



Full wwPDB X-ray Structure Validation Report ⓘ

May 25, 2020 – 06:58 am BST

PDB ID : 4DV5
Title : Crystal structure of the *Thermus thermophilus* 30S ribosomal subunit with a 16S rRNA mutation, A914G, bound with streptomycin
Authors : Demirci, H.; Murphy IV, F.; Murphy, E.; Gregory, S.T.; Dahlberg, A.E.; Jogle, G.
Deposited on : 2012-02-22
Resolution : 3.68 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.11
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

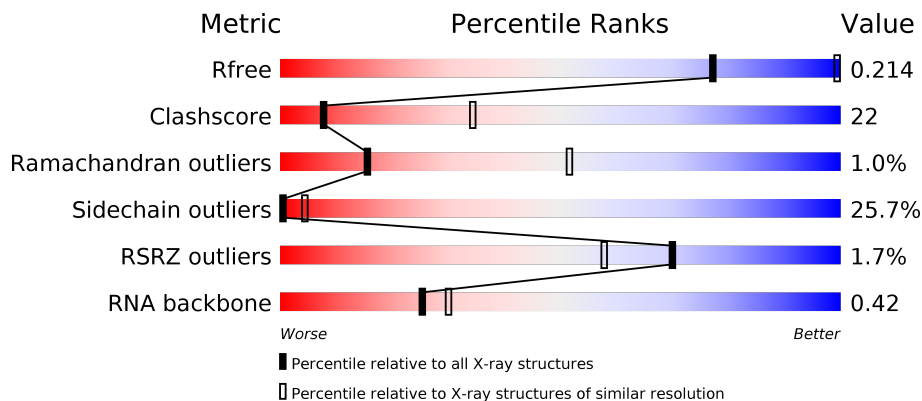
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.68 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.






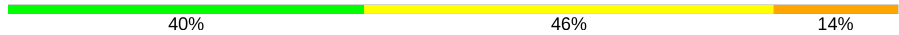
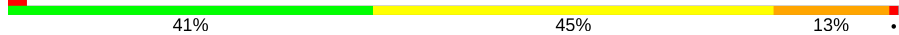
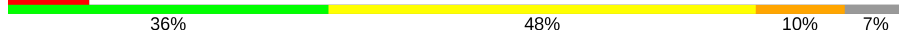
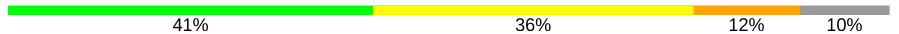
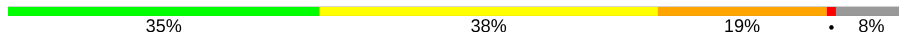
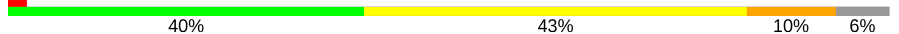
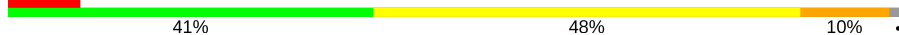
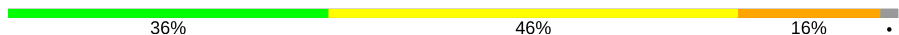
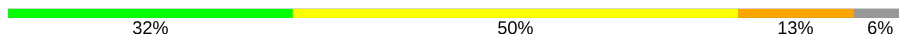
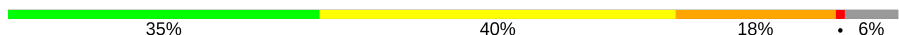
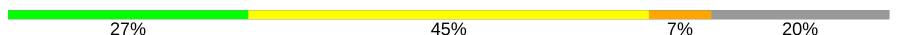
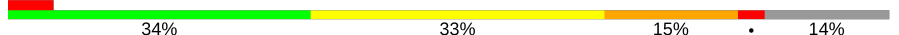


Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1013 (3.84-3.52)
Clashscore	141614	1070 (3.84-3.52)
Ramachandran outliers	138981	1036 (3.84-3.52)
Sidechain outliers	138945	1033 (3.84-3.52)
RSRZ outliers	127900	1471 (3.86-3.50)
RNA backbone	3102	1024 (4.30-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	1522	 16% 41% 30% 12% 3%
2	B	256	 30% 47% 12% 9%
3	C	239	 4% 35% 37% 14% 14%
4	D	209	 43% 44% 11% 2%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
5	E	162	
6	F	101	
7	G	156	
8	H	138	
9	I	128	
10	J	105	
11	K	129	
12	L	135	
13	M	126	
14	N	61	
15	O	89	
16	P	88	
17	Q	105	
18	R	88	
19	S	93	
20	T	106	
21	U	27	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
1	5MC	A	1404	-	-	X	-
1	PSU	A	1540	-	-	-	X
23	MG	A	1658	-	-	-	X
23	MG	A	1661	-	-	-	X
23	MG	A	1671	-	-	-	X
23	MG	A	1673	-	-	-	X
23	MG	A	1720	-	-	-	X
23	MG	A	1731	-	-	-	X

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	MG	A	1739	-	-	-	X
23	MG	A	1767	-	-	-	X
23	MG	A	1793	-	-	-	X
23	MG	A	1794	-	-	-	X
23	MG	A	1797	-	-	-	X
23	MG	A	1799	-	-	-	X
23	MG	A	1837	-	-	-	X
23	MG	H	204	-	-	-	X

2 Entry composition [i](#)

There are 25 unique types of molecules in this entry. The entry contains 52300 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	A	1512	32508	14477	6011	10508	1512	0	0	0

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	914	G	A	ENGINEERED MUTATION	GB M26923.1
A	1534	C	A	CONFLICT	GB M26923.1
A	1535	A	C	CONFLICT	GB M26923.1

- Molecule 2 is a protein called ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	234	1900	1213	341	341	5	0	0	0

- Molecule 3 is a protein called ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	C	206	1612	1016	314	281	1	0	0	0

- Molecule 4 is a protein called ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	D	208	1703	1066	339	291	7	0	0	0

- Molecule 5 is a protein called ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	150	Total	C	N	O	S	0	0	0
			1146	724	217	201	4			

- Molecule 6 is a protein called ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 7 is a protein called ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 8 is a protein called ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 9 is a protein called ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	I	127	Total	C	N	O	0	0	0
			1010	639	197	174			

- Molecule 10 is a protein called ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	98	Total	C	N	O	S	0	0	0
			792	498	156	137	1			

- Molecule 11 is a protein called ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	116	Total	C	N	O	S	0	0	0
			864	537	164	160	3			

- Molecule 12 is a protein called ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
12	L	124	972	612	195	163	2	0	0	0

- Molecule 13 is a protein called ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
13	M	118	937	579	193	163	2	0	0	0

- Molecule 14 is a protein called ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
14	N	60	492	312	104	72	4	0	0	0

- Molecule 15 is a protein called ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
15	O	87	729	457	146	124	2	0	0	0

- Molecule 16 is a protein called ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
16	P	83	700	443	139	117	1	0	0	0

- Molecule 17 is a protein called ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
17	Q	99	823	528	152	141	2	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Q	96	GLN	GLU	CONFLICT	UNP Q5SHP7

- Molecule 18 is a protein called ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
18	R	70	574	367	112	95	0	0	0

- Molecule 19 is a protein called ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
19	S	80	647	414	119	112	2	0	0	0

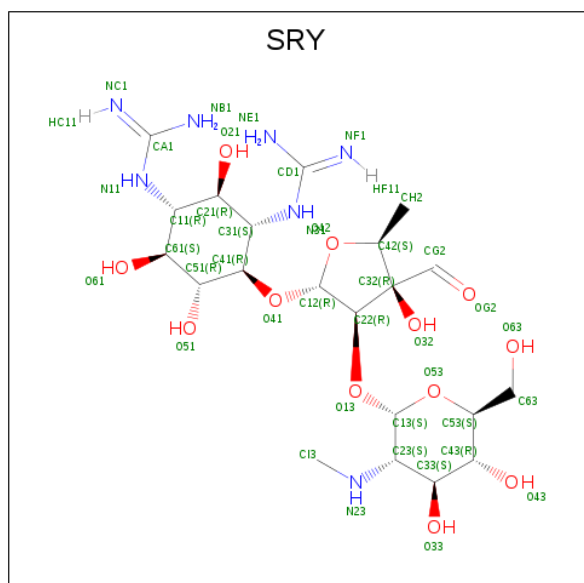
- Molecule 20 is a protein called ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
20	T	99	763	470	162	129	2	0	0	0

- Molecule 21 is a protein called ribosomal protein THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
21	U	24	208	128	50	30	0	0	0

- Molecule 22 is STREPTOMYCIN (three-letter code: SRY) (formula: $C_{21}H_{39}N_7O_{12}$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
22	A	1	40	21	7	12	0	0

- Molecule 23 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
23	P	3	Total Mg 3 3	0	0
23	J	2	Total Mg 2 2	0	0
23	Q	1	Total Mg 1 1	0	0
23	D	1	Total Mg 1 1	0	0
23	E	1	Total Mg 1 1	0	0
23	H	4	Total Mg 4 4	0	0
23	B	2	Total Mg 2 2	0	0
23	A	253	Total Mg 253 253	0	0
23	T	2	Total Mg 2 2	0	0
23	N	1	Total Mg 1 1	0	0
23	S	1	Total Mg 1 1	0	0
23	M	2	Total Mg 2 2	0	0

- Molecule 24 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
24	D	1	Total Zn 1 1	0	0
24	N	1	Total Zn 1 1	0	0

- Molecule 25 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
25	A	374	Total O 374 374	0	0
25	B	1	Total O 1 1	0	0
25	D	1	Total O 1 1	0	0

Continued on next page...

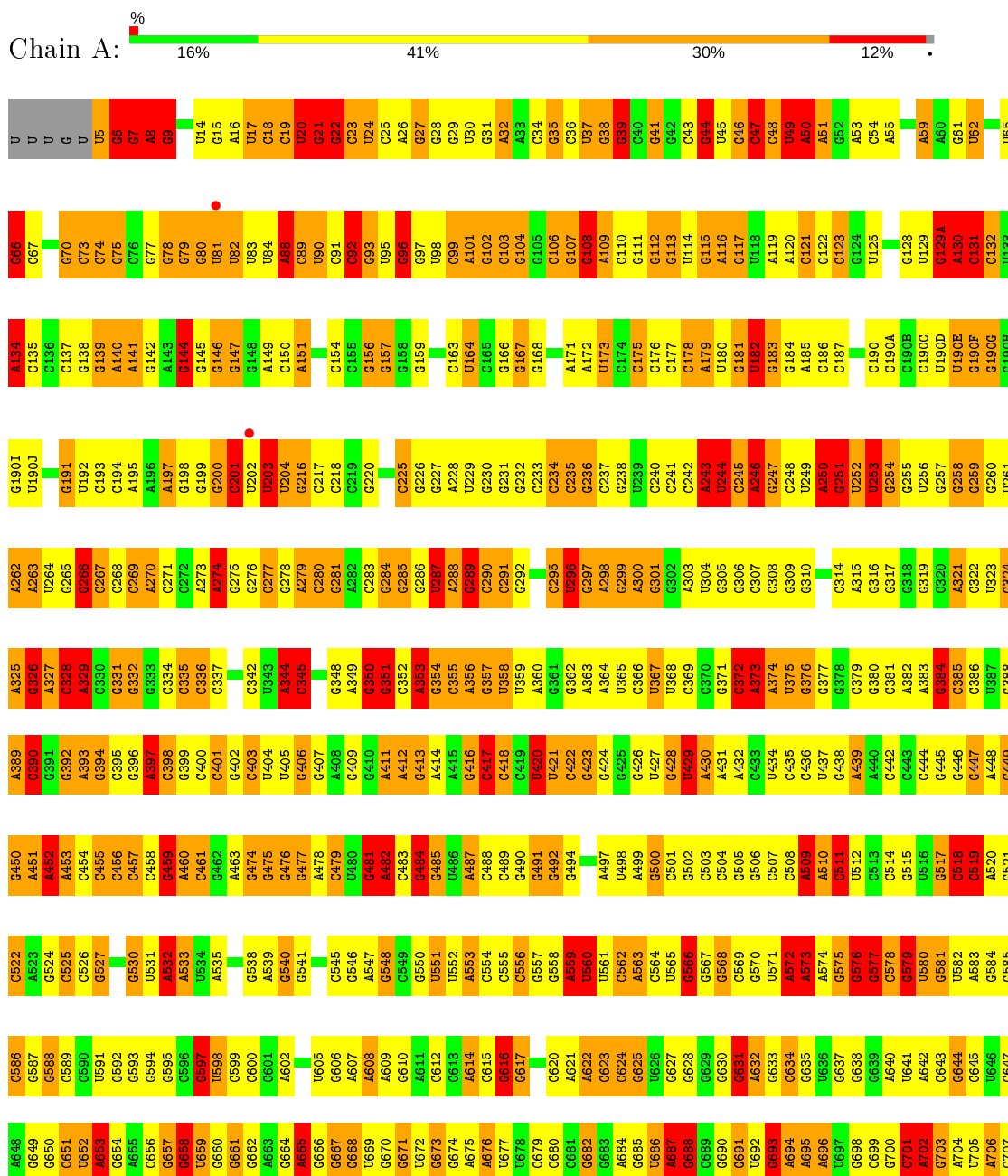
Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
25	E	7	Total O 7 7	0	0
25	L	1	Total O 1 1	0	0
25	N	1	Total O 1 1	0	0
25	P	2	Total O 2 2	0	0
25	T	2	Total O 2 2	0	0

3 Residue-property plots


These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

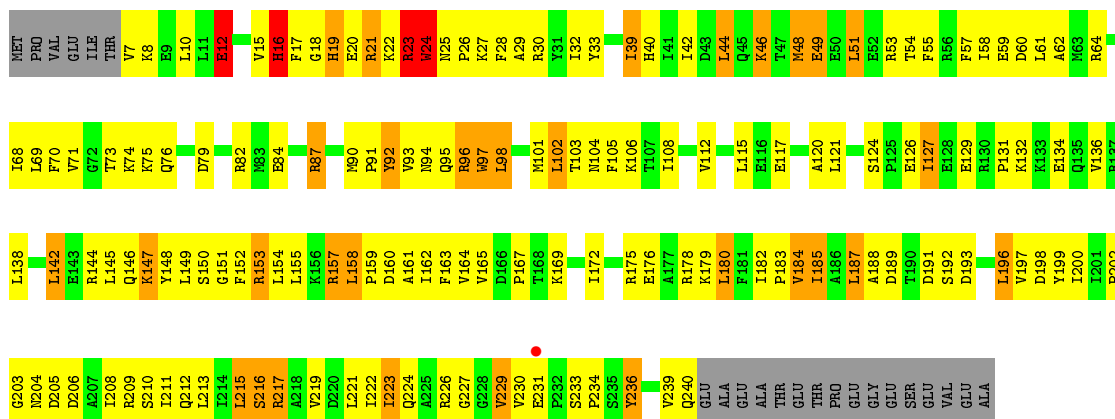
- Molecule 1: 16S rRNA



G1517	G1518	G1519	G1520	G1521	G1522	G1523	G1524	G1525	G1526	G1527	G1528	G1529	G1530	G1531	G1532	G1533	A	C	U	C	C1539	U1540	U1541	U1542	U1543	U1544																																											
G1451	G1452	G1453	G1454	G1455	G1456	G1457	G1458	G1459	G1460	G1461	G1462	G1463	G1464	G1465	G1466	G1467	G1468	G1469	G1470	G1471	G1472	G1473	G1474	G1475	G1476	G1477	G1478	G1479	G1480	G1481	G1482	G1483	G1484	G1485	G1486	G1487	G1488	G1489	G1490	G1491	G1492	G1493	G1494	G1495	G1496	G1497	G1498	G1499	A1500	C1501	A1502	G1503	G1504	G1505	U1506	A1507	G1508	G1509	U1510	G1511	G1512	G1513	C1514	C1515	G1516				
U1381	C1382	C1383	C1384	G1385	G1386	G1387	C1388	C1389	U1390	U1391	A1392	A1393	U1394	C1395	C1396	G1397	C1398	C1399	C1400	G1401	C1402	C1403	C1404	G1405	U1406	C1407	A1408	A1409	G1410	G1411	C1412	C1413	U1414	G1415	G1416	G1417	A1418	G1419	G1420	G1421	G1422	C1423	C1424	U1425	C1426	U1427	A1428	G1429	G1430	G1431	A1432	G1433	G1434	U1435	G1436	G1437	G1438	G1439	G1440	G1441	G1442	G1443	G1444	G1445	G1446	G1447	G1448	G1449	G1450
U1199	C1200	A1201	C1202	G1203	G1204	G1205	G1206	G1207	A1208	G1209	C1210	U1211	U1212	U1213	A1214	G1215	G1216	G1217	C1218	U1219	G1220	U1221	G1222	C1223	C1224	A1225	C1226	A1227	C1228	G1229	A1230	G1231	U1232	C1233	C1234	U1235	A1236	C1237	A1238	A1239	U1240	G1241	C1242	C1243	C1244	A1245	G1246	U1247	A1248	C1249	A1250	U1251	U1252	U1253	U1254	G1255	A1256	U1257	C1259										
G1138	G1139	C1140	C1141	G1142	G1143	G1144	C1145	A1146	U1147	U1148	C1149	U1150	A1151	A1152	C1153	G1154	G1155	G1156	A1157	C1158	U1159	G1160	C1161	C1162	C1163	G1164	C1165	A1166	A1167	U1168	A1169	G1170	C1171	C1172	G1173	G1174	G1175	A1176	G1177	G1178	A1179	A1180	G1181	G1182	A1183	G1184	G1185	G1186	U1187	A1188	C1189	G1190	A1191	C1192	G1193	U1194	C1195	U1196	G1197	G1198									
U1078	G1079	A1080	G1081	G1082	U1083	G1084	U1085	U1086	G1087	U1088	G1089	U1090	U1091	A1092	A1093	G1094	U1095	C1096	C1097	U1098	G1099	C1100	A1101	A1102	C1103	G1104	A1105	A1106	A1107	U1108	G1109	A1110	A1111	G1112	C1113	C1114	C1115	G1116	G1117	G1118	C1119	G1120	G1121	U1122	A1123	G1124	U1125	U1126	G1127	C1128	G1129	A1130	U1131	C1132	G1133	G1134	U1135	U1136	C1137										
G1077	U1078	G1079	A1080	G1081	G1082	U1083	G1084	U1085	U1086	G1087	U1088	G1089	U1090	U1091	A1092	A1093	G1094	U1095	C1096	C1097	U1098	G1099	C1100	A1101	A1102	C1103	G1104	A1105	A1106	A1107	U1108	G1109	A1110	A1111	G1112	C1113	C1114	C1115	G1116	G1117	G1118	C1119	G1120	G1121	U1122	A1123	G1124	U1125	U1126	G1127	C1128	G1129	A1130	U1131	C1132	G1133	G1134	U1135	U1136	C1137									
C1019	U1020	G1021	G1022	G1023	G1024	U1025	G1026	G1027	C1028	G1029	U1030	G1030A	C1030B	G1031	G1032	G1033	A1035	G1036	C1037	C1038	G1039	U1040	U1041	A1042	G1043	A1044	C1045	A1046	U1047	G1048	U1049	C1050	U1051	U1052	G1053	C1054	A1055	U1056	G1057	G1058	C1059	C1060	G1061	U1062	C1063	G1064	U1065	C1066	A1067	G1068	G1069	U1070	G1071	A1072	U1073	C1074	C1075	C1076											
U955	U956	U957	U960	U963	A964	U965	U966	U967	U968	U969	U970	U971	U972	U973	U974	A975	U976	A977	U978	U979	U980	U981	U982	U983	U984	U985	U986	U987	U988	U989	U990	U991	U992	U993	A994	C995	U996	U997	U1000	A1001	G1002	G1003	A1004	A1005	U1006	C1007	C1008	G1009	G1010	A1011	A1012	U1013	A1014	C1018															
G895	G896	C897	G898	C899	A900	U895	U902	U903	U904	U905	U906	C840	U841	U842	U843	U844	U845	U846	U847	U848	U849	U850	U851	U852	U853	U854	U855	U856	U857	U858	U859	U860	U861	U862	U863	U864	U865	U866	U867	U868	U869	U870	U871	U872	U873	U874	U875	U876	U877	U878	U879	U880	U881	U882	U883	U884	U885	U886	U887	U888	U889	U890	U891	U892	U893	U894			
C708	G709	G710	G711	A712	G713	G714	A715	A716	G717	G718	G719	A781	C720	G721	A722	U723	G724	G725	G726	G727	A728	A729	G730	G731	A792	C732	A733	G734	G735	G736	G737	C738	C739	U740	G741	G742	U743	G744	C745	A746	C747	C748	G749	G750	U751	G752	A753	G754	G755	C756	U757	G758	A759	G760	G761	C762	G763	G764	G765	A766	U827	A828							
G769	C770	U771	G772	G773	G774	G775	G776	G777	G778	G779	A780	U781	C782	A783	G784	G785	G786	A787	U788	U789	A790	G791	G792	U793	A794	G795	G796	G797	U798	G799	U800	A802	G803	U804	U805	C806	A807	G808	G809	C810	C811	U812	U813	A814	A815	G816	U817	U818	U819	U820	G821	C822	G823	A824	G825	U826	C827	A828											

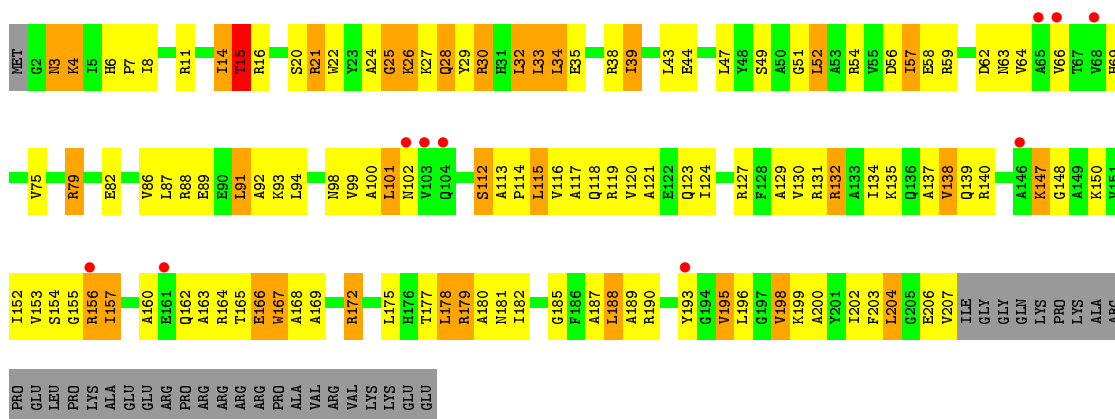
• Molecule 2: ribosomal protein S2

Chain B: 



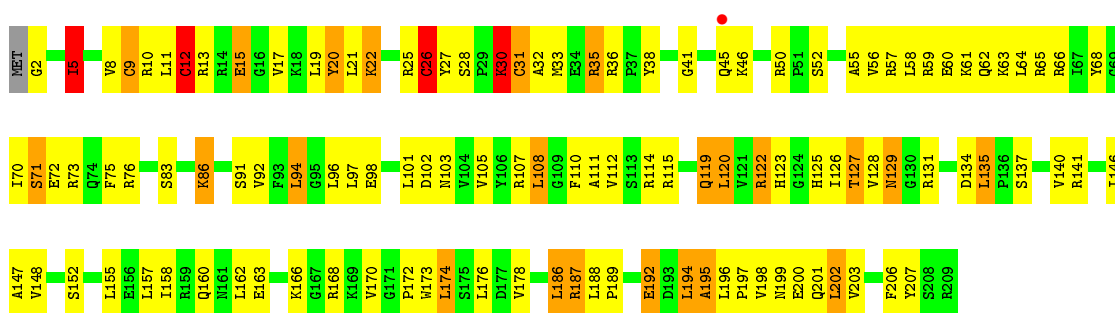
• Molecule 3: ribosomal protein S3

Chain C: 

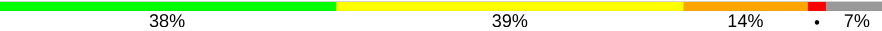


• Molecule 4: ribosomal protein S4

Chain D: 



• Molecule 5: ribosomal protein S5

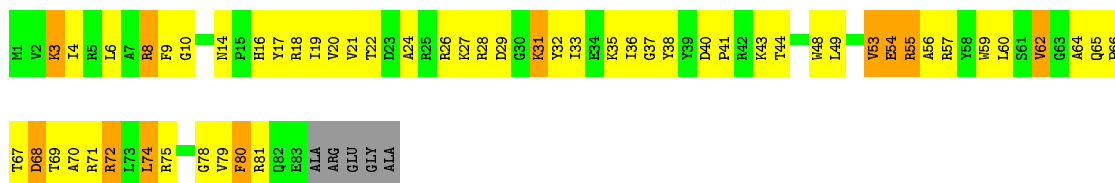
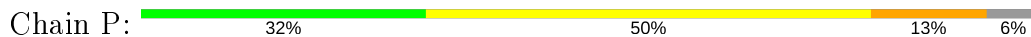
Chain E: 



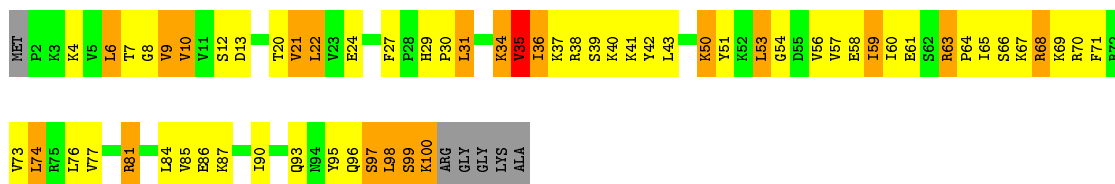
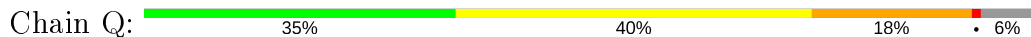
- Molecule 15: ribosomal protein S15



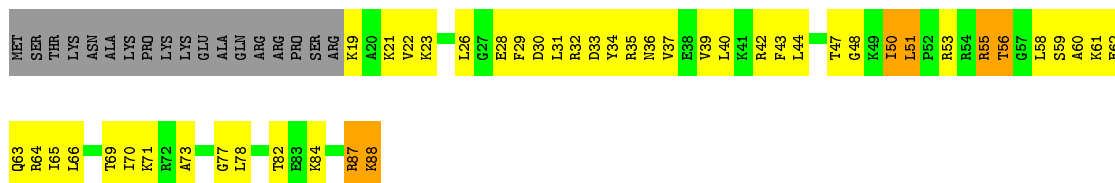
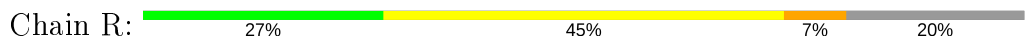
- Molecule 16: ribosomal protein S16



- Molecule 17: ribosomal protein S17

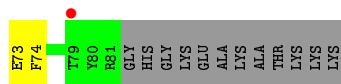
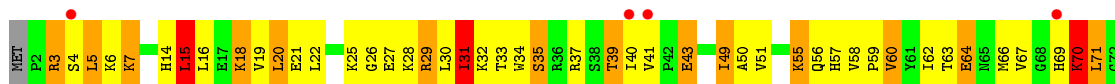


- Molecule 18: ribosomal protein S18

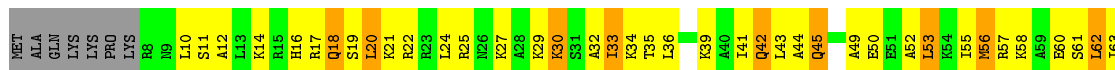


- Molecule 19: ribosomal protein S19

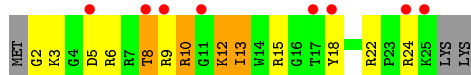




- Molecule 20: ribosomal protein S20



- Molecule 21: ribosomal protein THX



4 Data and refinement statistics

Property	Value	Source
Space group	P 41 21 2	Depositor
Cell constants a, b, c, α , β , γ	402.13Å 402.13Å 172.61Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	34.55 – 3.68 34.55 – 3.68	Depositor EDS
% Data completeness (in resolution range)	98.1 (34.55-3.68) 97.9 (34.55-3.68)	Depositor EDS
R_{merge}	0.10	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.92 (at 3.66Å)	Xtrriage
Refinement program	PHENIX dev_978	Depositor
R, R_{free}	0.156 , 0.211 0.157 , 0.214	Depositor DCC
R_{free} test set	7392 reflections (4.96%)	wwPDB-VP
Wilson B-factor (Å ²)	122.3	Xtrriage
Anisotropy	0.371	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.23 , 118.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.47$, $\langle L^2 \rangle = 0.29$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.96	EDS
Total number of atoms	52300	wwPDB-VP
Average B, all atoms (Å ²)	148.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.44% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, M2G, MA6, 0TD, MG, 2MG, 5MC, UR3, 4OC, SRY, 7MG, PSU

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	A	1.41	334/36041 (0.9%)	2.16	2692/56245 (4.8%)
2	B	0.91	1/1935 (0.1%)	1.06	7/2609 (0.3%)
3	C	0.70	0/1636	0.94	4/2205 (0.2%)
4	D	0.92	3/1733 (0.2%)	1.12	7/2318 (0.3%)
5	E	1.15	5/1162 (0.4%)	1.21	4/1564 (0.3%)
6	F	0.79	0/856	0.97	1/1154 (0.1%)
7	G	0.75	1/1276 (0.1%)	0.92	2/1709 (0.1%)
8	H	1.19	2/1136 (0.2%)	1.21	4/1527 (0.3%)
9	I	0.74	0/1029	0.98	1/1379 (0.1%)
10	J	0.70	0/805	0.95	0/1082
11	K	0.84	1/879 (0.1%)	1.05	1/1187 (0.1%)
12	L	0.97	1/977 (0.1%)	1.18	3/1306 (0.2%)
13	M	0.77	1/947 (0.1%)	0.95	0/1270
14	N	0.68	0/501	0.92	0/664
15	O	0.86	0/740	1.06	2/987 (0.2%)
16	P	0.95	1/716 (0.1%)	1.10	2/963 (0.2%)
17	Q	1.16	1/836 (0.1%)	1.32	9/1117 (0.8%)
18	R	0.81	0/579	0.97	0/768
19	S	0.67	0/661	0.90	1/890 (0.1%)
20	T	0.86	0/765	1.10	1/1007 (0.1%)
21	U	0.59	0/212	0.84	0/277
All	All	1.25	351/55422 (0.6%)	1.88	2741/82228 (3.3%)

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
3	C	0	2
4	D	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
7	G	0	1
8	H	0	1
9	I	0	1
10	J	0	2
12	L	0	1
17	Q	0	1
20	T	0	1
All	All	0	11

All (351) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	279	A	N9-C4	-14.20	1.29	1.37
1	A	1502	A	N9-C4	-12.65	1.30	1.37
1	A	917	G	N9-C4	-10.97	1.29	1.38
8	H	135	CYS	CB-SG	-10.53	1.64	1.82
1	A	1513	A	N9-C4	-10.06	1.31	1.37
1	A	279	A	N3-C4	-9.66	1.29	1.34
4	D	12	CYS	CB-SG	9.64	1.98	1.82
1	A	1508	G	N7-C5	-9.56	1.33	1.39
1	A	1227	A	N9-C4	-9.51	1.32	1.37
1	A	298	A	N9-C4	-9.37	1.32	1.37
1	A	329	A	C5-C6	-8.91	1.33	1.41
1	A	1377	A	N3-C4	-8.76	1.29	1.34
1	A	882	C	N3-C4	-8.75	1.27	1.33
1	A	1509	C	N1-C6	-8.74	1.31	1.37
1	A	266	G	N9-C4	-8.73	1.30	1.38
1	A	1502	A	C5-C6	-8.73	1.33	1.41
1	A	1394	A	N9-C4	-8.73	1.32	1.37
1	A	298	A	N3-C4	-8.63	1.29	1.34
1	A	279	A	N7-C5	-8.63	1.34	1.39
1	A	1500	A	N3-C4	-8.48	1.29	1.34
1	A	759	A	N9-C4	-8.36	1.32	1.37
1	A	1502	A	N3-C4	-8.32	1.29	1.34
1	A	1505	G	N7-C5	-8.31	1.34	1.39
1	A	1442	G	N3-C4	8.19	1.41	1.35
1	A	586	C	N1-C6	-8.16	1.32	1.37
1	A	1442	G	N9-C4	8.10	1.44	1.38
1	A	1502	A	N7-C5	-8.10	1.34	1.39
1	A	759	A	N7-C5	-8.09	1.34	1.39
1	A	901	A	N9-C4	-8.01	1.33	1.37
4	D	26	CYS	CB-SG	7.97	1.95	1.82

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	917	G	N3-C4	-7.88	1.29	1.35
1	A	876	G	C5-C4	-7.86	1.32	1.38
1	A	817	C	N1-C6	-7.80	1.32	1.37
1	A	574	A	C5-C4	-7.78	1.33	1.38
1	A	706	A	N9-C4	-7.73	1.33	1.37
1	A	88	A	N9-C4	7.71	1.42	1.37
1	A	795	C	N3-C4	7.67	1.39	1.33
1	A	1079	G	N7-C5	-7.62	1.34	1.39
1	A	905	U	C2-N3	-7.58	1.32	1.37
1	A	1401	G	N9-C8	-7.55	1.32	1.37
1	A	1499	A	N7-C5	-7.47	1.34	1.39
1	A	569	C	N3-C4	-7.44	1.28	1.33
1	A	904	C	N1-C6	-7.43	1.32	1.37
1	A	868	C	N1-C6	-7.41	1.32	1.37
1	A	860	A	N9-C4	-7.39	1.33	1.37
1	A	875	C	N1-C6	-7.39	1.32	1.37
1	A	568	G	C6-N1	-7.38	1.34	1.39
1	A	889	A	N7-C5	-7.38	1.34	1.39
2	B	12	GLU	CG-CD	7.37	1.63	1.51
1	A	1509	C	N3-C4	-7.36	1.28	1.33
1	A	1514	C	N1-C6	-7.34	1.32	1.37
1	A	795	C	C2-N3	7.29	1.41	1.35
1	A	828	A	N9-C4	-7.29	1.33	1.37
1	A	372	C	C2-O2	7.22	1.30	1.24
1	A	575	G	C6-N1	-7.21	1.34	1.39
1	A	892	A	N9-C4	-7.18	1.33	1.37
1	A	130	A	N9-C4	-7.17	1.33	1.37
1	A	130	A	N3-C4	-7.17	1.30	1.34
1	A	572	A	N3-C4	-7.16	1.30	1.34
1	A	779	C	N1-C6	-7.14	1.32	1.37
1	A	1080	A	N9-C8	-7.13	1.32	1.37
1	A	595	G	N7-C5	-7.12	1.34	1.39
1	A	580	U	C4-O4	7.12	1.29	1.23
1	A	1526	G	N7-C5	-7.11	1.34	1.39
1	A	807	A	N3-C4	-6.97	1.30	1.34
1	A	573	A	N7-C5	-6.96	1.35	1.39
1	A	730	G	N3-C4	-6.96	1.30	1.35
1	A	1543	C	N1-C2	6.94	1.47	1.40
1	A	860	A	N3-C4	-6.93	1.30	1.34
1	A	634	C	N1-C6	-6.93	1.32	1.37
1	A	1268	A	N9-C4	6.91	1.42	1.37
1	A	109	A	N7-C5	-6.87	1.35	1.39

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	758	G	N7-C5	-6.86	1.35	1.39
1	A	722	A	C5-C6	-6.77	1.34	1.41
1	A	1080	A	C5-C4	-6.77	1.34	1.38
1	A	1514	C	C2-N3	-6.76	1.30	1.35
1	A	1493	A	N9-C4	6.75	1.42	1.37
1	A	1500	A	C6-N1	-6.75	1.30	1.35
1	A	108	G	N9-C8	6.73	1.42	1.37
1	A	715	A	N9-C4	-6.72	1.33	1.37
1	A	753	A	N9-C4	-6.71	1.33	1.37
1	A	279	A	C5-C6	-6.70	1.35	1.41
1	A	791	G	N9-C4	6.70	1.43	1.38
1	A	563	A	N3-C4	-6.70	1.30	1.34
1	A	274	A	N9-C4	-6.68	1.33	1.37
1	A	16	A	N9-C4	-6.68	1.33	1.37
1	A	640	A	N3-C4	-6.67	1.30	1.34
1	A	568	G	N3-C4	-6.66	1.30	1.35
1	A	257	G	N1-C2	-6.65	1.32	1.37
1	A	144	G	N1-C2	6.65	1.43	1.37
1	A	766	A	C5-C6	-6.64	1.35	1.41
1	A	284	G	N7-C5	-6.56	1.35	1.39
1	A	1499	A	N3-C4	-6.54	1.30	1.34
1	A	1401	G	C5-C4	-6.52	1.33	1.38
1	A	1508	G	N9-C8	-6.52	1.33	1.37
1	A	482	A	N7-C5	-6.50	1.35	1.39
1	A	1524	C	N1-C6	-6.42	1.33	1.37
1	A	880	C	C4-C5	-6.41	1.37	1.43
1	A	574	A	N9-C4	-6.41	1.34	1.37
1	A	1377	A	N9-C4	-6.41	1.34	1.37
1	A	1401	G	N7-C5	-6.40	1.35	1.39
1	A	228	A	N9-C4	-6.39	1.34	1.37
1	A	899	C	C4-C5	-6.39	1.37	1.43
1	A	328	C	N1-C6	6.37	1.41	1.37
1	A	109	A	C5-C6	-6.37	1.35	1.41
1	A	822	C	N1-C6	-6.36	1.33	1.37
1	A	607	A	N3-C4	6.36	1.38	1.34
1	A	1504	G	N9-C8	-6.35	1.33	1.37
1	A	1492	A	N9-C4	6.34	1.41	1.37
1	A	726	C	N1-C6	-6.32	1.33	1.37
1	A	1499	A	N9-C4	-6.32	1.34	1.37
1	A	109	A	N9-C4	-6.31	1.34	1.37
1	A	1401	G	N9-C4	-6.31	1.32	1.38
1	A	245	C	N1-C2	-6.31	1.33	1.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1102	A	N7-C5	-6.30	1.35	1.39
1	A	872	A	C5-C6	-6.28	1.35	1.41
1	A	882	C	N1-C6	-6.28	1.33	1.37
1	A	811	C	N1-C6	-6.27	1.33	1.37
11	K	119	CYS	CB-SG	-6.27	1.71	1.82
1	A	880	C	P-O5'	-6.26	1.53	1.59
1	A	572	A	C6-N1	-6.26	1.31	1.35
1	A	372	C	N3-C4	6.25	1.38	1.33
1	A	938	A	N9-C4	-6.24	1.34	1.37
1	A	1241	G	N3-C4	-6.24	1.31	1.35
1	A	1482	G	N9-C4	6.23	1.43	1.38
1	A	1080	A	N9-C4	-6.22	1.34	1.37
1	A	915	A	N9-C4	-6.20	1.34	1.37
1	A	654	G	N9-C4	-6.19	1.32	1.38
1	A	151	A	N9-C4	-6.19	1.34	1.37
1	A	1514	C	N3-C4	-6.18	1.29	1.33
1	A	553	A	N9-C4	-6.18	1.34	1.37
1	A	109	A	N3-C4	-6.17	1.31	1.34
1	A	1401	G	N3-C4	-6.15	1.31	1.35
1	A	656	C	N1-C6	-6.14	1.33	1.37
1	A	822	C	N3-C4	-6.14	1.29	1.33
1	A	793	U	N1-C2	6.13	1.44	1.38
1	A	721	G	N7-C5	-6.12	1.35	1.39
1	A	862	C	N1-C6	-6.11	1.33	1.37
1	A	50	A	N9-C4	-6.10	1.34	1.37
1	A	1513	A	N3-C4	-6.08	1.31	1.34
1	A	807	A	N9-C4	-6.07	1.34	1.37
1	A	802	A	C5-C4	-6.06	1.34	1.38
1	A	790	A	N9-C4	6.06	1.41	1.37
1	A	21	G	N1-C2	-6.06	1.32	1.37
1	A	651	C	C2-O2	6.04	1.29	1.24
1	A	1501	C	N1-C6	-6.04	1.33	1.37
1	A	644	G	C5-C4	-6.03	1.34	1.38
1	A	574	A	N3-C4	-6.02	1.31	1.34
1	A	572	A	C5-C4	-5.99	1.34	1.38
1	A	250	A	C5-C4	5.98	1.43	1.38
1	A	880	C	C4-N4	-5.97	1.28	1.33
1	A	128	G	C5-C6	-5.96	1.36	1.42
1	A	1527	C	C4-C5	-5.96	1.38	1.43
1	A	298	A	C6-N1	-5.96	1.31	1.35
1	A	567	G	N3-C4	-5.96	1.31	1.35
1	A	828	A	N3-C4	-5.95	1.31	1.34

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	263	A	C5-C4	-5.95	1.34	1.38
1	A	1346	A	C3'-O3'	5.94	1.50	1.42
1	A	243	A	C3'-O3'	5.92	1.50	1.42
1	A	752	G	N3-C4	-5.92	1.31	1.35
1	A	760	G	N9-C4	-5.92	1.33	1.38
1	A	575	G	N3-C4	-5.92	1.31	1.35
1	A	632	A	N9-C4	-5.91	1.34	1.37
1	A	372	C	N1-C2	5.90	1.46	1.40
1	A	918	A	C5-C4	-5.90	1.34	1.38
1	A	802	A	N9-C4	-5.88	1.34	1.37
1	A	900	A	N7-C5	-5.88	1.35	1.39
5	E	148	VAL	CA-CB	-5.86	1.42	1.54
1	A	813	U	N1-C6	-5.85	1.32	1.38
1	A	895	G	N3-C4	-5.83	1.31	1.35
1	A	572	A	C6-N6	-5.82	1.29	1.33
1	A	53	A	C6-N1	-5.82	1.31	1.35
1	A	17	U	C4-O4	-5.81	1.19	1.23
1	A	861	G	C5-C4	-5.80	1.34	1.38
1	A	794	A	N1-C2	-5.79	1.29	1.34
1	A	1077	G	N7-C5	-5.79	1.35	1.39
1	A	1501	C	C4-C5	-5.79	1.38	1.43
1	A	788	U	N3-C4	5.78	1.43	1.38
1	A	1331	G	N9-C4	5.78	1.42	1.38
1	A	1525	G	N3-C4	-5.78	1.31	1.35
1	A	562	C	N1-C6	-5.75	1.33	1.37
1	A	666	G	N3-C4	-5.74	1.31	1.35
5	E	133	TYR	CE2-CZ	5.74	1.46	1.38
1	A	755	G	C5-C4	-5.74	1.34	1.38
1	A	778	G	N3-C4	-5.72	1.31	1.35
1	A	642	A	N3-C4	-5.71	1.31	1.34
1	A	567	G	C6-N1	-5.71	1.35	1.39
1	A	765	G	N3-C4	-5.70	1.31	1.35
1	A	862	C	C5-C6	-5.70	1.29	1.34
1	A	574	A	C6-N1	-5.69	1.31	1.35
1	A	752	G	N9-C4	-5.69	1.33	1.38
1	A	915	A	N3-C4	-5.69	1.31	1.34
1	A	363	A	N9-C4	-5.68	1.34	1.37
1	A	1236	A	C5-C4	-5.67	1.34	1.38
1	A	397	A	N3-C4	-5.65	1.31	1.34
1	A	1514	C	C2-O2	-5.65	1.19	1.24
1	A	875	C	N3-C4	-5.65	1.29	1.33
1	A	564	C	N1-C6	-5.64	1.33	1.37

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	858	G	C8-N7	-5.64	1.27	1.30
1	A	880	C	C2-O2	5.64	1.29	1.24
1	A	913	A	C3'-O3'	5.64	1.50	1.42
1	A	559	A	C6-N1	-5.64	1.31	1.35
1	A	642	A	N9-C4	-5.64	1.34	1.37
1	A	1338	G	C6-N1	-5.63	1.35	1.39
1	A	117	G	N1-C2	5.62	1.42	1.37
1	A	879	C	N1-C6	-5.61	1.33	1.37
1	A	786	G	N7-C5	-5.61	1.35	1.39
1	A	1334	G	N9-C8	-5.60	1.33	1.37
1	A	297	G	N7-C5	-5.59	1.35	1.39
1	A	675	A	N7-C5	-5.59	1.35	1.39
1	A	759	A	C5-C6	-5.59	1.36	1.41
1	A	868	C	N3-C4	-5.59	1.30	1.33
1	A	728	A	N7-C5	-5.58	1.35	1.39
1	A	825	G	N9-C8	-5.58	1.33	1.37
1	A	1080	A	C6-N1	-5.57	1.31	1.35
1	A	1094	G	C6-N1	-5.56	1.35	1.39
1	A	16	A	N9-C8	-5.55	1.33	1.37
1	A	1522	U	C4-C5	-5.55	1.38	1.43
1	A	602	A	N3-C4	-5.55	1.31	1.34
1	A	116	A	N9-C4	-5.54	1.34	1.37
1	A	1355	G	C6-N1	-5.54	1.35	1.39
1	A	1099	G	N9-C4	-5.54	1.33	1.38
1	A	128	G	N7-C5	-5.53	1.35	1.39
1	A	228	A	C5-C6	-5.53	1.36	1.41
1	A	1338	G	N3-C4	-5.53	1.31	1.35
1	A	1396	A	N9-C4	-5.53	1.34	1.37
1	A	123	C	N3-C4	-5.53	1.30	1.33
1	A	862	C	C4-C5	-5.53	1.38	1.43
1	A	935	A	N9-C4	-5.52	1.34	1.37
1	A	888	G	N3-C4	-5.52	1.31	1.35
1	A	909	A	N7-C5	-5.51	1.35	1.39
1	A	733	A	N3-C4	-5.50	1.31	1.34
4	D	5	ILE	CA-CB	5.49	1.67	1.54
17	Q	35	VAL	CA-CB	-5.49	1.43	1.54
1	A	1523	G	C2-N3	-5.48	1.28	1.32
1	A	706	A	N3-C4	-5.48	1.31	1.34
1	A	1250	A	N9-C4	-5.47	1.34	1.37
1	A	986	A	N9-C4	5.47	1.41	1.37
1	A	795	C	C2-O2	5.47	1.29	1.24
1	A	833	U	C4-O4	5.46	1.28	1.23

