ARG	NE-CZ-NH1	5.77	123.19	120.30
17	O3	176	ARG	NE-CZ-NH1	5.77	123.19	120.30
6	C4	697	ARG	NE-CZ-NH1	-5.77	117.42	120.30
2	14	1597	ARG	NE-CZ-NH1	5.77	123.18	120.30
13	K3	691	ARG	NE-CZ-NH1	5.76	123.18	120.30
18	P0	645	ARG	NE-CZ-NH1	5.76	123.18	120.30
2	12	1589	ARG	NE-CZ-NH1	5.76	123.18	120.30
6	C1	391	ARG	NE-CZ-NH1	5.76	123.18	120.30
2	14	1223	ARG	NE-CZ-NH1	5.76	123.18	120.30
4	A5	376	ARG	NE-CZ-NH1	5.76	123.18	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	L3	833	ARG	NE-CZ-NH1	5.76	123.18	120.30
20	R2	1418	ASP	CB-CG-OD1	5.76	123.48	118.30
6	C4	338	ARG	NE-CZ-NH1	5.76	123.18	120.30
14	L3	355	ARG	NE-CZ-NH1	5.76	123.18	120.30
15	M3	698	ARG	NE-CZ-NH1	5.76	123.18	120.30
6	C0	1886	ARG	NE-CZ-NH1	5.76	123.18	120.30
15	M1	546	ARG	NE-CZ-NH2	-5.76	117.42	120.30
7	D0	381	ARG	NE-CZ-NH1	5.76	123.18	120.30
17	O0	98	ARG	NE-CZ-NH1	5.76	123.18	120.30
1	O3	421	ARG	NE-CZ-NH1	5.75	123.18	120.30
4	A1	716	ARG	NE-CZ-NH1	5.75	123.18	120.30
4	A2	524	ARG	NE-CZ-NH1	5.75	123.18	120.30
7	D4	250	ARG	NE-CZ-NH1	5.75	123.17	120.30
20	R1	150	ARG	NE-CZ-NH1	5.75	123.17	120.30
20	R3	915	ARG	NE-CZ-NH1	5.75	123.17	120.30
6	C0	1575	ARG	NE-CZ-NH1	5.75	123.17	120.30
2	17	1795	TYR	C-N-CA	5.75	134.37	122.30
6	C2	1591	ARG	NE-CZ-NH1	5.75	123.17	120.30
20	R2	150	ARG	NE-CZ-NH1	5.75	123.17	120.30
6	C3	1710	ARG	NE-CZ-NH1	5.75	123.17	120.30
19	Q0	201	ARG	NE-CZ-NH1	5.74	123.17	120.30
20	R1	832	ARG	NE-CZ-NH1	5.74	123.17	120.30
21	S2	105	ARG	NE-CZ-NH1	5.74	123.17	120.30
5	B0	1682	ARG	NE-CZ-NH2	-5.74	117.43	120.30
6	C2	390	ARG	NE-CZ-NH1	5.74	123.17	120.30
6	C2	1159	ILE	C-N-CA	5.74	136.04	121.70
7	D4	294	ARG	NE-CZ-NH1	5.74	123.17	120.30
20	R0	1069	ARG	NE-CZ-NH1	5.74	123.17	120.30
2	16	357	ARG	NE-CZ-NH1	5.73	123.17	120.30
15	M3	609	ARG	NE-CZ-NH2	5.73	123.17	120.30
18	P2	69	ARG	NE-CZ-NH1	5.73	123.17	120.30
4	A3	578	ARG	CD-NE-CZ	5.73	131.62	123.60
20	R0	380	ARG	NE-CZ-NH1	5.73	123.16	120.30
20	R3	365	ARG	CD-NE-CZ	5.73	131.62	123.60
2	17	1223	ARG	NE-CZ-NH1	5.73	123.16	120.30
6	C2	1806	TYR	CB-CA-C	5.72	121.85	110.40
7	D5	250	ARG	NE-CZ-NH1	5.72	123.16	120.30
20	R2	832	ARG	NE-CZ-NH1	5.72	123.16	120.30
2	11	42	ARG	NE-CZ-NH1	5.72	123.16	120.30
4	A5	555	ARG	NE-CZ-NH2	-5.72	117.44	120.30
7	D1	895	ARG	NE-CZ-NH1	5.72	123.16	120.30
23	U1	609	ASN	C-N-CA	-5.72	107.41	121.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	16	298	ARG	CD-NE-CZ	5.71	131.60	123.60
6	C3	1159	ILE	C-N-CA	5.71	135.99	121.70
6	C3	1312	ARG	NE-CZ-NH1	5.71	123.16	120.30
6	C4	1159	ILE	C-N-CA	5.71	135.99	121.70
13	K2	185	ARG	NE-CZ-NH1	5.71	123.16	120.30
20	R3	265	ARG	NE-CZ-NH1	5.71	123.16	120.30
1	O2	85	ARG	NE-CZ-NH1	5.71	123.16	120.30
19	Q1	87	ARG	NE-CZ-NH2	-5.71	117.44	120.30
25	W0	573	ARG	NE-CZ-NH1	5.71	123.16	120.30
6	C2	84	ARG	NE-CZ-NH1	5.71	123.16	120.30
14	L0	896	GLU	OE1-CD-OE2	5.71	130.15	123.30
1	O1	58	ARG	NE-CZ-NH1	5.71	123.15	120.30
6	C3	1886	ARG	NE-CZ-NH1	5.70	123.15	120.30
6	C4	391	ARG	NE-CZ-NH1	5.70	123.15	120.30
2	10	1597	ARG	NE-CZ-NH1	5.70	123.15	120.30
7	D1	885	ARG	NE-CZ-NH1	5.70	123.15	120.30
18	P0	399	ARG	NE-CZ-NH1	5.70	123.15	120.30
2	14	548	ARG	NE-CZ-NH1	5.70	123.15	120.30
5	B1	133	ARG	NE-CZ-NH1	5.70	123.15	120.30
13	K1	798	ARG	NE-CZ-NH1	5.70	123.15	120.30
1	O1	421	ARG	NE-CZ-NH1	5.70	123.15	120.30
2	12	597	ARG	NE-CZ-NH1	5.70	123.15	120.30
8	E0	69	TYR	CA-CB-CG	5.70	124.22	113.40
14	L0	355	ARG	NE-CZ-NH1	5.70	123.15	120.30
7	D0	515	ARG	NE-CZ-NH1	5.70	123.15	120.30
13	K0	798	ARG	NE-CZ-NH1	5.70	123.15	120.30
16	N0	2	VAL	CA-CB-CG1	5.70	119.44	110.90
10	H0	397	ARG	NE-CZ-NH1	5.69	123.15	120.30
13	K0	185	ARG	NE-CZ-NH1	5.69	123.15	120.30
14	L1	355	ARG	NE-CZ-NH1	5.69	123.15	120.30
9	F0	230	ARG	NE-CZ-NH1	5.69	123.14	120.30
16	N2	43	ARG	NE-CZ-NH1	5.69	123.14	120.30
6	C3	1434	ARG	NE-CZ-NH1	5.69	123.14	120.30
21	S0	239	ARG	NE-CZ-NH1	5.69	123.14	120.30
2	14	357	ARG	NE-CZ-NH1	5.68	123.14	120.30
6	C2	1307	ARG	NE-CZ-NH1	5.68	123.14	120.30
22	T1	5	ARG	NE-CZ-NH1	5.68	123.14	120.30
17	O3	106	ARG	CD-NE-CZ	5.68	131.55	123.60
20	R0	265	ARG	NE-CZ-NH1	5.68	123.14	120.30
2	16	1223	ARG	NE-CZ-NH1	5.68	123.14	120.30
4	A3	130	ARG	NE-CZ-NH1	5.68	123.14	120.30
2	14	1544	ARG	NE-CZ-NH1	5.68	123.14	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D2	515	ARG	NE-CZ-NH1	5.68	123.14	120.30
4	A4	675	ARG	NE-CZ-NH1	5.68	123.14	120.30
6	C0	1493	ARG	NE-CZ-NH1	5.68	123.14	120.30
18	P3	106	ARG	NE-CZ-NH2	-5.68	117.46	120.30
2	10	42	ARG	NE-CZ-NH1	5.67	123.14	120.30
21	S2	239	ARG	NE-CZ-NH1	5.67	123.14	120.30
18	P0	636	ARG	NE-CZ-NH1	5.67	123.14	120.30
7	D3	537	ARG	NE-CZ-NH1	5.67	123.14	120.30
13	K0	637	ARG	NE-CZ-NH1	5.67	123.14	120.30
7	D3	288	ARG	NE-CZ-NH1	5.67	123.14	120.30
7	D4	1120	ARG	NE-CZ-NH1	5.67	123.14	120.30
10	H0	385	ARG	NE-CZ-NH1	5.67	123.13	120.30
4	A5	593	ARG	NE-CZ-NH1	5.67	123.13	120.30
5	B1	1671	ARG	NE-CZ-NH1	5.67	123.13	120.30
20	R0	1290	ARG	NE-CZ-NH1	5.67	123.13	120.30
6	C1	2002	ARG	NE-CZ-NH1	5.67	123.13	120.30
7	D4	336	ARG	NE-CZ-NH1	5.67	123.13	120.30
6	C3	2002	ARG	NE-CZ-NH1	5.66	123.13	120.30
6	C4	705	ARG	NE-CZ-NH1	5.66	123.13	120.30
10	H0	461	ARG	NE-CZ-NH1	5.66	123.13	120.30
2	17	357	ARG	NE-CZ-NH1	5.66	123.13	120.30
4	A1	175	ARG	NE-CZ-NH1	5.66	123.13	120.30
13	K0	231	ARG	NE-CZ-NH2	5.66	123.13	120.30
13	K3	798	ARG	NE-CZ-NH1	5.66	123.13	120.30
14	L0	259	ARG	CD-NE-CZ	5.66	131.52	123.60
18	P1	399	ARG	NE-CZ-NH1	5.66	123.13	120.30
18	P2	399	ARG	NE-CZ-NH1	5.66	123.13	120.30
20	R2	1044	ARG	NE-CZ-NH1	5.66	123.13	120.30
6	C3	582	ARG	NE-CZ-NH1	5.65	123.13	120.30
16	N3	43	ARG	NE-CZ-NH1	5.65	123.13	120.30
6	C1	338	ARG	NE-CZ-NH1	5.65	123.13	120.30
2	16	797	ARG	CD-NE-CZ	5.65	131.51	123.60
7	D4	1109	ILE	C-N-CA	5.65	135.83	121.70
1	00	310	ARG	CD-NE-CZ	5.65	131.51	123.60
7	D3	85	ARG	NE-CZ-NH2	-5.65	117.48	120.30
1	01	335	LYS	CB-CA-C	5.64	121.69	110.40
7	D2	1168	HIS	CB-CA-C	5.64	121.69	110.40
13	K0	466	ARG	CD-NE-CZ	5.64	131.50	123.60
13	K3	185	ARG	NE-CZ-NH1	5.64	123.12	120.30
20	R0	1035	ARG	NE-CZ-NH1	5.64	123.12	120.30
6	C4	901	ARG	NE-CZ-NH1	5.64	123.12	120.30
9	F3	230	ARG	NE-CZ-NH1	5.64	123.12	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	15	364	ARG	NE-CZ-NH1	5.64	123.12	120.30
5	B1	77	ARG	NE-CZ-NH1	5.64	123.12	120.30
7	D5	1083	ARG	CD-NE-CZ	5.64	131.50	123.60
10	H3	452	ARG	NE-CZ-NH1	5.64	123.12	120.30
14	L0	307	ARG	NE-CZ-NH1	5.64	123.12	120.30
20	R1	1044	ARG	NE-CZ-NH1	5.64	123.12	120.30
4	A6	662	ARG	NE-CZ-NH1	5.64	123.12	120.30
20	R2	60	ARG	NE-CZ-NH1	5.63	123.12	120.30
18	P0	534	ARG	NE-CZ-NH1	5.63	123.12	120.30
18	P1	534	ARG	NE-CZ-NH1	5.63	123.11	120.30
7	D2	381	ARG	NE-CZ-NH1	5.63	123.11	120.30
2	13	42	ARG	NE-CZ-NH1	5.63	123.11	120.30
7	D1	1002	PRO	CA-C-N	5.62	129.57	117.20
15	M1	633	ARG	NE-CZ-NH2	-5.62	117.49	120.30
1	03	85	ARG	NE-CZ-NH1	5.62	123.11	120.30
2	13	783	ARG	NE-CZ-NH2	-5.62	117.49	120.30
7	D0	895	ARG	NE-CZ-NH2	-5.61	117.49	120.30
10	H1	397	ARG	NE-CZ-NH1	5.61	123.11	120.30
18	P3	602	ARG	NE-CZ-NH1	5.61	123.11	120.30
20	R0	832	ARG	NE-CZ-NH1	5.61	123.11	120.30
23	U5	609	ASN	C-N-CA	-5.61	107.67	121.70
7	D1	381	ARG	NE-CZ-NH1	5.61	123.11	120.30
7	D4	381	ARG	NE-CZ-NH1	5.61	123.11	120.30
15	M2	609	ARG	NE-CZ-NH1	5.61	123.11	120.30
22	T0	5	ARG	NE-CZ-NH1	5.61	123.11	120.30
13	K1	231	ARG	NE-CZ-NH2	5.61	123.11	120.30
20	R3	365	ARG	NE-CZ-NH1	5.61	123.10	120.30
6	C1	1252	ARG	NE-CZ-NH1	5.61	123.10	120.30
21	S0	258	ARG	NE-CZ-NH1	5.61	123.10	120.30
10	H1	439	ARG	NE-CZ-NH1	5.61	123.10	120.30
17	O1	106	ARG	CD-NE-CZ	5.61	131.45	123.60
20	R1	60	ARG	NE-CZ-NH1	5.60	123.10	120.30
7	D4	972	TYR	CB-CG-CD2	-5.60	117.64	121.00
7	D4	1083	ARG	NE-CZ-NH1	5.60	123.10	120.30
1	02	310	ARG	CD-NE-CZ	5.60	131.44	123.60
4	A5	810	ARG	NE-CZ-NH1	5.60	123.10	120.30
6	C3	1138	ARG	NE-CZ-NH1	5.60	123.10	120.30
7	D3	515	ARG	NE-CZ-NH1	5.60	123.10	120.30
20	R0	60	ARG	NE-CZ-NH1	5.60	123.10	120.30
8	E1	243	SER	N-CA-C	5.60	126.11	111.00
2	12	1086	ARG	NE-CZ-NH1	5.59	123.10	120.30
20	R0	150	ARG	NE-CZ-NH1	5.59	123.10	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A4	376	ARG	NE-CZ-NH1	5.59	123.10	120.30
4	A6	593	ARG	NE-CZ-NH1	5.59	123.10	120.30
14	L2	259	ARG	CD-NE-CZ	5.59	131.43	123.60
14	L2	850	ARG	NE-CZ-NH1	5.59	123.10	120.30
2	14	298	ARG	NE-CZ-NH1	5.59	123.09	120.30
18	P3	323	ASP	CB-CG-OD1	5.59	123.33	118.30
2	12	42	ARG	NE-CZ-NH1	5.59	123.09	120.30
2	12	1597	ARG	NE-CZ-NH1	5.59	123.09	120.30
15	M1	609	ARG	NE-CZ-NH2	5.59	123.09	120.30
18	P0	611	ARG	NE-CZ-NH1	5.59	123.09	120.30
2	10	783	ARG	CD-NE-CZ	5.59	131.42	123.60
18	P1	441	ARG	NE-CZ-NH1	5.59	123.09	120.30
5	B1	1682	ARG	NE-CZ-NH2	-5.58	117.51	120.30
14	L1	560	LEU	C-N-CA	5.58	134.03	122.30
14	L3	503	ARG	CD-NE-CZ	5.58	131.42	123.60
7	D4	1152	ARG	NE-CZ-NH1	5.58	123.09	120.30
25	W0	539	ARG	NE-CZ-NH1	5.58	123.09	120.30
2	15	669	ARG	NE-CZ-NH1	5.58	123.09	120.30
14	L2	355	ARG	NE-CZ-NH1	5.58	123.09	120.30
2	11	1171	ARG	NE-CZ-NH1	5.58	123.09	120.30
7	D5	381	ARG	NE-CZ-NH1	5.58	123.09	120.30
14	L1	503	ARG	CD-NE-CZ	5.58	131.40	123.60
13	K3	637	ARG	NE-CZ-NH1	5.57	123.09	120.30
13	K0	559	ARG	NE-CZ-NH1	5.57	123.09	120.30
13	K1	637	ARG	NE-CZ-NH1	5.57	123.09	120.30
18	P2	311	ARG	NE-CZ-NH1	5.57	123.08	120.30
7	D1	1002	PRO	N-CA-CB	-5.57	96.47	102.60
6	C0	338	ARG	NE-CZ-NH1	5.57	123.08	120.30
7	D2	1117	TYR	CB-CG-CD2	-5.56	117.66	121.00
6	C2	1803	VAL	CB-CA-C	5.56	121.97	111.40
23	U3	609	ASN	C-N-CA	-5.56	107.80	121.70
15	M2	633	ARG	NE-CZ-NH2	-5.56	117.52	120.30
20	R2	365	ARG	NE-CZ-NH1	5.56	123.08	120.30
18	P2	550	GLU	CA-C-N	5.56	129.43	117.20
13	K2	637	ARG	NE-CZ-NH1	5.56	123.08	120.30
1	04	310	ARG	CD-NE-CZ	5.55	131.38	123.60
7	D4	288	ARG	NE-CZ-NH1	5.55	123.08	120.30
5	B1	722	ARG	NE-CZ-NH1	5.55	123.08	120.30
6	C4	390	ARG	NE-CZ-NH1	5.55	123.08	120.30
7	D1	515	ARG	NE-CZ-NH1	5.55	123.08	120.30
15	M1	477	ARG	CD-NE-CZ	5.55	131.37	123.60
4	A4	593	ARG	NE-CZ-NH1	5.55	123.08	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	K1	185	ARG	NE-CZ-NH1	5.55	123.07	120.30
20	R1	380	ARG	NE-CZ-NH1	5.55	123.07	120.30
7	D3	1348	ARG	NE-CZ-NH1	5.55	123.07	120.30
7	D4	924	ARG	NE-CZ-NH1	5.55	123.07	120.30
2	15	597	ARG	NE-CZ-NH1	5.54	123.07	120.30
14	L3	697	ARG	NE-CZ-NH2	-5.54	117.53	120.30
15	M3	423	ARG	NH1-CZ-NH2	-5.54	113.30	119.40
2	16	597	ARG	NE-CZ-NH1	5.54	123.07	120.30
20	R2	481	ARG	NE-CZ-NH1	5.54	123.07	120.30
20	R3	1044	ARG	NE-CZ-NH1	5.54	123.07	120.30
15	M3	546	ARG	NE-CZ-NH1	5.54	123.07	120.30
14	L0	730	GLN	N-CA-CB	-5.54	100.63	110.60
2	14	267	ARG	NE-CZ-NH2	-5.54	117.53	120.30
2	14	669	ARG	NE-CZ-NH1	5.54	123.07	120.30
13	K3	675	ARG	NE-CZ-NH1	5.54	123.07	120.30
2	14	1086	ARG	NE-CZ-NH1	5.53	123.07	120.30
4	A3	67	ARG	NE-CZ-NH1	5.53	123.07	120.30
7	D1	294	ARG	NE-CZ-NH1	5.53	123.07	120.30
6	C3	1575	ARG	NE-CZ-NH1	5.53	123.07	120.30
6	C4	1082	ARG	NE-CZ-NH1	5.53	123.07	120.30
18	P2	441	ARG	NE-CZ-NH1	5.53	123.07	120.30
4	A0	568	ARG	NE-CZ-NH2	-5.53	117.53	120.30
2	13	597	ARG	NE-CZ-NH1	5.53	123.06	120.30
8	E0	312	ASP	C-N-CA	5.53	135.52	121.70
13	K2	231	ARG	NE-CZ-NH2	5.53	123.06	120.30
18	P3	571	ARG	NE-CZ-NH1	5.53	123.06	120.30
14	L1	259	ARG	CD-NE-CZ	5.52	131.33	123.60
2	16	267	ARG	NE-CZ-NH2	-5.52	117.54	120.30
6	C3	1180	ARG	NE-CZ-NH1	5.52	123.06	120.30
7	D5	515	ARG	NE-CZ-NH1	5.52	123.06	120.30
20	R0	1298	ARG	NE-CZ-NH2	5.52	123.06	120.30
20	R2	1290	ARG	NE-CZ-NH1	5.52	123.06	120.30
14	L3	842	ARG	NE-CZ-NH1	5.51	123.06	120.30
21	S2	258	ARG	NE-CZ-NH1	5.51	123.06	120.30
2	13	558	ARG	NE-CZ-NH1	5.51	123.06	120.30
6	C3	746	ARG	NE-CZ-NH1	5.51	123.06	120.30
8	E1	635	ARG	CD-NE-CZ	5.51	131.32	123.60
6	C3	1307	ARG	NE-CZ-NH1	5.51	123.06	120.30
6	C2	1312	ARG	NE-CZ-NH1	5.51	123.05	120.30
7	D1	995	VAL	CB-CA-C	5.51	121.86	111.40
2	11	558	ARG	NE-CZ-NH1	5.51	123.05	120.30
4	A0	716	ARG	NE-CZ-NH1	5.51	123.05	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	K0	887	ARG	NE-CZ-NH2	-5.51	117.55	120.30
15	M1	587	LEU	CB-CA-C	5.51	120.66	110.20
21	S1	258	ARG	NE-CZ-NH1	5.51	123.05	120.30
7	D3	1260	ARG	NE-CZ-NH1	5.50	123.05	120.30
10	H2	397	ARG	NE-CZ-NH1	5.50	123.05	120.30
20	R0	915	ARG	NE-CZ-NH1	5.50	123.05	120.30
22	T1	712	ARG	CD-NE-CZ	5.50	131.30	123.60
20	R2	171	ARG	NE-CZ-NH1	5.50	123.05	120.30
2	13	328	ARG	NH1-CZ-NH2	-5.50	113.35	119.40
5	B0	77	ARG	NE-CZ-NH1	5.50	123.05	120.30
7	D0	883	ARG	NE-CZ-NH1	5.50	123.05	120.30
14	L3	355	ARG	NE-CZ-NH2	-5.50	117.55	120.30
10	H3	385	ARG	NE-CZ-NH1	5.50	123.05	120.30
14	L2	503	ARG	CD-NE-CZ	5.50	131.29	123.60
22	T1	453	ARG	NE-CZ-NH2	-5.50	117.55	120.30
2	12	357	ARG	NE-CZ-NH1	5.49	123.05	120.30
7	D2	750	ARG	NE-CZ-NH1	5.49	123.05	120.30
10	H1	452	ARG	NE-CZ-NH1	5.49	123.05	120.30
15	M0	422	ARG	NE-CZ-NH1	5.49	123.05	120.30
14	L0	503	ARG	CD-NE-CZ	5.49	131.29	123.60
6	C3	901	ARG	NE-CZ-NH1	5.49	123.05	120.30
9	F1	230	ARG	NE-CZ-NH1	5.49	123.04	120.30
20	R2	454	ARG	NE-CZ-NH1	5.49	123.05	120.30
9	F3	282	ARG	CD-NE-CZ	5.49	131.28	123.60
6	C1	1234	ARG	NE-CZ-NH1	5.49	123.04	120.30
4	A5	481	ARG	NE-CZ-NH1	5.48	123.04	120.30
6	C4	1312	ARG	NE-CZ-NH1	5.48	123.04	120.30
13	K2	798	ARG	NE-CZ-NH1	5.48	123.04	120.30
4	A0	790	ARG	NE-CZ-NH1	5.48	123.04	120.30
14	L2	618	ARG	NE-CZ-NH1	5.48	123.04	120.30
7	D5	571	ARG	NE-CZ-NH1	5.48	123.04	120.30
8	E1	346	ARG	NE-CZ-NH1	5.48	123.04	120.30
19	Q3	87	ARG	NE-CZ-NH2	-5.48	117.56	120.30
20	R3	1357	TYR	CB-CG-CD2	-5.48	117.71	121.00
7	D1	1260	ARG	NE-CZ-NH1	5.47	123.04	120.30
7	D2	391	ARG	CD-NE-CZ	5.47	131.26	123.60
6	C4	1575	ARG	NE-CZ-NH1	5.47	123.04	120.30
18	P3	208	ARG	NE-CZ-NH1	5.47	123.04	120.30
7	D3	381	ARG	NE-CZ-NH1	5.47	123.04	120.30
20	R2	365	ARG	CD-NE-CZ	5.47	131.26	123.60
6	C4	582	ARG	NE-CZ-NH1	5.47	123.03	120.30
15	M0	633	ARG	NE-CZ-NH2	-5.47	117.57	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	R0	1357	TYR	CB-CG-CD2	-5.47	117.72	121.00
1	00	85	ARG	NE-CZ-NH1	5.47	123.03	120.30
2	11	328	ARG	NH1-CZ-NH2	-5.47	113.39	119.40
2	14	597	ARG	NE-CZ-NH1	5.47	123.03	120.30
20	R1	1191	ARG	NE-CZ-NH2	-5.47	117.57	120.30
2	11	1223	ARG	NE-CZ-NH2	-5.46	117.57	120.30
8	E1	245	ALA	C-N-CA	5.46	135.36	121.70
10	H0	439	ARG	NE-CZ-NH2	-5.46	117.57	120.30
8	E0	635	ARG	CD-NE-CZ	5.46	131.25	123.60
13	K1	691	ARG	NE-CZ-NH1	5.46	123.03	120.30
7	D5	294	ARG	NE-CZ-NH1	5.46	123.03	120.30
6	C2	219	ASP	CB-CG-OD1	5.46	123.21	118.30
13	K3	466	ARG	CD-NE-CZ	5.46	131.24	123.60
6	C1	1030	ARG	NE-CZ-NH1	5.46	123.03	120.30
7	D4	515	ARG	NE-CZ-NH1	5.46	123.03	120.30
4	A3	77	ARG	NE-CZ-NH1	5.46	123.03	120.30
14	L0	842	ARG	NE-CZ-NH1	5.46	123.03	120.30
6	C2	1906	ARG	NE-CZ-NH1	5.45	123.03	120.30
7	D5	288	ARG	NE-CZ-NH1	5.45	123.03	120.30
2	13	1223	ARG	NE-CZ-NH2	-5.45	117.57	120.30
4	A5	662	ARG	NE-CZ-NH1	5.45	123.03	120.30
15	M0	901	ARG	CD-NE-CZ	5.45	131.23	123.60
13	K1	283	ARG	NE-CZ-NH1	5.45	123.02	120.30
20	R3	60	ARG	NE-CZ-NH1	5.45	123.02	120.30
6	C0	1234	ARG	NE-CZ-NH1	5.44	123.02	120.30
13	K1	466	ARG	CD-NE-CZ	5.44	131.22	123.60
6	C4	1249	ILE	N-CA-CB	-5.44	98.29	110.80
18	P1	467	ARG	NE-CZ-NH1	5.44	123.02	120.30
21	S0	253	ARG	NE-CZ-NH1	5.44	123.02	120.30
4	A0	593	ARG	NE-CZ-NH1	5.44	123.02	120.30
6	C4	1138	ARG	NE-CZ-NH1	5.44	123.02	120.30
8	E0	14	ARG	C-N-CA	5.44	135.30	121.70
2	12	1246	ARG	NE-CZ-NH1	5.44	123.02	120.30
18	P2	611	ARG	NE-CZ-NH1	5.43	123.02	120.30
2	16	1589	ARG	NE-CZ-NH1	5.43	123.02	120.30
6	C4	1581	ARG	NE-CZ-NH1	5.43	123.02	120.30
19	Q1	165	ARG	NE-CZ-NH1	5.43	123.02	120.30
22	T1	150	ARG	NE-CZ-NH1	5.43	123.02	120.30
6	C2	984	ARG	NE-CZ-NH1	5.43	123.02	120.30
2	10	797	ARG	CD-NE-CZ	5.43	131.20	123.60
14	L1	697	ARG	NE-CZ-NH2	-5.43	117.58	120.30
2	10	1223	ARG	NE-CZ-NH2	-5.43	117.59	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	L3	259	ARG	CD-NE-CZ	5.43	131.20	123.60
2	17	1788	ASP	CA-C-O	-5.42	108.71	120.10
6	C2	754	ARG	NE-CZ-NH1	5.42	123.01	120.30
10	H3	461	ARG	NE-CZ-NH1	5.42	123.01	120.30
7	D0	1163	ARG	NE-CZ-NH1	5.42	123.01	120.30
7	D1	288	ARG	NE-CZ-NH1	5.42	123.01	120.30
2	16	298	ARG	NE-CZ-NH1	5.42	123.01	120.30
7	D4	1066	ARG	NE-CZ-NH1	5.42	123.01	120.30
20	R1	1357	TYR	CB-CG-CD2	-5.42	117.75	121.00
6	C1	1878	ARG	NE-CZ-NH1	5.42	123.01	120.30
7	D1	1196	PHE	CB-CG-CD1	-5.42	117.01	120.80
8	E0	19	ARG	N-CA-CB	5.42	120.35	110.60
13	K1	559	ARG	NE-CZ-NH1	5.42	123.01	120.30
13	K3	231	ARG	NE-CZ-NH2	5.42	123.01	120.30
20	R3	732	ARG	CD-NE-CZ	5.42	131.19	123.60
4	A3	716	ARG	NE-CZ-NH1	5.42	123.01	120.30
1	04	85	ARG	NE-CZ-NH1	5.41	123.01	120.30
2	14	1106	PRO	C-N-CA	-5.41	108.17	121.70
6	C0	901	ARG	NE-CZ-NH1	5.41	123.01	120.30
6	C4	1180	ARG	NE-CZ-NH1	5.41	123.01	120.30
7	D5	1298	ARG	NE-CZ-NH1	5.41	123.00	120.30
18	P0	610	ARG	NE-CZ-NH1	5.41	123.01	120.30
20	R1	1133	ARG	NE-CZ-NH2	5.41	123.00	120.30
1	02	193	ARG	NE-CZ-NH1	5.41	123.00	120.30
22	T1	861	ARG	NE-CZ-NH2	5.41	123.00	120.30
7	D1	1001	PRO	N-CA-CB	5.40	109.78	103.30
4	A6	675	ARG	NE-CZ-NH1	5.40	123.00	120.30
20	R1	732	ARG	CD-NE-CZ	5.40	131.16	123.60
7	D0	750	ARG	NE-CZ-NH1	5.40	123.00	120.30
7	D3	294	ARG	NE-CZ-NH1	5.40	123.00	120.30
1	03	170	ARG	NE-CZ-NH1	5.40	123.00	120.30
2	10	1544	ARG	NE-CZ-NH1	5.40	123.00	120.30
4	A1	130	ARG	CD-NE-CZ	5.40	131.16	123.60
6	C1	54	PHE	CB-CG-CD2	-5.40	117.02	120.80
18	P1	323	ASP	CB-CG-OD1	5.40	123.16	118.30
2	13	1086	ARG	NE-CZ-NH1	5.40	123.00	120.30
7	D3	1163	ARG	NE-CZ-NH1	5.39	123.00	120.30
15	M1	515	ARG	NE-CZ-NH1	5.39	123.00	120.30
19	Q2	349	ARG	NE-CZ-NH1	5.39	123.00	120.30
13	K0	517	ASP	CB-CG-OD1	5.39	123.15	118.30
20	R2	1357	TYR	CB-CG-CD2	-5.39	117.77	121.00
6	C0	54	PHE	CB-CG-CD2	-5.39	117.03	120.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C3	1878	ARG	NE-CZ-NH1	5.39	122.99	120.30
22	T0	150	ARG	NE-CZ-NH1	5.39	122.99	120.30
22	T0	600	ARG	CD-NE-CZ	5.39	131.15	123.60
8	E1	241	TRP	O-C-N	-5.39	114.08	122.70
2	17	597	ARG	NE-CZ-NH1	5.39	122.99	120.30
18	P0	441	ARG	NE-CZ-NH1	5.39	122.99	120.30
18	P1	311	ARG	NE-CZ-NH1	5.39	122.99	120.30
20	R2	1095	ARG	NE-CZ-NH1	5.39	122.99	120.30
5	B0	599	ARG	NE-CZ-NH2	5.38	122.99	120.30
24	V0	960	ARG	NE-CZ-NH2	-5.38	117.61	120.30
4	A0	175	ARG	NE-CZ-NH1	5.38	122.99	120.30
8	E0	346	ARG	NE-CZ-NH1	5.38	122.99	120.30
6	C4	2002	ARG	NE-CZ-NH1	5.38	122.99	120.30
18	P0	546	ARG	NE-CZ-NH1	5.38	122.99	120.30
4	A1	593	ARG	NE-CZ-NH1	5.38	122.99	120.30
7	D0	391	ARG	CD-NE-CZ	5.38	131.13	123.60
15	M2	424	ARG	NE-CZ-NH1	5.38	122.99	120.30
2	11	325	ARG	NE-CZ-NH2	-5.37	117.61	120.30
13	K2	559	ARG	NE-CZ-NH1	5.37	122.98	120.30
19	Q1	349	ARG	NE-CZ-NH1	5.37	122.98	120.30
4	A4	662	ARG	NE-CZ-NH1	5.37	122.98	120.30
6	C0	1206	ARG	NE-CZ-NH2	-5.37	117.61	120.30
7	D0	250	ARG	NE-CZ-NH1	5.37	122.98	120.30
7	D3	336	ARG	NE-CZ-NH1	5.37	122.98	120.30
13	K3	466	ARG	NE-CZ-NH1	5.37	122.98	120.30
7	D1	1003	VAL	C-N-CA	-5.37	108.28	121.70
14	L2	355	ARG	NE-CZ-NH2	-5.37	117.62	120.30
2	10	1795	TYR	CB-CG-CD1	5.37	124.22	121.00
7	D2	1076	ARG	NE-CZ-NH1	5.37	122.98	120.30
7	D4	1310	ARG	NE-CZ-NH1	5.37	122.98	120.30
7	D1	972	TYR	CB-CG-CD2	-5.36	117.78	121.00
2	13	783	ARG	CD-NE-CZ	5.36	131.10	123.60
4	A3	555	ARG	NE-CZ-NH2	-5.36	117.62	120.30
6	C3	750	ARG	NE-CZ-NH1	5.36	122.98	120.30
7	D0	1348	ARG	NE-CZ-NH1	5.36	122.98	120.30
7	D5	1347	ARG	NE-CZ-NH1	5.36	122.98	120.30
13	K3	283	ARG	NE-CZ-NH1	5.36	122.98	120.30
1	00	170	ARG	NE-CZ-NH1	5.36	122.98	120.30
2	10	984	ARG	NE-CZ-NH1	5.36	122.98	120.30
3	41	13	ARG	NE-CZ-NH1	5.36	122.98	120.30
19	Q2	157	ARG	NE-CZ-NH1	5.36	122.98	120.30
2	17	1589	ARG	NE-CZ-NH1	5.36	122.98	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	H1	385	ARG	NE-CZ-NH1	5.36	122.98	120.30
2	14	1589	ARG	NE-CZ-NH1	5.35	122.98	120.30
8	E1	240	ALA	C-N-CA	5.35	135.07	121.70
19	Q3	165	ARG	NE-CZ-NH1	5.35	122.97	120.30
6	C3	54	PHE	CB-CG-CD2	-5.35	117.06	120.80
6	C4	54	PHE	CB-CG-CD2	-5.35	117.06	120.80
5	B0	1398	ARG	NE-CZ-NH2	5.35	122.97	120.30
4	A2	593	ARG	NE-CZ-NH1	5.34	122.97	120.30
4	A5	251	ARG	NE-CZ-NH1	5.34	122.97	120.30
2	17	298	ARG	CD-NE-CZ	5.34	131.08	123.60
20	R1	485	ARG	NE-CZ-NH1	5.34	122.97	120.30
20	R3	150	ARG	NE-CZ-NH1	5.34	122.97	120.30
6	C1	901	ARG	NE-CZ-NH1	5.34	122.97	120.30
14	L0	751	ARG	NE-CZ-NH1	5.34	122.97	120.30
20	R1	915	ARG	NE-CZ-NH1	5.34	122.97	120.30
2	13	669	ARG	NE-CZ-NH1	5.34	122.97	120.30
4	A6	709	ARG	NE-CZ-NH1	5.34	122.97	120.30
7	D4	1107	THR	O-C-N	-5.34	114.16	122.70
19	Q2	165	ARG	NE-CZ-NH1	5.34	122.97	120.30
22	T0	993	ARG	NE-CZ-NH2	-5.34	117.63	120.30
22	T1	600	ARG	CD-NE-CZ	5.34	131.07	123.60
1	04	42	TYR	CB-CG-CD2	-5.33	117.80	121.00
4	A1	578	ARG	CD-NE-CZ	5.33	131.07	123.60
5	B0	1745	ARG	NE-CZ-NH2	5.33	122.97	120.30
6	C2	1990	ARG	NE-CZ-NH1	5.33	122.97	120.30
10	H1	285	ARG	NE-CZ-NH1	5.33	122.97	120.30
13	K0	283	ARG	NE-CZ-NH1	5.33	122.97	120.30
15	M0	423	ARG	NH1-CZ-NH2	-5.33	113.53	119.40
1	04	229	ARG	NE-CZ-NH1	5.33	122.97	120.30
7	D3	391	ARG	CD-NE-CZ	5.33	131.06	123.60
7	D4	571	ARG	NE-CZ-NH1	5.33	122.97	120.30
14	L1	618	ARG	NE-CZ-NH1	5.33	122.97	120.30
14	L1	364	ARG	NE-CZ-NH1	5.33	122.97	120.30
19	Q0	165	ARG	NE-CZ-NH1	5.33	122.97	120.30
21	S3	258	ARG	NE-CZ-NH1	5.33	122.97	120.30
4	A1	67	ARG	NE-CZ-NH1	5.33	122.96	120.30
20	R0	365	ARG	NE-CZ-NH1	5.33	122.96	120.30
24	V0	801	ARG	NE-CZ-NH1	5.33	122.97	120.30
2	16	1176	ILE	O-C-N	-5.33	114.18	122.70
4	A4	709	ARG	NE-CZ-NH1	5.33	122.96	120.30
5	B1	251	ARG	NE-CZ-NH1	5.33	122.96	120.30
18	P0	455	ARG	NE-CZ-NH1	5.33	122.96	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	12	1223	ARG	NE-CZ-NH2	-5.33	117.64	120.30
2	13	797	ARG	CD-NE-CZ	5.33	131.06	123.60
5	B0	1522	PRO	CA-N-CD	-5.33	104.05	111.50
6	C1	1834	ARG	NE-CZ-NH1	5.33	122.96	120.30
7	D2	883	ARG	NE-CZ-NH1	5.33	122.96	120.30
14	L0	618	ARG	NE-CZ-NH1	5.33	122.96	120.30
17	O0	176	ARG	NE-CZ-NH1	5.33	122.96	120.30
18	P2	323	ASP	CB-CG-OD1	5.33	123.09	118.30
5	B1	729	ARG	NE-CZ-NH1	5.32	122.96	120.30
6	C1	1581	ARG	NE-CZ-NH1	5.32	122.96	120.30
6	C4	1534	ARG	NE-CZ-NH1	5.32	122.96	120.30
13	K3	884	ARG	NE-CZ-NH1	5.32	122.96	120.30
18	P2	550	GLU	O-C-N	-5.32	114.18	122.70
4	A6	481	ARG	NE-CZ-NH1	5.32	122.96	120.30
7	D1	391	ARG	CD-NE-CZ	5.32	131.05	123.60
18	P3	441	ARG	NE-CZ-NH1	5.32	122.96	120.30
20	R2	1116	ARG	NE-CZ-NH1	5.32	122.96	120.30
24	V0	960	ARG	NE-CZ-NH1	5.32	122.96	120.30
2	12	700	SER	CB-CA-C	5.32	120.20	110.10
7	D0	336	ARG	NE-CZ-NH1	5.32	122.96	120.30
2	10	1067	ARG	NE-CZ-NH1	5.31	122.96	120.30
15	M1	423	ARG	NH1-CZ-NH2	-5.31	113.55	119.40
6	C0	1721	ARG	NE-CZ-NH1	5.31	122.96	120.30
6	C2	901	ARG	NE-CZ-NH1	5.31	122.96	120.30
7	D3	1347	ARG	CD-NE-CZ	5.31	131.04	123.60
4	A6	251	ARG	NE-CZ-NH1	5.31	122.95	120.30
6	C1	1721	ARG	NE-CZ-NH1	5.31	122.95	120.30
14	L3	618	ARG	NE-CZ-NH1	5.31	122.95	120.30
6	C2	1418	ARG	NE-CZ-NH1	5.31	122.95	120.30
18	P0	110	ARG	NE-CZ-NH1	5.31	122.95	120.30
20	R0	1295	TYR	CB-CG-CD2	-5.31	117.81	121.00
20	R1	1295	TYR	CB-CG-CD2	-5.31	117.82	121.00
7	D3	972	TYR	CB-CG-CD2	-5.31	117.82	121.00
17	O2	98	ARG	CD-NE-CZ	5.31	131.03	123.60
14	L0	355	ARG	NE-CZ-NH2	-5.30	117.65	120.30
20	R2	915	ARG	NE-CZ-NH1	5.30	122.95	120.30
24	V0	884	GLN	CA-CB-CG	5.30	125.07	113.40
4	A5	709	ARG	NE-CZ-NH1	5.30	122.95	120.30
2	15	298	ARG	CD-NE-CZ	5.30	131.02	123.60
5	B1	1398	ARG	NE-CZ-NH2	5.30	122.95	120.30
7	D2	972	TYR	CB-CG-CD2	-5.30	117.82	121.00
2	17	558	ARG	NE-CZ-NH1	5.29	122.95	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D0	1347	ARG	CD-NE-CZ	5.29	131.01	123.60
8	E0	72	PHE	CB-CA-C	-5.29	99.81	110.40
24	V0	723	ARG	NE-CZ-NH2	5.29	122.95	120.30
2	16	1067	ARG	NE-CZ-NH1	5.29	122.95	120.30
6	C0	1933	SER	N-CA-CB	5.29	118.44	110.50
14	L3	751	ARG	NE-CZ-NH1	5.29	122.95	120.30
13	K2	1042	ARG	NE-CZ-NH1	5.29	122.94	120.30
15	M3	423	ARG	NE-CZ-NH1	5.29	122.94	120.30
7	D0	1347	ARG	NE-CZ-NH1	5.29	122.94	120.30
2	15	1067	ARG	NE-CZ-NH1	5.29	122.94	120.30
6	C4	1834	ARG	NE-CZ-NH1	5.29	122.94	120.30
8	E1	527	GLU	OE1-CD-OE2	-5.29	116.96	123.30
19	Q0	152	ARG	NE-CZ-NH1	5.29	122.94	120.30
1	00	193	ARG	NE-CZ-NH1	5.28	122.94	120.30
8	E0	527	GLU	OE1-CD-OE2	-5.28	116.96	123.30
18	P0	571	ARG	NE-CZ-NH1	5.28	122.94	120.30
22	T0	861	ARG	NE-CZ-NH2	5.28	122.94	120.30
15	M3	818	ARG	NE-CZ-NH1	5.28	122.94	120.30
1	01	85	ARG	NE-CZ-NH1	5.28	122.94	120.30
5	B0	291	ARG	NE-CZ-NH1	5.28	122.94	120.30
14	L1	355	ARG	NE-CZ-NH2	-5.28	117.66	120.30
2	15	558	ARG	NE-CZ-NH1	5.28	122.94	120.30
14	L3	422	ARG	NH1-CZ-NH2	-5.28	113.59	119.40
22	T1	993	ARG	NE-CZ-NH2	-5.28	117.66	120.30
4	A5	675	ARG	NE-CZ-NH1	5.28	122.94	120.30
6	C2	750	ARG	NE-CZ-NH1	5.28	122.94	120.30
13	K1	466	ARG	NE-CZ-NH1	5.28	122.94	120.30
15	M2	818	ARG	NE-CZ-NH2	5.28	122.94	120.30
13	K1	887	ARG	NE-CZ-NH2	-5.27	117.66	120.30
6	C1	2001	ARG	NE-CZ-NH1	5.27	122.94	120.30
19	Q0	349	ARG	NE-CZ-NH1	5.27	122.94	120.30
22	T1	35	ARG	NE-CZ-NH1	5.27	122.94	120.30
6	C2	338	ARG	NE-CZ-NH1	5.27	122.94	120.30
6	C3	390	ARG	NE-CZ-NH1	5.27	122.93	120.30
18	P0	323	ASP	CB-CG-OD1	5.27	123.04	118.30
20	R1	1107	ARG	NE-CZ-NH1	5.27	122.94	120.30
20	R3	57	ARG	NE-CZ-NH2	5.27	122.93	120.30
2	10	1831	VAL	CG1-CB-CG2	-5.27	102.47	110.90
2	12	1067	ARG	NE-CZ-NH1	5.27	122.93	120.30
6	C4	697	ARG	CD-NE-CZ	-5.27	116.22	123.60
7	D5	1066	ARG	NE-CZ-NH1	5.27	122.93	120.30
6	C3	1876	ARG	NE-CZ-NH1	5.26	122.93	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	K2	884	ARG	NE-CZ-NH1	5.26	122.93	120.30
2	13	325	ARG	NE-CZ-NH2	-5.26	117.67	120.30
6	C0	1434	ARG	NE-CZ-NH1	5.26	122.93	120.30
1	04	193	ARG	NE-CZ-NH1	5.26	122.93	120.30
4	A2	656	PRO	CA-N-CD	-5.26	104.14	111.50
2	15	1250	ARG	NE-CZ-NH1	5.26	122.93	120.30
2	11	364	ARG	NE-CZ-NH1	5.26	122.93	120.30
2	14	1082	ARG	NE-CZ-NH1	5.26	122.93	120.30
2	15	1589	ARG	NE-CZ-NH1	5.26	122.93	120.30
7	D0	972	TYR	CB-CG-CD2	-5.26	117.85	121.00
7	D2	1298	ARG	NE-CZ-NH1	5.26	122.93	120.30
20	R0	485	ARG	NE-CZ-NH1	5.26	122.93	120.30
4	A1	790	ARG	CD-NE-CZ	5.25	130.96	123.60
22	T1	453	ARG	NE-CZ-NH1	5.25	122.93	120.30
2	10	783	ARG	NE-CZ-NH2	-5.25	117.67	120.30
6	C0	889	ARG	NH1-CZ-NH2	-5.25	113.62	119.40
6	C2	1729	ARG	NE-CZ-NH1	5.25	122.93	120.30
7	D0	288	ARG	NE-CZ-NH1	5.25	122.92	120.30
2	14	1067	ARG	NE-CZ-NH1	5.25	122.92	120.30
7	D2	1163	ARG	NE-CZ-NH1	5.25	122.92	120.30
8	E1	244	THR	CA-C-N	5.25	128.75	117.20
20	R2	521	ARG	NH1-CZ-NH2	-5.25	113.62	119.40
8	E1	245	ALA	N-CA-C	5.25	125.17	111.00
14	L0	422	ARG	NH1-CZ-NH2	-5.25	113.63	119.40
20	R2	700	ARG	NE-CZ-NH1	5.25	122.92	120.30
6	C4	750	ARG	NE-CZ-NH1	5.25	122.92	120.30
16	N2	35	ARG	NE-CZ-NH1	5.25	122.92	120.30
20	R0	1136	ARG	NE-CZ-NH1	5.25	122.92	120.30
6	C1	889	ARG	NH1-CZ-NH2	-5.25	113.63	119.40
13	K0	675	ARG	NE-CZ-NH1	5.25	122.92	120.30
1	00	229	ARG	NE-CZ-NH1	5.24	122.92	120.30
7	D2	1074	ARG	NE-CZ-NH1	5.24	122.92	120.30
2	12	984	ARG	NE-CZ-NH1	5.24	122.92	120.30
18	P2	606	ASP	CB-CG-OD2	-5.24	113.58	118.30
20	R2	485	ARG	NE-CZ-NH1	5.24	122.92	120.30
22	T0	453	ARG	NE-CZ-NH1	5.24	122.92	120.30
6	C3	214	ARG	NE-CZ-NH1	5.24	122.92	120.30
18	P3	455	ARG	NE-CZ-NH1	5.24	122.92	120.30
15	M3	703	ARG	NE-CZ-NH1	5.24	122.92	120.30
21	S0	89	LEU	CB-CA-C	5.24	120.15	110.20
4	A5	448	TYR	CB-CG-CD2	-5.24	117.86	121.00
6	C0	1133	ARG	NE-CZ-NH1	5.23	122.92	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	H3	255	ARG	NE-CZ-NH2	-5.23	117.68	120.30
18	P0	231	ARG	NE-CZ-NH1	5.23	122.92	120.30
20	R0	1298	ARG	NH1-CZ-NH2	-5.23	113.64	119.40
6	C0	214	ARG	NE-CZ-NH1	5.23	122.92	120.30
4	A6	118	ARG	NE-CZ-NH1	5.23	122.91	120.30
6	C1	1269	ARG	NE-CZ-NH1	5.23	122.92	120.30
20	R1	57	ARG	NE-CZ-NH2	5.23	122.92	120.30
15	M1	703	ARG	NE-CZ-NH1	5.23	122.91	120.30
6	C0	1030	ARG	NE-CZ-NH1	5.23	122.91	120.30
2	I1	1223	ARG	NE-CZ-NH1	5.22	122.91	120.30
10	H3	178	TYR	CB-CG-CD1	-5.22	117.87	121.00
17	O0	113	ARG	NE-CZ-NH1	5.22	122.91	120.30
20	R3	1295	TYR	CB-CG-CD2	-5.22	117.87	121.00
6	C0	1138	ARG	NE-CZ-NH1	5.22	122.91	120.30
15	M1	517	ARG	NE-CZ-NH1	5.22	122.91	120.30
21	S3	74	ARG	NE-CZ-NH1	5.22	122.91	120.30
2	I5	1225	ARG	NE-CZ-NH2	-5.22	117.69	120.30
14	L0	340	ARG	NE-CZ-NH1	5.22	122.91	120.30
15	M1	818	ARG	NE-CZ-NH1	5.22	122.91	120.30
5	B0	729	ARG	NE-CZ-NH1	5.22	122.91	120.30
6	C1	388	TYR	CB-CG-CD2	-5.22	117.87	121.00
7	D2	288	ARG	NE-CZ-NH1	5.21	122.91	120.30
9	F0	306	ARG	NE-CZ-NH1	5.21	122.91	120.30
4	A4	251	ARG	NE-CZ-NH1	5.21	122.91	120.30
22	T0	453	ARG	NE-CZ-NH2	-5.21	117.69	120.30
21	S0	146	ASP	CB-CG-OD1	5.21	122.99	118.30
2	I6	1321	ARG	NE-CZ-NH1	5.21	122.90	120.30
5	B0	1071	ARG	NE-CZ-NH1	5.21	122.90	120.30
13	K2	691	ARG	NE-CZ-NH1	5.21	122.90	120.30
13	K3	887	ARG	NE-CZ-NH2	-5.21	117.70	120.30
15	M1	633	ARG	CD-NE-CZ	5.21	130.89	123.60
5	B0	1495	ARG	NE-CZ-NH1	5.21	122.90	120.30
5	B1	1438	ARG	NH1-CZ-NH2	-5.21	113.67	119.40
7	D3	1298	ARG	NE-CZ-NH1	5.21	122.90	120.30
14	L1	751	ARG	NE-CZ-NH1	5.21	122.90	120.30
20	R3	481	ARG	NE-CZ-NH1	5.21	122.90	120.30
2	I0	1824	MET	O-C-N	-5.20	114.37	122.70
2	I7	1086	ARG	NE-CZ-NH1	5.20	122.90	120.30
5	B1	1495	ARG	NE-CZ-NH1	5.20	122.90	120.30
11	I0	274	ARG	NE-CZ-NH2	5.20	122.90	120.30
18	P2	542	ARG	NE-CZ-NH2	-5.20	117.70	120.30
21	S1	253	ARG	NE-CZ-NH1	5.20	122.90	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O2	42	TYR	CB-CG-CD2	-5.20	117.88	121.00
5	B1	1522	PRO	CA-N-CD	-5.20	104.22	111.50
6	C4	1307	ARG	NE-CZ-NH1	5.20	122.90	120.30
20	R3	43	ARG	NE-CZ-NH2	-5.20	117.70	120.30
22	T0	712	ARG	CD-NE-CZ	5.20	130.88	123.60
14	L1	422	ARG	NH1-CZ-NH2	-5.20	113.68	119.40
20	R0	700	ARG	NE-CZ-NH1	5.20	122.90	120.30
6	C0	1834	ARG	NE-CZ-NH1	5.20	122.90	120.30
7	D2	765	ARG	NE-CZ-NH1	5.20	122.90	120.30
15	M0	818	ARG	NE-CZ-NH2	5.20	122.90	120.30
18	P2	455	ARG	NE-CZ-NH1	5.20	122.90	120.30
21	S0	306	ARG	NE-CZ-NH2	5.20	122.90	120.30
2	15	1086	ARG	NE-CZ-NH1	5.20	122.90	120.30
4	A3	593	ARG	NE-CZ-NH1	5.20	122.90	120.30
2	14	984	ARG	NE-CZ-NH1	5.19	122.90	120.30
20	R0	732	ARG	CD-NE-CZ	5.19	130.87	123.60
7	D1	1347	ARG	NE-CZ-NH1	5.19	122.90	120.30
2	17	1225	ARG	NE-CZ-NH2	-5.19	117.71	120.30
6	C1	1434	ARG	NE-CZ-NH1	5.19	122.89	120.30
19	Q3	152	ARG	NE-CZ-NH1	5.19	122.89	120.30
5	B0	526	ARG	NE-CZ-NH1	5.19	122.89	120.30
7	D3	920	TYR	CB-CG-CD2	-5.19	117.89	121.00
13	K2	578	ARG	NE-CZ-NH1	5.19	122.89	120.30
1	00	113	ARG	NE-CZ-NH1	5.18	122.89	120.30
2	11	597	ARG	NE-CZ-NH1	5.18	122.89	120.30
21	S3	272	TYR	CB-CG-CD1	-5.18	117.89	121.00
2	13	1223	ARG	NE-CZ-NH1	5.18	122.89	120.30
10	H3	111	PRO	CA-N-CD	-5.18	104.25	111.50
4	A4	448	TYR	CB-CG-CD2	-5.18	117.89	121.00
15	M3	633	ARG	CD-NE-CZ	5.18	130.85	123.60
6	C1	1138	ARG	NE-CZ-NH1	5.18	122.89	120.30
14	L2	751	ARG	NE-CZ-NH1	5.18	122.89	120.30
19	Q2	40	GLU	OE1-CD-OE2	-5.18	117.08	123.30
6	C0	1878	ARG	NE-CZ-NH1	5.18	122.89	120.30
4	A3	118	ARG	NE-CZ-NH1	5.18	122.89	120.30
7	D1	571	ARG	NE-CZ-NH1	5.18	122.89	120.30
20	R0	1111	GLU	CB-CA-C	5.18	120.75	110.40
19	Q3	349	ARG	NE-CZ-NH1	5.17	122.89	120.30
20	R2	1136	ARG	NE-CZ-NH1	5.17	122.89	120.30
2	14	1789	ARG	NE-CZ-NH1	5.17	122.89	120.30
5	B0	102	ARG	NH1-CZ-NH2	-5.17	113.71	119.40
7	D1	1348	ARG	NE-CZ-NH1	5.17	122.89	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D4	1298	ARG	NE-CZ-NH1	5.17	122.89	120.30
10	H1	178	TYR	CB-CG-CD1	-5.17	117.90	121.00
7	D2	537	ARG	NE-CZ-NH1	5.17	122.89	120.30
7	D4	1108	GLU	CA-CB-CG	5.17	124.78	113.40
14	L2	374	ARG	NH1-CZ-NH2	-5.17	113.72	119.40
14	L2	405	ARG	NE-CZ-NH1	5.17	122.88	120.30
2	14	325	ARG	NE-CZ-NH1	5.17	122.88	120.30
5	B0	247	ARG	NE-CZ-NH2	5.17	122.88	120.30
5	B0	251	ARG	NE-CZ-NH1	5.17	122.88	120.30
13	K0	691	ARG	NE-CZ-NH1	5.17	122.88	120.30
14	L2	422	ARG	NH1-CZ-NH2	-5.17	113.72	119.40
2	11	1086	ARG	NE-CZ-NH1	5.16	122.88	120.30
5	B0	1049	TYR	CB-CG-CD2	-5.16	117.90	121.00
7	D4	391	ARG	CD-NE-CZ	5.16	130.83	123.60
10	H0	111	PRO	CA-N-CD	-5.16	104.27	111.50
13	K0	1042	ARG	NE-CZ-NH1	5.16	122.88	120.30
19	Q1	152	ARG	NE-CZ-NH1	5.16	122.88	120.30
4	A3	524	ARG	NE-CZ-NH1	5.16	122.88	120.30
20	R3	1133	ARG	NE-CZ-NH1	5.16	122.88	120.30
6	C4	1876	ARG	NE-CZ-NH1	5.16	122.88	120.30
2	10	669	ARG	NE-CZ-NH1	5.16	122.88	120.30
3	40	258	ARG	NE-CZ-NH1	5.16	122.88	120.30
15	M2	708	ARG	NE-CZ-NH2	-5.16	117.72	120.30
22	T1	206	ARG	NE-CZ-NH1	5.16	122.88	120.30
17	O1	246	ARG	NE-CZ-NH1	5.15	122.88	120.30
6	C1	411	ARG	CD-NE-CZ	5.15	130.81	123.60
6	C2	1434	ARG	NE-CZ-NH1	5.15	122.88	120.30
6	C3	1269	ARG	NE-CZ-NH1	5.15	122.88	120.30
13	K3	559	ARG	NE-CZ-NH1	5.15	122.88	120.30
13	K1	578	ARG	NE-CZ-NH1	5.15	122.87	120.30
2	16	558	ARG	NE-CZ-NH1	5.15	122.87	120.30
6	C1	1133	ARG	NE-CZ-NH1	5.15	122.87	120.30
6	C4	1245	GLY	C-N-CA	5.15	134.57	121.70
6	C3	1133	ARG	NE-CZ-NH1	5.15	122.87	120.30
7	D0	1100	ARG	NE-CZ-NH1	5.15	122.87	120.30
13	K1	884	ARG	NE-CZ-NH1	5.15	122.87	120.30
5	B1	1668	ARG	NE-CZ-NH1	5.14	122.87	120.30
7	D4	92	GLU	CB-CA-C	-5.14	100.11	110.40
18	P0	311	ARG	NE-CZ-NH1	5.14	122.87	120.30
20	R3	700	ARG	NE-CZ-NH1	5.14	122.87	120.30
2	14	178	ARG	CD-NE-CZ	5.14	130.80	123.60
7	D0	1298	ARG	NE-CZ-NH1	5.14	122.87	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D2	336	ARG	NE-CZ-NH1	5.14	122.87	120.30
14	L0	413	ARG	NE-CZ-NH2	-5.14	117.73	120.30
18	P2	231	ARG	NE-CZ-NH1	5.14	122.87	120.30
2	15	984	ARG	NE-CZ-NH1	5.14	122.87	120.30
2	16	984	ARG	NE-CZ-NH1	5.14	122.87	120.30
2	17	984	ARG	NE-CZ-NH1	5.14	122.87	120.30
6	C2	1581	ARG	NE-CZ-NH1	5.14	122.87	120.30
21	S2	253	ARG	NE-CZ-NH1	5.14	122.87	120.30
6	C3	1834	ARG	NE-CZ-NH1	5.14	122.87	120.30
18	P2	636	ARG	NE-CZ-NH1	5.14	122.87	120.30
20	R0	57	ARG	NE-CZ-NH2	5.14	122.87	120.30
23	U0	795	ARG	NE-CZ-NH1	5.14	122.87	120.30
4	A4	97	ASP	CB-CG-OD2	-5.13	113.68	118.30
4	A4	481	ARG	NE-CZ-NH1	5.13	122.87	120.30
7	D1	537	ARG	NE-CZ-NH1	5.13	122.87	120.30
15	M1	901	ARG	CD-NE-CZ	5.13	130.79	123.60
6	C0	388	TYR	CB-CG-CD2	-5.13	117.92	121.00
2	17	334	ARG	NE-CZ-NH1	5.13	122.87	120.30
7	D5	391	ARG	CD-NE-CZ	5.13	130.78	123.60
13	K0	884	ARG	NE-CZ-NH1	5.13	122.87	120.30
16	N1	35	ARG	NE-CZ-NH1	5.13	122.87	120.30
4	A3	568	ARG	NE-CZ-NH1	5.13	122.86	120.30
7	D2	32	ARG	NE-CZ-NH1	5.13	122.86	120.30
20	R3	485	ARG	NE-CZ-NH1	5.13	122.86	120.30
2	12	783	ARG	NE-CZ-NH2	-5.12	117.74	120.30
2	15	334	ARG	NE-CZ-NH1	5.12	122.86	120.30
6	C4	30	ARG	NE-CZ-NH1	5.12	122.86	120.30
8	E1	242	ILE	CB-CA-C	5.12	121.85	111.60
20	R2	57	ARG	NE-CZ-NH2	5.12	122.86	120.30
1	01	198	ARG	NE-CZ-NH1	5.12	122.86	120.30
1	02	229	ARG	NE-CZ-NH1	5.12	122.86	120.30
15	M0	581	ARG	NE-CZ-NH2	-5.12	117.74	120.30
18	P1	546	ARG	NE-CZ-NH1	5.12	122.86	120.30
18	P1	624	ASP	CB-CG-OD1	5.12	122.91	118.30
2	11	797	ARG	CD-NE-CZ	5.12	130.77	123.60
4	A6	568	ARG	NE-CZ-NH1	5.12	122.86	120.30
5	B1	291	ARG	NE-CZ-NH1	5.12	122.86	120.30
5	B0	1438	ARG	NH1-CZ-NH2	-5.12	113.77	119.40
7	D4	1111	LEU	N-CA-C	5.12	124.82	111.00
7	D4	750	ARG	NE-CZ-NH1	5.12	122.86	120.30
9	F1	282	ARG	NE-CZ-NH1	5.12	122.86	120.30
2	13	1225	ARG	NE-CZ-NH2	-5.11	117.74	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	14	1250	ARG	NE-CZ-NH1	5.11	122.86	120.30
7	D0	765	ARG	NE-CZ-NH1	5.11	122.86	120.30
15	M0	703	ARG	NE-CZ-NH1	5.11	122.86	120.30
20	R1	700	ARG	NE-CZ-NH1	5.11	122.86	120.30
2	16	1225	ARG	NE-CZ-NH2	-5.11	117.75	120.30
4	A0	143	ARG	NE-CZ-NH1	5.11	122.86	120.30
2	13	984	ARG	NE-CZ-NH1	5.11	122.85	120.30
5	B0	1525	ALA	O-C-N	-5.11	114.53	122.70
12	J1	349	ARG	NE-CZ-NH1	5.11	122.85	120.30
22	T0	206	ARG	NE-CZ-NH1	5.11	122.85	120.30
21	S1	146	ASP	CB-CG-OD1	5.11	122.89	118.30
15	M3	633	ARG	NE-CZ-NH2	-5.10	117.75	120.30
18	P2	231	ARG	NE-CZ-NH2	-5.10	117.75	120.30
1	01	229	ARG	NE-CZ-NH1	5.10	122.85	120.30
1	03	198	ARG	NE-CZ-NH1	5.10	122.85	120.30
2	10	298	ARG	NE-CZ-NH1	5.10	122.85	120.30
2	12	1225	ARG	NE-CZ-NH2	-5.10	117.75	120.30
2	10	548	ARG	NE-CZ-NH1	5.10	122.85	120.30
7	D0	86	ARG	NE-CZ-NH1	5.10	122.85	120.30
7	D4	1083	ARG	CD-NE-CZ	5.10	130.74	123.60
16	N0	35	ARG	NE-CZ-NH1	5.10	122.85	120.30
22	T0	35	ARG	NE-CZ-NH1	5.10	122.85	120.30
4	A1	524	ARG	NE-CZ-NH1	5.10	122.85	120.30
18	P2	550	GLU	CA-CB-CG	5.10	124.61	113.40
7	D2	28	ARG	NE-CZ-NH1	5.09	122.85	120.30
20	R2	1091	ARG	NE-CZ-NH1	5.09	122.85	120.30
10	H2	111	PRO	CA-N-CD	-5.09	104.37	111.50
15	M3	901	ARG	CD-NE-CZ	5.09	130.73	123.60
7	D3	1196	PHE	CB-CG-CD1	-5.09	117.24	120.80
13	K2	887	ARG	NE-CZ-NH2	-5.09	117.75	120.30
19	Q2	152	ARG	NE-CZ-NH1	5.09	122.84	120.30
4	A4	578	ARG	CD-NE-CZ	5.09	130.72	123.60
4	A6	578	ARG	CD-NE-CZ	5.09	130.72	123.60
13	K2	888	TYR	CB-CG-CD2	-5.09	117.95	121.00
18	P2	551	LYS	CB-CA-C	-5.09	100.23	110.40
6	C3	677	ARG	NE-CZ-NH1	5.08	122.84	120.30
15	M2	633	ARG	CD-NE-CZ	5.08	130.72	123.60
20	R1	1429	ASP	CB-CG-OD1	5.08	122.88	118.30
4	A1	118	ARG	NE-CZ-NH1	5.08	122.84	120.30
14	L1	582	ARG	NE-CZ-NH1	5.08	122.84	120.30
6	C0	1493	ARG	CD-NE-CZ	5.08	130.71	123.60
5	B1	1682	ARG	NE-CZ-NH1	5.08	122.84	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B1	1745	ARG	NE-CZ-NH1	5.08	122.84	120.30
6	C2	1803	VAL	C-N-CA	5.08	134.39	121.70
18	P3	210	ASP	CB-CG-OD1	5.08	122.87	118.30
7	D5	86	ARG	NE-CZ-NH1	5.08	122.84	120.30
18	P1	210	ASP	CB-CG-OD1	5.08	122.87	118.30
20	R0	1428	ARG	NE-CZ-NH1	5.08	122.84	120.30
1	O2	113	ARG	NE-CZ-NH1	5.07	122.84	120.30
20	R1	365	ARG	NE-CZ-NH1	5.07	122.84	120.30
3	41	258	ARG	NE-CZ-NH1	5.07	122.83	120.30
6	C2	1054	ARG	NE-CZ-NH1	5.07	122.83	120.30
7	D1	1083	ARG	NE-CZ-NH1	5.07	122.83	120.30
18	P0	542	ARG	CD-NE-CZ	5.07	130.70	123.60
21	S1	74	ARG	NE-CZ-NH1	5.07	122.83	120.30
20	R0	732	ARG	NE-CZ-NH1	5.07	122.83	120.30
2	12	1223	ARG	NE-CZ-NH1	5.07	122.83	120.30
2	17	1067	ARG	NE-CZ-NH1	5.07	122.83	120.30
6	C0	1418	ARG	NE-CZ-NH1	5.07	122.83	120.30
7	D1	1137	ASP	CB-CG-OD1	5.07	122.86	118.30
20	R0	1095	ARG	NE-CZ-NH2	-5.07	117.77	120.30
3	40	432	ARG	NE-CZ-NH2	-5.07	117.77	120.30
10	H2	430	ARG	NE-CZ-NH1	5.07	122.83	120.30
2	10	364	ARG	NE-CZ-NH1	5.06	122.83	120.30
4	A1	790	ARG	NE-CZ-NH1	5.06	122.83	120.30
4	A6	530	ARG	NE-CZ-NH1	5.06	122.83	120.30
14	L3	405	ARG	NE-CZ-NH1	5.06	122.83	120.30
15	M0	708	ARG	NE-CZ-NH2	-5.06	117.77	120.30
18	P1	455	ARG	NE-CZ-NH1	5.06	122.83	120.30
5	B0	291	ARG	NE-CZ-NH2	-5.06	117.77	120.30
6	C2	1030	ARG	NE-CZ-NH1	5.06	122.83	120.30
6	C1	746	ARG	NE-CZ-NH1	5.06	122.83	120.30
9	F2	234	GLU	CB-CA-C	5.06	120.52	110.40
13	K0	476	ARG	NE-CZ-NH1	5.06	122.83	120.30
15	M1	909	ARG	NE-CZ-NH1	5.06	122.83	120.30
2	13	1067	ARG	NE-CZ-NH1	5.05	122.83	120.30
6	C0	746	ARG	NE-CZ-NH1	5.05	122.83	120.30
6	C3	411	ARG	CD-NE-CZ	5.05	130.67	123.60
21	S3	253	ARG	NE-CZ-NH1	5.05	122.83	120.30
7	D0	1114	ARG	NH1-CZ-NH2	-5.05	113.84	119.40
7	D5	883	ARG	NE-CZ-NH1	5.05	122.83	120.30
13	K0	578	ARG	NE-CZ-NH1	5.05	122.83	120.30
20	R0	481	ARG	NE-CZ-NH1	5.05	122.83	120.30
4	A5	578	ARG	CD-NE-CZ	5.05	130.67	123.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D0	1114	ARG	NE-CZ-NH1	5.05	122.83	120.30
15	M0	517	ARG	NE-CZ-NH1	5.05	122.83	120.30
20	R2	1298	ARG	NE-CZ-NH2	5.05	122.83	120.30
2	12	558	ARG	NE-CZ-NH1	5.05	122.82	120.30
2	17	298	ARG	NE-CZ-NH1	5.05	122.82	120.30
5	B0	1749	ARG	NE-CZ-NH2	-5.04	117.78	120.30
16	N3	35	ARG	NE-CZ-NH1	5.04	122.82	120.30
21	S1	306	ARG	NE-CZ-NH2	5.04	122.82	120.30
4	A2	50	ARG	NH1-CZ-NH2	-5.04	113.85	119.40
5	B0	1600	ASP	CB-CG-OD2	-5.04	113.76	118.30
7	D3	1083	ARG	NE-CZ-NH1	5.04	122.82	120.30
15	M1	818	ARG	NE-CZ-NH2	5.04	122.82	120.30
18	P1	551	LYS	CB-CG-CD	5.04	124.70	111.60
20	R2	1295	TYR	CB-CG-CD2	-5.04	117.98	121.00
21	S2	272	TYR	CB-CG-CD1	-5.04	117.98	121.00
5	B0	1309	ARG	NE-CZ-NH1	5.04	122.82	120.30
7	D2	86	ARG	NE-CZ-NH1	5.04	122.82	120.30
4	A4	555	ARG	CD-NE-CZ	5.04	130.65	123.60
5	B0	1168	ARG	NH1-CZ-NH2	-5.04	113.86	119.40
6	C3	1030	ARG	NE-CZ-NH1	5.04	122.82	120.30
20	R1	171	ARG	NE-CZ-NH1	5.04	122.82	120.30
22	T1	231	ARG	NE-CZ-NH1	5.04	122.82	120.30
1	00	42	TYR	CB-CG-CD2	-5.03	117.98	121.00
4	A4	530	ARG	NE-CZ-NH1	5.03	122.82	120.30
6	C2	1713	ARG	NE-CZ-NH1	5.03	122.82	120.30
7	D4	537	ARG	NE-CZ-NH1	5.03	122.82	120.30
18	P2	641	ARG	NE-CZ-NH1	5.03	122.82	120.30
4	A6	448	TYR	CB-CG-CD2	-5.03	117.98	121.00
7	D3	571	ARG	NE-CZ-NH1	5.03	122.81	120.30
15	M2	546	ARG	NE-CZ-NH2	-5.03	117.78	120.30
15	M2	901	ARG	CD-NE-CZ	5.03	130.64	123.60
2	11	984	ARG	NE-CZ-NH1	5.03	122.81	120.30
6	C4	889	ARG	NH1-CZ-NH2	-5.03	113.87	119.40
1	04	680	TYR	CB-CG-CD2	-5.03	117.98	121.00
2	12	1082	ARG	NE-CZ-NH1	5.03	122.81	120.30
5	B1	1071	ARG	NE-CZ-NH1	5.03	122.81	120.30
7	D3	898	ARG	NE-CZ-NH1	5.03	122.81	120.30
2	14	1225	ARG	NE-CZ-NH2	-5.03	117.79	120.30
4	A2	662	ARG	CD-NE-CZ	5.03	130.63	123.60
11	I2	274	ARG	NE-CZ-NH2	5.03	122.81	120.30
6	C0	411	ARG	CD-NE-CZ	5.02	130.63	123.60
4	A0	568	ARG	NE-CZ-NH1	5.02	122.81	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B1	174	ARG	NE-CZ-NH2	5.02	122.81	120.30
7	D0	765	ARG	CD-NE-CZ	5.02	130.63	123.60
14	L1	405	ARG	NE-CZ-NH1	5.02	122.81	120.30
21	S1	239	ARG	NE-CZ-NH1	5.02	122.81	120.30
6	C3	1551	TYR	CB-CG-CD2	-5.02	117.99	121.00
6	C3	388	TYR	CB-CG-CD2	-5.02	117.99	121.00
14	L2	669	ARG	NE-CZ-NH1	5.02	122.81	120.30
18	P1	110	ARG	NE-CZ-NH1	5.02	122.81	120.30
4	A1	790	ARG	NE-CZ-NH2	-5.02	117.79	120.30
6	C4	746	ARG	NE-CZ-NH1	5.02	122.81	120.30
7	D0	28	ARG	NE-CZ-NH1	5.02	122.81	120.30
10	H2	461	ARG	NE-CZ-NH1	5.02	122.81	120.30
5	B1	599	ARG	NE-CZ-NH2	5.01	122.81	120.30
6	C4	411	ARG	CD-NE-CZ	5.01	130.62	123.60
6	C4	1133	ARG	NE-CZ-NH2	5.01	122.81	120.30
20	R1	1136	ARG	NE-CZ-NH1	5.01	122.81	120.30
2	15	1789	ARG	NE-CZ-NH1	5.01	122.81	120.30
2	15	298	ARG	NE-CZ-NH1	5.01	122.81	120.30
22	T0	231	ARG	NE-CZ-NH1	5.01	122.81	120.30
2	14	797	ARG	CD-NE-CZ	5.01	130.61	123.60
5	B0	624	ARG	NE-CZ-NH1	5.01	122.81	120.30
14	L3	669	ARG	NE-CZ-NH1	5.01	122.80	120.30
2	12	364	ARG	NE-CZ-NH1	5.01	122.80	120.30
4	A2	484	ARG	NH1-CZ-NH2	-5.01	113.89	119.40
10	H0	377	ARG	NE-CZ-NH1	5.01	122.80	120.30
14	L1	842	ARG	NE-CZ-NH1	5.01	122.80	120.30
20	R1	1116	ARG	NE-CZ-NH1	5.01	122.80	120.30
4	A5	762	ARG	NE-CZ-NH2	5.00	122.80	120.30
13	K2	910	LYS	CB-CA-C	5.00	120.41	110.40
1	03	193	ARG	NE-CZ-NH1	5.00	122.80	120.30
2	15	1082	ARG	NE-CZ-NH1	5.00	122.80	120.30
4	A0	545	ARG	CD-NE-CZ	5.00	130.60	123.60