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1066	C	N1-C6	-5.45	1.33	1.37
1	A	1524	C	N1-C2	-5.45	1.34	1.40
1	A	918	A	N9-C8	-5.44	1.33	1.37
1	A	881	G	N9-C8	-5.43	1.34	1.37
1	A	1077	G	N9-C8	-5.43	1.34	1.37
1	A	1101	A	N3-C4	-5.43	1.31	1.34
1	A	882	C	N1-C2	-5.42	1.34	1.40
1	A	900	A	N3-C4	-5.42	1.31	1.34
1	A	577	G	N9-C4	-5.42	1.33	1.38
1	A	372	C	C2-N3	5.41	1.40	1.35
1	A	936	C	N1-C6	-5.41	1.33	1.37
1	A	902	G	C5-C4	-5.40	1.34	1.38
1	A	1101	A	C5-C4	-5.40	1.34	1.38
1	A	852	G	N3-C4	-5.39	1.31	1.35
1	A	1336	C	N1-C6	-5.39	1.33	1.37
1	A	763	G	N9-C4	-5.38	1.33	1.38
1	A	262	A	C6-N1	-5.36	1.31	1.35
1	A	715	A	N3-C4	-5.36	1.31	1.34
1	A	798	G	N3-C4	-5.34	1.31	1.35
1	A	1504	G	C5-C4	-5.33	1.34	1.38
1	A	1508	G	C5-C4	-5.33	1.34	1.38
5	E	149	GLU	CG-CD	5.33	1.59	1.51
1	A	563	A	O3'-P	-5.32	1.54	1.61
1	A	274	A	C5-C4	-5.32	1.35	1.38
1	A	803	G	N1-C2	-5.31	1.33	1.37
1	A	762	C	N1-C6	-5.31	1.33	1.37
1	A	872	A	N9-C4	-5.30	1.34	1.37
1	A	243	A	C5-C6	-5.29	1.36	1.41
1	A	1078	U	C4-C5	-5.29	1.38	1.43
1	A	15	G	C8-N7	-5.28	1.27	1.30
1	A	1103	C	N1-C6	-5.28	1.33	1.37
1	A	786	G	C5-C6	-5.28	1.37	1.42
1	A	15	G	N3-C4	-5.28	1.31	1.35
1	A	665	A	N3-C4	-5.27	1.31	1.34
1	A	765	G	C2-N3	-5.27	1.28	1.32
1	A	858	G	N9-C4	-5.27	1.33	1.38
12	L	68	ALA	CA-CB	-5.27	1.41	1.52
1	A	481	G	C8-N7	-5.27	1.27	1.30
1	A	872	A	N7-C5	-5.26	1.36	1.39
1	A	782	A	N3-C4	-5.26	1.31	1.34
1	A	269	C	N3-C4	-5.26	1.30	1.33
1	A	675	A	C5-C6	-5.26	1.36	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	350	G	N3-C4	-5.26	1.31	1.35
1	A	481	G	N3-C4	5.26	1.39	1.35
1	A	1526	G	C5-C4	-5.25	1.34	1.38
1	A	691	G	N7-C5	-5.25	1.36	1.39
1	A	918	A	N7-C5	-5.24	1.36	1.39
1	A	15	G	C6-O6	5.24	1.28	1.24
1	A	1514	C	N1-C2	-5.23	1.34	1.40
1	A	913	A	C6-N1	-5.23	1.31	1.35
1	A	867	G	C5-C6	-5.22	1.37	1.42
1	A	295	C	N1-C6	-5.22	1.34	1.37
1	A	900	A	C5-C6	-5.21	1.36	1.41
1	A	917	G	C5-C4	-5.21	1.34	1.38
1	A	67	C	N3-C4	-5.21	1.30	1.33
1	A	1515	C	N3-C4	-5.21	1.30	1.33
1	A	588	G	N9-C8	-5.20	1.34	1.37
1	A	1508	G	C6-N1	-5.20	1.35	1.39
1	A	765	G	C5-C6	-5.19	1.37	1.42
16	P	36	ILE	CA-CB	-5.19	1.43	1.54
1	A	583	A	N7-C5	-5.18	1.36	1.39
1	A	766	A	N7-C5	-5.17	1.36	1.39
1	A	1155	G	N9-C4	5.17	1.42	1.38
1	A	300	A	N7-C5	-5.17	1.36	1.39
1	A	321	A	C6-N6	-5.17	1.29	1.33
1	A	232	G	C5-C6	-5.16	1.37	1.42
1	A	602	A	N9-C4	-5.16	1.34	1.37
1	A	1339	A	C5-C4	-5.16	1.35	1.38
1	A	594	G	N7-C5	-5.16	1.36	1.39
1	A	753	A	N3-C4	-5.15	1.31	1.34
1	A	373	A	C5'-C4'	5.14	1.57	1.51
1	A	1078	U	C4-O4	-5.13	1.19	1.23
1	A	814	A	N3-C4	-5.13	1.31	1.34
1	A	659	U	N3-C4	-5.13	1.33	1.38
1	A	1513	A	C5-C4	-5.13	1.35	1.38
1	A	1515	C	C4-C5	-5.12	1.38	1.43
7	G	156	TRP	CB-CG	5.12	1.59	1.50
1	A	876	G	C6-N1	-5.12	1.35	1.39
1	A	575	G	C5-C4	-5.12	1.34	1.38
5	E	90	VAL	CA-CB	-5.11	1.44	1.54
1	A	1080	A	N7-C5	-5.11	1.36	1.39
1	A	868	C	C4-C5	-5.10	1.38	1.43
1	A	93	G	N9-C8	-5.10	1.34	1.37
1	A	566	G	N3-C4	-5.10	1.31	1.35

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	775	G	N7-C5	-5.09	1.36	1.39
1	A	895	G	N1-C2	-5.09	1.33	1.37
1	A	400	C	N3-C4	-5.08	1.30	1.33
1	A	449	C	N1-C6	-5.08	1.34	1.37
1	A	858	G	C5-C4	-5.07	1.34	1.38
1	A	903	G	N3-C4	-5.07	1.31	1.35
1	A	30	U	C2-N3	-5.07	1.34	1.37
1	A	150	C	N1-C6	-5.06	1.34	1.37
1	A	1084	G	N9-C8	-5.06	1.34	1.37
1	A	1530	G	C5-C6	-5.05	1.37	1.42
1	A	108	G	N3-C4	-5.05	1.31	1.35
13	M	64	TRP	CB-CG	-5.05	1.41	1.50
5	E	82	VAL	CA-CB	-5.05	1.44	1.54
1	A	106	C	N3-C4	-5.05	1.30	1.33
1	A	314	C	C4-N4	-5.05	1.29	1.33
1	A	634	C	C2-O2	-5.05	1.20	1.24
1	A	1236	A	N1-C2	-5.05	1.29	1.34
1	A	793	U	C1'-N1	5.04	1.56	1.48
1	A	813	U	C4-C5	-5.04	1.39	1.43
1	A	882	C	C2-O2	-5.04	1.20	1.24
8	H	124	ALA	CA-CB	-5.04	1.41	1.52
1	A	567	G	C5-C4	-5.04	1.34	1.38
1	A	917	G	N7-C5	-5.03	1.36	1.39
1	A	1529	G	N7-C5	-5.03	1.36	1.39
1	A	1261	A	N9-C4	5.03	1.40	1.37
1	A	577	G	C5-C4	-5.01	1.34	1.38
1	A	828	A	N7-C5	-5.00	1.36	1.39