All (16) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	10	167	ALA	CA
2	12	167	ALA	CA
2	13	1773	THR	CA
4	A6	96	THR	CA
6	C0	174	THR	CB
6	C1	174	THR	CB

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atom
6	C2	174	THR	CB
6	C3	174	THR	CB
6	C4	174	THR	CB
7	D4	1104	MET	CA
15	M3	586	PRO	CA
18	P2	550	GLU	CA
22	T0	856	HIS	CA
22	T0	882	VAL	CA
22	T1	856	HIS	CA
22	T1	882	VAL	CA

All (676) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	00	132	TYR	Sidechain
1	00	161	ARG	Peptide
1	00	175	TYR	Sidechain
1	00	193	ARG	Sidechain
1	01	11	TYR	Sidechain
1	01	161	ARG	Sidechain
1	01	165	VAL	Peptide
1	01	552	ARG	Sidechain
1	02	132	TYR	Sidechain
1	02	175	TYR	Sidechain
1	02	193	ARG	Sidechain
1	03	132	TYR	Sidechain
1	03	163	ASP	Peptide
1	03	175	TYR	Sidechain
1	04	193	ARG	Sidechain
2	10	1537	TYR	Sidechain
2	10	166	GLU	Peptide
2	10	167	ALA	Peptide
2	10	1788	ASP	Peptide
2	10	1792	PRO	Mainchain
2	10	1793	GLY	Peptide
2	10	1795	TYR	Sidechain
2	10	1822	ALA	Mainchain
2	10	1823	VAL	Peptide
2	11	1537	TYR	Sidechain
2	11	1570	GLN	Peptide
2	11	1789	ARG	Peptide
2	12	1537	TYR	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
2	12	1570	GLN	Peptide
2	12	166	GLU	Peptide
2	12	1788	ASP	Peptide
2	12	1789	ARG	Peptide
2	12	744	PHE	Peptide
2	12	746	CYS	Peptide
2	13	1537	TYR	Sidechain
2	13	1570	GLN	Peptide
2	13	1773	THR	Peptide
2	14	1165	LEU	Peptide
2	14	1537	TYR	Sidechain
2	14	1556	ARG	Sidechain
2	14	1584	ARG	Sidechain
2	14	1787	VAL	Peptide
2	14	1789	ARG	Sidechain
2	14	336	PRO	Peptide
2	14	343	VAL	Peptide
2	15	1165	LEU	Peptide
2	15	1537	TYR	Sidechain
2	15	1556	ARG	Sidechain
2	15	1687	PHE	Peptide
2	15	1789	ARG	Sidechain,Peptide
2	15	743	LYS	Peptide
2	16	1165	LEU	Peptide
2	16	1177	MET	Peptide
2	16	1537	TYR	Sidechain
2	16	1556	ARG	Sidechain
2	16	1570	GLN	Peptide
2	16	1584	ARG	Sidechain
2	16	341	TYR	Sidechain
2	17	1537	TYR	Sidechain
2	17	1556	ARG	Sidechain
2	17	1704	TYR	Sidechain
2	17	1789	ARG	Sidechain,Peptide
2	17	1792	PRO	Peptide,Mainchain
2	17	743	LYS	Peptide
3	40	206	ALA	Peptide
3	40	286	ARG	Peptide
3	40	30	SER	Peptide
3	40	330	ARG	Sidechain
3	40	364	GLU	Peptide
3	41	206	ALA	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
3	41	286	ARG	Peptide
3	41	30	SER	Peptide
3	41	364	GLU	Peptide
4	A0	118	ARG	Sidechain
4	A0	128	TYR	Sidechain
4	A0	362	ARG	Sidechain
4	A0	380	ARG	Sidechain
4	A0	481	ARG	Sidechain
4	A0	486	ARG	Sidechain
4	A0	706	HIS	Peptide
4	A0	730	ARG	Sidechain
4	A0	77	ARG	Sidechain
4	A0	781	ARG	Sidechain
4	A0	790	ARG	Sidechain
4	A1	175	ARG	Peptide
4	A1	362	ARG	Sidechain
4	A1	380	ARG	Sidechain
4	A1	396	ARG	Sidechain
4	A1	486	ARG	Sidechain
4	A1	706	HIS	Peptide
4	A1	709	ARG	Sidechain
4	A1	730	ARG	Sidechain
4	A1	781	ARG	Sidechain
4	A1	790	ARG	Sidechain
4	A1	802	ARG	Peptide
4	A1	95	ASP	Peptide
4	A2	118	ARG	Sidechain
4	A2	128	TYR	Sidechain
4	A2	362	ARG	Sidechain
4	A2	380	ARG	Sidechain
4	A2	486	ARG	Sidechain
4	A2	655	ALA	Mainchain
4	A2	706	HIS	Peptide
4	A2	730	ARG	Sidechain
4	A2	77	ARG	Sidechain
4	A2	781	ARG	Sidechain
4	A2	790	ARG	Sidechain
4	A2	802	ARG	Peptide
4	A3	137	TRP	Peptide
4	A3	175	ARG	Peptide
4	A3	362	ARG	Sidechain
4	A3	380	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
4	A3	396	ARG	Sidechain
4	A3	486	ARG	Sidechain
4	A3	555	ARG	Sidechain
4	A3	706	HIS	Peptide
4	A3	730	ARG	Sidechain
4	A4	118	ARG	Sidechain
4	A4	362	ARG	Sidechain
4	A4	380	ARG	Sidechain
4	A4	486	ARG	Sidechain
4	A4	545	ARG	Sidechain
4	A4	555	ARG	Sidechain
4	A4	730	ARG	Sidechain
4	A5	118	ARG	Sidechain
4	A5	362	ARG	Sidechain
4	A5	380	ARG	Sidechain
4	A5	486	ARG	Sidechain
4	A5	555	ARG	Sidechain
4	A5	730	ARG	Sidechain
4	A6	118	ARG	Sidechain
4	A6	128	TYR	Sidechain
4	A6	177	SER	Peptide
4	A6	362	ARG	Sidechain
4	A6	380	ARG	Sidechain
4	A6	486	ARG	Sidechain
4	A6	555	ARG	Sidechain
4	A6	730	ARG	Sidechain
4	A6	94	LYS	Peptide
5	B0	1048	TYR	Sidechain
5	B0	11	ARG	Sidechain
5	B0	1398	ARG	Sidechain
5	B0	1509	GLY	Peptide
5	B0	1514	VAL	Peptide
5	B0	1515	ALA	Peptide
5	B0	1516	GLN	Peptide
5	B0	1517	ARG	Peptide,Mainchain
5	B0	1519	GLN	Peptide,Mainchain
5	B0	1522	PRO	Peptide
5	B0	1532	SER	Peptide
5	B0	1586	TYR	Sidechain
5	B0	209	ARG	Sidechain
5	B0	251	ARG	Sidechain
5	B0	267	TYR	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
5	B0	368	GLY	Peptide
5	B0	496	ARG	Sidechain
5	B0	624	ARG	Sidechain
5	B0	877	ARG	Sidechain
5	B0	989	HIS	Sidechain
5	B1	1048	TYR	Sidechain
5	B1	11	ARG	Sidechain
5	B1	1168	ARG	Sidechain
5	B1	1398	ARG	Sidechain
5	B1	1509	GLY	Peptide
5	B1	1514	VAL	Peptide
5	B1	1516	GLN	Peptide
5	B1	1517	ARG	Peptide,Mainchain
5	B1	1519	GLN	Peptide,Mainchain
5	B1	1522	PRO	Peptide
5	B1	1523	SER	Peptide
5	B1	1525	ALA	Peptide
5	B1	1528	ALA	Peptide
5	B1	1532	SER	Peptide
5	B1	1586	TYR	Sidechain
5	B1	209	ARG	Sidechain
5	B1	251	ARG	Sidechain
5	B1	267	TYR	Sidechain
5	B1	368	GLY	Peptide
5	B1	496	ARG	Sidechain
5	B1	594	TYR	Sidechain
5	B1	624	ARG	Sidechain
5	B1	877	ARG	Sidechain
5	B1	989	HIS	Sidechain
6	C0	1085	ARG	Sidechain
6	C0	1146	ASP	Peptide
6	C0	1269	ARG	Sidechain
6	C0	127	ARG	Sidechain
6	C0	1483	ARG	Sidechain
6	C0	1601	GLY	Peptide
6	C0	2010	SER	Peptide
6	C0	214	ARG	Sidechain
6	C0	30	ARG	Sidechain
6	C0	338	ARG	Sidechain
6	C0	411	ARG	Sidechain
6	C0	436	ARG	Sidechain
6	C0	490	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
6	C0	615	ARG	Sidechain
6	C0	672	ILE	Peptide
6	C0	705	ARG	Sidechain
6	C0	746	ARG	Sidechain
6	C1	1085	ARG	Sidechain
6	C1	1146	ASP	Peptide
6	C1	1269	ARG	Sidechain
6	C1	127	ARG	Sidechain
6	C1	1483	ARG	Sidechain
6	C1	30	ARG	Sidechain
6	C1	338	ARG	Sidechain
6	C1	411	ARG	Sidechain
6	C1	436	ARG	Sidechain
6	C1	490	ARG	Sidechain
6	C1	615	ARG	Sidechain
6	C1	672	ILE	Peptide
6	C1	705	ARG	Sidechain
6	C2	1089	ASP	Peptide
6	C2	1180	ARG	Sidechain
6	C2	127	ARG	Sidechain
6	C2	1375	PHE	Peptide
6	C2	1434	ARG	Sidechain
6	C2	1729	ARG	Sidechain
6	C2	1798	ASP	Peptide
6	C2	1806	TYR	Sidechain
6	C2	1878	ARG	Sidechain
6	C2	1927	SER	Peptide
6	C2	1929	THR	Peptide
6	C2	1939	SER	Peptide
6	C2	411	ARG	Sidechain
6	C2	490	ARG	Sidechain
6	C2	615	ARG	Sidechain
6	C2	672	ILE	Peptide
6	C2	748	ARG	Sidechain
6	C3	1082	ARG	Sidechain
6	C3	1085	ARG	Sidechain
6	C3	1180	ARG	Sidechain
6	C3	1269	ARG	Sidechain
6	C3	127	ARG	Sidechain
6	C3	1615	ARG	Sidechain
6	C3	1939	SER	Peptide
6	C3	214	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
6	C3	30	ARG	Sidechain
6	C3	411	ARG	Sidechain
6	C3	490	ARG	Sidechain
6	C3	615	ARG	Sidechain
6	C3	672	ILE	Peptide
6	C3	705	ARG	Sidechain
6	C3	746	ARG	Sidechain
6	C4	1082	ARG	Sidechain
6	C4	1085	ARG	Sidechain
6	C4	1180	ARG	Sidechain
6	C4	1269	ARG	Sidechain
6	C4	127	ARG	Sidechain
6	C4	214	ARG	Sidechain
6	C4	30	ARG	Sidechain
6	C4	411	ARG	Sidechain
6	C4	413	ARG	Sidechain
6	C4	490	ARG	Sidechain
6	C4	615	ARG	Sidechain
6	C4	672	ILE	Peptide
6	C4	697	ARG	Sidechain
6	C4	705	ARG	Sidechain
6	C4	748	ARG	Sidechain
7	D0	1096	ARG	Sidechain
7	D0	1120	ARG	Sidechain
7	D0	1168	HIS	Sidechain
7	D0	1336	GLU	Peptide
7	D0	136	TYR	Sidechain
7	D0	180	TYR	Sidechain
7	D0	38	ARG	Sidechain
7	D0	466	GLU	Peptide
7	D0	575	ARG	Sidechain
7	D0	659	TYR	Sidechain
7	D0	680	ALA	Peptide
7	D0	74	SER	Peptide
7	D0	866	LEU	Peptide
7	D0	867	TYR	Peptide
7	D0	885	ARG	Sidechain
7	D0	924	ARG	Sidechain
7	D1	1001	PRO	Peptide
7	D1	1096	ARG	Sidechain
7	D1	1108	GLU	Peptide
7	D1	1196	PHE	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
7	D1	1336	GLU	Peptide
7	D1	136	TYR	Sidechain
7	D1	38	ARG	Sidechain
7	D1	466	GLU	Peptide
7	D1	575	ARG	Sidechain
7	D1	74	SER	Peptide
7	D1	864	PRO	Peptide
7	D1	865	LEU	Peptide
7	D1	885	ARG	Sidechain
7	D2	1096	ARG	Sidechain
7	D2	1109	ILE	Peptide
7	D2	1114	ARG	Sidechain
7	D2	1168	HIS	Sidechain
7	D2	1336	GLU	Peptide
7	D2	136	TYR	Sidechain
7	D2	180	TYR	Sidechain
7	D2	38	ARG	Sidechain
7	D2	466	GLU	Peptide
7	D2	575	ARG	Sidechain
7	D2	659	TYR	Sidechain
7	D2	680	ALA	Peptide
7	D2	74	SER	Peptide
7	D2	849	ASN	Peptide
7	D2	883	ARG	Sidechain
7	D2	885	ARG	Sidechain
7	D2	924	ARG	Sidechain
7	D2	968	ARG	Sidechain
7	D3	1029	ARG	Sidechain
7	D3	1196	PHE	Sidechain
7	D3	1336	GLU	Peptide
7	D3	236	TYR	Sidechain
7	D3	38	ARG	Sidechain
7	D3	466	GLU	Peptide
7	D3	575	ARG	Sidechain
7	D3	74	SER	Peptide
7	D3	862	ILE	Peptide
7	D3	864	PRO	Peptide
7	D3	867	TYR	Sidechain
7	D3	885	ARG	Sidechain
7	D3	924	ARG	Sidechain
7	D3	968	ARG	Sidechain
7	D4	1096	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
7	D4	1104	MET	Peptide
7	D4	1110	SER	Peptide
7	D4	1114	ARG	Sidechain
7	D4	1120	ARG	Sidechain
7	D4	1178	LEU	Peptide
7	D4	1179	ASP	Peptide
7	D4	1213	ASP	Peptide
7	D4	136	TYR	Sidechain
7	D4	180	TYR	Sidechain
7	D4	38	ARG	Sidechain
7	D4	466	GLU	Peptide
7	D4	575	ARG	Sidechain
7	D4	659	TYR	Sidechain
7	D4	74	SER	Peptide
7	D4	863	CYS	Peptide
7	D4	867	TYR	Sidechain
7	D4	868	SER	Peptide
7	D4	883	ARG	Sidechain
7	D5	1096	ARG	Sidechain
7	D5	1104	MET	Peptide
7	D5	1105	HIS	Sidechain
7	D5	1168	HIS	Sidechain
7	D5	1336	GLU	Peptide
7	D5	136	TYR	Sidechain
7	D5	38	ARG	Sidechain
7	D5	466	GLU	Peptide
7	D5	575	ARG	Sidechain
7	D5	74	SER	Peptide
7	D5	863	CYS	Peptide
7	D5	865	LEU	Peptide
7	D5	866	LEU	Peptide
7	D5	885	ARG	Sidechain
7	D5	968	ARG	Sidechain
8	E0	20	VAL	Mainchain
8	E0	21	LEU	Peptide
8	E0	22	GLY	Peptide
8	E0	49	ILE	Peptide
8	E0	665	ARG	Sidechain
8	E1	49	ILE	Peptide
8	E1	665	ARG	Sidechain
9	F0	254	ARG	Sidechain
9	F0	302	VAL	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
9	F0	307	GLN	Peptide
9	F1	170	HIS	Sidechain
9	F1	196	TYR	Sidechain
9	F2	196	TYR	Sidechain
9	F2	230	ARG	Sidechain
9	F2	304	SER	Peptide
9	F3	147	LYS	Peptide
10	H0	178	TYR	Sidechain
10	H0	411	ARG	Sidechain
10	H0	439	ARG	Sidechain
10	H0	454	TYR	Sidechain
10	H0	461	ARG	Sidechain
10	H1	178	TYR	Sidechain
10	H2	178	TYR	Sidechain
10	H2	461	ARG	Sidechain
10	H3	178	TYR	Sidechain
10	H3	411	ARG	Sidechain
12	J0	349	ARG	Sidechain
12	J1	349	ARG	Sidechain
12	J2	349	ARG	Sidechain
12	J3	349	ARG	Sidechain
13	K0	1089	LYS	Peptide
13	K0	1148	TYR	Sidechain
13	K0	209	TYR	Sidechain
13	K0	267	SER	Peptide
13	K0	314	ARG	Sidechain
13	K0	342	TYR	Sidechain
13	K0	586	GLU	Peptide
13	K0	599	HIS	Sidechain
13	K0	903	ARG	Sidechain
13	K0	907	GLU	Peptide
13	K1	1089	LYS	Peptide
13	K1	1148	TYR	Sidechain
13	K1	209	TYR	Sidechain
13	K1	267	SER	Peptide
13	K1	314	ARG	Sidechain
13	K1	342	TYR	Sidechain
13	K1	476	ARG	Sidechain
13	K1	477	GLU	Peptide
13	K1	599	HIS	Sidechain
13	K2	1089	LYS	Peptide
13	K2	1148	TYR	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
13	K2	209	TYR	Sidechain
13	K2	267	SER	Peptide
13	K2	314	ARG	Sidechain
13	K2	342	TYR	Sidechain
13	K2	476	ARG	Sidechain
13	K2	480	SER	Peptide
13	K2	599	HIS	Sidechain
13	K2	903	ARG	Sidechain
13	K2	911	ARG	Peptide
13	K2	962	ARG	Sidechain
13	K3	1089	LYS	Peptide
13	K3	1148	TYR	Sidechain
13	K3	209	TYR	Sidechain
13	K3	267	SER	Peptide
13	K3	314	ARG	Sidechain
13	K3	342	TYR	Sidechain
13	K3	476	ARG	Sidechain
13	K3	572	TYR	Sidechain
14	L0	144	ASP	Peptide
14	L0	323	LEU	Peptide
14	L0	330	ARG	Sidechain
14	L0	404	ARG	Sidechain
14	L0	582	ARG	Sidechain
14	L0	586	THR	Peptide
14	L0	669	ARG	Sidechain
14	L0	824	VAL	Peptide
14	L1	144	ASP	Peptide
14	L1	404	ARG	Sidechain
14	L1	586	THR	Peptide
14	L1	669	ARG	Sidechain
14	L1	753	TYR	Sidechain
14	L2	144	ASP	Peptide
14	L2	404	ARG	Sidechain
14	L2	582	ARG	Sidechain
14	L2	586	THR	Peptide
14	L2	669	ARG	Sidechain
14	L2	824	VAL	Peptide
14	L3	144	ASP	Peptide
14	L3	404	ARG	Sidechain
14	L3	669	ARG	Sidechain
14	L3	732	MET	Peptide
14	L3	734	SER	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
14	L3	824	VAL	Peptide
15	M0	232	ARG	Peptide
15	M0	477	ARG	Sidechain
15	M0	515	ARG	Sidechain
15	M0	581	ARG	Sidechain
15	M0	586	PRO	Peptide
15	M0	624	TYR	Sidechain
15	M0	760	ALA	Peptide
15	M1	232	ARG	Peptide
15	M1	403	LEU	Peptide
15	M1	585	SER	Peptide
15	M1	586	PRO	Peptide
15	M1	761	GLU	Peptide
15	M2	232	ARG	Peptide
15	M2	402	HIS	Peptide
15	M2	403	LEU	Peptide
15	M2	416	TYR	Sidechain
15	M2	477	ARG	Sidechain
15	M2	586	PRO	Peptide
15	M2	624	TYR	Sidechain
15	M2	761	GLU	Peptide
15	M2	762	HIS	Peptide
15	M3	232	ARG	Peptide
15	M3	403	LEU	Peptide
15	M3	585	SER	Peptide
15	M3	586	PRO	Peptide
15	M3	760	ALA	Peptide
15	M3	765	ARG	Sidechain
16	N0	114	HIS	Sidechain
16	N0	190	LEU	Peptide
16	N0	285	LYS	Peptide
16	N0	55	GLY	Peptide
16	N1	190	LEU	Peptide
16	N1	55	GLY	Peptide
16	N2	190	LEU	Peptide
16	N2	55	GLY	Peptide
16	N3	190	LEU	Peptide
16	N3	55	GLY	Peptide
17	O0	81	ARG	Sidechain
17	O1	157	HIS	Peptide
17	O1	81	ARG	Sidechain
17	O2	208	LYS	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
17	O2	81	ARG	Sidechain
17	O3	207	ARG	Sidechain
17	O3	81	ARG	Sidechain
18	P0	323	ASP	Peptide
18	P0	386	LEU	Peptide
18	P0	455	ARG	Sidechain
18	P0	504	ASP	Peptide
18	P0	508	ARG	Sidechain
18	P0	61	VAL	Peptide
18	P0	615	GLY	Peptide
18	P0	616	GLU	Peptide
18	P0	617	SER	Peptide
18	P1	213	ARG	Sidechain
18	P1	323	ASP	Peptide
18	P1	387	LEU	Peptide
18	P1	388	GLN	Peptide
18	P1	389	SER	Peptide
18	P1	455	ARG	Sidechain
18	P1	504	ASP	Peptide
18	P1	508	ARG	Sidechain
18	P1	60	ASP	Peptide
18	P1	616	GLU	Peptide
18	P2	213	ARG	Sidechain
18	P2	323	ASP	Peptide
18	P2	387	LEU	Peptide
18	P2	388	GLN	Peptide
18	P2	455	ARG	Sidechain
18	P2	504	ASP	Peptide
18	P2	508	ARG	Sidechain
18	P2	510	TYR	Sidechain
18	P2	541	TYR	Sidechain
18	P2	549	GLY	Peptide
18	P2	551	LYS	Peptide
18	P2	552	ARG	Peptide,Mainchain
18	P2	567	ARG	Sidechain
18	P2	60	ASP	Peptide
18	P2	602	ARG	Sidechain
18	P2	616	GLU	Peptide
18	P3	213	ARG	Sidechain
18	P3	323	ASP	Peptide
18	P3	455	ARG	Sidechain
18	P3	504	ASP	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
18	P3	508	ARG	Sidechain
18	P3	549	GLY	Peptide
18	P3	615	GLY	Peptide
18	P3	616	GLU	Peptide
18	P3	617	SER	Peptide
18	P3	64	TYR	Sidechain
19	Q0	152	ARG	Sidechain
19	Q0	225	ARG	Sidechain
19	Q0	341	GLU	Peptide
19	Q1	152	ARG	Sidechain
19	Q1	225	ARG	Sidechain
19	Q1	341	GLU	Peptide
19	Q2	152	ARG	Sidechain
19	Q2	225	ARG	Sidechain
19	Q2	341	GLU	Peptide
19	Q3	225	ARG	Sidechain
19	Q3	341	GLU	Peptide
20	R0	1052	GLU	Peptide
20	R0	1055	TYR	Sidechain
20	R0	1080	TYR	Sidechain
20	R0	1104	TYR	Sidechain
20	R0	1139	TYR	Sidechain
20	R0	1153	ARG	Sidechain
20	R0	1162	HIS	Sidechain
20	R0	40	ALA	Peptide
20	R0	410	TRP	Peptide
20	R0	538	TYR	Sidechain
20	R0	544	HIS	Sidechain
20	R0	630	TYR	Sidechain
20	R0	718	ARG	Sidechain
20	R0	727	ARG	Sidechain
20	R0	804	LEU	Peptide
20	R1	1053	PHE	Peptide
20	R1	1080	TYR	Sidechain
20	R1	1104	TYR	Sidechain
20	R1	1139	TYR	Sidechain
20	R1	1162	HIS	Sidechain
20	R1	1329	TYR	Sidechain
20	R1	1341	TYR	Sidechain
20	R1	38	ALA	Peptide
20	R1	40	ALA	Peptide
20	R1	410	TRP	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
20	R1	538	TYR	Sidechain
20	R1	544	HIS	Sidechain
20	R1	630	TYR	Sidechain
20	R1	718	ARG	Sidechain
20	R1	727	ARG	Sidechain
20	R1	804	LEU	Peptide
20	R2	1055	TYR	Sidechain
20	R2	1080	TYR	Sidechain
20	R2	1104	TYR	Sidechain
20	R2	1139	TYR	Sidechain
20	R2	1162	HIS	Sidechain
20	R2	1341	TYR	Sidechain
20	R2	40	ALA	Peptide
20	R2	410	TRP	Peptide
20	R2	538	TYR	Sidechain
20	R2	544	HIS	Sidechain
20	R2	630	TYR	Sidechain
20	R2	718	ARG	Sidechain
20	R2	727	ARG	Sidechain
20	R2	804	LEU	Peptide
20	R2	990	ALA	Peptide
20	R3	1080	TYR	Sidechain
20	R3	1104	TYR	Sidechain
20	R3	1139	TYR	Sidechain
20	R3	1162	HIS	Sidechain
20	R3	1329	TYR	Sidechain
20	R3	1341	TYR	Sidechain
20	R3	295	HIS	Sidechain
20	R3	40	ALA	Peptide
20	R3	410	TRP	Peptide
20	R3	538	TYR	Sidechain
20	R3	544	HIS	Sidechain
20	R3	630	TYR	Sidechain
20	R3	718	ARG	Sidechain
20	R3	727	ARG	Sidechain
20	R3	804	LEU	Peptide
21	S0	132	PHE	Peptide
21	S0	150	ARG	Sidechain
21	S0	191	ARG	Sidechain
21	S0	239	ARG	Sidechain
21	S1	132	PHE	Peptide
21	S1	150	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
21	S1	191	ARG	Sidechain
21	S1	231	ASP	Peptide
21	S1	239	ARG	Sidechain
21	S2	132	PHE	Peptide
21	S2	150	ARG	Sidechain
21	S2	191	ARG	Sidechain
21	S2	231	ASP	Peptide
21	S2	239	ARG	Sidechain
21	S3	132	PHE	Peptide
21	S3	150	ARG	Sidechain
21	S3	191	ARG	Sidechain
21	S3	231	ASP	Peptide
21	S3	239	ARG	Sidechain
22	T0	125	ARG	Sidechain
22	T0	2	ARG	Peptide
22	T0	3	ASP	Peptide
22	T0	441	SER	Peptide
22	T0	457	ARG	Peptide
22	T0	5	ARG	Sidechain
22	T0	553	ILE	Peptide
22	T0	558	LEU	Peptide
22	T0	685	ASP	Peptide
22	T0	69	ARG	Sidechain
22	T0	712	ARG	Sidechain
22	T0	764	LEU	Peptide
22	T0	887	ARG	Sidechain
22	T1	125	ARG	Sidechain
22	T1	2	ARG	Peptide
22	T1	3	ASP	Peptide
22	T1	441	SER	Peptide
22	T1	457	ARG	Peptide
22	T1	5	ARG	Sidechain
22	T1	553	ILE	Peptide
22	T1	554	GLN	Peptide
22	T1	556	SER	Peptide
22	T1	558	LEU	Peptide
22	T1	685	ASP	Peptide
22	T1	69	ARG	Sidechain
22	T1	764	LEU	Peptide
22	T1	887	ARG	Sidechain
24	V0	849	LEU	Peptide
24	V0	851	VAL	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
24	V0	886	ARG	Sidechain
24	V0	906	ILE	Peptide
24	V0	960	ARG	Sidechain
25	W0	224	LEU	Peptide
25	W0	225	ASN	Peptide
25	W0	351	LYS	Peptide
25	W0	36	PRO	Peptide
25	W0	40	GLU	Peptide
25	W0	513	GLU	Peptide
25	W0	539	ARG	Sidechain

5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	00	6085	0	6080	35	0
1	01	6085	0	6080	38	0
1	02	6085	0	6080	7	0
1	03	6085	0	6080	9	0
1	04	6085	0	6080	9	0
2	10	14046	0	14194	127	0
2	11	14046	0	14194	23	0
2	12	14046	0	14194	19	0
2	13	14046	0	14194	8	0
2	14	14046	0	14194	27	0
2	15	14046	0	14194	60	0
2	16	14046	0	14194	49	0
2	17	14046	0	14193	75	0
3	40	2922	0	2899	4	0
3	41	2922	0	2899	2	0
4	A0	6568	0	6527	43	0
4	A1	6568	0	6527	7	0
4	A2	6568	0	6527	32	0
4	A3	6568	0	6527	9	0
4	A4	5860	0	5828	27	0
4	A5	5860	0	5828	8	0
4	A6	5860	0	5828	8	0
5	B0	13746	0	13949	12	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	B1	13746	0	13949	14	0
6	C0	16013	0	16224	19	0
6	C1	16013	0	16224	28	0
6	C2	16013	0	16224	67	0
6	C3	16013	0	16224	44	0
6	C4	16013	0	16224	38	0
7	D0	10363	0	10400	63	0
7	D1	10363	0	10400	132	0
7	D2	10363	0	10400	53	0
7	D3	10363	0	10400	81	0
7	D4	10363	0	10400	129	0
7	D5	10363	0	10400	51	0
8	E0	4432	0	4472	133	0
8	E1	4432	0	4472	64	0
9	F0	1837	0	1825	1	0
9	F1	1837	0	1825	14	0
9	F2	1837	0	1825	0	0
9	F3	1837	0	1825	0	0
10	H0	3066	0	3103	3	0
10	H1	3066	0	3103	3	0
10	H2	3066	0	3103	4	0
10	H3	3066	0	3103	1	0
11	I0	1398	0	1431	4	0
11	I1	1398	0	1431	2	0
11	I2	1398	0	1431	5	0
11	I3	1398	0	1431	2	0
12	J0	1403	0	1391	1	0
12	J1	1403	0	1391	2	0
12	J2	1403	0	1391	1	0
12	J3	1403	0	1391	1	0
12	J4	1403	0	1391	2	0
13	K0	8574	0	8438	9	0
13	K1	8574	0	8438	5	0
13	K2	8574	0	8438	47	0
13	K3	8574	0	8438	30	0
14	L0	6383	0	6313	30	0
14	L1	6383	0	6313	59	0
14	L2	6383	0	6313	25	0
14	L3	6383	0	6313	12	0
15	M0	5461	0	5443	10	0
15	M1	5461	0	5443	12	0
15	M2	5461	0	5443	10	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	M3	5461	0	5443	6	0
16	N0	2352	0	2220	19	0
16	N1	2352	0	2220	1	0
16	N2	2352	0	2220	2	0
16	N3	2352	0	2220	0	0
17	O0	2528	0	2444	8	0
17	O1	2528	0	2444	2	0
17	O2	2528	0	2444	2	0
17	O3	2528	0	2444	5	0
18	P0	5257	0	5249	15	0
18	P1	5257	0	5249	9	0
18	P2	5257	0	5249	4	0
18	P3	5257	0	5249	6	0
19	Q0	2703	0	2555	12	0
19	Q1	2703	0	2555	1	0
19	Q2	2703	0	2555	15	0
19	Q3	2703	0	2555	1	0
20	R0	11132	0	11066	39	0
20	R1	11132	0	11066	13	0
20	R2	11132	0	11066	7	0
20	R3	11132	0	11066	26	0
21	S0	2552	0	2452	4	0
21	S1	2552	0	2452	1	0
21	S2	2552	0	2452	3	0
21	S3	2552	0	2452	1	0
22	T0	7960	0	7896	13	0
22	T1	7960	0	7896	1	0
23	U0	1193	0	1188	4	0
23	U1	151	0	167	60	0
23	U2	151	0	167	36	0
23	U3	151	0	167	47	0
23	U4	151	0	167	36	0
23	U5	151	0	167	47	0
23	U6	151	0	167	36	0
24	V0	2203	0	2226	12	0
25	W0	5836	0	5850	20	0
All	All	617133	0	616872	1415	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 1.

All (1415) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E0:18:TRP:CD2	8:E0:18:TRP:CG	1.82	1.64
8:E1:244:THR:N	8:E1:244:THR:CA	1.69	1.52
2:17:1788:ASP:C	2:17:1788:ASP:CA	1.75	1.51
2:10:1824:MET:C	2:10:1824:MET:CA	1.75	1.50
8:E0:18:TRP:NE1	8:E0:18:TRP:CE2	1.80	1.49
6:C2:484:HIS:CD2	6:C2:484:HIS:CG	2.02	1.46
7:D4:1168:HIS:NE2	23:U1:611:PHE:HA	1.31	1.45
2:14:1653:LYS:HD2	2:15:1565:ILE:CD1	1.45	1.43
7:D1:1168:HIS:NE2	23:U3:611:PHE:HA	1.31	1.42
7:D3:1168:HIS:NE2	23:U5:611:PHE:HA	1.35	1.41
8:E0:18:TRP:NE1	8:E0:18:TRP:CD1	1.85	1.41
2:15:1024:ALA:CB	2:16:1346:ILE:HD12	1.46	1.40
2:10:1825:ILE:HD11	8:E0:23:TRP:CH2	1.57	1.38
7:D0:889:ASN:ND2	9:F1:103:LEU:HD23	1.38	1.36
7:D5:1347:ARG:CD	20:R2:1154:PRO:HB3	1.55	1.36
2:16:1106:PRO:HB3	2:17:1178:ARG:NH2	1.38	1.35
7:D4:91:PRO:N	7:D4:91:PRO:CD	1.91	1.34
7:D4:91:PRO:CG	7:D4:91:PRO:CB	2.05	1.33
7:D4:91:PRO:N	7:D4:91:PRO:CA	1.93	1.31
7:D4:91:PRO:CB	7:D4:91:PRO:CA	2.08	1.30
6:C2:484:HIS:CE1	6:C2:484:HIS:NE2	2.00	1.29
7:D4:91:PRO:CD	7:D4:91:PRO:CG	2.11	1.29
6:C2:484:HIS:CE1	6:C2:484:HIS:ND1	2.02	1.28
1:00:92:THR:CG2	14:L0:262:LEU:HD22	1.64	1.27
7:D4:1184:ASP:CB	23:U1:597:ILE:HG23	1.64	1.25
2:10:1824:MET:HA	8:E0:18:TRP:CG	1.72	1.25
4:A4:172:PRO:CB	6:C3:3:THR:HG21	1.63	1.25
1:00:92:THR:HG21	14:L0:262:LEU:CD2	1.68	1.23
2:10:1824:MET:CA	8:E0:18:TRP:CD1	2.20	1.23
2:10:1824:MET:CA	8:E0:18:TRP:CG	2.21	1.22
7:D0:1184:ASP:CB	23:U2:597:ILE:HG23	1.68	1.21
4:A4:167:ILE:HD13	6:C3:76:ALA:CB	1.71	1.21
7:D1:1002:PRO:HA	7:D4:91:PRO:N	1.53	1.20
2:10:1824:MET:CA	8:E0:18:TRP:CE2	2.23	1.20
6:C2:484:HIS:CD2	20:R0:1111:GLU:CD	2.15	1.20
2:16:1106:PRO:CB	2:17:1178:ARG:HH21	1.54	1.19
13:K2:1142:PHE:CD1	13:K3:577:PRO:HG2	1.76	1.19
2:10:1824:MET:CA	8:E0:18:TRP:CD2	2.26	1.18
7:D1:1002:PRO:HA	7:D4:91:PRO:CA	1.73	1.18
6:C2:484:HIS:CG	20:R0:1111:GLU:CD	2.16	1.18
2:15:1024:ALA:HB1	2:16:1346:ILE:HB	1.18	1.18
7:D4:1186:THR:CG2	23:U1:601:VAL:HB	1.73	1.18

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A0:773:ARG:NH2	7:D1:88:PRO:HB3	1.58	1.17
14:L1:502:LYS:HD3	16:N0:175:LYS:CE	1.75	1.16
6:C2:484:HIS:CE1	20:R0:1111:GLU:CD	2.18	1.16
4:A0:773:ARG:HH21	7:D1:88:PRO:CB	1.57	1.15
7:D5:1184:ASP:CB	23:U6:597:ILE:HG23	1.75	1.15
7:D1:1002:PRO:CA	7:D4:91:PRO:CA	2.25	1.15
7:D1:1002:PRO:CA	7:D4:91:PRO:CG	2.26	1.14
1:01:553:LEU:CD1	14:L1:233:ALA:HB1	1.77	1.14
7:D0:1184:ASP:CB	23:U2:597:ILE:CG2	2.24	1.14
7:D3:1184:ASP:HB2	23:U5:597:ILE:HG23	1.25	1.14
1:01:553:LEU:HD13	14:L1:233:ALA:CB	1.78	1.13
2:15:1024:ALA:CB	2:16:1346:ILE:CD1	2.25	1.12
4:A4:172:PRO:HB3	6:C3:3:THR:CG2	1.79	1.12
7:D1:1002:PRO:CA	7:D4:91:PRO:CB	2.28	1.12
1:01:553:LEU:HD13	14:L1:233:ALA:HB1	1.19	1.12
7:D2:1354:LEU:HD13	7:D3:960:VAL:HG21	1.27	1.12
7:D4:1184:ASP:CB	23:U1:597:ILE:CG2	2.27	1.12
6:C4:468:GLU:OE1	20:R3:1205:ALA:HB1	1.49	1.12
7:D5:1184:ASP:HB2	23:U6:597:ILE:HG23	1.12	1.11
2:11:1177:MET:CG	2:12:1106:PRO:HB2	1.80	1.11
6:C4:1697:ASN:OD1	18:P3:256:LEU:HD21	1.49	1.11
1:00:729:LEU:HD23	14:L1:781:THR:HG22	1.24	1.10
7:D0:1184:ASP:HB3	23:U2:597:ILE:HG22	1.28	1.10
7:D5:1184:ASP:CB	23:U6:597:ILE:CG2	2.30	1.10
7:D5:1186:THR:HG23	23:U6:601:VAL:H	1.13	1.10
4:A4:172:PRO:HG3	6:C3:3:THR:OG1	1.49	1.09
14:L1:502:LYS:HD3	16:N0:175:LYS:HE2	1.31	1.09
6:C2:484:HIS:CG	6:C2:484:HIS:ND1	2.20	1.09
6:C2:484:HIS:CD2	20:R0:1111:GLU:OE1	2.06	1.09
7:D0:1186:THR:HG23	23:U2:601:VAL:N	1.66	1.09
7:D1:1184:ASP:HB2	23:U3:597:ILE:HG23	1.22	1.09
7:D4:1186:THR:HG21	23:U1:601:VAL:HB	1.26	1.08
2:10:1824:MET:N	8:E0:18:TRP:CD1	2.21	1.08
7:D0:1186:THR:HG23	23:U2:601:VAL:H	1.14	1.08
7:D2:1354:LEU:HD22	7:D3:960:VAL:HG22	1.35	1.07
7:D5:1347:ARG:HD2	20:R2:1154:PRO:HB3	1.37	1.07
2:10:1824:MET:CA	8:E0:18:TRP:NE1	2.17	1.07
6:C2:484:HIS:CG	20:R0:1111:GLU:OE1	2.07	1.07
7:D1:1002:PRO:CA	7:D4:91:PRO:CD	2.32	1.07
2:15:1024:ALA:HB1	2:16:1346:ILE:CB	1.83	1.06
2:14:1653:LYS:HD2	2:15:1565:ILE:HD13	1.29	1.06

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D3:1186:THR:HG23	23:U5:601:VAL:H	1.15	1.06
2:11:1177:MET:HG2	2:12:1106:PRO:HB2	1.06	1.05
2:14:1653:LYS:HD2	2:15:1565:ILE:HD11	1.10	1.05
6:C2:484:HIS:CE1	20:R0:1111:GLU:OE1	2.09	1.05
8:E1:244:THR:N	8:E1:244:THR:HA	1.64	1.05
13:K2:966:LYS:HG3	14:L2:919:LEU:HD12	1.31	1.05
7:D1:1002:PRO:C	7:D4:91:PRO:CD	2.25	1.05
7:D5:1347:ARG:HD3	20:R2:1154:PRO:HB3	1.13	1.05
2:10:1824:MET:N	8:E0:18:TRP:CD2	2.23	1.05
7:D1:1002:PRO:C	7:D4:91:PRO:CB	2.25	1.05
7:D1:1186:THR:HG23	23:U3:601:VAL:H	1.19	1.05
7:D2:1184:ASP:HB2	23:U4:597:ILE:HG23	1.37	1.05
7:D0:1184:ASP:HB3	23:U2:597:ILE:CG2	1.83	1.04
7:D4:1184:ASP:HB3	23:U1:597:ILE:CG2	1.86	1.04
1:00:34:LYS:HE3	14:L0:243:THR:OG1	1.56	1.04
2:10:1824:MET:N	8:E0:18:TRP:CE2	2.25	1.04
7:D1:1184:ASP:CB	23:U3:597:ILE:HG23	1.87	1.04
7:D4:1184:ASP:HB2	23:U1:597:ILE:HG23	1.09	1.04
6:C3:468:GLU:OE1	20:R1:1205:ALA:HB1	1.56	1.04
7:D4:1184:ASP:HB3	23:U1:597:ILE:HG22	1.39	1.04
7:D2:1354:LEU:HD13	7:D3:960:VAL:CG2	1.88	1.03
2:10:1824:MET:N	8:E0:18:TRP:CG	2.25	1.03
7:D4:1186:THR:HG23	23:U1:601:VAL:H	1.23	1.03
4:A4:167:ILE:HD13	6:C3:76:ALA:HB3	1.33	1.03
7:D0:1184:ASP:HB2	23:U2:597:ILE:HG23	1.07	1.03
7:D3:1184:ASP:CB	23:U5:597:ILE:HG23	1.89	1.03
7:D5:1184:ASP:HB3	23:U6:597:ILE:HG22	1.37	1.03
13:K2:1142:PHE:CE1	13:K3:578:ARG:HG3	1.94	1.03
13:K2:1142:PHE:HD1	13:K3:577:PRO:HG2	1.21	1.02
2:17:1829:HIS:CD2	8:E1:7:ARG:NH2	2.27	1.02
7:D3:1186:THR:HG23	23:U5:601:VAL:N	1.74	1.02
7:D4:1186:THR:HG23	23:U1:601:VAL:N	1.74	1.02
1:01:553:LEU:CD1	14:L1:233:ALA:CB	2.35	1.02
14:L1:502:LYS:HZ2	16:N0:175:LYS:HG2	1.22	1.02
18:P0:267:ARG:CD	24:V0:734:SER:HB2	1.88	1.02
7:D1:1002:PRO:C	7:D4:91:PRO:CA	2.28	1.01
18:P0:267:ARG:HD2	24:V0:734:SER:HB2	1.02	1.01
7:D2:1186:THR:HG23	23:U4:601:VAL:H	1.22	1.01
7:D5:1186:THR:HG23	23:U6:601:VAL:N	1.75	1.01
2:10:1821:THR:HG22	8:E0:26:VAL:HG21	1.40	1.01
13:K2:794:ASP:OD2	14:L2:779:GLN:HG2	1.61	1.00

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C2:484:HIS:CD2	6:C2:484:HIS:NE2	2.29	1.00
1:04:92:THR:HG21	14:L1:751:ARG:NH2	1.76	0.99
2:15:1024:ALA:HB2	2:16:1346:ILE:CD1	1.89	0.99
7:D1:1002:PRO:C	7:D4:91:PRO:CG	2.30	0.99
7:D1:1168:HIS:NE2	23:U3:611:PHE:CA	2.26	0.99
2:14:1653:LYS:CD	2:15:1565:ILE:CD1	2.40	0.99
7:D1:1168:HIS:CE1	23:U3:611:PHE:HA	1.97	0.99
1:01:541:ARG:HH12	14:L1:597:PRO:HB3	1.28	0.98
7:D4:1168:HIS:NE2	23:U1:611:PHE:CA	2.26	0.98
2:10:1825:ILE:HD11	8:E0:23:TRP:CZ2	1.98	0.98
6:C2:484:HIS:NE2	20:R0:1111:GLU:CD	2.17	0.98
14:L1:502:LYS:HZ2	16:N0:175:LYS:CG	1.77	0.97
7:D1:1184:ASP:CB	23:U3:597:ILE:CG2	2.43	0.97
18:P0:267:ARG:HD2	24:V0:734:SER:CB	1.93	0.97
4:A0:277:ASN:OD1	7:D2:892:GLU:HG2	1.64	0.96
7:D1:1184:ASP:HB3	23:U3:597:ILE:HG22	1.46	0.96
7:D1:1002:PRO:CA	7:D4:91:PRO:N	2.28	0.96
7:D3:1184:ASP:HB3	23:U5:597:ILE:HG22	1.47	0.95
6:C2:484:HIS:ND1	20:R0:1111:GLU:CD	2.20	0.95
2:10:1825:ILE:CD1	8:E0:23:TRP:CH2	2.50	0.95
7:D1:1186:THR:HG23	23:U3:601:VAL:N	1.82	0.94
2:11:1216:LYS:NZ	2:12:1434:GLN:HE21	1.63	0.94
13:K2:1142:PHE:CZ	13:K3:578:ARG:HG3	2.02	0.94
6:C2:44:LYS:HE2	7:D4:1139:GLU:OE2	1.67	0.94
7:D1:1002:PRO:HB2	7:D4:91:PRO:HB3	1.50	0.94
13:K2:912:GLY:CA	14:L2:909:LEU:HD13	1.98	0.94
2:17:1788:ASP:HA	8:E1:243:SER:O	1.67	0.93
13:K2:912:GLY:HA2	14:L2:909:LEU:HD13	1.50	0.93
7:D3:1184:ASP:CB	23:U5:597:ILE:CG2	2.45	0.93
2:15:1024:ALA:HB2	2:16:1346:ILE:HD12	0.93	0.93
2:12:922:TYR:CE2	2:13:701:ARG:NH2	2.38	0.92
2:14:1109:ASN:CG	2:15:1171:ARG:HH12	1.73	0.92
7:D2:1186:THR:HG23	23:U4:601:VAL:N	1.83	0.92
2:16:1106:PRO:CB	2:17:1178:ARG:NH2	2.21	0.92
7:D5:1184:ASP:HB2	23:U6:597:ILE:CG2	1.95	0.92
19:Q0:57:SER:HB3	25:W0:702:PRO:HB2	1.48	0.92
2:11:1177:MET:HG2	2:12:1106:PRO:CB	1.98	0.92
2:10:1824:MET:N	8:E0:18:TRP:NE1	2.18	0.92
2:15:1434:GLN:HE21	2:16:1216:LYS:HE2	1.33	0.91
7:D5:1184:ASP:HB3	23:U6:597:ILE:CG2	1.96	0.91
6:C3:696:SER:HB3	19:Q0:327:ILE:CG1	1.99	0.91

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C3:696:SER:HB3	19:Q0:327:ILE:HG12	1.51	0.91
7:D3:1168:HIS:CE1	23:U5:611:PHE:HA	2.06	0.91
2:14:1653:LYS:CD	2:15:1565:ILE:HD11	2.00	0.91
1:01:541:ARG:HH12	14:L1:597:PRO:CB	1.83	0.90
7:D5:1347:ARG:HD3	20:R2:1154:PRO:CB	2.00	0.90
2:17:1789:ARG:H	8:E1:243:SER:C	1.73	0.90
1:01:24:GLN:NE2	14:L1:473:ASP:H	1.70	0.90
7:D5:1186:THR:HG21	23:U6:601:VAL:HB	1.53	0.90
7:D3:1186:THR:HG21	23:U5:601:VAL:HB	1.54	0.90
2:10:1824:MET:HA	8:E0:18:TRP:CD2	2.04	0.89
7:D3:1168:HIS:NE2	23:U5:611:PHE:CA	2.30	0.89
6:C4:807:TYR:OH	19:Q2:26:LEU:HD11	1.71	0.89
7:D1:1184:ASP:HB3	23:U3:597:ILE:CG2	2.02	0.89
7:D3:1184:ASP:HB3	23:U5:597:ILE:CG2	2.01	0.89
18:P1:320:LYS:HE2	25:W0:659:ARG:NH2	1.86	0.89
7:D0:1388:GLU:CD	7:D1:959:ILE:HD12	1.93	0.89
14:L1:502:LYS:CD	16:N0:175:LYS:CE	2.51	0.88
2:14:1653:LYS:CD	2:15:1565:ILE:HD13	2.01	0.88
7:D0:889:ASN:ND2	9:F1:103:LEU:CD2	2.33	0.88
6:C2:469:PRO:HG3	20:R0:1113:ARG:NH1	1.88	0.88
4:A0:773:ARG:HH21	7:D1:88:PRO:HB3	0.73	0.88
13:K2:966:LYS:CG	14:L2:919:LEU:HD12	2.02	0.88
2:10:1825:ILE:HD11	8:E0:23:TRP:HH2	1.35	0.88
2:15:1055:SER:OG	2:16:1346:ILE:HD11	1.73	0.88
2:17:1791:GLY:C	8:E1:240:ALA:HB1	1.93	0.87
2:10:1825:ILE:CD1	8:E0:23:TRP:CZ2	2.57	0.87
7:D3:1186:THR:CG2	23:U5:601:VAL:HB	2.04	0.87
14:L1:502:LYS:NZ	16:N0:175:LYS:CG	2.36	0.87
6:C2:484:HIS:ND1	20:R0:1111:GLU:OE1	2.08	0.87
7:D4:1168:HIS:CE1	23:U1:611:PHE:HA	2.08	0.87
6:C2:484:HIS:NE2	20:R0:1111:GLU:OE1	2.07	0.87
7:D0:1186:THR:CG2	23:U2:601:VAL:HB	2.05	0.87
7:D0:889:ASN:HB2	9:F1:103:LEU:HG	1.56	0.87
7:D2:1184:ASP:CB	23:U4:597:ILE:HG23	2.04	0.87
7:D0:889:ASN:HD22	9:F1:103:LEU:HD23	0.99	0.87
7:D1:1002:PRO:C	7:D4:91:PRO:N	2.28	0.86
2:17:1790:ARG:HB2	8:E1:242:ILE:H	1.40	0.86
7:D0:1186:THR:CG2	23:U2:601:VAL:H	1.88	0.86
7:D4:1186:THR:CG2	23:U1:601:VAL:CB	2.53	0.86
4:A0:770:SER:O	7:D1:94:VAL:CG1	2.23	0.86
2:17:1790:ARG:CG	8:E1:243:SER:H	1.89	0.85