All (2741) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	117	G	N1-C6-O6	20.89	132.43	119.90
1	A	279	A	C5-N7-C8	-17.64	95.08	103.90
1	A	1505	G	C8-N9-C4	-17.36	99.45	106.40
1	A	117	G	C5-C6-N1	-16.75	103.12	111.50
1	A	117	G	C2-N3-C4	-16.57	103.61	111.90
1	A	144	G	N1-C6-O6	16.04	129.53	119.90
1	A	1502	A	C5-N7-C8	-15.79	96.00	103.90
1	A	481	G	N3-C4-N9	15.15	135.09	126.00
1	A	232	G	N1-C6-O6	14.92	128.85	119.90
1	A	279	A	N7-C8-N9	14.91	121.25	113.80
1	A	1505	G	N7-C8-N9	14.57	120.39	113.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	251	G	N1-C6-O6	14.54	128.63	119.90
1	A	1346	A	N1-C6-N6	-14.39	109.97	118.60
1	A	1531	A	N1-C6-N6	14.34	127.21	118.60
1	A	117	G	C6-C5-N7	-14.34	121.80	130.40
1	A	128	G	N1-C6-O6	14.33	128.50	119.90
1	A	1502	A	N1-C6-N6	13.98	126.99	118.60
1	A	580	U	N3-C4-C5	-13.81	106.31	114.60
1	A	1502	A	C6-C5-N7	-13.74	122.68	132.30
1	A	795	C	C2-N3-C4	13.68	126.74	119.90
1	A	971	G	C8-N9-C4	13.61	111.84	106.40
1	A	21	G	N1-C6-O6	-13.53	111.78	119.90
1	A	1502	A	C4-C5-N7	13.44	117.42	110.70
1	A	1442	G	N3-C4-N9	13.42	134.05	126.00
1	A	1502	A	C2-N3-C4	-13.41	103.89	110.60
1	A	122	G	N1-C6-O6	13.26	127.85	119.90
1	A	232	G	C4-C5-N7	13.24	116.10	110.80
1	A	875	C	C5-C6-N1	-13.10	114.45	121.00
1	A	310	G	N1-C6-O6	13.07	127.74	119.90
1	A	284	G	N1-C6-O6	13.03	127.72	119.90
1	A	794	A	C2-N3-C4	12.92	117.06	110.60
1	A	292	G	N1-C6-O6	12.78	127.57	119.90
1	A	862	C	C6-N1-C2	12.66	125.36	120.30
1	A	1181	G	C8-N9-C4	12.65	111.46	106.40
1	A	1539	C	C6-N1-C2	12.59	125.33	120.30
1	A	1189	C	C6-N1-C2	12.36	125.24	120.30
1	A	130	A	N1-C6-N6	12.36	126.01	118.60
1	A	725	G	N1-C6-O6	12.31	127.29	119.90
1	A	232	G	N9-C4-C5	-12.25	100.50	105.40
1	A	1482	G	N3-C4-C5	-12.19	122.51	128.60
1	A	235	C	C6-N1-C2	12.07	125.13	120.30
1	A	725	G	C5-C6-O6	-12.07	121.36	128.60
1	A	822	C	C6-N1-C2	-12.03	115.49	120.30
1	A	795	C	N1-C2-N3	-11.99	110.80	119.20
1	A	559	A	C6-N1-C2	-11.98	111.41	118.60
1	A	251	G	C6-C5-N7	-11.95	123.23	130.40
1	A	232	G	C6-C5-N7	-11.92	123.25	130.40
1	A	787	A	N1-C6-N6	11.83	125.70	118.60
1	A	1126	U	C5-C6-N1	11.81	128.60	122.70
1	A	108	G	C5-N7-C8	-11.80	98.40	104.30
1	A	279	A	C8-N9-C4	-11.80	101.08	105.80
1	A	572	A	N1-C6-N6	-11.76	111.54	118.60
1	A	1543	C	N1-C2-O2	11.73	125.94	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	795	C	N3-C2-O2	11.71	130.10	121.90
1	A	1531	A	C6-C5-N7	-11.70	124.11	132.30
1	A	481	G	C8-N9-C4	11.69	111.08	106.40
1	A	15	G	C4-N9-C1'	11.64	141.63	126.50
1	A	825	G	C8-N9-C4	11.60	111.04	106.40
1	A	15	G	C8-N9-C1'	-11.58	111.95	127.00
1	A	279	A	C6-C5-N7	-11.52	124.24	132.30
1	A	88	A	C8-N9-C4	-11.49	101.20	105.80
1	A	1447	G	C4-C5-N7	11.40	115.36	110.80
1	A	279	A	C2-N3-C4	-11.38	104.91	110.60
1	A	108	G	N7-C8-N9	11.37	118.79	113.10
1	A	129(A)	G	N1-C6-O6	11.37	126.72	119.90
1	A	607	A	N9-C4-C5	-11.36	101.26	105.80
1	A	821	G	N1-C6-O6	11.36	126.72	119.90
1	A	944	G	C8-N9-C4	-11.34	101.86	106.40
1	A	336	C	C6-N1-C2	11.32	124.83	120.30
1	A	128	G	C6-C5-N7	-11.30	123.62	130.40
1	A	1442	G	C4-N9-C1'	11.28	141.17	126.50
1	A	1088	G	N1-C6-O6	11.25	126.65	119.90
1	A	567	G	C4-C5-N7	-11.21	106.32	110.80
1	A	144	G	C5-C6-N1	-11.21	105.90	111.50
1	A	782	A	N1-C2-N3	11.18	134.89	129.30
1	A	873	A	C8-N9-C4	-11.15	101.34	105.80
1	A	1505	G	C6-C5-N7	-11.13	123.72	130.40
1	A	875	C	C6-N1-C2	11.12	124.75	120.30
1	A	1377	A	N1-C6-N6	-11.06	111.96	118.60
1	A	255	G	N1-C6-O6	11.03	126.52	119.90
1	A	787	A	C2-N3-C4	-11.01	105.09	110.60
1	A	706	A	C2-N3-C4	-11.00	105.10	110.60
1	A	745	C	C6-N1-C2	11.00	124.70	120.30
1	A	481	G	N9-C4-C5	-10.98	101.01	105.40
1	A	129(A)	G	N9-C4-C5	-10.98	101.01	105.40
1	A	247	G	N1-C6-O6	10.94	126.46	119.90
1	A	817	C	C6-N1-C2	10.90	124.66	120.30
1	A	852	G	C5-C6-N1	-10.90	106.05	111.50
1	A	607	A	C4-C5-N7	10.87	116.14	110.70
1	A	627	G	N1-C6-O6	10.86	126.41	119.90
8	H	12	ARG	NE-CZ-NH1	-10.85	114.88	120.30
1	A	1502	A	N7-C8-N9	10.84	119.22	113.80
1	A	901	A	C2-N3-C4	-10.83	105.19	110.60
1	A	21	G	N3-C2-N2	10.82	127.47	119.90
1	A	1302	U	N3-C2-O2	-10.80	114.64	122.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	833	U	N3-C2-O2	-10.79	114.64	122.20
1	A	833	U	C4-C5-C6	10.79	126.17	119.70
1	A	228	A	C2-N3-C4	-10.78	105.21	110.60
1	A	607	A	N1-C6-N6	10.77	125.06	118.60
1	A	851	G	N1-C6-O6	10.77	126.36	119.90
1	A	266	G	N3-C4-C5	10.76	133.98	128.60
1	A	106	C	C6-N1-C2	-10.76	116.00	120.30
1	A	232	G	C5-C6-O6	-10.75	122.15	128.60
1	A	651	C	N3-C2-O2	10.70	129.39	121.90
1	A	930	C	N3-C4-C5	10.68	126.17	121.90
1	A	1455	G	N1-C6-O6	10.67	126.30	119.90
1	A	1505	G	N3-C4-C5	-10.67	123.27	128.60
1	A	1403	C	C6-N1-C2	10.65	124.56	120.30
1	A	1231	G	N1-C6-O6	10.65	126.29	119.90
1	A	266	G	C5-N7-C8	-10.62	98.99	104.30
1	A	269	C	C6-N1-C2	-10.62	116.05	120.30
1	A	1531	A	N7-C8-N9	10.59	119.09	113.80
1	A	90	U	C6-N1-C2	-10.52	114.69	121.00
1	A	1338	G	N1-C6-O6	-10.50	113.60	119.90
1	A	1088	G	C6-C5-N7	-10.48	124.11	130.40
1	A	1442	G	C8-N9-C1'	-10.48	113.38	127.00
1	A	786	G	N1-C6-O6	10.47	126.18	119.90
1	A	372	C	N1-C2-N3	-10.47	111.87	119.20
1	A	278	G	C8-N9-C4	-10.41	102.23	106.40
1	A	1236	A	C8-N9-C4	10.41	109.97	105.80
1	A	1347	G	C8-N9-C4	10.40	110.56	106.40
1	A	1334	G	C8-N9-C4	10.39	110.56	106.40
1	A	721	G	C6-C5-N7	-10.38	124.17	130.40
1	A	1442	G	C5-C6-O6	-10.37	122.38	128.60
1	A	1529	G	C8-N9-C4	-10.34	102.26	106.40
1	A	128	G	C5-C6-O6	-10.32	122.41	128.60
1	A	1530	G	C8-N9-C4	10.30	110.52	106.40
1	A	16	A	C8-N9-C4	10.30	109.92	105.80
1	A	944	G	C5-C6-O6	10.29	134.78	128.60
1	A	190(I)	G	C8-N9-C4	10.29	110.52	106.40
1	A	255	G	C6-C5-N7	-10.29	124.23	130.40
1	A	1394	A	C8-N9-C4	10.28	109.91	105.80
1	A	734	G	C5-C6-O6	-10.26	122.44	128.60
1	A	1367	C	C6-N1-C2	-10.26	116.20	120.30
1	A	820	U	N1-C2-N3	10.26	121.05	114.90
1	A	103	C	N3-C4-C5	-10.25	117.80	121.90
1	A	108	G	C8-N9-C4	-10.25	102.30	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	117	G	C4-C5-C6	10.24	124.95	118.80
1	A	310	G	C5-C6-O6	-10.22	122.47	128.60
1	A	873	A	N1-C6-N6	-10.21	112.47	118.60
1	A	309	G	C5-C6-O6	-10.16	122.50	128.60
1	A	279	A	C4-C5-N7	10.16	115.78	110.70
1	A	292	G	C5-C6-O6	-10.14	122.52	128.60
1	A	1202	G	N1-C6-O6	-10.14	113.82	119.90
1	A	309	G	C6-N1-C2	-10.12	119.03	125.10
1	A	1442	G	N1-C6-O6	10.12	125.97	119.90
1	A	1155	G	C8-N9-C4	-10.11	102.36	106.40
1	A	813	U	C5-C4-O4	-10.09	119.85	125.90
1	A	1378	C	C6-N1-C2	-10.09	116.27	120.30
1	A	1474	G	N1-C6-O6	10.08	125.95	119.90
1	A	1346	A	C5-C6-N1	10.06	122.73	117.70
1	A	284	G	C6-C5-N7	-10.05	124.37	130.40
1	A	788	U	N3-C2-O2	10.05	129.23	122.20
1	A	372	C	C6-N1-C2	10.04	124.32	120.30
1	A	788	U	N1-C2-N3	-10.03	108.88	114.90
1	A	1531	A	C4-C5-C6	10.02	122.01	117.00
1	A	1442	G	C6-C5-N7	-10.02	124.39	130.40
1	A	970	C	N1-C2-O2	10.01	124.91	118.90
1	A	769	G	N1-C6-O6	9.99	125.89	119.90
1	A	786	G	C6-C5-N7	-9.96	124.42	130.40
1	A	121	C	C6-N1-C2	9.96	124.28	120.30
1	A	1442	G	N9-C4-C5	-9.92	101.43	105.40
1	A	89	C	C5-C6-N1	9.90	125.95	121.00
1	A	1361(A)	C	N1-C2-O2	9.89	124.83	118.90
1	A	1305	G	C5-C6-N1	-9.86	106.57	111.50
1	A	873	A	C5-C6-N1	9.83	122.61	117.70
1	A	940	C	N3-C4-C5	9.82	125.83	121.90
1	A	328	C	N3-C4-C5	9.82	125.83	121.90
1	A	946	A	C6-N1-C2	-9.78	112.73	118.60
1	A	944	G	N1-C6-O6	-9.76	114.04	119.90
1	A	141	A	N1-C6-N6	9.76	124.46	118.60
1	A	230	G	C5-C6-N1	-9.74	106.63	111.50
1	A	372	C	C5-C4-N4	-9.73	113.39	120.20
1	A	1530	G	N1-C6-O6	9.72	125.73	119.90
1	A	1200	C	N1-C2-O2	9.70	124.72	118.90
1	A	880	C	N3-C4-C5	9.69	125.78	121.90
1	A	336	C	N3-C4-C5	9.67	125.77	121.90
1	A	572	A	C5-C6-N1	9.64	122.52	117.70
1	A	651	C	C6-N1-C2	9.64	124.15	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1338	G	N9-C4-C5	9.64	109.25	105.40
1	A	122	G	C5-C6-N1	-9.63	106.69	111.50
1	A	876	G	C5-C6-N1	9.63	116.31	111.50
1	A	108	G	N3-C4-C5	9.62	133.41	128.60
1	A	1365	G	C8-N9-C4	-9.62	102.55	106.40
1	A	88	A	N1-C6-N6	-9.61	112.84	118.60
1	A	880	C	C5-C4-N4	-9.60	113.48	120.20
1	A	129(A)	G	C6-C5-N7	-9.59	124.65	130.40
1	A	309	G	N3-C4-N9	9.59	131.75	126.00
1	A	279	A	N1-C6-N6	9.59	124.35	118.60
1	A	723	U	C5-C6-N1	9.58	127.49	122.70
1	A	1249	C	C2-N1-C1'	9.57	129.33	118.80
1	A	108	G	C2-N3-C4	-9.57	107.12	111.90
1	A	251	G	C5-C6-N1	-9.56	106.72	111.50
1	A	559	A	N1-C2-N3	9.55	134.07	129.30
1	A	941	G	N1-C6-O6	9.55	125.63	119.90
1	A	944	G	N3-C4-C5	-9.55	123.83	128.60
4	D	12	CYS	CA-CB-SG	9.54	131.18	114.00
1	A	640	A	C8-N9-C4	-9.53	101.99	105.80
1	A	328	C	N3-C4-N4	-9.53	111.33	118.00
1	A	793	U	C6-N1-C2	-9.50	115.30	121.00
1	A	1331	G	N1-C6-O6	-9.50	114.20	119.90
1	A	276	G	N3-C2-N2	-9.50	113.25	119.90
1	A	787	A	C4-C5-C6	9.48	121.74	117.00
1	A	791	G	C8-N9-C4	-9.48	102.61	106.40
1	A	667	G	N1-C6-O6	9.46	125.58	119.90
1	A	541	G	N1-C6-O6	9.45	125.57	119.90
1	A	946	A	N9-C4-C5	9.45	109.58	105.80
1	A	946	A	N1-C6-N6	-9.44	112.93	118.60
1	A	190(A)	C	C6-N1-C2	-9.44	116.52	120.30
1	A	787	A	C6-C5-N7	-9.44	125.69	132.30
1	A	291	C	C2-N3-C4	-9.43	115.19	119.90
1	A	24	U	N3-C2-O2	9.43	128.80	122.20
1	A	190(C)	C	C6-N1-C2	-9.42	116.53	120.30
1	A	1496	C	C5-C6-N1	9.42	125.71	121.00
1	A	384	G	N3-C4-C5	-9.40	123.90	128.60
1	A	103	C	C6-N1-C2	-9.40	116.54	120.30
1	A	481	G	N3-C4-C5	-9.39	123.91	128.60
1	A	372	C	N1-C2-O2	9.37	124.52	118.90
1	A	1531	A	C5-C6-N1	-9.37	113.02	117.70
1	A	567	G	N9-C4-C5	9.36	109.14	105.40
1	A	904	C	C6-N1-C2	-9.36	116.56	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1377	A	N9-C4-C5	9.36	109.54	105.80
1	A	572	A	C6-N1-C2	-9.35	112.99	118.60
1	A	21	G	N3-C4-N9	9.32	131.59	126.00
1	A	573	A	C8-N9-C4	-9.32	102.07	105.80
1	A	117	G	N3-C2-N2	-9.32	113.38	119.90
1	A	890	G	C4-C5-N7	-9.31	107.07	110.80
1	A	1442	G	C4-C5-N7	9.30	114.52	110.80
1	A	260	G	N1-C6-O6	9.28	125.47	119.90
1	A	722	A	C2-N3-C4	-9.25	105.97	110.60
1	A	129(A)	G	C8-N9-C1'	-9.25	114.98	127.00
1	A	266	G	C2-N3-C4	-9.24	107.28	111.90
1	A	755	G	C5-C6-N1	9.24	116.12	111.50
1	A	878	G	N1-C2-N3	9.23	129.44	123.90
1	A	1339	A	N1-C6-N6	-9.22	113.06	118.60
1	A	324	G	C8-N9-C4	-9.22	102.71	106.40
1	A	1367	C	C5-C6-N1	9.22	125.61	121.00
1	A	779	C	C4-C5-C6	9.22	122.01	117.40
1	A	474	G	N1-C6-O6	9.21	125.42	119.90
1	A	788	U	C5-C6-N1	9.20	127.30	122.70
1	A	734	G	C4-C5-N7	9.20	114.48	110.80
1	A	284	G	C5-C6-O6	-9.19	123.09	128.60
1	A	1505	G	C4-C5-C6	9.18	124.31	118.80
1	A	795	C	C5-C6-N1	9.18	125.59	121.00
1	A	285	G	C2-N3-C4	-9.17	107.31	111.90
1	A	822	C	N1-C2-N3	9.17	125.62	119.20
1	A	1389	C	C6-N1-C2	9.17	123.97	120.30
1	A	1249	C	N1-C2-O2	9.16	124.40	118.90
1	A	1296	C	N3-C4-C5	-9.16	118.23	121.90
1	A	89	C	C6-N1-C2	-9.16	116.64	120.30
1	A	735	C	C6-N1-C2	9.16	123.96	120.30
1	A	946	A	N1-C2-N3	9.15	133.88	129.30
1	A	326	G	N3-C4-C5	-9.15	124.02	128.60
1	A	1526	G	N1-C6-O6	9.15	125.39	119.90
1	A	890	G	C5-N7-C8	9.15	108.88	104.30
1	A	1524	C	C6-N1-C2	-9.14	116.64	120.30
1	A	1084	G	N3-C4-C5	-9.14	124.03	128.60
1	A	108	G	N3-C4-N9	-9.14	120.52	126.00
1	A	269	C	N3-C2-O2	-9.13	115.51	121.90
1	A	250	A	C2-N3-C4	-9.13	106.04	110.60
1	A	971	G	N7-C8-N9	-9.12	108.54	113.10
1	A	247	G	C5-C6-N1	-9.11	106.94	111.50
1	A	108	G	C4-C5-N7	9.11	114.44	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	21	G	C5-C6-N1	9.10	116.05	111.50
1	A	1530	G	N3-C4-C5	9.10	133.15	128.60
1	A	21	G	N3-C4-C5	-9.09	124.05	128.60
1	A	901	A	N1-C2-N3	9.09	133.84	129.30
1	A	872	A	N9-C4-C5	-9.08	102.17	105.80
1	A	1296	C	N1-C2-O2	-9.07	113.46	118.90
1	A	1443	G	C8-N9-C4	9.07	110.03	106.40
1	A	144	G	N3-C2-N2	-9.06	113.56	119.90
1	A	731	G	N1-C6-O6	9.06	125.33	119.90
1	A	1502	A	C5-C6-N1	-9.04	113.18	117.70
1	A	1543	C	C5-C6-N1	9.04	125.52	121.00
1	A	599	C	C6-N1-C2	9.03	123.91	120.30
1	A	813	U	N3-C4-O4	9.03	125.72	119.40
1	A	15	G	C5-C6-N1	-9.02	106.99	111.50
1	A	586	C	C5-C6-N1	-9.01	116.49	121.00
1	A	234	C	C6-N1-C2	8.99	123.90	120.30
1	A	963	G	C8-N9-C4	-8.99	102.80	106.40
1	A	1524	C	N3-C4-C5	-8.98	118.31	121.90
1	A	259	G	C8-N9-C4	-8.97	102.81	106.40
1	A	569	C	N1-C2-O2	-8.97	113.52	118.90
1	A	308	C	C5-C4-N4	-8.96	113.93	120.20
1	A	882	C	N1-C2-N3	8.95	125.47	119.20
1	A	734	G	N1-C6-O6	8.95	125.27	119.90
1	A	916	G	C6-N1-C2	-8.94	119.73	125.10
1	A	1200	C	C2-N1-C1'	8.92	128.62	118.80
1	A	685	G	N3-C4-C5	8.91	133.06	128.60
1	A	580	U	C4-C5-C6	8.91	125.05	119.70
1	A	15	G	C6-C5-N7	-8.91	125.05	130.40
1	A	825	G	N7-C8-N9	-8.91	108.65	113.10
1	A	631	G	C8-N9-C4	-8.90	102.84	106.40
1	A	941	G	C5-C6-O6	-8.90	123.26	128.60
1	A	945	G	C5-C6-N1	8.90	115.95	111.50
1	A	308	C	N3-C4-N4	8.89	124.22	118.00
1	A	589	C	C2-N1-C1'	-8.89	109.02	118.80
1	A	797	C	C6-N1-C2	8.88	123.85	120.30
1	A	322	C	N1-C2-O2	-8.87	113.58	118.90
1	A	1331	G	N3-C4-C5	-8.87	124.17	128.60
1	A	747	C	C6-N1-C2	8.87	123.85	120.30
1	A	794	A	N1-C6-N6	-8.86	113.28	118.60
1	A	586	C	C6-N1-C2	8.86	123.84	120.30
1	A	1084	G	C4-C5-N7	-8.85	107.26	110.80
1	A	88	A	N9-C4-C5	8.84	109.33	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	821	G	C5-C6-O6	-8.83	123.30	128.60
1	A	761	G	C6-C5-N7	-8.83	125.10	130.40
1	A	1099	G	N3-C4-C5	8.82	133.01	128.60
1	A	591	U	N3-C4-O4	8.82	125.57	119.40
1	A	1080	A	N1-C6-N6	-8.82	113.31	118.60
1	A	723	U	C2-N1-C1'	8.81	128.27	117.70
1	A	946	A	C8-N9-C4	-8.81	102.28	105.80
1	A	1181	G	N7-C8-N9	-8.81	108.69	113.10
1	A	1524	C	N1-C2-O2	-8.80	113.62	118.90
1	A	297	G	C6-C5-N7	-8.79	125.12	130.40
1	A	1331	G	C4-C5-N7	-8.79	107.28	110.80
1	A	872	A	N1-C6-N6	8.79	123.87	118.60
1	A	638	G	N1-C2-N2	-8.78	108.30	116.20
1	A	881	G	N1-C6-O6	8.78	125.17	119.90
1	A	823	G	C2-N3-C4	-8.77	107.51	111.90
1	A	1394	A	C2-N3-C4	-8.77	106.22	110.60
1	A	1447	G	C5-N7-C8	-8.77	99.92	104.30
1	A	1531	A	C8-N9-C4	-8.76	102.30	105.80
1	A	260	G	C8-N9-C4	-8.76	102.90	106.40
1	A	793	U	C2-N1-C1'	8.75	128.20	117.70
1	A	1338	G	C5-C6-O6	8.75	133.85	128.60
1	A	1543	C	C2-N1-C1'	8.75	128.42	118.80
1	A	130	A	C4-C5-C6	8.74	121.37	117.00
1	A	328	C	C4-C5-C6	-8.74	113.03	117.40
1	A	235	C	N3-C4-C5	8.74	125.39	121.90
1	A	474	G	C6-C5-N7	-8.73	125.16	130.40
1	A	722	A	N1-C6-N6	8.73	123.84	118.60
1	A	277	C	C6-N1-C2	8.72	123.79	120.30
1	A	1189	C	C5-C6-N1	-8.72	116.64	121.00
1	A	1055	A	N1-C6-N6	-8.71	113.38	118.60
1	A	1079	G	N3-C4-C5	-8.71	124.25	128.60
1	A	1241	G	N3-C4-N9	-8.70	120.78	126.00
1	A	1060	C	N1-C2-O2	8.70	124.12	118.90
1	A	595	G	C6-C5-N7	-8.69	125.19	130.40
1	A	130	A	C6-C5-N7	-8.69	126.22	132.30
1	A	1340	A	N1-C2-N3	8.69	133.64	129.30
1	A	38	G	N3-C4-C5	8.68	132.94	128.60
1	A	824	C	N3-C4-C5	8.66	125.36	121.90
1	A	400	C	N3-C4-N4	-8.66	111.94	118.00
1	A	1236	A	N7-C8-N9	-8.66	109.47	113.80
1	A	788	U	C4-C5-C6	-8.65	114.51	119.70
1	A	930	C	N3-C4-N4	-8.65	111.94	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	389	A	C8-N9-C4	-8.65	102.34	105.80
1	A	989	C	C6-N1-C2	-8.64	116.84	120.30
1	A	591	U	C5-C4-O4	-8.63	120.72	125.90
1	A	875	C	C2-N3-C4	-8.64	115.58	119.90
1	A	266	G	C4-C5-N7	8.63	114.25	110.80
1	A	309	G	C5-C6-N1	8.63	115.81	111.50
1	A	412	A	C8-N9-C4	8.63	109.25	105.80
1	A	556	C	C2-N3-C4	-8.63	115.59	119.90
1	A	252	U	C5-C6-N1	-8.62	118.39	122.70
1	A	787	A	N1-C2-N3	8.62	133.61	129.30
1	A	176	C	C6-N1-C2	8.61	123.74	120.30
1	A	1074	G	C5-C6-N1	-8.60	107.20	111.50
1	A	309	G	N9-C4-C5	-8.59	101.96	105.40
1	A	129(A)	G	C5-C6-O6	-8.59	123.44	128.60
1	A	481	G	C8-N9-C1'	-8.59	115.83	127.00
1	A	710	G	N1-C6-O6	8.59	125.06	119.90
1	A	113	G	N1-C6-O6	8.59	125.05	119.90
1	A	916	G	N3-C4-C5	-8.59	124.31	128.60
1	A	833	U	N3-C4-C5	-8.58	109.45	114.60
1	A	1482	G	C8-N9-C4	-8.58	102.97	106.40
1	A	820	U	N1-C2-O2	-8.58	116.80	122.80
1	A	511	C	C2-N1-C1'	-8.57	109.38	118.80
1	A	372	C	N3-C4-N4	8.56	124.00	118.00
1	A	482	A	N1-C6-N6	8.56	123.74	118.60
1	A	113	G	C6-C5-N7	-8.56	125.27	130.40
1	A	569	C	C5-C6-N1	-8.55	116.72	121.00
1	A	190(D)	U	C5-C6-N1	-8.53	118.44	122.70
1	A	279	A	N1-C2-N3	8.53	133.56	129.30
1	A	721	G	N1-C6-O6	8.52	125.01	119.90
1	A	589	C	C6-N1-C2	8.52	123.71	120.30
1	A	1303	C	C6-N1-C2	8.52	123.71	120.30
1	A	447	G	C5-C6-O6	8.51	133.70	128.60
1	A	1436	U	N3-C2-O2	-8.51	116.25	122.20
1	A	190	C	C6-N1-C2	-8.49	116.91	120.30
1	A	1491	G	N3-C4-C5	-8.48	124.36	128.60
1	A	1490	C	C5-C6-N1	8.48	125.24	121.00
1	A	276	G	N3-C4-C5	8.47	132.84	128.60
1	A	360	A	C5-N7-C8	-8.47	99.66	103.90
1	A	130	A	C5-C6-N1	-8.47	113.47	117.70
1	A	1355	G	C8-N9-C4	-8.47	103.01	106.40
1	A	1526	G	C6-C5-N7	-8.47	125.32	130.40
1	A	882	C	C6-N1-C2	-8.46	116.92	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	129(A)	G	C4-C5-N7	8.45	114.18	110.80
1	A	350	G	C8-N9-C4	-8.44	103.02	106.40
1	A	500	G	N1-C6-O6	8.44	124.96	119.90
2	B	158	LEU	CA-CB-CG	-8.43	95.92	115.30
1	A	570	G	C4-N9-C1'	8.42	137.45	126.50
1	A	740	U	N3-C2-O2	-8.42	116.30	122.20
1	A	326	G	N1-C6-O6	-8.42	114.85	119.90
1	A	708	C	C6-N1-C2	8.42	123.67	120.30
1	A	1490	C	C6-N1-C2	-8.41	116.94	120.30
1	A	511	C	N3-C4-N4	-8.41	112.11	118.00
1	A	794	A	C8-N9-C4	-8.40	102.44	105.80
1	A	21	G	C2-N3-C4	8.40	116.10	111.90
1	A	251	G	C4-C5-C6	8.40	123.84	118.80
1	A	570	G	C8-N9-C1'	-8.40	116.08	127.00
1	A	1508	G	C8-N9-C4	-8.38	103.05	106.40
1	A	874	G	C8-N9-C4	8.38	109.75	106.40
1	A	29	G	N1-C2-N3	8.36	128.92	123.90
1	A	794	A	N9-C4-C5	8.36	109.14	105.80
1	A	562	C	C5-C6-N1	-8.36	116.82	121.00
1	A	812	C	N1-C2-O2	-8.35	113.89	118.90
1	A	556	C	C5-C6-N1	-8.34	116.83	121.00
1	A	568	G	C8-N9-C4	-8.34	103.06	106.40
1	A	765	G	C4-C5-N7	8.34	114.14	110.80
1	A	1231	G	C4-C5-N7	8.34	114.14	110.80
1	A	1333	A	C8-N9-C4	-8.34	102.47	105.80
1	A	316	G	N1-C6-O6	8.33	124.90	119.90
1	A	746	A	C8-N9-C4	8.33	109.13	105.80
1	A	1370	G	N1-C6-O6	8.33	124.90	119.90
1	A	316	G	C6-C5-N7	-8.33	125.40	130.40
1	A	707	C	C6-N1-C2	8.33	123.63	120.30
1	A	113	G	C5-C6-O6	-8.31	123.61	128.60
1	A	776	G	N3-C4-C5	8.31	132.76	128.60
1	A	15	G	N1-C6-O6	8.30	124.88	119.90
1	A	79	G	C5-C6-N1	-8.30	107.35	111.50
1	A	79	G	N1-C6-O6	8.30	124.88	119.90
1	A	266	G	N3-C4-N9	-8.29	121.02	126.00
1	A	1389	C	N3-C4-C5	8.29	125.22	121.90
1	A	1490	C	N1-C2-O2	-8.29	113.92	118.90
1	A	1246	C	N3-C2-O2	8.28	127.69	121.90
1	A	1238	A	C5-C6-N6	8.28	130.32	123.70
1	A	1165	C	C6-N1-C2	-8.27	116.99	120.30
1	A	698	G	C8-N9-C4	-8.26	103.09	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	793	U	C5-C6-N1	8.26	126.83	122.70
1	A	128	G	C4-C5-N7	8.26	114.10	110.80
1	A	295	C	C6-N1-C2	8.25	123.60	120.30
1	A	642	A	C8-N9-C4	-8.25	102.50	105.80
1	A	881	G	C5-C6-O6	-8.25	123.65	128.60
1	A	108	G	N1-C6-O6	8.24	124.84	119.90
1	A	862	C	N3-C4-C5	8.24	125.19	121.90
1	A	27	G	N3-C4-N9	8.23	130.94	126.00
1	A	788	U	C5-C4-O4	-8.23	120.96	125.90
1	A	576	G	C5-C6-O6	-8.23	123.66	128.60
1	A	93	G	N3-C4-N9	8.23	130.94	126.00
1	A	1200	C	C6-N1-C1'	-8.23	110.93	120.80
1	A	1461	G	C8-N9-C4	8.22	109.69	106.40
1	A	607	A	C6-N1-C2	8.22	123.53	118.60
1	A	627	G	C6-C5-N7	-8.21	125.47	130.40
1	A	926	G	N3-C4-N9	8.21	130.93	126.00
1	A	1346	A	C2-N3-C4	8.21	114.71	110.60
1	A	1527	C	C6-N1-C2	-8.21	117.02	120.30
1	A	190(F)	G	N3-C4-N9	-8.21	121.08	126.00
1	A	580	U	N1-C2-O2	-8.21	117.05	122.80
1	A	948	C	C6-N1-C2	8.21	123.58	120.30
1	A	1530	G	C5-C6-O6	-8.20	123.68	128.60
1	A	481	G	N3-C2-N2	8.20	125.64	119.90
1	A	694	A	C5-C6-N1	-8.20	113.60	117.70
1	A	79	G	C8-N9-C4	-8.19	103.13	106.40
1	A	78	G	C4-C5-N7	8.18	114.07	110.80
1	A	197	A	N1-C6-N6	-8.18	113.69	118.60
1	A	859	A	N3-C4-C5	-8.18	121.08	126.80
1	A	1079	G	C6-C5-N7	-8.18	125.49	130.40
1	A	872	A	C4-C5-N7	8.17	114.79	110.70
1	A	1442	G	N3-C4-C5	-8.17	124.51	128.60
1	A	1254	C	C6-N1-C2	-8.17	117.03	120.30
1	A	144	G	C6-C5-N7	-8.17	125.50	130.40
1	A	545	C	C6-N1-C2	-8.16	117.03	120.30
1	A	297	G	N1-C6-O6	8.16	124.80	119.90
1	A	907	A	N1-C6-N6	-8.16	113.70	118.60
1	A	650	G	N1-C6-O6	8.15	124.79	119.90
1	A	29	G	C5-N7-C8	8.15	108.37	104.30
1	A	913	A	N1-C6-N6	-8.15	113.71	118.60
1	A	822	C	N1-C2-O2	-8.14	114.01	118.90
1	A	117	G	N1-C2-N3	8.14	128.78	123.90
1	A	456	C	N1-C2-O2	8.14	123.78	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	450	G	C8-N9-C4	8.14	109.66	106.40
1	A	730	G	C5-C6-O6	8.14	133.48	128.60
1	A	899	C	C5-C6-N1	8.14	125.07	121.00
1	A	1064	G	C6-C5-N7	-8.13	125.52	130.40
1	A	176	C	N3-C4-C5	8.12	125.15	121.90
1	A	607	A	C5-N7-C8	-8.12	99.84	103.90
1	A	328	C	N1-C2-O2	8.12	123.77	118.90
1	A	329	A	C4-C5-N7	8.12	114.76	110.70
1	A	1367	C	N1-C2-O2	8.12	123.77	118.90
1	A	141	A	C2-N3-C4	-8.12	106.54	110.60
1	A	323	U	N3-C2-O2	8.11	127.88	122.20
1	A	314	C	N3-C4-C5	8.11	125.14	121.90
1	A	872	A	C2-N3-C4	-8.11	106.55	110.60
1	A	1375	A	N7-C8-N9	-8.09	109.75	113.80
1	A	859	A	C2-N3-C4	8.09	114.64	110.60
1	A	729	A	C5-N7-C8	-8.08	99.86	103.90
1	A	919	A	C8-N9-C4	8.08	109.03	105.80
1	A	916	G	N3-C4-N9	8.08	130.85	126.00
1	A	80	G	C6-C5-N7	-8.08	125.55	130.40
1	A	401	C	C6-N1-C2	-8.08	117.07	120.30
1	A	930	C	C2-N3-C4	-8.07	115.86	119.90
1	A	1152	A	N1-C6-N6	-8.07	113.76	118.60
1	A	117	G	N3-C4-C5	8.07	132.63	128.60
1	A	995	C	C2-N1-C1'	8.07	127.67	118.80
1	A	322	C	N3-C4-C5	-8.06	118.68	121.90
1	A	632	A	N1-C6-N6	8.06	123.44	118.60
1	A	873	A	C2-N3-C4	8.06	114.63	110.60
1	A	35	G	N1-C6-O6	8.05	124.73	119.90
1	A	255	G	C8-N9-C1'	-8.05	116.53	127.00
1	A	703	G	C4-C5-N7	-8.05	107.58	110.80
1	A	916	G	N1-C2-N3	8.05	128.73	123.90
1	A	647	C	C6-N1-C2	8.05	123.52	120.30
1	A	1249	C	C5-C6-N1	8.05	125.02	121.00
1	A	950	U	N3-C4-C5	-8.04	109.78	114.60
1	A	230	G	C2-N3-C4	-8.04	107.88	111.90
1	A	832	C	N3-C2-O2	8.03	127.52	121.90
1	A	567	G	C5-N7-C8	8.02	108.31	104.30
1	A	481	G	C2-N3-C4	8.01	115.91	111.90
1	A	885	G	N7-C8-N9	8.00	117.10	113.10
1	A	1063	C	C6-N1-C2	-8.00	117.10	120.30
1	A	708	C	N3-C4-C5	7.99	125.10	121.90
1	A	859	A	C5-C6-N6	-7.99	117.31	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	725	G	C4-C5-N7	7.99	114.00	110.80
1	A	1408	A	N1-C6-N6	7.99	123.39	118.60
1	A	108	G	C5-C6-N1	-7.98	107.51	111.50
1	A	29	G	C5-C6-N1	-7.97	107.51	111.50
1	A	1455	G	C8-N9-C4	-7.97	103.21	106.40
1	A	285	G	C5-C6-N1	-7.97	107.52	111.50
1	A	1069	C	C6-N1-C2	7.97	123.49	120.30
1	A	776	G	N3-C4-N9	-7.96	121.22	126.00
1	A	400	C	N1-C2-O2	7.96	123.67	118.90
1	A	942	G	N1-C6-O6	7.95	124.67	119.90
1	A	791	G	N3-C4-C5	-7.95	124.62	128.60
1	A	1249	C	C6-N1-C1'	-7.95	111.26	120.80
1	A	774	G	N3-C4-N9	7.94	130.76	126.00
1	A	795	C	N3-C4-N4	7.94	123.56	118.00
1	A	627	G	C2-N3-C4	-7.94	107.93	111.90
1	A	823	G	N1-C2-N3	7.94	128.66	123.90
1	A	780	A	C6-N1-C2	-7.94	113.84	118.60
1	A	793	U	N3-C2-O2	-7.93	116.65	122.20
1	A	607	A	N1-C2-N3	-7.93	125.33	129.30
1	A	889	A	C8-N9-C4	-7.92	102.63	105.80
8	H	12	ARG	NE-CZ-NH2	7.92	124.26	120.30
1	A	1342	C	N1-C2-O2	-7.92	114.15	118.90
1	A	1279	A	N7-C8-N9	7.91	117.75	113.80
1	A	1084	G	N1-C6-O6	-7.90	115.16	119.90
1	A	299	G	N1-C6-O6	7.90	124.64	119.90
1	A	384	G	N3-C4-N9	7.89	130.73	126.00
1	A	1060	C	N3-C2-O2	-7.89	116.38	121.90
1	A	292	G	C8-N9-C4	7.88	109.55	106.40
1	A	595	G	C4-C5-C6	7.88	123.53	118.80
1	A	875	C	N1-C2-O2	-7.88	114.17	118.90
1	A	623	C	N3-C4-C5	7.87	125.05	121.90
1	A	787	A	C5-C6-N1	-7.87	113.77	117.70
1	A	1064	G	N1-C6-O6	7.87	124.62	119.90
1	A	190(F)	G	N3-C4-C5	7.86	132.53	128.60
1	A	1370	G	C4-N9-C1'	7.86	136.72	126.50
1	A	98	U	C6-N1-C2	-7.86	116.28	121.00
1	A	569	C	C2-N3-C4	-7.86	115.97	119.90
1	A	570	G	C6-C5-N7	-7.86	125.69	130.40
1	A	778	G	C2-N3-C4	-7.86	107.97	111.90
1	A	1514	C	C2-N3-C4	-7.86	115.97	119.90
1	A	659	U	C5-C6-N1	-7.85	118.78	122.70
1	A	919	A	N1-C2-N3	-7.85	125.38	129.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1542	U	N3-C4-C5	-7.85	109.89	114.60
1	A	43	C	C6-N1-C2	7.84	123.44	120.30
1	A	852	G	C2-N3-C4	-7.84	107.98	111.90
1	A	867	G	C6-C5-N7	-7.84	125.69	130.40
1	A	20	U	C3'-C2'-C1'	-7.84	95.23	101.50
1	A	400	C	N3-C4-C5	7.83	125.03	121.90
1	A	1179	A	N1-C6-N6	-7.83	113.90	118.60
1	A	199	G	N1-C6-O6	7.83	124.60	119.90
1	A	567	G	C5-C6-O6	7.83	133.30	128.60
1	A	62	U	N3-C2-O2	-7.83	116.72	122.20
1	A	21	G	N1-C2-N2	-7.82	109.16	116.20
1	A	255	G	C4-N9-C1'	7.82	136.66	126.50
1	A	481	G	N7-C8-N9	-7.82	109.19	113.10
1	A	580	U	C6-N1-C2	-7.81	116.31	121.00
1	A	1182	G	N1-C6-O6	7.81	124.59	119.90
1	A	218	C	C5-C6-N1	7.81	124.90	121.00
1	A	875	C	C4-C5-C6	7.80	121.30	117.40
1	A	610	G	C8-N9-C4	-7.80	103.28	106.40
1	A	285	G	N1-C6-O6	7.79	124.58	119.90
1	A	606	G	N3-C4-C5	-7.79	124.70	128.60
1	A	1482	G	N3-C4-N9	7.79	130.67	126.00
1	A	43	C	C5-C6-N1	-7.78	117.11	121.00
1	A	703	G	C5-C6-O6	7.78	133.27	128.60
1	A	719	C	N3-C2-O2	-7.76	116.47	121.90
1	A	1069	C	N3-C2-O2	7.76	127.33	121.90
1	A	331	G	C5-C6-N1	-7.76	107.62	111.50
1	A	765	G	C5-N7-C8	-7.76	100.42	104.30
1	A	638	G	N1-C2-N3	7.76	128.56	123.90
1	A	717	C	C6-N1-C2	7.76	123.40	120.30
1	A	559	A	C5-C6-N1	7.75	121.58	117.70
1	A	15	G	C4-C5-C6	7.75	123.45	118.80
1	A	728	A	C8-N9-C4	-7.75	102.70	105.80
1	A	1334	G	N7-C8-N9	-7.74	109.23	113.10
1	A	786	G	C5-C6-O6	-7.74	123.95	128.60
1	A	1265	G	N1-C6-O6	7.74	124.55	119.90
1	A	132	C	C4-C5-C6	7.74	121.27	117.40
1	A	1088	G	C8-N9-C4	-7.74	103.31	106.40
1	A	1484	C	C6-N1-C2	-7.73	117.21	120.30
1	A	1346	A	C6-C5-N7	7.73	137.71	132.30
1	A	323	U	C5-C4-O4	-7.72	121.27	125.90
1	A	88	A	N3-C4-C5	-7.72	121.40	126.80
1	A	1521	G	C5-C6-N1	7.71	115.36	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	780	A	C5-C6-N1	7.71	121.56	117.70
1	A	599	C	C5-C6-N1	-7.71	117.14	121.00
1	A	927	G	C5-C6-N1	-7.71	107.65	111.50
1	A	703	G	N1-C6-O6	-7.70	115.28	119.90
1	A	881	G	C4-C5-C6	7.70	123.42	118.80
1	A	881	G	C6-C5-N7	-7.70	125.78	130.40
1	A	251	G	C4-N9-C1'	7.69	136.50	126.50
1	A	1181	G	N3-C4-C5	7.69	132.45	128.60
1	A	309	G	C8-N9-C4	7.69	109.48	106.40
1	A	867	G	C5-C6-O6	-7.68	123.99	128.60
1	A	1088	G	N7-C8-N9	7.68	116.94	113.10
1	A	1375	A	C8-N9-C4	7.68	108.87	105.80
1	A	1355	G	N1-C6-O6	-7.67	115.30	119.90
1	A	7	G	C2-N3-C4	7.67	115.74	111.90
1	A	1152	A	N9-C4-C5	7.67	108.87	105.80
1	A	650	G	C5-C6-O6	-7.67	124.00	128.60
1	A	919	A	C4-C5-C6	-7.66	113.17	117.00
1	A	1084	G	C5-N7-C8	7.66	108.13	104.30
1	A	230	G	N1-C2-N3	7.66	128.50	123.90
1	A	890	G	N7-C8-N9	-7.66	109.27	113.10
1	A	1348	U	C2-N1-C1'	7.66	126.89	117.70
1	A	812	C	N3-C4-C5	-7.65	118.84	121.90
1	A	1512	U	N1-C2-O2	-7.65	117.44	122.80
12	L	66	VAL	CB-CA-C	-7.65	96.86	111.40
1	A	782	A	C4-C5-C6	7.64	120.82	117.00
1	A	860	A	C2-N3-C4	-7.64	106.78	110.60
1	A	236	G	C4-N9-C1'	7.64	136.43	126.50
1	A	685	G	C2-N3-C4	-7.64	108.08	111.90
1	A	144	G	C2-N3-C4	-7.63	108.08	111.90
1	A	1526	G	C4-N9-C1'	7.63	136.42	126.50
1	A	97	G	C8-N9-C4	-7.63	103.35	106.40
1	A	190	C	N3-C2-O2	-7.63	116.56	121.90
1	A	1380	U	N3-C2-O2	-7.63	116.86	122.20
1	A	39	G	C5-C6-N1	7.62	115.31	111.50
1	A	1279	A	C6-C5-N7	-7.62	126.97	132.30
1	A	745	C	N3-C4-C5	7.61	124.94	121.90
1	A	139	G	N1-C6-O6	7.60	124.46	119.90
1	A	368	U	C5-C6-N1	-7.60	118.90	122.70
1	A	75	G	N3-C4-N9	7.60	130.56	126.00
1	A	755	G	N1-C2-N3	-7.60	119.34	123.90
1	A	673	G	N3-C4-N9	7.60	130.56	126.00
1	A	824	C	C2-N3-C4	-7.59	116.10	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1346	A	N9-C4-C5	7.59	108.84	105.80
1	A	859	A	N7-C8-N9	7.59	117.59	113.80
1	A	557	G	C6-C5-N7	-7.59	125.85	130.40
1	A	113	G	C8-N9-C1'	-7.58	117.15	127.00
1	A	132	C	N1-C2-N3	7.57	124.50	119.20
1	A	357	G	C5-C6-N1	-7.57	107.71	111.50
1	A	941	G	N3-C2-N2	-7.57	114.60	119.90
1	A	851	G	N3-C2-N2	-7.57	114.60	119.90
1	A	1416	G	C5-C6-N1	-7.57	107.72	111.50
1	A	24	U	C5-C4-O4	-7.56	121.36	125.90
1	A	238	G	C2-N3-C4	-7.56	108.12	111.90
1	A	1369	C	C6-N1-C2	-7.56	117.28	120.30
1	A	106	C	N1-C2-N3	7.56	124.49	119.20
1	A	570	G	N1-C2-N3	7.56	128.44	123.90
3	C	179	ARG	N-CA-C	-7.55	90.60	111.00
1	A	1455	G	C4-C5-N7	7.55	113.82	110.80
1	A	1497	G	C4-C5-N7	7.55	113.82	110.80
1	A	1455	G	C5-N7-C8	-7.55	100.53	104.30
1	A	483	C	C2-N1-C1'	-7.54	110.50	118.80
1	A	1409	C	C6-N1-C2	-7.54	117.28	120.30
20	T	94	ALA	N-CA-C	-7.54	90.65	111.00
1	A	1148	U	C5-C6-N1	7.53	126.47	122.70
1	A	317	G	C5-C6-O6	-7.53	124.08	128.60
1	A	1529	G	N7-C8-N9	7.53	116.86	113.10
1	A	586	C	C2-N3-C4	-7.53	116.14	119.90
1	A	29	G	C2-N3-C4	-7.52	108.14	111.90
1	A	257	G	N3-C2-N2	7.52	125.16	119.90
1	A	798	G	C2-N3-C4	-7.51	108.14	111.90
1	A	859	A	N1-C6-N6	7.51	123.11	118.60
1	A	654	G	C2-N3-C4	-7.51	108.15	111.90
1	A	873	A	N9-C4-C5	7.50	108.80	105.80
1	A	326	G	C2-N3-C4	7.50	115.65	111.90
1	A	809	G	C8-N9-C4	-7.50	103.40	106.40
1	A	280	C	C6-N1-C2	7.49	123.30	120.30
1	A	1241	G	C5-C6-N1	-7.49	107.75	111.50
1	A	66	G	C5-N7-C8	-7.49	100.56	104.30
1	A	30	U	N3-C4-C5	7.48	119.09	114.60
1	A	755	G	C2-N3-C4	7.48	115.64	111.90
1	A	1513	A	C2-N3-C4	-7.48	106.86	110.60
1	A	730	G	N1-C2-N3	7.48	128.39	123.90
1	A	190(G)	G	C8-N9-C4	-7.48	103.41	106.40
1	A	16	A	N7-C8-N9	-7.47	110.06	113.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1521	G	N1-C6-O6	-7.47	115.42	119.90
1	A	859	A	N3-C4-N9	7.46	133.37	127.40
1	A	1279	A	C5-N7-C8	-7.45	100.17	103.90
1	A	518	C	C6-N1-C2	7.45	123.28	120.30
1	A	113	G	N3-C4-N9	7.44	130.46	126.00
1	A	580	U	N3-C4-O4	7.44	124.61	119.40
1	A	708	C	C5-C6-N1	-7.44	117.28	121.00
1	A	257	G	N1-C2-N2	-7.44	109.51	116.20
1	A	295	C	N3-C4-C5	7.43	124.87	121.90
1	A	721	G	C4-C5-N7	7.43	113.77	110.80
1	A	1347	G	N7-C8-N9	-7.42	109.39	113.10
1	A	325	A	N9-C4-C5	7.42	108.77	105.80
1	A	524	G	C5-C6-O6	-7.42	124.15	128.60
1	A	811	C	N3-C4-C5	-7.42	118.93	121.90
1	A	559	A	N3-C4-C5	-7.41	121.61	126.80
1	A	1074	G	C6-C5-N7	-7.41	125.95	130.40
1	A	1155	G	N7-C8-N9	7.41	116.80	113.10
1	A	899	C	N3-C4-N4	7.40	123.18	118.00
1	A	141	A	C4-C5-N7	7.40	114.40	110.70
1	A	1241	G	C2-N3-C4	-7.39	108.20	111.90
1	A	928	G	C4-C5-N7	7.39	113.76	110.80
1	A	1529	G	C4-N9-C1'	7.39	136.10	126.50
1	A	1338	G	N3-C4-N9	-7.39	121.57	126.00
1	A	1192	C	C2-N3-C4	-7.38	116.21	119.90
1	A	1382	C	C6-N1-C2	-7.38	117.35	120.30
1	A	1494	G	N1-C6-O6	7.38	124.33	119.90
1	A	122	G	C2-N3-C4	-7.37	108.21	111.90
1	A	128	G	N9-C4-C5	-7.37	102.45	105.40
1	A	722	A	C6-C5-N7	-7.37	127.14	132.30
1	A	329	A	C5-C6-N6	-7.36	117.81	123.70
1	A	721	G	N9-C4-C5	-7.36	102.46	105.40
1	A	1328	C	C6-N1-C2	-7.35	117.36	120.30
1	A	1435	G	N1-C6-O6	7.35	124.31	119.90
1	A	393	A	N1-C6-N6	7.35	123.01	118.60
1	A	944	G	N7-C8-N9	7.35	116.78	113.10
1	A	1279	A	N1-C6-N6	7.35	123.01	118.60
1	A	238	G	C5-C6-N1	-7.35	107.83	111.50
1	A	128	G	C2-N3-C4	-7.34	108.23	111.90
1	A	707	C	C2-N1-C1'	-7.34	110.72	118.80
1	A	416	G	N1-C6-O6	7.34	124.30	119.90
1	A	1455	G	N7-C8-N9	7.34	116.77	113.10
1	A	773	G	N1-C6-O6	7.33	124.30	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1080	A	N7-C8-N9	-7.33	110.14	113.80
1	A	372	C	C6-N1-C1'	-7.33	112.01	120.80
1	A	741	G	C4-C5-N7	-7.33	107.87	110.80
1	A	865	A	C5-C6-N1	7.32	121.36	117.70
1	A	971	G	N1-C6-O6	7.32	124.29	119.90
1	A	669	U	C6-N1-C2	7.32	125.39	121.00
1	A	451	A	C4-C5-C6	-7.32	113.34	117.00
1	A	499	A	N9-C4-C5	7.32	108.73	105.80
1	A	1181	G	C4-N9-C1'	-7.32	116.99	126.50
1	A	93	G	N3-C4-C5	-7.32	124.94	128.60
1	A	80	G	C8-N9-C4	-7.31	103.47	106.40
1	A	557	G	N1-C6-O6	7.31	124.29	119.90
1	A	146	G	N1-C6-O6	7.30	124.28	119.90
1	A	627	G	N9-C4-C5	-7.30	102.48	105.40
1	A	98	U	C5-C6-N1	7.30	126.35	122.70
1	A	7	G	C4-C5-N7	-7.30	107.88	110.80
1	A	122	G	C6-C5-N7	-7.30	126.02	130.40
1	A	926	G	N3-C4-C5	-7.30	124.95	128.60
1	A	507	C	N3-C4-C5	7.30	124.82	121.90
1	A	1200	C	C5-C6-N1	7.30	124.65	121.00
1	A	1348	U	N3-C4-O4	7.29	124.51	119.40
1	A	27	G	C6-C5-N7	-7.29	126.02	130.40
1	A	481	G	C5-C6-O6	-7.29	124.22	128.60
1	A	417	C	C5-C6-N1	7.29	124.64	121.00
1	A	119	A	N1-C6-N6	-7.28	114.23	118.60
1	A	827	U	N1-C2-N3	7.28	119.27	114.90
1	A	882	C	N1-C2-O2	-7.28	114.53	118.90
1	A	731	G	C4-C5-N7	7.28	113.71	110.80
1	A	1469	G	N1-C6-O6	7.28	124.27	119.90
1	A	251	G	N7-C8-N9	7.27	116.74	113.10
1	A	782	A	C6-N1-C2	-7.27	114.24	118.60
1	A	927	G	N3-C4-C5	7.27	132.23	128.60
1	A	971	G	C5-C6-N1	-7.27	107.87	111.50
1	A	228	A	N1-C6-N6	7.26	122.96	118.60
1	A	927	G	N1-C6-O6	7.26	124.26	119.90
1	A	755	G	N1-C2-N2	7.26	122.73	116.20
1	A	628	G	N3-C4-N9	7.25	130.35	126.00
1	A	1238	A	N1-C6-N6	-7.25	114.25	118.60
1	A	1202	G	C5-C6-O6	7.25	132.95	128.60
1	A	852	G	N1-C6-O6	7.24	124.25	119.90
1	A	1465	C	C5-C4-N4	-7.24	115.13	120.20
1	A	1447	G	N7-C8-N9	7.24	116.72	113.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1370	G	C5-C6-O6	-7.24	124.26	128.60
1	A	499	A	C8-N9-C4	-7.24	102.91	105.80
1	A	106	C	C4-C5-C6	7.23	121.01	117.40
1	A	483	C	C5-C6-N1	-7.23	117.39	121.00
1	A	129(A)	G	C4-N9-C1'	7.23	135.90	126.50
1	A	919	A	C5-C6-N1	7.23	121.31	117.70
1	A	244	U	C5-C6-N1	-7.22	119.09	122.70
1	A	640	A	N9-C4-C5	7.22	108.69	105.80
1	A	1061	G	N1-C6-O6	7.22	124.23	119.90
1	A	519	C	N3-C4-C5	-7.22	119.01	121.90
1	A	1208	C	C6-N1-C2	-7.22	117.41	120.30
1	A	190(G)	G	N7-C8-N9	7.22	116.71	113.10
1	A	44	G	C6-C5-N7	-7.22	126.07	130.40
1	A	238	G	N1-C6-O6	7.21	124.23	119.90
1	A	651	C	N1-C2-N3	-7.21	114.15	119.20
1	A	1409	C	C5-C6-N1	7.21	124.61	121.00
1	A	310	G	C4-C5-N7	7.21	113.68	110.80
1	A	881	G	N3-C4-N9	7.21	130.33	126.00
1	A	927	G	C2-N3-C4	-7.21	108.30	111.90
1	A	1496	C	C4-C5-C6	-7.20	113.80	117.40
1	A	1219	U	C6-N1-C2	-7.20	116.68	121.00
1	A	589	C	C5-C6-N1	-7.19	117.40	121.00
1	A	1469	G	C5-C6-O6	-7.19	124.28	128.60
1	A	1152	A	C8-N9-C4	-7.19	102.92	105.80
1	A	1373	G	N3-C4-C5	-7.19	125.01	128.60
17	Q	35	VAL	CB-CA-C	-7.19	97.74	111.40
1	A	276	G	N3-C4-N9	-7.18	121.69	126.00
1	A	857	C	C6-N1-C2	-7.18	117.43	120.30
1	A	821	G	C8-N9-C4	7.18	109.27	106.40
1	A	766	A	C2-N3-C4	-7.17	107.02	110.60
1	A	1344	C	C2-N3-C4	-7.17	116.32	119.90
1	A	1241	G	N3-C4-C5	7.16	132.18	128.60
1	A	288	A	C2-N3-C4	-7.16	107.02	110.60
1	A	1528	U	C6-N1-C2	7.16	125.30	121.00
1	A	108	G	C6-C5-N7	-7.16	126.11	130.40
1	A	1240	U	C5-C4-O4	7.15	130.19	125.90
1	A	1377	A	C5-C6-N6	7.15	129.42	123.70
1	A	920	U	C5-C4-O4	7.15	130.19	125.90
1	A	329	A	N1-C6-N6	7.15	122.89	118.60
1	A	157	G	N1-C6-O6	7.14	124.19	119.90
1	A	197	A	C5-C6-N1	7.14	121.27	117.70
1	A	265	G	C8-N9-C4	7.14	109.26	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1231	G	C2-N3-C4	-7.14	108.33	111.90
1	A	266	G	N7-C8-N9	7.13	116.67	113.10
1	A	247	G	C2-N3-C4	-7.13	108.33	111.90
1	A	673	G	C6-C5-N7	-7.13	126.12	130.40
1	A	731	G	C5-C6-O6	-7.13	124.32	128.60
1	A	870	U	N1-C2-O2	7.13	127.79	122.80
1	A	900	A	C2-N3-C4	-7.13	107.04	110.60
1	A	933	G	N3-C4-C5	7.13	132.16	128.60
1	A	1436	U	N1-C2-O2	7.13	127.79	122.80
1	A	240	C	C5-C4-N4	-7.12	115.21	120.20
1	A	373	A	C2-N3-C4	-7.12	107.04	110.60
1	A	1517	G	C8-N9-C4	-7.12	103.55	106.40
1	A	616	G	C5-C6-N1	-7.12	107.94	111.50
1	A	779	C	N1-C2-N3	7.11	124.18	119.20
1	A	190(D)	U	C2-N1-C1'	-7.11	109.17	117.70
1	A	383	A	N1-C6-N6	7.11	122.87	118.60
1	A	572	A	N7-C8-N9	-7.11	110.25	113.80
1	A	109	A	N1-C6-N6	7.10	122.86	118.60
1	A	750	G	N1-C2-N3	7.10	128.16	123.90
1	A	319	G	C6-C5-N7	-7.09	126.14	130.40
1	A	755	G	C5-C6-O6	-7.09	124.34	128.60
1	A	1182	G	C5-C6-O6	-7.09	124.34	128.60
1	A	309	G	N1-C2-N3	7.09	128.15	123.90
1	A	1238	A	C4-C5-N7	-7.09	107.16	110.70
1	A	1367	C	C2-N1-C1'	7.09	126.60	118.80
1	A	656	C	C2-N3-C4	-7.09	116.36	119.90
1	A	1441	G	C5-C6-O6	7.08	132.85	128.60
1	A	121	C	C2-N1-C1'	-7.08	111.01	118.80
1	A	858	G	N3-C4-C5	7.08	132.14	128.60
1	A	291	C	N1-C2-N3	7.08	124.16	119.20
1	A	1494	G	N9-C4-C5	-7.07	102.57	105.40
1	A	234	C	N3-C4-C5	7.07	124.73	121.90
1	A	80	G	N7-C8-N9	7.07	116.63	113.10
1	A	144	G	N7-C8-N9	7.07	116.63	113.10
1	A	779	C	N1-C2-O2	-7.07	114.66	118.90
1	A	234	C	C5-C6-N1	-7.07	117.47	121.00
1	A	1071	C	C5-C4-N4	-7.07	115.25	120.20
1	A	255	G	C4-C5-C6	7.06	123.04	118.80
1	A	1474	G	C5-C6-O6	-7.06	124.36	128.60
1	A	59	A	C5-C6-N1	7.06	121.23	117.70
1	A	29	G	N7-C8-N9	-7.06	109.57	113.10
1	A	1455	G	C6-C5-N7	-7.05	126.17	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1452	C	N1-C2-O2	7.05	123.13	118.90
1	A	1100	C	C6-N1-C2	-7.04	117.48	120.30
1	A	167	G	C8-N9-C4	-7.04	103.59	106.40
1	A	310	G	C6-C5-N7	-7.04	126.18	130.40
1	A	606	G	C8-N9-C4	-7.04	103.59	106.40
1	A	653	A	C8-N9-C4	-7.04	102.99	105.80
1	A	779	C	N3-C4-C5	-7.03	119.09	121.90
1	A	782	A	C2-N3-C4	-7.03	107.09	110.60
1	A	888	G	N9-C4-C5	7.02	108.21	105.40
1	A	1499	A	N1-C6-N6	7.02	122.81	118.60
1	A	928	G	C5-C6-O6	-7.02	124.39	128.60
1	A	645	C	C5-C6-N1	7.02	124.51	121.00
2	B	23	ARG	N-CA-C	-7.02	92.06	111.00
1	A	1497	G	C5-N7-C8	-7.01	100.79	104.30
1	A	1043	C	C6-N1-C2	-7.01	117.50	120.30
1	A	706	A	N1-C2-N3	7.01	132.81	129.30
1	A	711	G	N1-C6-O6	7.01	124.11	119.90
1	A	908	A	C8-N9-C4	-7.01	103.00	105.80
1	A	764	C	N3-C4-C5	7.01	124.70	121.90
1	A	701	C	N3-C4-N4	-7.01	113.09	118.00
1	A	18	C	C6-N1-C2	7.00	123.10	120.30
1	A	481	G	C5-N7-C8	7.00	107.80	104.30
1	A	142	G	N3-C4-C5	-6.99	125.10	128.60
1	A	1338	G	N1-C2-N3	6.99	128.10	123.90
1	A	1231	G	C6-C5-N7	-6.99	126.20	130.40
1	A	168	G	C6-C5-N7	-6.98	126.21	130.40
1	A	407	G	C2-N3-C4	-6.98	108.41	111.90
1	A	563	A	C8-N9-C1'	-6.98	115.13	127.70
1	A	399	G	C2-N3-C4	-6.98	108.41	111.90
1	A	1425	U	C5-C4-O4	6.98	130.09	125.90
1	A	719	C	C5-C6-N1	-6.98	117.51	121.00
1	A	862	C	C5-C6-N1	-6.98	117.51	121.00
1	A	1522	U	C5-C6-N1	6.97	126.19	122.70
1	A	565	U	N1-C2-N3	-6.97	110.72	114.90
1	A	1310	G	C8-N9-C1'	-6.97	117.94	127.00
1	A	598	U	C5-C6-N1	-6.96	119.22	122.70
1	A	563	A	C4-C5-C6	6.96	120.48	117.00
1	A	707	C	N3-C4-N4	-6.95	113.13	118.00
5	E	41	VAL	CB-CA-C	-6.95	98.19	111.40
1	A	322	C	N3-C4-N4	6.95	122.86	118.00
1	A	898	G	C2-N3-C4	-6.95	108.43	111.90
1	A	145	G	N1-C6-O6	6.95	124.07	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	759	A	C5-N7-C8	-6.94	100.43	103.90
1	A	319	G	C5-C6-O6	-6.94	124.44	128.60
1	A	1302	U	N1-C2-O2	6.94	127.66	122.80
1	A	1079	G	C6-N1-C2	-6.94	120.94	125.10
1	A	274	A	C8-N9-C4	6.94	108.58	105.80
1	A	658	G	C8-N9-C4	6.94	109.17	106.40
1	A	785	G	C6-C5-N7	-6.94	126.24	130.40
1	A	30	U	C5-C6-N1	-6.93	119.23	122.70
1	A	769	G	C6-C5-N7	-6.93	126.24	130.40
1	A	117	G	C5-C6-O6	-6.93	124.44	128.60
1	A	705	U	N1-C2-O2	-6.93	117.95	122.80
1	A	1084	G	C5-C6-O6	6.93	132.76	128.60
1	A	874	G	N1-C2-N3	6.92	128.05	123.90
1	A	627	G	C5-C6-O6	-6.92	124.45	128.60
1	A	867	G	N1-C6-O6	6.92	124.05	119.90
1	A	262	A	C8-N9-C4	-6.92	103.03	105.80
1	A	754	C	N3-C4-C5	6.92	124.67	121.90
1	A	948	C	N3-C4-C5	6.92	124.67	121.90