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D2:1354:LEU:CD1	7:D3:960:VAL:HG21	2.05	0.85
6:C3:468:GLU:OE1	20:R1:1205:ALA:CB	2.24	0.85
7:D5:1186:THR:CG2	23:U6:601:VAL:HB	2.06	0.85
2:10:1824:MET:CB	8:E0:18:TRP:CE2	2.60	0.84
2:16:1106:PRO:HB3	2:17:1178:ARG:HH21	0.70	0.84
2:15:701:ARG:NH2	2:16:922:TYR:HE2	1.75	0.84
6:C2:1597:GLN:HE21	25:W0:287:PRO:HG2	1.41	0.84
2:17:1790:ARG:HA	8:E1:243:SER:CA	2.08	0.84
2:15:1053:GLN:OE1	2:16:1411:ASN:HB2	1.78	0.84
2:10:1825:ILE:HG12	8:E0:23:TRP:CZ2	2.12	0.84
2:10:1827:ALA:HB3	8:E0:18:TRP:CA	2.07	0.84
13:K2:966:LYS:HG3	14:L2:919:LEU:CD1	2.07	0.83
4:A4:167:ILE:CD1	6:C3:76:ALA:CB	2.54	0.83
2:10:1752:LEU:HD21	2:11:1790:ARG:HH21	1.43	0.83
2:10:1824:MET:HG3	8:E0:22:GLY:HA3	1.60	0.83
1:01:18:SER:O	14:L1:472:LEU:HD11	1.78	0.83
2:10:1828:TYR:HA	8:E0:19:ARG:CB	2.08	0.83
2:15:1055:SER:OG	2:16:1346:ILE:CD1	2.27	0.83
2:11:1216:LYS:HZ2	2:12:1434:GLN:HE21	1.24	0.82
7:D2:1184:ASP:HB3	23:U4:597:ILE:HG22	1.60	0.82
7:D0:1186:THR:HG21	23:U2:601:VAL:HB	1.59	0.82
2:10:1825:ILE:CG1	8:E0:23:TRP:CZ2	2.62	0.82
2:10:1823:VAL:C	8:E0:18:TRP:CD1	2.52	0.82
7:D1:1186:THR:HG21	23:U3:601:VAL:HB	1.62	0.82
4:A0:239:THR:HG22	7:D1:1029:ARG:HG2	1.60	0.82
7:D2:1196:PHE:CD2	23:U4:610:LEU:HD11	2.15	0.82
1:00:543:ALA:HB3	14:L0:168:SER:CB	2.09	0.82
15:M1:447:LYS:HG2	18:P0:623:GLN:OE1	1.80	0.82
2:15:1024:ALA:HB1	2:16:1346:ILE:CD1	2.10	0.81
7:D4:1186:THR:HG23	23:U1:601:VAL:CA	2.10	0.81
2:17:1788:ASP:N	8:E1:244:THR:HA	1.94	0.81
2:10:1824:MET:C	8:E0:18:TRP:CD1	2.54	0.81
2:17:1790:ARG:HG3	8:E1:243:SER:H	1.43	0.81
4:A0:606:LYS:HE3	7:D1:857:LEU:HD13	1.62	0.81
7:D2:1184:ASP:CB	23:U4:597:ILE:CG2	2.58	0.81
7:D0:1237:SER:HB2	7:D1:734:ASN:HD21	1.45	0.81
7:D1:1186:THR:CG2	23:U3:601:VAL:HB	2.11	0.81
13:K2:1142:PHE:CE1	13:K3:577:PRO:HG2	2.15	0.81
2:15:1434:GLN:HE21	2:16:1216:LYS:CE	1.95	0.80
2:11:1795:TYR:HD2	8:E0:247:ASN:HD21	1.25	0.80
2:10:1828:TYR:N	8:E0:19:ARG:HA	1.97	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:10:1821:THR:HG22	8:E0:26:VAL:CG2	2.10	0.80
4:A4:172:PRO:HB3	6:C3:3:THR:HG21	0.83	0.80
7:D4:1185:ILE:CG2	23:U1:600:LEU:HB2	2.11	0.80
1:00:92:THR:HG21	14:L0:262:LEU:HD22	0.82	0.79
6:C3:620:GLU:HB3	20:R1:1221:GLN:OE1	1.82	0.79
1:00:543:ALA:HB3	14:L0:168:SER:HB3	1.62	0.79
2:10:1828:TYR:HA	8:E0:19:ARG:CG	2.13	0.79
2:10:1827:ALA:HB3	8:E0:18:TRP:N	1.98	0.78
7:D1:1002:PRO:CB	7:D4:91:PRO:HB3	2.13	0.78
14:L1:502:LYS:CD	16:N0:175:LYS:HE2	2.10	0.78
2:15:1074:GLN:OE1	2:16:1373:PRO:HB2	1.82	0.78
1:00:34:LYS:CE	14:L0:243:THR:OG1	2.30	0.78
4:A0:773:ARG:NH2	7:D1:88:PRO:CB	2.30	0.78
4:A0:558:LYS:HG3	7:D1:1031:LYS:HZ2	1.49	0.78
13:K2:912:GLY:HA2	14:L2:909:LEU:CD1	2.14	0.78
13:K2:1150:TYR:CE1	13:K3:596:ILE:CD1	2.67	0.78
4:A0:770:SER:O	7:D1:94:VAL:HG12	1.82	0.78
20:R3:223:SER:HB2	22:T0:417:ARG:NE	1.97	0.78
1:01:28:LYS:HE2	14:L1:470:ALA:HB1	1.66	0.77
1:01:541:ARG:NH1	14:L1:597:PRO:HB3	1.99	0.77
7:D0:1186:THR:CG2	23:U2:601:VAL:N	2.45	0.77
4:A4:167:ILE:HD13	6:C3:76:ALA:HB1	1.65	0.77
2:12:922:TYR:HE2	2:13:701:ARG:NH2	1.83	0.77
7:D1:1002:PRO:CB	7:D4:91:PRO:CB	2.62	0.77
4:A4:173:PRO:HG2	6:C3:7:VAL:CG2	2.15	0.76
7:D5:1347:ARG:CD	20:R2:1154:PRO:CB	2.51	0.76
20:R3:224:ASP:OD2	22:T0:417:ARG:HB3	1.85	0.76
2:17:1829:HIS:HD2	8:E1:7:ARG:NH2	1.84	0.76
4:A0:558:LYS:HG3	7:D1:1031:LYS:NZ	2.01	0.76
7:D5:1196:PHE:CD2	23:U6:610:LEU:HD11	2.19	0.76
15:M1:447:LYS:CG	18:P0:623:GLN:OE1	2.33	0.76
4:A4:173:PRO:HG2	6:C3:7:VAL:HG22	1.68	0.76
6:C0:82:GLY:HA3	12:J1:421:ILE:HD13	1.67	0.76
7:D0:1237:SER:HB2	7:D1:734:ASN:ND2	2.01	0.75
7:D2:1354:LEU:HD22	7:D3:960:VAL:CG2	2.14	0.75
2:15:1074:GLN:NE2	2:16:1373:PRO:HB2	2.01	0.75
13:K2:963:TYR:CZ	14:L2:921:TYR:HB3	2.20	0.75
6:C3:750:ARG:HG2	19:Q0:327:ILE:N	2.02	0.75
6:C2:484:HIS:CD2	20:R0:1111:GLU:CG	2.69	0.75
1:01:475:ALA:CB	14:L1:167:SER:OG	2.34	0.75
7:D0:889:ASN:HD22	9:F1:103:LEU:CD2	1.92	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:17:1788:ASP:C	2:17:1788:ASP:HA	2.01	0.74
6:C2:1448:MET:CE	6:C3:88:GLU:OE2	2.35	0.74
7:D1:1008:PRO:HG3	7:D4:99:HIS:HE1	1.52	0.74
7:D1:1196:PHE:CE2	23:U3:610:LEU:HD13	2.22	0.74
7:D1:1196:PHE:CZ	23:U3:610:LEU:CD2	2.70	0.74
14:L1:502:LYS:NZ	16:N0:175:LYS:HG3	2.02	0.74
2:10:1825:ILE:N	8:E0:18:TRP:CD1	2.56	0.74
1:00:334:ILE:HA	14:L0:730:GLN:HB3	1.70	0.74
4:A4:167:ILE:CD1	6:C3:76:ALA:HB1	2.18	0.74
4:A4:141:LYS:HE3	6:C2:1992:ARG:HH11	1.53	0.74
2:10:1824:MET:HA	8:E0:18:TRP:HA	1.70	0.74
2:17:1788:ASP:CA	8:E1:244:THR:HA	2.18	0.74
6:C4:699:GLU:OE1	19:Q2:248:ARG:NH2	2.20	0.74
7:D0:1184:ASP:HB2	23:U2:597:ILE:CG2	1.94	0.74
20:R0:1111:GLU:CD	20:R0:1111:GLU:OE1	2.27	0.74
2:14:1067:ARG:NH1	2:15:1344:SER:OG	2.21	0.74
2:17:1829:HIS:HD2	8:E1:7:ARG:HH22	1.36	0.74
7:D2:1184:ASP:HB3	23:U4:597:ILE:CG2	2.18	0.73
1:00:729:LEU:HD23	14:L1:781:THR:CG2	2.13	0.73
7:D0:847:ARG:HD2	9:F1:124:VAL:CG2	2.18	0.73
8:E0:358:HIS:CE1	9:F1:115:ASN:HD22	2.06	0.73
1:01:553:LEU:CD1	14:L1:233:ALA:HB3	2.19	0.73
6:C2:469:PRO:HG3	20:R0:1113:ARG:HH12	1.49	0.73
7:D2:1186:THR:HG21	23:U4:601:VAL:HB	1.70	0.73
2:10:1824:MET:CG	8:E0:22:GLY:HA3	2.18	0.73
7:D2:1186:THR:CG2	23:U4:601:VAL:H	2.01	0.73
13:K2:963:TYR:CE2	14:L2:921:TYR:CB	2.71	0.73
14:L1:502:LYS:CD	16:N0:175:LYS:HE3	2.17	0.73
7:D0:1196:PHE:CD2	23:U2:610:LEU:HD11	2.22	0.73
7:D3:1196:PHE:CE2	23:U5:610:LEU:HD13	2.23	0.73
7:D2:1186:THR:CG2	23:U4:601:VAL:HB	2.18	0.72
7:D4:1186:THR:HG23	23:U1:601:VAL:CB	2.17	0.72
6:C2:469:PRO:CG	20:R0:1113:ARG:NH1	2.51	0.72
7:D1:1184:ASP:HB2	23:U3:597:ILE:CG2	2.06	0.72
7:D3:1196:PHE:CZ	23:U5:610:LEU:CD2	2.71	0.72
8:E1:236:TYR:O	8:E1:240:ALA:HB3	1.89	0.72
14:L3:498:ALA:HB1	15:M2:798:GLU:HG2	1.70	0.72
7:D5:1196:PHE:CG	23:U6:610:LEU:HD11	2.25	0.72
2:10:1828:TYR:O	8:E0:19:ARG:HG3	1.88	0.72
13:K2:1150:TYR:HE1	13:K3:596:ILE:HD12	1.54	0.72
2:15:1024:ALA:CB	2:16:1346:ILE:HB	2.10	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:K2:963:TYR:CE2	14:L2:921:TYR:HB3	2.24	0.71
18:P1:320:LYS:HE2	25:W0:659:ARG:HH21	1.55	0.71
7:D4:1186:THR:HG23	23:U1:601:VAL:HB	1.72	0.71
7:D0:1196:PHE:CG	23:U2:610:LEU:HD11	2.26	0.71
7:D5:1184:ASP:CB	23:U6:597:ILE:HG22	2.08	0.71
2:10:1824:MET:HG2	8:E0:18:TRP:CZ2	2.25	0.71
6:C2:469:PRO:HB3	20:R0:1113:ARG:HD2	1.72	0.71
7:D1:1001:PRO:C	7:D4:91:PRO:HD3	2.10	0.71
4:A0:606:LYS:HE3	7:D1:857:LEU:CD1	2.20	0.71
19:Q0:61:PHE:HE2	24:V0:905:SER:HB2	1.54	0.71
4:A4:172:PRO:HG3	6:C3:3:THR:CB	2.21	0.71
18:P0:232:ILE:HG23	24:V0:738:LYS:NZ	2.06	0.71
1:04:92:THR:HG21	14:L1:751:ARG:HH21	1.55	0.71
4:A2:243:LYS:NZ	7:D3:1029:ARG:HA	2.05	0.71
7:D2:1196:PHE:CG	23:U4:610:LEU:HD11	2.25	0.71
7:D3:1186:THR:CG2	23:U5:601:VAL:H	1.97	0.70
6:C2:622:PRO:HA	20:R0:1316:SER:HB2	1.71	0.70
2:10:1831:VAL:HB	8:E0:19:ARG:HG2	1.73	0.70
7:D0:1186:THR:HA	23:U2:600:LEU:HD12	1.72	0.70
2:15:701:ARG:NH1	2:16:922:TYR:CE2	2.60	0.70
2:17:1829:HIS:CD2	8:E1:7:ARG:HH22	2.08	0.70
2:10:1824:MET:HG3	8:E0:22:GLY:CA	2.20	0.70
7:D4:1196:PHE:CE1	23:U1:610:LEU:HD21	2.27	0.70
1:01:541:ARG:HH22	14:L1:597:PRO:HB3	1.57	0.70
7:D0:1238:SER:H	7:D1:734:ASN:HD22	1.39	0.70
7:D4:1108:GLU:HA	7:D4:1114:ARG:HB2	1.74	0.70
14:L1:502:LYS:CG	16:N0:175:LYS:HE3	2.22	0.70
7:D1:1002:PRO:N	7:D4:91:PRO:CD	2.54	0.70
23:U5:603:LYS:HE2	23:U5:606:ASN:ND2	2.07	0.70
2:15:1024:ALA:HB1	2:16:1346:ILE:CG1	2.22	0.69
2:15:701:ARG:HH22	2:16:922:TYR:HE2	1.36	0.69
2:10:1824:MET:HA	8:E0:18:TRP:CA	2.22	0.69
6:C2:469:PRO:HB3	20:R0:1113:ARG:NH1	2.06	0.69
7:D1:1002:PRO:HA	7:D4:91:PRO:HA	1.73	0.69
2:15:1053:GLN:OE1	2:16:1411:ASN:CB	2.39	0.69
7:D0:1186:THR:CG2	23:U2:601:VAL:CB	2.70	0.69
7:D1:1196:PHE:CE1	23:U3:610:LEU:HD22	2.28	0.69
2:15:1434:GLN:NE2	2:16:1216:LYS:HE2	2.06	0.69
7:D2:1196:PHE:CE2	23:U4:610:LEU:HD11	2.27	0.69
20:R3:223:SER:HB2	22:T0:417:ARG:HE	1.57	0.69
23:U3:603:LYS:HE2	23:U3:606:ASN:ND2	2.08	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:10:1827:ALA:CB	8:E0:19:ARG:H	2.06	0.69
23:U6:603:LYS:HE2	23:U6:606:ASN:ND2	2.08	0.69
2:10:1827:ALA:HB2	8:E0:15:ASP:HA	1.75	0.68
2:15:1074:GLN:HE22	2:16:1373:PRO:HB2	1.58	0.68
7:D0:1388:GLU:CD	7:D1:959:ILE:CD1	2.61	0.68
23:U4:603:LYS:HE2	23:U4:606:ASN:ND2	2.07	0.68
23:U1:603:LYS:HE2	23:U1:606:ASN:ND2	2.08	0.68
2:10:1824:MET:SD	8:E0:18:TRP:CE3	2.86	0.68
7:D2:1354:LEU:CD2	7:D3:960:VAL:HG22	2.19	0.68
2:16:1106:PRO:HB3	2:17:1178:ARG:CZ	2.18	0.68
1:03:7:ASP:HB3	15:M1:448:ASN:OD1	1.94	0.68
2:17:1790:ARG:HB2	8:E1:242:ILE:N	2.09	0.68
2:17:1790:ARG:HB3	8:E1:240:ALA:HA	1.76	0.68
14:L3:498:ALA:CB	15:M2:798:GLU:HG2	2.23	0.68
1:01:475:ALA:HB2	14:L1:167:SER:OG	1.94	0.68
2:10:1820:GLY:O	8:E0:18:TRP:CE2	2.47	0.67
7:D1:1161:LEU:HD22	7:D1:1196:PHE:CZ	2.28	0.67
7:D4:1196:PHE:CZ	23:U1:610:LEU:HD21	2.29	0.67
14:L3:580:LEU:HD22	14:L3:585:HIS:CE1	2.29	0.67
6:C2:1448:MET:HE3	6:C3:88:GLU:OE2	1.95	0.67
7:D3:1196:PHE:CZ	23:U5:610:LEU:HD21	2.29	0.67
7:D5:1347:ARG:HD2	20:R2:1154:PRO:CB	2.18	0.67
7:D1:1002:PRO:O	7:D4:91:PRO:CG	2.41	0.67
7:D4:1196:PHE:CE2	23:U1:610:LEU:HD13	2.29	0.67
14:L1:502:LYS:NZ	16:N0:175:LYS:HG2	2.00	0.67
7:D3:1161:LEU:HD22	7:D3:1196:PHE:CZ	2.29	0.67
2:10:1820:GLY:C	8:E0:18:TRP:CZ2	2.68	0.67
7:D4:1186:THR:HA	23:U1:600:LEU:HD12	1.77	0.67
7:D4:1196:PHE:CE1	23:U1:610:LEU:CD2	2.77	0.67
7:D1:1195:PRO:O	23:U3:611:PHE:CE2	2.47	0.67
7:D4:1185:ILE:HG22	23:U1:600:LEU:HB2	1.76	0.67
23:U6:606:ASN:H	23:U6:606:ASN:HD22	1.43	0.67
13:K2:912:GLY:HA3	14:L2:909:LEU:HD13	1.75	0.66
2:17:1790:ARG:CB	8:E1:243:SER:H	2.07	0.66
7:D5:1186:THR:HA	23:U6:600:LEU:HD12	1.77	0.66
2:13:1360:GLY:HA3	2:16:1105:GLN:OE1	1.95	0.66
7:D3:1186:THR:CG2	23:U5:601:VAL:N	2.57	0.66
7:D3:1196:PHE:CE1	23:U5:610:LEU:CD2	2.79	0.66
6:C4:1246:MET:HA	20:R3:1265:TRP:CZ2	2.29	0.66
13:K2:1150:TYR:CE1	13:K3:596:ILE:HD12	2.30	0.66
2:10:1759:GLN:CB	8:E0:158:ALA:HB3	2.25	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A0:606:LYS:CE	7:D1:857:LEU:HD13	2.26	0.66
2:15:1074:GLN:CD	2:16:1373:PRO:HB2	2.15	0.66
4:A0:606:LYS:CE	7:D1:857:LEU:CD1	2.74	0.66
19:Q0:61:PHE:CE2	24:V0:905:SER:HB2	2.31	0.66
23:U1:606:ASN:H	23:U1:606:ASN:HD22	1.44	0.66
7:D4:1196:PHE:CZ	23:U1:610:LEU:CD2	2.79	0.66
23:U5:606:ASN:H	23:U5:606:ASN:HD22	1.44	0.65
4:A4:172:PRO:HG3	6:C3:3:THR:HG1	1.58	0.65
6:C2:484:HIS:NE2	20:R0:1111:GLU:HG3	2.10	0.65
17:O0:86:TRP:CZ2	17:O0:105:LYS:HE2	2.31	0.65
7:D4:1196:PHE:CE2	23:U1:610:LEU:CD1	2.79	0.65
4:A0:656:PRO:HG2	6:C1:1932:LYS:NZ	2.12	0.65
6:C2:484:HIS:NE2	20:R0:1111:GLU:CG	2.59	0.65
6:C2:1597:GLN:NE2	25:W0:287:PRO:HG2	2.11	0.65
18:P0:268:TYR:OH	24:V0:738:LYS:HD2	1.97	0.65
2:17:1788:ASP:CA	2:17:1788:ASP:O	2.42	0.65
7:D3:1196:PHE:CE2	23:U5:610:LEU:CD1	2.80	0.65
7:D4:1185:ILE:CG2	23:U1:600:LEU:HD13	2.26	0.65
7:D1:1003:VAL:N	7:D4:91:PRO:CA	2.60	0.65
2:10:1827:ALA:C	8:E0:19:ARG:CA	2.65	0.65
13:K2:1142:PHE:CZ	13:K3:576:ASP:OD1	2.50	0.65
23:U4:606:ASN:HD22	23:U4:606:ASN:H	1.44	0.65
7:D4:1185:ILE:O	23:U1:600:LEU:CD1	2.45	0.64
6:C4:1244:GLN:NE2	17:O3:205:ASN:OD1	2.29	0.64
17:O2:86:TRP:CZ2	17:O2:105:LYS:HE2	2.32	0.64
2:11:1216:LYS:NZ	2:12:1434:GLN:NE2	2.42	0.64
7:D4:1185:ILE:HG22	23:U1:600:LEU:CB	2.27	0.64
1:00:548:VAL:HG11	14:L0:168:SER:O	1.98	0.64
7:D0:1388:GLU:OE2	7:D1:959:ILE:CD1	2.46	0.64
4:A0:770:SER:O	7:D1:94:VAL:HG11	1.96	0.64
6:C4:699:GLU:CG	19:Q2:248:ARG:HH12	2.11	0.64
7:D0:1196:PHE:CE1	23:U2:610:LEU:HD11	2.33	0.64
13:K2:910:LYS:HA	14:L2:913:ASP:CG	2.18	0.64
6:C3:750:ARG:CG	19:Q0:327:ILE:N	2.61	0.64
7:D1:1002:PRO:N	7:D4:91:PRO:HD3	2.13	0.64
2:11:1795:TYR:HD2	8:E0:247:ASN:ND2	1.94	0.64
7:D1:1196:PHE:CE1	23:U3:610:LEU:CD2	2.80	0.64
23:U3:606:ASN:HD22	23:U3:606:ASN:H	1.44	0.64
2:17:1788:ASP:CA	8:E1:243:SER:O	2.43	0.63
8:E0:18:TRP:CD2	8:E0:18:TRP:CD1	2.83	0.63
6:C2:622:PRO:CA	20:R0:1316:SER:HB2	2.27	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D5:1196:PHE:CE2	23:U6:610:LEU:HD11	2.33	0.63
2:17:1790:ARG:HH12	8:E1:143:LEU:HD11	1.63	0.63
7:D1:1196:PHE:CZ	23:U3:610:LEU:HD21	2.34	0.63
13:K2:1150:TYR:CE1	13:K3:596:ILE:HD11	2.33	0.63
17:O3:86:TRP:CZ2	17:O3:105:LYS:HE2	2.34	0.63
5:B0:1148:ALA:HB1	23:U3:599:LYS:CE	2.29	0.63
7:D1:1196:PHE:CE2	23:U3:610:LEU:CD1	2.82	0.63
7:D3:1196:PHE:CE1	23:U5:610:LEU:HD22	2.34	0.63
8:E0:16:ILE:HG22	8:E0:327:ILE:HD13	1.80	0.63
17:O1:86:TRP:CZ2	17:O1:105:LYS:HE2	2.33	0.63
23:U4:603:LYS:HE2	23:U4:606:ASN:HD21	1.64	0.63
7:D3:1195:PRO:O	23:U5:611:PHE:CE2	2.51	0.63
23:U5:603:LYS:HE2	23:U5:606:ASN:HD21	1.64	0.63
2:10:1752:LEU:HD21	2:11:1790:ARG:NH2	2.12	0.63
7:D0:1388:GLU:O	7:D1:960:VAL:CG2	2.47	0.62
7:D3:1186:THR:CG2	23:U5:601:VAL:CB	2.75	0.62
6:C2:1597:GLN:NE2	25:W0:287:PRO:CG	2.62	0.62
7:D2:1161:LEU:HD21	7:D2:1196:PHE:CG	2.35	0.62
14:L1:502:LYS:HG2	16:N0:175:LYS:HE3	1.80	0.62
2:17:747:ALA:HB1	2:17:748:PRO:HD2	1.80	0.62
2:10:1830:THR:H	8:E0:19:ARG:HD3	1.62	0.62
7:D0:1196:PHE:CD1	23:U2:610:LEU:HD11	2.35	0.62
7:D0:1196:PHE:CE2	23:U2:610:LEU:HD11	2.34	0.62
7:D2:1184:ASP:HB2	23:U4:597:ILE:CG2	2.18	0.62
2:10:1799:LEU:HA	8:E0:72:PHE:CD2	2.35	0.62
5:B1:833:VAL:HG21	6:C1:1380:PRO:HD2	1.81	0.62
7:D0:1161:LEU:HD21	7:D0:1196:PHE:CG	2.34	0.62
7:D1:1011:LEU:HD12	7:D1:1012:SER:H	1.64	0.62
18:P0:232:ILE:HG23	24:V0:738:LYS:HZ3	1.65	0.62
23:U6:603:LYS:HE2	23:U6:606:ASN:HD21	1.64	0.62
4:A2:675:ARG:HH21	7:D3:190:LEU:CD1	2.13	0.62
7:D0:811:GLN:OE1	9:F1:131:GLY:CA	2.47	0.62
7:D2:1196:PHE:CD1	23:U4:610:LEU:HD21	2.34	0.62
6:C4:468:GLU:OE1	20:R3:1205:ALA:CB	2.38	0.62
7:D2:1196:PHE:CE1	23:U4:610:LEU:HD11	2.35	0.62
1:O1:24:GLN:HE22	14:L1:473:ASP:H	1.44	0.61
23:U1:603:LYS:HE2	23:U1:606:ASN:HD21	1.65	0.61
2:11:773:ASN:O	2:12:675:PRO:HG3	2.00	0.61
2:14:675:PRO:HG2	2:15:773:ASN:O	2.00	0.61
13:K2:963:TYR:CE2	14:L2:921:TYR:HB2	2.35	0.61
2:11:1795:TYR:CD2	8:E0:247:ASN:ND2	2.69	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:14:1071:ALA:CB	2:15:1463:HIS:CD2	2.83	0.61
2:15:701:ARG:CZ	2:16:922:TYR:HE2	2.14	0.61
23:U3:603:LYS:HE2	23:U3:606:ASN:HD21	1.65	0.61
23:U3:610:LEU:C	23:U3:610:LEU:HD23	2.21	0.61
2:10:1827:ALA:O	8:E0:19:ARG:CG	2.48	0.61
2:10:1824:MET:C	2:10:1824:MET:CB	2.67	0.61
4:A2:238:ALA:HB1	7:D3:1029:ARG:HH22	1.65	0.61
5:B0:197:GLU:CD	6:C0:1154:ASP:OD1	2.39	0.61
2:15:1074:GLN:OE1	2:16:1373:PRO:CB	2.48	0.61
7:D4:1358:CYS:SG	20:R0:1035:ARG:NH1	2.73	0.61
2:10:1827:ALA:C	8:E0:19:ARG:HE	2.04	0.61
6:C2:469:PRO:CB	20:R0:1113:ARG:NH1	2.63	0.61
7:D0:1388:GLU:OE2	7:D1:959:ILE:HD12	1.99	0.61
6:C3:696:SER:HB3	19:Q0:327:ILE:HG13	1.81	0.61
7:D4:1184:ASP:HB2	23:U1:597:ILE:CG2	2.00	0.61
2:10:1828:TYR:HA	8:E0:19:ARG:HG3	1.82	0.60
2:12:163:LYS:HE2	2:12:328:ARG:HH22	1.66	0.60
2:17:1788:ASP:C	2:17:1788:ASP:CB	2.64	0.60
2:10:1799:LEU:HA	8:E0:72:PHE:CG	2.36	0.60
13:K2:911:ARG:HD2	14:L2:912:LEU:HB3	1.82	0.60
1:01:553:LEU:HD13	14:L1:233:ALA:HB3	1.74	0.60
7:D1:1002:PRO:N	7:D4:91:PRO:CG	2.63	0.60
7:D5:1196:PHE:CE1	23:U6:610:LEU:HD11	2.35	0.60
2:17:1789:ARG:HB3	8:E1:245:ALA:H	1.66	0.60
2:11:1216:LYS:HZ3	2:12:1434:GLN:HE21	1.45	0.60
2:17:1789:ARG:N	8:E1:244:THR:N	2.50	0.60
7:D5:1196:PHE:CD1	23:U6:610:LEU:HD11	2.36	0.60
2:17:1790:ARG:HA	8:E1:243:SER:C	2.20	0.60
6:C4:699:GLU:HG3	19:Q2:248:ARG:NH1	2.15	0.60
7:D5:1161:LEU:HD21	7:D5:1196:PHE:CG	2.36	0.60
8:E0:18:TRP:CG	8:E0:18:TRP:CE2	2.87	0.60
4:A4:172:PRO:CB	6:C3:3:THR:CG2	2.56	0.60
7:D0:1237:SER:CB	7:D1:734:ASN:HD21	2.14	0.60
7:D4:1185:ILE:HG23	23:U1:600:LEU:HD13	1.84	0.60
1:01:553:LEU:HD11	14:L1:233:ALA:CB	2.29	0.59
7:D2:1161:LEU:HD21	7:D2:1196:PHE:CD2	2.37	0.59
7:D2:1354:LEU:CD1	7:D3:960:VAL:CG2	2.71	0.59
2:10:1824:MET:SD	8:E0:18:TRP:CD2	2.96	0.59
2:14:1071:ALA:HB2	2:15:1463:HIS:CD2	2.37	0.59
2:14:1434:GLN:HE22	2:15:1216:LYS:CE	2.14	0.59
5:B0:197:GLU:OE2	6:C0:1154:ASP:OD1	2.20	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:11:1216:LYS:HZ2	2:12:1434:GLN:NE2	1.98	0.59
4:A0:773:ARG:NH2	7:D1:88:PRO:CG	2.66	0.59
7:D1:1186:THR:HA	23:U3:600:LEU:HD12	1.84	0.59
7:D2:1354:LEU:HB3	7:D3:960:VAL:CG2	2.33	0.59
2:17:1788:ASP:C	8:E1:244:THR:C	2.60	0.59
7:D0:811:GLN:OE1	9:F1:131:GLY:HA3	2.03	0.59
1:00:38:GLU:OE2	14:L0:242:VAL:HG13	2.02	0.59
2:17:1791:GLY:N	8:E1:240:ALA:HA	2.17	0.59
4:A4:129:HIS:HA	6:C2:1632:THR:HG21	1.85	0.59
5:B0:1148:ALA:HB1	23:U3:599:LYS:HE2	1.84	0.59
7:D3:1023:MET:HA	7:D3:1026:LEU:HD12	1.83	0.59
2:10:1762:LEU:HD13	8:E0:156:PRO:CG	2.32	0.59
2:17:1790:ARG:N	8:E1:244:THR:N	2.51	0.59
4:A2:287:PRO:HB2	8:E0:655:ALA:CB	2.32	0.59
4:A2:675:ARG:HH21	7:D3:190:LEU:HD11	1.68	0.59
7:D2:1196:PHE:CZ	23:U4:610:LEU:HD11	2.37	0.59
7:D4:1161:LEU:HD22	7:D4:1196:PHE:CE1	2.38	0.59
2:11:1794:PRO:HG2	8:E0:247:ASN:OD1	2.03	0.58
4:A2:655:ALA:HB2	6:C0:1932:LYS:HA	1.85	0.58
8:E1:238:PRO:C	8:E1:240:ALA:H	2.05	0.58
13:K2:1142:PHE:CE1	13:K3:576:ASP:OD1	2.56	0.58
2:14:1071:ALA:HB2	2:15:1463:HIS:HD2	1.67	0.58
4:A0:239:THR:HG22	7:D1:1029:ARG:CG	2.30	0.58
6:C4:791:GLN:HA	20:R3:1348:GLU:OE2	2.03	0.58
13:K2:1142:PHE:CZ	13:K3:578:ARG:CG	2.82	0.58
2:10:1759:GLN:HB2	8:E0:158:ALA:HB3	1.85	0.58
3:40:184:ILE:HD13	7:D5:95:GLU:OE2	2.03	0.58
7:D0:889:ASN:CG	9:F1:103:LEU:HD23	2.16	0.58
13:K2:1150:TYR:HE1	13:K3:596:ILE:CD1	2.10	0.58
1:00:34:LYS:HE3	14:L0:243:THR:HG1	1.68	0.58
2:10:1827:ALA:CB	8:E0:18:TRP:HB3	2.33	0.58
23:U5:610:LEU:C	23:U5:610:LEU:HD23	2.24	0.58
2:15:1434:GLN:NE2	2:16:1216:LYS:CE	2.63	0.58
2:17:1790:ARG:N	8:E1:243:SER:N	2.50	0.58
7:D4:1161:LEU:HD22	7:D4:1196:PHE:CZ	2.38	0.58
7:D4:1186:THR:HG22	23:U1:601:VAL:O	2.04	0.58
4:A0:606:LYS:NZ	7:D1:857:LEU:HD11	2.18	0.58
4:A2:675:ARG:NH2	7:D3:190:LEU:HD12	2.18	0.58
7:D5:1161:LEU:HD21	7:D5:1196:PHE:CD2	2.38	0.58
13:K2:911:ARG:HB2	14:L2:909:LEU:HD22	1.86	0.58
2:10:1823:VAL:C	8:E0:18:TRP:CG	2.76	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:16:1106:PRO:CA	2:17:1178:ARG:NH2	2.66	0.58
7:D0:1196:PHE:CD1	23:U2:610:LEU:HD21	2.39	0.58
7:D1:1011:LEU:HD13	7:D4:95:GLU:HG3	1.85	0.58
7:D4:1312:PRO:HG3	21:S0:275:LYS:HD2	1.85	0.58
7:D5:1105:HIS:CG	7:D5:1106:SER:H	2.22	0.58
20:R3:224:ASP:OD2	22:T0:417:ARG:C	2.42	0.58
2:10:1827:ALA:HB3	8:E0:19:ARG:H	1.68	0.57
4:A2:287:PRO:HB2	8:E0:655:ALA:HB3	1.85	0.57
7:D3:1196:PHE:CE1	23:U5:610:LEU:HD21	2.39	0.57
7:D0:1238:SER:H	7:D1:734:ASN:ND2	2.02	0.57
7:D2:1196:PHE:CD1	23:U4:610:LEU:HD11	2.38	0.57
7:D4:1161:LEU:HD21	7:D4:1196:PHE:CD2	2.39	0.57
19:Q0:61:PHE:HE2	24:V0:905:SER:CB	2.17	0.57
2:10:1828:TYR:CA	8:E0:19:ARG:HA	2.33	0.57
8:E0:18:TRP:CE2	8:E0:18:TRP:CD1	2.93	0.57
6:C4:722:ASN:HD21	20:R3:1255:PHE:HE1	1.51	0.57
2:12:922:TYR:HE2	2:13:701:ARG:HH22	1.38	0.57
2:17:1790:ARG:HH11	8:E1:167:LEU:HD22	1.68	0.57
4:A2:238:ALA:HB1	7:D3:1029:ARG:NH2	2.18	0.57
2:10:1796:GLY:H	8:E0:69:TYR:HB3	1.70	0.57
4:A0:773:ARG:HH22	7:D1:88:PRO:HG3	1.69	0.57
17:O0:200:PHE:CZ	17:O0:211:LYS:HE2	2.40	0.57
7:D0:1196:PHE:CZ	23:U2:610:LEU:HD11	2.39	0.57
13:K2:490:LEU:HD13	13:K2:491:ALA:H	1.70	0.57
2:10:1827:ALA:O	8:E0:19:ARG:CB	2.53	0.57
2:10:1831:VAL:HG21	8:E0:16:ILE:HG23	1.87	0.57
4:A4:172:PRO:CG	6:C3:3:THR:HG21	2.32	0.57
6:C2:469:PRO:HB3	20:R0:1113:ARG:HH11	1.69	0.57
7:D1:1002:PRO:HA	7:D4:91:PRO:CD	2.32	0.57
7:D2:1235:LEU:CD2	7:D3:736:ASN:HD21	2.18	0.57
1:00:543:ALA:HB3	14:L0:168:SER:HB2	1.87	0.56
7:D1:1168:HIS:CE1	23:U3:611:PHE:CA	2.82	0.56
1:01:475:ALA:HB2	14:L1:167:SER:CB	2.34	0.56
7:D1:1168:HIS:CD2	23:U3:611:PHE:CD1	2.93	0.56
13:K2:1142:PHE:CE1	13:K3:577:PRO:HD2	2.40	0.56
13:K3:71:HIS:N	13:K3:83:THR:HG1	2.03	0.56
20:R1:1022:THR:HG22	20:R1:1055:TYR:CD1	2.40	0.56
1:00:454:ARG:HE	1:00:466:HIS:CE1	2.24	0.56
1:01:454:ARG:HE	1:01:466:HIS:CE1	2.24	0.56
1:03:454:ARG:HE	1:03:466:HIS:CE1	2.24	0.56
2:10:1824:MET:HG2	8:E0:18:TRP:CH2	2.39	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:10:1827:ALA:HB3	8:E0:19:ARG:N	2.21	0.56
2:15:701:ARG:CZ	2:16:922:TYR:CE2	2.88	0.56
2:17:1789:ARG:CB	8:E1:245:ALA:H	2.19	0.56
6:C3:429:ASN:HB3	21:S0:89:LEU:HD13	1.87	0.56
7:D0:1161:LEU:HD21	7:D0:1196:PHE:CD2	2.41	0.56
13:K1:71:HIS:N	13:K1:83:THR:HG1	2.03	0.56
14:L1:502:LYS:NZ	16:N0:175:LYS:CE	2.69	0.56
2:17:1789:ARG:N	8:E1:243:SER:C	2.53	0.56
2:10:1827:ALA:O	8:E0:19:ARG:CD	2.53	0.56
2:17:1790:ARG:C	8:E1:240:ALA:HA	2.25	0.56
4:A2:802:ARG:HH22	6:C1:1524:VAL:HG22	1.70	0.56
6:C0:1661:ARG:NH2	6:C1:1807:TRP:HE1	2.03	0.56
1:01:541:ARG:NH2	14:L1:597:PRO:HB3	2.19	0.56
6:C2:484:HIS:ND1	20:R0:1111:GLU:OE2	2.39	0.56
7:D1:1008:PRO:CG	7:D4:99:HIS:HE1	2.18	0.56
5:B0:1148:ALA:CB	23:U3:599:LYS:HE2	2.35	0.56
7:D5:1186:THR:CG2	23:U6:601:VAL:CB	2.80	0.56
7:D2:1186:THR:CG2	23:U4:601:VAL:N	2.63	0.56
7:D5:1196:PHE:CD1	23:U6:610:LEU:HD21	2.41	0.56
13:K2:1142:PHE:CD1	13:K3:577:PRO:CG	2.70	0.56
1:02:454:ARG:HE	1:02:466:HIS:CE1	2.24	0.56
6:C2:543:GLU:OE2	16:N0:49:LEU:HD13	2.06	0.56
6:C4:1244:GLN:OE1	17:O3:205:ASN:HA	2.05	0.56
7:D4:1171:VAL:HG22	7:D4:1196:PHE:CZ	2.40	0.56
2:14:1109:ASN:CG	2:15:1171:ARG:NH1	2.53	0.55
7:D3:1161:LEU:HD21	7:D3:1196:PHE:CD2	2.41	0.55
13:K0:71:HIS:N	13:K0:83:THR:HG1	2.04	0.55
2:15:1074:GLN:HE22	2:16:1373:PRO:CB	2.19	0.55
4:A4:167:ILE:CD1	6:C3:76:ALA:HB3	2.22	0.55
7:D3:1186:THR:HG22	23:U5:601:VAL:O	2.07	0.55
7:D5:1196:PHE:CZ	23:U6:610:LEU:HD11	2.41	0.55
13:K2:911:ARG:CB	14:L2:909:LEU:HD22	2.37	0.55
20:R1:1022:THR:HG22	20:R1:1055:TYR:CE1	2.41	0.55
8:E0:18:TRP:CD2	8:E0:18:TRP:CB	2.76	0.55
7:D1:1168:HIS:HE1	23:U3:612:SER:H	1.55	0.55
7:D4:87:VAL:HG11	7:D4:129:GLU:C	2.26	0.55
7:D4:1185:ILE:O	23:U1:600:LEU:HD13	2.05	0.55
2:17:1787:VAL:O	8:E1:243:SER:C	2.45	0.55
4:A0:36:ILE:CG2	11:I0:392:ILE:HD11	2.37	0.55
7:D1:1161:LEU:HD21	7:D1:1196:PHE:CD2	2.42	0.55
6:C2:1448:MET:HE1	6:C3:88:GLU:OE2	2.05	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:10:1826:ILE:O	2:10:1827:ALA:C	2.41	0.55
2:10:1828:TYR:N	8:E0:19:ARG:CA	2.70	0.55
4:A4:483:GLU:OE2	6:C3:51:ILE:HG23	2.07	0.55
1:00:35:LEU:HD21	14:L0:245:VAL:HG22	1.89	0.55
7:D2:1354:LEU:HB3	7:D3:960:VAL:HG21	1.89	0.55
1:04:454:ARG:HE	1:04:466:HIS:CE1	2.25	0.54
2:10:1827:ALA:C	8:E0:19:ARG:CB	2.75	0.54
7:D2:1354:LEU:HD13	7:D3:960:VAL:CG1	2.36	0.54
7:D3:1186:THR:HA	23:U5:600:LEU:HD12	1.88	0.54
2:10:1827:ALA:HB3	8:E0:18:TRP:CB	2.37	0.54
7:D2:1186:THR:HA	23:U4:600:LEU:HD12	1.88	0.54
20:R3:224:ASP:OD2	22:T0:417:ARG:CB	2.54	0.54
4:A1:36:ILE:CG2	11:I1:392:ILE:HD11	2.37	0.54
4:A1:371:LEU:HD22	4:A1:395:GLY:HA3	1.89	0.54
1:00:541:ARG:HD3	14:L0:166:SER:HB3	1.90	0.54
2:10:1762:LEU:HD13	8:E0:156:PRO:HG3	1.90	0.54
2:10:1824:MET:CB	8:E0:18:TRP:CD2	2.87	0.54
2:17:1793:GLY:CA	8:E1:237:ILE:HG23	2.37	0.54
4:A3:36:ILE:CG2	11:I3:392:ILE:HD11	2.38	0.54
7:D1:1002:PRO:O	7:D4:91:PRO:HG2	2.06	0.54
7:D5:1161:LEU:CD2	7:D5:1196:PHE:CG	2.91	0.54
6:C3:1246:MET:HG2	20:R1:1265:TRP:CH2	2.43	0.54
7:D4:1186:THR:HG21	23:U1:601:VAL:CB	2.17	0.54
1:03:634:HIS:HD2	14:L1:286:ASP:OD2	1.90	0.54
2:17:1789:ARG:HB2	8:E1:246:MET:N	2.23	0.54
4:A0:371:LEU:HD22	4:A0:395:GLY:HA3	1.90	0.54
5:B0:197:GLU:OE1	6:C0:1154:ASP:OD1	2.25	0.54
23:U1:606:ASN:HD22	23:U1:606:ASN:N	2.06	0.54
2:10:1820:GLY:O	8:E0:18:TRP:CZ2	2.61	0.54
6:C4:1252:ARG:CZ	20:R3:1258:GLU:HB2	2.38	0.54
7:D3:1161:LEU:HD22	7:D3:1196:PHE:CE2	2.42	0.54
7:D4:1168:HIS:HE1	23:U1:612:SER:H	1.56	0.54
14:L3:340:ARG:NH2	16:N2:198:GLU:O	2.41	0.54
1:03:454:ARG:HH21	1:03:466:HIS:CG	2.26	0.54
2:10:1830:THR:C	8:E0:313:GLU:HG3	2.29	0.54
2:10:1831:VAL:HA	8:E0:313:GLU:HA	1.90	0.54
2:17:1790:ARG:HG3	8:E1:243:SER:N	2.17	0.54
4:A2:36:ILE:CG2	11:I2:392:ILE:HD11	2.38	0.54
4:A2:243:LYS:NZ	7:D3:1028:GLN:O	2.38	0.54
6:C4:699:GLU:HG3	19:Q2:248:ARG:HH12	1.71	0.54
7:D3:864:PRO:HB2	7:D3:865:LEU:HD22	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:10:1831:VAL:CB	8:E0:19:ARG:HG2	2.38	0.54
2:14:1150:GLY:O	2:15:1192:ILE:O	2.25	0.54
2:15:701:ARG:NH2	2:16:922:TYR:CE2	2.67	0.54
2:17:1790:ARG:HB3	8:E1:240:ALA:CA	2.38	0.54
14:L1:305:LYS:HE2	15:M1:510:PHE:CE1	2.42	0.54
18:P1:322:ILE:HG23	25:W0:663:LYS:HZ1	1.73	0.54
2:10:1824:MET:CG	8:E0:18:TRP:CD2	2.91	0.53
7:D1:1008:PRO:CB	7:D4:99:HIS:CE1	2.91	0.53
7:D2:1354:LEU:HD13	7:D3:960:VAL:HG11	1.90	0.53
13:K2:1142:PHE:CE1	13:K3:577:PRO:CG	2.88	0.53
7:D4:1185:ILE:HG22	23:U1:600:LEU:CD1	2.39	0.53
13:K3:979:LEU:HD13	14:L3:889:TYR:CD2	2.43	0.53
13:K2:71:HIS:N	13:K2:83:THR:HG1	2.06	0.53
4:A5:371:LEU:HD22	4:A5:395:GLY:HA3	1.91	0.53
7:D0:1238:SER:N	7:D1:734:ASN:HD22	2.05	0.53
7:D1:1168:HIS:CD2	23:U3:611:PHE:HD1	2.26	0.53
6:C2:544:ASN:HD21	16:N0:49:LEU:H	1.55	0.53
6:C2:1597:GLN:HE21	25:W0:287:PRO:CG	2.14	0.53
8:E1:243:SER:HB2	8:E1:248:LEU:O	2.08	0.53
15:M3:447:LYS:O	18:P2:619:THR:HG21	2.08	0.53
2:10:1759:GLN:HB3	8:E0:158:ALA:HB3	1.90	0.53
4:A0:773:ARG:NH2	7:D1:88:PRO:HG3	2.24	0.53
23:U1:610:LEU:C	23:U1:610:LEU:HD23	2.28	0.53
1:01:475:ALA:HB3	14:L1:167:SER:OG	2.09	0.53
7:D1:1186:THR:CG2	23:U3:601:VAL:CB	2.85	0.53
7:D4:1186:THR:CG2	23:U1:601:VAL:O	2.57	0.53
4:A3:371:LEU:HD22	4:A3:395:GLY:HA3	1.90	0.53
7:D3:1186:THR:HG21	23:U5:601:VAL:CB	2.34	0.53
4:A0:141:LYS:HE3	6:C0:1992:ARG:HH11	1.73	0.53
4:A2:746:SER:HB2	4:A2:807:THR:HG21	1.90	0.53
6:C4:699:GLU:HG2	19:Q2:248:ARG:HH12	1.73	0.53
7:D1:1002:PRO:CA	7:D4:91:PRO:HG3	2.34	0.53
7:D2:1161:LEU:CD2	7:D2:1196:PHE:CG	2.92	0.53
4:A6:95:ASP:H	4:A6:96:THR:HA	1.73	0.53
7:D1:1003:VAL:N	7:D4:92:GLU:H	2.07	0.53
7:D3:1161:LEU:HD22	7:D3:1196:PHE:CE1	2.43	0.53
23:U5:606:ASN:HD22	23:U5:606:ASN:N	2.06	0.53
6:C4:692:ASN:O	19:Q2:230:GLN:OE1	2.28	0.52
4:A2:243:LYS:HZ3	7:D3:1029:ARG:HA	1.75	0.52
4:A2:371:LEU:HD22	4:A2:395:GLY:HA3	1.89	0.52
7:D1:1011:LEU:HD12	7:D1:1012:SER:N	2.24	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D1:1161:LEU:HD22	7:D1:1196:PHE:CE1	2.44	0.52
7:D1:1196:PHE:CZ	23:U3:610:LEU:HD22	2.42	0.52
14:L1:502:LYS:HZ3	16:N0:175:LYS:HG3	1.74	0.52
1:00:334:ILE:CA	14:L0:730:GLN:HB3	2.38	0.52
2:10:1795:TYR:CE2	8:E0:137:GLN:HG2	2.44	0.52
2:10:1825:ILE:HG12	8:E0:23:TRP:CE2	2.44	0.52
2:10:1827:ALA:HB3	8:E0:18:TRP:HB3	1.90	0.52
7:D4:1196:PHE:CE1	23:U1:610:LEU:HD22	2.44	0.52
17:O0:2:PHE:N	18:P0:11:THR:HG1	2.07	0.52
17:O0:200:PHE:CE1	17:O0:211:LYS:HE2	2.43	0.52
23:U2:599:LYS:HD3	23:U2:600:LEU:N	2.25	0.52
1:00:454:ARG:HH21	1:00:466:HIS:CG	2.28	0.52
2:15:341:TYR:CZ	2:15:374:ASP:HB3	2.44	0.52
2:17:1790:ARG:CA	8:E1:243:SER:N	2.73	0.52
7:D4:1195:PRO:O	23:U1:611:PHE:CE2	2.62	0.52
7:D1:1002:PRO:N	7:D4:91:PRO:HG3	2.24	0.52
7:D1:1003:VAL:N	7:D4:91:PRO:N	2.58	0.52
23:U3:599:LYS:HD3	23:U3:600:LEU:N	2.25	0.52
2:17:1789:ARG:H	8:E1:244:THR:N	2.04	0.52
6:C4:1245:GLY:HA2	20:R3:1282:SER:O	2.10	0.52
4:A4:371:LEU:HD22	4:A4:395:GLY:HA3	1.92	0.52
5:B1:833:VAL:HG21	6:C1:1380:PRO:CD	2.40	0.52
18:P0:252:THR:CG2	25:W0:7:PRO:HD3	2.40	0.52
19:Q0:57:SER:HB2	25:W0:703:THR:O	2.10	0.52
1:01:708:LYS:HE2	1:01:756:TYR:CG	2.45	0.52
2:15:1055:SER:HG	2:16:1346:ILE:HD11	1.73	0.52
2:17:1791:GLY:O	8:E1:240:ALA:HB1	2.10	0.52
1:00:38:GLU:OE2	14:L0:242:VAL:CG1	2.57	0.52
1:01:454:ARG:HH21	1:01:466:HIS:CG	2.28	0.52
2:10:1824:MET:HA	8:E0:18:TRP:CB	2.31	0.52
8:E0:358:HIS:CE1	9:F1:115:ASN:ND2	2.76	0.52
23:U1:599:LYS:HD3	23:U1:600:LEU:N	2.25	0.52
1:02:454:ARG:HH21	1:02:466:HIS:CG	2.28	0.51
23:U5:599:LYS:HD3	23:U5:600:LEU:N	2.25	0.51
10:H1:111:PRO:HD2	10:H2:250:ASN:O	2.10	0.51
13:K3:947:GLU:CD	13:K3:947:GLU:H	2.13	0.51
23:U6:599:LYS:HD3	23:U6:600:LEU:N	2.25	0.51
1:03:708:LYS:HE2	1:03:756:TYR:CG	2.45	0.51
4:A2:675:ARG:NH2	7:D3:190:LEU:CD1	2.72	0.51
5:B1:833:VAL:HG22	6:C1:1379:PRO:CB	2.40	0.51
7:D1:1161:LEU:HD22	7:D1:1196:PHE:CE2	2.44	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A6:371:LEU:HD22	4:A6:395:GLY:HA3	1.92	0.51
1:04:454:ARG:HH21	1:04:466:HIS:CG	2.29	0.51
7:D1:1002:PRO:CA	7:D4:91:PRO:HA	2.27	0.51
7:D1:1171:VAL:HG22	7:D1:1196:PHE:CE1	2.46	0.51
7:D3:1168:HIS:HE1	23:U5:612:SER:H	1.57	0.51
14:L0:729:GLU:HB3	14:L0:730:GLN:HG3	1.93	0.51
23:U4:599:LYS:HD3	23:U4:600:LEU:N	2.25	0.51
2:16:315:LEU:HD22	2:16:343:VAL:H	1.74	0.51
4:A2:802:ARG:HH22	6:C1:1524:VAL:CG2	2.24	0.51
4:A2:760:PHE:CE1	4:A2:764:LYS:HE3	2.46	0.51
4:A4:760:PHE:CE1	4:A4:764:LYS:HE3	2.46	0.51
7:D2:1354:LEU:CB	7:D3:960:VAL:HG21	2.41	0.51
1:00:334:ILE:HB	1:00:337:GLU:CD	2.31	0.51
1:01:475:ALA:HB2	14:L1:167:SER:HB2	1.93	0.51
1:01:553:LEU:HD11	14:L1:233:ALA:HB3	1.88	0.51
2:14:1653:LYS:HB2	2:15:1565:ILE:HG21	1.92	0.51
2:17:1792:PRO:HA	8:E1:240:ALA:O	2.11	0.51
6:C4:1695:ASP:CG	18:P3:253:GLU:HG3	2.31	0.51
7:D1:1003:VAL:H	7:D4:92:GLU:H	1.58	0.51
7:D3:1171:VAL:HG22	7:D3:1196:PHE:CZ	2.46	0.51
13:K0:904:TRP:CH2	13:K0:908:LYS:HE3	2.46	0.51
23:U4:603:LYS:CE	23:U4:606:ASN:HD21	2.24	0.51
10:H1:185:LYS:HE2	10:H1:287:GLU:OE1	2.10	0.51
13:K2:1142:PHE:CE1	13:K3:577:PRO:CD	2.94	0.51
23:U4:606:ASN:HD22	23:U4:606:ASN:N	2.06	0.51
2:15:1074:GLN:OE1	2:16:1373:PRO:CG	2.60	0.51
6:C3:327:ALA:HB2	6:C3:366:ASP:HB2	1.93	0.51
7:D3:1171:VAL:HG22	7:D3:1196:PHE:CE1	2.46	0.51
2:14:1109:ASN:ND2	2:15:1171:ARG:HH12	2.08	0.50
4:A6:760:PHE:CE1	4:A6:764:LYS:HE3	2.46	0.50
2:10:1824:MET:C	8:E0:18:TRP:NE1	2.65	0.50
2:10:1827:ALA:CB	8:E0:18:TRP:N	2.73	0.50
7:D0:1161:LEU:CD2	7:D0:1196:PHE:CG	2.94	0.50
4:A0:606:LYS:HZ1	7:D1:857:LEU:HD21	1.75	0.50
7:D2:1186:THR:CG2	23:U4:601:VAL:CB	2.88	0.50
7:D4:1108:GLU:HG2	7:D4:1114:ARG:H	1.76	0.50
13:K2:911:ARG:HD2	14:L2:912:LEU:CB	2.42	0.50
13:K2:976:LEU:HD11	14:L2:882:SER:HB3	1.94	0.50
2:10:1828:TYR:N	8:E0:19:ARG:HE	2.10	0.50
8:E1:238:PRO:C	8:E1:240:ALA:N	2.64	0.50
2:14:1105:GLN:HA	2:14:1106:PRO:C	2.32	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C2:1806:TYR:CD2	25:W0:259:LYS:HE3	2.46	0.50
7:D0:1186:THR:HG21	23:U2:601:VAL:CB	2.31	0.50
7:D4:1185:ILE:HG22	23:U1:600:LEU:HD13	1.92	0.50
13:K1:947:GLU:CD	13:K1:947:GLU:H	2.15	0.50
23:U3:603:LYS:CE	23:U3:606:ASN:HD21	2.25	0.50
2:17:1789:ARG:N	8:E1:244:THR:CA	2.75	0.50
6:C1:1751:LEU:HA	6:C1:1889:LEU:HD21	1.94	0.50
6:C3:722:ASN:HD21	20:R1:1255:PHE:HE1	1.59	0.50
6:C3:1751:LEU:HA	6:C3:1889:LEU:HD21	1.94	0.50
7:D4:1168:HIS:CD2	23:U1:611:PHE:CD1	3.00	0.50
15:M0:788:LYS:HE3	15:M0:792:GLU:HG3	1.94	0.50
18:P1:322:ILE:HG23	25:W0:663:LYS:NZ	2.26	0.50
20:R3:224:ASP:OD2	22:T0:418:SER:N	2.44	0.50
21:S0:88:SER:C	21:S0:89:LEU:HG	2.32	0.50
23:U0:855:VAL:HG11	25:W0:233:SER:HA	1.93	0.50
6:C0:1370:MET:SD	6:C0:1446:LYS:HE3	2.52	0.50
6:C1:327:ALA:HB2	6:C1:366:ASP:HB2	1.94	0.50
7:D1:1008:PRO:HB3	7:D4:99:HIS:NE2	2.26	0.50
13:K2:1142:PHE:CE2	13:K3:578:ARG:HD3	2.47	0.50
1:00:708:LYS:HE2	1:00:756:TYR:CG	2.47	0.49
2:10:1828:TYR:HA	8:E0:19:ARG:HA	1.94	0.49
4:A2:243:LYS:HZ3	7:D3:1029:ARG:CA	2.24	0.49
6:C4:1246:MET:HA	20:R3:1265:TRP:CE2	2.47	0.49
7:D5:1186:THR:HG23	23:U6:601:VAL:CA	2.40	0.49
25:W0:613:LYS:HE2	25:W0:617:GLU:CD	2.32	0.49
2:10:1828:TYR:CA	8:E0:19:ARG:CG	2.88	0.49
3:41:346:THR:HG21	3:41:399:ALA:HB3	1.94	0.49
7:D0:889:ASN:CB	9:F1:103:LEU:HG	2.35	0.49
7:D4:1161:LEU:CD2	7:D4:1196:PHE:CG	2.95	0.49
7:D4:1358:CYS:HB3	20:R0:1035:ARG:HH11	1.77	0.49
23:U6:614:VAL:HG12	23:U6:615:ASN:N	2.27	0.49
4:A0:606:LYS:CE	7:D1:857:LEU:HD11	2.42	0.49
6:C2:567:GLU:OE1	15:M0:233:ARG:NH2	2.44	0.49
23:U5:603:LYS:CE	23:U5:606:ASN:HD21	2.24	0.49
23:U6:603:LYS:CE	23:U6:606:ASN:HD21	2.24	0.49
1:02:708:LYS:HE2	1:02:756:TYR:CG	2.47	0.49
5:B0:1303:TRP:CZ2	5:B0:1307:THR:HG21	2.47	0.49
7:D1:1168:HIS:HE1	23:U3:612:SER:N	2.10	0.49
7:D4:1168:HIS:HE1	23:U1:612:SER:N	2.10	0.49
15:M1:734:LYS:HE3	15:M1:735:TRP:CE2	2.47	0.49
23:U1:614:VAL:HG12	23:U1:615:ASN:N	2.28	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C0:327:ALA:HB2	6:C0:366:ASP:HB2	1.94	0.49
6:C4:1751:LEU:HA	6:C4:1889:LEU:HD21	1.94	0.49
7:D5:1105:HIS:CD2	7:D5:1106:SER:H	2.31	0.49
23:U2:614:VAL:HG12	23:U2:615:ASN:N	2.27	0.49
4:A0:558:LYS:HD2	7:D1:1031:LYS:HD3	1.94	0.49
4:A2:813:GLN:NE2	6:C0:1921:GLN:OE1	2.45	0.49
6:C0:1751:LEU:HA	6:C0:1889:LEU:HD21	1.94	0.49
6:C4:665:GLN:OE1	20:R3:1317:HIS:O	2.30	0.49
7:D2:1235:LEU:HD22	7:D3:736:ASN:HD21	1.76	0.49
23:U3:614:VAL:HG12	23:U3:615:ASN:N	2.27	0.49
2:10:1828:TYR:HA	8:E0:19:ARG:CA	2.43	0.49
6:C1:1370:MET:SD	6:C1:1446:LYS:HE3	2.52	0.49
7:D2:1196:PHE:CG	23:U4:610:LEU:CD1	2.95	0.49
2:17:1788:ASP:O	2:17:1788:ASP:CB	2.61	0.49
6:C4:327:ALA:HB2	6:C4:366:ASP:HB2	1.94	0.49
7:D1:1171:VAL:HG22	7:D1:1196:PHE:CZ	2.47	0.49
7:D3:1168:HIS:CD2	23:U5:611:PHE:CD1	3.00	0.49
23:U3:606:ASN:HD22	23:U3:606:ASN:N	2.06	0.49
24:V0:715:LYS:HE2	24:V0:719:GLU:CD	2.33	0.49
2:10:1828:TYR:C	8:E0:19:ARG:HG3	2.32	0.49
7:D1:1011:LEU:HD13	7:D4:95:GLU:N	2.27	0.49
1:00:729:LEU:HB3	14:L1:781:THR:HG21	1.95	0.49
2:14:1716:GLU:H	2:14:1716:GLU:CD	2.16	0.49
6:C4:749:THR:HG21	19:Q2:228:ASN:HB2	1.95	0.49
6:C4:1241:ASN:HA	20:R3:1258:GLU:HG2	1.95	0.49
1:01:541:ARG:HH12	14:L1:597:PRO:CG	2.26	0.48
2:10:1824:MET:HB2	8:E0:18:TRP:CE2	2.47	0.48
2:17:1790:ARG:CB	8:E1:242:ILE:H	2.17	0.48
4:A0:760:PHE:CE1	4:A0:764:LYS:HE3	2.48	0.48
7:D4:1362:VAL:CG2	20:R0:1032:ASP:HB3	2.43	0.48
2:17:1790:ARG:CA	8:E1:244:THR:H	2.26	0.48
13:K3:908:LYS:HE2	14:L3:923:ILE:HG21	1.95	0.48
23:U5:614:VAL:HG12	23:U5:615:ASN:N	2.28	0.48
6:C0:1224:GLN:HE21	6:C0:1277:HIS:CG	2.31	0.48
5:B1:833:VAL:HG21	6:C1:1380:PRO:N	2.28	0.48
7:D4:1185:ILE:HG21	23:U1:600:LEU:HB2	1.91	0.48
7:D5:1195:PRO:HB2	23:U6:610:LEU:HD13	1.95	0.48
1:01:475:ALA:CB	14:L1:167:SER:CB	2.91	0.48
2:10:1821:THR:C	8:E0:18:TRP:HE1	2.17	0.48
2:15:1067:ARG:NH1	2:16:1344:SER:OG	2.36	0.48
4:A5:760:PHE:CE1	4:A5:764:LYS:HE3	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C1:1224:GLN:HE21	6:C1:1277:HIS:CG	2.31	0.48
2:10:1716:GLU:CD	2:10:1716:GLU:H	2.17	0.48
2:10:1827:ALA:HB3	8:E0:18:TRP:C	2.33	0.48
6:C2:327:ALA:HB2	6:C2:366:ASP:HB2	1.96	0.48
1:04:708:LYS:HE2	1:04:756:TYR:CG	2.48	0.48
4:A0:606:LYS:HZ1	7:D1:857:LEU:HD11	1.77	0.48
7:D0:1185:ILE:CG2	23:U2:600:LEU:HB2	2.43	0.48
7:D3:1185:ILE:CG2	23:U5:600:LEU:HD13	2.43	0.48
14:L0:736:LEU:HD13	14:L0:737:PRO:HD2	1.96	0.48
15:M1:447:LYS:HB3	18:P0:623:GLN:OE1	2.12	0.48
15:M2:788:LYS:HE3	15:M2:792:GLU:HG3	1.95	0.48
2:10:1827:ALA:HB2	8:E0:15:ASP:CA	2.41	0.48
4:A2:243:LYS:HZ1	7:D3:1029:ARG:HA	1.75	0.48
13:K0:947:GLU:H	13:K0:947:GLU:CD	2.16	0.48
15:M1:788:LYS:HE3	15:M1:792:GLU:HG3	1.96	0.48
23:U4:614:VAL:HG12	23:U4:615:ASN:N	2.28	0.48
1:01:552:ARG:NH1	14:L1:561:GLY:HA3	2.28	0.48
2:12:1360:GLY:HA3	2:15:1051:ILE:HG21	1.96	0.48
4:A3:91:GLU:H	4:A3:92:PRO:CD	2.27	0.48
6:C2:484:HIS:CG	20:R0:1111:GLU:OE2	2.62	0.48
2:13:559:ILE:HD12	2:13:576:CYS:SG	2.54	0.48
5:B0:166:GLU:OE2	5:B0:167:LYS:HE3	2.14	0.48
6:C2:176:GLU:OE1	7:D4:1135:ALA:HA	2.14	0.48
23:U0:823:LEU:HD12	25:W0:230:TYR:CE1	2.49	0.48
2:14:1434:GLN:HE22	2:15:1216:LYS:HE3	1.79	0.47
4:A0:182:GLU:CD	4:A0:538:LYS:HZ3	2.17	0.47
12:J4:429:GLU:OE2	18:P1:326:TYR:CZ	2.67	0.47
15:M0:734:LYS:HE3	15:M0:735:TRP:CE2	2.49	0.47
1:02:607:LYS:HE3	1:02:654:PHE:CE1	2.48	0.47
2:16:1716:GLU:CD	2:16:1716:GLU:H	2.17	0.47
2:17:1716:GLU:H	2:17:1716:GLU:CD	2.18	0.47
4:A3:760:PHE:CE1	4:A3:764:LYS:HE3	2.49	0.47
6:C2:47:LYS:HD3	7:D4:1135:ALA:H	1.79	0.47
6:C4:1224:GLN:HE21	6:C4:1277:HIS:CG	2.32	0.47
7:D1:1196:PHE:CE1	23:U3:610:LEU:HD21	2.48	0.47
7:D4:1161:LEU:HD22	7:D4:1196:PHE:CE2	2.49	0.47
15:M3:734:LYS:HE3	15:M3:735:TRP:CE2	2.49	0.47
2:10:1824:MET:SD	8:E0:25:ILE:HD12	2.55	0.47
2:14:1109:ASN:ND2	2:15:1171:ARG:NH1	2.62	0.47
3:40:228:SER:HB3	7:D5:99:HIS:CE1	2.50	0.47
4:A0:656:PRO:HG2	6:C1:1932:LYS:HZ1	1.79	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A5:182:GLU:CD	4:A5:538:LYS:HZ3	2.18	0.47
5:B0:1303:TRP:CH2	5:B0:1307:THR:HG21	2.50	0.47
13:K2:1142:PHE:HZ	13:K3:576:ASP:OD1	1.94	0.47
15:M2:734:LYS:HE3	15:M2:735:TRP:CE2	2.50	0.47
1:01:541:ARG:CZ	14:L1:597:PRO:HB3	2.44	0.47
1:03:607:LYS:HE3	1:03:654:PHE:CE1	2.50	0.47
2:17:559:ILE:HD12	2:17:576:CYS:SG	2.55	0.47
6:C2:1224:GLN:HE21	6:C2:1277:HIS:CD2	2.33	0.47
7:D3:1185:ILE:CG2	23:U5:600:LEU:HB2	2.45	0.47
15:M0:617:LYS:HE2	15:M0:624:TYR:CD1	2.49	0.47
15:M1:549:ALA:HB1	15:M1:553:TRP:CZ3	2.49	0.47
23:U1:603:LYS:CE	23:U1:606:ASN:HD21	2.25	0.47
2:11:1716:GLU:CD	2:11:1716:GLU:H	2.18	0.47
2:14:1109:ASN:OD1	2:15:1171:ARG:NH1	2.48	0.47
2:17:1788:ASP:C	8:E1:244:THR:CA	2.83	0.47
2:17:1789:ARG:N	8:E1:245:ALA:N	2.62	0.47
8:E0:12:ARG:HA	8:E0:15:ASP:HB2	1.97	0.47
17:O0:204:GLU:H	17:O0:204:GLU:CD	2.17	0.47
1:04:607:LYS:HE3	1:04:654:PHE:CE1	2.49	0.47
2:10:559:ILE:HD12	2:10:576:CYS:SG	2.55	0.47
2:10:1762:LEU:HD13	8:E0:156:PRO:CB	2.45	0.47
7:D0:1186:THR:HG22	23:U2:601:VAL:O	2.15	0.47
7:D2:1161:LEU:HD22	7:D2:1196:PHE:CD1	2.49	0.47
7:D2:1196:PHE:CD2	23:U4:610:LEU:CD1	2.95	0.47
2:12:922:TYR:CZ	2:13:701:ARG:NH2	2.81	0.47
2:16:559:ILE:HD12	2:16:576:CYS:SG	2.54	0.47
6:C2:1114:SER:HB3	6:C2:1281:HIS:CD2	2.49	0.47
6:C4:1246:MET:SD	20:R3:1265:TRP:CZ3	3.08	0.47
6:C4:1249:ILE:CG2	20:R3:1261:GLN:C	2.83	0.47
7:D3:1161:LEU:CD2	7:D3:1196:PHE:CE2	2.98	0.47
2:11:1795:TYR:OH	8:E0:245:ALA:HA	2.15	0.47
2:17:340:ILE:HD13	2:17:340:ILE:H	1.80	0.47
5:B1:833:VAL:CG2	6:C1:1379:PRO:HA	2.45	0.47
6:C2:1714:GLN:HG2	6:C2:1806:TYR:CD2	2.50	0.47
13:K2:947:GLU:CD	13:K2:947:GLU:H	2.17	0.47
1:00:378:ASN:ND2	13:K1:857:LEU:HD13	2.30	0.46
4:A0:757:PHE:CE1	4:A0:761:LYS:HE3	2.51	0.46
7:D0:1186:THR:CG2	23:U2:601:VAL:CA	2.93	0.46
7:D3:1185:ILE:HG23	23:U5:600:LEU:HD13	1.96	0.46
7:D4:1196:PHE:CD1	23:U1:610:LEU:HD22	2.50	0.46
15:M2:549:ALA:HB1	15:M2:553:TRP:CZ3	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P1:320:LYS:CE	25:W0:659:ARG:NH2	2.68	0.46
1:04:92:THR:CG2	14:L1:751:ARG:NH2	2.64	0.46
2:14:672:ILE:H	2:14:672:ILE:HD12	1.80	0.46
7:D0:1196:PHE:CG	23:U2:610:LEU:CD1	2.98	0.46
7:D3:531:ASP:HB2	7:D3:575:ARG:CZ	2.46	0.46
7:D4:1168:HIS:CE1	23:U1:611:PHE:CA	2.90	0.46
10:H0:470:GLN:HE22	11:I0:392:ILE:HG22	1.80	0.46
2:10:672:ILE:H	2:10:672:ILE:HD12	1.80	0.46
4:A4:757:PHE:CE1	4:A4:761:LYS:HE3	2.50	0.46
7:D2:1161:LEU:CD2	7:D2:1196:PHE:CD1	2.99	0.46
7:D4:1185:ILE:HG22	23:U1:600:LEU:CA	2.44	0.46
7:D4:1358:CYS:CB	20:R0:1035:ARG:HH11	2.29	0.46
22:T1:741:LYS:HE3	22:T1:748:GLY:HA3	1.97	0.46
2:11:559:ILE:HD12	2:11:576:CYS:SG	2.55	0.46
2:12:672:ILE:HD12	2:12:672:ILE:H	1.80	0.46
5:B1:833:VAL:HG21	6:C1:1379:PRO:HA	1.97	0.46
6:C3:1224:GLN:HE21	6:C3:1277:HIS:CG	2.32	0.46
7:D4:1161:LEU:HD21	7:D4:1196:PHE:CG	2.51	0.46
8:E0:21:LEU:HG	8:E0:21:LEU:O	2.15	0.46
1:00:607:LYS:HE3	1:00:654:PHE:CE1	2.49	0.46
1:01:24:GLN:NE2	14:L1:473:ASP:N	2.52	0.46
1:01:24:GLN:HE21	14:L1:473:ASP:H	1.57	0.46
2:11:672:ILE:HD12	2:11:672:ILE:H	1.80	0.46
6:C4:1765:GLN:HE21	6:C4:1899:THR:HG23	1.81	0.46
7:D0:234:CYS:SG	7:D0:258:LYS:HE3	2.55	0.46
7:D3:1196:PHE:CZ	23:U5:610:LEU:HD22	2.49	0.46
20:R0:1248:PHE:CD1	20:R0:1313:LYS:HE3	2.51	0.46
23:U5:614:VAL:HG12	23:U5:615:ASN:O	2.16	0.46
1:01:24:GLN:HE22	14:L1:473:ASP:N	2.11	0.46
2:13:672:ILE:HD12	2:13:672:ILE:H	1.80	0.46
6:C2:47:LYS:HD2	7:D4:1135:ALA:HB2	1.98	0.46
6:C3:722:ASN:ND2	20:R1:1255:PHE:CE1	2.81	0.46
7:D2:234:CYS:SG	7:D2:258:LYS:HE3	2.55	0.46
20:R0:1244:GLU:CD	20:R0:1313:LYS:HZ3	2.19	0.46
23:U0:827:TRP:CE3	23:U0:838:LYS:HE2	2.51	0.46
1:00:334:ILE:HB	1:00:337:GLU:OE2	2.16	0.46
2:12:559:ILE:HD12	2:12:576:CYS:SG	2.55	0.46
2:15:559:ILE:HD12	2:15:576:CYS:SG	2.56	0.46
4:A1:760:PHE:CE1	4:A1:764:LYS:HE3	2.50	0.46
4:A3:757:PHE:CE1	4:A3:761:LYS:HE3	2.50	0.46
4:A6:757:PHE:CE1	4:A6:761:LYS:HE3	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D0:1161:LEU:CD2	7:D0:1196:PHE:CD1	2.98	0.46
7:D2:1161:LEU:HD22	7:D2:1196:PHE:CE1	2.51	0.46
7:D3:1161:LEU:CD2	7:D3:1196:PHE:CG	2.98	0.46
7:D5:1161:LEU:HD22	7:D5:1196:PHE:CD1	2.51	0.46
23:U4:614:VAL:HG12	23:U4:615:ASN:O	2.16	0.46
2:16:1012:LYS:HE3	2:16:1013:TYR:CE1	2.51	0.46
4:A2:240:ASP:HB3	7:D3:1029:ARG:HH11	1.80	0.46
6:C2:787:PHE:N	17:O0:256:GLU:OE2	2.49	0.46
7:D0:1161:LEU:HD22	7:D0:1196:PHE:CD1	2.51	0.46
14:L2:322:GLU:CD	14:L2:330:ARG:HH21	2.19	0.46
2:10:1012:LYS:HE3	2:10:1013:TYR:CE1	2.50	0.46
2:16:672:ILE:HD12	2:16:672:ILE:H	1.81	0.46
2:17:672:ILE:HD12	2:17:672:ILE:H	1.81	0.46
4:A2:103:LYS:HE2	4:A2:107:ASP:OD2	2.16	0.46
5:B1:188:TRP:HH2	6:C1:3:THR:HG23	1.81	0.46
7:D3:1168:HIS:CD2	23:U5:611:PHE:HD1	2.34	0.46
23:U5:611:PHE:O	23:U5:612:SER:HB2	2.16	0.46
2:15:672:ILE:HD12	2:15:672:ILE:H	1.81	0.46
2:17:1012:LYS:HE3	2:17:1013:TYR:CE1	2.50	0.46
7:D2:1186:THR:HG22	23:U4:601:VAL:O	2.16	0.46
7:D4:1185:ILE:HG22	23:U1:600:LEU:HA	1.97	0.46
15:M3:549:ALA:HB1	15:M3:553:TRP:CZ3	2.50	0.46
20:R3:295:HIS:NE2	22:T0:413:PRO:HA	2.30	0.46
22:T0:741:LYS:HE3	22:T0:748:GLY:HA3	1.97	0.46
2:10:1824:MET:CG	8:E0:18:TRP:CZ2	2.98	0.45
4:A0:138:GLU:HA	6:C0:1992:ARG:NH1	2.31	0.45
4:A6:182:GLU:CD	4:A6:538:LYS:HZ3	2.19	0.45
6:C3:722:ASN:ND2	20:R1:1255:PHE:HE1	2.14	0.45
7:D1:1196:PHE:CD1	23:U3:610:LEU:HD22	2.51	0.45
7:D5:1161:LEU:CD2	7:D5:1196:PHE:CD1	2.99	0.45
13:K3:346:LYS:HE2	13:K3:407:LEU:O	2.17	0.45
14:L2:909:LEU:O	14:L2:913:ASP:CG	2.54	0.45
23:U1:611:PHE:O	23:U1:612:SER:HB2	2.16	0.45
2:10:1830:THR:HG22	8:E0:309:GLU:O	2.16	0.45
4:A5:141:LYS:HE3	6:C3:1992:ARG:HH11	1.80	0.45
7:D4:1195:PRO:O	23:U1:611:PHE:HE2	1.99	0.45
13:K0:346:LYS:HE2	13:K0:407:LEU:O	2.16	0.45
13:K0:506:THR:HG23	13:K0:509:LYS:HE3	1.98	0.45
13:K1:346:LYS:HE2	13:K1:407:LEU:O	2.16	0.45
15:M0:549:ALA:HB1	15:M0:553:TRP:CZ3	2.51	0.45
20:R0:802:LEU:HD11	20:R0:915:ARG:HH21	1.80	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U1:614:VAL:HG12	23:U1:615:ASN:O	2.16	0.45
1:00:202:GLU:CD	1:00:202:GLU:H	2.20	0.45
7:D1:1161:LEU:CD2	7:D1:1196:PHE:CE2	2.99	0.45
15:M2:526:PRO:HB2	15:M2:582:TYR:CE1	2.51	0.45
2:10:1824:MET:HB3	8:E0:22:GLY:HA3	1.99	0.45
3:40:346:THR:HG21	3:40:399:ALA:HB3	1.98	0.45
6:C4:658:GLU:HB3	20:R3:1252:LYS:HE2	1.99	0.45
7:D1:1002:PRO:CB	7:D4:91:PRO:CA	2.94	0.45
2:11:1012:LYS:HE3	2:11:1013:TYR:CE1	2.52	0.45
7:D3:1196:PHE:CD1	23:U5:610:LEU:HD22	2.51	0.45
7:D5:1161:LEU:HD22	7:D5:1196:PHE:CE1	2.52	0.45
14:L0:326:ASP:N	15:M0:477:ARG:HE	2.14	0.45
15:M1:447:LYS:CB	18:P0:623:GLN:OE1	2.64	0.45
15:M2:617:LYS:HE2	15:M2:624:TYR:CD1	2.52	0.45
18:P3:415:SER:HB2	19:Q3:12:LYS:HE3	1.99	0.45
18:P3:534:ARG:HE	18:P3:568:ILE:HG23	1.81	0.45
23:U6:614:VAL:HG12	23:U6:615:ASN:O	2.17	0.45
2:10:1796:GLY:H	8:E0:69:TYR:CB	2.28	0.45
5:B1:166:GLU:OE2	5:B1:167:LYS:HE3	2.16	0.45
7:D1:1004:LEU:H	7:D4:91:PRO:HB2	1.80	0.45
7:D4:1168:HIS:CD2	23:U1:611:PHE:HD1	2.34	0.45
13:K2:1142:PHE:CZ	13:K3:578:ARG:CD	3.00	0.45
13:K3:908:LYS:HD3	14:L3:925:LEU:HD11	1.98	0.45
1:00:708:LYS:HE2	1:00:756:TYR:CD1	2.52	0.45
1:04:708:LYS:HE2	1:04:756:TYR:CD1	2.52	0.45
4:A5:757:PHE:CE1	4:A5:761:LYS:HE3	2.52	0.45
7:D1:1001:PRO:HG2	7:D1:1002:PRO:HD3	1.98	0.45
18:P0:415:SER:HB2	19:Q0:12:LYS:HE3	1.99	0.45
23:U3:614:VAL:HG12	23:U3:615:ASN:O	2.16	0.45
1:01:708:LYS:HE2	1:01:756:TYR:CD1	2.51	0.45
6:C2:469:PRO:CB	20:R0:1113:ARG:HH11	2.27	0.45
7:D0:1195:PRO:HB2	23:U2:610:LEU:HD13	1.97	0.45
1:01:566:GLU:CD	1:01:567:LYS:HZ2	2.21	0.45
4:A2:138:GLU:HA	6:C1:1992:ARG:NH1	2.32	0.45
17:O1:36:VAL:HG23	17:O1:55:THR:HG21	1.99	0.45
23:U6:606:ASN:HD22	23:U6:606:ASN:N	2.06	0.45
1:00:334:ILE:HG12	14:L0:731:GLY:C	2.37	0.44
2:15:1716:GLU:CD	2:15:1716:GLU:H	2.19	0.44
6:C2:1807:TRP:CZ2	25:W0:259:LYS:HD3	2.52	0.44
18:P2:541:TYR:CE1	18:P2:573:PHE:CZ	3.05	0.44
1:02:708:LYS:HE2	1:02:756:TYR:CD1	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C1:658:GLU:H	6:C1:658:GLU:CD	2.20	0.44
6:C4:1695:ASP:CG	18:P3:253:GLU:CG	2.85	0.44
16:N0:237:ASP:O	16:N0:260:LYS:HE2	2.17	0.44
17:O3:36:VAL:HG23	17:O3:55:THR:HG21	1.99	0.44
18:P3:627:ILE:HG22	18:P3:631:LYS:HE3	1.99	0.44
20:R3:1265:TRP:CZ2	20:R3:1284:ALA:HA	2.53	0.44
1:O3:708:LYS:HE2	1:O3:756:TYR:CD1	2.52	0.44
4:A0:239:THR:HG21	7:D1:1028:GLN:C	2.38	0.44
6:C0:658:GLU:CD	6:C0:658:GLU:H	2.21	0.44
6:C1:1461:LYS:HE2	6:C1:1465:GLU:OE1	2.17	0.44
7:D4:1171:VAL:HG22	7:D4:1196:PHE:CE1	2.52	0.44
17:O2:36:VAL:HG23	17:O2:55:THR:HG21	1.99	0.44
23:U2:614:VAL:HG12	23:U2:615:ASN:O	2.16	0.44
1:O3:634:HIS:CD2	14:L1:286:ASP:OD2	2.70	0.44
4:A0:558:LYS:HD2	7:D1:1031:LYS:CD	2.48	0.44
7:D4:1161:LEU:HD22	7:D4:1196:PHE:CD1	2.52	0.44
7:D4:1168:HIS:CE1	23:U1:612:SER:N	2.85	0.44
23:U3:611:PHE:O	23:U3:612:SER:HB2	2.17	0.44
4:A2:243:LYS:CE	7:D3:1028:GLN:O	2.66	0.44
7:D3:1168:HIS:HE1	23:U5:612:SER:N	2.16	0.44
7:D4:90:PRO:HD3	7:D4:126:TRP:CD1	2.52	0.44
7:D5:1196:PHE:CG	23:U6:610:LEU:CD1	2.99	0.44
20:R3:224:ASP:CG	22:T0:417:ARG:HB3	2.38	0.44
4:A0:558:LYS:CG	7:D1:1031:LYS:NZ	2.78	0.44
4:A5:249:GLU:CD	4:A5:249:GLU:H	2.21	0.44
7:D2:1354:LEU:CG	7:D3:960:VAL:HG21	2.47	0.44
13:K2:1142:PHE:HE1	13:K3:577:PRO:CD	2.30	0.44
7:D4:1107:THR:HB	7:D4:1108:GLU:O	2.17	0.44
7:D4:1161:LEU:CD2	7:D4:1196:PHE:CE2	3.01	0.44
7:D5:234:CYS:SG	7:D5:258:LYS:HE3	2.58	0.44
2:10:1824:MET:CB	8:E0:18:TRP:CZ2	2.99	0.44
4:A2:18:ALA:CB	11:I2:303:ARG:HE	2.30	0.44
4:A5:103:LYS:HE2	4:A5:107:ASP:OD2	2.18	0.44
7:D3:1168:HIS:CE1	23:U5:611:PHE:CA	2.91	0.44
7:D4:1108:GLU:O	7:D4:1111:LEU:HA	2.18	0.44
1:O0:332:LYS:HB3	14:L0:731:GLY:H	1.83	0.44
2:10:1819:ALA:O	2:10:1820:GLY:O	2.36	0.44
2:10:1825:ILE:N	8:E0:18:TRP:NE1	2.66	0.44
2:11:1177:MET:H	2:12:1106:PRO:HB3	1.82	0.44
4:A6:249:GLU:H	4:A6:249:GLU:CD	2.21	0.44
7:D1:1161:LEU:CD2	7:D1:1196:PHE:CG	3.01	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D4:1108:GLU:CA	7:D4:1114:ARG:HB2	2.46	0.44
1:01:607:LYS:HE3	1:01:654:PHE:CE1	2.52	0.43
2:13:1360:GLY:CA	2:16:1105:GLN:OE1	2.66	0.43
2:17:1790:ARG:HA	8:E1:243:SER:N	2.33	0.43
6:C2:47:LYS:NZ	6:C2:173:PHE:CD2	2.83	0.43
6:C2:482:VAL:HG12	20:R0:1111:GLU:O	2.18	0.43
6:C2:486:ARG:HH22	20:R0:1156:ALA:HB2	1.83	0.43
15:M2:585:SER:N	15:M2:586:PRO:HD2	2.33	0.43
20:R1:1018:TYR:O	20:R1:1022:THR:HG23	2.18	0.43
6:C2:484:HIS:CG	20:R0:1107:ARG:HH21	2.36	0.43
7:D0:1161:LEU:HD22	7:D0:1196:PHE:CE1	2.52	0.43
7:D5:1310:ARG:HB2	21:S2:276:MET:CE	2.47	0.43
10:H1:198:LYS:HE2	10:H1:236:ASP:CG	2.38	0.43
17:O3:204:GLU:CD	17:O3:204:GLU:H	2.22	0.43
20:R1:802:LEU:HD11	20:R1:915:ARG:HH21	1.83	0.43
4:A0:18:ALA:CB	11:I0:303:ARG:HE	2.31	0.43
6:C3:658:GLU:CD	6:C3:658:GLU:H	2.22	0.43
7:D0:889:ASN:HB2	9:F1:103:LEU:CG	2.38	0.43
7:D4:1161:LEU:CD2	7:D4:1196:PHE:CD2	3.01	0.43
14:L1:502:LYS:CE	16:N0:175:LYS:HE2	2.48	0.43
1:01:541:ARG:NH1	14:L1:597:PRO:CB	2.65	0.43
2:10:1762:LEU:C	2:10:1762:LEU:HD12	2.38	0.43
2:10:1827:ALA:HB1	8:E0:16:ILE:N	2.33	0.43
2:11:712:CYS:HG	2:11:746:CYS:HG	1.66	0.43
2:17:1790:ARG:CB	8:E1:242:ILE:N	2.79	0.43
4:A0:450:GLU:HG2	4:A0:462:TYR:CE2	2.54	0.43
7:D4:950:TYR:CE2	7:D4:1037:ILE:HD13	2.54	0.43
13:K2:346:LYS:HE2	13:K2:407:LEU:O	2.17	0.43
1:03:4:SER:HB3	18:P0:620:GLU:OE1	2.19	0.43
2:14:1106:PRO:CA	2:15:1177:MET:HG3	2.49	0.43
4:A3:746:SER:HB2	4:A3:807:THR:HG21	2.00	0.43
6:C4:697:ARG:HA	19:Q2:248:ARG:HD3	1.99	0.43
7:D1:234:CYS:SG	7:D1:258:LYS:HE3	2.58	0.43
14:L1:490:GLU:CD	14:L1:490:GLU:H	2.22	0.43
17:O0:36:VAL:HG23	17:O0:55:THR:HG21	2.00	0.43
20:R3:295:HIS:CE1	22:T0:413:PRO:HA	2.53	0.43
2:10:1752:LEU:CD2	2:11:1790:ARG:HH21	2.24	0.43
5:B1:833:VAL:HG21	6:C1:1379:PRO:CA	2.48	0.43
6:C2:787:PHE:O	17:O0:256:GLU:OE2	2.36	0.43
7:D2:1195:PRO:HB2	23:U4:610:LEU:HD13	2.00	0.43
15:M3:575:ASN:CG	15:M3:581:ARG:HH21	2.22	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:17:1789:ARG:N	8:E1:246:MET:H	2.17	0.43
2:17:1795:TYR:N	8:E1:237:ILE:HG21	2.34	0.43
13:K2:151:TRP:CH2	13:K2:179:THR:HB	2.54	0.43
15:M3:526:PRO:HB2	15:M3:582:TYR:CE1	2.53	0.43
2:10:1827:ALA:C	8:E0:19:ARG:N	2.72	0.43
2:14:990:GLU:CD	2:14:993:LYS:HE3	2.39	0.43
4:A0:656:PRO:HG2	6:C1:1932:LYS:HZ2	1.84	0.43
4:A1:735:ARG:NH2	7:D1:1253:LYS:HZ1	2.17	0.43
10:H2:470:GLN:HE22	11:I2:392:ILE:HG22	1.83	0.43
14:L1:803:LYS:HE2	14:L1:807:ASP:OD2	2.19	0.43
2:10:990:GLU:CD	2:10:993:LYS:HE3	2.39	0.43
2:10:1830:THR:HG23	8:E0:19:ARG:NH1	2.34	0.43
2:17:1788:ASP:O	8:E1:246:MET:N	2.52	0.43
4:A1:757:PHE:CE1	4:A1:761:LYS:HE3	2.54	0.43
6:C0:911:GLU:HG2	6:C0:979:ILE:HD13	2.01	0.43
8:E0:73:TYR:CE2	8:E0:134:VAL:HG11	2.54	0.43
23:U4:610:LEU:O	23:U4:612:SER:N	2.51	0.43
6:C4:699:GLU:CD	19:Q2:248:ARG:HH22	2.23	0.43
6:C4:749:THR:CB	19:Q2:228:ASN:HB2	2.49	0.43
10:H0:470:GLN:NE2	11:I0:392:ILE:HG22	2.33	0.43
2:10:1823:VAL:O	8:E0:18:TRP:CD1	2.71	0.42
2:10:1824:MET:HE2	8:E0:25:ILE:HD12	2.00	0.42
2:17:1790:ARG:N	8:E1:243:SER:C	2.73	0.42
7:D1:890:LYS:HE2	7:D1:894:GLU:OE2	2.19	0.42
18:P1:627:ILE:HG22	18:P1:631:LYS:HE3	2.01	0.42
1:01:11:TYR:HE2	14:L1:245:VAL:HG13	1.83	0.42
6:C2:1739:GLU:HA	6:C2:1742:LYS:HE3	2.02	0.42
7:D1:1003:VAL:CG1	7:D4:92:GLU:HB2	2.50	0.42
14:L2:490:GLU:H	14:L2:490:GLU:CD	2.22	0.42
15:M1:338:PRO:HG3	15:M1:372:TRP:CH2	2.54	0.42
2:17:1790:ARG:HG3	8:E1:243:SER:CB	2.50	0.42
6:C1:304:LYS:HZ1	6:C1:351:GLU:CD	2.23	0.42
6:C2:180:GLN:NE2	6:C2:180:GLN:HA	2.34	0.42
6:C4:658:GLU:CD	6:C4:658:GLU:H	2.22	0.42
7:D0:811:GLN:OE1	9:F1:131:GLY:HA2	2.18	0.42
7:D1:1185:ILE:HG23	23:U3:600:LEU:HD13	2.02	0.42
12:J4:381:LYS:HE2	12:J4:385:ASP:OD2	2.20	0.42
15:M0:526:PRO:HB2	15:M0:582:TYR:CE1	2.54	0.42
15:M3:338:PRO:HG3	15:M3:372:TRP:CH2	2.55	0.42
18:P1:322:ILE:O	25:W0:663:LYS:HE2	2.19	0.42
18:P2:415:SER:HB2	19:Q2:12:LYS:HE3	2.00	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:01:476:PRO:HD2	1:01:552:ARG:NH2	2.35	0.42
1:02:202:GLU:CD	1:02:202:GLU:H	2.22	0.42
6:C1:911:GLU:HG2	6:C1:979:ILE:HD13	2.02	0.42
6:C2:281:ILE:HG23	6:C2:284:ILE:HD12	2.01	0.42
10:H0:185:LYS:HE2	10:H0:287:GLU:OE2	2.19	0.42
10:H2:470:GLN:NE2	11:I2:392:ILE:HG22	2.34	0.42
12:J2:339:LYS:CE	12:J2:343:GLU:OE1	2.68	0.42
13:K2:1146:ALA:HA	13:K3:595:LEU:HD13	2.01	0.42
20:R3:924:GLN:HE22	21:S3:20:HIS:CE1	2.37	0.42
1:00:334:ILE:HA	14:L0:730:GLN:CB	2.45	0.42
6:C2:620:GLU:OE1	20:R0:1252:LYS:HE3	2.19	0.42
7:D0:1195:PRO:C	23:U2:610:LEU:HD13	2.39	0.42
7:D1:1161:LEU:HD21	7:D1:1196:PHE:CG	2.54	0.42
14:L3:490:GLU:H	14:L3:490:GLU:CD	2.22	0.42
21:S0:169:MET:SD	21:S0:186:LYS:HE3	2.59	0.42
2:17:1792:PRO:HD3	8:E1:244:THR:CG2	2.50	0.42
2:17:1795:TYR:O	8:E1:237:ILE:HG22	2.19	0.42
2:17:1829:HIS:CD2	8:E1:7:ARG:HH21	2.27	0.42
4:A5:138:GLU:HA	6:C3:1992:ARG:NH1	2.34	0.42
7:D3:1161:LEU:CD2	7:D3:1196:PHE:CD2	3.02	0.42
13:K3:979:LEU:CD1	14:L3:889:TYR:CD2	3.03	0.42
18:P0:252:THR:HG21	25:W0:7:PRO:HD3	2.00	0.42
4:A2:655:ALA:HA	6:C0:1933:SER:H	1.85	0.42
4:A6:746:SER:HB2	4:A6:807:THR:HG21	2.02	0.42
6:C1:414:ALA:HB1	6:C1:509:ILE:HD11	2.02	0.42
7:D1:684:VAL:HG23	7:D1:686:ARG:HE	1.84	0.42
7:D5:1105:HIS:CG	7:D5:1106:SER:N	2.88	0.42
10:H3:198:LYS:HE2	10:H3:236:ASP:CG	2.40	0.42
19:Q2:7:LYS:HZ2	19:Q2:64:ASP:CG	2.23	0.42
1:00:547:ASN:HD21	14:L0:234:LEU:HD22	1.85	0.42
2:17:1794:PRO:C	8:E1:237:ILE:HG21	2.40	0.42
5:B1:326:TRP:CZ2	5:B1:330:ARG:HD3	2.55	0.42
5:B1:1303:TRP:CZ2	5:B1:1307:THR:HG21	2.54	0.42
18:P2:627:ILE:HG22	18:P2:631:LYS:HE3	2.01	0.42
4:A0:103:LYS:HE2	4:A0:107:ASP:OD2	2.20	0.42
4:A2:243:LYS:NZ	7:D3:1029:ARG:CA	2.77	0.42
4:A3:182:GLU:CD	4:A3:538:LYS:HZ3	2.23	0.42
6:C4:1461:LYS:HE2	6:C4:1465:GLU:OE2	2.19	0.42
7:D1:1003:VAL:N	7:D4:92:GLU:N	2.67	0.42
7:D3:1161:LEU:HD21	7:D3:1196:PHE:CG	2.55	0.42
7:D5:1309:SER:O	21:S2:276:MET:SD	2.78	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:J0:339:LYS:CE	12:J0:343:GLU:OE1	2.68	0.42
14:L0:490:GLU:CD	14:L0:490:GLU:H	2.22	0.42
14:L1:414:MET:SD	15:M1:480:LEU:HD11	2.59	0.42
14:L3:803:LYS:HE2	14:L3:807:ASP:OD2	2.19	0.42
1:00:133:LYS:HZ3	1:00:166:HIS:CD2	2.37	0.41
1:00:334:ILE:HB	1:00:337:GLU:OE1	2.20	0.41
2:10:1825:ILE:O	2:10:1828:TYR:HB2	2.20	0.41
7:D1:922:GLN:HE22	7:D4:427:ASP:HB3	1.84	0.41
7:D1:1004:LEU:N	7:D4:91:PRO:HB2	2.35	0.41
7:D5:950:TYR:CE2	7:D5:1037:ILE:HD13	2.54	0.41
7:D5:1195:PRO:C	23:U6:610:LEU:HD13	2.39	0.41
11:I1:392:ILE:HD12	12:J1:478:LEU:HD22	2.02	0.41
14:L0:329:ILE:O	14:L0:332:LYS:HE2	2.20	0.41
20:R1:924:GLN:HE22	21:S1:20:HIS:CE1	2.38	0.41
20:R3:1258:GLU:CD	20:R3:1258:GLU:H	2.23	0.41
4:A0:302:PRO:O	7:D2:851:ALA:CB	2.69	0.41
4:A4:141:LYS:CE	6:C2:1992:ARG:HH11	2.27	0.41
6:C2:1751:LEU:HA	6:C2:1889:LEU:HD21	2.02	0.41
7:D4:234:CYS:SG	7:D4:258:LYS:HE3	2.59	0.41
19:Q0:61:PHE:CE2	24:V0:905:SER:CB	2.98	0.41
2:15:1434:GLN:NE2	2:16:1216:LYS:HD3	2.35	0.41
2:17:1788:ASP:C	8:E1:243:SER:O	2.59	0.41
7:D0:1388:GLU:CG	7:D1:959:ILE:HD12	2.50	0.41
13:K0:942:ASN:OD1	14:L0:905:ARG:NH1	2.54	0.41
14:L0:712:PHE:CE2	14:L0:747:HIS:CE1	3.08	0.41
14:L3:498:ALA:HB2	15:M2:798:GLU:HG2	2.01	0.41
15:M0:250:LYS:HE2	16:N0:236:GLN:CG	2.50	0.41
16:N2:237:ASP:O	16:N2:260:LYS:HE2	2.20	0.41
2:10:1830:THR:C	8:E0:19:ARG:HD3	2.41	0.41
2:15:1434:GLN:HE22	2:16:1216:LYS:HD3	1.84	0.41
4:A0:371:LEU:C	4:A0:371:LEU:HD23	2.41	0.41
4:A4:249:GLU:CD	4:A4:249:GLU:H	2.23	0.41
4:A4:760:PHE:CZ	4:A4:818:MET:HA	2.55	0.41
6:C0:1526:VAL:HG13	6:C0:1578:VAL:HA	2.02	0.41
6:C2:179:GLU:OE2	7:D4:1133:SER:HB2	2.21	0.41
7:D3:1186:THR:CG2	23:U5:601:VAL:CA	2.98	0.41
7:D4:813:GLU:CD	7:D4:813:GLU:H	2.24	0.41
9:F0:172:ASP:OD2	9:F0:218:LYS:HE2	2.20	0.41
13:K3:151:TRP:CH2	13:K3:179:THR:HB	2.55	0.41
14:L0:803:LYS:HE2	14:L0:807:ASP:OD2	2.20	0.41
14:L2:803:LYS:HE2	14:L2:807:ASP:OD2	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:10:1795:TYR:OH	8:E0:135:ILE:HA	2.21	0.41
3:40:280:VAL:HG13	8:E0:207:ARG:HH12	1.86	0.41
6:C0:911:GLU:CG	6:C0:979:ILE:HD13	2.50	0.41
7:D5:1186:THR:HG22	23:U6:601:VAL:O	2.20	0.41
7:D5:1362:VAL:HG11	20:R2:1036:GLN:OE1	2.19	0.41
14:L2:164:LYS:HZ2	14:L2:176:GLU:CD	2.24	0.41
2:10:1823:VAL:O	8:E0:18:TRP:CG	2.73	0.41
4:A2:141:LYS:HE3	6:C1:1992:ARG:HH11	1.85	0.41
5:B0:326:TRP:CZ2	5:B0:330:ARG:HD3	2.55	0.41
6:C1:911:GLU:CG	6:C1:979:ILE:HD13	2.50	0.41
7:D0:1184:ASP:HB3	23:U2:597:ILE:N	2.34	0.41
13:K0:962:ARG:NH2	14:L0:924:GLN:OE1	2.54	0.41
13:K2:911:ARG:CD	14:L2:912:LEU:HB3	2.48	0.41
14:L3:712:PHE:CE2	14:L3:747:HIS:CE1	3.09	0.41
23:U0:803:LEU:HD12	23:U0:803:LEU:N	2.36	0.41
1:02:454:ARG:HH21	1:02:466:HIS:CD2	2.39	0.41
2:12:990:GLU:CD	2:12:993:LYS:HE3	2.41	0.41
2:16:990:GLU:CD	2:16:993:LYS:HE3	2.41	0.41
2:16:1462:GLU:HB2	2:16:1463:HIS:CD2	2.56	0.41
2:17:1790:ARG:HB2	8:E1:241:TRP:N	2.36	0.41
6:C3:327:ALA:HB2	6:C3:366:ASP:CB	2.51	0.41
6:C3:1461:LYS:HE2	6:C3:1465:GLU:OE2	2.20	0.41
7:D3:234:CYS:SG	7:D3:258:LYS:HE3	2.60	0.41
7:D5:1184:ASP:HB3	23:U6:597:ILE:N	2.35	0.41
12:J3:339:LYS:CE	12:J3:343:GLU:OE1	2.68	0.41
13:K1:151:TRP:CH2	13:K1:179:THR:HB	2.56	0.41
23:U2:610:LEU:HA	23:U2:610:LEU:HD12	1.86	0.41
2:10:1825:ILE:O	2:10:1828:TYR:CB	2.69	0.41
2:10:1830:THR:N	8:E0:19:ARG:HD3	2.33	0.41
2:14:1012:LYS:HE3	2:14:1013:TYR:CE1	2.56	0.41
4:A2:371:LEU:C	4:A2:371:LEU:HD23	2.41	0.41
4:A3:371:LEU:HD23	4:A3:371:LEU:C	2.41	0.41
5:B0:977:PRO:HA	5:B0:978:PRO:HD3	1.97	0.41
6:C0:414:ALA:HB1	6:C0:509:ILE:HD11	2.02	0.41
20:R0:1021:LEU:C	20:R0:1021:LEU:HD23	2.40	0.41
2:10:1795:TYR:CD1	8:E0:69:TYR:CD2	3.09	0.41
2:10:1795:TYR:CE1	8:E0:69:TYR:CD2	3.09	0.41
2:10:1799:LEU:HD22	2:10:1800:PHE:CD2	2.56	0.41
2:10:1827:ALA:CB	8:E0:19:ARG:N	2.77	0.41
4:A1:450:GLU:HG2	4:A1:462:TYR:CE2	2.56	0.41
4:A2:287:PRO:HB2	8:E0:655:ALA:HB1	2.01	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A4:138:GLU:HA	6:C2:1992:ARG:NH1	2.36	0.41
4:A6:760:PHE:CZ	4:A6:818:MET:HA	2.55	0.41
5:B1:833:VAL:HG22	6:C1:1379:PRO:HB3	2.02	0.41
6:C4:699:GLU:CG	19:Q2:248:ARG:NH1	2.77	0.41
13:K0:908:LYS:HE2	13:K0:908:LYS:O	2.20	0.41
14:L1:305:LYS:HE2	15:M1:510:PHE:CD1	2.56	0.41
22:T0:816:TRP:CZ2	22:T0:820:HIS:CD2	3.09	0.41
4:A4:310:ASP:CG	4:A4:387:LYS:HZ2	2.24	0.41
7:D1:1168:HIS:CE1	23:U3:612:SER:N	2.89	0.41
7:D1:1185:ILE:CG2	23:U3:600:LEU:HD13	2.51	0.41
7:D5:813:GLU:CD	7:D5:813:GLU:H	2.25	0.41
20:R3:295:HIS:NE2	22:T0:413:PRO:CB	2.84	0.41
4:A1:137:TRP:CZ2	5:B0:1656:GLU:HB3	2.57	0.40
4:A3:109:ALA:HA	5:B1:1168:ARG:HD2	2.03	0.40
10:H2:417:ILE:HG23	11:I2:357:LEU:HD11	2.04	0.40
13:K0:151:TRP:CH2	13:K0:179:THR:HB	2.56	0.40
14:L0:803:LYS:HE3	14:L0:807:ASP:OD1	2.21	0.40
16:N1:237:ASP:O	16:N1:260:LYS:HE2	2.21	0.40
2:14:831:ASP:OD1	2:14:837:LYS:HE3	2.21	0.40
6:C4:807:TYR:OH	19:Q2:26:LEU:CD1	2.57	0.40
7:D1:466:GLU:OE1	7:D1:468:LYS:HE2	2.22	0.40
7:D1:1186:THR:HG22	23:U3:601:VAL:O	2.21	0.40
7:D2:1185:ILE:CG2	23:U4:600:LEU:HD13	2.51	0.40
15:M0:338:PRO:HG3	15:M0:372:TRP:CH2	2.56	0.40
22:T0:2:ARG:HA	22:T0:423:HIS:O	2.21	0.40
2:17:1789:ARG:HB2	8:E1:246:MET:H	1.86	0.40
2:17:1790:ARG:CB	8:E1:243:SER:N	2.80	0.40
5:B1:1303:TRP:CH2	5:B1:1307:THR:HG21	2.56	0.40
6:C1:327:ALA:HB2	6:C1:366:ASP:CB	2.51	0.40
6:C3:414:ALA:HB1	6:C3:509:ILE:HD11	2.03	0.40
6:C4:416:GLU:HG2	6:C4:419:ARG:CZ	2.51	0.40
7:D2:684:VAL:HG23	7:D2:686:ARG:HE	1.86	0.40
7:D3:950:TYR:CE2	7:D3:1037:ILE:HD13	2.56	0.40
7:D4:1170:SER:OG	23:U1:610:LEU:O	2.38	0.40
7:D5:1308:LYS:O	21:S2:276:MET:HE1	2.21	0.40
14:L2:367:LYS:HE3	14:L2:375:ALA:HB1	2.02	0.40
15:M2:514:GLU:CD	15:M2:514:GLU:H	2.25	0.40
23:U2:614:VAL:CG1	23:U2:615:ASN:N	2.85	0.40
23:U6:609:ASN:HD22	23:U6:609:ASN:HA	1.62	0.40
24:V0:780:GLU:CD	24:V0:783:ARG:HE	2.25	0.40
25:W0:592:LYS:HE2	25:W0:596:ASP:OD2	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:04:454:ARG:HH21	1:04:466:HIS:CD2	2.39	0.40
4:A2:450:GLU:HG2	4:A2:462:TYR:CE2	2.57	0.40
6:C3:911:GLU:CG	6:C3:979:ILE:HD13	2.51	0.40
7:D1:1002:PRO:CB	7:D4:91:PRO:HA	2.51	0.40
7:D5:1185:ILE:CG2	23:U6:600:LEU:HB2	2.51	0.40
1:00:454:ARG:HH21	1:00:466:HIS:CD2	2.39	0.40
2:10:1827:ALA:CA	8:E0:19:ARG:H	2.34	0.40
3:41:143:PHE:CE1	3:41:291:THR:HG21	2.56	0.40
4:A0:277:ASN:OD1	7:D2:892:GLU:CG	2.53	0.40
6:C2:484:HIS:HD2	20:R0:1075:LEU:HD11	1.86	0.40
6:C3:1252:ARG:CZ	20:R1:1258:GLU:HB2	2.52	0.40
7:D0:466:GLU:OE1	7:D0:468:LYS:HE2	2.22	0.40
7:D0:1185:ILE:HG22	23:U2:600:LEU:HB2	2.03	0.40
7:D0:1186:THR:HG22	23:U2:601:VAL:HB	1.97	0.40
7:D2:466:GLU:OE1	7:D2:468:LYS:HE2	2.22	0.40
11:I3:310:LYS:HE2	11:I3:314:GLU:OE1	2.22	0.40
13:K2:490:LEU:CD1	13:K2:491:ALA:H	2.32	0.40
15:M0:587:LEU:HB3	15:M0:588:PRO:CD	2.52	0.40
18:P1:455:ARG:NH2	19:Q1:262:ALA:HB2	2.37	0.40
23:U4:609:ASN:HD22	23:U4:609:ASN:HA	1.62	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	00	754/3224 (23%)	707 (94%)	43 (6%)	4 (0%)	29	69
1	01	754/3224 (23%)	705 (94%)	44 (6%)	5 (1%)	22	63
1	02	754/3224 (23%)	703 (93%)	46 (6%)	5 (1%)	22	63
1	03	754/3224 (23%)	705 (94%)	43 (6%)	6 (1%)	19	60