1	A	1082	G	N9-C4-C5	-6.92	102.63	105.40
1	A	511	C	N3-C4-C5	6.91	124.67	121.90
1	A	1189	C	C2-N1-C1'	-6.91	111.20	118.80
1	A	296	U	C5-C6-N1	-6.91	119.25	122.70
1	A	704	A	C2-N3-C4	-6.91	107.15	110.60
1	A	777	A	C5-C6-N6	-6.91	118.17	123.70
1	A	627	G	C4-C5-N7	6.91	113.56	110.80
1	A	656	C	C4-C5-C6	6.91	120.85	117.40
1	A	1236	A	C4-C5-C6	-6.91	113.55	117.00
1	A	885	G	C5-N7-C8	-6.90	100.85	104.30
1	A	1331	G	C5-N7-C8	6.90	107.75	104.30
1	A	190(D)	U	C5-C4-O4	6.90	130.04	125.90
1	A	251	G	C8-N9-C1'	-6.90	118.03	127.00
1	A	1339	A	C5-C6-N1	6.89	121.15	117.70
1	A	1088	G	C5-C6-O6	-6.89	124.47	128.60
1	A	1531	A	C5-N7-C8	-6.89	100.45	103.90
1	A	1064	G	C5-C6-O6	-6.89	124.47	128.60
1	A	1064	G	C8-N9-C1'	-6.89	118.05	127.00
1	A	766	A	C5-N7-C8	-6.88	100.46	103.90
1	A	1447	G	C5-C6-O6	-6.88	124.47	128.60
1	A	1532	U	C5-C6-N1	6.88	126.14	122.70
1	A	945	G	C5-C6-O6	-6.88	124.47	128.60
1	A	565	U	C5-C4-O4	-6.87	121.78	125.90
1	A	898	G	C8-N9-C4	6.87	109.15	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	517	G	C4-C5-N7	-6.87	108.05	110.80
1	A	1344	C	C5-C6-N1	-6.87	117.57	121.00
1	A	1486	G	N1-C6-O6	6.86	124.02	119.90
1	A	260	G	N3-C2-N2	-6.86	115.10	119.90
1	A	760	G	C2-N3-C4	-6.86	108.47	111.90
1	A	1233	G	C8-N9-C4	6.86	109.14	106.40
1	A	373	A	N7-C8-N9	6.86	117.23	113.80
1	A	66	G	C4-C5-N7	6.85	113.54	110.80
1	A	109	A	C5-N7-C8	-6.85	100.47	103.90
1	A	240	C	N3-C4-N4	6.85	122.80	118.00
1	A	759	A	C2-N3-C4	-6.85	107.17	110.60
1	A	1240	U	N1-C2-N3	6.85	119.01	114.90
1	A	1077	G	C5-C6-N1	-6.85	108.07	111.50
1	A	1512	U	N1-C2-N3	6.85	119.01	114.90
1	A	190(G)	G	C6-C5-N7	-6.85	126.29	130.40
1	A	1281	U	C5-C6-N1	6.85	126.12	122.70
1	A	357	G	C8-N9-C4	6.84	109.14	106.40
1	A	879	C	C5-C4-N4	-6.84	115.41	120.20
1	A	167	G	N9-C4-C5	6.84	108.14	105.40
17	Q	21	VAL	CB-CA-C	-6.84	98.41	111.40
1	A	705	U	C6-N1-C1'	6.83	130.77	121.20
1	A	574	A	N7-C8-N9	-6.83	110.38	113.80
1	A	771	G	C2-N3-C4	-6.83	108.48	111.90
1	A	376	G	N1-C6-O6	6.83	124.00	119.90
1	A	1338	G	C8-N9-C4	-6.83	103.67	106.40
1	A	1416	G	C2-N3-C4	-6.83	108.48	111.90
1	A	1505	G	N1-C6-O6	6.83	124.00	119.90
1	A	277	C	C5-C6-N1	-6.83	117.59	121.00
1	A	1099	G	N3-C4-N9	-6.83	121.91	126.00
1	A	129(A)	G	N3-C4-N9	6.82	130.09	126.00
1	A	1064	G	N9-C4-C5	-6.82	102.67	105.40
1	A	90	U	N3-C4-C5	-6.82	110.51	114.60
1	A	357	G	N1-C6-O6	6.82	123.99	119.90
1	A	377	G	C2-N3-C4	-6.82	108.49	111.90
1	A	521	G	C6-C5-N7	6.82	134.49	130.40
1	A	1494	G	C6-C5-N7	-6.82	126.31	130.40
1	A	839	U	N1-C2-O2	6.82	127.57	122.80
1	A	707	C	C5-C6-N1	-6.82	117.59	121.00
1	A	790	A	C8-N9-C4	-6.82	103.07	105.80
1	A	319	G	N3-C4-N9	6.81	130.09	126.00
1	A	637	G	C8-N9-C1'	-6.81	118.14	127.00
1	A	27	G	C8-N9-C1'	-6.81	118.14	127.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1530	G	N9-C4-C5	-6.81	102.67	105.40
17	Q	98	LEU	CA-CB-CG	6.81	130.97	115.30
1	A	833	U	N1-C2-N3	6.81	118.99	114.90
1	A	373	A	N1-C2-N3	6.81	132.70	129.30
1	A	634	C	C6-N1-C2	-6.80	117.58	120.30
1	A	46	G	N3-C4-C5	-6.80	125.20	128.60
1	A	628	G	N3-C4-C5	-6.80	125.20	128.60
1	A	746	A	N9-C4-C5	-6.80	103.08	105.80
1	A	1340	A	C2-N3-C4	-6.80	107.20	110.60
1	A	568	G	C6-N1-C2	-6.79	121.03	125.10
1	A	366	C	N1-C2-O2	6.79	122.97	118.90
1	A	862	C	C5-C4-N4	-6.79	115.45	120.20
1	A	123	C	N1-C2-N3	6.78	123.95	119.20
1	A	229	U	C6-N1-C2	-6.78	116.93	121.00
1	A	944	G	N1-C2-N2	-6.78	110.10	116.20
1	A	336	C	N3-C2-O2	6.78	126.64	121.90
1	A	1335	C	C6-N1-C1'	6.78	128.94	120.80
1	A	404	U	N1-C2-O2	-6.78	118.06	122.80
1	A	259	G	N7-C8-N9	6.77	116.49	113.10
1	A	760	G	N3-C4-C5	6.77	131.99	128.60
1	A	230	G	N1-C6-O6	6.77	123.96	119.90
1	A	780	A	N1-C6-N6	-6.77	114.54	118.60
1	A	262	A	N1-C6-N6	-6.77	114.54	118.60
1	A	1099	G	N1-C6-O6	6.77	123.96	119.90
1	A	606	G	C4-C5-N7	-6.76	108.10	110.80
1	A	1264	C	C6-N1-C2	-6.75	117.60	120.30
1	A	1182	G	C4-C5-N7	6.75	113.50	110.80
1	A	1087	G	C4-C5-N7	6.75	113.50	110.80
1	A	255	G	C5-C6-O6	-6.75	124.55	128.60
1	A	541	G	N3-C2-N2	-6.75	115.18	119.90
1	A	553	A	C5-C6-N1	6.75	121.07	117.70
1	A	794	A	N3-C4-C5	-6.75	122.08	126.80
1	A	761	G	N1-C6-O6	6.75	123.95	119.90
1	A	814	A	N1-C2-N3	6.75	132.67	129.30
1	A	265	G	C2-N3-C4	-6.75	108.53	111.90
1	A	832	C	C5-C4-N4	-6.75	115.48	120.20
1	A	1403	C	C4-C5-C6	-6.75	114.03	117.40
1	A	1443	G	N9-C4-C5	-6.74	102.70	105.40
1	A	930	C	N3-C2-O2	-6.74	117.19	121.90
1	A	1060	C	C2-N1-C1'	6.73	126.21	118.80
1	A	129(A)	G	C8-N9-C4	6.73	109.09	106.40
1	A	1539	C	N3-C4-C5	6.73	124.59	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	Q	22	LEU	CA-CB-CG	-6.73	99.82	115.30
1	A	260	G	C5-C6-N1	-6.73	108.14	111.50
1	A	753	A	C2-N3-C4	-6.72	107.24	110.60
1	A	1084	G	C2-N3-C4	6.72	115.26	111.90
1	A	1233	G	N7-C8-N9	-6.72	109.74	113.10
1	A	559	A	C4-C5-C6	6.72	120.36	117.00
1	A	878	G	N1-C2-N2	-6.72	110.15	116.20
1	A	1157	A	C5-C6-N6	6.72	129.08	123.70
1	A	277	C	N3-C4-C5	6.72	124.59	121.90
1	A	906	G	C4-C5-N7	6.72	113.49	110.80
1	A	144	G	C5-N7-C8	-6.72	100.94	104.30
1	A	27	G	N1-C2-N3	6.71	127.93	123.90
1	A	484	G	N3-C4-N9	6.71	130.03	126.00
1	A	236	G	C8-N9-C1'	-6.71	118.28	127.00
1	A	144	G	C5-C6-O6	-6.71	124.58	128.60
1	A	1370	G	C8-N9-C1'	-6.71	118.28	127.00
1	A	243	A	P-O3'-C3'	6.70	127.75	119.70
1	A	1108	G	N3-C4-C5	-6.70	125.25	128.60
1	A	1482	G	N1-C2-N2	-6.70	110.17	116.20
1	A	1544	U	N3-C2-O2	6.70	126.89	122.20
1	A	833	U	C5-C6-N1	-6.70	119.35	122.70
1	A	649	G	C5-C6-O6	-6.70	124.58	128.60
1	A	725	G	C5-N7-C8	-6.70	100.95	104.30
1	A	244	U	C6-N1-C2	6.70	125.02	121.00
1	A	634	C	N3-C4-C5	-6.69	119.22	121.90
1	A	113	G	C4-N9-C1'	6.69	135.20	126.50
1	A	786	G	C4-C5-N7	6.69	113.48	110.80
1	A	1051	C	N3-C4-C5	-6.69	119.22	121.90
1	A	577	G	C2-N3-C4	-6.69	108.56	111.90
1	A	269	C	N1-C2-N3	6.68	123.88	119.20
1	A	575	G	C5-C6-N1	6.68	114.84	111.50
1	A	705	U	N3-C4-C5	-6.68	110.59	114.60
1	A	876	G	C6-N1-C2	-6.68	121.09	125.10
1	A	928	G	N9-C4-C5	-6.68	102.73	105.40
1	A	309	G	N1-C2-N2	-6.68	110.19	116.20
1	A	631	G	N7-C8-N9	6.68	116.44	113.10
1	A	703	G	N3-C4-C5	-6.68	125.26	128.60
1	A	1047	G	N3-C4-C5	-6.68	125.26	128.60
1	A	1419	G	C5-C6-N1	-6.68	108.16	111.50
1	A	278	G	N7-C8-N9	6.68	116.44	113.10
1	A	62	U	N1-C2-O2	6.67	127.47	122.80
1	A	380	G	C5-C6-N1	-6.67	108.16	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	612	C	N1-C2-O2	6.67	122.91	118.90
1	A	634	C	N1-C2-N3	6.67	123.87	119.20
1	A	384	G	C6-N1-C2	-6.67	121.10	125.10
1	A	1505	G	C5-N7-C8	-6.67	100.96	104.30
1	A	47	C	C2-N1-C1'	6.67	126.13	118.80
1	A	1370	G	C6-C5-N7	-6.67	126.40	130.40
1	A	78	G	N9-C4-C5	-6.67	102.73	105.40
1	A	256	U	C5-C4-O4	-6.67	121.90	125.90
1	A	307	C	N1-C2-O2	6.67	122.90	118.90
1	A	75	G	N3-C4-C5	-6.66	125.27	128.60
1	A	572	A	N9-C4-C5	6.66	108.47	105.80
1	A	1079	G	C4-C5-C6	6.66	122.80	118.80
1	A	521	G	N1-C6-O6	-6.66	115.90	119.90
1	A	27	G	C4-N9-C1'	6.66	135.16	126.50
1	A	1126	U	C6-N1-C2	-6.66	117.01	121.00
1	A	1200	C	C4-C5-C6	-6.65	114.07	117.40
1	A	358	U	N1-C2-N3	6.65	118.89	114.90
1	A	867	G	C4-C5-N7	6.65	113.46	110.80
1	A	1329	A	N1-C6-N6	6.65	122.59	118.60
1	A	1482	G	C4-N9-C1'	6.65	135.14	126.50
1	A	93	G	N3-C2-N2	6.64	124.55	119.90
1	A	1394	A	N7-C8-N9	-6.64	110.48	113.80
1	A	260	G	N7-C8-N9	6.63	116.42	113.10
1	A	562	C	C4-C5-C6	6.63	120.72	117.40
1	A	30	U	C2-N3-C4	-6.62	123.03	127.00
1	A	93	G	N1-C2-N2	-6.62	110.24	116.20
1	A	563	A	C4-N9-C1'	6.62	138.22	126.30
1	A	722	A	C4-C5-N7	6.62	114.01	110.70
1	A	588	G	C8-N9-C1'	-6.62	118.40	127.00
1	A	700	G	N3-C4-C5	-6.62	125.29	128.60
1	A	263	A	C5-C6-N1	6.62	121.01	117.70
1	A	673	G	C8-N9-C1'	-6.62	118.40	127.00
1	A	1532	U	C4-C5-C6	-6.61	115.73	119.70
1	A	257	G	N3-C4-N9	6.61	129.97	126.00
1	A	416	G	C4-C5-N7	6.61	113.44	110.80
1	A	474	G	C4-C5-N7	6.61	113.44	110.80
1	A	1291	G	C8-N9-C1'	-6.61	118.41	127.00
1	A	1285	A	C5-N7-C8	-6.61	100.60	103.90
1	A	725	G	C6-C5-N7	-6.60	126.44	130.40
1	A	1323	G	N1-C6-O6	6.60	123.86	119.90
1	A	1116	C	C6-N1-C2	6.60	122.94	120.30
1	A	416	G	N3-C4-C5	6.60	131.90	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	770	C	C2-N3-C4	-6.60	116.60	119.90
1	A	27	G	N3-C4-C5	-6.59	125.30	128.60
1	A	765	G	N3-C4-C5	6.59	131.90	128.60
1	A	922	G	C8-N9-C4	-6.59	103.76	106.40
1	A	235	C	C5-C6-N1	-6.59	117.70	121.00
1	A	731	G	N9-C4-C5	-6.59	102.76	105.40
1	A	250	A	C5-C6-N1	-6.59	114.41	117.70
1	A	1529	G	N3-C2-N2	-6.59	115.29	119.90
1	A	1526	G	C4-C5-C6	6.59	122.75	118.80
1	A	723	U	C6-N1-C2	-6.58	117.05	121.00
1	A	771	G	C8-N9-C4	6.58	109.03	106.40
1	A	944	G	N9-C4-C5	6.58	108.03	105.40
1	A	971	G	N9-C4-C5	-6.58	102.77	105.40
1	A	1331	G	N9-C4-C5	6.58	108.03	105.40
1	A	232	G	N3-C4-N9	6.57	129.94	126.00
1	A	251	G	C5-C6-O6	-6.57	124.66	128.60
1	A	837	G	C8-N9-C4	6.57	109.03	106.40
1	A	1387	G	N1-C2-N2	-6.57	110.28	116.20
1	A	234	C	C2-N3-C4	-6.57	116.61	119.90
1	A	500	G	C5-C6-O6	-6.57	124.66	128.60
1	A	201	C	C2-N1-C1'	6.57	126.02	118.80
1	A	314	C	N3-C4-N4	-6.57	113.40	118.00
1	A	1403	C	N1-C2-N3	-6.57	114.60	119.20
1	A	1489	G	C8-N9-C4	-6.56	103.78	106.40
1	A	119	A	C5-C6-N6	6.55	128.94	123.70
1	A	928	G	N3-C4-C5	6.55	131.88	128.60
1	A	1394	A	N3-C4-C5	6.55	131.39	126.80
1	A	730	G	C5-C6-N1	-6.55	108.22	111.50
1	A	906	G	C5-C6-O6	-6.55	124.67	128.60
1	A	740	U	N1-C2-N3	6.55	118.83	114.90
1	A	119	A	C4-C5-N7	-6.55	107.43	110.70
1	A	456	C	N3-C2-O2	-6.54	117.32	121.90
1	A	1231	G	N9-C4-C5	-6.54	102.78	105.40
1	A	38	G	C4-N9-C1'	-6.54	118.00	126.50
1	A	785	G	N1-C6-O6	6.54	123.82	119.90
1	A	1194	U	C6-N1-C2	-6.54	117.08	121.00
1	A	906	G	N1-C6-O6	6.54	123.82	119.90
1	A	190(F)	G	C4-N9-C1'	-6.54	118.00	126.50
1	A	1502	A	N9-C4-C5	-6.54	103.19	105.80
1	A	281	G	N1-C6-O6	6.53	123.82	119.90
1	A	995	C	C5-C6-N1	6.53	124.27	121.00
1	A	1333	A	N7-C8-N9	6.53	117.07	113.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	900	A	C5-N7-C8	-6.53	100.63	103.90
1	A	1086	U	C5-C6-N1	6.53	125.97	122.70
1	A	518	C	N1-C2-O2	6.53	122.82	118.90
1	A	121	C	C5-C6-N1	-6.53	117.73	121.00
1	A	602	A	N1-C2-N3	6.53	132.56	129.30
1	A	778	G	N1-C2-N3	6.53	127.81	123.90
1	A	1187	G	N1-C6-O6	6.53	123.81	119.90
4	D	30	LYS	N-CA-C	6.53	128.62	111.00
1	A	765	G	N1-C6-O6	6.52	123.81	119.90
1	A	509	A	C3'-C2'-C1'	-6.52	96.28	101.50
1	A	1491	G	N3-C4-N9	6.52	129.91	126.00
1	A	382	A	C8-N9-C4	-6.51	103.20	105.80
1	A	117	G	N9-C4-C5	-6.51	102.80	105.40
1	A	628	G	C4-N9-C1'	6.51	134.96	126.50
1	A	919	A	C2-N3-C4	6.51	113.85	110.60
1	A	324	G	N9-C4-C5	6.50	108.00	105.40
1	A	584	G	C5-C6-O6	-6.50	124.70	128.60
1	A	1155	G	C6-C5-N7	-6.50	126.50	130.40
1	A	1512	U	N3-C4-C5	-6.50	110.70	114.60
1	A	666	G	C5-C6-N1	-6.50	108.25	111.50
1	A	1192	C	N1-C2-N3	6.50	123.75	119.20
1	A	815	A	N7-C8-N9	-6.49	110.55	113.80
1	A	1502	A	N3-C4-C5	6.49	131.35	126.80
1	A	130	A	C8-N9-C1'	-6.49	116.02	127.70
1	A	1078	U	C5-C6-N1	6.49	125.95	122.70
1	A	1482	G	N1-C6-O6	-6.49	116.01	119.90
1	A	557	G	C4-C5-C6	6.49	122.69	118.80
1	A	705	U	N1-C2-N3	6.49	118.79	114.90
1	A	1492	A	C8-N9-C4	-6.49	103.20	105.80
1	A	236	G	N1-C6-O6	-6.49	116.01	119.90
1	A	309	G	C8-N9-C1'	-6.48	118.57	127.00
1	A	877	C	C4-C5-C6	6.48	120.64	117.40
1	A	460	A	C8-N9-C4	-6.48	103.21	105.80
1	A	360	A	N7-C8-N9	6.47	117.04	113.80
1	A	1157	A	N1-C6-N6	-6.47	114.72	118.60
1	A	572	A	C4-C5-N7	-6.47	107.46	110.70
8	H	112	LEU	CA-CB-CG	-6.47	100.41	115.30
1	A	579	G	C4-C5-N7	6.47	113.39	110.80
1	A	53	A	N1-C2-N3	6.47	132.53	129.30
1	A	560	U	N3-C4-C5	-6.47	110.72	114.60
1	A	666	G	N1-C2-N3	6.47	127.78	123.90
1	A	805	C	N3-C4-C5	6.47	124.49	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	798	G	N1-C2-N3	6.46	127.78	123.90
1	A	1300	G	P-O3'-C3'	6.46	127.46	119.70
1	A	292	G	N9-C4-C5	-6.46	102.81	105.40
1	A	1377	A	C6-C5-N7	6.46	136.82	132.30
1	A	796	C	C2-N3-C4	-6.46	116.67	119.90
1	A	1398	A	C6-N1-C2	-6.46	114.72	118.60
1	A	17	U	N3-C4-C5	6.46	118.47	114.60
1	A	59	A	C4-C5-N7	6.46	113.93	110.70
1	A	766	A	N1-C6-N6	6.46	122.48	118.60
1	A	1310	G	C4-N9-C1'	6.46	134.90	126.50
1	A	1223	C	C6-N1-C2	-6.46	117.72	120.30
1	A	99	C	C5-C6-N1	6.45	124.23	121.00
1	A	589	C	N3-C4-N4	-6.45	113.48	118.00
1	A	1416	G	N1-C6-O6	6.45	123.77	119.90
1	A	569	C	C2-N1-C1'	-6.45	111.71	118.80
1	A	1266	G	N3-C4-C5	6.45	131.82	128.60
1	A	1080	A	C5-N7-C8	6.44	107.12	103.90
1	A	1285	A	N7-C8-N9	6.44	117.02	113.80
1	A	1192	C	N1-C2-O2	-6.44	115.04	118.90
1	A	1077	G	C6-C5-N7	-6.44	126.54	130.40
1	A	632	A	C5-N7-C8	-6.44	100.68	103.90
1	A	638	G	N3-C4-N9	6.44	129.86	126.00
1	A	1310	G	C5-C6-N1	-6.44	108.28	111.50
1	A	1341	U	C2-N1-C1'	-6.44	109.98	117.70
1	A	1383	C	N3-C4-N4	6.44	122.51	118.00
1	A	190(I)	G	N7-C8-N9	-6.43	109.88	113.10
1	A	774	G	C6-C5-N7	-6.43	126.54	130.40
1	A	822	C	C4-C5-C6	6.43	120.61	117.40
1	A	1078	U	C6-N1-C2	-6.43	117.14	121.00
1	A	916	G	C8-N9-C1'	-6.43	118.64	127.00
1	A	482	A	C6-C5-N7	-6.42	127.80	132.30
1	A	721	G	C8-N9-C1'	-6.42	118.65	127.00
1	A	1469	G	C6-C5-N7	-6.42	126.55	130.40
1	A	707	C	N3-C4-C5	6.42	124.47	121.90
1	A	1135	U	C2-N1-C1'	6.42	125.41	117.70
1	A	1312	G	C4-C5-N7	6.41	113.36	110.80
1	A	1203	C	C2-N1-C1'	6.41	125.85	118.80
1	A	1346	A	P-O3'-C3'	6.41	127.39	119.70
1	A	1212	U	C2-N1-C1'	6.40	125.38	117.70
1	A	1335	C	C2-N1-C1'	-6.40	111.76	118.80
1	A	833	U	C5-C4-O4	6.40	129.74	125.90
1	A	249	U	C5-C4-O4	6.40	129.74	125.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	876	G	C5-C6-O6	-6.40	124.76	128.60
1	A	860	A	C5-N7-C8	-6.39	100.70	103.90
1	A	156	G	N1-C6-O6	6.39	123.73	119.90
1	A	995	C	N1-C2-O2	6.39	122.73	118.90
1	A	348	G	N1-C6-O6	6.39	123.73	119.90
1	A	1512	U	C6-N1-C2	-6.39	117.17	121.00
1	A	7	G	C5-C6-N1	6.38	114.69	111.50
1	A	1514	C	N3-C4-C5	6.38	124.45	121.90
1	A	123	C	C6-N1-C2	-6.38	117.75	120.30
1	A	879	C	N3-C4-C5	6.38	124.45	121.90
1	A	190(F)	G	C8-N9-C1'	6.38	135.29	127.00
1	A	734	G	N9-C4-C5	-6.37	102.85	105.40
1	A	276	G	N1-C6-O6	6.37	123.72	119.90
1	A	795	C	C4-C5-C6	-6.37	114.22	117.40
1	A	878	G	C6-N1-C2	-6.37	121.28	125.10
1	A	1354	C	N3-C4-C5	6.37	124.45	121.90
1	A	888	G	C4-C5-N7	-6.37	108.25	110.80
1	A	32	A	N1-C2-N3	6.37	132.48	129.30
1	A	275	G	N1-C6-O6	6.37	123.72	119.90
1	A	1282	C	N3-C4-C5	-6.36	119.35	121.90
1	A	1079	G	N3-C4-N9	6.36	129.81	126.00
1	A	812	C	C5-C4-N4	6.36	124.65	120.20
1	A	130	A	C2-N3-C4	-6.36	107.42	110.60
1	A	551	U	C2-N1-C1'	6.36	125.33	117.70
1	A	595	G	N3-C4-C5	-6.36	125.42	128.60
1	A	1238	A	N9-C4-C5	6.36	108.34	105.80
1	A	1099	G	C2-N3-C4	-6.35	108.72	111.90
1	A	53	A	N1-C6-N6	-6.35	114.79	118.60
1	A	1531	A	C4-C5-N7	6.35	113.88	110.70
1	A	199	G	C6-C5-N7	-6.35	126.59	130.40
1	A	373	A	C8-N9-C4	-6.35	103.26	105.80
1	A	706	A	C8-N9-C4	6.35	108.34	105.80
1	A	558	G	N1-C6-O6	6.35	123.71	119.90
1	A	973	G	C8-N9-C1'	-6.35	118.75	127.00
1	A	1502	A	C4-N9-C1'	6.35	137.72	126.30
1	A	821	G	C6-C5-N7	-6.34	126.59	130.40
1	A	832	C	N1-C2-O2	-6.34	115.09	118.90
1	A	328	C	P-O3'-C3'	6.34	127.31	119.70
1	A	329	A	C5-N7-C8	-6.34	100.73	103.90
1	A	556	C	N3-C4-N4	-6.34	113.56	118.00
1	A	676	A	C8-N9-C4	6.34	108.34	105.80
1	A	1112	C	C6-N1-C2	6.34	122.84	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	404	U	N3-C2-O2	6.34	126.64	122.20
1	A	818	G	N1-C6-O6	6.34	123.70	119.90
1	A	1398	A	N1-C6-N6	-6.34	114.80	118.60
1	A	300	A	N7-C8-N9	6.34	116.97	113.80
1	A	1079	G	C8-N9-C4	-6.33	103.87	106.40
1	A	815	A	C5-N7-C8	6.33	107.07	103.90
1	A	30	U	N3-C4-O4	-6.33	114.97	119.40
1	A	1543	C	C5-C4-N4	-6.33	115.77	120.20
1	A	350	G	N7-C8-N9	6.33	116.27	113.10
1	A	1088	G	C4-C5-C6	6.32	122.59	118.80
1	A	319	G	C4-C5-N7	6.32	113.33	110.80
1	A	1481	U	C5-C4-O4	6.32	129.69	125.90
1	A	103	C	C4-C5-C6	6.32	120.56	117.40
1	A	872	A	C6-C5-N7	-6.32	127.88	132.30
1	A	926	G	C6-C5-N7	-6.32	126.61	130.40
1	A	1087	G	C5-C6-O6	-6.32	124.81	128.60
1	A	1106	G	C2-N3-C4	-6.32	108.74	111.90
1	A	877	C	C2-N3-C4	-6.31	116.75	119.90
1	A	51	A	C5-N7-C8	-6.31	100.75	103.90
1	A	93	G	C8-N9-C1'	-6.31	118.80	127.00
1	A	1411	C	C6-N1-C2	-6.31	117.78	120.30
1	A	345	C	C6-N1-C2	-6.31	117.78	120.30
1	A	1219	U	N3-C2-O2	-6.31	117.79	122.20
1	A	1505	G	C4-N9-C1'	6.31	134.70	126.50
1	A	130	A	N1-C2-N3	6.30	132.45	129.30
1	A	795	C	C6-N1-C2	6.30	122.82	120.30
1	A	918	A	N7-C8-N9	-6.30	110.65	113.80
1	A	700	G	N3-C4-N9	6.30	129.78	126.00
1	A	1030	C	C6-N1-C2	-6.30	117.78	120.30
1	A	141	A	C5-N7-C8	-6.30	100.75	103.90
1	A	511	C	C6-N1-C1'	6.30	128.36	120.80
1	A	1346	A	C6-N1-C2	-6.30	114.82	118.60
1	A	88	A	C2-N3-C4	6.29	113.75	110.60
1	A	1403	C	N3-C4-C5	6.29	124.42	121.90
1	A	245	C	C6-N1-C1'	6.29	128.35	120.80
1	A	766	A	C4-C5-N7	6.29	113.84	110.70
1	A	1166	G	C8-N9-C4	-6.29	103.88	106.40
1	A	1408	A	C4-C5-N7	6.29	113.84	110.70
1	A	322	C	N3-C2-O2	6.29	126.30	121.90
1	A	385	C	N3-C2-O2	-6.29	117.50	121.90
1	A	384	G	C8-N9-C1'	-6.29	118.83	127.00
1	A	1436	U	C2-N1-C1'	6.29	125.24	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	178	C	N1-C2-O2	6.28	122.67	118.90
1	A	625	G	C8-N9-C4	-6.28	103.89	106.40
1	A	22	G	N3-C2-N2	6.28	124.30	119.90
1	A	284	G	C4-C5-C6	6.28	122.57	118.80
1	A	838	G	C8-N9-C4	6.28	108.91	106.40
1	A	1508	G	N3-C4-C5	-6.28	125.46	128.60
1	A	708	C	N3-C4-N4	-6.28	113.61	118.00
1	A	865	A	N1-C6-N6	-6.28	114.83	118.60
1	A	1231	G	N3-C4-C5	6.28	131.74	128.60
1	A	122	G	N3-C4-C5	6.27	131.74	128.60
1	A	790	A	N7-C8-N9	6.27	116.94	113.80
1	A	258	G	N1-C6-O6	6.27	123.66	119.90
1	A	1080	A	C4-C5-N7	-6.27	107.57	110.70
1	A	1331	G	C5-C6-O6	6.27	132.36	128.60
1	A	113	G	N9-C4-C5	-6.27	102.89	105.40
1	A	232	G	C5-N7-C8	-6.27	101.17	104.30
1	A	29	G	C4-C5-N7	-6.27	108.29	110.80
1	A	367	U	C5-C4-O4	-6.27	122.14	125.90
1	A	451	A	C8-N9-C4	6.26	108.31	105.80
1	A	1358	U	C6-N1-C2	-6.26	117.24	121.00
1	A	1520	G	C5-C6-O6	-6.26	124.84	128.60
1	A	703	G	C5-N7-C8	6.26	107.43	104.30
1	A	789	U	C5-C6-N1	6.26	125.83	122.70
1	A	1513	A	N3-C4-C5	6.26	131.18	126.80
1	A	247	G	N3-C2-N2	-6.26	115.52	119.90
1	A	759	A	N1-C6-N6	6.26	122.35	118.60
1	A	1499	A	C6-C5-N7	-6.25	127.92	132.30
1	A	96	G	N1-C6-O6	6.25	123.65	119.90
1	A	363	A	C2-N3-C4	-6.25	107.47	110.60
1	A	1023	G	N3-C4-N9	6.25	129.75	126.00
1	A	301	G	C4-C5-C6	6.25	122.55	118.80
1	A	394	G	C5-C6-N1	-6.25	108.38	111.50
1	A	179	A	N1-C2-N3	6.25	132.42	129.30
1	A	384	G	C5-N7-C8	6.25	107.42	104.30
1	A	125	U	C5-C6-N1	-6.24	119.58	122.70
1	A	1023	G	N3-C4-C5	-6.24	125.48	128.60
1	A	1088	G	C4-C5-N7	6.24	113.30	110.80
1	A	1089	G	N3-C4-C5	-6.24	125.48	128.60
1	A	673	G	N1-C2-N3	6.24	127.64	123.90
1	A	743	U	C5-C4-O4	6.24	129.64	125.90
1	A	1530	G	C4-N9-C1'	-6.24	118.39	126.50
1	A	859	A	C6-N1-C2	-6.24	114.86	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1516	G	N3-C4-C5	6.24	131.72	128.60
1	A	146	G	C5-C6-N1	-6.23	108.38	111.50
1	A	301	G	C6-C5-N7	-6.23	126.66	130.40
1	A	886	G	C2-N3-C4	-6.23	108.78	111.90
1	A	1348	U	C6-N1-C1'	-6.23	112.48	121.20
1	A	1524	C	N1-C2-N3	6.23	123.56	119.20
1	A	78	G	C5-C6-O6	-6.23	124.86	128.60
1	A	300	A	C8-N9-C4	-6.23	103.31	105.80
1	A	818	G	C8-N9-C4	-6.23	103.91	106.40
1	A	928	G	C8-N9-C4	6.23	108.89	106.40
1	A	852	G	C4-C5-C6	6.22	122.53	118.80
1	A	941	G	N3-C4-C5	6.22	131.71	128.60
1	A	1082	G	C6-C5-N7	-6.22	126.67	130.40
1	A	1193	G	N1-C6-O6	6.22	123.64	119.90
1	A	144	G	N3-C4-C5	6.22	131.71	128.60
1	A	46	G	C4-C5-C6	6.21	122.53	118.80
1	A	336	C	C5-C4-N4	-6.21	115.85	120.20
1	A	900	A	C8-N9-C4	-6.21	103.31	105.80
1	A	926	G	N3-C2-N2	6.21	124.25	119.90
1	A	852	G	C6-C5-N7	-6.21	126.67	130.40
1	A	568	G	N1-C2-N3	6.21	127.63	123.90
1	A	1132	C	C6-N1-C2	-6.21	117.82	120.30
1	A	1393	U	C4-C5-C6	6.21	123.42	119.70
1	A	735	C	C5-C6-N1	-6.20	117.90	121.00
1	A	265	G	N1-C2-N2	-6.20	110.62	116.20
1	A	719	C	N1-C2-O2	6.20	122.62	118.90
1	A	909	A	C6-N1-C2	-6.20	114.88	118.60
1	A	989	C	N3-C4-C5	-6.20	119.42	121.90
1	A	80	G	C4-N9-C1'	6.20	134.55	126.50
1	A	360	A	C8-N9-C4	-6.20	103.32	105.80
1	A	59	A	C4-C5-C6	-6.19	113.90	117.00
1	A	813	U	N1-C2-N3	6.19	118.62	114.90
1	A	393	A	C2-N3-C4	-6.19	107.50	110.60
1	A	511	C	C5-C6-N1	-6.19	117.91	121.00
1	A	1539	C	N1-C2-O2	6.19	122.61	118.90
1	A	786	G	C2-N3-C4	-6.19	108.81	111.90
1	A	1375	A	C5-N7-C8	6.19	106.99	103.90
1	A	632	A	C2-N3-C4	-6.19	107.51	110.60
1	A	1186	G	C5-C6-N1	-6.19	108.41	111.50
1	A	1386	G	N7-C8-N9	-6.19	110.01	113.10
1	A	821	G	N9-C4-C5	-6.19	102.93	105.40
1	A	567	G	N3-C4-C5	-6.18	125.51	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1401	G	C6-C5-N7	-6.18	126.69	130.40
1	A	669	U	C5-C6-N1	-6.18	119.61	122.70
1	A	1293	G	C8-N9-C4	-6.18	103.93	106.40
1	A	774	G	N9-C4-C5	-6.18	102.93	105.40
1	A	595	G	C4-N9-C1'	6.18	134.53	126.50
1	A	381	C	N1-C2-O2	6.18	122.61	118.90
1	A	240	C	N1-C2-O2	-6.17	115.20	118.90
1	A	643	C	N3-C4-N4	6.17	122.32	118.00
17	Q	31	LEU	CA-CB-CG	-6.17	101.11	115.30
1	A	878	G	C2-N3-C4	-6.17	108.82	111.90
1	A	66	G	N3-C4-C5	6.17	131.68	128.60
1	A	874	G	N7-C8-N9	-6.17	110.02	113.10
1	A	241	C	C2-N3-C4	-6.17	116.82	119.90
1	A	856	C	N3-C4-C5	-6.17	119.43	121.90
1	A	1499	A	C4-C5-C6	6.17	120.08	117.00
1	A	144	G	N1-C2-N2	6.16	121.75	116.20
1	A	245	C	C2-N1-C1'	-6.16	112.02	118.80
1	A	605	U	N1-C2-N3	6.16	118.60	114.90
1	A	932	C	C6-N1-C2	-6.16	117.83	120.30
1	A	88	A	C4-C5-N7	-6.16	107.62	110.70
1	A	797	C	C5-C6-N1	-6.16	117.92	121.00
1	A	1132	C	C5-C6-N1	6.16	124.08	121.00
1	A	945	G	C4-C5-N7	6.15	113.26	110.80
1	A	1228	C	C6-N1-C2	-6.15	117.84	120.30
1	A	638	G	C8-N9-C1'	-6.15	119.00	127.00
1	A	1107	C	C6-N1-C2	-6.15	117.84	120.30
1	A	1526	G	C8-N9-C1'	-6.15	119.01	127.00
1	A	1246	C	C6-N1-C2	6.15	122.76	120.30
1	A	1279	A	C4-C5-N7	6.15	113.77	110.70
1	A	41	G	C8-N9-C4	-6.15	103.94	106.40
1	A	117	G	C4-C5-N7	6.14	113.26	110.80
1	A	107	G	C6-C5-N7	-6.14	126.72	130.40
1	A	595	G	N3-C4-N9	6.14	129.68	126.00
1	A	661	G	C2-N3-C4	-6.14	108.83	111.90
1	A	685	G	C4-C5-N7	6.13	113.25	110.80
1	A	1187	G	C8-N9-C4	-6.13	103.95	106.40
1	A	1543	C	C6-N1-C1'	-6.13	113.44	120.80
1	A	908	A	C5-C6-N6	6.13	128.61	123.70
1	A	718	G	N1-C6-O6	6.13	123.58	119.90
1	A	164	U	C5-C4-O4	6.13	129.58	125.90
1	A	693	G	N9-C4-C5	-6.13	102.95	105.40
1	A	1227	A	N3-C4-C5	6.13	131.09	126.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	275	G	C8-N9-C4	6.12	108.85	106.40
1	A	904	C	N1-C2-N3	6.12	123.49	119.20
4	D	135	LEU	CB-CG-CD1	-6.12	100.59	111.00
1	A	633	G	N3-C4-C5	6.12	131.66	128.60
1	A	109	A	C6-C5-N7	-6.12	128.02	132.30
1	A	278	G	N9-C4-C5	6.12	107.85	105.40
1	A	1517	G	N7-C8-N9	6.12	116.16	113.10
1	A	676	A	N1-C6-N6	6.12	122.27	118.60
1	A	763	G	C8-N9-C4	6.12	108.85	106.40
1	A	1177	G	C8-N9-C4	-6.12	103.95	106.40
1	A	975	A	N1-C6-N6	6.11	122.27	118.60
1	A	108	G	N3-C2-N2	-6.11	115.62	119.90
1	A	793	U	N1-C2-O2	6.11	127.08	122.80
1	A	1378	C	C5-C6-N1	6.11	124.06	121.00
1	A	79	G	N7-C8-N9	6.11	116.15	113.10
1	A	90	U	C5-C6-N1	6.11	125.75	122.70
1	A	8	A	N1-C6-N6	-6.10	114.94	118.60
1	A	1527	C	N1-C2-O2	-6.10	115.24	118.90
1	A	573	A	N7-C8-N9	6.10	116.85	113.80
1	A	1250	A	N1-C6-N6	-6.10	114.94	118.60
1	A	147	G	C5-C6-N1	-6.10	108.45	111.50
1	A	368	U	N3-C4-O4	-6.10	115.13	119.40
1	A	693	G	C8-N9-C4	6.10	108.84	106.40
1	A	120	A	C2-N3-C4	-6.10	107.55	110.60
1	A	637	G	N3-C4-N9	6.10	129.66	126.00
1	A	1318	A	C8-N9-C4	6.10	108.24	105.80
1	A	608	A	C2-N3-C4	-6.09	107.55	110.60
1	A	1493	A	C2-N3-C4	6.09	113.65	110.60
1	A	671	G	N1-C6-O6	6.09	123.56	119.90
1	A	1069	C	N1-C2-N3	-6.09	114.94	119.20
1	A	1234	C	C5-C6-N1	6.09	124.05	121.00
1	A	416	G	C5-N7-C8	-6.09	101.25	104.30
1	A	1246	C	C2-N1-C1'	-6.09	112.10	118.80
1	A	1370	G	N3-C4-N9	6.09	129.66	126.00
1	A	1393	U	C5-C6-N1	-6.09	119.65	122.70
1	A	78	G	C5-C6-N1	6.09	114.54	111.50
1	A	200	G	C5-C6-N1	-6.09	108.46	111.50
1	A	401	C	N1-C2-N3	6.09	123.46	119.20
1	A	610	G	N7-C8-N9	6.09	116.14	113.10
1	A	1455	G	C2-N3-C4	-6.09	108.86	111.90
1	A	271	C	N1-C2-O2	-6.08	115.25	118.90
1	A	305	G	C8-N9-C4	-6.08	103.97	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1451	A	N1-C6-N6	6.08	122.25	118.60
1	A	1346	A	C4-C5-N7	-6.08	107.66	110.70
1	A	6	G	N1-C6-O6	6.08	123.55	119.90
1	A	851	G	C5-C6-O6	-6.08	124.95	128.60
1	A	903	G	N1-C2-N3	6.08	127.55	123.90
1	A	909	A	C5-C6-N6	-6.08	118.84	123.70
1	A	324	G	C5-C6-N1	-6.08	108.46	111.50
1	A	325	A	N1-C6-N6	-6.08	114.95	118.60
1	A	809	G	N9-C4-C5	6.08	107.83	105.40
1	A	628	G	C6-C5-N7	-6.07	126.76	130.40
1	A	1366	C	N3-C4-C5	6.07	124.33	121.90
1	A	885	G	C4-C5-N7	6.07	113.23	110.80
1	A	708	C	C2-N3-C4	-6.07	116.86	119.90
1	A	805	C	C6-N1-C2	6.07	122.73	120.30
1	A	673	G	C4-N9-C1'	6.07	134.39	126.50
1	A	722	A	C5-C6-N1	-6.07	114.67	117.70
1	A	1048	G	N3-C4-N9	-6.07	122.36	126.00
1	A	1264	C	C5-C6-N1	6.06	124.03	121.00
1	A	265	G	N9-C4-C5	-6.06	102.97	105.40
1	A	945	G	C4-C5-C6	-6.06	115.16	118.80
1	A	1305	G	C8-N9-C4	-6.06	103.97	106.40
1	A	1236	A	N1-C2-N3	-6.06	126.27	129.30
1	A	1442	G	N3-C2-N2	6.06	124.14	119.90
1	A	450	G	N7-C8-N9	-6.06	110.07	113.10
1	A	696	A	C8-N9-C4	6.06	108.22	105.80
1	A	1495	U	C5-C4-O4	-6.06	122.26	125.90
1	A	331	G	N1-C6-O6	6.06	123.53	119.90
1	A	1495	U	N3-C4-C5	6.06	118.23	114.60
1	A	276	G	C2-N3-C4	-6.06	108.87	111.90
1	A	532	A	C4-C5-C6	-6.05	113.97	117.00
1	A	647	C	C5-C6-N1	-6.05	117.97	121.00
1	A	228	A	C5-C6-N1	-6.05	114.67	117.70
1	A	1192	C	N3-C4-N4	6.05	122.24	118.00
1	A	1367	C	N3-C2-O2	-6.05	117.67	121.90
1	A	363	A	C5-N7-C8	-6.05	100.88	103.90
1	A	373	A	C5-C6-N1	-6.05	114.68	117.70
1	A	487	A	C8-N9-C4	6.05	108.22	105.80
1	A	909	A	C5-C6-N1	6.05	120.72	117.70
1	A	628	G	C4-C5-C6	6.04	122.43	118.80
1	A	628	G	C8-N9-C1'	-6.04	119.14	127.00
1	A	761	G	C5-C6-N1	-6.04	108.48	111.50
1	A	1083	U	N3-C4-C5	-6.04	110.97	114.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	230	G	C4-C5-C6	6.04	122.42	118.80
1	A	832	C	C6-N1-C2	6.04	122.72	120.30
1	A	328	C	C5-C6-N1	6.03	124.02	121.00
1	A	723	U	N1-C2-O2	6.03	127.02	122.80
1	A	799	G	C4-C5-N7	6.03	113.21	110.80
1	A	665	A	C6-N1-C2	-6.03	114.98	118.60
1	A	933	G	C2-N3-C4	-6.03	108.89	111.90
1	A	640	A	N7-C8-N9	6.03	116.81	113.80
1	A	940	C	N3-C2-O2	-6.03	117.68	121.90
1	A	1353	G	N3-C4-C5	-6.03	125.59	128.60
1	A	698	G	C4-N9-C1'	6.03	134.33	126.50
1	A	1328	C	N3-C2-O2	-6.03	117.68	121.90
1	A	593	G	C5-C6-N1	-6.02	108.49	111.50
1	A	111	G	N3-C4-N9	-6.02	122.39	126.00
15	O	63	ARG	NE-CZ-NH2	-6.02	117.29	120.30
1	A	114	U	C6-N1-C2	6.02	124.61	121.00
1	A	1342	C	N3-C2-O2	6.02	126.11	121.90
1	A	228	A	N3-C4-C5	6.02	131.01	126.80
1	A	773	G	C4-C5-N7	6.02	113.21	110.80
1	A	951	G	N7-C8-N9	-6.02	110.09	113.10
1	A	899	C	C5-C4-N4	-6.01	115.99	120.20
1	A	803	G	N1-C2-N3	6.01	127.51	123.90
1	A	706	A	N3-C4-C5	6.01	131.00	126.80
1	A	1455	G	C5-C6-O6	-6.01	125.00	128.60
1	A	1442	G	N7-C8-N9	6.00	116.10	113.10
1	A	638	G	C6-C5-N7	-6.00	126.80	130.40
1	A	1455	G	N3-C2-N2	-6.00	115.70	119.90
1	A	1527	C	C5-C4-N4	-6.00	116.00	120.20
1	A	710	G	C2-N3-C4	-6.00	108.90	111.90
1	A	1231	G	C5-C6-N1	-6.00	108.50	111.50
1	A	1355	G	N9-C4-C5	6.00	107.80	105.40
1	A	1408	A	C5-N7-C8	-6.00	100.90	103.90
1	A	116	A	C2-N3-C4	-6.00	107.60	110.60
1	A	1009	G	C8-N9-C4	-5.99	104.00	106.40
1	A	1377	A	C4-C5-N7	-5.99	107.70	110.70
1	A	971	G	C2-N3-C4	-5.99	108.90	111.90
1	A	1268	A	C8-N9-C4	-5.99	103.40	105.80
1	A	1063	C	C4-C5-C6	5.99	120.40	117.40
1	A	830	G	C4-C5-C6	5.99	122.39	118.80
1	A	1435	G	C5-C6-N1	-5.99	108.50	111.50
1	A	773	G	C5-C6-O6	-5.99	125.01	128.60
1	A	92	C	N1-C2-O2	5.99	122.49	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1075	C	N3-C4-C5	5.99	124.29	121.90
1	A	1522	U	C6-N1-C2	-5.99	117.41	121.00
1	A	119	A	N9-C4-C5	5.98	108.19	105.80
1	A	298	A	C2-N3-C4	-5.98	107.61	110.60
1	A	334	C	C6-N1-C2	5.98	122.69	120.30
1	A	7	G	N1-C6-O6	-5.98	116.31	119.90
1	A	291	C	C4-C5-C6	5.98	120.39	117.40
1	A	109	A	C2-N3-C4	-5.98	107.61	110.60
1	A	97	G	N7-C8-N9	5.97	116.09	113.10
1	A	38	G	C8-N9-C4	5.97	108.79	106.40
1	A	61	G	N1-C6-O6	5.97	123.48	119.90
1	A	752	G	C5-C6-N1	-5.97	108.51	111.50
1	A	350	G	N9-C4-C5	5.97	107.79	105.40
1	A	942	G	C5-C6-N1	-5.97	108.52	111.50
1	A	451	A	C4-C5-N7	5.97	113.68	110.70
1	A	659	U	N3-C4-O4	-5.97	115.22	119.40
1	A	301	G	N1-C2-N3	5.97	127.48	123.90
1	A	1194	U	C5-C6-N1	5.97	125.68	122.70
1	A	1396	A	C2-N3-C4	-5.97	107.62	110.60
1	A	1491	G	C2-N3-C4	5.96	114.88	111.90
1	A	607	A	C5-C6-N6	-5.96	118.93	123.70
1	A	642	A	N9-C4-C5	5.96	108.19	105.80
1	A	279	A	C4-C5-C6	5.96	119.98	117.00
1	A	360	A	C4-C5-N7	5.96	113.68	110.70
1	A	799	G	C2-N3-C4	-5.96	108.92	111.90
1	A	1544	U	N3-C4-O4	5.96	123.57	119.40
1	A	477	G	N1-C6-O6	5.96	123.48	119.90
1	A	1481	U	N3-C4-C5	-5.96	111.02	114.60
1	A	79	G	C6-C5-N7	-5.96	126.83	130.40
1	A	301	G	C4-N9-C1'	5.96	134.24	126.50
3	C	138	VAL	CB-CA-C	-5.96	100.08	111.40
1	A	285	G	N3-C4-C5	5.95	131.57	128.60
1	A	933	G	N1-C6-O6	5.95	123.47	119.90
1	A	1377	A	N1-C2-N3	5.95	132.27	129.30
1	A	375	U	C6-N1-C2	-5.95	117.43	121.00
1	A	975	A	C5-N7-C8	-5.95	100.93	103.90
1	A	1223	C	C5-C6-N1	5.95	123.97	121.00
1	A	816	A	N1-C2-N3	5.94	132.27	129.30
1	A	389	A	N7-C8-N9	5.94	116.77	113.80
1	A	571	U	N3-C4-O4	-5.94	115.24	119.40
1	A	190(G)	G	N1-C6-O6	5.94	123.47	119.90
1	A	752	G	N3-C4-C5	5.94	131.57	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	860	A	N1-C2-N3	5.94	132.27	129.30
1	A	1250	A	C5-C6-N6	5.94	128.45	123.70
1	A	21	G	C5-C6-O6	5.94	132.16	128.60
1	A	1361(A)	C	N3-C2-O2	-5.94	117.74	121.90
1	A	1398	A	N9-C4-C5	5.94	108.17	105.80
1	A	37	U	N3-C2-O2	-5.94	118.04	122.20
1	A	556	C	N1-C2-N3	5.94	123.36	119.20
1	A	240	C	N3-C2-O2	5.93	126.05	121.90
1	A	642	A	N7-C8-N9	5.93	116.77	113.80
1	A	1291	G	N9-C4-C5	-5.93	103.03	105.40
1	A	764	C	C2-N3-C4	-5.93	116.94	119.90
1	A	831	U	C6-N1-C2	-5.93	117.44	121.00
1	A	918	A	C8-N9-C4	5.93	108.17	105.80
1	A	150	C	C2-N1-C1'	5.93	125.32	118.80
1	A	377	G	N1-C2-N3	5.93	127.46	123.90
1	A	935	A	C8-N9-C4	5.93	108.17	105.80
1	A	1008	C	C5-C6-N1	5.93	123.96	121.00
1	A	1398	A	N1-C2-N3	5.93	132.26	129.30
1	A	672	U	C6-N1-C2	5.93	124.56	121.00
1	A	19	C	C2-N3-C4	-5.92	116.94	119.90
1	A	877	C	N1-C2-O2	-5.92	115.35	118.90
1	A	484	G	C8-N9-C1'	-5.92	119.30	127.00
1	A	565	U	C4-C5-C6	-5.92	116.15	119.70
1	A	776	G	C2-N3-C4	-5.92	108.94	111.90
1	A	668	G	C8-N9-C4	5.92	108.77	106.40
1	A	733	A	N1-C2-N3	5.92	132.26	129.30
1	A	99	C	C6-N1-C2	-5.92	117.93	120.30
1	A	297	G	C4-C5-N7	5.91	113.17	110.80
1	A	699	C	N1-C2-O2	-5.91	115.35	118.90
1	A	717	C	N3-C2-O2	5.91	126.04	121.90
1	A	769	G	C5-C6-O6	-5.91	125.05	128.60
1	A	796	C	N3-C4-C5	5.91	124.26	121.90
1	A	1099	G	N3-C2-N2	-5.91	115.76	119.90
1	A	1323	G	C2-N3-C4	-5.91	108.94	111.90
1	A	917	G	C8-N9-C1'	-5.91	119.32	127.00
1	A	989	C	C2-N1-C1'	5.91	125.30	118.80
1	A	1376	U	N1-C2-N3	5.91	118.44	114.90
1	A	316	G	C4-C5-C6	5.91	122.34	118.80
1	A	1476	G	C8-N9-C4	-5.91	104.04	106.40
1	A	723	U	C2-N3-C4	5.90	130.54	127.00
1	A	171	A	C6-N1-C2	-5.90	115.06	118.60
1	A	258	G	C4-C5-N7	5.90	113.16	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1180	A	C8-N9-C4	-5.90	103.44	105.80
1	A	1265	G	C5-C6-N1	-5.90	108.55	111.50
1	A	1387	G	N1-C2-N3	5.90	127.44	123.90
1	A	1393	U	N1-C2-N3	5.89	118.44	114.90
1	A	29	G	C8-N9-C4	5.89	108.76	106.40
1	A	1107	C	N3-C4-C5	-5.89	119.54	121.90
1	A	168	G	C8-N9-C4	-5.89	104.04	106.40
1	A	120	A	N1-C2-N3	5.89	132.25	129.30
1	A	298	A	N3-C4-N9	-5.89	122.69	127.40
1	A	190(G)	G	C5-C6-N1	-5.89	108.56	111.50
1	A	299	G	C6-C5-N7	-5.89	126.87	130.40
1	A	482	A	C5-C6-N6	-5.89	118.99	123.70
1	A	1305	G	C4-C5-C6	5.89	122.33	118.80
1	A	1335	C	N3-C2-O2	-5.88	117.78	121.90
1	A	1530	G	N7-C8-N9	-5.88	110.16	113.10
1	A	242	C	C4-C5-C6	5.88	120.34	117.40
1	A	1530	G	C4-C5-N7	5.88	113.15	110.80
1	A	110	C	C4-C5-C6	5.88	120.34	117.40
1	A	541	G	N3-C4-C5	5.88	131.54	128.60
1	A	1064	G	N3-C4-N9	5.88	129.53	126.00
1	A	145	G	C5-C6-N1	-5.88	108.56	111.50
1	A	615	C	C5-C4-N4	-5.87	116.09	120.20
1	A	885	G	C2-N3-C4	-5.87	108.96	111.90
1	A	1145	C	C2-N1-C1'	-5.87	112.34	118.80
1	A	27	G	C4-C5-C6	5.87	122.32	118.80
1	A	225	C	C2-N3-C4	-5.87	116.97	119.90
1	A	607	A	N3-C4-C5	5.87	130.91	126.80
1	A	285	G	N1-C2-N3	5.86	127.42	123.90
1	A	592	G	N1-C6-O6	-5.86	116.38	119.90
1	A	577	G	C5-C6-O6	-5.86	125.08	128.60
1	A	1048	G	N3-C4-C5	5.86	131.53	128.60
1	A	429	U	C5-C6-N1	-5.86	119.77	122.70
4	D	94	LEU	CA-CB-CG	-5.86	101.83	115.30
1	A	719	C	C2-N3-C4	-5.86	116.97	119.90
1	A	632	A	C4-C5-N7	5.86	113.63	110.70
1	A	1542	U	C6-N1-C2	-5.86	117.49	121.00
1	A	799	G	C5-C6-O6	-5.85	125.09	128.60
1	A	317	G	C4-C5-N7	5.85	113.14	110.80
1	A	551	U	N3-C4-C5	-5.85	111.09	114.60
1	A	705	U	C2-N1-C1'	-5.85	110.68	117.70
1	A	1250	A	N3-C4-N9	-5.85	122.72	127.40
1	A	423	G	C4-C5-N7	5.85	113.14	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	274	A	N7-C8-N9	-5.85	110.88	113.80
1	A	819	A	C2-N3-C4	-5.85	107.68	110.60
1	A	1156	G	C8-N9-C4	-5.85	104.06	106.40
1	A	38	G	N3-C4-N9	-5.84	122.49	126.00
1	A	899	C	C2-N3-C4	5.84	122.82	119.90
1	A	1416	G	N3-C2-N2	-5.84	115.81	119.90
1	A	1505	G	N3-C4-N9	5.84	129.50	126.00
1	A	1529	G	N9-C4-C5	5.84	107.74	105.40
1	A	900	A	N7-C8-N9	5.84	116.72	113.80
1	A	396	G	N3-C4-C5	-5.84	125.68	128.60
1	A	541	G	C2-N3-C4	-5.84	108.98	111.90
1	A	1074	G	C4-C5-C6	5.84	122.30	118.80
16	P	80	PHE	N-CA-C	5.84	126.76	111.00
1	A	417	C	C6-N1-C2	-5.83	117.97	120.30
1	A	483	C	C5-C4-N4	5.83	124.28	120.20
1	A	721	G	C4-N9-C1'	5.83	134.08	126.50
1	A	1196	U	N3-C4-O4	-5.83	115.32	119.40
1	A	292	G	C6-C5-N7	-5.83	126.90	130.40
1	A	877	C	C5-C6-N1	-5.83	118.08	121.00
1	A	1325	C	C6-N1-C2	5.83	122.63	120.30
1	A	635	G	N1-C2-N3	5.83	127.40	123.90
1	A	897	C	C6-N1-C2	5.83	122.63	120.30
1	A	218	C	C6-N1-C2	-5.83	117.97	120.30
1	A	762	C	C5-C4-N4	-5.83	116.12	120.20
1	A	957	U	C4-C5-C6	5.83	123.20	119.70
1	A	1251	A	N9-C4-C5	5.83	108.13	105.80
1	A	1373	G	N3-C4-N9	5.83	129.50	126.00
1	A	787	A	N9-C4-C5	-5.83	103.47	105.80
1	A	1499	A	C2-N3-C4	-5.83	107.69	110.60
12	L	119	LYS	N-CA-C	-5.83	95.27	111.00
1	A	90	U	N1-C2-N3	5.82	118.39	114.90
1	A	635	G	C4-C5-C6	5.82	122.29	118.80
1	A	1125	U	C5-C6-N1	5.82	125.61	122.70
1	A	21	G	C5-N7-C8	5.82	107.21	104.30
1	A	326	G	C4-C5-N7	-5.82	108.47	110.80
1	A	761	G	C2-N3-C4	-5.82	108.99	111.90
1	A	141	A	C5-C6-N6	-5.82	119.05	123.70
1	A	825	G	C5-C6-O6	-5.82	125.11	128.60
1	A	881	G	N3-C4-C5	-5.82	125.69	128.60
1	A	881	G	C6-N1-C2	-5.82	121.61	125.10
1	A	1335	C	N3-C4-N4	-5.82	113.93	118.00
1	A	203	U	C5-C4-O4	-5.82	122.41	125.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	557	G	C5-C6-N1	-5.82	108.59	111.50
1	A	799	G	N1-C6-O6	5.82	123.39	119.90
1	A	908	A	N9-C4-C5	5.82	108.13	105.80
3	C	25	GLY	N-CA-C	5.82	127.64	113.10
1	A	44	G	N1-C6-O6	5.81	123.39	119.90
1	A	565	U	N3-C4-C5	5.81	118.09	114.60
1	A	859	A	C4-C5-C6	5.81	119.91	117.00
1	A	1281	U	C6-N1-C2	-5.81	117.51	121.00
1	A	481	G	C5-C6-N1	5.81	114.40	111.50
1	A	730	G	N9-C4-C5	5.81	107.72	105.40
1	A	1093	A	N1-C6-N6	5.81	122.08	118.60
1	A	1512	U	C4-C5-C6	5.81	123.19	119.70
1	A	570	G	C4-C5-C6	5.81	122.28	118.80
1	A	514	C	C6-N1-C2	-5.80	117.98	120.30
1	A	147	G	N1-C6-O6	5.80	123.38	119.90
1	A	328	C	N3-C2-O2	-5.80	117.84	121.90
1	A	885	G	C8-N9-C4	-5.80	104.08	106.40
1	A	494	G	C5-C6-N1	-5.80	108.60	111.50
1	A	743	U	C5-C6-N1	-5.80	119.80	122.70
6	F	9	VAL	CB-CA-C	-5.80	100.38	111.40
1	A	825	G	C8-N9-C1'	-5.80	119.47	127.00
1	A	1454	G	C4-C5-N7	5.80	113.12	110.80
1	A	112	G	N3-C2-N2	-5.79	115.84	119.90
1	A	128	G	C4-C5-C6	5.79	122.28	118.80
1	A	551	U	C6-N1-C2	-5.79	117.52	121.00
1	A	659	U	C2-N3-C4	-5.79	123.52	127.00
1	A	859	A	C6-C5-N7	-5.79	128.25	132.30
1	A	1067	A	C2-N3-C4	5.79	113.50	110.60
1	A	108	G	C4-N9-C1'	5.79	134.03	126.50
1	A	175	C	N3-C4-C5	5.79	124.22	121.90
1	A	774	G	C4-C5-N7	5.79	113.12	110.80
1	A	856	C	C4-C5-C6	5.79	120.29	117.40
1	A	81	U	N3-C2-O2	-5.79	118.15	122.20
1	A	566	G	N9-C4-C5	5.79	107.71	105.40
1	A	617	G	C8-N9-C1'	-5.78	119.48	127.00
1	A	1358	U	C5-C6-N1	5.78	125.59	122.70
2	B	51	LEU	CA-CB-CG	-5.78	102.00	115.30
1	A	1493	A	C8-N9-C4	-5.78	103.49	105.80
1	A	610	G	C4-N9-C1'	5.78	134.01	126.50
1	A	886	G	C5-C6-N1	-5.78	108.61	111.50
1	A	936	C	C6-N1-C2	5.78	122.61	120.30
1	A	1061	G	C6-C5-N7	-5.78	126.93	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1063	C	N1-C2-N3	5.78	123.24	119.20
1	A	1067	A	N3-C4-C5	-5.78	122.75	126.80
1	A	1335	C	C5-C4-N4	5.78	124.24	120.20
1	A	182	U	C5-C6-N1	5.78	125.59	122.70
1	A	399	G	N1-C2-N3	5.78	127.36	123.90
1	A	820	U	C2-N3-C4	-5.78	123.53	127.00
1	A	335	C	C2-N3-C4	-5.77	117.01	119.90
1	A	730	G	C4-C5-C6	5.77	122.26	118.80
1	A	1523	G	N1-C2-N2	5.77	121.40	116.20
1	A	691	G	C6-C5-N7	-5.77	126.94	130.40
1	A	877	C	N1-C2-N3	5.77	123.24	119.20
1	A	555	C	C5-C4-N4	-5.77	116.16	120.20
1	A	568	G	N3-C2-N2	-5.77	115.86	119.90
1	A	1338	G	C8-N9-C1'	5.77	134.50	127.00
1	A	859	A	C8-N9-C4	-5.77	103.49	105.80
1	A	79	G	C4-C5-C6	5.77	122.26	118.80
2	B	16	HIS	CB-CA-C	-5.77	98.87	110.40
1	A	285	G	C8-N9-C4	5.76	108.71	106.40
1	A	319	G	N9-C4-C5	-5.76	103.09	105.40
1	A	551	U	N3-C2-O2	-5.76	118.17	122.20
1	A	791	G	N7-C8-N9	5.76	115.98	113.10
1	A	1268	A	N3-C4-C5	-5.76	122.77	126.80
1	A	487	A	N7-C8-N9	-5.76	110.92	113.80
1	A	861	G	C5-C6-N1	5.76	114.38	111.50
1	A	816	A	C6-N1-C2	-5.76	115.15	118.60
1	A	1522	U	C2-N1-C1'	5.76	124.61	117.70
1	A	75	G	C4-N9-C1'	5.75	133.98	126.50
1	A	568	G	N9-C4-C5	5.75	107.70	105.40
1	A	580	U	N1-C2-N3	5.75	118.35	114.90
1	A	717	C	N3-C4-C5	5.75	124.20	121.90
1	A	852	G	N1-C2-N3	5.75	127.35	123.90
1	A	984	C	N3-C4-C5	-5.75	119.60	121.90
1	A	572	A	C6-C5-N7	5.75	136.33	132.30
1	A	588	G	N1-C2-N3	5.75	127.35	123.90
1	A	1254	C	N3-C4-C5	-5.75	119.60	121.90
1	A	1502	A	C4-C5-C6	5.75	119.88	117.00
1	A	661	G	C5-C6-N1	-5.75	108.62	111.50
1	A	824	C	C6-N1-C2	5.75	122.60	120.30
1	A	696	A	N7-C8-N9	-5.75	110.93	113.80
1	A	261	U	N3-C4-C5	-5.75	111.15	114.60
1	A	888	G	N3-C2-N2	-5.75	115.88	119.90
1	A	975	A	N7-C8-N9	5.75	116.67	113.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1522	U	N3-C4-O4	5.75	123.42	119.40
1	A	916	G	C4-N9-C1'	5.75	133.97	126.50
1	A	243	A	N1-C6-N6	5.74	122.05	118.60
1	A	881	G	C8-N9-C1'	-5.74	119.54	127.00
1	A	730	G	C4-C5-N7	-5.74	108.50	110.80
1	A	768	A	N1-C2-N3	5.74	132.17	129.30
1	A	1361(A)	C	N3-C4-C5	5.74	124.19	121.90
1	A	1469	G	C4-C5-N7	5.74	113.09	110.80