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	04	754/3224 (23%)	704 (93%)	47 (6%)	3 (0%)	34	72
2	10	1829/1887 (97%)	1727 (94%)	90 (5%)	12 (1%)	22	63
2	11	1829/1887 (97%)	1742 (95%)	80 (4%)	7 (0%)	34	72
2	12	1829/1887 (97%)	1738 (95%)	86 (5%)	5 (0%)	41	77
2	13	1829/1887 (97%)	1735 (95%)	88 (5%)	6 (0%)	41	77
2	14	1829/1887 (97%)	1714 (94%)	103 (6%)	12 (1%)	22	63
2	15	1829/1887 (97%)	1725 (94%)	85 (5%)	19 (1%)	15	55
2	16	1829/1887 (97%)	1731 (95%)	88 (5%)	10 (0%)	29	69
2	17	1829/1887 (97%)	1720 (94%)	95 (5%)	14 (1%)	19	60
3	40	379/546 (69%)	352 (93%)	26 (7%)	1 (0%)	41	77
3	41	379/546 (69%)	349 (92%)	29 (8%)	1 (0%)	41	77
4	A0	816/819 (100%)	761 (93%)	47 (6%)	8 (1%)	15	55
4	A1	816/819 (100%)	760 (93%)	52 (6%)	4 (0%)	29	69
4	A2	816/819 (100%)	765 (94%)	45 (6%)	6 (1%)	22	63
4	A3	816/819 (100%)	762 (93%)	48 (6%)	6 (1%)	22	63
4	A4	724/819 (88%)	683 (94%)	37 (5%)	4 (1%)	25	66
4	A5	724/819 (88%)	685 (95%)	37 (5%)	2 (0%)	41	77
4	A6	724/819 (88%)	683 (94%)	37 (5%)	4 (1%)	25	66
5	B0	1746/1749 (100%)	1629 (93%)	97 (6%)	20 (1%)	14	52
5	B1	1746/1749 (100%)	1633 (94%)	88 (5%)	25 (1%)	11	46
6	C0	2009/2012 (100%)	1875 (93%)	111 (6%)	23 (1%)	14	52
6	C1	2009/2012 (100%)	1874 (93%)	113 (6%)	22 (1%)	14	52
6	C2	2009/2012 (100%)	1886 (94%)	107 (5%)	16 (1%)	19	60
6	C3	2009/2012 (100%)	1873 (93%)	122 (6%)	14 (1%)	22	63
6	C4	2009/2012 (100%)	1866 (93%)	127 (6%)	16 (1%)	19	60
7	D0	1308/1391 (94%)	1215 (93%)	79 (6%)	14 (1%)	14	52
7	D1	1308/1391 (94%)	1208 (92%)	84 (6%)	16 (1%)	13	50
7	D2	1308/1391 (94%)	1211 (93%)	85 (6%)	12 (1%)	17	57
7	D3	1308/1391 (94%)	1218 (93%)	78 (6%)	12 (1%)	17	57
7	D4	1308/1391 (94%)	1209 (92%)	81 (6%)	18 (1%)	11	46
7	D5	1308/1391 (94%)	1221 (93%)	75 (6%)	12 (1%)	17	57