1	A	250	A	N3-C4-C5	5.74	130.81	126.80
1	A	1490	C	N3-C2-O2	5.74	125.91	121.90
1	A	777	A	N1-C6-N6	5.73	122.04	118.60
1	A	895	G	C8-N9-C4	-5.73	104.11	106.40
1	A	49	U	N1-C2-O2	-5.73	118.79	122.80
1	A	258	G	C6-C5-N7	-5.73	126.96	130.40
1	A	310	G	C5-N7-C8	-5.73	101.43	104.30
1	A	491	G	N1-C6-O6	5.73	123.34	119.90
1	A	20	U	P-O3'-C3'	5.73	126.57	119.70
1	A	263	A	C2-N3-C4	5.73	113.46	110.60
1	A	451	A	N9-C4-C5	-5.73	103.51	105.80
1	A	1366	C	C4-C5-C6	-5.73	114.54	117.40
1	A	98	U	N3-C4-O4	5.72	123.41	119.40
1	A	600	C	C5-C6-N1	-5.72	118.14	121.00
1	A	760	G	N3-C4-N9	-5.72	122.56	126.00
1	A	784	C	C5-C4-N4	-5.72	116.19	120.20
1	A	1416	G	C8-N9-C4	-5.72	104.11	106.40
1	A	812	C	C4-C5-C6	5.72	120.26	117.40
1	A	606	G	N9-C4-C5	5.72	107.69	105.40
1	A	1374	A	C8-N9-C4	-5.72	103.51	105.80
1	A	137	C	N3-C4-N4	-5.72	114.00	118.00
1	A	951	G	C8-N9-C4	5.72	108.69	106.40
1	A	771	G	N9-C4-C5	-5.71	103.11	105.40
1	A	300	A	C5-N7-C8	-5.71	101.05	103.90
1	A	778	G	C5-C6-N1	-5.71	108.65	111.50
1	A	1299	A	C5-N7-C8	-5.71	101.05	103.90
1	A	1354	C	N3-C2-O2	-5.71	117.91	121.90
1	A	944	G	N3-C2-N2	5.71	123.89	119.90
1	A	973	G	N3-C4-N9	5.70	129.42	126.00
1	A	1243	C	N3-C4-N4	-5.70	114.01	118.00
1	A	132	C	C5-C6-N1	-5.70	118.15	121.00
1	A	1513	A	N3-C4-N9	-5.70	122.84	127.40
1	A	164	U	C2-N1-C1'	-5.69	110.87	117.70
1	A	166	G	C8-N9-C4	5.69	108.68	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	461	C	N1-C2-O2	5.69	122.31	118.90
2	B	44	LEU	CA-CB-CG	-5.69	102.21	115.30
1	A	588	G	C8-N9-C4	5.69	108.68	106.40
1	A	608	A	N1-C2-N3	5.69	132.15	129.30
1	A	694	A	C2-N3-C4	-5.69	107.75	110.60
1	A	482	A	C4-C5-C6	5.69	119.84	117.00
1	A	1231	G	C5-N7-C8	-5.69	101.46	104.30
1	A	375	U	N3-C4-C5	-5.68	111.19	114.60
1	A	1337	G	N1-C2-N3	5.68	127.31	123.90
1	A	276	G	N1-C2-N2	5.68	121.31	116.20
1	A	315	A	C8-N9-C4	-5.68	103.53	105.80
1	A	141	A	C6-C5-N7	-5.68	128.32	132.30
1	A	711	G	C6-C5-N7	-5.68	126.99	130.40
1	A	157	G	C5-C6-N1	-5.68	108.66	111.50
1	A	342	C	C5-C6-N1	5.68	123.84	121.00
1	A	694	A	N1-C6-N6	5.68	122.01	118.60
1	A	905	U	N3-C2-O2	-5.68	118.22	122.20
1	A	1526	G	N3-C4-C5	-5.68	125.76	128.60
1	A	323	U	N3-C4-O4	5.68	123.37	119.40
1	A	827	U	C4-C5-C6	5.68	123.11	119.70
1	A	474	G	C5-N7-C8	-5.68	101.46	104.30
1	A	913	A	P-O3'-C3'	5.68	126.51	119.70
1	A	1248	A	N1-C6-N6	5.68	122.01	118.60
1	A	1521	G	C2-N3-C4	5.68	114.74	111.90
1	A	260	G	C6-C5-N7	-5.67	127.00	130.40
1	A	331	G	C6-C5-N7	-5.67	127.00	130.40
1	A	885	G	C6-C5-N7	-5.67	127.00	130.40
1	A	1088	G	C5-N7-C8	-5.67	101.46	104.30
1	A	1286	A	C2-N3-C4	-5.67	107.76	110.60
1	A	904	C	N3-C4-N4	5.67	121.97	118.00
1	A	14	U	C6-N1-C2	-5.67	117.60	121.00
1	A	1499	A	N1-C2-N3	5.67	132.13	129.30
1	A	253	U	C5-C6-N1	-5.67	119.87	122.70
1	A	794	A	C4-C5-N7	-5.67	107.87	110.70
1	A	583	A	N1-C6-N6	5.66	122.00	118.60
1	A	732	C	N1-C2-O2	5.66	122.30	118.90
1	A	1374	A	N1-C6-N6	-5.66	115.20	118.60
1	A	1294	G	N3-C4-C5	5.66	131.43	128.60
1	A	447	G	N1-C6-O6	-5.66	116.50	119.90
1	A	474	G	C5-C6-N1	-5.66	108.67	111.50
1	A	725	G	N3-C2-N2	-5.66	115.94	119.90
1	A	874	G	C2-N3-C4	-5.66	109.07	111.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	741	G	N9-C4-C5	5.65	107.66	105.40
1	A	940	C	N1-C2-O2	5.65	122.29	118.90
1	A	1153	C	N1-C2-O2	5.65	122.29	118.90
1	A	1461	G	N1-C6-O6	5.65	123.29	119.90
1	A	1542	U	C4-C5-C6	5.65	123.09	119.70
1	A	66	G	N3-C2-N2	-5.65	115.94	119.90
1	A	329	A	C2-N3-C4	-5.65	107.78	110.60
1	A	546	G	N3-C4-N9	5.65	129.39	126.00
1	A	729	A	N7-C8-N9	5.65	116.62	113.80
1	A	1231	G	C5-C6-O6	-5.65	125.21	128.60
1	A	1129	C	C6-N1-C2	-5.65	118.04	120.30
1	A	1187	G	N7-C8-N9	5.65	115.92	113.10
1	A	262	A	N9-C4-C5	5.64	108.06	105.80
1	A	667	G	C2-N3-C4	-5.64	109.08	111.90
1	A	1227	A	N3-C4-N9	-5.64	122.89	127.40
1	A	649	G	C4-C5-N7	5.64	113.06	110.80
1	A	734	G	C6-C5-N7	-5.64	127.02	130.40
1	A	856	C	C6-N1-C2	-5.64	118.05	120.30
1	A	748	C	C5-C6-N1	-5.64	118.18	121.00
1	A	281	G	C5-N7-C8	-5.63	101.48	104.30
1	A	284	G	C4-C5-N7	5.63	113.05	110.80
1	A	933	G	C5-C6-O6	-5.63	125.22	128.60
1	A	1203	C	N3-C4-C5	-5.63	119.65	121.90
17	Q	99	SER	N-CA-C	5.63	126.21	111.00
1	A	218	C	N1-C2-O2	5.63	122.28	118.90
1	A	1528	U	N3-C4-C5	5.63	117.98	114.60
1	A	375	U	N1-C2-N3	5.63	118.28	114.90
1	A	637	G	C4-N9-C1'	5.63	133.82	126.50
1	A	1398	A	C4-C5-N7	-5.63	107.88	110.70
1	A	729	A	C5-C6-N6	-5.63	119.20	123.70
1	A	851	G	C5-C6-N1	-5.63	108.69	111.50
1	A	230	G	C6-C5-N7	-5.63	127.02	130.40
1	A	372	C	C2-N3-C4	5.63	122.71	119.90
1	A	914	G	N1-C2-N3	5.63	127.28	123.90
1	A	79	G	N3-C2-N2	-5.62	115.96	119.90
1	A	1406	U	N3-C2-O2	5.62	126.14	122.20
1	A	913	A	N9-C4-C5	5.62	108.05	105.80
1	A	1377	A	N3-C4-N9	-5.62	122.90	127.40
1	A	1432	G	N3-C4-N9	-5.62	122.63	126.00
1	A	190(A)	C	C5-C6-N1	5.62	123.81	121.00
1	A	1173	G	C8-N9-C4	5.62	108.65	106.40
1	A	1373	G	C4-N9-C1'	5.62	133.81	126.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	123	C	C5-C4-N4	5.62	124.13	120.20
1	A	325	A	C5-C6-N6	5.62	128.19	123.70
1	A	1212	U	C6-N1-C1'	-5.62	113.34	121.20
1	A	81	U	N1-C2-O2	5.62	126.73	122.80
1	A	1108	G	C8-N9-C4	-5.62	104.15	106.40
1	A	297	G	N7-C8-N9	5.61	115.91	113.10
1	A	643	C	C6-N1-C2	-5.61	118.06	120.30
1	A	1098	C	C6-N1-C2	5.61	122.55	120.30
1	A	1268	A	C2-N3-C4	5.61	113.41	110.60
1	A	18	C	C5-C6-N1	-5.61	118.19	121.00
1	A	92	C	C5-C6-N1	-5.61	118.19	121.00
1	A	326	G	C5-C6-O6	5.61	131.97	128.60
1	A	24	U	N1-C2-N3	-5.61	111.53	114.90
1	A	248	C	C5-C4-N4	-5.61	116.28	120.20
1	A	376	G	N3-C2-N2	-5.61	115.98	119.90
1	A	1009	G	C4-N9-C1'	5.61	133.79	126.50
1	A	1294	G	N1-C6-O6	5.61	123.26	119.90
7	G	22	LEU	CA-CB-CG	-5.61	102.41	115.30
1	A	1155	G	N1-C6-O6	5.60	123.26	119.90
1	A	1203	C	N3-C4-N4	5.60	121.92	118.00
1	A	1227	A	C2-N3-C4	-5.60	107.80	110.60
1	A	1442	G	C2-N3-C4	5.60	114.70	111.90
1	A	299	G	C2-N3-C4	-5.60	109.10	111.90
1	A	671	G	C5-C6-N1	-5.60	108.70	111.50
1	A	1455	G	C5-C6-N1	-5.60	108.70	111.50
1	A	1494	G	C8-N9-C1'	-5.60	119.72	127.00
1	A	541	G	C5-C6-N1	-5.60	108.70	111.50
1	A	662	G	C4-N9-C1'	5.60	133.78	126.50
1	A	1179	A	N9-C4-C5	5.59	108.04	105.80
1	A	1474	G	C6-C5-N7	-5.59	127.04	130.40
1	A	292	G	N3-C2-N2	-5.59	115.98	119.90
1	A	581	G	N3-C4-N9	-5.59	122.64	126.00
1	A	1365	G	N7-C8-N9	5.59	115.90	113.10
1	A	44	G	C4-C5-N7	5.59	113.04	110.80
1	A	624	C	C6-N1-C2	5.59	122.54	120.30
1	A	654	G	N1-C2-N3	5.59	127.25	123.90
1	A	1253	G	C4-C5-N7	5.59	113.03	110.80
1	A	1339	A	N9-C4-C5	5.59	108.03	105.80
1	A	1526	G	C5-C6-O6	-5.59	125.25	128.60
1	A	245	C	N1-C2-O2	-5.58	115.55	118.90
1	A	540	G	C5-C6-O6	-5.58	125.25	128.60
1	A	777	A	C2-N3-C4	5.58	113.39	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1241	G	N3-C2-N2	-5.58	115.99	119.90
12	L	85	ILE	CB-CA-C	-5.58	100.43	111.60
1	A	774	G	C5-C6-O6	-5.58	125.25	128.60
1	A	383	A	C4-C5-N7	5.58	113.49	110.70
17	Q	100	LYS	CD-CE-NZ	5.58	124.54	111.70
1	A	113	G	C4-C5-N7	5.58	113.03	110.80
1	A	551	U	C4-C5-C6	5.58	123.05	119.70
1	A	591	U	N1-C2-N3	5.58	118.25	114.90
1	A	264	U	N1-C2-N3	5.58	118.25	114.90
1	A	123	C	C4-C5-C6	5.58	120.19	117.40
1	A	732	C	C6-N1-C1'	-5.58	114.11	120.80
1	A	759	A	C6-C5-N7	-5.58	128.40	132.30
1	A	27	G	N1-C6-O6	5.57	123.24	119.90
1	A	673	G	N3-C4-C5	-5.57	125.81	128.60
1	A	1159	U	N3-C4-O4	5.57	123.30	119.40
1	A	403	C	N3-C4-N4	5.57	121.90	118.00
1	A	944	G	C4-N9-C1'	5.57	133.74	126.50
1	A	325	A	C4-C5-N7	-5.57	107.92	110.70
1	A	1095	U	C5-C4-O4	-5.57	122.56	125.90
1	A	609	A	C8-N9-C4	-5.57	103.57	105.80
1	A	1192	C	C5-C4-N4	-5.57	116.30	120.20
7	G	59	LEU	CA-CB-CG	5.57	128.10	115.30
1	A	654	G	N3-C4-C5	5.56	131.38	128.60
1	A	1417	G	N3-C4-C5	-5.56	125.82	128.60
1	A	858	G	C8-N9-C4	5.56	108.62	106.40
1	A	562	C	N3-C2-O2	-5.56	118.01	121.90
1	A	593	G	C2-N3-C4	-5.56	109.12	111.90
1	A	614	A	C8-N9-C4	-5.56	103.58	105.80
1	A	1233	G	C5-C6-N1	5.56	114.28	111.50
1	A	327	A	C6-N1-C2	-5.56	115.27	118.60
1	A	579	G	C5-C6-O6	-5.56	125.27	128.60
1	A	630	G	N1-C6-O6	5.56	123.23	119.90
1	A	1172	C	C2-N1-C1'	-5.56	112.69	118.80
1	A	1229	A	N3-C4-C5	5.56	130.69	126.80
1	A	1516	G	N3-C4-N9	-5.56	122.67	126.00
1	A	1543	C	N3-C2-O2	-5.56	118.01	121.90
1	A	203	U	N1-C2-N3	-5.56	111.57	114.90
1	A	864	A	N1-C6-N6	-5.55	115.27	118.60
1	A	186	C	C2-N3-C4	-5.55	117.12	119.90
1	A	186	C	N3-C2-O2	-5.55	118.01	121.90
4	D	31	CYS	N-CA-CB	5.55	120.60	110.60
1	A	190(J)	U	C4-C5-C6	5.55	123.03	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	115	G	C8-N9-C4	5.55	108.62	106.40
1	A	190(G)	G	C4-C5-C6	5.55	122.13	118.80
1	A	1047	G	N3-C4-N9	5.55	129.33	126.00
1	A	373	A	C4-C5-C6	5.54	119.77	117.00
1	A	499	A	C2-N3-C4	5.54	113.37	110.60
16	P	6	LEU	CA-CB-CG	-5.54	102.55	115.30
1	A	102	G	C8-N9-C4	-5.54	104.18	106.40
1	A	546	G	C8-N9-C1'	-5.54	119.80	127.00
1	A	553	A	C6-N1-C2	-5.54	115.28	118.60
1	A	553	A	C5-C6-N6	-5.54	119.27	123.70
1	A	1082	G	C8-N9-C1'	-5.54	119.80	127.00
1	A	1116	C	N3-C4-C5	5.54	124.12	121.90
1	A	1229	A	C4-C5-C6	-5.54	114.23	117.00
1	A	256	U	N1-C2-N3	-5.54	111.58	114.90
1	A	765	G	N3-C4-N9	-5.54	122.68	126.00
1	A	104	G	C2-N3-C4	-5.54	109.13	111.90
1	A	1077	G	C4-C5-C6	5.54	122.12	118.80
1	A	522	C	C5-C4-N4	5.53	124.07	120.20
1	A	963	G	N9-C4-C5	5.53	107.61	105.40
1	A	1295	G	C8-N9-C4	-5.53	104.19	106.40
1	A	171	A	N1-C6-N6	-5.53	115.28	118.60
1	A	1199	U	N3-C4-C5	-5.53	111.28	114.60
1	A	1523	G	N3-C2-N2	-5.53	116.03	119.90
1	A	461	C	C6-N1-C2	-5.53	118.09	120.30
1	A	563	A	C5-C6-N1	-5.53	114.94	117.70
1	A	950	U	C5-C4-O4	5.53	129.22	125.90
1	A	578	C	C4-C5-C6	5.53	120.16	117.40
1	A	366	C	N3-C2-O2	-5.52	118.03	121.90
1	A	366	C	C2-N1-C1'	5.52	124.88	118.80
1	A	801	U	N3-C4-O4	-5.52	115.53	119.40
1	A	1064	G	C4-C5-N7	5.52	113.01	110.80
1	A	483	C	C4-C5-C6	5.52	120.16	117.40
1	A	666	G	C8-N9-C1'	-5.52	119.83	127.00
1	A	483	C	C6-N1-C1'	5.52	127.42	120.80
1	A	1340	A	C6-N1-C2	-5.52	115.29	118.60
1	A	995	C	C6-N1-C1'	-5.51	114.18	120.80
1	A	92	C	C6-N1-C2	5.51	122.50	120.30
1	A	1324	A	N1-C6-N6	5.51	121.91	118.60
1	A	101	A	C5-C6-N1	5.51	120.45	117.70
1	A	417	C	C2-N1-C1'	5.51	124.86	118.80
1	A	735	C	C2-N1-C1'	-5.51	112.74	118.80
1	A	1067	A	P-O3'-C3'	5.51	126.31	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	457	C	C5-C6-N1	5.50	123.75	121.00
1	A	799	G	C6-C5-N7	-5.50	127.10	130.40
1	A	78	G	N3-C2-N2	5.50	123.75	119.90
1	A	774	G	C8-N9-C1'	-5.50	119.85	127.00
1	A	786	G	C4-C5-C6	5.50	122.10	118.80
1	A	1189	C	N3-C4-N4	-5.50	114.15	118.00
1	A	848	C	C6-N1-C2	5.50	122.50	120.30
2	B	48	MET	CG-SD-CE	5.50	109.00	100.20
1	A	707	C	C2-N3-C4	-5.50	117.15	119.90
1	A	1331	G	C2-N3-C4	5.50	114.65	111.90
1	A	116	A	N1-C2-N3	5.50	132.05	129.30
1	A	255	G	N9-C4-C5	-5.50	103.20	105.40
1	A	1277	C	C6-N1-C2	-5.49	118.10	120.30
1	A	154	C	C5-C6-N1	5.49	123.75	121.00
1	A	167	G	C4-C5-N7	-5.49	108.60	110.80
1	A	834	C	C2-N3-C4	5.49	122.65	119.90
1	A	190(D)	U	N3-C4-O4	-5.49	115.56	119.40
1	A	319	G	C8-N9-C1'	-5.49	119.86	127.00
1	A	348	G	C4-C5-N7	5.49	113.00	110.80
1	A	700	G	C4-C5-C6	5.49	122.09	118.80
1	A	946	A	C5-C6-N1	5.49	120.44	117.70
1	A	1299	A	N7-C8-N9	5.49	116.55	113.80
1	A	315	A	C2-N3-C4	-5.49	107.86	110.60
1	A	494	G	C8-N9-C4	-5.49	104.20	106.40
1	A	1092	A	C4-C5-C6	-5.49	114.26	117.00
9	I	107	ARG	NE-CZ-NH1	5.49	123.04	120.30
1	A	66	G	N3-C4-N9	-5.48	122.71	126.00
1	A	667	G	C5-C6-O6	-5.48	125.31	128.60
1	A	908	A	N3-C4-N9	-5.48	123.01	127.40
1	A	241	C	C5-C6-N1	-5.48	118.26	121.00
1	A	901	A	C4-C5-C6	5.48	119.74	117.00
1	A	546	G	C4-N9-C1'	5.48	133.62	126.50
1	A	734	G	C5-N7-C8	-5.48	101.56	104.30
1	A	1126	U	C5-C4-O4	-5.48	122.61	125.90
1	A	578	C	N3-C4-C5	-5.48	119.71	121.90
1	A	770	C	N3-C4-N4	-5.48	114.17	118.00
1	A	1331	G	C8-N9-C4	-5.48	104.21	106.40
1	A	869	G	C5-C6-O6	5.48	131.89	128.60
1	A	508	C	C2-N1-C1'	5.47	124.82	118.80
1	A	583	A	C4-C5-C6	5.47	119.74	117.00
1	A	924	C	N3-C4-N4	5.47	121.83	118.00
1	A	247	G	C6-C5-N7	-5.47	127.12	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	559	A	C8-N9-C4	-5.47	103.61	105.80
1	A	643	C	C5-C6-N1	5.47	123.74	121.00
1	A	705	U	C4-C5-C6	5.47	122.98	119.70
1	A	730	G	N1-C2-N2	-5.47	111.28	116.20
1	A	748	C	C4-C5-C6	5.47	120.14	117.40
1	A	752	G	C2-N3-C4	-5.47	109.16	111.90
1	A	895	G	N1-C2-N3	5.47	127.18	123.90
1	A	673	G	N1-C2-N2	-5.47	111.28	116.20
1	A	746	A	C2-N3-C4	-5.47	107.86	110.60
1	A	1187	G	C6-C5-N7	-5.47	127.12	130.40
19	S	15	LEU	CA-CB-CG	5.47	127.88	115.30
1	A	8	A	N9-C4-C5	5.47	107.99	105.80
1	A	198	G	C8-N9-C1'	-5.47	119.89	127.00
1	A	910	C	N3-C4-C5	5.47	124.09	121.90
1	A	230	G	C8-N9-C1'	-5.46	119.90	127.00
1	A	75	G	C8-N9-C1'	-5.46	119.90	127.00
1	A	1087	G	C5-N7-C8	-5.46	101.57	104.30
1	A	384	G	C4-C5-N7	-5.45	108.62	110.80
1	A	874	G	C8-N9-C1'	-5.45	119.91	127.00
1	A	167	G	C2-N3-C4	5.45	114.63	111.90
1	A	582	U	C2-N3-C4	-5.45	123.73	127.00
1	A	926	G	N1-C2-N2	-5.45	111.29	116.20
1	A	546	G	N3-C4-C5	-5.45	125.88	128.60
1	A	554	C	C6-N1-C1'	5.45	127.34	120.80
1	A	873	A	N7-C8-N9	5.45	116.52	113.80
1	A	1301	U	N3-C4-O4	5.45	123.22	119.40
1	A	7	G	C5-N7-C8	5.45	107.02	104.30
1	A	274	A	C5-C6-N1	5.45	120.42	117.70
1	A	795	C	N3-C4-C5	-5.45	119.72	121.90
1	A	718	G	C5-C6-N1	-5.44	108.78	111.50
1	A	1082	G	N3-C4-N9	5.44	129.27	126.00
1	A	115	G	N1-C6-O6	5.44	123.17	119.90
1	A	226	G	N1-C2-N3	5.44	127.17	123.90
1	A	1353	G	N3-C4-N9	5.44	129.27	126.00
1	A	1461	G	N9-C4-C5	-5.44	103.22	105.40
1	A	245	C	C5-C6-N1	5.44	123.72	121.00
1	A	888	G	N3-C4-N9	-5.44	122.74	126.00
1	A	1026	G	N3-C4-C5	5.44	131.32	128.60
1	A	1192	C	C4-C5-C6	5.44	120.12	117.40
1	A	24	U	C6-N1-C2	5.44	124.26	121.00
1	A	141	A	N9-C4-C5	-5.43	103.63	105.80
1	A	865	A	C2-N3-C4	5.43	113.32	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1543	C	C6-N1-C2	-5.43	118.13	120.30
1	A	721	G	C4-C5-C6	5.43	122.06	118.80
1	A	574	A	N1-C6-N6	-5.43	115.34	118.60
1	A	654	G	N3-C4-N9	-5.43	122.74	126.00
1	A	687	A	P-O3'-C3'	5.43	126.22	119.70
1	A	879	C	C2-N3-C4	-5.43	117.19	119.90
1	A	306	G	C8-N9-C4	5.43	108.57	106.40
1	A	1296	C	C6-N1-C2	-5.43	118.13	120.30
1	A	1416	G	C6-C5-N7	-5.43	127.14	130.40
1	A	615	C	C5-C6-N1	5.43	123.71	121.00
1	A	823	G	C8-N9-C4	5.43	108.57	106.40
1	A	995	C	C6-N1-C2	-5.43	118.13	120.30
1	A	834	C	N3-C2-O2	5.42	125.70	121.90
1	A	511	C	C2-N3-C4	-5.42	117.19	119.90
1	A	682	G	N1-C6-O6	5.42	123.15	119.90
1	A	928	G	C4-N9-C1'	-5.42	119.45	126.50
1	A	667	G	N3-C2-N2	-5.42	116.11	119.90
1	A	785	G	C5-C6-O6	-5.42	125.35	128.60
1	A	1047	G	C4-N9-C1'	5.42	133.55	126.50
1	A	1116	C	N3-C4-N4	-5.42	114.20	118.00
1	A	364	A	C2-N3-C4	-5.42	107.89	110.60
1	A	561	U	N3-C4-O4	5.42	123.19	119.40
1	A	265	G	C5-C6-N1	-5.42	108.79	111.50
1	A	287	U	C6-N1-C2	-5.42	117.75	121.00
1	A	309	G	C6-C5-N7	-5.41	127.15	130.40
1	A	1234	C	C5-C4-N4	-5.41	116.41	120.20
1	A	257	G	N1-C6-O6	-5.41	116.65	119.90
1	A	316	G	C5-C6-N1	-5.41	108.79	111.50
1	A	262	A	C5-C6-N6	5.41	128.03	123.70
1	A	131	C	N3-C2-O2	-5.41	118.11	121.90
1	A	661	G	C8-N9-C4	-5.41	104.24	106.40
1	A	1186	G	N3-C4-C5	5.41	131.31	128.60
1	A	1387	G	C8-N9-C4	5.41	108.56	106.40
1	A	324	G	C5-C6-O6	5.41	131.84	128.60
1	A	946	A	N3-C4-C5	-5.41	123.02	126.80
1	A	1212	U	C5-C6-N1	5.41	125.40	122.70
1	A	712	A	N1-C2-N3	5.40	132.00	129.30
1	A	242	C	C5-C6-N1	-5.40	118.30	121.00
1	A	577	G	N3-C4-C5	5.40	131.30	128.60
1	A	364	A	N1-C2-N3	5.40	132.00	129.30
1	A	581	G	C8-N9-C1'	5.40	134.02	127.00
1	A	1066	C	C6-N1-C2	5.40	122.46	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1289	A	C2-N3-C4	5.40	113.30	110.60
1	A	1291	G	N3-C4-N9	5.40	129.24	126.00
1	A	591	U	C4-C5-C6	5.40	122.94	119.70
1	A	913	A	C8-N9-C4	-5.40	103.64	105.80
1	A	406	G	C6-C5-N7	-5.40	127.16	130.40
1	A	569	C	N3-C4-N4	-5.40	114.22	118.00
1	A	1062	U	C5-C4-O4	5.40	129.14	125.90
1	A	386	C	N1-C2-O2	-5.39	115.66	118.90
1	A	825	G	N1-C6-O6	5.39	123.14	119.90
1	A	255	G	N3-C4-N9	5.39	129.24	126.00
1	A	290	C	N3-C4-C5	5.39	124.06	121.90
1	A	786	G	N1-C2-N3	5.39	127.14	123.90
1	A	575	G	N1-C6-O6	-5.39	116.67	119.90
1	A	971	G	N3-C4-C5	5.39	131.29	128.60
1	A	1141	C	N1-C2-O2	5.39	122.13	118.90
1	A	709	G	C5-C6-O6	-5.39	125.37	128.60
1	A	229	U	N3-C4-O4	5.38	123.17	119.40
1	A	589	C	C6-N1-C1'	5.38	127.26	120.80
1	A	200	G	C4-C5-C6	5.38	122.03	118.80
1	A	660	G	N3-C4-C5	5.38	131.29	128.60
1	A	644	G	C5-C6-O6	-5.38	125.37	128.60
1	A	46	G	N3-C4-N9	5.38	129.23	126.00
1	A	569	C	N3-C4-C5	5.38	124.05	121.90
1	A	872	A	C5-C6-N6	-5.38	119.40	123.70
1	A	1361	G	N1-C6-O6	-5.38	116.67	119.90
1	A	364	A	C4-C5-C6	5.37	119.69	117.00
1	A	550	G	N3-C2-N2	-5.37	116.14	119.90
1	A	1387	G	N9-C4-C5	-5.37	103.25	105.40
1	A	326	G	C5-N7-C8	5.37	106.98	104.30
1	A	439	A	C8-N9-C4	-5.37	103.65	105.80
1	A	623	C	N1-C2-O2	-5.37	115.68	118.90
1	A	752	G	N3-C4-N9	-5.37	122.78	126.00
1	A	919	A	N7-C8-N9	-5.37	111.11	113.80
1	A	1520	G	C6-N1-C2	-5.37	121.88	125.10
1	A	168	G	N7-C8-N9	5.37	115.78	113.10
1	A	447	G	C4-N9-C1'	5.37	133.48	126.50
1	A	807	A	N1-C2-N3	5.37	131.98	129.30
1	A	834	C	N3-C4-C5	-5.37	119.75	121.90
1	A	1059	C	C4-C5-C6	5.37	120.08	117.40
1	A	484	G	N3-C4-C5	-5.36	125.92	128.60
1	A	938	A	N1-C6-N6	-5.36	115.38	118.60
1	A	1059	C	N3-C4-C5	-5.36	119.75	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1082	G	C8-N9-C4	5.36	108.55	106.40
1	A	1414	U	C5-C6-N1	-5.36	120.02	122.70
1	A	353	A	N1-C6-N6	-5.36	115.38	118.60
1	A	914	G	N1-C2-N2	-5.36	111.38	116.20
1	A	1149	C	C6-N1-C2	-5.36	118.16	120.30
1	A	279	A	C5-C6-N6	-5.36	119.41	123.70
1	A	1064	G	N1-C2-N3	5.36	127.12	123.90
1	A	89	C	C5-C4-N4	-5.36	116.45	120.20
1	A	236	G	C5-C6-O6	5.36	131.81	128.60
1	A	310	G	N3-C2-N2	-5.36	116.15	119.90
1	A	555	C	N3-C4-N4	5.36	121.75	118.00
1	A	1279	A	C4-N9-C1'	5.36	135.94	126.30
1	A	673	G	C4-C5-C6	5.36	122.01	118.80
1	A	236	G	N3-C4-C5	-5.35	125.92	128.60
5	E	126	ARG	NE-CZ-NH2	-5.35	117.62	120.30
1	A	403	C	N3-C2-O2	-5.35	118.15	121.90
1	A	1419	G	N1-C6-O6	5.35	123.11	119.90
1	A	653	A	N1-C2-N3	5.35	131.97	129.30
1	A	1093	A	C5-C6-N6	-5.35	119.42	123.70
1	A	190(J)	U	N3-C4-C5	-5.34	111.39	114.60
1	A	904	C	C4-C5-C6	5.34	120.07	117.40
1	A	1251	A	N1-C6-N6	-5.34	115.39	118.60
4	D	12	CYS	N-CA-C	-5.34	96.57	111.00
1	A	257	G	C5-C6-N1	5.34	114.17	111.50
1	A	1019	C	N1-C2-O2	5.34	122.10	118.90
1	A	818	G	N7-C8-N9	5.34	115.77	113.10
1	A	1227	A	C5-N7-C8	-5.34	101.23	103.90
1	A	74	C	C5-C6-N1	5.34	123.67	121.00
1	A	245	C	N3-C2-O2	5.34	125.64	121.90
1	A	1063	C	N3-C2-O2	-5.34	118.17	121.90
1	A	109	A	C4-C5-N7	5.33	113.37	110.70
1	A	685	G	C8-N9-C4	5.33	108.53	106.40
1	A	854	G	C4-C5-N7	5.33	112.93	110.80
1	A	1165	C	C5-C6-N1	5.33	123.67	121.00
1	A	922	G	N7-C8-N9	5.33	115.77	113.10
1	A	1484	C	C5-C6-N1	5.33	123.67	121.00
1	A	644	G	C5-C6-N1	5.33	114.16	111.50
1	A	911	U	C5-C4-O4	-5.33	122.70	125.90
1	A	1301	U	P-O3'-C3'	5.33	126.09	119.70
1	A	588	G	N1-C2-N2	-5.33	111.41	116.20
1	A	666	G	C4-N9-C1'	5.33	133.42	126.50
1	A	251	G	C4-C5-N7	5.32	112.93	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	336	C	C2-N1-C1'	-5.32	112.94	118.80
1	A	384	G	C4-N9-C1'	5.32	133.42	126.50
1	A	515	G	C2-N3-C4	-5.32	109.24	111.90
1	A	703	G	N1-C2-N2	-5.32	111.41	116.20
1	A	814	A	C2-N3-C4	-5.32	107.94	110.60
1	A	819	A	C5-N7-C8	-5.32	101.24	103.90
1	A	854	G	C5-C6-N1	5.32	114.16	111.50
1	A	17	U	C2-N3-C4	-5.32	123.81	127.00
1	A	457	C	N3-C4-N4	5.32	121.72	118.00
1	A	309	G	C4-C5-N7	5.32	112.93	110.80
1	A	1234	C	N3-C4-N4	5.32	121.72	118.00
1	A	1368	G	C5-C6-N1	5.32	114.16	111.50
1	A	638	G	C4-N9-C1'	5.32	133.41	126.50
1	A	856	C	N1-C2-N3	5.32	122.92	119.20
1	A	858	G	N7-C8-N9	-5.32	110.44	113.10
1	A	916	G	C4-C5-C6	5.32	121.99	118.80
1	A	1080	A	C6-N1-C2	-5.32	115.41	118.60
1	A	1502	A	C8-N9-C1'	-5.32	118.13	127.70
1	A	297	G	C5-N7-C8	-5.32	101.64	104.30
1	A	761	G	C4-C5-C6	5.32	121.99	118.80
1	A	29	G	C4-C5-C6	5.31	121.99	118.80
1	A	92	C	N3-C2-O2	-5.31	118.18	121.90
1	A	574	A	C8-N9-C4	5.31	107.92	105.80
1	A	716	A	N1-C6-N6	-5.31	115.41	118.60
1	A	567	G	C4-C5-C6	5.31	121.99	118.80
1	A	781	A	C5-N7-C8	-5.31	101.24	103.90
1	A	688	G	C8-N9-C4	-5.31	104.28	106.40
1	A	1152	A	C5-C6-N6	5.31	127.95	123.70
1	A	1186	G	N3-C4-N9	-5.31	122.81	126.00
1	A	762	C	C6-N1-C2	5.31	122.42	120.30
1	A	1356	G	C8-N9-C4	-5.31	104.28	106.40
1	A	1511	G	N1-C6-O6	-5.31	116.72	119.90
1	A	252	U	C4-C5-C6	5.31	122.88	119.70
1	A	1112	C	C5-C6-N1	-5.30	118.35	121.00
1	A	407	G	N1-C6-O6	5.30	123.08	119.90
1	A	573	A	C4-C5-C6	5.30	119.65	117.00
1	A	1432	G	C5-C6-N1	-5.30	108.85	111.50
1	A	420	U	N3-C4-C5	-5.30	111.42	114.60
1	A	1268	A	N9-C4-C5	5.30	107.92	105.80
1	A	89	C	N3-C4-N4	5.30	121.71	118.00
1	A	362	G	C5-C6-N1	-5.30	108.85	111.50
1	A	394	G	C4-C5-N7	-5.30	108.68	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	580	U	C5-C4-O4	5.30	129.08	125.90
17	Q	63	ARG	NE-CZ-NH1	-5.30	117.65	120.30
1	A	1383	C	C5-C4-N4	-5.29	116.49	120.20
1	A	307	C	C4-C5-C6	-5.29	114.75	117.40
1	A	459	G	C8-N9-C4	-5.29	104.28	106.40
1	A	1074	G	N1-C6-O6	5.29	123.08	119.90
1	A	1246	C	N1-C2-O2	-5.29	115.72	118.90
1	A	1332	A	N1-C6-N6	-5.29	115.43	118.60
1	A	88	A	C6-N1-C2	-5.29	115.43	118.60
1	A	108	G	C1'-O4'-C4'	-5.29	105.67	109.90
1	A	317	G	N1-C6-O6	5.29	123.07	119.90
1	A	367	U	N3-C2-O2	5.29	125.90	122.20
1	A	617	G	C8-N9-C4	5.29	108.52	106.40
1	A	617	G	N1-C6-O6	5.29	123.07	119.90
1	A	783	C	C5-C4-N4	-5.29	116.50	120.20
1	A	803	G	N1-C2-N2	-5.29	111.44	116.20
1	A	942	G	C6-C5-N7	-5.29	127.23	130.40
1	A	1482	G	C2-N3-C4	5.29	114.54	111.90
1	A	647	C	C2-N1-C1'	-5.29	112.98	118.80
1	A	850	U	C5-C4-O4	5.29	129.07	125.90
1	A	570	G	N3-C4-N9	5.28	129.17	126.00
1	A	1303	C	N3-C4-C5	5.28	124.01	121.90
1	A	1355	G	C6-N1-C2	-5.28	121.93	125.10
1	A	24	U	N3-C4-O4	5.28	123.10	119.40
1	A	770	C	N3-C4-C5	5.28	124.01	121.90
1	A	886	G	N3-C4-N9	-5.28	122.83	126.00
1	A	1212	U	N1-C2-N3	-5.28	111.73	114.90
1	A	797	C	N3-C4-C5	5.28	124.01	121.90
1	A	186	C	N3-C4-N4	-5.28	114.31	118.00
1	A	315	A	N1-C2-N3	5.28	131.94	129.30
1	A	1329	A	C4-C5-N7	5.28	113.34	110.70
1	A	725	G	N7-C8-N9	5.28	115.74	113.10
1	A	923	A	C2-N3-C4	-5.28	107.96	110.60
1	A	412	A	N7-C8-N9	-5.27	111.16	113.80
1	A	1157	A	N9-C4-C5	5.27	107.91	105.80
1	A	457	C	C6-N1-C2	-5.27	118.19	120.30
1	A	904	C	N3-C4-C5	-5.27	119.79	121.90
1	A	941	G	C2-N3-C4	-5.27	109.27	111.90
1	A	351	G	C8-N9-C4	5.27	108.51	106.40
1	A	607	A	C6-C5-N7	-5.27	128.61	132.30
1	A	761	G	C4-C5-N7	5.27	112.91	110.80
1	A	190(I)	G	N9-C4-C5	-5.27	103.29	105.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1529	G	C4-C5-C6	5.27	121.96	118.80
1	A	867	G	C5-N7-C8	-5.26	101.67	104.30
1	A	447	G	C4-C5-N7	-5.26	108.70	110.80
1	A	825	G	C5-N7-C8	5.26	106.93	104.30
1	A	1074	G	C6-N1-C2	5.26	128.26	125.10
1	A	1496	C	C2-N3-C4	5.26	122.53	119.90
1	A	1527	C	C5-C6-N1	5.26	123.63	121.00
1	A	7	G	C6-C5-N7	5.26	133.55	130.40
1	A	229	U	N3-C4-C5	-5.26	111.45	114.60
1	A	665	A	N1-C2-N3	5.26	131.93	129.30
1	A	973	G	N9-C4-C5	-5.26	103.30	105.40
1	A	9	G	N1-C6-O6	5.25	123.05	119.90
1	A	1416	G	N7-C8-N9	5.25	115.73	113.10
1	A	6	G	C4-C5-C6	5.25	121.95	118.80
1	A	384	G	C5-C6-N1	5.25	114.13	111.50
1	A	548	G	C2-N3-C4	-5.25	109.27	111.90
1	A	774	G	C4-N9-C1'	5.25	133.33	126.50
1	A	65	U	N1-C2-O2	5.25	126.48	122.80
1	A	609	A	N7-C8-N9	5.25	116.42	113.80
1	A	1257	U	C6-N1-C2	-5.25	117.85	121.00
1	A	647	C	N1-C2-O2	-5.25	115.75	118.90
1	A	1291	G	C4-N9-C1'	5.25	133.32	126.50
1	A	1144	G	N3-C4-N9	-5.25	122.85	126.00
1	A	1467	G	C8-N9-C4	-5.25	104.30	106.40
1	A	1202	G	C6-C5-N7	5.25	133.55	130.40
1	A	1329	A	C6-C5-N7	-5.25	128.63	132.30
1	A	191	G	N1-C2-N3	5.24	127.05	123.90
1	A	257	G	N3-C4-C5	-5.24	125.98	128.60
1	A	805	C	C5-C4-N4	-5.24	116.53	120.20
1	A	142	G	C2-N3-C4	5.24	114.52	111.90
1	A	582	U	C5-C4-O4	-5.24	122.75	125.90
1	A	756	C	N3-C4-C5	5.24	124.00	121.90
1	A	1411	C	N1-C2-O2	-5.24	115.75	118.90
1	A	323	U	N1-C2-O2	-5.24	119.13	122.80
1	A	597	G	N1-C2-N3	5.24	127.05	123.90
1	A	710	G	C5-C6-N1	-5.24	108.88	111.50
1	A	1088	G	C5-C6-N1	-5.24	108.88	111.50
1	A	1353	G	C5-C6-N1	5.24	114.12	111.50
1	A	936	C	C5-C6-N1	-5.24	118.38	121.00
1	A	258	G	C5-N7-C8	-5.24	101.68	104.30
1	A	665	A	C5-C6-N1	5.24	120.32	117.70
1	A	22	G	C4-C5-N7	5.24	112.89	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	769	G	C4-C5-C6	5.24	121.94	118.80
1	A	851	G	C4-C5-C6	5.24	121.94	118.80
1	A	794	A	C5-C6-N6	5.23	127.89	123.70
1	A	1253	G	N7-C8-N9	5.23	115.72	113.10
1	A	122	G	C5-C6-O6	-5.23	125.46	128.60
1	A	270	A	C8-N9-C4	-5.23	103.71	105.80
1	A	577	G	C8-N9-C4	5.23	108.49	106.40
1	A	824	C	C5-C4-N4	-5.23	116.54	120.20
1	A	1344	C	C4-C5-C6	5.23	120.02	117.40
1	A	27	G	N1-C2-N2	-5.23	111.49	116.20
1	A	115	G	P-O3'-C3'	5.23	125.98	119.70
1	A	1328	C	N1-C2-O2	5.23	122.04	118.90
1	A	1411	C	N3-C4-C5	-5.23	119.81	121.90
1	A	656	C	C5-C6-N1	-5.23	118.39	121.00
1	A	1425	U	C4-C5-C6	5.23	122.83	119.70
1	A	484	G	C4-N9-C1'	5.22	133.29	126.50
1	A	691	G	C8-N9-C4	-5.22	104.31	106.40
1	A	701	C	C5-C6-N1	-5.22	118.39	121.00
1	A	715	A	C2-N3-C4	-5.22	107.99	110.60
1	A	1447	G	C8-N9-C4	-5.22	104.31	106.40
1	A	1498	UR3	P-O3'-C3'	5.22	125.97	119.70
1	A	665	A	N1-C6-N6	-5.22	115.47	118.60
1	A	1267	C	N3-C4-C5	-5.22	119.81	121.90
1	A	122	G	C8-N9-C4	5.22	108.49	106.40
1	A	717	C	N1-C2-O2	-5.22	115.77	118.90
1	A	1355	G	N3-C4-C5	-5.22	125.99	128.60
1	A	331	G	C2-N3-C4	-5.22	109.29	111.90
1	A	753	A	N3-C4-N9	-5.22	123.22	127.40
1	A	1265	G	C6-C5-N7	-5.22	127.27	130.40
1	A	474	G	N7-C8-N9	5.22	115.71	113.10
1	A	1451	A	N9-C4-C5	-5.22	103.71	105.80
1	A	901	A	C5-C6-N1	-5.22	115.09	117.70
1	A	130	A	C5-N7-C8	-5.21	101.29	103.90
1	A	525	C	C6-N1-C2	5.21	122.39	120.30
1	A	777	A	N3-C4-C5	-5.21	123.15	126.80
1	A	884	U	N1-C2-O2	5.21	126.45	122.80
1	A	1305	G	N7-C8-N9	5.21	115.71	113.10
1	A	1391	U	N1-C2-O2	5.21	126.45	122.80
1	A	1196	U	C3'-C2'-C1'	-5.21	97.33	101.50
1	A	53	A	N9-C4-C5	5.21	107.89	105.80
1	A	190	C	N1-C2-O2	5.21	122.03	118.90
1	A	926	G	C4-N9-C1'	5.21	133.28	126.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	644	G	C8-N9-C4	-5.21	104.32	106.40
1	A	308	C	C2-N1-C1'	5.21	124.53	118.80
1	A	110	C	C5-C6-N1	-5.21	118.40	121.00
1	A	418	C	C5-C6-N1	5.21	123.60	121.00
1	A	551	U	N3-C4-O4	5.21	123.05	119.40
1	A	890	G	C5-C6-O6	5.21	131.72	128.60
1	A	1172	C	N1-C2-O2	-5.21	115.78	118.90
1	A	1417	G	N3-C4-N9	5.21	129.12	126.00
1	A	1380	U	C2-N1-C1'	5.21	123.95	117.70
1	A	28	G	C4-C5-C6	5.20	121.92	118.80
1	A	594	G	C6-C5-N7	-5.20	127.28	130.40
1	A	822	C	C2-N3-C4	-5.20	117.30	119.90
1	A	1234	C	N3-C2-O2	5.20	125.54	121.90
11	K	118	GLY	N-CA-C	5.20	126.11	113.10
1	A	132	C	C2-N3-C4	-5.20	117.30	119.90
1	A	103	C	N3-C4-N4	5.20	121.64	118.00
1	A	494	G	N9-C4-C5	5.20	107.48	105.40
1	A	232	G	C8-N9-C1'	-5.20	120.24	127.00
1	A	617	G	N1-C2-N3	5.20	127.02	123.90
1	A	768	A	C2-N3-C4	-5.20	108.00	110.60
1	A	799	G	N1-C2-N3	5.20	127.02	123.90
1	A	1462	G	C5-C6-N1	-5.20	108.90	111.50
1	A	550	G	C2-N3-C4	-5.20	109.30	111.90
1	A	1531	A	C4-N9-C1'	5.20	135.65	126.30
1	A	721	G	C5-C6-O6	-5.19	125.48	128.60
1	A	824	C	C5-C6-N1	-5.19	118.40	121.00
1	A	121	C	N3-C4-C5	5.19	123.98	121.90
1	A	46	G	C4-N9-C1'	5.19	133.25	126.50
1	A	559	A	N9-C4-C5	5.19	107.88	105.80
1	A	777	A	N3-C4-N9	5.19	131.55	127.40
1	A	1088	G	C2-N3-C4	-5.19	109.31	111.90
1	A	1079	G	C4-N9-C1'	5.19	133.25	126.50
1	A	1243	C	N3-C4-C5	5.19	123.98	121.90
1	A	168	G	C4-N9-C1'	5.19	133.24	126.50
1	A	957	U	N3-C4-C5	-5.19	111.49	114.60
1	A	587	G	N1-C2-N2	-5.19	111.53	116.20
1	A	853	G	N1-C2-N2	-5.19	111.53	116.20
1	A	1355	G	C5-C6-N1	5.19	114.09	111.50
1	A	248	C	N3-C4-N4	5.18	121.63	118.00
1	A	1158	C	N3-C4-C5	-5.18	119.83	121.90
1	A	134	A	N7-C8-N9	-5.18	111.21	113.80
1	A	1425	U	N3-C4-C5	-5.18	111.49	114.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	269	C	C4-C5-C6	5.18	119.99	117.40
1	A	685	G	N9-C4-C5	-5.18	103.33	105.40
1	A	8	A	C4-C5-N7	-5.18	108.11	110.70
1	A	517	G	N9-C4-C5	5.18	107.47	105.40
1	A	830	G	C5-C6-N1	-5.18	108.91	111.50
1	A	917	G	N3-C4-C5	5.18	131.19	128.60
1	A	321	A	C5-C6-N1	5.18	120.29	117.70
1	A	246	A	C8-N9-C4	5.17	107.87	105.80
1	A	259	G	C6-C5-N7	-5.17	127.30	130.40
1	A	762	C	N3-C4-N4	5.17	121.62	118.00
1	A	1533	C	C6-N1-C2	-5.17	118.23	120.30
1	A	225	C	C5-C6-N1	-5.17	118.41	121.00
1	A	315	A	N7-C8-N9	5.17	116.39	113.80
1	A	1494	G	N3-C4-N9	5.17	129.10	126.00
1	A	23	C	C4-C5-C6	5.17	119.99	117.40
1	A	96	G	C6-C5-N7	-5.17	127.30	130.40
1	A	263	A	C6-N1-C2	-5.17	115.50	118.60
1	A	635	G	C5-C6-N1	-5.17	108.91	111.50
1	A	894	G	C6-C5-N7	-5.17	127.30	130.40
1	A	1135	U	C5-C6-N1	5.17	125.28	122.70
1	A	315	A	C5-N7-C8	-5.17	101.32	103.90
1	A	632	A	C6-C5-N7	-5.17	128.68	132.30
1	A	803	G	C2-N3-C4	-5.17	109.32	111.90
1	A	898	G	N1-C2-N3	5.17	127.00	123.90
1	A	1385	G	N1-C6-O6	-5.17	116.80	119.90
1	A	581	G	N3-C4-C5	5.17	131.18	128.60
1	A	1286	A	C5-C6-N1	-5.17	115.12	117.70
8	H	60	ARG	CG-CD-NE	-5.17	100.95	111.80
1	A	218	C	C4-C5-C6	-5.16	114.82	117.40
1	A	235	C	C2-N3-C4	-5.16	117.32	119.90
1	A	246	A	N1-C6-N6	-5.16	115.50	118.60
1	A	610	G	N1-C2-N3	5.16	127.00	123.90
1	A	1512	U	N3-C4-O4	5.16	123.02	119.40
1	A	132	C	N3-C2-O2	-5.16	118.29	121.90
1	A	729	A	C4-C5-N7	5.16	113.28	110.70
1	A	797	C	C2-N3-C4	-5.16	117.32	119.90
1	A	615	C	N3-C4-N4	5.16	121.61	118.00
1	A	657	G	C8-N9-C4	-5.16	104.34	106.40
1	A	569	C	C4-C5-C6	5.16	119.98	117.40
1	A	660	G	C5-C6-O6	-5.16	125.50	128.60
1	A	668	G	N1-C2-N3	5.16	127.00	123.90
1	A	872	A	C5-N7-C8	-5.16	101.32	103.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	289	G	N1-C6-O6	5.16	122.99	119.90
1	A	728	A	N7-C8-N9	5.15	116.38	113.80
1	A	1527	C	N3-C4-N4	5.15	121.61	118.00
1	A	203	U	C4-C5-C6	-5.15	116.61	119.70
1	A	109	A	C8-N9-C4	-5.15	103.74	105.80
1	A	1199	U	C4-C5-C6	5.15	122.79	119.70
1	A	1483	A	C6-N1-C2	-5.15	115.51	118.60
1	A	383	A	C5-N7-C8	-5.15	101.33	103.90
1	A	390	C	C4-C5-C6	5.15	119.97	117.40
1	A	600	C	C6-N1-C2	5.15	122.36	120.30
1	A	691	G	C2-N3-C4	-5.15	109.33	111.90
1	A	360	A	C2-N3-C4	-5.14	108.03	110.60
1	A	602	A	N9-C4-C5	5.14	107.86	105.80
1	A	800	G	N1-C2-N3	5.14	126.99	123.90
1	A	32	A	C8-N9-C1'	-5.14	118.44	127.70
1	A	718	G	N3-C2-N2	-5.14	116.30	119.90
1	A	895	G	C4-N9-C1'	5.14	133.19	126.50
1	A	900	A	C6-C5-N7	-5.14	128.70	132.30
1	A	1145	C	C6-N1-C1'	5.14	126.97	120.80
1	A	1229	A	C2-N3-C4	-5.14	108.03	110.60
1	A	400	C	N3-C2-O2	-5.14	118.30	121.90
1	A	1294	G	N3-C4-N9	-5.14	122.92	126.00
1	A	280	C	N3-C4-N4	-5.14	114.40	118.00
1	A	421	U	C2-N1-C1'	5.14	123.87	117.70
1	A	1035	A	C8-N9-C4	5.14	107.86	105.80
1	A	1051	C	C2-N3-C4	5.14	122.47	119.90
1	A	1191	A	N1-C6-N6	-5.14	115.52	118.60
1	A	1219	U	C5-C6-N1	5.14	125.27	122.70
1	A	233	C	N3-C4-N4	5.14	121.60	118.00
1	A	1482	G	N3-C2-N2	5.14	123.50	119.90
1	A	255	G	C5-C6-N1	-5.14	108.93	111.50
1	A	812	C	N1-C2-N3	5.13	122.79	119.20
1	A	251	G	C5-N7-C8	-5.13	101.73	104.30
1	A	383	A	C6-C5-N7	-5.13	128.71	132.30
17	Q	35	VAL	CG1-CB-CG2	5.13	119.11	110.90
1	A	627	G	N1-C2-N3	5.13	126.98	123.90
1	A	1286	A	N7-C8-N9	5.13	116.36	113.80
1	A	746	A	N1-C6-N6	5.13	121.68	118.60
1	A	825	G	N9-C4-C5	-5.13	103.35	105.40
1	A	888	G	C5-C6-N1	-5.13	108.94	111.50
1	A	492	G	C5-C6-N1	-5.13	108.94	111.50
1	A	698	G	N7-C8-N9	5.13	115.66	113.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1110	A	C2-N3-C4	-5.13	108.04	110.60
1	A	766	A	C6-C5-N7	-5.12	128.71	132.30
1	A	380	G	C4-C5-N7	-5.12	108.75	110.80
1	A	1323	G	C8-N9-C4	5.12	108.45	106.40
5	E	115	VAL	CB-CA-C	-5.12	101.66	111.40
1	A	43	C	N3-C4-N4	-5.12	114.42	118.00
1	A	1432	G	C2-N3-C4	-5.12	109.34	111.90
1	A	238	G	N3-C4-C5	5.12	131.16	128.60
1	A	344	A	N7-C8-N9	5.12	116.36	113.80
1	A	813	U	C2-N3-C4	-5.12	123.93	127.00
1	A	48	C	C6-N1-C2	5.12	122.35	120.30
1	A	672	U	N3-C2-O2	5.12	125.78	122.20
1	A	319	G	C4-N9-C1'	5.12	133.15	126.50
1	A	701	C	P-O3'-C3'	5.12	125.84	119.70
1	A	1496	C	C6-N1-C2	-5.12	118.25	120.30
2	B	16	HIS	N-CA-C	5.12	124.82	111.00
15	O	39	LEU	CA-CB-CG	-5.12	103.53	115.30
1	A	306	G	N3-C2-N2	-5.12	116.32	119.90
1	A	899	C	C6-N1-C2	-5.12	118.25	120.30
1	A	1426	C	C6-N1-C2	5.12	122.35	120.30
1	A	1432	G	C5-C6-O6	5.12	131.67	128.60
1	A	55	A	C8-N9-C4	-5.11	103.75	105.80
1	A	640	A	N1-C2-N3	5.11	131.86	129.30
1	A	709	G	N1-C6-O6	5.11	122.97	119.90
1	A	1064	G	C4-N9-C1'	5.11	133.15	126.50
1	A	355	C	N3-C4-C5	5.11	123.94	121.90
1	A	645	C	C6-N1-C2	-5.11	118.25	120.30
1	A	814	A	N7-C8-N9	-5.11	111.24	113.80
1	A	256	U	C5-C6-N1	5.11	125.25	122.70
1	A	451	A	C5-C6-N1	5.11	120.25	117.70
1	A	702	A	C2-N3-C4	5.11	113.15	110.60
1	A	1141	C	N3-C2-O2	-5.11	118.33	121.90
1	A	652	U	C5-C4-O4	-5.10	122.84	125.90
1	A	7	G	C6-N1-C2	-5.10	122.04	125.10
1	A	508	C	C6-N1-C1'	-5.10	114.68	120.80
1	A	638	G	C4-C5-C6	5.10	121.86	118.80
1	A	833	U	N1-C2-O2	5.10	126.37	122.80
1	A	756	C	C4-C5-C6	-5.10	114.85	117.40
1	A	1249	C	N1-C2-N3	-5.10	115.63	119.20
1	A	1251	A	C8-N9-C4	-5.10	103.76	105.80
1	A	1282	C	C2-N3-C4	5.10	122.45	119.90
1	A	1520	G	N1-C2-N3	5.10	126.96	123.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	E	119	LEU	CB-CG-CD1	-5.10	102.33	111.00
1	A	140	A	C8-N9-C4	-5.10	103.76	105.80
1	A	860	A	N1-C6-N6	5.10	121.66	118.60
1	A	1009	G	N3-C4-C5	-5.10	126.05	128.60
1	A	194	C	N1-C2-O2	5.09	121.96	118.90
1	A	368	U	C2-N3-C4	-5.09	123.94	127.00
1	A	587	G	N1-C2-N3	5.09	126.96	123.90
1	A	941	G	C4-C5-N7	5.09	112.84	110.80
1	A	872	A	N3-C4-C5	5.09	130.37	126.80
1	A	1482	G	C6-N1-C2	-5.09	122.04	125.10
1	A	287	U	N3-C4-C5	-5.09	111.55	114.60
1	A	575	G	C6-N1-C2	-5.09	122.05	125.10
1	A	660	G	N1-C6-O6	5.09	122.95	119.90
1	A	907	A	N9-C4-C5	5.09	107.84	105.80
1	A	1287	A	C8-N9-C4	-5.09	103.77	105.80
1	A	1254	C	C5-C6-N1	5.09	123.54	121.00
1	A	142	G	N3-C4-N9	5.08	129.05	126.00
1	A	567	G	N1-C6-O6	-5.08	116.85	119.90
1	A	700	G	C4-N9-C1'	5.08	133.11	126.50
1	A	1055	A	C6-C5-N7	5.08	135.86	132.30
1	A	1126	U	C2-N1-C1'	5.08	123.80	117.70
1	A	167	G	N1-C6-O6	-5.08	116.85	119.90
1	A	200	G	C8-N9-C4	-5.08	104.37	106.40
1	A	452	A	C5-N7-C8	5.08	106.44	103.90
1	A	638	G	C2-N3-C4	-5.08	109.36	111.90
1	A	301	G	N1-C6-O6	5.08	122.95	119.90
1	A	181	G	C4-C5-N7	5.08	112.83	110.80
1	A	577	G	C4-C5-N7	5.08	112.83	110.80
1	A	822	C	N3-C4-C5	-5.08	119.87	121.90
1	A	946	A	C4-C5-N7	-5.08	108.16	110.70
1	A	26	A	C8-N9-C4	-5.07	103.77	105.80
1	A	119	A	C5-N7-C8	5.07	106.44	103.90
1	A	15	G	N7-C8-N9	5.07	115.64	113.10
1	A	801	U	N3-C4-C5	5.07	117.64	114.60
1	A	1465	C	N3-C4-N4	5.07	121.55	118.00
1	A	698	G	N9-C4-C5	5.07	107.43	105.40
1	A	1452	C	C6-N1-C1'	-5.07	114.72	120.80
1	A	7	G	N7-C8-N9	-5.07	110.57	113.10
1	A	93	G	C8-N9-C4	5.07	108.43	106.40
1	A	612	C	C2-N1-C1'	5.07	124.37	118.80
1	A	760	G	C4-N9-C1'	-5.07	119.91	126.50
1	A	90	U	N1-C2-O2	-5.07	119.25	122.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1155	G	N3-C4-C5	-5.06	126.07	128.60
1	A	1329	A	C5-N7-C8	-5.06	101.37	103.90
1	A	916	G	C5-C6-O6	-5.06	125.56	128.60
1	A	1160	G	N1-C6-O6	-5.06	116.86	119.90
1	A	1279	A	C8-N9-C4	-5.06	103.78	105.80
1	A	1387	G	C2-N3-C4	-5.06	109.37	111.90
1	A	1516	G	C2-N3-C4	-5.06	109.37	111.90
1	A	1112	C	N3-C4-C5	5.06	123.92	121.90
1	A	261	U	C6-N1-C2	-5.06	117.97	121.00
1	A	1067	A	C6-N1-C2	-5.06	115.56	118.60
1	A	506	G	C2-N3-C4	-5.06	109.37	111.90
1	A	928	G	N1-C6-O6	5.06	122.93	119.90
1	A	236	G	N1-C2-N2	-5.06	111.65	116.20
1	A	839	U	C2-N1-C1'	5.06	123.77	117.70
1	A	306	G	N1-C6-O6	5.05	122.93	119.90
1	A	319	G	N1-C6-O6	5.05	122.93	119.90
4	D	97	LEU	CA-CB-CG	-5.05	103.67	115.30
1	A	595	G	C8-N9-C1'	-5.05	120.43	127.00
1	A	661	G	N7-C8-N9	5.05	115.63	113.10
1	A	866	C	N1-C2-O2	-5.05	115.87	118.90
1	A	1530	G	C2-N3-C4	-5.05	109.37	111.90
1	A	488	C	C5-C6-N1	5.05	123.52	121.00
1	A	580	U	C2-N3-C4	5.05	130.03	127.00
1	A	761	G	N9-C4-C5	-5.05	103.38	105.40
1	A	1441	G	C4-C5-N7	-5.05	108.78	110.80
1	A	1249	C	C4-C5-C6	-5.05	114.88	117.40
1	A	1303	C	C2-N1-C1'	-5.05	113.25	118.80
1	A	1403	C	N3-C2-O2	5.05	125.43	121.90
1	A	1408	A	C2-N3-C4	-5.05	108.08	110.60
1	A	1329	A	C5-C6-N6	-5.04	119.66	123.70
1	A	1108	G	N3-C4-N9	5.04	129.03	126.00
1	A	1514	C	N1-C2-N3	5.04	122.73	119.20
1	A	1470	G	N1-C6-O6	5.04	122.92	119.90
1	A	332	G	C2-N3-C4	-5.04	109.38	111.90
1	A	350	G	C5-C6-O6	5.04	131.62	128.60
1	A	773	G	C5-N7-C8	-5.04	101.78	104.30
1	A	1155	G	C4-N9-C1'	5.04	133.05	126.50
1	A	1311	G	N3-C2-N2	-5.04	116.37	119.90
1	A	1349	A	N3-C4-N9	-5.04	123.37	127.40
1	A	827	U	N3-C4-O4	5.04	122.93	119.40
1	A	728	A	C2-N3-C4	-5.04	108.08	110.60
1	A	1084	G	N9-C4-C5	5.04	107.42	105.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	407	G	N1-C2-N3	5.03	126.92	123.90
1	A	1380	U	P-O3'-C3'	5.03	125.74	119.70
1	A	395	C	N3-C4-C5	-5.03	119.89	121.90
1	A	771	G	N1-C2-N3	5.03	126.92	123.90
1	A	1079	G	C5-C6-O6	-5.03	125.58	128.60
1	A	699	C	N3-C2-O2	5.03	125.42	121.90
1	A	1059	C	N1-C2-N3	5.03	122.72	119.20
1	A	1060	C	C6-N1-C1'	-5.03	114.77	120.80
1	A	132	C	N3-C4-C5	-5.03	119.89	121.90
1	A	649	G	C5-C6-N1	5.03	114.01	111.50
1	A	802	A	C4-C5-N7	5.03	113.21	110.70
1	A	1083	U	N3-C4-O4	5.03	122.92	119.40
1	A	568	G	C4-N9-C1'	5.02	133.03	126.50
1	A	667	G	C6-C5-N7	-5.02	127.39	130.40
1	A	711	G	C5-C6-O6	-5.02	125.59	128.60
1	A	546	G	C6-C5-N7	-5.02	127.39	130.40
1	A	41	G	N7-C8-N9	5.02	115.61	113.10
1	A	532	A	C8-N9-C4	5.02	107.81	105.80
1	A	7	G	N9-C4-C5	5.02	107.41	105.40
1	A	17	U	C5-C6-N1	-5.02	120.19	122.70
1	A	348	G	C5-N7-C8	-5.02	101.79	104.30
1	A	451	A	C5-C6-N6	-5.02	119.69	123.70
1	A	780	A	C2-N3-C4	5.02	113.11	110.60
1	A	860	A	C6-C5-N7	-5.02	128.79	132.30
1	A	1324	A	C6-C5-N7	-5.02	128.79	132.30
1	A	175	C	C6-N1-C2	5.01	122.31	120.30
1	A	854	G	C6-N1-C2	-5.01	122.09	125.10
1	A	906	G	C6-C5-N7	-5.01	127.39	130.40
1	A	389	A	N3-C4-C5	-5.01	123.29	126.80
1	A	276	G	C8-N9-C4	5.01	108.40	106.40
1	A	906	G	C5-N7-C8	-5.01	101.80	104.30
1	A	80	G	C4-C5-C6	5.01	121.81	118.80
1	A	331	G	C4-C5-C6	5.01	121.81	118.80
1	A	651	C	C5-C4-N4	-5.01	116.69	120.20
3	C	52	LEU	CA-CB-CG	5.01	126.82	115.30
1	A	183	G	C6-C5-N7	-5.01	127.40	130.40
1	A	642	A	C5-N7-C8	-5.01	101.40	103.90
1	A	481	G	N1-C2-N2	-5.00	111.69	116.20
1	A	1087	G	C6-C5-N7	-5.00	127.40	130.40
1	A	226	G	C5-C6-N1	-5.00	109.00	111.50
1	A	232	G	C5-C6-N1	-5.00	109.00	111.50
1	A	1229	A	C5-N7-C8	-5.00	101.40	103.90

There are no chirality outliers.

All (11) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	C	166	GLU	Peptide
3	C	24	ALA	Peptide
4	D	195	ALA	Peptide
7	G	154	TYR	Peptide
8	H	90	GLY	Peptide
9	I	126	SER	Peptide
10	J	3	LYS	Peptide
10	J	87	THR	Peptide
12	L	25	PRO	Peptide
17	Q	13	ASP	Peptide
20	T	93	GLU	Peptide

5.2 Too-close contacts

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	A	32508	0	16426	863	0
2	B	1900	0	1951	117	0
3	C	1612	0	1677	93	0
4	D	1703	0	1763	100	0
5	E	1146	0	1207	73	0
6	F	843	0	857	55	0
7	G	1257	0	1296	76	0
8	H	1116	0	1177	70	0
9	I	1010	0	1037	76	0
10	J	792	0	835	50	0
11	K	864	0	881	51	0
12	L	972	0	1058	67	0
13	M	937	0	995	55	0
14	N	492	0	529	49	0
15	O	729	0	768	47	0
16	P	700	0	720	48	0
17	Q	823	0	893	52	0
18	R	574	0	644	47	0
19	S	647	0	673	37	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
20	T	763	0	861	49	0
21	U	208	0	221	20	0
22	A	40	0	37	7	0
23	A	253	0	0	0	0
23	B	2	0	0	0	0
23	D	1	0	0	0	0
23	E	1	0	0	0	0
23	H	4	0	0	0	0
23	J	2	0	0	0	0
23	M	2	0	0	0	0
23	N	1	0	0	0	0
23	P	3	0	0	0	0
23	Q	1	0	0	0	0
23	S	1	0	0	0	0
23	T	2	0	0	0	0
24	D	1	0	0	0	0
24	N	1	0	0	0	0
25	A	374	0	0	14	0
25	B	1	0	0	0	0
25	D	1	0	0	0	0
25	E	7	0	0	0	0
25	L	1	0	0	0	0
25	N	1	0	0	0	0
25	P	2	0	0	0	0
25	T	2	0	0	1	0
All	All	52300	0	36506	1903	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 22.