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	E0	544/674 (81%)	516 (95%)	25 (5%)	3 (1%)	25	66
8	E1	544/674 (81%)	518 (95%)	22 (4%)	4 (1%)	22	63
9	F0	239/326 (73%)	193 (81%)	31 (13%)	15 (6%)	1	17
9	F1	239/326 (73%)	191 (80%)	33 (14%)	15 (6%)	1	17
9	F2	239/326 (73%)	187 (78%)	41 (17%)	11 (5%)	2	21
9	F3	239/326 (73%)	190 (80%)	41 (17%)	8 (3%)	4	26
10	H0	381/507 (75%)	369 (97%)	12 (3%)	0	100	100
10	H1	381/507 (75%)	363 (95%)	17 (4%)	1 (0%)	41	77
10	H2	381/507 (75%)	368 (97%)	13 (3%)	0	100	100
10	H3	381/507 (75%)	366 (96%)	15 (4%)	0	100	100
11	I0	171/599 (28%)	170 (99%)	1 (1%)	0	100	100
11	I1	171/599 (28%)	170 (99%)	0	1 (1%)	25	66
11	I2	171/599 (28%)	170 (99%)	1 (1%)	0	100	100
11	I3	171/599 (28%)	170 (99%)	0	1 (1%)	25	66
12	J0	169/522 (32%)	167 (99%)	2 (1%)	0	100	100
12	J1	169/522 (32%)	168 (99%)	1 (1%)	0	100	100
12	J2	169/522 (32%)	167 (99%)	2 (1%)	0	100	100
12	J3	169/522 (32%)	167 (99%)	2 (1%)	0	100	100
12	J4	169/522 (32%)	167 (99%)	2 (1%)	0	100	100
13	K0	1084/1156 (94%)	997 (92%)	77 (7%)	10 (1%)	17	57
13	K1	1084/1156 (94%)	996 (92%)	77 (7%)	11 (1%)	15	55
13	K2	1084/1156 (94%)	996 (92%)	75 (7%)	13 (1%)	13	50
13	K3	1084/1156 (94%)	990 (91%)	82 (8%)	12 (1%)	14	52
14	L0	780/925 (84%)	731 (94%)	43 (6%)	6 (1%)	19	60
14	L1	780/925 (84%)	733 (94%)	40 (5%)	7 (1%)	17	57
14	L2	780/925 (84%)	736 (94%)	40 (5%)	4 (0%)	29	69
14	L3	780/925 (84%)	737 (94%)	35 (4%)	8 (1%)	15	55
15	M0	669/937 (71%)	616 (92%)	46 (7%)	7 (1%)	15	55
15	M1	669/937 (71%)	618 (92%)	45 (7%)	6 (1%)	17	57
15	M2	669/937 (71%)	616 (92%)	47 (7%)	6 (1%)	17	57
15	M3	669/937 (71%)	616 (92%)	48 (7%)	5 (1%)	22	63

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
16	N0	299/322 (93%)	272 (91%)	24 (8%)	3 (1%)	15	55
16	N1	299/322 (93%)	272 (91%)	25 (8%)	2 (1%)	22	63
16	N2	299/322 (93%)	273 (91%)	23 (8%)	3 (1%)	15	55
16	N3	299/322 (93%)	271 (91%)	25 (8%)	3 (1%)	15	55
17	O0	321/360 (89%)	300 (94%)	21 (6%)	0	100	100
17	O1	321/360 (89%)	299 (93%)	20 (6%)	2 (1%)	25	66
17	O2	321/360 (89%)	300 (94%)	19 (6%)	2 (1%)	25	66
17	O3	321/360 (89%)	299 (93%)	21 (6%)	1 (0%)	41	77
18	P0	653/656 (100%)	613 (94%)	35 (5%)	5 (1%)	19	60
18	P1	653/656 (100%)	614 (94%)	33 (5%)	6 (1%)	17	57
18	P2	653/656 (100%)	609 (93%)	34 (5%)	10 (2%)	10	46
18	P3	653/656 (100%)	613 (94%)	34 (5%)	6 (1%)	17	57
19	Q0	341/380 (90%)	321 (94%)	19 (6%)	1 (0%)	41	77
19	Q1	341/380 (90%)	319 (94%)	21 (6%)	1 (0%)	41	77
19	Q2	341/380 (90%)	322 (94%)	18 (5%)	1 (0%)	41	77
19	Q3	341/380 (90%)	318 (93%)	22 (6%)	1 (0%)	41	77
20	R0	1397/1436 (97%)	1291 (92%)	88 (6%)	18 (1%)	12	48
20	R1	1397/1436 (97%)	1299 (93%)	84 (6%)	14 (1%)	15	55
20	R2	1397/1436 (97%)	1297 (93%)	87 (6%)	13 (1%)	17	57
20	R3	1397/1436 (97%)	1295 (93%)	89 (6%)	13 (1%)	17	57
21	S0	320/326 (98%)	287 (90%)	33 (10%)	0	100	100
21	S1	320/326 (98%)	287 (90%)	32 (10%)	1 (0%)	41	77
21	S2	320/326 (98%)	289 (90%)	30 (9%)	1 (0%)	41	77
21	S3	320/326 (98%)	288 (90%)	31 (10%)	1 (0%)	41	77
22	T0	1002/2266 (44%)	920 (92%)	68 (7%)	14 (1%)	11	46
22	T1	1002/2266 (44%)	922 (92%)	65 (6%)	15 (2%)	10	46
23	U0	148/880 (17%)	137 (93%)	10 (7%)	1 (1%)	22	63
23	U1	17/880 (2%)	15 (88%)	2 (12%)	0	100	100
23	U2	17/880 (2%)	14 (82%)	2 (12%)	1 (6%)	1	17
23	U3	17/880 (2%)	15 (88%)	2 (12%)	0	100	100
23	U4	17/880 (2%)	14 (82%)	2 (12%)	1 (6%)	1	17

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	U5	17/880 (2%)	15 (88%)	2 (12%)	0	100	100
23	U6	17/880 (2%)	14 (82%)	3 (18%)	0	100	100
24	V0	271/2090 (13%)	250 (92%)	16 (6%)	5 (2%)	8	40
25	W0	733/741 (99%)	684 (93%)	37 (5%)	12 (2%)	9	44
All	All	77792/109146 (71%)	72581 (93%)	4536 (6%)	675 (1%)	21	57

All (675) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	10	167	ALA
2	14	174	HIS
2	14	1688	SER
2	15	174	HIS
2	15	1788	ASP
2	15	1790	ARG
2	16	174	HIS
2	16	336	PRO
2	16	342	VAL
2	16	1787	VAL
2	17	174	HIS
2	17	1789	ARG
2	17	1790	ARG
2	17	1792	PRO
4	A0	707	ILE
4	A1	23	ILE
4	A3	91	GLU
4	A3	176	SER
4	A3	707	ILE
4	A4	176	SER
4	A5	157	ASP
4	A5	707	ILE
4	A6	96	THR
5	B0	1052	LYS
5	B0	1522	PRO
5	B0	1717	SER
5	B1	1052	LYS
5	B1	1268	ASP
5	B1	1522	PRO
5	B1	1526	SER
5	B1	1529	PRO
5	B1	1717	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	C0	1149	VAL
6	C0	1636	ALA
6	C1	1146	ASP
6	C1	1149	VAL
6	C2	458	GLU
6	C2	581	TYR
6	C2	1636	ALA
6	C2	1933	SER
6	C2	1936	LEU
6	C3	1636	ALA
6	C3	1928	ARG
6	C4	458	GLU
6	C4	1928	ARG
7	D0	408	VAL
7	D0	803	PHE
7	D1	408	VAL
7	D1	803	PHE
7	D1	1109	ILE
7	D2	408	VAL
7	D2	803	PHE
7	D3	408	VAL
7	D3	803	PHE
7	D3	864	PRO
7	D4	803	PHE
7	D4	863	CYS
7	D4	869	THR
7	D4	1110	SER
7	D4	1179	ASP
7	D5	803	PHE
7	D5	1105	HIS
8	E1	247	ASN
9	F0	146	ARG
9	F1	114	PRO
9	F1	287	ARG
9	F2	124	VAL
9	F2	300	TYR
9	F2	303	ILE
13	K0	193	GLU
13	K0	480	SER
13	K1	193	GLU
13	K1	479	VAL
13	K1	503	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	K2	193	GLU
13	K3	193	GLU
14	L0	825	ASP
14	L1	561	GLY
14	L1	586	THR
14	L1	825	ASP
14	L2	825	ASP
14	L3	584	LYS
14	L3	586	THR
14	L3	734	SER
14	L3	825	ASP
15	M0	586	PRO
15	M0	587	LEU
15	M1	587	LEU
15	M1	762	HIS
15	M2	586	PRO
15	M3	404	LYS
15	M3	586	PRO
18	P0	62	ASP
18	P2	388	GLN
18	P2	550	GLU
20	R0	993	ASP
20	R0	1055	TYR
20	R1	994	TRP
20	R2	993	ASP
22	T0	30	LEU
22	T1	30	LEU
22	T1	558	LEU
24	V0	925	ILE
1	02	165	VAL
1	03	165	VAL
2	10	499	VAL
2	12	499	VAL
2	14	340	ILE
2	14	499	VAL
2	15	337	ASN
2	15	339	THR
2	16	499	VAL
2	17	499	VAL
2	17	1788	ASP
4	A0	23	ILE
4	A0	162	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	A1	707	ILE
4	A2	156	LEU
4	A2	707	ILE
4	A2	803	THR
4	A3	23	ILE
4	A4	165	SER
4	A4	707	ILE
4	A6	707	ILE
5	B0	1264	SER
5	B0	1271	SER
5	B0	1517	ARG
5	B0	1518	VAL
5	B0	1526	SER
5	B1	1264	SER
5	B1	1378	ALA
5	B1	1516	GLN
5	B1	1518	VAL
6	C0	458	GLU
6	C0	1146	ASP
6	C1	458	GLU
6	C1	1636	ALA
6	C2	1159	ILE
6	C2	1165	SER
6	C2	1377	SER
6	C2	1928	ARG
6	C3	458	GLU
6	C3	1159	ILE
6	C3	1377	SER
6	C4	1159	ILE
6	C4	1377	SER
6	C4	1636	ALA
7	D0	1005	SER
7	D0	1007	ASP
7	D1	996	PRO
7	D1	1012	SER
7	D2	868	SER
7	D2	992	SER
7	D3	991	GLN
7	D4	88	PRO
7	D4	862	ILE
7	D5	408	VAL
7	D5	867	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	D5	1106	SER
9	F0	106	THR
9	F0	126	VAL
9	F0	140	ALA
9	F1	113	GLN
9	F1	116	ILE
9	F1	303	ILE
9	F2	154	GLN
9	F2	280	THR
9	F3	112	ARG
9	F3	283	ILE
13	K0	111	GLU
13	K0	148	ASP
13	K0	302	SER
13	K0	506	THR
13	K0	513	ILE
13	K1	148	ASP
13	K1	302	SER
13	K1	513	ILE
13	K2	148	ASP
13	K2	302	SER
13	K2	481	ILE
13	K3	148	ASP
13	K3	302	SER
13	K3	479	VAL
14	L0	325	PRO
14	L0	731	GLY
14	L2	733	GLU
15	M0	326	ARG
15	M0	851	GLU
15	M1	326	ARG
15	M1	851	GLU
15	M2	326	ARG
15	M2	851	GLU
15	M3	326	ARG
15	M3	851	GLU
18	P0	42	LYS
18	P1	42	LYS
18	P2	42	LYS
18	P2	60	ASP
18	P2	548	TYR
18	P3	42	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	R0	294	GLU
20	R0	994	TRP
20	R0	1056	VAL
20	R1	294	GLU
20	R2	294	GLU
20	R3	691	PHE
20	R3	1057	ASN
21	S1	316	ASP
21	S3	316	ASP
22	T0	418	SER
22	T0	647	GLU
22	T1	418	SER
22	T1	647	GLU
23	U2	610	LEU
23	U4	610	LEU
24	V0	852	PRO
24	V0	907	HIS
25	W0	219	GLU
25	W0	225	ASN
1	00	20	PRO
1	01	20	PRO
1	01	164	ASP
1	01	504	ASN
1	02	20	PRO
1	02	159	TYR
1	03	20	PRO
1	03	163	ASP
1	03	336	GLY
1	03	504	ASN
1	04	20	PRO
1	04	164	ASP
2	10	940	ALA
2	10	1820	GLY
2	10	1824	MET
2	11	499	VAL
2	11	580	ASP
2	11	906	ASN
2	11	940	ALA
2	12	940	ALA
2	13	499	VAL
2	13	940	ALA
2	14	344	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	14	650	SER
2	14	940	ALA
2	15	341	TYR
2	15	499	VAL
2	15	940	ALA
2	16	940	ALA
2	17	940	ALA
2	17	1791	GLY
2	17	1794	PRO
4	A0	174	GLY
4	A2	87	PHE
4	A3	138	GLU
5	B0	454	LEU
5	B0	1171	LYS
5	B0	1378	ALA
5	B1	166	GLU
5	B1	454	LEU
5	B1	1271	SER
5	B1	1517	ARG
5	B1	1521	PRO
6	C0	161	GLU
6	C0	545	ILE
6	C0	1152	TYR
6	C0	1159	ILE
6	C0	1798	ASP
6	C0	1939	SER
6	C1	161	GLU
6	C1	457	LEU
6	C1	545	ILE
6	C1	1159	ILE
6	C1	1939	SER
6	C2	545	ILE
6	C2	1695	ASP
6	C3	1011	LEU
6	C3	1937	GLN
6	C4	1011	LEU
6	C4	1246	MET
6	C4	1937	GLN
7	D0	1166	SER
7	D1	863	CYS
7	D1	1388	GLU
7	D2	1166	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	D4	864	PRO
7	D4	1180	SER
7	D5	407	LYS
7	D5	869	THR
8	E1	239	LYS
9	F0	109	THR
9	F0	251	SER
9	F0	304	SER
9	F1	100	SER
9	F1	148	THR
9	F1	154	GLN
9	F2	110	SER
9	F3	115	ASN
9	F3	127	THR
9	F3	313	GLU
13	K0	164	SER
13	K1	111	GLU
13	K1	161	SER
13	K1	164	SER
13	K2	161	SER
13	K2	164	SER
13	K2	513	ILE
13	K3	111	GLU
13	K3	161	SER
13	K3	164	SER
13	K3	478	ASN
13	K3	502	MET
14	L0	326	ASP
14	L3	733	GLU
15	M0	763	TRP
15	M2	403	LEU
15	M2	830	ASP
16	N0	274	ALA
16	N1	274	ALA
16	N2	11	SER
16	N2	274	ALA
16	N3	274	ALA
20	R0	415	ASN
20	R0	691	PHE
20	R0	786	ASP
20	R1	691	PHE
20	R1	786	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	R2	691	PHE
20	R2	786	ASP
20	R3	786	ASP
20	R3	1273	LEU
21	S2	316	ASP
22	T0	343	ARG
22	T0	684	ASP
22	T0	686	SER
22	T1	343	ARG
22	T1	684	ASP
22	T1	686	SER
23	U0	732	ALA
24	V0	968	SER
25	W0	216	GLU
25	W0	505	LEU
1	00	504	ASN
1	01	165	VAL
2	10	650	SER
2	10	906	ASN
2	11	650	SER
2	13	650	SER
2	13	849	GLU
2	13	1798	SER
2	14	173	SER
2	14	849	GLU
2	14	1789	ARG
2	15	580	ASP
2	15	650	SER
2	15	849	GLU
2	15	874	LYS
2	15	1109	ASN
2	16	580	ASP
2	16	849	GLU
2	16	906	ASN
2	17	333	SER
2	17	650	SER
2	17	849	GLU
4	A2	23	ILE
5	B0	1385	ARG
5	B0	1515	ALA
5	B0	1529	PRO
5	B1	1171	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	B1	1257	SER
6	C0	457	LEU
6	C0	1011	LEU
6	C0	1221	LEU
6	C0	1386	VAL
6	C0	1737	ASN
6	C0	1940	PHE
6	C1	347	THR
6	C1	1011	LEU
6	C1	1152	TYR
6	C1	1221	LEU
6	C1	1386	VAL
6	C1	1798	ASP
6	C1	1940	PHE
6	C2	4	PRO
6	C3	545	ILE
6	C3	581	TYR
6	C4	545	ILE
6	C4	548	ALA
6	C4	581	TYR
6	C4	1165	SER
6	C4	1936	LEU
7	D0	68	GLN
7	D0	120	ASP
7	D0	1028	GLN
7	D1	68	GLN
7	D1	868	SER
7	D1	1107	THR
7	D2	68	GLN
7	D2	271	PHE
7	D3	68	GLN
7	D4	68	GLN
7	D5	68	GLN
7	D5	908	SER
9	F0	252	SER
9	F0	303	ILE
9	F1	120	GLN
9	F1	226	SER
9	F1	269	LYS
9	F3	226	SER
10	H1	446	ALA
13	K0	203	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	K2	111	GLU
13	K2	203	SER
13	K2	510	ASN
13	K3	880	ASP
14	L1	732	MET
15	M2	600	GLU
16	N0	11	SER
16	N0	166	SER
16	N1	166	SER
16	N2	166	SER
16	N3	166	SER
17	O2	257	LEU
17	O3	98	ARG
18	P0	44	LYS
18	P1	44	LYS
18	P2	44	LYS
18	P2	552	ARG
18	P3	44	LYS
18	P3	60	ASP
19	Q0	263	GLU
19	Q1	263	GLU
19	Q2	263	GLU
20	R0	66	SER
20	R0	74	ALA
20	R0	752	THR
20	R0	1057	ASN
20	R1	74	ALA
20	R1	274	ALA
20	R1	415	ASN
20	R1	752	THR
20	R2	66	SER
20	R2	274	ALA
20	R2	415	ASN
20	R2	752	THR
20	R3	66	SER
20	R3	74	ALA
20	R3	148	GLN
20	R3	274	ALA
20	R3	752	THR
20	R3	994	TRP
22	T0	89	GLN
22	T0	344	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	T0	484	ASN
22	T0	572	GLU
22	T1	89	GLN
22	T1	344	GLY
22	T1	484	ASN
22	T1	572	GLU
24	V0	853	GLU
25	W0	473	PRO
25	W0	506	LEU
1	01	336	GLY
1	02	504	ASN
1	03	161	ARG
1	04	504	ASN
2	10	580	ASP
2	11	700	SER
2	11	874	LYS
2	13	700	SER
2	14	1798	SER
2	15	700	SER
2	16	700	SER
2	17	700	SER
4	A0	156	LEU
4	A1	518	GLY
5	B0	1521	PRO
5	B1	695	LEU
5	B1	832	ASN
6	C0	581	TYR
6	C1	543	GLU
6	C1	1737	ASN
6	C2	346	VAL
6	C2	1358	SER
6	C2	1930	LEU
6	C3	457	LEU
6	C3	1165	SER
6	C4	9	SER
7	D0	271	PHE
7	D0	862	ILE
7	D0	953	GLY
7	D1	120	ASP
7	D1	867	TYR
7	D1	997	LYS
7	D1	1004	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	D1	1008	PRO
7	D1	1166	SER
7	D2	120	ASP
7	D2	953	GLY
7	D2	993	PRO
7	D3	863	CYS
7	D3	867	TYR
7	D3	1166	SER
7	D4	407	LYS
7	D4	908	SER
8	E0	154	GLY
8	E1	154	GLY
9	F0	115	ASN
9	F0	134	GLN
9	F0	226	SER
9	F1	118	VAL
9	F2	113	GLN
9	F2	118	VAL
9	F2	226	SER
9	F3	170	HIS
11	I1	273	SER
13	K0	161	SER
13	K1	203	SER
13	K2	493	SER
13	K3	203	SER
13	K3	509	LYS
14	L0	508	ASN
14	L0	737	PRO
14	L2	508	ASN
14	L2	586	THR
15	M0	830	ASP
15	M1	830	ASP
15	M3	830	ASP
16	N3	11	SER
17	O1	98	ARG
17	O2	162	LYS
18	P1	388	GLN
18	P1	609	SER
18	P2	275	ALA
18	P3	61	VAL
19	Q3	263	GLU
20	R0	274	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	R0	1148	GLY
20	R1	66	SER
20	R1	148	GLN
20	R1	1148	GLY
20	R2	74	ALA
20	R2	148	GLN
20	R2	1273	LEU
20	R3	415	ASN
20	R3	1148	GLY
22	T0	141	SER
22	T0	485	SER
22	T1	141	SER
22	T1	485	SER
25	W0	193	SER
25	W0	256	GLN
25	W0	289	ASN
25	W0	346	ASP
1	00	165	VAL
2	10	700	SER
2	10	815	VAL
2	12	650	SER
2	12	1798	SER
2	15	340	ILE
2	15	343	VAL
2	17	341	TYR
4	A0	518	GLY
4	A0	772	SER
4	A1	772	SER
4	A4	157	ASP
4	A6	154	ASP
4	A6	167	ILE
5	B0	166	GLU
5	B0	1053	GLY
5	B0	1520	ARG
5	B1	1053	GLY
5	B1	1519	GLN
5	B1	1520	ARG
5	B1	1732	SER
6	C0	347	THR
6	C0	543	GLU
6	C0	549	GLY
6	C1	549	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	C2	1635	MET
6	C3	1936	LEU
7	D0	994	SER
7	D0	1003	VAL
7	D0	1388	GLU
7	D2	1105	HIS
7	D3	869	THR
7	D3	992	SER
7	D4	120	ASP
7	D4	953	GLY
7	D4	1213	ASP
7	D5	120	ASP
7	D5	1111	LEU
9	F0	145	PRO
9	F1	161	GLN
9	F2	308	THR
11	I3	273	SER
13	K2	383	SER
14	L1	508	ASN
14	L3	508	ASN
17	O1	257	LEU
18	P0	551	LYS
18	P1	551	LYS
18	P3	567	ARG
20	R0	148	GLN
20	R0	753	GLY
20	R1	331	LYS
22	T0	870	VAL
22	T1	870	VAL
25	W0	35	SER
3	41	325	PRO
4	A2	518	GLY
5	B0	422	GLY
6	C0	1794	GLY
6	C1	344	PRO
7	D4	1259	PRO
7	D5	953	GLY
18	P2	91	GLY
18	P2	549	GLY
20	R1	753	GLY
22	T0	33	VAL
22	T1	33	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	00	336	GLY
2	10	1831	VAL
5	B1	422	GLY
6	C4	346	VAL
7	D4	408	VAL
8	E0	22	GLY
9	F1	138	SER
9	F3	104	GLY
13	K2	264	GLY
14	L3	736	LEU
15	M1	486	VAL
20	R0	1012	GLY
20	R2	1148	GLY
2	10	5	GLY
2	15	1786	VAL
2	15	1787	VAL
3	40	325	PRO
4	A0	93	VAL
5	B1	1509	GLY
6	C0	344	PRO
6	C3	346	VAL
6	C3	549	GLY
7	D2	1007	ASP
8	E1	149	GLY
9	F0	121	SER
9	F0	308	THR
9	F1	157	PRO
9	F2	283	ILE
13	K1	909	GLY
15	M0	486	VAL
20	R0	330	VAL
20	R1	330	VAL
20	R3	330	VAL
1	02	336	GLY
2	12	5	GLY
2	14	7	GLY
4	A3	777	VAL
6	C0	346	VAL
7	D3	953	GLY
7	D4	91	PRO
8	E0	149	GLY
14	L1	313	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	L1	731	GLY
18	P0	156	VAL
18	P1	156	VAL
18	P3	91	GLY
25	W0	65	GLY
5	B0	1707	PRO
6	C1	346	VAL
6	C1	1794	GLY
6	C4	549	GLY
7	D3	862	ILE
14	L3	313	VAL
20	R2	330	VAL
2	15	1106	PRO