All (1903) 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)
18:R:26:LEU:HD11	18:R:42:ARG:HD3	1.46	0.98
1:A:792:A:H1'	1:A:793:U:H2'	1.47	0.96
11:K:48:ILE:HD12	11:K:63:LEU:HB2	1.45	0.96
1:A:1326:C:OP2	21:U:6:ARG:NH2	2.00	0.93
12:L:87:GLY:HA2	12:L:98:TYR:HA	1.51	0.92
3:C:129:ALA:HB1	3:C:132:ARG:HB3	1.51	0.92
3:C:27:LYS:O	3:C:30:ARG:NH2	2.05	0.89
1:A:103:C:OP1	20:T:17:ARG:NH1	2.05	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:87:ARG:HH11	6:F:87:ARG:HG3	1.36	0.89
1:A:1030:C:O2	1:A:1031:G:N2	2.05	0.89
15:O:39:LEU:HD23	15:O:56:LEU:HB2	1.53	0.89
3:C:153:VAL:HG12	3:C:166:GLU:HB2	1.55	0.89
1:A:1373:G:H5''	7:G:36:LYS:HD2	1.55	0.88
11:K:91:ARG:HD2	18:R:88:LYS:HZ3	1.36	0.88
1:A:1496:C:O2'	1:A:1497:G:O5'	1.91	0.87
1:A:1126:U:H3'	1:A:1127:G:H8	1.36	0.87
1:A:1249:C:O2'	9:I:73:GLN:NE2	2.07	0.86
3:C:188:LEU:HD11	3:C:195:VAL:HG23	1.57	0.86
7:G:69:VAL:HG21	7:G:104:LEU:HD21	1.58	0.86
6:F:36:ARG:HB3	6:F:36:ARG:HH11	1.40	0.86
3:C:58:GLU:O	3:C:59:ARG:NH1	2.09	0.86
3:C:34:LEU:HD13	3:C:38:ARG:HH21	1.40	0.86
7:G:78:ARG:HD2	7:G:156:TRP:HB2	1.58	0.86
1:A:973:G:H3'	1:A:974:A:H5''	1.57	0.85
1:A:1442:G:N2	1:A:1447:G:N7	2.22	0.85
15:O:29:VAL:HG21	15:O:67:LEU:HD23	1.59	0.85
5:E:11:ILE:HG23	5:E:31:LEU:HB3	1.59	0.84
5:E:84:PHE:HB2	5:E:134:ALA:HB2	1.59	0.84
7:G:5:ARG:HH12	7:G:8:GLU:HG3	1.41	0.84
21:U:12:LYS:O	21:U:22:ARG:NH1	2.11	0.83
1:A:235:C:N4	25:A:1963:HOH:O	2.10	0.83
19:S:31:ILE:HG21	19:S:49:ILE:HD13	1.61	0.83
11:K:65:ALA:HB1	11:K:98:LEU:HD13	1.61	0.82
1:A:1366:C:H2'	1:A:1367:C:H6	1.44	0.82
1:A:1221:G:OP2	19:S:37:ARG:NH2	2.11	0.82
3:C:121:ALA:HA	3:C:124:ILE:HD12	1.61	0.82
1:A:1255:G:N2	1:A:1259:C:O2	2.13	0.82
1:A:1357:A:H2'	1:A:1358:U:C6	2.14	0.81
15:O:38:ARG:HH11	15:O:38:ARG:HB3	1.46	0.81
1:A:1238:A:H5'	1:A:1336:C:H41	1.45	0.81
1:A:138:G:O6	1:A:225:C:N4	2.09	0.81
8:H:11:THR:OG1	8:H:14:ARG:NH1	2.11	0.81
1:A:1510:U:H2'	1:A:1511:G:C8	2.16	0.81
17:Q:27:PHE:CE1	17:Q:36:ILE:HD11	2.15	0.81
18:R:53:ARG:HG2	18:R:63:GLN:HE21	1.46	0.81
5:E:126:ARG:HH11	5:E:126:ARG:HG2	1.46	0.81
13:M:10:PRO:HB2	13:M:18:ALA:HB1	1.60	0.81
1:A:1404:5MC:H1'	1:A:1499:A:C2	2.15	0.81
1:A:996:A:N1	1:A:1046:A:O2'	2.13	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:156:ARG:NH1	3:C:160:ALA:O	2.14	0.80
2:B:12:GLU:HG3	2:B:213:LEU:HD21	1.63	0.80
12:L:47:LYS:HG3	12:L:48:PRO:HD3	1.63	0.80
7:G:17:VAL:HG12	7:G:18:TYR:HD1	1.47	0.80
13:M:75:ALA:HA	13:M:78:ILE:HD12	1.64	0.80
1:A:1009:G:H1	1:A:1020:U:H3	1.27	0.80
7:G:5:ARG:HD3	7:G:7:ALA:H	1.47	0.79
8:H:100:ILE:O	8:H:125:ARG:NH2	2.16	0.79
12:L:59:ARG:HH12	12:L:65:GLU:HG3	1.47	0.79
1:A:989:C:O2	1:A:1216:G:N2	2.13	0.79
8:H:69:ARG:NH1	8:H:75:ARG:O	2.15	0.79
1:A:1047:G:OP1	14:N:4:LYS:NZ	2.13	0.79
3:C:134:ILE:HD11	3:C:153:VAL:HB	1.65	0.79
9:I:79:LEU:HD21	9:I:104:ARG:HA	1.65	0.79
9:I:108:VAL:HG12	9:I:109:VAL:H	1.48	0.79
1:A:1280:A:O2'	25:A:2104:HOH:O	2.01	0.78
16:P:67:THR:HB	16:P:70:ALA:H	1.47	0.78
1:A:1163:C:H2'	1:A:1164:G:H8	1.49	0.78
6:F:14:LEU:HB2	6:F:19:LEU:HD12	1.64	0.78
1:A:1101:A:H4'	1:A:1102:A:O5'	1.84	0.77
20:T:12:ALA:HA	25:T:302:HOH:O	1.82	0.77
1:A:130:A:H5'	17:Q:63:ARG:HE	1.50	0.77
7:G:20:ASP:OD1	7:G:22:LEU:N	2.16	0.77
1:A:1347:G:H3'	9:I:108:VAL:O	1.85	0.77
1:A:992:U:H3	1:A:1044:A:H62	1.30	0.77
3:C:167:TRP:HE3	3:C:168:ALA:H	1.32	0.77
1:A:1246:C:H42	1:A:1291:G:H1	1.32	0.76
1:A:457:C:O2	1:A:475:G:N2	2.11	0.76
1:A:1435:G:H2'	1:A:1436:U:C6	2.21	0.76
22:A:1601:SRY:OG2	12:L:91:LYS:NZ	2.17	0.76
10:J:53:PRO:HB3	14:N:42:ILE:HD11	1.68	0.76
3:C:147:LYS:NZ	3:C:206:GLU:OE2	2.18	0.75
9:I:17:VAL:HG11	9:I:81:ILE:HA	1.68	0.75
15:O:67:LEU:HD13	15:O:78:TYR:HE1	1.51	0.75
1:A:1380:U:O2'	1:A:1381:U:OP2	2.04	0.75
8:H:17:THR:O	8:H:78:GLN:NE2	2.20	0.75
12:L:5:PRO:HB2	12:L:10:LEU:HD23	1.68	0.75
4:D:8:VAL:HG11	4:D:21:LEU:HB2	1.68	0.75
12:L:53:ARG:NH1	12:L:92:0TD:OD2	2.20	0.75
1:A:1242:C:H42	1:A:1295:G:H1	1.34	0.74
1:A:448:A:OP2	1:A:485:G:N2	2.16	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:664:G:H22	1:A:741:G:H1	1.33	0.74
1:A:1356:G:H2'	1:A:1357:A:C8	2.23	0.74
1:A:532:A:O2'	1:A:533:A:OP1	2.06	0.73
4:D:28:SER:O	4:D:30:LYS:N	2.21	0.73
1:A:1125:U:H3	10:J:5:ARG:HH21	1.36	0.73
1:A:1118:C:H1'	1:A:1179:A:C4	2.23	0.73
1:A:617:G:H1	1:A:623:C:H42	1.35	0.73
1:A:975:A:H5'	1:A:975:A:H8	1.52	0.73
7:G:38:LEU:O	7:G:42:ILE:HG13	1.89	0.73
20:T:56:MET:HG3	20:T:88:VAL:HG21	1.69	0.72
8:H:82:HIS:CE1	8:H:138:TRP:NE1	2.57	0.72
17:Q:40:LYS:HD3	17:Q:42:TYR:CZ	2.24	0.72
1:A:869:G:N7	25:A:2218:HOH:O	2.21	0.72
1:A:1195:C:H3'	1:A:1196:U:H5''	1.71	0.72
1:A:1493:A:H2'	1:A:1494:G:H8	1.53	0.72
1:A:794:A:H8	1:A:794:A:H3'	1.55	0.72
1:A:914:G:OP1	22:A:1601:SRY:HI33	1.90	0.72
7:G:111:ARG:HD2	7:G:112:PRO:HD2	1.72	0.72
11:K:79:SER:HB3	11:K:106:LYS:HE2	1.71	0.72
1:A:701:C:H4'	1:A:702:A:H5''	1.72	0.72
3:C:25:GLY:HA2	3:C:28:GLN:H	1.54	0.72
1:A:18:C:H5''	5:E:127:ASN:HD21	1.53	0.72
1:A:113:G:H1'	1:A:354:G:H5'	1.72	0.72
2:B:55:PHE:HA	2:B:58:ILE:HD12	1.71	0.72
7:G:15:ASP:OD2	7:G:44:TYR:OH	2.07	0.72
1:A:1412:C:H2'	1:A:1413:A:C8	2.24	0.71
1:A:794:A:H3'	1:A:794:A:C8	2.25	0.71
2:B:184:VAL:HG23	2:B:198:ASP:H	1.55	0.71
1:A:1125:U:OP2	1:A:1145:C:N4	2.23	0.71
2:B:17:PHE:HA	2:B:44:LEU:HD11	1.72	0.71
5:E:147:ASP:OD1	5:E:147:ASP:N	2.12	0.71
1:A:1357:A:H2'	1:A:1358:U:H6	1.56	0.71
4:D:152:SER:O	4:D:155:LEU:HG	1.90	0.71
1:A:1368:G:H5''	9:I:112:LYS:HB3	1.73	0.71
1:A:384:G:H2'	1:A:385:C:H6	1.56	0.71
1:A:74:C:O2	1:A:96:G:N2	2.20	0.71
13:M:23:TYR:CB	13:M:67:GLU:HA	2.20	0.71
1:A:1411:C:H42	1:A:1489:G:H1	1.38	0.71
1:A:73:C:H2'	1:A:74:C:H6	1.54	0.71
6:F:4:TYR:HE1	6:F:92:LYS:HG2	1.56	0.71
2:B:205:ASP:OD1	2:B:206:ASP:N	2.24	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:36:C:OP1	12:L:123:LYS:NZ	2.22	0.70
1:A:980:C:H5''	1:A:981:U:H5	1.56	0.70
4:D:187:ARG:HH22	4:D:188:LEU:HD12	1.56	0.70
1:A:858:G:N7	25:A:2220:HOH:O	2.24	0.70
1:A:1053:G:HO2'	1:A:1199:U:H5	1.39	0.70
1:A:200:G:H1	1:A:217:C:H42	1.38	0.70
1:A:1004:A:O2'	1:A:1005:A:O5'	2.08	0.70
9:I:48:GLU:OE2	9:I:51:ARG:NH1	2.24	0.70
2:B:73:THR:HG21	2:B:96:ARG:HD2	1.74	0.70
8:H:95:VAL:HG23	8:H:99:GLU:HB2	1.73	0.70
15:O:87:ILE:HG22	15:O:88:ARG:H	1.54	0.70
2:B:87:ARG:HH21	2:B:233:SER:HB2	1.57	0.70
1:A:1255:G:O6	1:A:1282:C:N4	2.22	0.70
1:A:1518:MA6:H93	1:A:1519:MA6:N1	2.06	0.70
21:U:10:ARG:HD3	21:U:13:ILE:HD12	1.74	0.69
1:A:1168:A:H2'	1:A:1169:A:C8	2.28	0.69
1:A:1236:A:H4'	1:A:1304:G:H4'	1.74	0.69
3:C:155:GLY:HA3	3:C:163:ALA:HB1	1.73	0.69
6:F:4:TYR:HB2	6:F:65:VAL:HG22	1.71	0.69
7:G:92:SER:OG	7:G:95:ARG:N	2.21	0.69
1:A:103:C:P	20:T:17:ARG:HH12	2.15	0.69
1:A:1358:U:H5''	14:N:35:ARG:HD2	1.73	0.69
1:A:353:A:H5'	1:A:353:A:H8	1.56	0.69
1:A:993:G:O6	1:A:1045:C:N4	2.26	0.69
2:B:185:ILE:HA	2:B:199:TYR:O	1.92	0.69
16:P:68:ASP:OD1	16:P:68:ASP:N	2.24	0.69
4:D:63:LYS:NZ	4:D:197:PRO:O	2.26	0.69
4:D:65:ARG:HG3	4:D:75:PHE:CD1	2.27	0.69
6:F:14:LEU:HD21	6:F:84:ASN:HD22	1.57	0.69
10:J:38:ILE:HG22	10:J:39:PRO:HD2	1.74	0.69
22:A:1601:SRY:O61	12:L:46:LYS:HD2	1.93	0.69
13:M:23:TYR:HB3	13:M:67:GLU:HA	1.73	0.69
19:S:22:LEU:HD11	19:S:28:LYS:HB2	1.75	0.69
1:A:250:A:H4'	1:A:251:G:O5'	1.93	0.68
1:A:827:U:H5''	1:A:828:A:OP2	1.93	0.68
3:C:120:VAL:HG12	3:C:124:ILE:HD11	1.75	0.68
1:A:36:C:H5''	12:L:123:LYS:HD3	1.75	0.68
1:A:677:U:H3	1:A:713:G:H22	1.40	0.68
1:A:1329:A:H5'	13:M:29:ARG:HD2	1.75	0.68
1:A:390:C:H4'	16:P:28:ARG:HH21	1.58	0.68
1:A:1290:G:H2'	1:A:1291:G:H8	1.58	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:40:ILE:HD11	19:S:62:ILE:HG23	1.75	0.68
1:A:1246:C:N4	1:A:1291:G:H1	1.91	0.68
1:A:1124:G:H2'	1:A:1145:C:H41	1.59	0.68
3:C:14:ILE:HB	3:C:15:THR:HG23	1.75	0.68
1:A:758:G:C8	25:A:2216:HOH:O	2.47	0.68
17:Q:84:LEU:H	17:Q:84:LEU:HD12	1.59	0.68
1:A:1022:G:N2	1:A:1023:G:O6	2.25	0.68
1:A:452:A:O2'	1:A:453:A:O5'	2.12	0.68
1:A:501:C:H2'	1:A:502:G:C8	2.28	0.68
4:D:119:GLN:HG3	4:D:123:HIS:HD2	1.59	0.68
5:E:105:VAL:HB	5:E:106:PRO:HD3	1.75	0.68
1:A:1338:G:H2'	1:A:1339:A:C8	2.28	0.68
10:J:12:ASP:HB3	10:J:15:THR:HG22	1.76	0.68
13:M:11:ARG:HA	13:M:45:VAL:HG11	1.74	0.68
1:A:505:G:H1	1:A:526:C:H42	1.40	0.67
1:A:1058:G:OP1	3:C:199:LYS:NZ	2.27	0.67
14:N:26:ARG:HD2	14:N:47:LEU:HD11	1.76	0.67
1:A:1095:U:OP1	1:A:1108:G:N2	2.20	0.67
6:F:100:ASN:HB2	18:R:23:LYS:HD2	1.74	0.67
1:A:1006:C:H42	1:A:1022:G:H1	1.39	0.67
5:E:145:LYS:O	5:E:148:VAL:HG23	1.94	0.67
10:J:34:VAL:HG13	10:J:74:ILE:HA	1.75	0.67
2:B:7:VAL:HG11	2:B:221:LEU:HD23	1.77	0.67
4:D:68:TYR:OH	4:D:98:GLU:OE1	2.09	0.67
5:E:91:LEU:HB3	5:E:118:ILE:HD11	1.75	0.67
12:L:27:LEU:C	12:L:29:GLY:H	1.97	0.67
9:I:50:LEU:HD23	9:I:85:LEU:HD13	1.76	0.67
2:B:16:HIS:CE1	2:B:210:SER:HB2	2.30	0.67
1:A:1195:C:H3'	1:A:1196:U:C5'	2.25	0.66
11:K:40:ILE:HG23	11:K:75:TYR:CD2	2.30	0.66
3:C:14:ILE:O	3:C:16:ARG:N	2.28	0.66
1:A:1147:C:O2'	9:I:16:ARG:HD3	1.94	0.66
1:A:1164:G:N2	1:A:1172:C:N3	2.42	0.66
1:A:35:G:H2'	1:A:36:C:H6	1.60	0.66
1:A:1305:G:OP1	21:U:2:GLY:N	2.28	0.66
4:D:187:ARG:NH2	4:D:188:LEU:HB2	2.10	0.66
1:A:258:G:H2'	1:A:259:G:H8	1.59	0.66
1:A:758:G:N7	25:A:2216:HOH:O	2.28	0.66
17:Q:58:GLU:HB2	17:Q:74:LEU:HB3	1.75	0.66
4:D:13:ARG:NH2	4:D:36:ARG:HH21	1.93	0.66
15:O:28:GLN:O	15:O:32:LEU:HB2	1.95	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:21:VAL:HG21	16:P:59:TRP:CD1	2.31	0.66
4:D:8:VAL:O	4:D:11:LEU:N	2.28	0.66
11:K:91:ARG:HD2	18:R:88:LYS:NZ	2.09	0.66
7:G:18:TYR:OH	7:G:58:PRO:HB2	1.96	0.66
15:O:4:THR:HG23	15:O:7:GLU:CD	2.15	0.66
1:A:1057:G:H5''	3:C:154:SER:HB2	1.78	0.66
1:A:39:G:N2	1:A:403:C:O2	2.24	0.65
4:D:163:GLU:HG3	4:D:166:LYS:HD2	1.78	0.65
1:A:21:G:N2	1:A:885:G:O3'	2.29	0.65
9:I:114:TYR:HE1	10:J:61:GLU:H	1.44	0.65
2:B:162:ILE:HG22	2:B:164:VAL:HG23	1.78	0.65
21:U:10:ARG:HA	21:U:13:ILE:HB	1.79	0.65
1:A:620:C:H2'	1:A:621:A:O4'	1.97	0.65
2:B:19:HIS:HB3	2:B:20:GLU:HG2	1.79	0.65
1:A:1240:U:OP1	7:G:119:ARG:NH2	2.28	0.65
7:G:18:TYR:HE2	7:G:59:LEU:HA	1.60	0.65
4:D:8:VAL:O	4:D:10:ARG:N	2.29	0.65
5:E:71:LEU:HD21	5:E:115:VAL:HG22	1.78	0.65
11:K:15:ALA:HA	11:K:77:MET:HA	1.79	0.65
18:R:43:PHE:HD2	18:R:56:THR:HG22	1.61	0.65
1:A:532:A:HO2'	1:A:533:A:P	2.20	0.65
4:D:13:ARG:HD2	4:D:38:TYR:O	1.97	0.65
11:K:57:THR:HG23	11:K:60:ALA:H	1.62	0.65
14:N:26:ARG:HB2	14:N:43:CYS:SG	2.37	0.65
1:A:1126:U:H3	1:A:1149:C:H1'	1.62	0.65
1:A:1413:A:H2	1:A:1487:G:H22	1.45	0.65
9:I:8:GLY:HA3	9:I:79:LEU:HB3	1.79	0.65
12:L:38:THR:HG22	12:L:39:VAL:HG13	1.78	0.65
1:A:1060:C:OP1	14:N:45:ARG:NH2	2.30	0.65
8:H:123:GLU:O	8:H:127:LEU:HB2	1.97	0.64
18:R:87:ARG:HD3	18:R:87:ARG:N	2.12	0.64
1:A:1505:G:H3'	1:A:1505:G:C8	2.32	0.64
16:P:21:VAL:HG12	16:P:33:ILE:HD12	1.78	0.64
7:G:26:PHE:HD1	7:G:101:LEU:HD22	1.62	0.64
5:E:143:ARG:HH12	8:H:77:GLU:CD	2.01	0.64
11:K:32:ILE:HD11	11:K:68:ALA:HB1	1.78	0.64
1:A:1255:G:O2'	1:A:1258:G:H1'	1.97	0.64
1:A:673:G:H2'	1:A:674:G:C8	2.33	0.64
9:I:22:GLY:N	9:I:58:HIS:O	2.25	0.64
1:A:1097:C:H2'	1:A:1098:C:C6	2.32	0.64
2:B:97:TRP:HZ2	2:B:102:LEU:HD22	1.62	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:4:TYR:CD1	9:I:88:TYR:HB2	2.33	0.64
1:A:691:G:H2'	1:A:692:U:C6	2.33	0.63
6:F:4:TYR:CE1	6:F:92:LYS:HG2	2.33	0.63
8:H:35:ILE:O	8:H:39:LEU:HD22	1.98	0.63
1:A:35:G:H2'	1:A:36:C:C6	2.33	0.63
12:L:113:ARG:HH11	12:L:113:ARG:HG3	1.61	0.63
7:G:91:VAL:HG12	7:G:95:ARG:HB3	1.78	0.63
1:A:1003(A):G:N2	1:A:1038:C:O2'	2.18	0.63
1:A:1305:G:N2	1:A:1331:G:H1'	2.14	0.63
3:C:25:GLY:HA2	3:C:28:GLN:N	2.14	0.63
12:L:27:LEU:C	12:L:29:GLY:N	2.50	0.63
2:B:95:GLN:HG3	2:B:148:TYR:HA	1.79	0.63
15:O:33:THR:HG21	15:O:85:LEU:HD13	1.81	0.63
20:T:71:THR:O	20:T:72:LEU:HD23	1.99	0.63
1:A:384:G:H2'	1:A:385:C:C6	2.33	0.63
1:A:451:A:N6	1:A:481:G:C4	2.67	0.63
5:E:17:ALA:HB2	5:E:26:PHE:HD2	1.64	0.63
4:D:107:ARG:HH21	4:D:194:LEU:HD11	1.63	0.63
13:M:40:ASN:HB3	13:M:43:THR:HG23	1.80	0.63
1:A:62:U:O2'	1:A:379:C:O2	2.15	0.62
1:A:953:G:H5'	1:A:965:A:H61	1.64	0.62
3:C:88:ARG:HE	3:C:100:ALA:HB1	1.63	0.62
9:I:51:ARG:HG2	9:I:56:LEU:HG	1.81	0.62
4:D:173:TRP:CE2	4:D:189:PRO:HB3	2.34	0.62
10:J:61:GLU:OE1	14:N:45:ARG:NH1	2.27	0.62
1:A:1183:A:O2'	1:A:1184:G:OP1	2.16	0.62
1:A:691:G:H2'	1:A:692:U:H6	1.65	0.62
2:B:97:TRP:CZ2	2:B:102:LEU:HD22	2.34	0.62
3:C:148:GLY:HA3	3:C:172:ARG:O	2.00	0.62
5:E:84:PHE:CE1	5:E:133:TYR:HB3	2.35	0.62
8:H:10:LEU:HD22	8:H:83:ILE:HD13	1.82	0.62
10:J:76:ASN:O	10:J:78:ASN:HB2	2.00	0.62
6:F:8:ILE:HD12	6:F:26:ILE:HD13	1.81	0.62
11:K:40:ILE:HG23	11:K:75:TYR:HD2	1.64	0.62
12:L:87:GLY:HA2	12:L:98:TYR:CA	2.26	0.62
12:L:82:VAL:HG12	12:L:106:ASP:OD1	2.00	0.62
1:A:413:G:O2'	1:A:428:G:N2	2.32	0.62
1:A:980:C:H5''	1:A:981:U:C5	2.34	0.62
3:C:120:VAL:O	3:C:124:ILE:HG13	2.00	0.62
7:G:68:ASN:O	7:G:138:LYS:NZ	2.28	0.62
1:A:826:C:O2	8:H:15:ASN:ND2	2.32	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:202:ILE:HG22	3:C:204:LEU:HD23	1.82	0.61
5:E:118:ILE:C	5:E:119:LEU:HD23	2.21	0.61
19:S:14:HIS:CE1	19:S:35:SER:HB2	2.35	0.61
1:A:328:C:O2	1:A:328:C:H2'	2.00	0.61
1:A:375:U:OP1	16:P:69:THR:HG21	2.00	0.61
1:A:789:U:O2'	1:A:791:G:N7	2.33	0.61
1:A:129:U:O3'	1:A:129(A):G:H3'	2.00	0.61
1:A:191:G:O2'	20:T:101:GLY:O	2.17	0.61
1:A:838:G:H2'	1:A:839:U:H5''	1.82	0.61
1:A:345:C:OP2	1:A:345:C:H6	1.84	0.61
1:A:9:G:OP1	5:E:122:GLU:HG3	2.00	0.61
5:E:80:ILE:H	5:E:80:ILE:HD12	1.65	0.61
13:M:16:ASP:OD1	13:M:16:ASP:N	2.33	0.61
2:B:87:ARG:HB3	2:B:87:ARG:HH11	1.66	0.61
9:I:51:ARG:HB2	9:I:51:ARG:NH1	2.15	0.61
15:O:26:GLU:HA	15:O:81:LEU:HD11	1.83	0.61
1:A:1300:G:O2'	1:A:1301:U:OP2	2.10	0.61
1:A:344:A:H5'	1:A:345:C:C5	2.35	0.61
1:A:560:U:H5'	1:A:566:G:N2	2.16	0.61
1:A:682:G:H1	1:A:708:C:H42	1.47	0.61
3:C:89:GLU:HG3	3:C:93:LYS:NZ	2.15	0.61
6:F:35:ALA:HA	6:F:67:MET:HB3	1.82	0.61
16:P:74:LEU:HD13	16:P:79:VAL:HG21	1.83	0.61
1:A:551:U:O2'	12:L:86:ARG:HD2	2.01	0.61
1:A:1381:U:H2'	1:A:1382:C:H6	1.66	0.60
1:A:975:A:H5'	1:A:975:A:C8	2.34	0.60
1:A:757:U:H2'	1:A:758:G:O4'	2.01	0.60
1:A:427:U:OP1	4:D:13:ARG:NH2	2.34	0.60
8:H:20:TYR:CE1	8:H:76:PRO:HG2	2.36	0.60
12:L:27:LEU:HG	12:L:28:LYS:H	1.66	0.60
18:R:43:PHE:C	18:R:51:LEU:HD12	2.22	0.60
1:A:981:U:H5'	14:N:21:TYR:CZ	2.36	0.60
1:A:695:A:OP2	11:K:53:SER:N	2.32	0.60
1:A:269:C:H2'	1:A:270:A:C8	2.36	0.60
7:G:20:ASP:OD1	7:G:21:VAL:N	2.35	0.60
1:A:21:G:O2'	1:A:22:G:OP1	2.12	0.60
1:A:671:G:H1	1:A:735:C:H42	1.49	0.60
6:F:80:ARG:NH1	6:F:88:VAL:O	2.30	0.60
8:H:9:MET:HG3	8:H:26:VAL:HG21	1.84	0.60
1:A:1238:A:H5'	1:A:1336:C:N4	2.16	0.60
2:B:61:LEU:HD11	2:B:160:ASP:HB3	1.82	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:87:ARG:NH1	2:B:230:VAL:HG21	2.17	0.60
8:H:82:HIS:HE1	8:H:138:TRP:HE1	1.50	0.60
9:I:53:VAL:HG21	9:I:85:LEU:HD11	1.84	0.60
18:R:56:THR:HB	18:R:58:LEU:HG	1.84	0.60
1:A:1191:A:OP1	3:C:3:ASN:HB2	2.02	0.60
2:B:70:PHE:HE1	2:B:90:MET:HG3	1.67	0.60
18:R:53:ARG:HG2	18:R:63:GLN:NE2	2.13	0.60
6:F:7:ASN:HD21	18:R:34:TYR:HE1	1.49	0.60
7:G:70:LYS:HD3	7:G:96:GLN:HB3	1.84	0.60
13:M:23:TYR:HB2	13:M:67:GLU:HG2	1.82	0.60
1:A:1182:G:H4'	1:A:1183:A:H5''	1.81	0.60
1:A:665:A:N3	1:A:732:C:H2'	2.17	0.60
3:C:153:VAL:HG23	3:C:198:VAL:HG13	1.84	0.60
9:I:114:TYR:HD1	10:J:60:ARG:HB2	1.66	0.60
1:A:279:A:OP1	1:A:280:C:O2'	2.13	0.59
1:A:73:C:H2'	1:A:74:C:C6	2.35	0.59
2:B:117:GLU:O	2:B:120:ALA:HB3	2.01	0.59
3:C:34:LEU:HD13	3:C:38:ARG:NH2	2.15	0.59
5:E:118:ILE:O	5:E:119:LEU:HD23	2.02	0.59
16:P:43:LYS:HA	16:P:48:TRP:HB3	1.84	0.59
1:A:279:A:OP2	17:Q:95:TYR:OH	2.06	0.59
17:Q:27:PHE:CZ	17:Q:36:ILE:HD11	2.36	0.59
8:H:97:VAL:HA	8:H:100:ILE:HD11	1.83	0.59
18:R:39:VAL:HG13	18:R:40:LEU:HD23	1.84	0.59
1:A:349:A:H2'	1:A:350:G:H5''	1.85	0.59
2:B:82:ARG:HG2	2:B:92:TYR:HE1	1.65	0.59
3:C:88:ARG:CG	3:C:101:LEU:HB2	2.32	0.59
9:I:70:LYS:NZ	9:I:73:GLN:OE1	2.36	0.59
1:A:1150:U:O4	1:A:1151:A:N6	2.35	0.59
1:A:179:A:H2'	1:A:180:U:C6	2.38	0.59
15:O:26:GLU:OE1	15:O:77:ARG:HD2	2.01	0.59
20:T:14:LYS:O	20:T:18:GLN:HG2	2.03	0.59
1:A:1026:G:O2'	1:A:1027:C:OP1	2.18	0.59
1:A:1376:U:OP1	7:G:98:SER:OG	2.16	0.59
1:A:552:U:H2'	1:A:553:A:C8	2.38	0.59
2:B:82:ARG:HA	2:B:92:TYR:CE1	2.38	0.59
18:R:26:LEU:HD23	18:R:29:PHE:CE2	2.37	0.59
1:A:1121:U:H2'	1:A:1122:U:H6	1.68	0.59
1:A:200:G:H2'	1:A:201:C:O4'	2.02	0.59
1:A:1180:A:OP1	9:I:103:THR:OG1	2.21	0.59
20:T:75:ASN:OD1	20:T:75:ASN:N	2.35	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:11:VAL:HG22	17:Q:29:HIS:CD2	2.38	0.59
16:P:69:THR:HA	16:P:72:ARG:HG2	1.83	0.59
1:A:1255:G:H2'	1:A:1279:A:H61	1.68	0.58
1:A:489:C:H2'	1:A:490:G:H8	1.67	0.58
2:B:15:VAL:HG13	2:B:209:ARG:HB3	1.83	0.58
5:E:43:LEU:HD23	5:E:44:GLY:N	2.17	0.58
15:O:55:GLY:HA2	15:O:58:MET:HE2	1.85	0.58
1:A:1004:A:H4'	1:A:1005:A:OP1	2.03	0.58
1:A:1541:PSU:H6	1:A:1541:PSU:H3'	1.68	0.58
1:A:509:A:H3'	1:A:509:A:C8	2.38	0.58
1:A:5:U:H4'	1:A:6:G:O5'	2.02	0.58
4:D:170:VAL:HG22	4:D:174:LEU:HD12	1.85	0.58
9:I:26:VAL:HG12	9:I:61:ALA:HB3	1.85	0.58
11:K:124:LYS:HG3	11:K:125:PHE:CD2	2.39	0.58
18:R:43:PHE:O	18:R:51:LEU:HD12	2.03	0.58
1:A:353:A:H5'	1:A:353:A:C8	2.38	0.58
1:A:526:C:O3'	22:A:1601:SRY:HI31	2.03	0.58
7:G:122:HIS:O	7:G:126:ASP:HB2	2.02	0.58
6:F:48:LEU:HG	6:F:57:GLN:HA	1.84	0.58
12:L:42:THR:HA	12:L:53:ARG:O	2.04	0.58
14:N:39:LEU:HB3	14:N:43:CYS:HB3	1.86	0.58
1:A:1240:U:C2	7:G:32:ARG:HD2	2.37	0.58
1:A:89:C:O2'	1:A:90:U:H5'	2.02	0.58
1:A:945:G:O6	1:A:1236:A:N1	2.36	0.58
7:G:60:LYS:HZ3	7:G:63:LYS:HD2	1.68	0.58
4:D:65:ARG:HD2	4:D:72:GLU:HA	1.86	0.58
7:G:70:LYS:HG2	7:G:100:ALA:HB2	1.84	0.58
12:L:84:LEU:HD23	12:L:101:VAL:HG21	1.86	0.58
1:A:1029:C:N4	1:A:1032:G:H1	2.01	0.58
1:A:1255:G:O2'	1:A:1258:G:O2'	2.21	0.58
1:A:1474:G:H2'	1:A:1475:G:H8	1.67	0.58
4:D:30:LYS:O	4:D:32:ALA:N	2.36	0.58
4:D:55:ALA:O	4:D:59:ARG:HG2	2.04	0.58
17:Q:4:LYS:HG2	17:Q:6:LEU:HD21	1.86	0.58
2:B:18:GLY:HA3	2:B:42:ILE:H	1.69	0.58
9:I:48:GLU:N	9:I:49:PRO:HD2	2.19	0.58
15:O:38:ARG:NH1	15:O:38:ARG:HB3	2.16	0.58
1:A:1225:A:N3	1:A:1225:A:H2'	2.18	0.57
1:A:1242:C:N4	1:A:1295:G:H1	2.01	0.57
5:E:83:GLU:HG2	5:E:88:LYS:HG3	1.86	0.57
8:H:100:ILE:HG23	8:H:112:LEU:HD11	1.85	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:45:GLN:HB3	20:T:91:LEU:HD13	1.86	0.57
6:F:15:ASP:HB3	6:F:18:GLN:NE2	2.19	0.57
10:J:12:ASP:OD2	10:J:15:THR:N	2.31	0.57
16:P:28:ARG:HD2	16:P:29:ASP:OD2	2.04	0.57
1:A:1493:A:H2'	1:A:1494:G:C8	2.37	0.57
1:A:616:G:H1	1:A:624:C:H42	1.52	0.57
1:A:859:A:OP2	1:A:869:G:N1	2.33	0.57
7:G:47:CYS:HB3	7:G:58:PRO:HG2	1.85	0.57
11:K:99:GLN:NE2	11:K:105:VAL:HG21	2.19	0.57
18:R:22:VAL:HG23	18:R:56:THR:HA	1.85	0.57
21:U:6:ARG:HG2	21:U:15:ARG:HE	1.69	0.57
1:A:1223:C:H5''	1:A:1224:G:H5''	1.85	0.57
1:A:258:G:H2'	1:A:259:G:C8	2.38	0.57
5:E:15:ARG:HH11	5:E:15:ARG:HG2	1.69	0.57
1:A:1121:U:H2'	1:A:1122:U:C6	2.40	0.57
1:A:939:G:H5''	7:G:102:ARG:HH22	1.69	0.57
2:B:112:VAL:O	2:B:115:LEU:N	2.37	0.57
16:P:53:VAL:O	16:P:55:ARG:N	2.38	0.57
19:S:22:LEU:HG	19:S:28:LYS:HD2	1.85	0.57
1:A:1347:G:N2	1:A:1374:A:OP2	2.26	0.57
1:A:184:G:H2'	1:A:185:A:C8	2.39	0.57
2:B:17:PHE:HD1	2:B:18:GLY:N	2.02	0.57
2:B:189:ASP:HB3	2:B:203:GLY:O	2.05	0.57
4:D:31:CYS:SG	4:D:31:CYS:O	2.62	0.57
1:A:1510:U:H2'	1:A:1511:G:H8	1.67	0.57
2:B:92:TYR:CD2	2:B:151:GLY:HA3	2.40	0.57
11:K:121:PRO:HD2	11:K:126:ARG:HD2	1.85	0.57
16:P:53:VAL:HG23	16:P:54:GLU:H	1.70	0.57
1:A:695:A:OP2	11:K:52:GLY:HA3	2.05	0.57
11:K:82:VAL:O	11:K:109:VAL:HG23	2.04	0.57
1:A:1404:5MC:H1'	1:A:1499:A:H2	1.66	0.57
1:A:416:G:H2'	1:A:417:C:C6	2.40	0.57
1:A:83:U:O2'	1:A:84:U:H5'	2.05	0.57
2:B:29:ALA:HA	2:B:32:ILE:HG13	1.87	0.57
5:E:130:ASN:OD1	5:E:130:ASN:N	2.35	0.57
9:I:15:ALA:HA	9:I:65:VAL:HB	1.85	0.57
1:A:1329:A:P	13:M:28:ALA:HB3	2.45	0.56
1:A:254:G:OP1	17:Q:67:LYS:O	2.23	0.56
7:G:5:ARG:NH1	7:G:8:GLU:H	2.03	0.56
10:J:76:ASN:HB3	10:J:78:ASN:CG	2.26	0.56
17:Q:66:SER:O	17:Q:70:ARG:NH1	2.38	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:401:C:H2'	1:A:402:G:H8	1.71	0.56
1:A:95:U:H2'	1:A:96:G:C8	2.39	0.56
13:M:22:ILE:HG22	13:M:23:TYR:N	2.20	0.56
17:Q:29:HIS:CG	17:Q:30:PRO:HD2	2.40	0.56
1:A:1325:C:OP1	21:U:15:ARG:HD3	2.05	0.56
1:A:1427:U:H2'	1:A:1428:A:C8	2.41	0.56
5:E:31:LEU:HD21	5:E:43:LEU:HD21	1.88	0.56
21:U:6:ARG:O	21:U:12:LYS:HE3	2.04	0.56
9:I:32:ASP:OD1	9:I:33:PHE:N	2.38	0.56
17:Q:58:GLU:CB	17:Q:74:LEU:HB3	2.34	0.56
3:C:44:GLU:HA	3:C:52:LEU:HD21	1.87	0.56
1:A:17:U:H2'	1:A:18:C:C6	2.39	0.56
3:C:22:TRP:HB3	3:C:59:ARG:HB2	1.86	0.56
13:M:5:ALA:HB2	13:M:22:ILE:HD13	1.88	0.56
1:A:1505:G:H8	1:A:1505:G:H3'	1.69	0.56
1:A:203:U:H3'	1:A:203:U:P	2.45	0.56
1:A:357:G:C2	1:A:358:U:C5	2.94	0.56
1:A:489:C:H2'	1:A:490:G:C8	2.41	0.56
1:A:837:G:C2	1:A:850:U:O2	2.59	0.56
9:I:97:LYS:N	9:I:98:PRO:HD2	2.20	0.56
14:N:37:PHE:HD1	14:N:44:LEU:HD13	1.71	0.56
6:F:50:TYR:CE1	18:R:77:GLY:HA2	2.40	0.56
1:A:1141:C:H2'	1:A:1142:G:C8	2.41	0.56
1:A:1234:C:H1'	1:A:1364:U:O2	2.05	0.56
1:A:928:G:O2'	1:A:1533:C:OP1	2.21	0.56
1:A:262:A:H5'	20:T:74:LYS:HG3	1.87	0.56
2:B:240:GLN:OE1	2:B:240:GLN:N	2.39	0.56
6:F:11:ASN:HB2	6:F:86:ARG:CZ	2.36	0.56
16:P:57:ARG:HG3	16:P:79:VAL:HG12	1.87	0.56
1:A:54:C:H42	1:A:357:G:H1	1.54	0.56
4:D:31:CYS:C	4:D:33:MET:H	2.08	0.56
5:E:146:ALA:O	5:E:149:GLU:HB2	2.05	0.56
1:A:939:G:H5''	7:G:102:ARG:NH2	2.20	0.56
10:J:78:ASN:O	10:J:82:ILE:HB	2.06	0.56
13:M:86:CYS:SG	13:M:87:TYR:N	2.78	0.56
19:S:16:LEU:O	19:S:20:LEU:HB2	2.05	0.56
1:A:1303:C:C2'	1:A:1304:G:H5'	2.36	0.56
1:A:976:G:H5''	1:A:1358:U:O2	2.06	0.56
6:F:77:ARG:O	6:F:81:ILE:HG13	2.05	0.56
12:L:60:LEU:N	12:L:64:TYR:O	2.38	0.56
19:S:19:VAL:HA	19:S:22:LEU:HB3	1.88	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1190:G:OP1	3:C:4:LYS:HA	2.06	0.56
1:A:1301:U:O2'	1:A:1302:U:H3'	2.07	0.56
1:A:695:A:C2	1:A:787:A:H1'	2.41	0.56
5:E:80:ILE:N	5:E:80:ILE:HD12	2.20	0.56
18:R:43:PHE:CG	18:R:66:LEU:HD21	2.41	0.56
2:B:162:ILE:O	2:B:185:ILE:HG12	2.06	0.55
8:H:82:HIS:HE1	8:H:138:TRP:NE1	2.01	0.55
18:R:60:ALA:O	18:R:64:ARG:HG3	2.06	0.55
1:A:1366:C:H2'	1:A:1367:C:C6	2.34	0.55
1:A:420:U:H3'	1:A:422:C:H41	1.71	0.55
1:A:572:A:H5'	1:A:573:A:OP2	2.06	0.55
2:B:115:LEU:HD23	2:B:145:LEU:CB	2.36	0.55
1:A:1198:G:H2'	1:A:1199:U:C6	2.42	0.55
1:A:1531:A:O5'	1:A:1531:A:H8	1.89	0.55
2:B:54:THR:HG22	2:B:58:ILE:HD11	1.88	0.55
6:F:3:ARG:O	6:F:93:SER:HB2	2.06	0.55
12:L:62:SER:HB2	12:L:64:TYR:HB2	1.87	0.55
15:O:39:LEU:CD2	15:O:56:LEU:HB2	2.32	0.55
17:Q:81:ARG:NE	17:Q:84:LEU:HD11	2.22	0.55
1:A:481:G:O2'	1:A:482:A:H8	1.89	0.55
6:F:4:TYR:HD1	6:F:92:LYS:HA	1.72	0.55
7:G:60:LYS:HA	7:G:63:LYS:HB3	1.88	0.55
9:I:50:LEU:HD11	9:I:81:ILE:HD12	1.87	0.55
9:I:63:ILE:HG21	9:I:77:ILE:HG12	1.88	0.55
1:A:447:G:H2'	1:A:485:G:N2	2.22	0.55
1:A:665:A:C2	1:A:732:C:C2	2.94	0.55
2:B:162:ILE:CG2	2:B:164:VAL:HG23	2.37	0.55
1:A:1001:A:H2'	1:A:1002:G:H8	1.72	0.55
1:A:83:U:C2'	1:A:84:U:H5'	2.36	0.55
5:E:28:PHE:CD1	5:E:51:VAL:HG23	2.42	0.55
7:G:65:ALA:O	7:G:69:VAL:HG23	2.07	0.55
1:A:1403:C:C6	1:A:1404:5MC:HM52	2.41	0.55
1:A:653:A:OP1	8:H:56:LYS:NZ	2.39	0.55
2:B:115:LEU:HD23	2:B:145:LEU:HB3	1.89	0.55
9:I:10:ARG:HD3	9:I:105:ASP:HB3	1.88	0.55
13:M:91:ARG:HB2	13:M:98:VAL:HG22	1.89	0.55
1:A:1255:G:H2'	1:A:1279:A:N6	2.21	0.55
1:A:1138:G:O2'	1:A:1140:C:H5'	2.06	0.54
1:A:280:C:H4'	1:A:281:G:OP2	2.07	0.54
4:D:127:THR:HG23	4:D:147:ALA:O	2.07	0.54
9:I:63:ILE:HD13	9:I:77:ILE:HG23	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:53:ARG:HG2	12:L:69:TYR:HE1	1.72	0.54
16:P:17:TYR:HE1	16:P:41:PRO:HG3	1.72	0.54
1:A:1011:G:H2'	1:A:1012:U:O4'	2.08	0.54
1:A:1127:G:H2'	1:A:1127:G:N3	2.22	0.54
10:J:82:ILE:HG22	10:J:83:GLU:OE1	2.06	0.54
1:A:1163:C:C2'	1:A:1164:G:H5'	2.37	0.54
1:A:390:C:O3'	16:P:28:ARG:NH2	2.40	0.54
1:A:457:C:H2'	1:A:458:C:C6	2.42	0.54
1:A:80:G:H1	1:A:89:C:H42	1.56	0.54
2:B:142:LEU:HD13	2:B:146:GLN:NE2	2.23	0.54
3:C:11:ARG:NH1	3:C:177:THR:O	2.40	0.54
15:O:15:PHE:CZ	15:O:85:LEU:HD21	2.43	0.54
20:T:29:LYS:O	20:T:32:ALA:HB3	2.06	0.54
1:A:1303:C:H2'	1:A:1304:G:H5'	1.89	0.54
1:A:525:C:H2'	1:A:526:C:C6	2.42	0.54
2:B:134:GLU:O	2:B:138:LEU:HG	2.07	0.54
15:O:42:HIS:CD2	15:O:42:HIS:C	2.79	0.54
1:A:1048:G:H2'	1:A:1050:G:C8	2.43	0.54
1:A:1054:C:OP1	1:A:1197:G:OP1	2.25	0.54
6:F:4:TYR:CD1	6:F:92:LYS:HA	2.42	0.54
1:A:1243:C:H2'	1:A:1244:C:C6	2.43	0.54
1:A:1243:C:H2'	1:A:1244:C:H6	1.73	0.54
1:A:858:G:O2'	1:A:859:A:H5''	2.08	0.54
1:A:946:A:H2'	1:A:947:G:C8	2.42	0.54
2:B:20:GLU:OE1	2:B:23:ARG:NH2	2.41	0.54
5:E:81:GLU:HG2	5:E:90:VAL:HG13	1.90	0.54
12:L:82:VAL:O	12:L:106:ASP:HB2	2.08	0.54
15:O:82:ILE:HD12	15:O:87:ILE:HB	1.90	0.54
19:S:28:LYS:HG2	19:S:29:ARG:H	1.73	0.54
19:S:39:THR:HG23	19:S:70:LYS:HE2	1.88	0.54
21:U:5:ASP:HB3	21:U:8:THR:OG1	2.08	0.54
1:A:139:G:C2'	1:A:140:A:H5'	2.37	0.54
1:A:269:C:H2'	1:A:270:A:H8	1.71	0.54
1:A:731:G:OP1	1:A:766:A:H1'	2.07	0.54
1:A:92:C:O2'	1:A:93:G:H5'	2.07	0.54
1:A:955:U:H2'	1:A:956:U:H6	1.73	0.54
2:B:21:ARG:HG3	2:B:22:LYS:H	1.72	0.54
13:M:40:ASN:ND2	13:M:42:ALA:HB3	2.22	0.54
1:A:1000:U:H3	1:A:1041:A:H61	1.55	0.54
1:A:1179:A:H2'	1:A:1180:A:O4'	2.07	0.54
1:A:413:G:N2	1:A:429:U:OP2	2.28	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:91:VAL:HG21	7:G:96:GLN:HG3	1.90	0.54
17:Q:97:SER:OG	17:Q:98:LEU:N	2.40	0.54
1:A:912:C:O2'	1:A:913:A:H5'	2.08	0.54
2:B:92:TYR:HD2	2:B:92:TYR:H	1.55	0.54
3:C:156:ARG:H	3:C:163:ALA:HA	1.72	0.54
6:F:60:PHE:CZ	18:R:78:LEU:HD21	2.42	0.54
18:R:59:SER:O	18:R:63:GLN:N	2.35	0.54
1:A:411:A:C5	1:A:413:G:H1'	2.43	0.54
1:A:551:U:H2'	1:A:552:U:C6	2.43	0.54
4:D:52:SER:O	4:D:56:VAL:HG23	2.07	0.54
5:E:86:ALA:HB3	5:E:125:SER:HB3	1.90	0.54
5:E:11:ILE:CG2	5:E:31:LEU:HB3	2.34	0.54
1:A:1357:A:H2'	1:A:1358:U:C5	2.43	0.53
2:B:163:PHE:CD1	2:B:185:ILE:HG13	2.43	0.53
18:R:59:SER:H	18:R:62:GLU:HB2	1.72	0.53
19:S:63:THR:HB	19:S:66:MET:HG3	1.90	0.53
1:A:1185:G:C2'	1:A:1186:G:H5'	2.38	0.53
1:A:1191:A:H5''	3:C:4:LYS:HE3	1.90	0.53
1:A:1332:A:H5'	1:A:1332:A:H8	1.72	0.53
5:E:90:VAL:C	5:E:91:LEU:HD23	2.28	0.53
4:D:111:ALA:HB2	4:D:120:LEU:HD12	1.90	0.53
10:J:79:ARG:HB2	10:J:80:LYS:HD2	1.89	0.53
14:N:15:LYS:HE3	14:N:16:PHE:CE1	2.43	0.53
16:P:66:PRO:HD2	16:P:71:ARG:HH12	1.73	0.53
1:A:1403:C:H2'	1:A:1404:5MC:C6	2.43	0.53
1:A:673:G:H5''	6:F:87:ARG:NH1	2.22	0.53
9:I:29:ASN:O	9:I:29:ASN:ND2	2.41	0.53
10:J:6:ILE:HB	10:J:72:VAL:HB	1.90	0.53
1:A:1141:C:H2'	1:A:1142:G:H8	1.73	0.53
1:A:1403:C:H3'	1:A:1404:5MC:HM51	1.91	0.53
4:D:107:ARG:HH21	4:D:194:LEU:CD1	2.22	0.53
5:E:15:ARG:NH1	5:E:15:ARG:HG2	2.24	0.53
10:J:45:ARG:HD2	14:N:36:PHE:CE2	2.43	0.53
1:A:172:A:H2'	1:A:173:U:H5'	1.91	0.53
1:A:299:G:C6	1:A:300:A:C6	2.97	0.53
1:A:481:G:HO2'	1:A:482:A:H8	1.54	0.53
1:A:617:G:H1	1:A:623:C:N4	2.04	0.53
2:B:219:VAL:HA	2:B:222:ILE:HD12	1.91	0.53
7:G:151:TYR:O	7:G:154:TYR:HB2	2.09	0.53
12:L:25:PRO:HB3	12:L:27:LEU:HD13	1.91	0.53
12:L:58:VAL:O	12:L:65:GLU:HA	2.09	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:27:VAL:O	15:O:31:LEU:HB2	2.08	0.53
18:R:43:PHE:CD2	18:R:56:THR:HG22	2.43	0.53
1:A:1145:C:O2'	1:A:1146:A:O5'	2.22	0.53
1:A:1212:U:O2'	1:A:1213:A:O5'	2.21	0.53
1:A:476:G:H2'	1:A:477:G:C8	2.44	0.53
3:C:121:ALA:HB2	3:C:198:VAL:HG21	1.91	0.53
3:C:43:LEU:HA	3:C:47:LEU:HD13	1.90	0.53
15:O:36:ILE:HG13	15:O:59:MET:HE2	1.90	0.53
1:A:1270:C:OP2	21:U:24:ARG:NH2	2.42	0.53
1:A:130:A:OP2	1:A:190(E):U:O2'	2.13	0.53
1:A:981:U:H5'	14:N:21:TYR:OH	2.09	0.53
4:D:92:VAL:O	4:D:96:LEU:HD13	2.09	0.53
12:L:113:ARG:NH1	12:L:113:ARG:HG3	2.23	0.53
12:L:93:LEU:O	12:L:96:VAL:HG23	2.09	0.53
1:A:1229:A:OP1	13:M:114:ARG:HD3	2.08	0.53
1:A:328:C:O2'	1:A:329:A:OP2	2.13	0.53
5:E:126:ARG:CG	5:E:126:ARG:HH11	2.18	0.53
9:I:126:SER:OG	9:I:127:LYS:HD2	2.09	0.53
14:N:39:LEU:HB3	14:N:43:CYS:CB	2.39	0.53
1:A:1287:A:H2	1:A:1353:G:N3	2.06	0.52
1:A:299:G:H2'	1:A:300:A:C8	2.44	0.52
1:A:434:U:H2'	1:A:435:C:C6	2.44	0.52
1:A:79:G:H1	1:A:90:U:H3	1.57	0.52
1:A:902:G:H2'	1:A:903:G:H8	1.74	0.52
1:A:922:G:C6	1:A:923:A:C6	2.97	0.52
3:C:26:LYS:NZ	10:J:45:ARG:HH22	2.06	0.52
4:D:35:ARG:O	4:D:36:ARG:HG3	2.09	0.52
13:M:2:ALA:O	13:M:10:PRO:HD2	2.09	0.52
16:P:3:LYS:HD3	16:P:24:ALA:HB2	1.90	0.52
1:A:1066:C:H2'	1:A:1067:A:H5'	1.91	0.52
1:A:1426:C:H42	1:A:1474:G:H1	1.56	0.52
1:A:977:A:N6	25:A:2230:HOH:O	2.42	0.52
3:C:89:GLU:HG3	3:C:93:LYS:HZ3	1.73	0.52
6:F:67:MET:HB2	6:F:68:PRO:HD2	1.90	0.52
8:H:58:TYR:O	8:H:59:LEU:HD23	2.08	0.52
1:A:1250:A:H4'	9:I:68:GLY:N	2.24	0.52
10:J:22:LYS:O	10:J:25:GLU:HB2	2.09	0.52
17:Q:90:ILE:O	17:Q:93:GLN:HB2	2.09	0.52
1:A:1228:C:OP1	13:M:115:LYS:HG3	2.09	0.52
1:A:144:G:H1	1:A:178:C:H42	1.57	0.52
1:A:788:U:H5''	1:A:789:U:OP2	2.08	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:36:ARG:HG2	4:D:38:TYR:OH	2.09	0.52
1:A:390:C:H4'	16:P:28:ARG:NH2	2.23	0.52
16:P:38:TYR:O	16:P:49:LEU:HD12	2.10	0.52
16:P:78:GLY:C	16:P:80:PHE:N	2.59	0.52
17:Q:27:PHE:O	17:Q:36:ILE:HD13	2.09	0.52
20:T:21:LYS:O	20:T:24:LEU:HB3	2.09	0.52
1:A:1403:C:C5	1:A:1404:5MC:HM52	2.43	0.52
1:A:804:U:H5''	1:A:805:C:OP2	2.10	0.52
1:A:818:G:H3'	1:A:819:A:H5''	1.91	0.52
2:B:25:ASN:OD1	2:B:27:LYS:N	2.38	0.52
10:J:37:PRO:HA	10:J:72:VAL:H	1.74	0.52
1:A:765:G:H5''	1:A:766:A:OP1	2.08	0.52
1:A:794:A:C3'	1:A:794:A:C8	2.90	0.52
1:A:112:G:C2'	1:A:113:G:H5'	2.39	0.52
1:A:1358:U:H5''	14:N:35:ARG:CD	2.40	0.52
1:A:1502:A:H2	1:A:1505:G:H1	1.57	0.52
2:B:158:LEU:HD23	2:B:159:PRO:CD	2.40	0.52
6:F:2:ARG:O	6:F:66:GLU:HA	2.08	0.52
12:L:27:LEU:CG	12:L:28:LYS:H	2.21	0.52
12:L:28:LYS:HE2	12:L:33:ARG:NH1	2.25	0.52
15:O:87:ILE:HG22	15:O:88:ARG:N	2.23	0.52
1:A:1488:G:C2'	1:A:1489:G:H5'	2.39	0.52
1:A:788:U:H3'	1:A:789:U:O4'	2.09	0.52
4:D:20:TYR:CD1	4:D:27:TYR:HE2	2.28	0.52
12:L:28:LYS:HE2	12:L:33:ARG:HH12	1.74	0.52
1:A:835:U:OP1	18:R:64:ARG:NH2	2.43	0.52
1:A:1070:U:H2'	1:A:1071:C:H6	1.73	0.52
1:A:552:U:H2'	1:A:553:A:H8	1.74	0.52
7:G:57:GLU:O	7:G:59:LEU:N	2.43	0.52
5:E:143:ARG:NH1	8:H:77:GLU:OE1	2.37	0.52
19:S:15:LEU:O	19:S:18:LYS:HG3	2.09	0.52
1:A:909:A:H2'	1:A:910:C:O4'	2.10	0.52
7:G:26:PHE:CD1	7:G:101:LEU:HD22	2.43	0.52
1:A:335:C:O2'	1:A:1433:A:N3	2.36	0.52
1:A:539:A:H2'	1:A:540:G:C8	2.45	0.52
2:B:62:ALA:HB1	2:B:222:ILE:HG23	1.92	0.52
4:D:128:VAL:HG12	4:D:129:ASN:ND2	2.24	0.52
7:G:26:PHE:CE2	7:G:124:LEU:HD11	2.45	0.52
12:L:39:VAL:HG22	12:L:57:LYS:HB2	1.92	0.52
13:M:23:TYR:CE2	13:M:71:ARG:HB3	2.45	0.52
1:A:1095:U:H2'	1:A:1096:C:O4'	2.10	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1112:C:O2	3:C:179:ARG:HG3	2.09	0.51
1:A:1202:G:C4	14:N:42:ILE:HD13	2.46	0.51
1:A:1225:A:H5'	1:A:1226:C:OP2	2.10	0.51
1:A:22:G:H2'	1:A:23:C:H6	1.75	0.51
1:A:448:A:H2'	1:A:449:C:C6	2.45	0.51
2:B:161:ALA:O	2:B:162:ILE:HD13	2.10	0.51
1:A:653:A:P	8:H:56:LYS:HZ1	2.32	0.51
10:J:22:LYS:HA	10:J:25:GLU:HG3	1.91	0.51
19:S:5:LEU:O	19:S:6:LYS:HE3	2.10	0.51
1:A:1152:A:H5'	10:J:13:HIS:HB2	1.92	0.51
3:C:157:ILE:H	3:C:157:ILE:HD13	1.75	0.51
14:N:21:TYR:CD1	14:N:21:TYR:N	2.77	0.51
1:A:1126:U:H4'	25:A:2105:HOH:O	2.09	0.51
1:A:1229:A:H2'	1:A:1230:C:C6	2.44	0.51
1:A:373:A:H1'	1:A:481:G:N3	2.25	0.51
2:B:24:TRP:HA	2:B:191:ASP:HA	1.91	0.51
12:L:41:ARG:HH21	12:L:43:VAL:HG13	1.74	0.51
20:T:56:MET:HE2	20:T:85:MET:HA	1.93	0.51
1:A:1314:C:O2'	1:A:1315:U:H5'	2.09	0.51
1:A:1342:C:O2'	9:I:124:GLN:HB2	2.11	0.51
4:D:68:TYR:HB3	4:D:70:ILE:HG12	1.90	0.51
7:G:108:ALA:HB2	7:G:123:GLU:HG2	1.91	0.51
8:H:53:VAL:HB	8:H:58:TYR:CD1	2.45	0.51
9:I:50:LEU:O	9:I:53:VAL:HG23	2.11	0.51
12:L:113:ARG:HH12	12:L:116:SER:H	1.59	0.51
13:M:8:GLU:CD	13:M:22:ILE:HA	2.31	0.51
16:P:10:GLY:HA3	16:P:14:ASN:O	2.09	0.51
18:R:70:ILE:O	18:R:73:ALA:N	2.44	0.51
1:A:1348:U:H2'	1:A:1348:U:O2	2.10	0.51
1:A:262:A:H2'	1:A:263:A:C8	2.46	0.51
7:G:76:ARG:O	7:G:87:VAL:HG23	2.11	0.51
8:H:86:ILE:HG21	8:H:133:LEU:HD13	1.93	0.51
1:A:1278:U:H5'	1:A:1279:A:C8	2.45	0.51
1:A:379:C:H42	1:A:384:G:H1	1.59	0.51
3:C:25:GLY:O	3:C:29:TYR:HB2	2.10	0.51
4:D:110:PHE:HE2	4:D:146:ILE:HG22	1.76	0.51
9:I:53:VAL:HG11	9:I:92:TYR:CE1	2.46	0.51
21:U:10:ARG:HD3	21:U:13:ILE:CD1	2.41	0.51
1:A:502:G:H2'	1:A:503:C:O4'	2.09	0.51
1:A:921:U:O2'	5:E:18:ARG:HG3	2.11	0.51
2:B:24:TRP:CG	2:B:25:ASN:N	2.78	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:71:VAL:HG22	2:B:93:VAL:HB	1.92	0.51
1:A:1026:G:HO2'	1:A:1027:C:P	2.33	0.51
1:A:1337:G:H5''	1:A:1338:G:OP1	2.10	0.51
1:A:157:G:H1	1:A:164:U:H3	1.58	0.51
9:I:5:TYR:CD2	9:I:6:GLY:N	2.79	0.51
13:M:92:HIS:HA	13:M:110:ARG:HH22	1.75	0.51
16:P:53:VAL:O	16:P:56:ALA:N	2.44	0.51
1:A:1145:C:HO2'	1:A:1146:A:P	2.34	0.51
1:A:1229:A:H2'	1:A:1230:C:H6	1.76	0.51
1:A:1241:G:H2'	1:A:1242:C:C6	2.46	0.51
1:A:1291:G:H2'	1:A:1292:U:C6	2.46	0.51
1:A:253:U:OP1	17:Q:67:LYS:HD3	2.11	0.51
2:B:16:HIS:NE2	2:B:204:ASN:N	2.58	0.51
2:B:62:ALA:CB	2:B:222:ILE:HG23	2.41	0.51
4:D:187:ARG:CZ	4:D:188:LEU:H	2.24	0.51
4:D:76:ARG:HD2	4:D:207:TYR:CE2	2.46	0.51
9:I:25:LYS:HG2	9:I:60:ASP:OD1	2.11	0.51
1:A:974:A:OP2	14:N:41:ARG:NH1	2.42	0.51
15:O:30:ALA:HA	15:O:85:LEU:HD11	1.93	0.51
16:P:26:ARG:HD3	16:P:31:LYS:O	2.11	0.51
1:A:718:G:H5'	11:K:117:ASN:HB2	1.92	0.51
1:A:803:G:C6	1:A:804:U:C4	2.99	0.51
1:A:77:G:C2	1:A:93:G:C2	2.99	0.51
3:C:29:TYR:OH	14:N:54:PRO:HD2	2.10	0.51
5:E:46:GLY:H	5:E:58:ALA:HB2	1.76	0.51
12:L:6:THR:OG1	12:L:9:GLN:HG3	2.11	0.51
1:A:1179:A:OP2	9:I:93:ARG:NH2	2.44	0.50
1:A:1290:G:H2'	1:A:1291:G:C8	2.43	0.50
1:A:373:A:C2	1:A:374:A:C8	3.00	0.50
1:A:933:G:OP2	7:G:3:ARG:HB3	2.11	0.50
7:G:42:ILE:HG22	7:G:120:ILE:HD12	1.93	0.50
8:H:84:ARG:O	8:H:135:CYS:HB2	2.12	0.50
10:J:45:ARG:HD2	14:N:36:PHE:HE2	1.75	0.50
1:A:263:A:OP2	20:T:79:ARG:NH1	2.44	0.50
1:A:1127:G:N2	1:A:1147:C:C4	2.79	0.50
1:A:22:G:C5	1:A:23:C:C5	2.99	0.50
1:A:113:G:C1'	1:A:354:G:H5'	2.40	0.50
1:A:730:G:C5	1:A:731:G:H1'	2.46	0.50
6:F:14:LEU:HD21	6:F:84:ASN:ND2	2.26	0.50
8:H:70:GLN:OE1	8:H:70:GLN:HA	2.11	0.50
9:I:105:ASP:OD2	9:I:107:ARG:HG3	2.10	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:53:ARG:HG2	12:L:69:TYR:CE1	2.46	0.50
20:T:43:LEU:HD12	20:T:52:ALA:HA	1.94	0.50
1:A:1465:C:H2'	1:A:1466:C:O4'	2.10	0.50
1:A:1518:MA6:H102	1:A:1519:MA6:H103	1.92	0.50
16:P:3:LYS:CA	16:P:64:ALA:HB1	2.41	0.50
1:A:1521:G:H2'	1:A:1522:U:C6	2.47	0.50
1:A:18:C:H5''	5:E:127:ASN:ND2	2.25	0.50
1:A:580:U:H2'	1:A:581:G:O4'	2.12	0.50
1:A:7:G:O6	5:E:92:LYS:NZ	2.35	0.50
1:A:858:G:O6	1:A:869:G:H3'	2.10	0.50
5:E:147:ASP:HA	5:E:150:ARG:HG2	1.94	0.50
1:A:193:C:H4'	20:T:61:SER:HB2	1.93	0.50
1:A:953:G:H2'	1:A:954:G:O4'	2.11	0.50
6:F:4:TYR:HB2	6:F:65:VAL:CG2	2.42	0.50
10:J:69:ASN:O	10:J:70:ARG:HD3	2.12	0.50
1:A:1281:U:H4'	1:A:1282:C:OP2	2.11	0.50
1:A:236:G:H2'	1:A:237:C:O4'	2.11	0.50
1:A:243:A:H4'	1:A:244:U:O5'	2.12	0.50
1:A:692:U:H1'	1:A:695:A:N7	2.27	0.50
1:A:882:C:O2'	1:A:883:C:H5'	2.12	0.50
4:D:108:LEU:HD23	4:D:174:LEU:HD13	1.94	0.50
3:C:167:TRP:HE3	3:C:168:ALA:N	2.06	0.50
1:A:109:A:C6	1:A:327:A:C6	3.00	0.50
3:C:166:GLU:HA	3:C:166:GLU:OE2	2.12	0.50
8:H:104:ARG:HG3	8:H:138:TRP:CD2	2.47	0.50
1:A:1249:C:HO2'	9:I:73:GLN:NE2	2.08	0.50
15:O:30:ALA:O	15:O:33:THR:N	2.45	0.50
1:A:1218:C:H2'	1:A:1219:U:C6	2.47	0.50
1:A:812:C:OP1	1:A:903:G:H1'	2.12	0.50
4:D:173:TRP:HE3	4:D:173:TRP:H	1.58	0.50
4:D:173:TRP:NE1	4:D:189:PRO:HB3	2.27	0.50
5:E:118:ILE:HG12	5:E:119:LEU:H	1.77	0.50
12:L:47:LYS:HG3	12:L:48:PRO:CD	2.40	0.50
1:A:1403:C:H2'	1:A:1404:5MC:H6	1.77	0.49
1:A:414:A:OP2	1:A:428:G:N2	2.38	0.49