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	00	675/2818 (24%)	656 (97%)	19 (3%)	43	65
1	01	675/2818 (24%)	657 (97%)	18 (3%)	44	65
1	02	675/2818 (24%)	658 (98%)	17 (2%)	47	68
1	03	675/2818 (24%)	660 (98%)	15 (2%)	52	71
1	04	675/2818 (24%)	659 (98%)	16 (2%)	49	69
2	10	1565/1608 (97%)	1539 (98%)	26 (2%)	60	78
2	11	1565/1608 (97%)	1542 (98%)	23 (2%)	65	80
2	12	1565/1608 (97%)	1538 (98%)	27 (2%)	60	78
2	13	1565/1608 (97%)	1543 (99%)	22 (1%)	67	80
2	14	1565/1608 (97%)	1541 (98%)	24 (2%)	65	80
2	15	1565/1608 (97%)	1542 (98%)	23 (2%)	65	80
2	16	1565/1608 (97%)	1541 (98%)	24 (2%)	65	80
2	17	1565/1608 (97%)	1539 (98%)	26 (2%)	60	78
3	40	323/463 (70%)	317 (98%)	6 (2%)	57	75

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	41	323/463 (70%)	315 (98%)	8 (2%)	47	68
4	A0	725/726 (100%)	708 (98%)	17 (2%)	50	70
4	A1	725/726 (100%)	709 (98%)	16 (2%)	52	71
4	A2	725/726 (100%)	710 (98%)	15 (2%)	53	72
4	A3	725/726 (100%)	710 (98%)	15 (2%)	53	72
4	A4	647/726 (89%)	631 (98%)	16 (2%)	47	68
4	A5	647/726 (89%)	635 (98%)	12 (2%)	57	75
4	A6	647/726 (89%)	628 (97%)	19 (3%)	42	64
5	B0	1540/1541 (100%)	1512 (98%)	28 (2%)	59	77
5	B1	1540/1541 (100%)	1512 (98%)	28 (2%)	59	77
6	C0	1776/1777 (100%)	1743 (98%)	33 (2%)	57	75
6	C1	1776/1777 (100%)	1738 (98%)	38 (2%)	53	72
6	C2	1776/1777 (100%)	1743 (98%)	33 (2%)	57	75
6	C3	1776/1777 (100%)	1743 (98%)	33 (2%)	57	75
6	C4	1776/1777 (100%)	1741 (98%)	35 (2%)	55	74
7	D0	1157/1222 (95%)	1127 (97%)	30 (3%)	46	66
7	D1	1157/1222 (95%)	1123 (97%)	34 (3%)	42	64
7	D2	1157/1222 (95%)	1126 (97%)	31 (3%)	44	65
7	D3	1157/1222 (95%)	1124 (97%)	33 (3%)	42	64
7	D4	1157/1222 (95%)	1117 (96%)	40 (4%)	36	59
7	D5	1157/1222 (95%)	1128 (98%)	29 (2%)	47	68
8	E0	489/604 (81%)	483 (99%)	6 (1%)	71	83
8	E1	489/604 (81%)	485 (99%)	4 (1%)	81	89
9	F0	210/277 (76%)	200 (95%)	10 (5%)	25	51
9	F1	210/277 (76%)	201 (96%)	9 (4%)	29	53
9	F2	210/277 (76%)	202 (96%)	8 (4%)	33	57
9	F3	210/277 (76%)	202 (96%)	8 (4%)	33	57
10	H0	345/425 (81%)	342 (99%)	3 (1%)	78	87
10	H1	345/425 (81%)	341 (99%)	4 (1%)	71	83
10	H2	345/425 (81%)	342 (99%)	3 (1%)	78	87
10	H3	345/425 (81%)	341 (99%)	4 (1%)	71	83

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	I0	155/459 (34%)	153 (99%)	2 (1%)	69	81
11	I1	155/459 (34%)	153 (99%)	2 (1%)	69	81
11	I2	155/459 (34%)	152 (98%)	3 (2%)	57	75
11	I3	155/459 (34%)	152 (98%)	3 (2%)	57	75
12	J0	158/401 (39%)	156 (99%)	2 (1%)	69	81
12	J1	158/401 (39%)	156 (99%)	2 (1%)	69	81
12	J2	158/401 (39%)	156 (99%)	2 (1%)	69	81
12	J3	158/401 (39%)	157 (99%)	1 (1%)	86	92
12	J4	158/401 (39%)	156 (99%)	2 (1%)	69	81
13	K0	958/1013 (95%)	929 (97%)	29 (3%)	41	63
13	K1	958/1013 (95%)	930 (97%)	28 (3%)	42	64
13	K2	958/1013 (95%)	928 (97%)	30 (3%)	40	62
13	K3	958/1013 (95%)	929 (97%)	29 (3%)	41	63
14	L0	701/827 (85%)	685 (98%)	16 (2%)	50	70
14	L1	701/827 (85%)	690 (98%)	11 (2%)	62	79
14	L2	701/827 (85%)	689 (98%)	12 (2%)	60	78
14	L3	701/827 (85%)	688 (98%)	13 (2%)	57	75
15	M0	602/840 (72%)	591 (98%)	11 (2%)	59	77
15	M1	602/840 (72%)	588 (98%)	14 (2%)	50	70
15	M2	602/840 (72%)	591 (98%)	11 (2%)	59	77
15	M3	602/840 (72%)	589 (98%)	13 (2%)	52	71
16	N0	255/272 (94%)	247 (97%)	8 (3%)	40	62
16	N1	255/272 (94%)	247 (97%)	8 (3%)	40	62
16	N2	255/272 (94%)	248 (97%)	7 (3%)	44	65
16	N3	255/272 (94%)	249 (98%)	6 (2%)	49	69
17	O0	279/310 (90%)	274 (98%)	5 (2%)	59	77
17	O1	279/310 (90%)	274 (98%)	5 (2%)	59	77
17	O2	279/310 (90%)	273 (98%)	6 (2%)	52	71
17	O3	279/310 (90%)	274 (98%)	5 (2%)	59	77
18	P0	584/585 (100%)	570 (98%)	14 (2%)	49	69
18	P1	584/585 (100%)	572 (98%)	12 (2%)	53	72

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	P2	584/585 (100%)	573 (98%)	11 (2%)	57	75
18	P3	584/585 (100%)	570 (98%)	14 (2%)	49	69
19	Q0	303/335 (90%)	300 (99%)	3 (1%)	76	86
19	Q1	303/335 (90%)	301 (99%)	2 (1%)	84	90
19	Q2	303/335 (90%)	299 (99%)	4 (1%)	69	81
19	Q3	303/335 (90%)	301 (99%)	2 (1%)	84	90
20	R0	1233/1259 (98%)	1207 (98%)	26 (2%)	53	72
20	R1	1233/1259 (98%)	1204 (98%)	29 (2%)	49	69
20	R2	1233/1259 (98%)	1202 (98%)	31 (2%)	47	68
20	R3	1233/1259 (98%)	1206 (98%)	27 (2%)	52	71
21	S0	278/282 (99%)	273 (98%)	5 (2%)	59	77
21	S1	278/282 (99%)	272 (98%)	6 (2%)	52	71
21	S2	278/282 (99%)	271 (98%)	7 (2%)	47	68
21	S3	278/282 (99%)	271 (98%)	7 (2%)	47	68
22	T0	891/2037 (44%)	881 (99%)	10 (1%)	73	84
22	T1	891/2037 (44%)	879 (99%)	12 (1%)	69	81
23	U0	131/703 (19%)	125 (95%)	6 (5%)	27	52
23	U1	19/703 (3%)	17 (90%)	2 (10%)	7	24
23	U2	19/703 (3%)	18 (95%)	1 (5%)	22	47
23	U3	19/703 (3%)	17 (90%)	2 (10%)	7	24
23	U4	19/703 (3%)	18 (95%)	1 (5%)	22	47
23	U5	19/703 (3%)	17 (90%)	2 (10%)	7	24
23	U6	19/703 (3%)	18 (95%)	1 (5%)	22	47
24	V0	249/1685 (15%)	241 (97%)	8 (3%)	39	61
25	W0	661/663 (100%)	648 (98%)	13 (2%)	55	74
All	All	68601/94353 (73%)	67169 (98%)	1432 (2%)	56	72

All (1432) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	00	31	TYR
1	00	57	GLU
1	00	77	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	00	107	ASN
1	00	161	ARG
1	00	183	ASP
1	00	222	GLU
1	00	224	ASP
1	00	251	ASP
1	00	275	ASN
1	00	344	GLU
1	00	397	ASP
1	00	408	ASN
1	00	418	ASP
1	00	485	GLU
1	00	520	CYS
1	00	566	GLU
1	00	740	GLU
1	00	756	TYR
1	01	77	ASP
1	01	107	ASN
1	01	119	GLU
1	01	161	ARG
1	01	163	ASP
1	01	183	ASP
1	01	224	ASP
1	01	251	ASP
1	01	275	ASN
1	01	397	ASP
1	01	408	ASN
1	01	418	ASP
1	01	485	GLU
1	01	520	CYS
1	01	566	GLU
1	01	666	ASP
1	01	740	GLU
1	01	756	TYR
1	02	57	GLU
1	02	77	ASP
1	02	107	ASN
1	02	164	ASP
1	02	183	ASP
1	02	222	GLU
1	02	224	ASP
1	02	251	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	02	275	ASN
1	02	397	ASP
1	02	408	ASN
1	02	418	ASP
1	02	485	GLU
1	02	520	CYS
1	02	566	GLU
1	02	740	GLU
1	02	756	TYR
1	03	77	ASP
1	03	107	ASN
1	03	119	GLU
1	03	183	ASP
1	03	224	ASP
1	03	251	ASP
1	03	275	ASN
1	03	397	ASP
1	03	408	ASN
1	03	418	ASP
1	03	485	GLU
1	03	520	CYS
1	03	566	GLU
1	03	740	GLU
1	03	756	TYR
1	04	77	ASP
1	04	107	ASN
1	04	161	ARG
1	04	164	ASP
1	04	183	ASP
1	04	224	ASP
1	04	251	ASP
1	04	275	ASN
1	04	397	ASP
1	04	408	ASN
1	04	418	ASP
1	04	520	CYS
1	04	566	GLU
1	04	706	GLU
1	04	740	GLU
1	04	756	TYR
2	10	8	LEU
2	10	51	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	10	102	THR
2	10	165	SER
2	10	166	GLU
2	10	168	ASP
2	10	279	ASP
2	10	356	ASP
2	10	528	MET
2	10	831	ASP
2	10	851	SER
2	10	918	GLU
2	10	931	ASP
2	10	1034	ASP
2	10	1149	THR
2	10	1166	LEU
2	10	1203	ASN
2	10	1218	ASP
2	10	1335	ASP
2	10	1421	SER
2	10	1569	PHE
2	10	1619	VAL
2	10	1626	ASP
2	10	1762	LEU
2	10	1789	ARG
2	10	1802	HIS
2	11	8	LEU
2	11	51	GLU
2	11	102	THR
2	11	165	SER
2	11	168	ASP
2	11	279	ASP
2	11	356	ASP
2	11	431	GLN
2	11	528	MET
2	11	605	CYS
2	11	831	ASP
2	11	851	SER
2	11	918	GLU
2	11	931	ASP
2	11	1034	ASP
2	11	1166	LEU
2	11	1218	ASP
2	11	1335	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	11	1421	SER
2	11	1569	PHE
2	11	1619	VAL
2	11	1626	ASP
2	11	1802	HIS
2	12	8	LEU
2	12	51	GLU
2	12	102	THR
2	12	165	SER
2	12	166	GLU
2	12	168	ASP
2	12	279	ASP
2	12	328	ARG
2	12	356	ASP
2	12	528	MET
2	12	681	ASN
2	12	700	SER
2	12	831	ASP
2	12	851	SER
2	12	918	GLU
2	12	931	ASP
2	12	977	ASP
2	12	1034	ASP
2	12	1149	THR
2	12	1166	LEU
2	12	1335	ASP
2	12	1421	SER
2	12	1619	VAL
2	12	1626	ASP
2	12	1788	ASP
2	12	1789	ARG
2	12	1802	HIS
2	13	8	LEU
2	13	51	GLU
2	13	102	THR
2	13	165	SER
2	13	168	ASP
2	13	279	ASP
2	13	356	ASP
2	13	528	MET
2	13	681	ASN
2	13	831	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	13	918	GLU
2	13	931	ASP
2	13	1034	ASP
2	13	1166	LEU
2	13	1218	ASP
2	13	1335	ASP
2	13	1421	SER
2	13	1569	PHE
2	13	1619	VAL
2	13	1626	ASP
2	13	1789	ARG
2	13	1802	HIS
2	14	51	GLU
2	14	102	THR
2	14	337	ASN
2	14	339	THR
2	14	356	ASP
2	14	452	ILE
2	14	528	MET
2	14	605	CYS
2	14	681	ASN
2	14	831	ASP
2	14	918	GLU
2	14	931	ASP
2	14	1034	ASP
2	14	1149	THR
2	14	1218	ASP
2	14	1335	ASP
2	14	1410	ASP
2	14	1421	SER
2	14	1430	ASP
2	14	1569	PHE
2	14	1619	VAL
2	14	1626	ASP
2	14	1678	THR
2	14	1802	HIS
2	15	9	LEU
2	15	51	GLU
2	15	102	THR
2	15	168	ASP
2	15	334	ARG
2	15	338	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	15	341	TYR
2	15	356	ASP
2	15	528	MET
2	15	605	CYS
2	15	831	ASP
2	15	918	GLU
2	15	931	ASP
2	15	1034	ASP
2	15	1218	ASP
2	15	1335	ASP
2	15	1410	ASP
2	15	1421	SER
2	15	1569	PHE
2	15	1619	VAL
2	15	1626	ASP
2	15	1789	ARG
2	15	1802	HIS
2	16	9	LEU
2	16	102	THR
2	16	337	ASN
2	16	356	ASP
2	16	452	ILE
2	16	528	MET
2	16	681	ASN
2	16	743	LYS
2	16	831	ASP
2	16	918	GLU
2	16	931	ASP
2	16	1034	ASP
2	16	1149	THR
2	16	1218	ASP
2	16	1335	ASP
2	16	1410	ASP
2	16	1421	SER
2	16	1463	HIS
2	16	1569	PHE
2	16	1619	VAL
2	16	1626	ASP
2	16	1688	SER
2	16	1788	ASP
2	16	1802	HIS
2	17	9	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	17	51	GLU
2	17	102	THR
2	17	168	ASP
2	17	340	ILE
2	17	356	ASP
2	17	528	MET
2	17	580	ASP
2	17	717	GLU
2	17	831	ASP
2	17	918	GLU
2	17	931	ASP
2	17	1034	ASP
2	17	1166	LEU
2	17	1218	ASP
2	17	1335	ASP
2	17	1410	ASP
2	17	1421	SER
2	17	1569	PHE
2	17	1619	VAL
2	17	1626	ASP
2	17	1787	VAL
2	17	1788	ASP
2	17	1789	ARG
2	17	1790	ARG
2	17	1802	HIS
3	40	31	TYR
3	40	138	ASP
3	40	205	SER
3	40	364	GLU
3	40	404	TRP
3	40	407	SER
3	41	31	TYR
3	41	138	ASP
3	41	205	SER
3	41	364	GLU
3	41	390	ASP
3	41	404	TRP
3	41	407	SER
3	41	409	GLU
4	A0	32	ASN
4	A0	57	ASP
4	A0	127	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	A0	138	GLU
4	A0	165	SER
4	A0	216	ASP
4	A0	344	GLN
4	A0	398	ASP
4	A0	424	ASP
4	A0	433	ASP
4	A0	434	ARG
4	A0	543	ASP
4	A0	576	GLU
4	A0	579	GLU
4	A0	708	ASP
4	A0	782	ASP
4	A0	815	GLU
4	A1	32	ASN
4	A1	106	LYS
4	A1	121	THR
4	A1	157	ASP
4	A1	175	ARG
4	A1	216	ASP
4	A1	344	GLN
4	A1	398	ASP
4	A1	424	ASP
4	A1	433	ASP
4	A1	434	ARG
4	A1	500	LYS
4	A1	576	GLU
4	A1	579	GLU
4	A1	708	ASP
4	A1	782	ASP
4	A2	32	ASN
4	A2	127	GLU
4	A2	138	GLU
4	A2	154	ASP
4	A2	344	GLN
4	A2	398	ASP
4	A2	424	ASP
4	A2	433	ASP
4	A2	434	ARG
4	A2	576	GLU
4	A2	579	GLU
4	A2	658	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	A2	708	ASP
4	A2	782	ASP
4	A2	815	GLU
4	A3	32	ASN
4	A3	106	LYS
4	A3	121	THR
4	A3	138	GLU
4	A3	154	ASP
4	A3	216	ASP
4	A3	344	GLN
4	A3	398	ASP
4	A3	424	ASP
4	A3	433	ASP
4	A3	434	ARG
4	A3	576	GLU
4	A3	579	GLU
4	A3	708	ASP
4	A3	782	ASP
4	A4	95	ASP
4	A4	127	GLU
4	A4	138	GLU
4	A4	216	ASP
4	A4	247	SER
4	A4	344	GLN
4	A4	398	ASP
4	A4	400	THR
4	A4	424	ASP
4	A4	433	ASP
4	A4	483	GLU
4	A4	543	ASP
4	A4	576	GLU
4	A4	608	ILE
4	A4	806	ASP
4	A4	815	GLU
4	A5	95	ASP
4	A5	127	GLU
4	A5	138	GLU
4	A5	344	GLN
4	A5	398	ASP
4	A5	424	ASP
4	A5	433	ASP
4	A5	483	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	A5	543	ASP
4	A5	576	GLU
4	A5	806	ASP
4	A5	815	GLU
4	A6	95	ASP
4	A6	117	SER
4	A6	127	GLU
4	A6	138	GLU
4	A6	153	GLU
4	A6	157	ASP
4	A6	170	VAL
4	A6	247	SER
4	A6	344	GLN
4	A6	398	ASP
4	A6	400	THR
4	A6	424	ASP
4	A6	426	ASP
4	A6	433	ASP
4	A6	483	GLU
4	A6	576	GLU
4	A6	608	ILE
4	A6	806	ASP
4	A6	815	GLU
5	B0	54	SER
5	B0	69	SER
5	B0	118	SER
5	B0	160	ASP
5	B0	171	SER
5	B0	181	TYR
5	B0	281	SER
5	B0	423	THR
5	B0	426	THR
5	B0	557	ASP
5	B0	584	ASP
5	B0	738	GLU
5	B0	938	ASN
5	B0	943	ASP
5	B0	946	ASP
5	B0	950	GLU
5	B0	982	ARG
5	B0	997	ASP
5	B0	1082	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	B0	1119	ASP
5	B0	1178	ASP
5	B0	1223	ASP
5	B0	1368	SER
5	B0	1377	THR
5	B0	1389	ASP
5	B0	1521	PRO
5	B0	1642	GLU
5	B0	1689	SER
5	B1	54	SER
5	B1	69	SER
5	B1	118	SER
5	B1	160	ASP
5	B1	171	SER
5	B1	281	SER
5	B1	423	THR
5	B1	557	ASP
5	B1	584	ASP
5	B1	738	GLU
5	B1	938	ASN
5	B1	943	ASP
5	B1	946	ASP
5	B1	950	GLU
5	B1	982	ARG
5	B1	994	ASP
5	B1	997	ASP
5	B1	1082	LEU
5	B1	1119	ASP
5	B1	1178	ASP
5	B1	1223	ASP
5	B1	1377	THR
5	B1	1389	ASP
5	B1	1521	PRO
5	B1	1522	PRO
5	B1	1580	SER
5	B1	1642	GLU
5	B1	1689	SER
6	C0	22	HIS
6	C0	49	ASP
6	C0	200	GLU
6	C0	303	GLU
6	C0	357	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	C0	438	ASP
6	C0	472	THR
6	C0	577	ASP
6	C0	580	GLN
6	C0	590	THR
6	C0	663	LEU
6	C0	742	SER
6	C0	747	PHE
6	C0	777	GLU
6	C0	817	GLU
6	C0	831	ASP
6	C0	872	LEU
6	C0	876	VAL
6	C0	959	ASP
6	C0	1019	ASN
6	C0	1075	ASP
6	C0	1202	ASP
6	C0	1306	ASP
6	C0	1341	THR
6	C0	1380	PRO
6	C0	1572	GLU
6	C0	1602	MET
6	C0	1604	ASP
6	C0	1653	SER
6	C0	1654	ASP
6	C0	1703	GLU
6	C0	1793	ASP
6	C0	1849	ASP
6	C1	3	THR
6	C1	22	HIS
6	C1	49	ASP
6	C1	200	GLU
6	C1	303	GLU
6	C1	357	GLU
6	C1	438	ASP
6	C1	472	THR
6	C1	577	ASP
6	C1	580	GLN
6	C1	590	THR
6	C1	663	LEU
6	C1	742	SER
6	C1	747	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	C1	777	GLU
6	C1	817	GLU
6	C1	824	GLU
6	C1	831	ASP
6	C1	872	LEU
6	C1	876	VAL
6	C1	959	ASP
6	C1	1019	ASN
6	C1	1075	ASP
6	C1	1194	GLU
6	C1	1202	ASP
6	C1	1306	ASP
6	C1	1330	GLU
6	C1	1341	THR
6	C1	1572	GLU
6	C1	1602	MET
6	C1	1604	ASP
6	C1	1634	SER
6	C1	1653	SER
6	C1	1654	ASP
6	C1	1695	ASP
6	C1	1703	GLU
6	C1	1793	ASP
6	C1	1849	ASP
6	C2	19	ASP
6	C2	22	HIS
6	C2	49	ASP
6	C2	180	GLN
6	C2	200	GLU
6	C2	316	ASP
6	C2	385	GLU
6	C2	438	ASP
6	C2	567	GLU
6	C2	573	LEU
6	C2	580	GLN
6	C2	663	LEU
6	C2	742	SER
6	C2	747	PHE
6	C2	777	GLU
6	C2	780	LEU
6	C2	872	LEU
6	C2	876	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	C2	959	ASP
6	C2	1075	ASP
6	C2	1154	ASP
6	C2	1163	ASN
6	C2	1306	ASP
6	C2	1341	THR
6	C2	1369	PHE
6	C2	1376	THR
6	C2	1388	PHE
6	C2	1457	ASP
6	C2	1695	ASP
6	C2	1728	LEU
6	C2	1929	THR
6	C2	1930	LEU
6	C2	1948	PHE
6	C3	9	SER
6	C3	22	HIS
6	C3	49	ASP
6	C3	200	GLU
6	C3	357	GLU
6	C3	438	ASP
6	C3	472	THR
6	C3	577	ASP
6	C3	580	GLN
6	C3	590	THR
6	C3	663	LEU
6	C3	747	PHE
6	C3	777	GLU
6	C3	780	LEU
6	C3	831	ASP
6	C3	872	LEU
6	C3	876	VAL
6	C3	959	ASP
6	C3	1016	SER
6	C3	1163	ASN
6	C3	1306	ASP
6	C3	1330	GLU
6	C3	1341	THR
6	C3	1353	GLU
6	C3	1369	PHE
6	C3	1376	THR
6	C3	1383	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	C3	1634	SER
6	C3	1654	ASP
6	C3	1695	ASP
6	C3	1703	GLU
6	C3	1930	LEU
6	C3	1938	ASP
6	C4	22	HIS
6	C4	49	ASP
6	C4	200	GLU
6	C4	357	GLU
6	C4	438	ASP
6	C4	472	THR
6	C4	484	HIS
6	C4	577	ASP
6	C4	580	GLN
6	C4	590	THR
6	C4	663	LEU
6	C4	682	ARG
6	C4	683	GLN
6	C4	747	PHE
6	C4	777	GLU
6	C4	780	LEU
6	C4	831	ASP
6	C4	872	LEU
6	C4	876	VAL
6	C4	959	ASP
6	C4	1016	SER
6	C4	1163	ASN
6	C4	1246	MET
6	C4	1306	ASP
6	C4	1330	GLU
6	C4	1341	THR
6	C4	1353	GLU
6	C4	1369	PHE
6	C4	1376	THR
6	C4	1457	ASP
6	C4	1654	ASP
6	C4	1695	ASP
6	C4	1703	GLU
6	C4	1930	LEU
6	C4	1938	ASP
7	D0	34	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	D0	142	GLU
7	D0	207	SER
7	D0	217	THR
7	D0	222	ASP
7	D0	228	LEU
7	D0	399	SER
7	D0	427	ASP
7	D0	455	ASP
7	D0	486	SER
7	D0	493	HIS
7	D0	533	GLU
7	D0	545	ASP
7	D0	853	ASP
7	D0	868	SER
7	D0	871	ASP
7	D0	1099	SER
7	D0	1104	MET
7	D0	1108	GLU
7	D0	1137	ASP
7	D0	1168	HIS
7	D0	1173	ASP
7	D0	1179	ASP
7	D0	1186	THR
7	D0	1194	ASP
7	D0	1236	SER
7	D0	1239	ASP
7	D0	1265	ASP
7	D0	1290	ASN
7	D0	1391	HIS
7	D1	34	LEU
7	D1	92	GLU
7	D1	142	GLU
7	D1	203	ASP
7	D1	207	SER
7	D1	217	THR
7	D1	222	ASP
7	D1	228	LEU
7	D1	257	SER
7	D1	399	SER
7	D1	427	ASP
7	D1	455	ASP
7	D1	465	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	D1	486	SER
7	D1	533	GLU
7	D1	545	ASP
7	D1	762	GLU
7	D1	863	CYS
7	D1	922	GLN
7	D1	1009	ASN
7	D1	1050	ASP
7	D1	1116	GLU
7	D1	1168	HIS
7	D1	1173	ASP
7	D1	1179	ASP
7	D1	1186	THR
7	D1	1194	ASP
7	D1	1236	SER
7	D1	1239	ASP
7	D1	1265	ASP
7	D1	1287	GLN
7	D1	1290	ASN
7	D1	1296	LEU
7	D1	1391	HIS
7	D2	34	LEU
7	D2	92	GLU
7	D2	142	GLU
7	D2	203	ASP
7	D2	207	SER
7	D2	217	THR
7	D2	222	ASP
7	D2	228	LEU
7	D2	399	SER
7	D2	427	ASP
7	D2	455	ASP
7	D2	486	SER
7	D2	493	HIS
7	D2	533	GLU
7	D2	545	ASP
7	D2	762	GLU
7	D2	853	ASP
7	D2	866	LEU
7	D2	993	PRO
7	D2	1050	ASP
7	D2	1103	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	D2	1107	THR
7	D2	1173	ASP
7	D2	1179	ASP
7	D2	1186	THR
7	D2	1194	ASP
7	D2	1223	ASP
7	D2	1236	SER
7	D2	1265	ASP
7	D2	1290	ASN
7	D2	1391	HIS
7	D3	34	LEU
7	D3	142	GLU
7	D3	203	ASP
7	D3	207	SER
7	D3	222	ASP
7	D3	228	LEU
7	D3	257	SER
7	D3	399	SER
7	D3	427	ASP
7	D3	455	ASP
7	D3	465	ASP
7	D3	486	SER
7	D3	533	GLU
7	D3	545	ASP
7	D3	564	GLU
7	D3	762	GLU
7	D3	832	GLU
7	D3	865	LEU
7	D3	866	LEU
7	D3	879	GLU
7	D3	992	SER
7	D3	1007	ASP
7	D3	1168	HIS
7	D3	1173	ASP
7	D3	1179	ASP
7	D3	1186	THR
7	D3	1194	ASP
7	D3	1223	ASP
7	D3	1236	SER
7	D3	1239	ASP
7	D3	1265	ASP
7	D3	1290	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	D3	1391	HIS
7	D4	34	LEU
7	D4	130	ASP
7	D4	142	GLU
7	D4	193	SER
7	D4	203	ASP
7	D4	207	SER
7	D4	222	ASP
7	D4	228	LEU
7	D4	257	SER
7	D4	399	SER
7	D4	455	ASP
7	D4	465	ASP
7	D4	486	SER
7	D4	508	SER
7	D4	533	GLU
7	D4	545	ASP
7	D4	762	GLU
7	D4	832	GLU
7	D4	853	ASP
7	D4	865	LEU
7	D4	867	TYR
7	D4	870	ASP
7	D4	871	ASP
7	D4	1092	SER
7	D4	1099	SER
7	D4	1104	MET
7	D4	1106	SER
7	D4	1109	ILE
7	D4	1116	GLU
7	D4	1168	HIS
7	D4	1173	ASP
7	D4	1181	GLU
7	D4	1182	LEU
7	D4	1186	THR
7	D4	1194	ASP
7	D4	1211	TYR
7	D4	1265	ASP
7	D4	1290	ASN
7	D4	1347	ARG
7	D4	1391	HIS
7	D5	34	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	D5	142	GLU
7	D5	193	SER
7	D5	203	ASP
7	D5	207	SER
7	D5	211	ASP
7	D5	217	THR
7	D5	222	ASP
7	D5	228	LEU
7	D5	399	SER
7	D5	427	ASP
7	D5	455	ASP
7	D5	465	ASP
7	D5	486	SER
7	D5	508	SER
7	D5	533	GLU
7	D5	545	ASP
7	D5	1092	SER
7	D5	1099	SER
7	D5	1137	ASP
7	D5	1173	ASP
7	D5	1179	ASP
7	D5	1186	THR
7	D5	1194	ASP
7	D5	1265	ASP
7	D5	1287	GLN
7	D5	1290	ASN
7	D5	1296	LEU
7	D5	1391	HIS
8	E0	3	THR
8	E0	19	ARG
8	E0	69	TYR
8	E0	249	HIS
8	E0	527	GLU
8	E0	540	MET
8	E1	3	THR
8	E1	246	MET
8	E1	527	GLU
8	E1	540	MET
9	F0	163	ASP
9	F0	165	LEU
9	F0	173	ASP
9	F0	206	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	F0	234	GLU
9	F0	252	SER
9	F0	283	ILE
9	F0	286	MET
9	F0	314	SER
9	F0	326	TRP
9	F1	96	ASP
9	F1	114	PRO
9	F1	149	THR
9	F1	150	LEU
9	F1	155	LEU
9	F1	246	LYS
9	F1	286	MET
9	F1	287	ARG
9	F1	308	THR
9	F2	111	ARG
9	F2	115	ASN
9	F2	156	ASP
9	F2	173	ASP
9	F2	234	GLU
9	F2	299	ASP
9	F2	314	SER
9	F2	326	TRP
9	F3	96	ASP
9	F3	144	GLN
9	F3	154	GLN
9	F3	173	ASP
9	F3	262	LEU
9	F3	282	ARG
9	F3	303	ILE
9	F3	306	ARG
10	H0	168	ASN
10	H0	196	ASN
10	H0	341	ASP
10	H1	168	ASN
10	H1	196	ASN
10	H1	341	ASP
10	H1	449	SER
10	H2	168	ASN
10	H2	196	ASN
10	H2	341	ASP
10	H3	168	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	H3	196	ASN
10	H3	341	ASP
10	H3	449	SER
11	I0	282	LYS
11	I0	323	GLU
11	I1	323	GLU
11	I1	408	GLU
11	I2	282	LYS
11	I2	323	GLU
11	I2	408	GLU
11	I3	282	LYS
11	I3	323	GLU
11	I3	408	GLU
12	J0	416	GLU
12	J0	429	GLU
12	J1	429	GLU
12	J1	446	ARG
12	J2	429	GLU
12	J2	446	ARG
12	J3	429	GLU
12	J4	420	THR
12	J4	458	LEU
13	K0	83	THR
13	K0	84	PHE
13	K0	102	ASP
13	K0	154	ASP
13	K0	206	ASP
13	K0	271	ASP
13	K0	328	GLU
13	K0	377	ASP
13	K0	389	GLU
13	K0	401	ASP
13	K0	422	GLU
13	K0	429	SER
13	K0	506	THR
13	K0	511	GLU
13	K0	517	ASP
13	K0	586	GLU
13	K0	592	ASN
13	K0	697	ASP
13	K0	718	SER
13	K0	790	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	K0	794	ASP
13	K0	875	MET
13	K0	894	ASP
13	K0	908	LYS
13	K0	1010	GLU
13	K0	1090	ASP
13	K0	1110	LYS
13	K0	1121	GLU
13	K0	1129	ASP
13	K1	83	THR
13	K1	84	PHE
13	K1	154	ASP
13	K1	206	ASP
13	K1	271	ASP
13	K1	328	GLU
13	K1	377	ASP
13	K1	389	GLU
13	K1	401	ASP
13	K1	422	GLU
13	K1	429	SER
13	K1	505	GLU
13	K1	510	ASN
13	K1	511	GLU
13	K1	697	ASP
13	K1	717	ASP
13	K1	718	SER
13	K1	790	TYR
13	K1	794	ASP
13	K1	875	MET
13	K1	894	ASP
13	K1	910	LYS
13	K1	1010	GLU
13	K1	1090	ASP
13	K1	1110	LYS
13	K1	1121	GLU
13	K1	1129	ASP
13	K1	1148	TYR
13	K2	83	THR
13	K2	84	PHE
13	K2	154	ASP
13	K2	203	SER
13	K2	206	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	K2	235	GLU
13	K2	271	ASP
13	K2	322	ASP
13	K2	328	GLU
13	K2	377	ASP
13	K2	389	GLU
13	K2	401	ASP
13	K2	429	SER
13	K2	484	GLU
13	K2	486	LEU
13	K2	490	LEU
13	K2	503	ILE
13	K2	517	ASP
13	K2	697	ASP
13	K2	717	ASP
13	K2	718	SER
13	K2	875	MET
13	K2	880	ASP
13	K2	894	ASP
13	K2	913	LYS
13	K2	932	HIS
13	K2	1010	GLU
13	K2	1090	ASP
13	K2	1121	GLU
13	K2	1129	ASP
13	K3	83	THR
13	K3	84	PHE
13	K3	102	ASP
13	K3	154	ASP
13	K3	206	ASP
13	K3	271	ASP
13	K3	328	GLU
13	K3	377	ASP
13	K3	389	GLU
13	K3	401	ASP
13	K3	422	GLU
13	K3	429	SER
13	K3	484	GLU
13	K3	505	GLU
13	K3	586	GLU
13	K3	697	ASP
13	K3	717	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	K3	718	SER
13	K3	790	TYR
13	K3	794	ASP
13	K3	875	MET
13	K3	894	ASP
13	K3	908	LYS
13	K3	910	LYS
13	K3	1010	GLU
13	K3	1090	ASP
13	K3	1121	GLU
13	K3	1129	ASP
13	K3	1148	TYR
14	L0	172	ASP
14	L0	205	THR
14	L0	240	PHE
14	L0	326	ASP
14	L0	336	ASP
14	L0	360	GLU
14	L0	416	GLU
14	L0	444	THR
14	L0	582	ARG
14	L0	583	GLU
14	L0	585	HIS
14	L0	599	ASP
14	L0	674	VAL
14	L0	732	MET
14	L0	736	LEU
14	L0	917	ASP
14	L1	172	ASP
14	L1	205	THR
14	L1	240	PHE
14	L1	336	ASP
14	L1	416	GLU
14	L1	444	THR
14	L1	582	ARG
14	L1	599	ASP
14	L1	674	VAL
14	L1	730	GLN
14	L1	917	ASP
14	L2	172	ASP
14	L2	205	THR
14	L2	240	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	L2	326	ASP
14	L2	336	ASP
14	L2	416	GLU
14	L2	444	THR
14	L2	583	GLU
14	L2	599	ASP
14	L2	674	VAL
14	L2	732	MET
14	L2	917	ASP
14	L3	172	ASP
14	L3	205	THR
14	L3	240	PHE
14	L3	336	ASP
14	L3	360	GLU
14	L3	416	GLU
14	L3	444	THR
14	L3	582	ARG
14	L3	585	HIS
14	L3	599	ASP
14	L3	674	VAL
14	L3	732	MET
14	L3	917	ASP
15	M0	241	GLU
15	M0	324	ARG
15	M0	379	ASP
15	M0	435	THR
15	M0	485	PHE
15	M0	585	SER
15	M0	656	ASN
15	M0	661	SER
15	M0	805	ASP
15	M0	830	ASP
15	M0	866	ASP
15	M1	241	GLU
15	M1	324	ARG
15	M1	368	ASP
15	M1	435	THR
15	M1	477	ARG
15	M1	485	PHE
15	M1	585	SER
15	M1	586	PRO
15	M1	656	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
15	M1	661	SER
15	M1	766	CYS
15	M1	785	ASP
15	M1	830	ASP
15	M1	866	ASP
15	M2	241	GLU
15	M2	324	ARG
15	M2	435	THR
15	M2	485	PHE
15	M2	563	SER
15	M2	586	PRO
15	M2	656	ASN
15	M2	661	SER
15	M2	805	ASP
15	M2	830	ASP
15	M2	866	ASP
15	M3	241	GLU
15	M3	324	ARG
15	M3	368	ASP
15	M3	402	HIS
15	M3	407	ASP
15	M3	435	THR
15	M3	485	PHE
15	M3	563	SER
15	M3	661	SER
15	M3	762	HIS
15	M3	785	ASP
15	M3	830	ASP
15	M3	866	ASP
16	N0	9	ASP
16	N0	81	ARG
16	N0	103	ASP
16	N0	115	ASP
16	N0	169	ASP
16	N0	220	TRP
16	N0	246	ASP
16	N0	251	ASN
16	N1	9	ASP
16	N1	81	ARG
16	N1	103	ASP
16	N1	115	ASP
16	N1	169	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	N1	220	TRP
16	N1	246	ASP
16	N1	251	ASN
16	N2	9	ASP
16	N2	81	ARG
16	N2	103	ASP
16	N2	115	ASP
16	N2	169	ASP
16	N2	220	TRP
16	N2	246	ASP
16	N3	9	ASP
16	N3	103	ASP
16	N3	115	ASP
16	N3	220	TRP
16	N3	246	ASP
16	N3	251	ASN
17	O0	21	ASP
17	O0	94	ASN
17	O0	107	THR
17	O0	220	ASP
17	O0	284	VAL
17	O1	21	ASP
17	O1	107	THR
17	O1	204	GLU
17	O1	220	ASP
17	O1	284	VAL
17	O2	21	ASP
17	O2	94	ASN
17	O2	107	THR
17	O2	111	ASP
17	O2	220	ASP
17	O2	284	VAL
17	O3	21	ASP
17	O3	94	ASN
17	O3	107	THR
17	O3	220	ASP
17	O3	284	VAL
18	P0	2	GLU
18	P0	7	GLU
18	P0	43	GLU
18	P0	60	ASP
18	P0	143	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
18	P0	263	GLU
18	P0	322	ILE
18	P0	323	ASP
18	P0	389	SER
18	P0	405	GLU
18	P0	520	ASP
18	P0	533	ASP
18	P0	576	THR
18	P0	625	ASP
18	P1	2	GLU
18	P1	43	GLU
18	P1	60	ASP
18	P1	62	ASP
18	P1	143	GLU
18	P1	263	GLU
18	P1	323	ASP
18	P1	389	SER
18	P1	520	ASP
18	P1	533	ASP
18	P1	550	GLU
18	P1	617	SER
18	P2	2	GLU
18	P2	43	GLU
18	P2	60	ASP
18	P2	61	VAL
18	P2	143	GLU
18	P2	263	GLU
18	P2	323	ASP
18	P2	520	ASP
18	P2	533	ASP
18	P2	548	TYR
18	P2	595	GLU
18	P3	2	GLU
18	P3	43	GLU
18	P3	61	VAL
18	P3	62	ASP
18	P3	143	GLU
18	P3	263	GLU
18	P3	323	ASP
18	P3	520	ASP
18	P3	533	ASP
18	P3	550	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
18	P3	551	LYS
18	P3	555	ASP
18	P3	595	GLU
18	P3	606	ASP
19	Q0	38	ASP
19	Q0	173	SER
19	Q0	225	ARG
19	Q1	173	SER
19	Q1	225	ARG
19	Q2	38	ASP
19	Q2	173	SER
19	Q2	225	ARG
19	Q2	283	ASP
19	Q3	173	SER
19	Q3	225	ARG
20	R0	104	HIS
20	R0	180	ASP
20	R0	189	ASP
20	R0	201	TYR
20	R0	211	SER
20	R0	214	SER
20	R0	224	ASP
20	R0	333	ASP
20	R0	404	THR
20	R0	405	ASP
20	R0	411	HIS
20	R0	491	TRP
20	R0	575	ASP
20	R0	589	ASP
20	R0	620	ASP
20	R0	660	SER
20	R0	664	GLU
20	R0	790	ASP
20	R0	811	MET
20	R0	993	ASP
20	R0	1049	ASP
20	R0	1115	LEU
20	R0	1152	ASP
20	R0	1215	MET
20	R0	1244	GLU
20	R0	1248	PHE
20	R1	104	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	R1	180	ASP
20	R1	189	ASP
20	R1	201	TYR
20	R1	211	SER
20	R1	214	SER
20	R1	224	ASP
20	R1	333	ASP
20	R1	404	THR
20	R1	405	ASP
20	R1	411	HIS
20	R1	460	SER
20	R1	491	TRP
20	R1	575	ASP
20	R1	589	ASP
20	R1	620	ASP
20	R1	660	SER
20	R1	664	GLU
20	R1	746	ASP
20	R1	790	ASP
20	R1	811	MET
20	R1	953	GLU
20	R1	1019	GLU
20	R1	1049	ASP
20	R1	1152	ASP
20	R1	1215	MET
20	R1	1226	ASP
20	R1	1286	ASP
20	R1	1359	ASP
20	R2	104	HIS
20	R2	180	ASP
20	R2	189	ASP
20	R2	201	TYR
20	R2	211	SER
20	R2	214	SER
20	R2	224	ASP
20	R2	329	PRO
20	R2	333	ASP
20	R2	404	THR
20	R2	405	ASP
20	R2	411	HIS
20	R2	460	SER
20	R2	491	TRP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	R2	575	ASP
20	R2	589	ASP
20	R2	620	ASP
20	R2	660	SER
20	R2	664	GLU
20	R2	746	ASP
20	R2	790	ASP
20	R2	811	MET
20	R2	996	SER
20	R2	1006	LYS
20	R2	1049	ASP
20	R2	1061	GLU
20	R2	1126	LEU
20	R2	1152	ASP
20	R2	1215	MET
20	R2	1281	GLU
20	R2	1357	TYR
20	R3	104	HIS
20	R3	180	ASP
20	R3	189	ASP
20	R3	201	TYR
20	R3	211	SER
20	R3	214	SER
20	R3	224	ASP
20	R3	333	ASP
20	R3	404	THR
20	R3	405	ASP
20	R3	411	HIS
20	R3	460	SER
20	R3	491	TRP
20	R3	575	ASP
20	R3	589	ASP
20	R3	620	ASP
20	R3	660	SER
20	R3	664	GLU
20	R3	746	ASP
20	R3	790	ASP
20	R3	811	MET
20	R3	953	GLU
20	R3	1049	ASP
20	R3	1152	ASP
20	R3	1215	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	R3	1226	ASP
20	R3	1274	SER
21	S0	166	SER
21	S0	170	SER
21	S0	252	ASP
21	S0	264	GLU
21	S0	307	THR
21	S1	43	TYR
21	S1	166	SER
21	S1	170	SER
21	S1	252	ASP
21	S1	264	GLU
21	S1	307	THR
21	S2	125	ASP
21	S2	166	SER
21	S2	170	SER
21	S2	232	TRP
21	S2	252	ASP
21	S2	264	GLU
21	S2	307	THR
21	S3	43	TYR
21	S3	125	ASP
21	S3	166	SER
21	S3	170	SER
21	S3	252	ASP
21	S3	264	GLU
21	S3	307	THR
22	T0	185	SER
22	T0	186	ASP
22	T0	375	SER
22	T0	424	ASN
22	T0	452	GLU
22	T0	647	GLU
22	T0	684	ASP
22	T0	778	TYR
22	T0	820	HIS
22	T0	821	ASN
22	T1	185	SER
22	T1	186	ASP
22	T1	375	SER
22	T1	424	ASN
22	T1	452	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	T1	556	SER
22	T1	647	GLU
22	T1	684	ASP
22	T1	737	GLU
22	T1	778	TYR
22	T1	820	HIS
22	T1	821	ASN
23	U0	780	ASP
23	U0	800	VAL
23	U0	829	THR
23	U0	839	SER
23	U0	841	ASP
23	U0	842	ARG
23	U1	606	ASN
23	U1	610	LEU
23	U2	606	ASN
23	U3	606	ASN
23	U3	610	LEU
23	U4	606	ASN
23	U5	606	ASN
23	U5	610	LEU
23	U6	606	ASN
24	V0	779	VAL
24	V0	797	LEU
24	V0	841	GLU
24	V0	857	LEU
24	V0	909	PHE
24	V0	926	GLU
24	V0	940	SER
24	V0	962	THR
25	W0	10	ASP
25	W0	37	THR
25	W0	209	THR
25	W0	233	SER
25	W0	346	ASP
25	W0	358	ASP
25	W0	388	ASP
25	W0	438	LEU
25	W0	507	CYS
25	W0	527	ASP
25	W0	648	HIS
25	W0	670	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	W0	699	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (135) such sidechains are listed below:

Mol	Chain	Res	Type
1	00	168	ASN
1	00	547	ASN
1	01	24	GLN
1	01	168	ASN
1	03	168	ASN
1	04	168	ASN
2	10	317	GLN
2	10	1227	HIS
2	11	1227	HIS
2	12	317	GLN
2	12	681	ASN
2	12	713	GLN
2	12	1227	HIS
2	12	1434	GLN
2	13	317	GLN
2	13	1227	HIS
2	14	287	ASN
2	14	681	ASN
2	14	1434	GLN
2	15	1227	HIS
2	15	1434	GLN
2	15	1463	HIS
2	16	681	ASN
2	16	1227	HIS
2	17	286	GLN
2	17	337	ASN
2	17	1227	HIS
2	17	1829	HIS
4	A0	515	HIS
4	A2	754	ASN
4	A4	160	GLN
4	A4	515	HIS
4	A5	515	HIS
4	A6	515	HIS
5	B0	1085	HIS
5	B0	1685	GLN
6	C0	871	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	C0	905	HIS
6	C0	939	HIS
6	C0	1019	ASN
6	C0	1329	GLN
6	C0	1765	GLN
6	C1	905	HIS
6	C1	1019	ASN
6	C1	1765	GLN
6	C1	1962	GLN
6	C2	180	GLN
6	C2	544	ASN
6	C2	854	ASN
6	C2	858	GLN
6	C2	1021	GLN
6	C2	1277	HIS
6	C2	1281	HIS
6	C2	1597	GLN
6	C3	905	HIS
6	C3	1288	GLN
6	C3	1765	GLN
6	C4	22	HIS
6	C4	905	HIS
6	C4	1765	GLN
7	D0	383	ASN
7	D0	428	ASN
7	D0	790	GLN
7	D0	1009	ASN
7	D1	383	ASN
7	D1	428	ASN
7	D1	734	ASN
7	D1	736	ASN
7	D1	858	HIS
7	D1	922	GLN
7	D2	428	ASN
7	D3	428	ASN
7	D4	99	HIS
7	D4	383	ASN
7	D4	428	ASN
7	D4	1207	HIS
7	D5	383	ASN
7	D5	1105	HIS
7	D5	1343	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	E0	333	GLN
8	E0	358	HIS
9	F1	192	GLN
9	F3	192	GLN
10	H0	432	ASN
10	H1	418	GLN
10	H3	418	GLN
10	H3	493	HIS
12	J0	443	GLN
13	K0	617	GLN
13	K1	510	ASN
13	K3	498	ASN
13	K3	932	HIS
14	L1	747	HIS
14	L1	761	ASN
14	L2	747	HIS
14	L3	585	HIS
14	L3	747	HIS
15	M0	825	HIS
18	P0	388	GLN
18	P1	388	GLN
18	P1	480	ASN
18	P2	621	GLN
18	P3	388	GLN
18	P3	480	ASN
19	Q0	121	HIS
19	Q1	121	HIS
19	Q2	121	HIS
19	Q2	160	HIS
19	Q3	121	HIS
20	R0	759	GLN
20	R0	1008	HIS
20	R1	759	GLN
20	R2	1144	GLN
20	R3	1144	GLN
22	T0	820	HIS
23	U1	604	ASN
23	U1	606	ASN
23	U2	604	ASN
23	U2	607	ASN
23	U2	609	ASN
23	U3	604	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	U3	606	ASN
23	U3	607	ASN
23	U4	604	ASN
23	U4	606	ASN
23	U4	607	ASN
23	U4	609	ASN
23	U5	604	ASN
23	U5	606	ASN
23	U5	607	ASN
23	U6	604	ASN
23	U6	606	ASN
23	U6	607	ASN
23	U6	609	ASN
24	V0	883	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

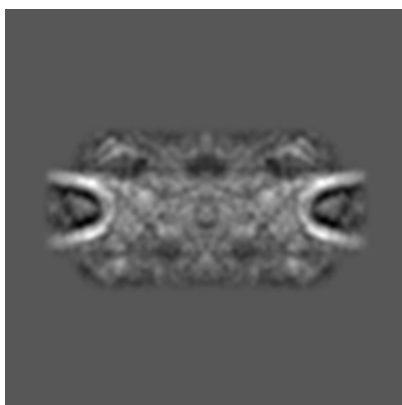
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-14321. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

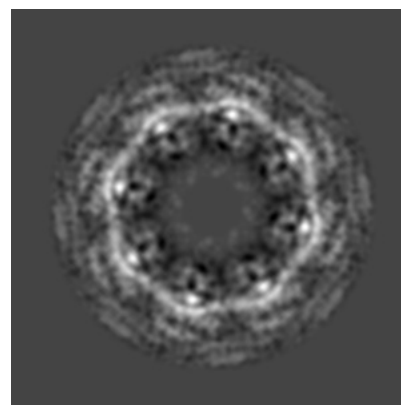
6.1.1 Primary map



X



Y



Z

The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

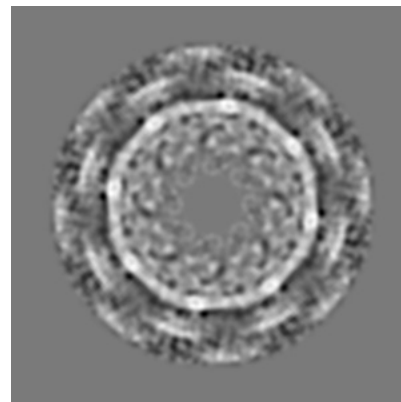
6.2.1 Primary map



X Index: 72



Y Index: 72



Z Index: 72

The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

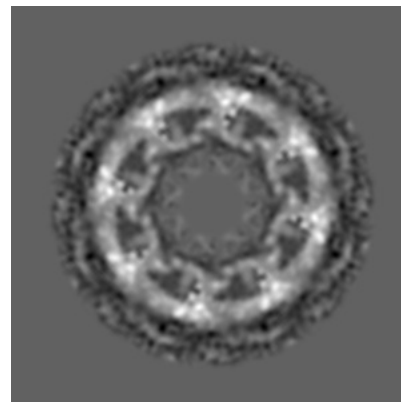
6.3.1 Primary map



X Index: 36



Y Index: 36

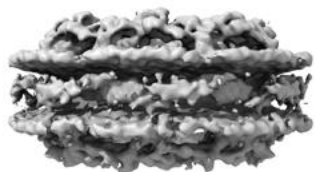


Z Index: 77

The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views [i](#)

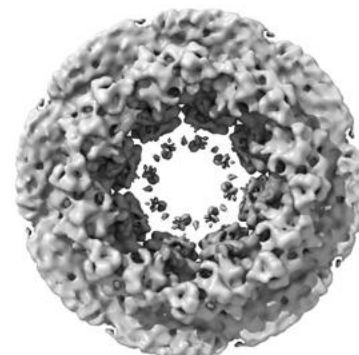
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0891. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

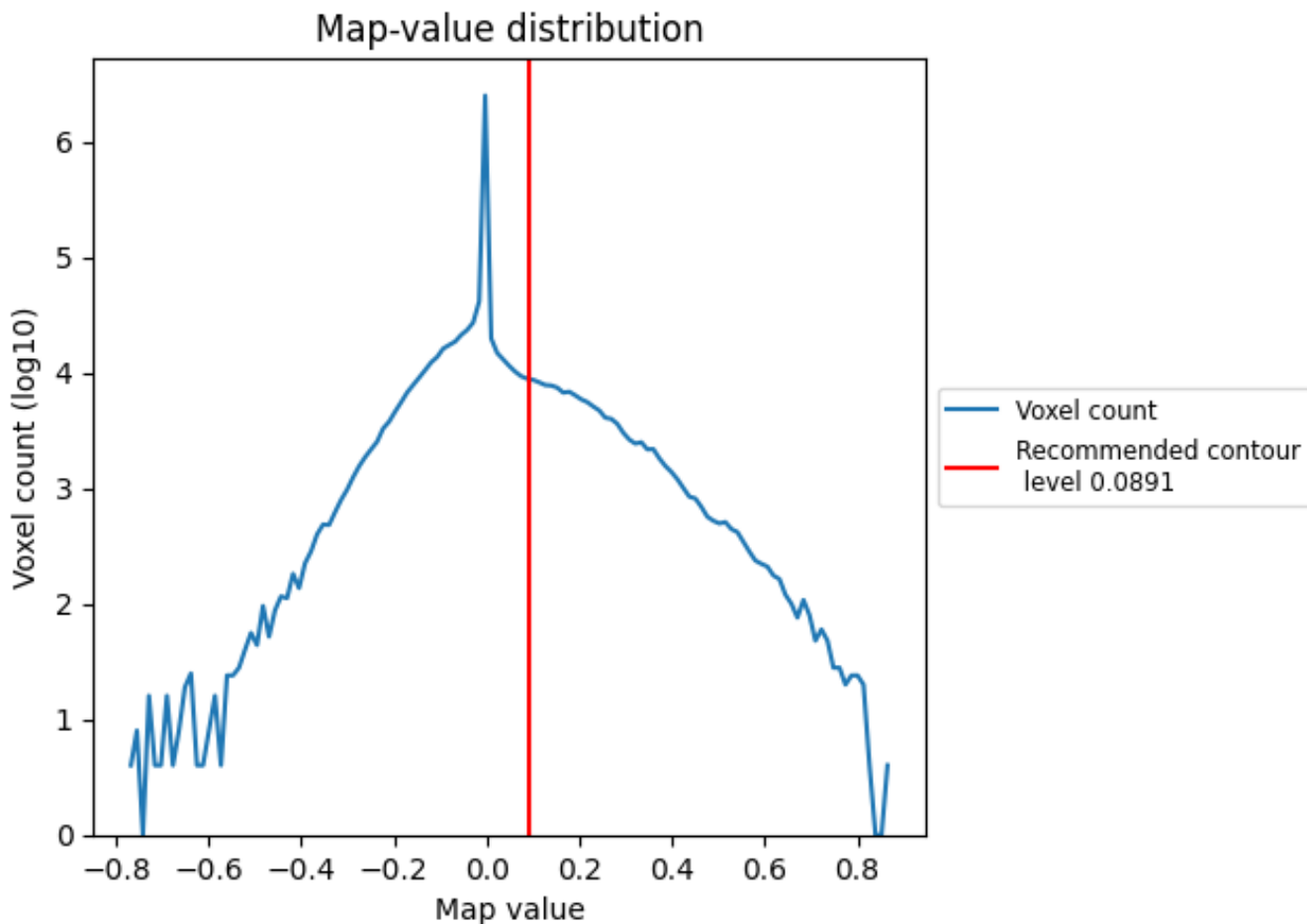
6.5 Mask visualisation

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

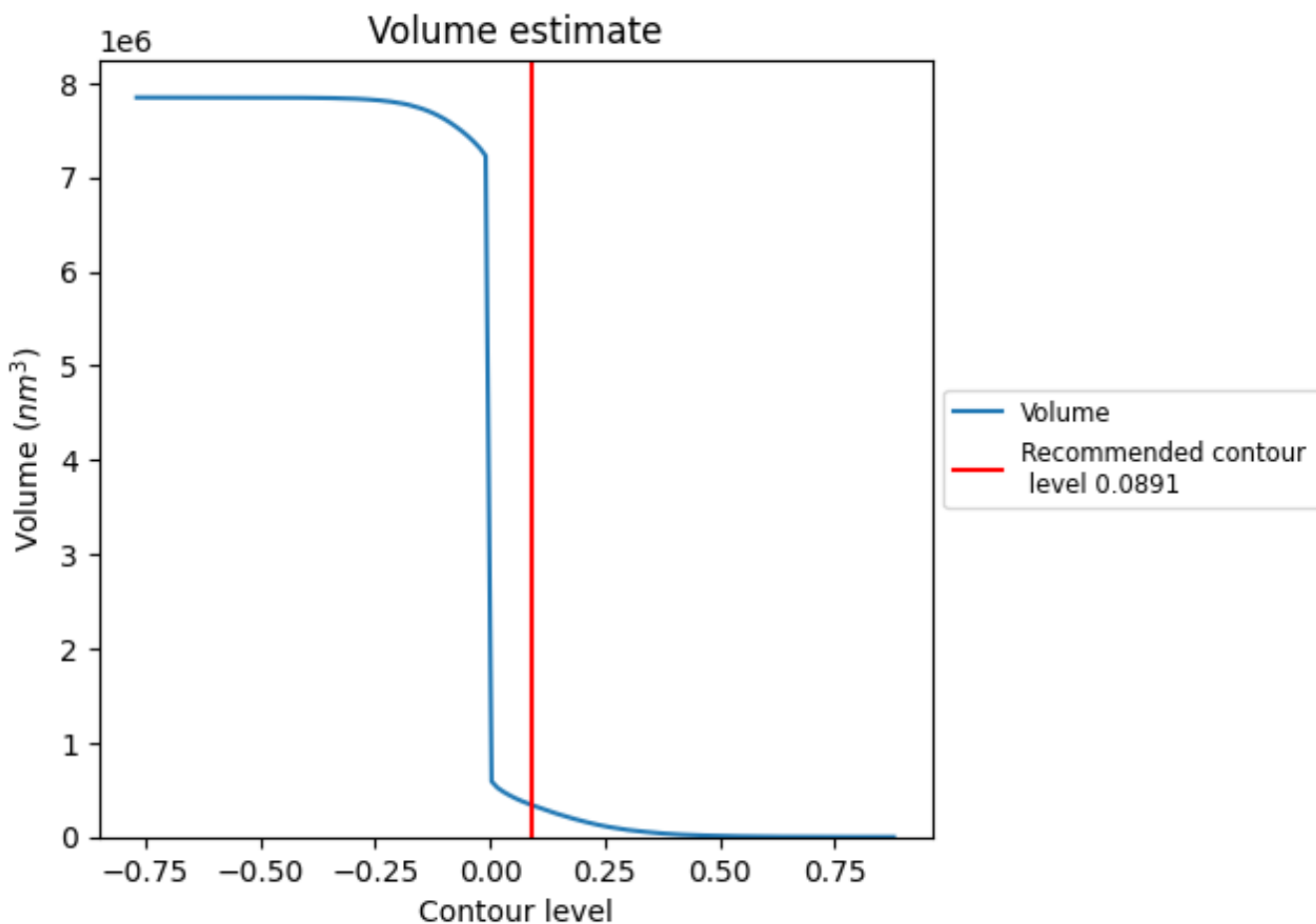
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

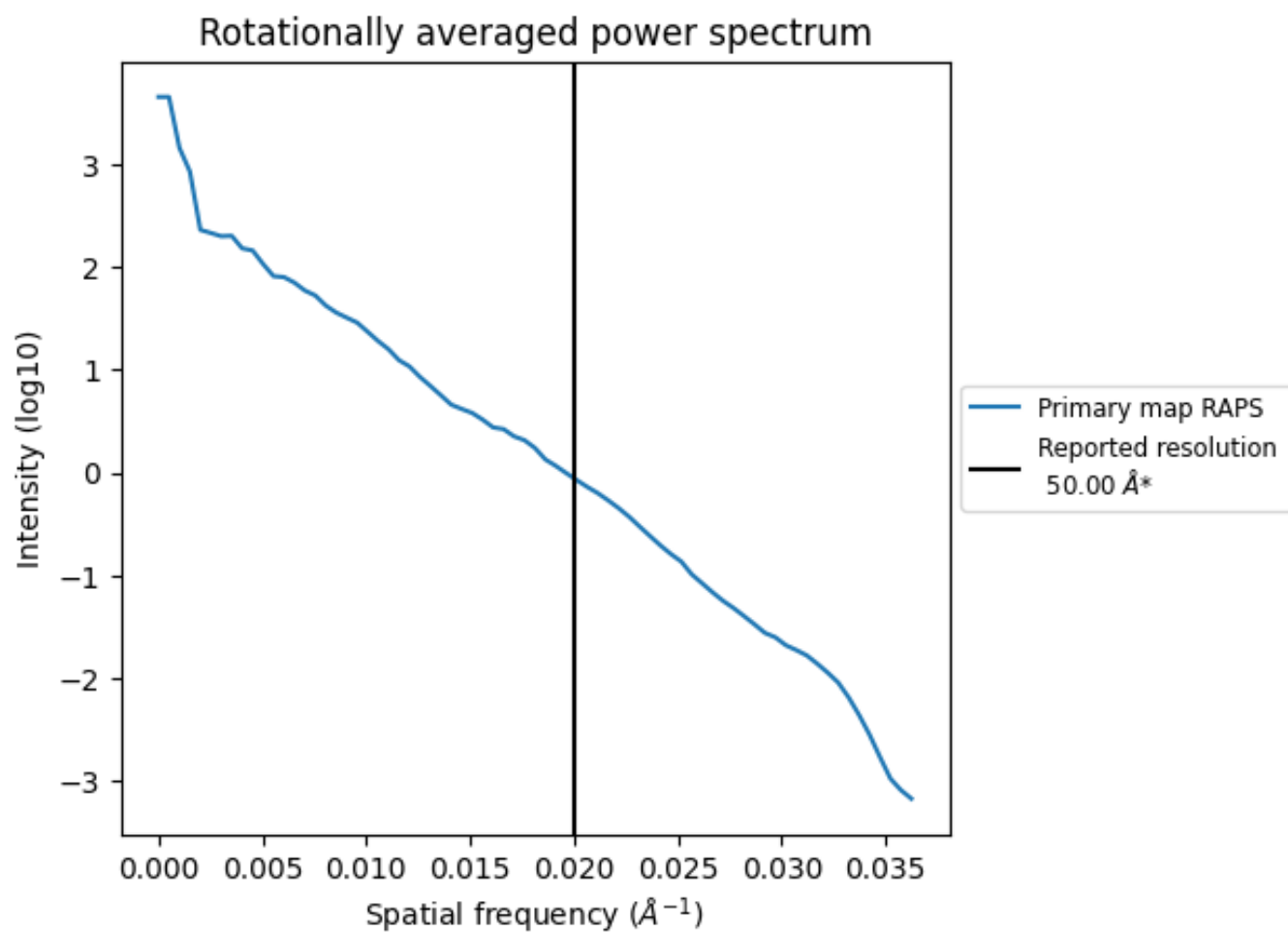
7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 342613 nm^3 ; this corresponds to an approximate mass of 309491 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [i](#)



*Reported resolution corresponds to spatial frequency of 0.020 Å⁻¹

8 Fourier-Shell correlation

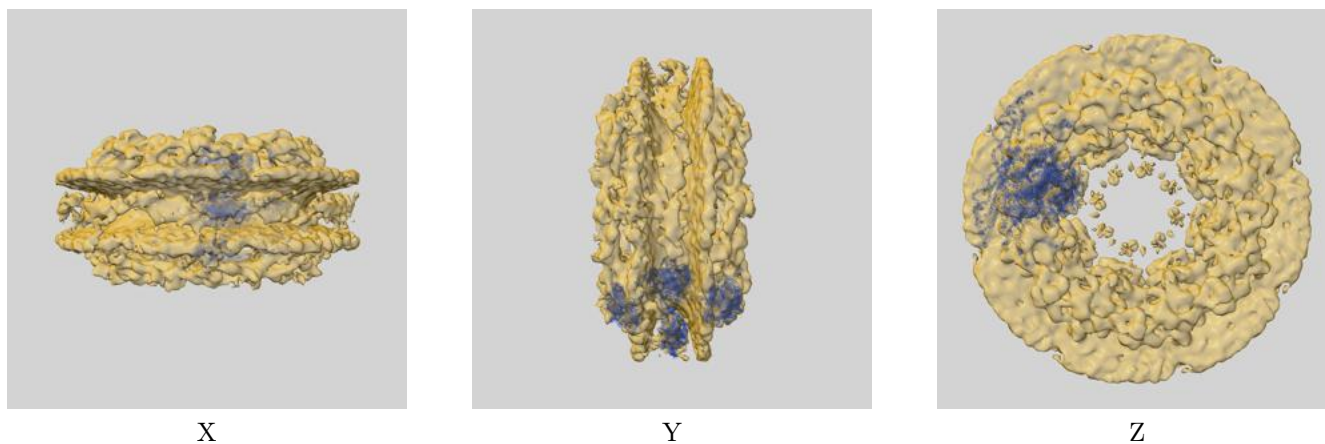
This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

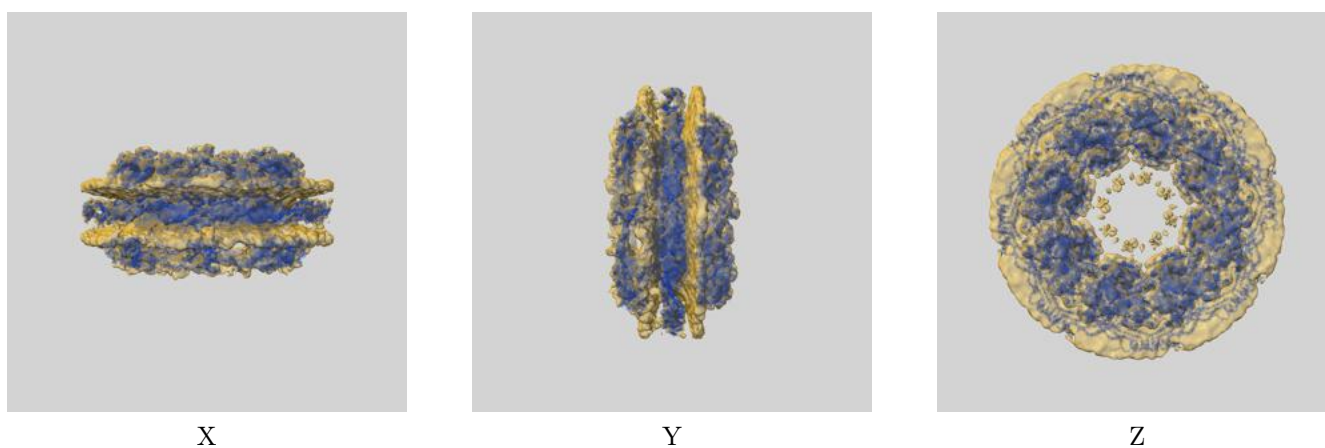
This section contains information regarding the fit between EMDB map EMD-14321 and PDB model 7R5J. Per-residue inclusion information can be found in section 3 on page 15.

9.1 Map-model overlays

9.1.1 Map-model overlay [i](#)

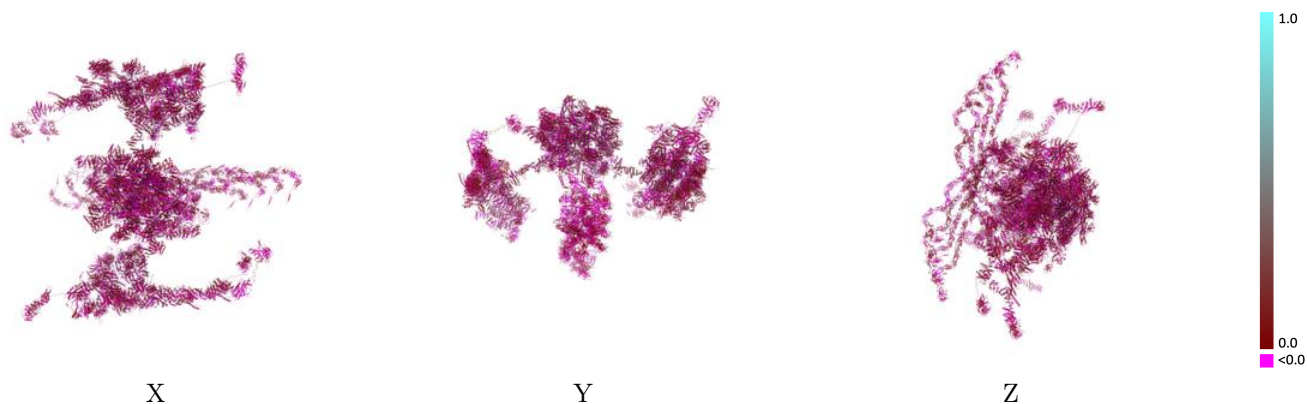


9.1.2 Map-model assembly overlay [i](#)



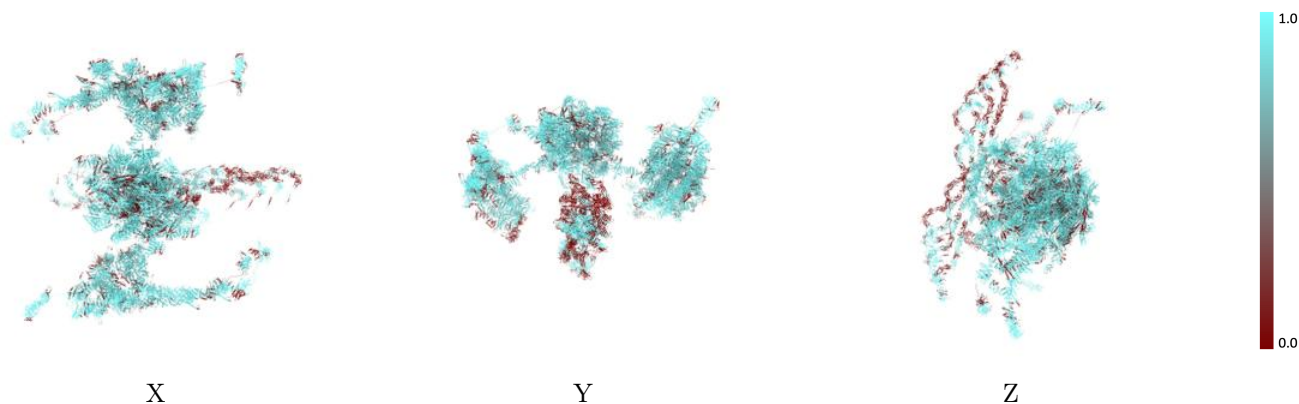
The images above show the 3D surface view of the map at the recommended contour level 0.0891 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



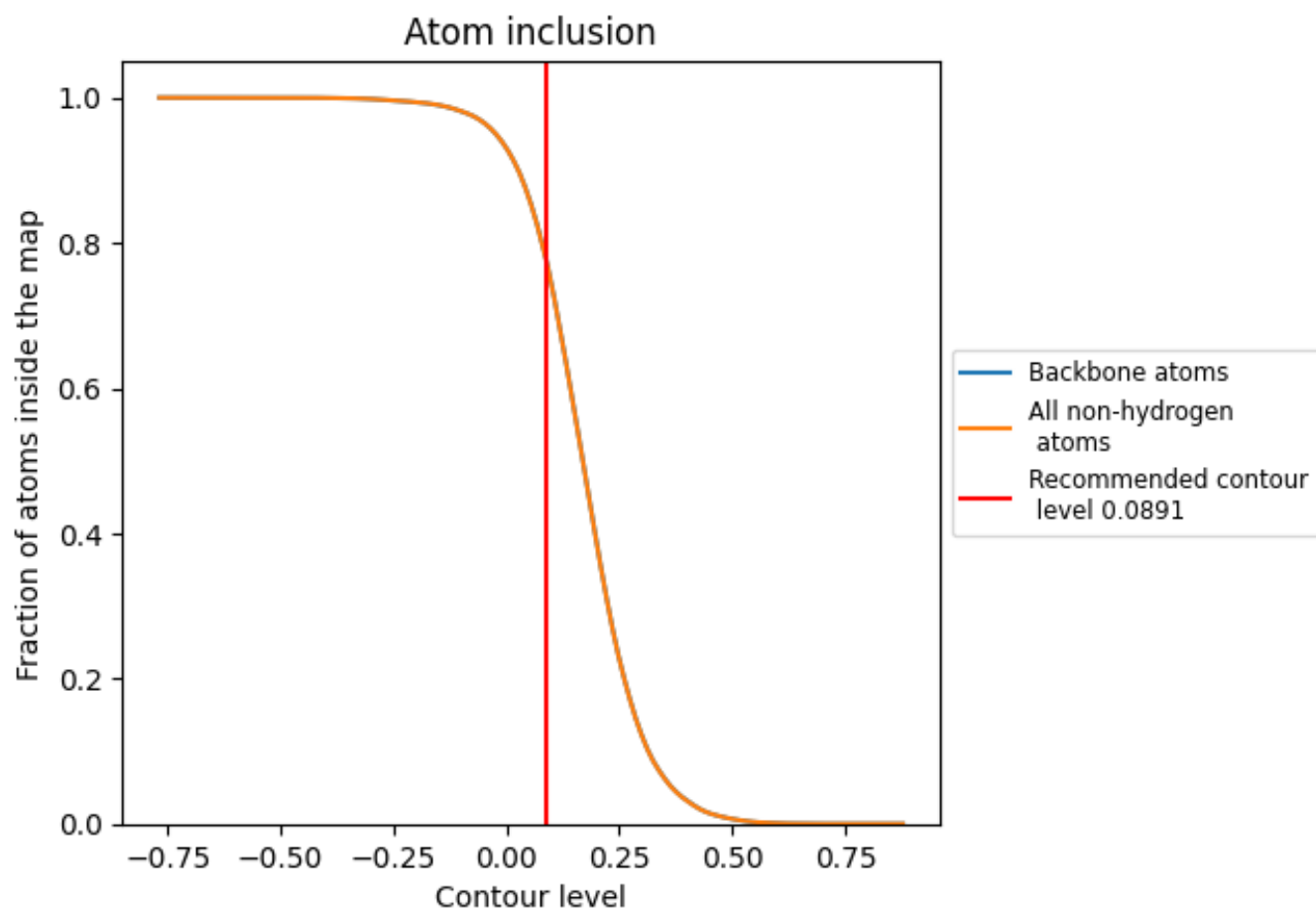
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.0891).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 78% of all backbone atoms, 77% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary





















































































The table lists the average atom inclusion at the recommended contour level (0.0891) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7742	 0.0260
00	 0.6938	 0.0260
01	 0.8322	 0.0420
02	 0.8559	 0.0400
03	 0.7253	 0.0340
04	 0.8888	 0.0480
10	 0.2441	 0.0150
11	 0.4849	 0.0150
12	 0.6711	 0.0220
13	 0.5791	 0.0240
14	 0.2915	 0.0000
15	 0.7145	 0.0220
16	 0.7297	 0.0210
17	 0.5870	 0.0250
40	 0.9955	 0.0240
41	 0.9993	 0.0270
A0	 0.9254	 0.0220
A1	 0.8518	 0.0330
A2	 0.9071	 0.0210
A3	 0.8761	 0.0420
A4	 0.8379	 0.0400
A5	 0.7589	 0.0160
A6	 0.9110	 0.0340
B0	 0.8480	 0.0340
B1	 0.8546	 0.0320
C0	 0.8061	 0.0240
C1	 0.8360	 0.0180
C2	 0.8300	 0.0340
C3	 0.8515	 0.0170
C4	 0.8216	 0.0280
D0	 0.8472	 0.0270
D1	 0.8023	 0.0260
D2	 0.8970	 0.0310
D3	 0.7722	 0.0200
D4	 0.8918	 0.0350





















































Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
D5	 0.8263	 0.0310
E0	 0.9903	 0.0160
E1	 0.9802	 0.0080
F0	 0.8736	 0.0280
F1	 0.7040	 0.0170
F2	 0.7788	 0.0280
F3	 0.6713	 0.0170
H0	 0.7580	 0.0260
H1	 0.7633	 0.0350
H2	 0.7226	 0.0180
H3	 0.8257	 0.0390
I0	 0.5813	 0.0190
I1	 0.6703	 0.0260
I2	 0.7209	 0.0430
I3	 0.6500	 0.0200
J0	 0.6842	 0.0250
J1	 0.5621	 0.0110
J2	 0.7977	 0.0440
J3	 0.5780	 0.0030
J4	 0.8316	 0.0220
K0	 0.7784	 0.0200
K1	 0.8211	 0.0400
K2	 0.7117	 0.0140
K3	 0.7454	 0.0430
L0	 0.9133	 0.0390
L1	 0.7034	 0.0100
L2	 0.7545	 0.0260
L3	 0.8895	 0.0310
M0	 0.9298	 0.0420
M1	 0.7501	 0.0430
M2	 0.9599	 0.0380
M3	 0.8002	 0.0370
N0	 0.7935	 0.0160
N1	 0.9134	 0.0400
N2	 0.9892	 0.0250
N3	 0.9203	 0.0380
O0	 0.8334	 0.0330
O1	 0.9645	 0.0360
O2	 0.8838	 0.0290
O3	 0.9173	 0.0240
P0	 0.7832	 0.0380
P1	 0.9054	 0.0250

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
P2	 0.9037	 0.0330
P3	 0.8848	 0.0300
Q0	 0.7679	 0.0330
Q1	 0.8236	 0.0380
Q2	 0.8962	 0.0260
Q3	 0.9454	 0.0330
R0	 0.8853	 0.0290
R1	 0.8766	 0.0250
R2	 0.9451	 0.0280
R3	 0.9436	 0.0240
S0	 0.9315	 0.0430
S1	 0.9474	 0.0370
S2	 0.9458	 0.0200
S3	 0.9566	 0.0410
T0	 0.6368	 -0.0040
T1	 0.1821	 -0.0130
U0	 0.4425	 0.0070
U1	 0.5563	 0.0070
U2	 0.2649	 0.0290
U3	 0.9205	 0.0140
U4	 0.3841	 0.0040
U5	 0.1987	 0.0090
U6	 0.7881	 0.0380
V0	 0.7205	 0.0220
W0	 0.8028	 0.0250