1:A:657:G:C2'	1:A:658:G:H5'	2.42	0.49
5:E:11:ILE:HD11	5:E:105:VAL:HG13	1.93	0.49
1:A:1351:U:H4'	7:G:33:ASP:CG	2.32	0.49
7:G:87:VAL:HG12	7:G:88:PRO:HD2	1.93	0.49
8:H:112:LEU:HD23	8:H:133:LEU:HA	1.93	0.49
8:H:4:ASP:OD1	8:H:85:ARG:NH1	2.44	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:111:ARG:O	9:I:119:ALA:HB2	2.12	0.49
1:A:1061:G:H1'	10:J:56:HIS:CE1	2.47	0.49
1:A:1004:A:HO2'	1:A:1005:A:P	2.34	0.49
1:A:1025:U:H4'	1:A:1025:U:OP1	2.11	0.49
1:A:665:A:H3'	1:A:725:G:H21	1.76	0.49
10:J:16:LEU:HD13	10:J:70:ARG:HG2	1.93	0.49
18:R:36:ASN:O	18:R:40:LEU:HG	2.12	0.49
20:T:100:ILE:HD12	20:T:100:ILE:H	1.76	0.49
20:T:30:LYS:HG2	20:T:34:LYS:HE2	1.93	0.49
1:A:1317:C:OP2	14:N:17:LYS:NZ	2.23	0.49
2:B:108:ILE:HG22	2:B:152:PHE:CE2	2.47	0.49
1:A:426:G:H4'	4:D:41:GLY:O	2.11	0.49
10:J:64:GLU:HG2	14:N:59:ALA:HB2	1.94	0.49
17:Q:58:GLU:O	17:Q:59:ILE:HD13	2.12	0.49
1:A:66:G:N7	1:A:104:G:N2	2.59	0.49
1:A:66:G:N3	1:A:66:G:H2'	2.27	0.49
1:A:980:C:H3'	1:A:981:U:H6	1.76	0.49
1:A:980:C:H5'	1:A:981:U:OP2	2.12	0.49
7:G:77:SER:HA	7:G:86:GLN:HA	1.94	0.49
9:I:126:SER:CB	9:I:127:LYS:HD2	2.43	0.49
14:N:12:ARG:HB3	14:N:14:PRO:HD3	1.94	0.49
1:A:1314:C:N4	19:S:4:SER:OG	2.43	0.49
1:A:690:G:C6	1:A:691:G:C6	3.01	0.49
2:B:153:ARG:HH11	2:B:153:ARG:HB2	1.78	0.49
7:G:32:ARG:O	7:G:34:GLY:N	2.45	0.49
1:A:1029:C:N4	1:A:1032:G:H22	2.09	0.49
2:B:112:VAL:HG23	2:B:149:LEU:HD13	1.94	0.49
2:B:212:GLN:O	2:B:216:SER:HB3	2.13	0.49
4:D:9:CYS:O	4:D:12:CYS:HB2	2.13	0.49
5:E:40:ARG:HG2	5:E:40:ARG:HH11	1.77	0.49
7:G:17:VAL:HB	7:G:44:TYR:OH	2.11	0.49
10:J:27:ALA:O	10:J:30:SER:OG	2.22	0.49
11:K:11:LYS:HE3	11:K:11:LYS:N	2.28	0.49
21:U:5:ASP:O	21:U:8:THR:OG1	2.30	0.49
1:A:1005:A:H5''	1:A:1006:C:C5	2.48	0.49
1:A:1067:A:HO2'	1:A:1094:G:H5'	1.77	0.49
4:D:173:TRP:CD1	4:D:189:PRO:HB3	2.46	0.49
1:A:1148:U:H2'	1:A:1149:C:O4'	2.13	0.49
1:A:1241:G:H2'	1:A:1242:C:H6	1.77	0.49
1:A:1280:A:H3'	1:A:1281:U:H5''	1.93	0.49
1:A:177:C:OP2	20:T:65:LYS:NZ	2.46	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:748:C:H4'	1:A:749:C:O5'	2.13	0.49
3:C:120:VAL:O	3:C:123:GLN:HB2	2.13	0.49
3:C:79:ARG:NH1	3:C:82:GLU:HB3	2.26	0.49
4:D:102:ASP:OD1	4:D:103:ASN:N	2.44	0.49
13:M:108:ARG:HD3	13:M:114:ARG:NH1	2.28	0.49
14:N:21:TYR:HD1	14:N:21:TYR:N	2.11	0.49
15:O:4:THR:OG1	15:O:5:LYS:N	2.46	0.49
11:K:91:ARG:HH11	18:R:88:LYS:NZ	2.11	0.49
21:U:15:ARG:HG3	21:U:15:ARG:HH11	1.77	0.49
1:A:448:A:H2'	1:A:449:C:H6	1.78	0.49
1:A:59:A:H3'	1:A:331:G:H22	1.77	0.49
1:A:676:A:H1'	11:K:115:PRO:HB3	1.95	0.49
15:O:34:LEU:O	15:O:38:ARG:HG2	2.12	0.49
13:M:84:ILE:HB	19:S:74:PHE:HE2	1.77	0.49
1:A:1370:G:C2	1:A:1371:G:N7	2.80	0.49
1:A:1474:G:H2'	1:A:1475:G:C8	2.46	0.49
1:A:273:A:N6	1:A:274:A:C6	2.81	0.49
1:A:328:C:HO2'	1:A:329:A:P	2.32	0.49
1:A:420:U:H3'	1:A:422:C:N4	2.27	0.49
2:B:185:ILE:HG22	2:B:199:TYR:HB2	1.95	0.49
5:E:118:ILE:HG12	5:E:119:LEU:N	2.28	0.49
8:H:86:ILE:HG22	8:H:87:SER:N	2.27	0.49
12:L:78:GLN:O	12:L:81:SER:HB2	2.13	0.49
1:A:376:G:OP2	16:P:67:THR:HG21	2.13	0.49
20:T:39:LYS:HD3	20:T:55:ILE:HD12	1.95	0.49
1:A:1372:U:C2'	1:A:1373:G:H5'	2.43	0.48
1:A:1419:G:H1	1:A:1481:U:H3	1.61	0.48
1:A:1505:G:C3'	1:A:1505:G:C8	2.93	0.48
1:A:44:G:H2'	1:A:45:U:O4'	2.14	0.48
7:G:17:VAL:HG12	7:G:18:TYR:CD1	2.37	0.48
7:G:92:SER:HG	7:G:95:ARG:H	1.55	0.48
7:G:9:VAL:HG12	7:G:10:ARG:O	2.13	0.48
9:I:33:PHE:CE2	9:I:43:ALA:HB1	2.48	0.48
10:J:65:LEU:HB2	14:N:56:VAL:HG22	1.95	0.48
11:K:31:THR:C	11:K:32:ILE:HD13	2.33	0.48
13:M:54:VAL:HA	13:M:57:ARG:HD3	1.94	0.48
17:Q:100:LYS:HA	17:Q:100:LYS:HE2	1.95	0.48
1:A:1029:C:H2'	1:A:1030:C:H5'	1.95	0.48
1:A:107:G:N2	1:A:108:G:H1'	2.28	0.48
1:A:1451:A:H5''	1:A:1452:C:H5	1.78	0.48
1:A:355:C:H5'	1:A:389:A:OP2	2.12	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:518:C:H5''	1:A:519:C:C6	2.49	0.48
4:D:21:LEU:HD21	4:D:66:ARG:O	2.13	0.48
5:E:137:GLU:HG3	5:E:141:GLN:HE21	1.78	0.48
13:M:11:ARG:HD2	13:M:45:VAL:CG1	2.43	0.48
16:P:26:ARG:HG2	16:P:26:ARG:HH11	1.78	0.48
16:P:20:VAL:HG13	16:P:32:TYR:CD2	2.47	0.48
17:Q:63:ARG:HG2	17:Q:64:PRO:HD2	1.94	0.48
20:T:60:GLU:HA	20:T:63:ILE:HD12	1.95	0.48
1:A:1126:U:H3'	1:A:1127:G:C8	2.29	0.48
1:A:1470:G:C2'	1:A:1471:G:H5'	2.43	0.48
1:A:1504:G:H5''	1:A:1504:G:H8	1.79	0.48
1:A:216:G:C2	1:A:217:C:C4	3.01	0.48
3:C:91:LEU:HD21	3:C:99:VAL:HG22	1.95	0.48
9:I:5:TYR:HD2	9:I:6:GLY:N	2.11	0.48
16:P:78:GLY:C	16:P:80:PHE:H	2.12	0.48
1:A:1326:C:OP1	21:U:12:LYS:HE2	2.13	0.48
1:A:1065:U:C5	1:A:1190:G:H1'	2.49	0.48
1:A:1426:C:H2'	1:A:1427:U:C6	2.48	0.48
1:A:184:G:H2'	1:A:185:A:H8	1.77	0.48
1:A:491:G:C4	1:A:492:G:C8	3.01	0.48
1:A:778:G:O5'	1:A:778:G:H8	1.96	0.48
2:B:32:ILE:CG2	2:B:40:HIS:HB3	2.44	0.48
2:B:92:TYR:N	2:B:92:TYR:CD2	2.81	0.48
3:C:112:SER:OG	3:C:112:SER:O	2.26	0.48
8:H:96:GLY:HA2	8:H:130:GLY:HA3	1.95	0.48
8:H:31:PHE:O	8:H:35:ILE:HG12	2.14	0.48
1:A:1329:A:C5'	13:M:29:ARG:HD2	2.43	0.48
16:P:53:VAL:O	16:P:54:GLU:C	2.51	0.48
1:A:277:C:H5'	17:Q:68:ARG:NH1	2.28	0.48
1:A:102:G:H2'	1:A:103:C:H6	1.79	0.48
1:A:935:A:H61	7:G:3:ARG:HG3	1.79	0.48
13:M:57:ARG:O	13:M:61:GLU:HB2	2.14	0.48
19:S:18:LYS:HD3	19:S:19:VAL:HB	1.95	0.48
1:A:1128:C:O2'	1:A:1130:A:OP2	2.23	0.48
1:A:1132:C:H2'	1:A:1133:G:H8	1.79	0.48
1:A:1196:U:H3'	1:A:1197:G:H5'	1.94	0.48
1:A:1285:A:H8	1:A:1285:A:O5'	1.97	0.48
4:D:60:GLU:HA	4:D:60:GLU:OE1	2.13	0.48
1:A:1026:G:O2'	1:A:1027:C:P	2.71	0.48
1:A:1029:C:H42	1:A:1032:G:H1	1.61	0.48
1:A:1496:C:HO2'	1:A:1497:G:P	2.31	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:37:U:H2'	1:A:38:G:O4'	2.14	0.48
1:A:481:G:O2'	1:A:482:A:O5'	2.27	0.48
1:A:93:G:C2	1:A:95:U:C2	3.02	0.48
2:B:60:ASP:O	2:B:64:ARG:HB2	2.13	0.48
4:D:15:GLU:HG3	4:D:63:LYS:HD3	1.95	0.48
4:D:38:TYR:CE1	4:D:45:GLN:HG2	2.48	0.48
11:K:40:ILE:HA	11:K:40:ILE:HD13	1.69	0.48
15:O:38:ARG:O	15:O:41:GLU:HB3	2.13	0.48
15:O:56:LEU:O	15:O:60:VAL:HG23	2.13	0.48
17:Q:29:HIS:ND1	17:Q:30:PRO:HD2	2.29	0.48
20:T:81:LYS:O	20:T:85:MET:HG3	2.13	0.48
1:A:1068:G:H8	1:A:1068:G:OP2	1.97	0.48
1:A:1542:U:H2'	1:A:1543:C:C6	2.49	0.48
1:A:438:G:H4'	4:D:123:HIS:ND1	2.28	0.48
1:A:597:G:H1'	1:A:644:G:N2	2.29	0.48
1:A:706:A:H1'	11:K:29:ILE:HD11	1.96	0.48
1:A:953:G:C6	1:A:954:G:C4	3.01	0.48
2:B:17:PHE:CD1	2:B:18:GLY:N	2.81	0.48
7:G:26:PHE:O	7:G:30:ILE:HD12	2.12	0.48
1:A:1361(A):C:O2	1:A:1362:C:H5	1.97	0.48
1:A:518:C:OP2	1:A:530:G:H1'	2.14	0.48
1:A:575:G:HO2'	1:A:821:G:H5'	1.79	0.48
1:A:686:U:O2'	1:A:687:A:C8	2.60	0.48
1:A:767:A:H2'	1:A:768:A:O4'	2.14	0.48
1:A:744:C:H4'	1:A:852:G:O2'	2.14	0.48
2:B:16:HIS:CD2	2:B:204:ASN:H	2.32	0.48
4:D:15:GLU:CG	4:D:63:LYS:HD3	2.43	0.48
4:D:32:ALA:O	4:D:36:ARG:N	2.47	0.48
12:L:77:LEU:HD21	12:L:107:ALA:HB2	1.96	0.48
17:Q:40:LYS:HD3	17:Q:42:TYR:OH	2.13	0.48
1:A:1157:A:H4'	1:A:1158:C:O5'	2.14	0.48
1:A:1265:G:H2'	1:A:1266:G:O4'	2.14	0.48
1:A:436:C:H2'	1:A:437:U:H6	1.78	0.48
4:D:200:GLU:HG2	4:D:201:GLN:H	1.78	0.48
5:E:107:ARG:O	5:E:111:GLU:HB2	2.14	0.48
10:J:54:PHE:O	10:J:55:LYS:HG3	2.14	0.48
11:K:19:ALA:HB2	11:K:80:VAL:HG11	1.96	0.48
1:A:1202:G:O2'	14:N:27:CYS:SG	2.66	0.48
1:A:34:C:H2'	1:A:35:G:C8	2.49	0.47
1:A:818:G:C3'	1:A:819:A:H5''	2.44	0.47
2:B:185:ILE:HG22	2:B:199:TYR:O	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:48:TYR:HA	8:H:60:ARG:O	2.14	0.47
17:Q:22:LEU:HA	17:Q:22:LEU:HD12	1.53	0.47
1:A:576:G:H3'	1:A:577:G:H5''	1.96	0.47
1:A:914:G:P	22:A:1601:SRY:HI33	2.53	0.47
1:A:943:U:H2'	1:A:944:G:H5'	1.97	0.47
2:B:196:LEU:HD22	2:B:196:LEU:HA	1.56	0.47
6:F:22:GLU:HA	6:F:25:ILE:HD12	1.96	0.47
8:H:96:GLY:O	8:H:97:VAL:C	2.52	0.47
9:I:111:ARG:O	9:I:113:LYS:HD2	2.14	0.47
9:I:19:LEU:HD12	9:I:84:ALA:HB3	1.97	0.47
12:L:84:LEU:HB3	12:L:101:VAL:HG23	1.96	0.47
12:L:11:VAL:HG12	12:L:12:ARG:N	2.29	0.47
6:F:99:ALA:HB1	18:R:62:GLU:OE2	2.14	0.47
20:T:92:LEU:O	20:T:96:GLY:HA2	2.13	0.47
1:A:106:C:C2'	1:A:107:G:H5'	2.43	0.47
1:A:1304:G:C6	1:A:1305:G:N1	2.82	0.47
1:A:1505:G:H4'	1:A:1506:U:H5''	1.95	0.47
4:D:194:LEU:HD12	4:D:195:ALA:H	1.77	0.47
7:G:5:ARG:NH1	7:G:8:GLU:HG3	2.20	0.47
2:B:179:LYS:HA	8:H:72:PRO:HD3	1.96	0.47
9:I:17:VAL:HG13	9:I:63:ILE:HG12	1.95	0.47
11:K:18:ARG:HB2	11:K:33:THR:CG2	2.45	0.47
16:P:66:PRO:HD2	16:P:71:ARG:NH1	2.29	0.47
20:T:57:ARG:HD3	20:T:102:GLY:HA3	1.96	0.47
1:A:1244:C:OP1	21:U:9:ARG:HB2	2.14	0.47
1:A:949:A:C2	1:A:1233:G:N3	2.82	0.47
1:A:559:A:O2'	1:A:560:U:OP2	2.24	0.47
2:B:32:ILE:HG21	2:B:40:HIS:HB3	1.95	0.47
7:G:140:ASP:O	7:G:144:MET:HG3	2.13	0.47
8:H:2:LEU:HD23	8:H:2:LEU:HA	1.68	0.47
11:K:32:ILE:N	11:K:32:ILE:HD13	2.29	0.47
20:T:53:LEU:HA	20:T:56:MET:HB3	1.96	0.47
1:A:1411:C:N4	1:A:1489:G:H1	2.10	0.47
1:A:234:C:H2'	1:A:235:C:C6	2.49	0.47
1:A:250:A:O5'	1:A:250:A:H8	1.96	0.47
1:A:405:U:O4	4:D:2:GLY:HA2	2.15	0.47
1:A:49:U:O2'	1:A:50:A:H2'	2.15	0.47
1:A:781:A:C5	1:A:802:A:C2	3.02	0.47
2:B:236:TYR:HD2	2:B:239:VAL:HG21	1.79	0.47
2:B:97:TRP:CH2	2:B:101:MET:HB2	2.50	0.47
3:C:88:ARG:HG2	3:C:101:LEU:HB2	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:114:ARG:HG3	4:D:114:ARG:HH11	1.79	0.47
5:E:143:ARG:NH1	8:H:77:GLU:OE2	2.48	0.47
14:N:4:LYS:HB3	14:N:4:LYS:HE2	1.58	0.47
17:Q:53:LEU:HD12	17:Q:85:VAL:HG21	1.96	0.47
1:A:1004:A:H5''	1:A:1025:U:N3	2.28	0.47
1:A:1210:C:HO2'	1:A:1213:A:HO2'	1.60	0.47
1:A:1460:A:OP2	20:T:27:LYS:NZ	2.47	0.47
1:A:452:A:H2'	1:A:453:A:C8	2.50	0.47
1:A:500:G:H2'	1:A:501:C:C6	2.49	0.47
1:A:835:U:H3	1:A:851:G:H1	1.62	0.47
4:D:9:CYS:SG	4:D:31:CYS:O	2.73	0.47
5:E:82:VAL:O	5:E:88:LYS:HA	2.14	0.47
7:G:116:ALA:O	7:G:120:ILE:HG13	2.15	0.47
7:G:134:ALA:O	7:G:137:LYS:N	2.47	0.47
10:J:49:VAL:HG21	14:N:44:LEU:HD23	1.96	0.47
12:L:41:ARG:NH2	12:L:43:VAL:HG13	2.28	0.47
17:Q:31:LEU:HA	17:Q:31:LEU:HD12	1.49	0.47
17:Q:38:ARG:HA	17:Q:38:ARG:HD3	1.48	0.47
1:A:1293:G:H2'	1:A:1294:G:O4'	2.14	0.47
1:A:1237:C:C4	1:A:1336:C:O2	2.68	0.47
1:A:146:G:C2	1:A:147:G:C4	3.03	0.47
1:A:766:A:P	25:A:2188:HOH:O	2.72	0.47
2:B:189:ASP:OD1	2:B:189:ASP:N	2.47	0.47
2:B:96:ARG:O	2:B:98:LEU:HD23	2.15	0.47
3:C:88:ARG:HA	3:C:91:LEU:HD22	1.97	0.47
18:R:37:VAL:CG2	18:R:78:LEU:HB3	2.45	0.47
1:A:455:C:H6	1:A:455:C:O5'	1.98	0.47
1:A:765:G:H8	1:A:765:G:O5'	1.98	0.47
1:A:954:G:C6	1:A:955:U:N3	2.83	0.47
4:D:70:ILE:HG22	4:D:71:SER:O	2.14	0.47
1:A:935:A:N6	7:G:3:ARG:HG3	2.29	0.47
8:H:104:ARG:HG2	8:H:104:ARG:HH11	1.79	0.47
1:A:1228:C:N4	13:M:104:ARG:O	2.42	0.47
18:R:26:LEU:HD12	18:R:42:ARG:HH11	1.79	0.47
1:A:1147:C:H2'	1:A:1148:U:C6	2.49	0.47
1:A:1239:A:C4	1:A:1298:C:N4	2.82	0.47
1:A:286:G:H2'	1:A:287:U:H6	1.80	0.47
1:A:289:G:P	25:A:1908:HOH:O	2.73	0.47
1:A:509:A:H4'	1:A:510:A:OP1	2.15	0.47
3:C:33:LEU:HD21	14:N:53:LEU:HD22	1.96	0.47
4:D:10:ARG:O	4:D:13:ARG:HB2	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:19:C:P	5:E:127:ASN:HD22	2.37	0.47
9:I:89:ASN:O	9:I:92:TYR:HB2	2.15	0.47
12:L:19:ARG:H	12:L:19:ARG:HG2	1.21	0.47
1:A:751:U:H4'	15:O:24:SER:HB3	1.97	0.47
1:A:1055:A:H1'	3:C:156:ARG:NH2	2.30	0.47
1:A:355:C:C4	1:A:356:A:N7	2.83	0.47
1:A:500:G:C6	1:A:501:C:C4	3.03	0.47
1:A:724:G:O2'	1:A:725:G:H5'	2.14	0.47
1:A:975:A:HO2'	1:A:976:G:P	2.37	0.47
5:E:98:THR:HB	5:E:117:ASP:HB3	1.96	0.47
8:H:20:TYR:CE2	8:H:75:ARG:HD2	2.50	0.47
1:A:1332:A:H2'	1:A:1333:A:H8	1.80	0.47
1:A:1347:G:O2'	1:A:1348:U:P	2.73	0.47
1:A:1518:MA6:C10	1:A:1519:MA6:H103	2.44	0.47
1:A:285:G:O2'	1:A:286:G:H5'	2.15	0.47
1:A:667:G:H4'	15:O:51:HIS:ND1	2.30	0.47
4:D:158:ILE:HA	4:D:158:ILE:HD13	1.76	0.47
4:D:176:LEU:HD21	4:D:178:VAL:HB	1.96	0.47
5:E:71:LEU:CD2	5:E:115:VAL:HG22	2.43	0.47
1:A:1298:C:OP2	7:G:114:ARG:NH2	2.48	0.47
8:H:36:LEU:HD23	8:H:39:LEU:HD23	1.97	0.47
1:A:1225:A:H5''	1:A:1226:C:H5	1.80	0.46
1:A:1498:UR3:H6	1:A:1498:UR3:O5'	2.14	0.46
1:A:701:C:H4'	1:A:702:A:C5'	2.43	0.46
1:A:996:A:C8	1:A:997:U:C5	3.03	0.46
8:H:10:LEU:HA	8:H:10:LEU:HD23	1.57	0.46
13:M:96:LEU:HD23	13:M:96:LEU:HA	1.69	0.46
15:O:49:ASP:OD2	15:O:52:SER:OG	2.26	0.46
16:P:18:ARG:HD3	16:P:35:LYS:HD2	1.97	0.46
19:S:31:ILE:CG2	19:S:49:ILE:HD13	2.39	0.46
1:A:102:G:H2'	1:A:103:C:C6	2.51	0.46
1:A:34:C:H2'	1:A:35:G:H8	1.80	0.46
1:A:519:C:OP2	12:L:50:SER:OG	2.29	0.46
1:A:833:U:H2'	1:A:834:C:C6	2.51	0.46
1:A:954:G:H5''	1:A:955:U:OP2	2.15	0.46
3:C:155:GLY:HA2	3:C:164:ARG:H	1.80	0.46
3:C:39:ILE:CG2	3:C:91:LEU:HD12	2.45	0.46
5:E:123:LEU:HA	5:E:123:LEU:HD23	1.53	0.46
10:J:19:SER:HB2	10:J:91:PRO:HB3	1.97	0.46
11:K:19:ALA:HB3	11:K:82:VAL:HG22	1.96	0.46
1:A:1293:G:C2	1:A:1294:G:C4	3.03	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:622:A:H5''	1:A:623:C:OP2	2.15	0.46
1:A:6:G:O2'	1:A:7:G:H5''	2.16	0.46
2:B:91:PRO:HG3	2:B:155:LEU:CD2	2.45	0.46
2:B:158:LEU:HD23	2:B:159:PRO:HD2	1.97	0.46
3:C:153:VAL:CG1	3:C:166:GLU:HB2	2.38	0.46
4:D:65:ARG:HG3	4:D:75:PHE:CG	2.50	0.46
7:G:75:VAL:HG11	7:G:86:GLN:HB3	1.97	0.46
1:A:1280:A:H5'	10:J:40:LEU:HD22	1.96	0.46
10:J:31:GLY:HA3	10:J:81:THR:OG1	2.15	0.46
13:M:12:ASN:H	13:M:45:VAL:CG1	2.27	0.46
15:O:67:LEU:HD13	15:O:78:TYR:CE1	2.40	0.46
17:Q:56:VAL:O	17:Q:77:VAL:N	2.41	0.46
1:A:1305:G:OP2	1:A:1305:G:C8	2.69	0.46
1:A:451:A:N7	1:A:481:G:C2	2.84	0.46
1:A:579:G:H2'	1:A:580:U:C6	2.50	0.46
1:A:668:G:O4'	15:O:49:ASP:HB2	2.16	0.46
12:L:126:LYS:HG2	12:L:128:ALA:HB2	1.97	0.46
12:L:31:PRO:O	12:L:32:PHE:CG	2.68	0.46
1:A:1311:G:H5''	1:A:1312:G:OP2	2.16	0.46
1:A:1470:G:H2'	1:A:1471:G:H5'	1.98	0.46
1:A:392:G:C2	1:A:393:A:C4	3.03	0.46
1:A:838:G:C2'	1:A:839:U:H5''	2.45	0.46
4:D:131:ARG:NH1	4:D:131:ARG:HB2	2.30	0.46
4:D:186:LEU:HD23	4:D:186:LEU:N	2.31	0.46
11:K:82:VAL:HG11	11:K:95:ILE:HD11	1.97	0.46
1:A:976:G:OP1	14:N:32:SER:HA	2.15	0.46
20:T:63:ILE:O	20:T:66:ALA:HB3	2.15	0.46
1:A:1014:A:C2	19:S:34:TRP:CD1	3.04	0.46
1:A:1174:G:H2'	1:A:1175:G:C8	2.51	0.46
1:A:927:G:H4'	1:A:1503:A:N7	2.30	0.46
1:A:448:A:C2	1:A:449:C:C4	3.04	0.46
1:A:463:A:H2'	1:A:474:G:C8	2.51	0.46
1:A:614:A:P	4:D:86:LYS:HZ1	2.39	0.46
1:A:686:U:O2'	1:A:687:A:O5'	2.34	0.46
1:A:89:C:C2'	1:A:90:U:H5'	2.46	0.46
1:A:954:G:N2	1:A:1227:A:H62	2.13	0.46
8:H:113:SER:HB2	8:H:134:ILE:HD11	1.97	0.46
19:S:6:LYS:HB3	19:S:7:LYS:H	1.33	0.46
1:A:1067:A:O5'	1:A:1067:A:H8	1.98	0.46
1:A:1495:U:O2'	1:A:1496:C:H5'	2.16	0.46
2:B:132:LYS:O	2:B:136:VAL:HG23	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:155:GLY:HA2	3:C:164:ARG:O	2.15	0.46
6:F:33:TYR:HE2	6:F:74:ASP:CB	2.29	0.46
12:L:120:TYR:O	12:L:122:THR:HG22	2.16	0.46
13:M:23:TYR:CZ	13:M:71:ARG:HB3	2.50	0.46
15:O:29:VAL:HG11	15:O:81:LEU:HD13	1.97	0.46
1:A:1152:A:H2'	1:A:1153:C:O4'	2.16	0.46
7:G:108:ALA:O	7:G:119:ARG:HB3	2.16	0.46
8:H:101:PRO:HG3	8:H:133:LEU:HD11	1.97	0.46
9:I:80:GLY:HA2	9:I:83:ARG:HG3	1.97	0.46
11:K:99:GLN:HE21	11:K:105:VAL:HG21	1.80	0.46
1:A:1228:C:H5''	1:A:1228:C:H6	1.81	0.46
1:A:1447:G:C6	1:A:1460:A:C2	3.04	0.46
1:A:1542:U:H2'	1:A:1543:C:C5	2.50	0.46
1:A:216:G:O2'	1:A:217:C:O5'	2.34	0.46
1:A:279:A:H8	1:A:279:A:H5'	1.81	0.46
1:A:78:G:N1	1:A:92:C:C4	2.84	0.46
2:B:24:TRP:HB3	2:B:40:HIS:CE1	2.51	0.46
8:H:20:TYR:HE2	8:H:75:ARG:HD2	1.80	0.46
11:K:18:ARG:HB2	11:K:33:THR:HG23	1.98	0.46
11:K:29:ILE:C	11:K:29:ILE:HD12	2.37	0.46
11:K:85:ARG:CD	11:K:111:ASP:HB3	2.46	0.46
13:M:67:GLU:O	13:M:71:ARG:HG2	2.16	0.46
13:M:67:GLU:HB3	13:M:68:GLY:H	1.55	0.46
13:M:82:MET:HA	13:M:89:GLY:HA3	1.97	0.46
10:J:62:HIS:HB2	14:N:59:ALA:HB3	1.97	0.46
17:Q:81:ARG:HB2	17:Q:84:LEU:CD1	2.46	0.46
19:S:26:GLY:O	19:S:27:GLU:HG2	2.16	0.46
1:A:1097:C:C4	1:A:1098:C:N4	2.84	0.46
1:A:1392:G:N2	1:A:1502:A:H8	2.12	0.46
1:A:1399:C:O2	1:A:1401:G:C5	2.69	0.46
1:A:369:C:OP2	1:A:388:G:N2	2.45	0.46
1:A:616:G:H1'	1:A:625:G:N2	2.31	0.46
6:F:47:ARG:HA	6:F:57:GLN:HB3	1.98	0.46
6:F:79:LEU:HD23	6:F:79:LEU:HA	1.50	0.46
8:H:36:LEU:HA	8:H:36:LEU:HD23	1.63	0.46
10:J:6:ILE:HG22	10:J:7:LYS:N	2.31	0.46
11:K:65:ALA:HB1	11:K:98:LEU:CD1	2.38	0.46
1:A:324:G:OP1	20:T:22:ARG:HD2	2.15	0.45
1:A:344:A:H4'	1:A:345:C:OP2	2.15	0.45
1:A:475:G:C4	1:A:476:G:C8	3.04	0.45
1:A:657:G:H2'	1:A:658:G:H5'	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:661:G:H1	1:A:744:C:H42	1.63	0.45
3:C:202:ILE:CG2	3:C:204:LEU:HD23	2.45	0.45
3:C:22:TRP:CH2	3:C:32:LEU:HB2	2.51	0.45
3:C:21:ARG:NH2	3:C:56:ASP:HB3	2.31	0.45
8:H:28:ALA:HB3	8:H:57:PRO:HB2	1.98	0.45
17:Q:8:GLY:O	17:Q:56:VAL:HG13	2.16	0.45
1:A:1323:G:N7	19:S:3:ARG:HD2	2.31	0.45
1:A:1081:G:H5''	1:A:1081:G:H8	1.81	0.45
1:A:1221:G:H2'	1:A:1222:G:O4'	2.16	0.45
1:A:1277:C:O2'	1:A:1279:A:H1'	2.16	0.45
1:A:1374:A:OP1	7:G:36:LYS:NZ	2.49	0.45
1:A:446:G:H2'	1:A:447:G:H5'	1.98	0.45
2:B:223:ILE:O	2:B:227:GLY:N	2.50	0.45
4:D:110:PHE:HD1	4:D:162:LEU:HD21	1.80	0.45
5:E:151:LEU:HD23	5:E:151:LEU:HA	1.64	0.45
11:K:85:ARG:HD3	11:K:111:ASP:HB3	1.97	0.45
15:O:14:GLU:HB3	15:O:15:PHE:CD1	2.51	0.45
15:O:34:LEU:HD23	15:O:35:ARG:N	2.31	0.45
20:T:53:LEU:HB2	20:T:100:ILE:HD13	1.97	0.45
1:A:397:A:H5'	1:A:398:C:OP1	2.15	0.45
1:A:474:G:H4'	16:P:81:ARG:NH2	2.31	0.45
1:A:532:A:O2'	1:A:533:A:P	2.72	0.45
1:A:653:A:P	8:H:56:LYS:NZ	2.89	0.45
1:A:974:A:C8	14:N:31:ARG:HG2	2.50	0.45
2:B:44:LEU:HD23	2:B:44:LEU:HA	1.64	0.45
3:C:87:LEU:O	3:C:91:LEU:HB3	2.17	0.45
7:G:45:ASP:O	7:G:49:ILE:HG13	2.15	0.45
8:H:124:ALA:O	8:H:128:GLY:N	2.49	0.45
9:I:63:ILE:CG2	9:I:77:ILE:HG12	2.46	0.45
1:A:1358:U:H5'	14:N:35:ARG:H	1.81	0.45
16:P:60:LEU:HD23	16:P:60:LEU:HA	1.40	0.45
1:A:721:G:C6	1:A:733:A:C2	3.05	0.45
1:A:858:G:C5	25:A:2220:HOH:O	2.68	0.45
4:D:172:PRO:HD2	4:D:173:TRP:CZ3	2.52	0.45
7:G:3:ARG:HH11	7:G:3:ARG:HG2	1.81	0.45
7:G:40:ALA:CB	9:I:41:VAL:HG21	2.47	0.45
10:J:12:ASP:HB3	10:J:15:THR:CG2	2.46	0.45
15:O:18:PHE:CZ	15:O:21:ASP:HB2	2.51	0.45
16:P:40:ASP:HA	16:P:41:PRO:HD3	1.84	0.45
17:Q:43:LEU:HD23	17:Q:43:LEU:HA	1.51	0.45
21:U:18:TYR:CG	21:U:24:ARG:HG2	2.52	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1174:G:C2	1:A:1175:G:C5	3.05	0.45
1:A:1372:U:O2'	1:A:1373:G:H5'	2.17	0.45
1:A:1442:G:N1	1:A:1446:A:N7	2.64	0.45
1:A:1527:C:O2'	1:A:1528:U:H5'	2.16	0.45
1:A:284:G:H2'	1:A:285:G:H8	1.81	0.45
1:A:350:G:C5'	1:A:350:G:H8	2.29	0.45
1:A:690:G:H2'	1:A:691:G:O4'	2.16	0.45
1:A:837:G:N2	1:A:850:U:O2	2.49	0.45
3:C:35:GLU:O	3:C:39:ILE:HG13	2.16	0.45
1:A:983:A:P	14:N:3:ARG:HH22	2.40	0.45
16:P:53:VAL:HG23	16:P:54:GLU:N	2.31	0.45
20:T:10:LEU:HD13	20:T:11:SER:N	2.30	0.45
1:A:1021:G:H2'	1:A:1021:G:N3	2.32	0.45
1:A:991:U:O4	1:A:1212:U:H1'	2.16	0.45
1:A:192:U:H2'	1:A:193:C:H6	1.81	0.45
1:A:757:U:H5''	1:A:822:C:O2	2.17	0.45
1:A:82:U:O2'	1:A:83:U:H5'	2.16	0.45
2:B:92:TYR:CD1	2:B:94:ASN:HB2	2.52	0.45
4:D:194:LEU:HD13	4:D:194:LEU:HA	1.47	0.45
6:F:14:LEU:HB3	6:F:18:GLN:HB2	1.97	0.45
6:F:40:VAL:HG23	6:F:63:TYR:CD1	2.51	0.45
8:H:86:ILE:HD13	8:H:86:ILE:HA	1.59	0.45
14:N:53:LEU:O	14:N:56:VAL:HB	2.17	0.45
15:O:45:VAL:HB	15:O:46:HIS:ND1	2.32	0.45
15:O:70:LEU:HD12	15:O:78:TYR:HA	1.97	0.45
15:O:70:LEU:HD22	15:O:70:LEU:HA	1.58	0.45
1:A:1300:G:O5'	1:A:1335:C:N4	2.50	0.45
1:A:1418:A:H2'	1:A:1419:G:O4'	2.17	0.45
1:A:200:G:H1	1:A:217:C:N4	2.10	0.45
1:A:243:A:C2	1:A:246:A:C8	3.04	0.45
1:A:74:C:H2'	1:A:75:G:C8	2.52	0.45
1:A:830:G:C6	1:A:831:U:C4	3.05	0.45
3:C:150:LYS:HB2	3:C:169:ALA:HB2	1.99	0.45
17:Q:10:VAL:O	17:Q:53:LEU:HD13	2.17	0.45
1:A:1036:G:N7	1:A:1037:C:C4	2.85	0.45
1:A:1070:U:H2'	1:A:1071:C:C6	2.52	0.45
1:A:1323:G:H2'	1:A:1324:A:C8	2.51	0.45
22:A:1601:SRY:HB11	22:A:1601:SRY:H11	1.55	0.45
1:A:35:G:C4	1:A:36:C:C5	3.05	0.45
1:A:451:A:N6	1:A:481:G:C5	2.85	0.45
1:A:778:G:H2'	1:A:779:C:O4'	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:15:VAL:HG22	2:B:209:ARG:NH1	2.32	0.45
2:B:217:ARG:HA	2:B:217:ARG:HD3	1.55	0.45
3:C:119:ARG:O	3:C:123:GLN:HG3	2.16	0.45
4:D:15:GLU:O	4:D:17:VAL:HG23	2.17	0.45
4:D:186:LEU:HD23	4:D:186:LEU:H	1.81	0.45
6:F:26:ILE:HG21	6:F:63:TYR:HE2	1.80	0.45
8:H:10:LEU:HD12	8:H:85:ARG:HB2	1.98	0.45
14:N:25:VAL:HG23	14:N:38:GLY:O	2.17	0.45
17:Q:36:ILE:HD13	17:Q:36:ILE:H	1.82	0.45
19:S:71:LEU:C	19:S:73:GLU:H	2.18	0.45
1:A:1091:U:H2'	1:A:1092:A:H5''	1.97	0.45
1:A:1112:C:C4	3:C:178:LEU:HD12	2.52	0.45
1:A:1342:C:H2'	1:A:1343:G:C8	2.52	0.45
1:A:372:C:H4'	1:A:373:A:O5'	2.16	0.45
1:A:597:G:H5''	1:A:598:U:OP2	2.17	0.45
1:A:625:G:H4'	16:P:16:HIS:ND1	2.32	0.45
1:A:89:C:H2'	1:A:90:U:O4'	2.17	0.45
2:B:68:ILE:HG12	2:B:161:ALA:HB3	1.99	0.45
3:C:152:ILE:HG22	3:C:153:VAL:N	2.32	0.45
3:C:88:ARG:HG3	3:C:101:LEU:HB2	1.97	0.45
4:D:125:HIS:O	4:D:126:ILE:HD13	2.17	0.45
6:F:9:VAL:HG13	6:F:60:PHE:CD2	2.52	0.45
10:J:24:VAL:HG21	10:J:37:PRO:HD3	1.98	0.45
1:A:1191:A:H2'	1:A:1192:C:C6	2.52	0.45
1:A:1320:C:OP1	19:S:70:LYS:NZ	2.49	0.45
1:A:139:G:H2'	1:A:140:A:H5'	1.99	0.45
2:B:219:VAL:O	2:B:223:ILE:HG12	2.17	0.45
3:C:117:ALA:HB2	3:C:200:ALA:HB2	1.99	0.45
9:I:111:ARG:HH12	9:I:113:LYS:HA	1.81	0.45
1:A:350:G:O2'	1:A:351:G:H5'	2.17	0.44
1:A:353:A:H8	1:A:353:A:C5'	2.27	0.44
1:A:38:G:N2	1:A:397:A:C4	2.85	0.44
1:A:444:C:H2'	1:A:445:G:C8	2.52	0.44
4:D:20:TYR:CE1	4:D:27:TYR:HE2	2.34	0.44
14:N:24:CYS:HB2	14:N:39:LEU:HA	1.99	0.44
18:R:50:ILE:HG12	18:R:70:ILE:HD13	1.97	0.44
20:T:39:LYS:O	20:T:43:LEU:HG	2.17	0.44
1:A:1509:C:H42	1:A:1526:G:H1	1.66	0.44
1:A:344:A:H5'	1:A:345:C:H5	1.82	0.44
1:A:687:A:O2'	1:A:688:G:OP2	2.26	0.44
1:A:821:G:H2'	1:A:822:C:H6	1.81	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:836:G:OP1	18:R:61:LYS:NZ	2.48	0.44
1:A:89:C:C2	1:A:90:U:C6	3.05	0.44
2:B:147:LYS:HD2	2:B:148:TYR:CE2	2.52	0.44
3:C:134:ILE:O	3:C:138:VAL:HG23	2.17	0.44
5:E:11:ILE:HD11	5:E:105:VAL:HA	1.99	0.44
8:H:129:VAL:HG23	8:H:130:GLY:O	2.17	0.44
10:J:51:ARG:CZ	10:J:61:GLU:HB2	2.46	0.44
10:J:63:PHE:HE1	14:N:45:ARG:HA	1.82	0.44
11:K:30:VAL:HG21	11:K:65:ALA:HA	1.99	0.44
1:A:1163:C:H2'	1:A:1164:G:C8	2.40	0.44
1:A:1275:A:H2'	1:A:1276:G:O4'	2.16	0.44
1:A:1314:C:H2'	1:A:1315:U:C6	2.52	0.44
1:A:1498:UR3:O2'	1:A:1499:A:OP2	2.31	0.44
1:A:357:G:H2'	1:A:358:U:H6	1.82	0.44
1:A:475:G:H2'	1:A:476:G:H8	1.82	0.44
1:A:695:A:H2'	1:A:696:A:C8	2.52	0.44
2:B:57:PHE:CG	2:B:199:TYR:CE1	3.05	0.44
3:C:112:SER:O	3:C:116:VAL:HG23	2.18	0.44
3:C:188:LEU:HD13	3:C:189:ALA:N	2.32	0.44
1:A:620:C:C1'	4:D:135:LEU:HD13	2.47	0.44
5:E:89:ILE:HG13	5:E:90:VAL:N	2.33	0.44
5:E:92:LYS:HA	5:E:93:PRO:HD3	1.78	0.44
6:F:11:ASN:HB2	6:F:86:ARG:NH2	2.33	0.44
7:G:48:LYS:O	7:G:52:GLU:HB2	2.17	0.44
8:H:46:LYS:HG3	8:H:64:LYS:HB3	2.00	0.44
9:I:108:VAL:HG12	9:I:109:VAL:N	2.24	0.44
9:I:47:LEU:O	9:I:50:LEU:N	2.46	0.44
13:M:22:ILE:HG21	13:M:66:LEU:HD23	1.98	0.44
13:M:59:TYR:CE1	13:M:63:THR:HG21	2.52	0.44
1:A:1000:U:H2'	1:A:1001:A:C8	2.52	0.44
1:A:1048:G:O3'	1:A:1049:U:H3'	2.17	0.44
1:A:1213:A:C6	1:A:1215:G:C4	3.05	0.44
1:A:1500:A:OP2	1:A:1505:G:OP1	2.35	0.44
1:A:1504:G:H5''	1:A:1504:G:C8	2.52	0.44
1:A:279:A:C8	1:A:279:A:H5'	2.51	0.44
1:A:303:A:H2'	1:A:304:U:O4'	2.17	0.44
2:B:91:PRO:HG3	2:B:155:LEU:HD21	2.00	0.44
3:C:88:ARG:HE	3:C:100:ALA:CB	2.28	0.44
5:E:131:ILE:HD13	5:E:131:ILE:HA	1.50	0.44
9:I:65:VAL:HG11	9:I:77:ILE:HD11	1.99	0.44
12:L:60:LEU:HA	12:L:60:LEU:HD13	1.59	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:46:LYS:N	12:L:92:0TD:O	2.48	0.44
16:P:3:LYS:HA	16:P:64:ALA:HB1	2.00	0.44
17:Q:51:TYR:CD1	17:Q:73:VAL:HG11	2.51	0.44
17:Q:8:GLY:O	17:Q:56:VAL:HA	2.18	0.44
18:R:50:ILE:CG1	18:R:70:ILE:HD13	2.48	0.44
1:A:1250:A:C6	1:A:1251:A:N1	2.86	0.44
1:A:791:G:H2'	1:A:792:A:H5''	1.99	0.44
1:A:864:A:H2'	1:A:865:A:C8	2.52	0.44
1:A:90:U:C4	1:A:91:C:N4	2.86	0.44
3:C:157:ILE:HD11	3:C:164:ARG:HB2	1.98	0.44
5:E:110:LEU:HD23	5:E:110:LEU:N	2.32	0.44
6:F:15:ASP:OD1	6:F:16:GLN:N	2.51	0.44
6:F:97:PHE:HE1	18:R:61:LYS:HE3	1.82	0.44
13:M:11:ARG:HD2	13:M:45:VAL:HG11	1.98	0.44
1:A:451:A:H8	1:A:451:A:O5'	2.00	0.44
1:A:91:C:C5	1:A:92:C:H5	2.35	0.44
2:B:97:TRP:HZ3	2:B:176:GLU:OE2	2.00	0.44
5:E:80:ILE:CD1	5:E:91:LEU:HB2	2.48	0.44
8:H:113:SER:CB	8:H:134:ILE:HD11	2.48	0.44
8:H:111:ILE:O	8:H:134:ILE:HD12	2.18	0.44
1:A:1251:A:H4'	9:I:12:GLU:OE2	2.18	0.44
10:J:48:THR:HG23	10:J:60:ARG:HB3	1.98	0.44
10:J:48:THR:OG1	10:J:62:HIS:CD2	2.71	0.44
14:N:3:ARG:HB3	14:N:6:LEU:HG	1.98	0.44
18:R:58:LEU:HD13	18:R:62:GLU:HB3	1.99	0.44
20:T:10:LEU:HD22	20:T:10:LEU:HA	1.66	0.44
20:T:30:LYS:O	20:T:34:LYS:HG2	2.17	0.44
3:C:187:ALA:O	3:C:198:VAL:HG23	2.17	0.44
8:H:63:LEU:N	8:H:63:LEU:HD13	2.33	0.44
1:A:1148:U:O3'	9:I:14:VAL:HG11	2.18	0.44
10:J:24:VAL:O	10:J:28:ARG:HB2	2.18	0.44
11:K:72:ALA:HB1	11:K:77:MET:CB	2.47	0.44
18:R:43:PHE:C	18:R:44:LEU:HD23	2.38	0.44
19:S:34:TRP:CH2	19:S:57:HIS:NE2	2.86	0.44
20:T:36:LEU:O	20:T:39:LYS:HB3	2.18	0.44
1:A:234:C:H2'	1:A:235:C:H6	1.81	0.44
1:A:671:G:H5'	6:F:77:ARG:HH21	1.83	0.44
1:A:679:C:H2'	1:A:680:C:C6	2.53	0.44
1:A:766:A:OP2	25:A:2188:HOH:O	2.21	0.44
2:B:87:ARG:HH12	2:B:230:VAL:HG21	1.81	0.44
15:O:21:ASP:OD2	15:O:21:ASP:C	2.56	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:728:A:C8	15:O:54:ARG:NH1	2.86	0.44
1:A:131:C:OP1	1:A:190(F):G:N2	2.44	0.44
1:A:1372:U:H2'	1:A:1373:G:O4'	2.18	0.44
1:A:179:A:H2'	1:A:180:U:H6	1.81	0.44
1:A:200:G:H3'	1:A:201:C:H5''	1.99	0.44
1:A:481:G:O2'	1:A:482:A:C8	2.69	0.44
1:A:695:A:N3	1:A:787:A:H1'	2.33	0.44
1:A:902:G:H2'	1:A:903:G:C8	2.53	0.44
2:B:101:MET:O	2:B:105:PHE:HD1	2.00	0.44
4:D:122:ARG:HA	4:D:134:ASP:O	2.17	0.44
4:D:187:ARG:NH2	4:D:188:LEU:HD12	2.29	0.44
5:E:110:LEU:CD1	5:E:118:ILE:HG21	2.48	0.44
7:G:71:PRO:O	7:G:91:VAL:HG21	2.18	0.44
17:Q:50:LYS:HG3	17:Q:51:TYR:CE2	2.53	0.44
20:T:104:LEU:HG	20:T:104:LEU:H	1.51	0.44
1:A:1442:G:C6	1:A:1446:A:N7	2.86	0.43
1:A:442:C:H42	1:A:492:G:H1	1.65	0.43
4:D:30:LYS:C	4:D:32:ALA:H	2.22	0.43
8:H:112:LEU:CD2	8:H:133:LEU:HA	2.47	0.43
9:I:7:THR:HG22	9:I:8:GLY:N	2.33	0.43
11:K:81:ASP:OD2	11:K:106:LYS:HE3	2.18	0.43
12:L:113:ARG:HH21	12:L:120:TYR:HE1	1.66	0.43
6:F:100:ASN:O	18:R:28:GLU:HG3	2.18	0.43
20:T:73:HIS:HB3	20:T:74:LYS:H	1.49	0.43
1:A:1279:A:H5''	1:A:1280:A:OP1	2.18	0.43
1:A:92:C:O2	1:A:93:G:C8	2.71	0.43
2:B:17:PHE:HD1	2:B:18:GLY:H	1.66	0.43
4:D:131:ARG:HB2	4:D:131:ARG:HH11	1.83	0.43
5:E:106:PRO:O	5:E:107:ARG:C	2.55	0.43
5:E:122:GLU:OE1	5:E:131:ILE:HG13	2.17	0.43
5:E:142:LEU:HA	5:E:142:LEU:HD23	1.68	0.43
6:F:74:ASP:N	6:F:74:ASP:OD1	2.51	0.43
13:M:108:ARG:NH2	13:M:112:GLY:O	2.51	0.43
13:M:5:ALA:CB	13:M:22:ILE:HD13	2.48	0.43
18:R:33:ASP:OD1	18:R:36:ASN:N	2.51	0.43
1:A:1022:G:C6	1:A:1024:G:C2	3.06	0.43
1:A:1054:C:H3'	1:A:1054:C:H6	1.83	0.43
1:A:1127:G:N2	1:A:1146:A:N6	2.67	0.43
1:A:1223:C:H5''	1:A:1224:G:C5'	2.47	0.43
1:A:1407:5MC:O2'	1:A:1408:A:H5'	2.18	0.43
1:A:1426:C:H2'	1:A:1427:U:H6	1.81	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:738:C:OP2	6:F:92:LYS:HE3	2.18	0.43
1:A:828:A:OP1	1:A:828:A:H4'	2.17	0.43
1:A:1074:G:O3'	2:B:103:THR:HG21	2.18	0.43
2:B:233:SER:HA	2:B:234:PRO:HD3	1.82	0.43
4:D:94:LEU:HD23	4:D:94:LEU:HA	1.83	0.43
11:K:54:ARG:O	11:K:57:THR:HG22	2.19	0.43
12:L:25:PRO:HB3	12:L:27:LEU:HB2	1.99	0.43
13:M:49:THR:HG22	13:M:50:GLU:H	1.83	0.43
14:N:37:PHE:HB3	14:N:39:LEU:HD12	1.99	0.43
1:A:1003:G:N2	1:A:1039:C:C2	2.86	0.43
1:A:1181:G:C2	1:A:1182:G:N2	2.86	0.43
1:A:1253:G:C5	1:A:1254:C:C4	3.06	0.43
1:A:979:C:C5	1:A:980:C:C5	3.07	0.43
2:B:157:ARG:HG2	2:B:158:LEU:N	2.32	0.43
2:B:187:LEU:HA	2:B:187:LEU:HD22	1.42	0.43
2:B:92:TYR:HD2	2:B:92:TYR:N	2.14	0.43
1:A:1152:A:C5'	10:J:13:HIS:HB2	2.48	0.43
1:A:1360:A:OP2	14:N:35:ARG:NH2	2.51	0.43
1:A:204:U:H4'	1:A:216:G:O5'	2.16	0.43
1:A:413:G:N2	1:A:428:G:H1'	2.33	0.43
1:A:491:G:C6	1:A:492:G:N7	2.86	0.43
1:A:659:U:OP2	15:O:8:LYS:NZ	2.38	0.43
1:A:939:G:H2'	1:A:940:C:C6	2.54	0.43
4:D:192:GLU:C	4:D:194:LEU:H	2.22	0.43
5:E:35:GLY:HA2	5:E:40:ARG:O	2.18	0.43
5:E:90:VAL:HG23	5:E:121:LYS:O	2.18	0.43
6:F:11:ASN:O	6:F:14:LEU:HD12	2.19	0.43
6:F:87:ARG:NH1	6:F:87:ARG:HG3	2.15	0.43
7:G:99:LEU:HA	7:G:99:LEU:HD23	1.54	0.43
9:I:89:ASN:HB3	9:I:92:TYR:CD1	2.54	0.43
10:J:4:ILE:HD13	10:J:4:ILE:HA	1.85	0.43
10:J:40:LEU:HG	10:J:71:LEU:HD21	2.00	0.43
13:M:11:ARG:HG3	13:M:12:ASN:HB2	1.99	0.43
1:A:1008:C:H6	1:A:1008:C:O5'	2.01	0.43
1:A:1120:G:C6	1:A:1121:U:C4	3.06	0.43
1:A:1163:C:O2'	1:A:1164:G:H5'	2.18	0.43
1:A:1222:G:OP2	1:A:1322:C:N4	2.51	0.43
1:A:1494:G:C2	1:A:1495:U:C6	3.07	0.43
1:A:475:G:H2'	1:A:476:G:C8	2.54	0.43
1:A:456:C:C2	1:A:477:G:N2	2.87	0.43
1:A:538:G:OP2	12:L:115:LYS:HB2	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:792:A:N7	1:A:794:A:C6	2.87	0.43
6:F:97:PHE:C	6:F:97:PHE:CD2	2.92	0.43
1:A:1358:U:H5''	14:N:35:ARG:CG	2.48	0.43
14:N:53:LEU:HA	14:N:54:PRO:HD3	1.64	0.43
15:O:76:GLU:HA	15:O:76:GLU:OE2	2.18	0.43
15:O:6:GLU:HA	15:O:9:GLN:HB2	2.00	0.43
16:P:71:ARG:O	16:P:74:LEU:HB2	2.18	0.43
17:Q:50:LYS:HG3	17:Q:51:TYR:CD2	2.54	0.43
18:R:39:VAL:HG13	18:R:40:LEU:CD2	2.47	0.43
1:A:177:C:P	20:T:65:LYS:HZ1	2.41	0.43
1:A:1065:U:H5''	1:A:1190:G:N2	2.34	0.43
1:A:106:C:H2'	1:A:107:G:O4'	2.19	0.43
1:A:117:G:O5'	1:A:117:G:H8	2.01	0.43
1:A:1064:G:H1'	1:A:1190:G:N2	2.34	0.43
1:A:1427:U:H2'	1:A:1428:A:H8	1.83	0.43
3:C:6:HIS:HA	3:C:7:PRO:HD2	1.71	0.43
7:G:32:ARG:C	7:G:34:GLY:H	2.21	0.43
9:I:17:VAL:HG11	9:I:81:ILE:CA	2.45	0.43
1:A:1202:G:C2	14:N:42:ILE:HG21	2.54	0.43
1:A:451:A:N7	1:A:481:G:N1	2.67	0.43
1:A:518:C:H4'	1:A:519:C:O5'	2.19	0.43
1:A:877:C:O2'	8:H:3:THR:HG23	2.18	0.43
2:B:142:LEU:HD13	2:B:146:GLN:HE22	1.83	0.43
2:B:167:PRO:HG2	2:B:192:SER:CB	2.48	0.43
4:D:72:GLU:O	4:D:75:PHE:HB3	2.19	0.43
8:H:27:PRO:HA	8:H:58:TYR:CD2	2.54	0.43
19:S:49:ILE:O	19:S:60:VAL:HG23	2.18	0.43
19:S:50:ALA:HA	19:S:59:PRO:HA	2.00	0.43
1:A:1071:C:C2'	1:A:1072:G:H5'	2.49	0.43
1:A:1225:A:OP1	13:M:102:ARG:HA	2.18	0.43
1:A:527:7MG:OP2	22:A:1601:SRV:O32	2.25	0.43
4:D:200:GLU:HG2	4:D:201:GLN:N	2.33	0.43
8:H:112:LEU:HD23	8:H:112:LEU:HA	1.30	0.43
12:L:27:LEU:O	12:L:29:GLY:N	2.52	0.43
1:A:279:A:C4	17:Q:98:LEU:HD23	2.53	0.43
18:R:50:ILE:HD11	18:R:70:ILE:HG21	2.01	0.43
20:T:16:HIS:CE1	20:T:20:LEU:HD23	2.54	0.43
1:A:1067:A:O2'	1:A:1094:G:H5'	2.18	0.43
1:A:1219:U:C4	1:A:1220:G:N7	2.87	0.43
1:A:1505:G:H5''	25:A:1919:HOH:O	2.18	0.43
1:A:384:G:C4	1:A:385:C:C5	3.07	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:457:C:C2	1:A:476:G:C2	3.07	0.43
1:A:500:G:C5	1:A:501:C:C4	3.07	0.43
3:C:157:ILE:N	3:C:157:ILE:HD13	2.33	0.43
1:A:923:A:OP1	5:E:21:ALA:HB2	2.18	0.43
11:K:107:SER:O	11:K:108:ILE:HD13	2.19	0.43
13:M:19:LEU:HD11	13:M:56:LEU:HD11	2.01	0.43
16:P:19:ILE:HD12	16:P:37:GLY:C	2.40	0.43
17:Q:9:VAL:HG23	17:Q:56:VAL:HG22	2.00	0.43
1:A:1332:A:H2'	1:A:1333:A:C8	2.54	0.42
1:A:1506:U:O2'	1:A:1507:A:H5'	2.18	0.42
1:A:295:C:H2'	1:A:296:U:O4'	2.19	0.42
1:A:109:A:C4	1:A:327:A:C2	3.07	0.42
1:A:392:G:C6	1:A:393:A:C6	3.07	0.42
1:A:852:G:C3'	1:A:853:G:H5''	2.49	0.42
1:A:858:G:O6	1:A:869:G:C8	2.72	0.42
2:B:115:LEU:HD23	2:B:145:LEU:HB2	2.00	0.42
2:B:73:THR:HG22	2:B:73:THR:O	2.19	0.42
4:D:22:LYS:HA	4:D:22:LYS:HD2	1.59	0.42
6:F:1:MET:HA	6:F:67:MET:O	2.18	0.42
7:G:60:LYS:NZ	7:G:63:LYS:HD2	2.34	0.42
9:I:63:ILE:HD11	9:I:81:ILE:HD11	2.01	0.42
10:J:78:ASN:ND2	10:J:79:ARG:HE	2.17	0.42
11:K:92:GLU:O	11:K:96:ARG:HD3	2.19	0.42
11:K:95:ILE:HA	11:K:95:ILE:HD13	1.85	0.42
12:L:42:THR:CG2	12:L:52:LEU:HB3	2.49	0.42
19:S:43:GLU:N	19:S:43:GLU:OE1	2.51	0.42
1:A:1056:U:O2'	1:A:1057:G:H5'	2.19	0.42
1:A:1313:U:O4	19:S:4:SER:OG	2.28	0.42
1:A:1374:A:H2'	1:A:1375:A:H8	1.84	0.42
1:A:109:A:C6	1:A:326:G:C6	3.07	0.42
1:A:946:A:H2'	1:A:947:G:H8	1.83	0.42
8:H:95:VAL:HG11	8:H:133:LEU:HG	2.01	0.42
9:I:113:LYS:H	9:I:119:ALA:HA	1.83	0.42
17:Q:61:GLU:HA	17:Q:71:PHE:CD1	2.53	0.42
18:R:48:GLY:HA3	18:R:82:THR:HA	2.01	0.42
21:U:10:ARG:O	21:U:13:ILE:HB	2.19	0.42
1:A:1125:U:O2'	1:A:1126:U:H5'	2.20	0.42
1:A:1308:U:OP2	13:M:99:ARG:HG2	2.19	0.42
1:A:1342:C:H2'	1:A:1343:G:H8	1.83	0.42
1:A:1352:C:H2'	1:A:1353:G:C8	2.54	0.42
1:A:267:C:OP2	17:Q:67:LYS:HE3	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:861:G:C5	1:A:862:C:C5	3.07	0.42
3:C:92:ALA:HB2	3:C:99:VAL:O	2.20	0.42
4:D:101:LEU:O	4:D:105:VAL:HG23	2.19	0.42
6:F:25:ILE:HA	6:F:28:ARG:HD3	2.00	0.42
9:I:45:ALA:HB1	9:I:78:LYS:NZ	2.34	0.42
9:I:4:TYR:CG	9:I:88:TYR:HB2	2.53	0.42
1:A:1064:G:H1'	1:A:1190:G:H21	1.84	0.42
1:A:1366:C:C2	1:A:1367:C:C5	3.07	0.42
1:A:1374:A:N3	1:A:1375:A:C8	2.87	0.42
1:A:913:A:OP1	12:L:91:LYS:HE2	2.19	0.42
2:B:131:PRO:O	2:B:134:GLU:HG2	2.20	0.42
2:B:74:LYS:NZ	2:B:206:ASP:HB2	2.34	0.42
4:D:11:LEU:HD23	4:D:11:LEU:HA	1.68	0.42
1:A:512:U:P	4:D:46:LYS:HZ3	2.40	0.42
5:E:64:ARG:O	5:E:65:ASN:HB3	2.19	0.42
7:G:17:VAL:HB	7:G:44:TYR:CZ	2.54	0.42
7:G:85:TYR:O	7:G:87:VAL:HG22	2.19	0.42
18:R:36:ASN:OD1	18:R:39:VAL:HG12	2.19	0.42
1:A:1185:G:H2'	1:A:1186:G:H5'	2.00	0.42
1:A:1274:G:H2'	1:A:1275:A:C8	2.54	0.42
1:A:1525:G:OP1	11:K:120:ARG:NH2	2.53	0.42
1:A:243:A:C2	1:A:245:C:C2	3.07	0.42
1:A:336:C:O2'	1:A:337:C:H5'	2.19	0.42
1:A:429:U:H1'	1:A:430:A:H5''	2.00	0.42
1:A:47:C:C6	1:A:365:U:H2'	2.55	0.42
4:D:110:PHE:HA	4:D:162:LEU:HD21	2.01	0.42
5:E:119:LEU:HD23	5:E:119:LEU:N	2.35	0.42
6:F:39:LYS:NZ	6:F:64:GLN:OE1	2.51	0.42
12:L:67:THR:O	12:L:67:THR:OG1	2.34	0.42
21:U:18:TYR:CD1	21:U:24:ARG:HG2	2.53	0.42
1:A:1309:G:C6	1:A:1310:G:C5	3.07	0.42
1:A:397:A:N3	1:A:397:A:H3'	2.34	0.42
1:A:59:A:C2	1:A:354:G:C4	3.07	0.42
1:A:721:G:H4'	1:A:722:A:O4'	2.20	0.42
1:A:727:G:N2	1:A:730:G:OP2	2.47	0.42
1:A:829:G:C6	1:A:858:G:N2	2.87	0.42
1:A:836:G:C6	1:A:851:G:C6	3.08	0.42
2:B:172:ILE:H	2:B:172:ILE:HG12	1.46	0.42
2:B:21:ARG:HA	2:B:39:ILE:HA	2.01	0.42
1:A:1113:C:H4'	3:C:14:ILE:HD11	2.00	0.42
3:C:188:LEU:HD22	3:C:188:LEU:HA	1.65	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:15:THR:HG23	10:J:94:VAL:HG22	2.01	0.42
11:K:91:ARG:NH1	18:R:88:LYS:HZ1	2.18	0.42
12:L:44:THR:HA	12:L:45:PRO:HD3	1.82	0.42
17:Q:34:LYS:HG3	17:Q:35:VAL:N	2.35	0.42
1:A:1123:A:H61	1:A:1149:C:H42	1.66	0.42
1:A:1544:U:O5'	1:A:1544:U:H6	2.02	0.42
1:A:123:C:O2'	1:A:290:C:O2	2.33	0.42
1:A:454:C:N4	1:A:479:C:N3	2.67	0.42
3:C:180:ALA:O	3:C:181:ASN:HB3	2.20	0.42
5:E:41:VAL:HG13	5:E:113:ALA:HB2	2.01	0.42
8:H:97:VAL:HG12	8:H:98:LYS:N	2.35	0.42
10:J:62:HIS:CB	14:N:59:ALA:HB3	2.50	0.42
16:P:31:LYS:HG3	16:P:32:TYR:N	2.35	0.42
16:P:67:THR:HG22	16:P:68:ASP:N	2.35	0.42
18:R:33:ASP:O	18:R:40:LEU:HD11	2.20	0.42
19:S:55:LYS:HD3	19:S:56:GLN:HG2	2.02	0.42
1:A:1071:C:O2'	1:A:1072:G:H5'	2.19	0.42
1:A:1193:G:O2'	1:A:1194:U:H5'	2.20	0.42
1:A:448:A:C4	1:A:487:A:C2	3.07	0.42
1:A:45:U:H2'	1:A:46:G:C8	2.55	0.42
3:C:32:LEU:O	3:C:35:GLU:HB3	2.20	0.42
3:C:39:ILE:HD12	3:C:57:ILE:HD11	2.02	0.42
8:H:127:LEU:HA	8:H:127:LEU:HD22	1.74	0.42
8:H:137:VAL:HG12	8:H:138:TRP:N	2.33	0.42
8:H:57:PRO:O	8:H:57:PRO:HG2	2.19	0.42
9:I:111:ARG:NH1	9:I:113:LYS:HA	2.35	0.42
12:L:26:ALA:O	12:L:33:ARG:HD2	2.19	0.42
13:M:117:VAL:HG12	13:M:118:ALA:N	2.34	0.42
14:N:39:LEU:HD22	14:N:43:CYS:HB3	2.01	0.42
15:O:36:ILE:HG22	15:O:37:ASN:N	2.32	0.42
19:S:31:ILE:HD12	19:S:32:LYS:H	1.85	0.42
1:A:1284:C:OP2	1:A:1285:A:O2'	2.34	0.42
1:A:1347:G:C2'	1:A:1348:U:OP2	2.67	0.42
1:A:22:G:C5	1:A:914:G:C6	3.08	0.42
1:A:511:C:H42	1:A:540:G:H1	1.68	0.42
1:A:945:G:N1	1:A:1337:G:C2	2.88	0.42
2:B:127:ILE:H	2:B:127:ILE:HG13	1.59	0.42
2:B:224:GLN:HG3	2:B:229:VAL:HG22	2.02	0.42
3:C:54:ARG:HB3	3:C:69:HIS:HB2	2.02	0.42
8:H:104:ARG:HG3	8:H:138:TRP:CG	2.55	0.42
11:K:40:ILE:HG22	11:K:41:THR:N	2.35	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:59:TYR:O	11:K:63:LEU:HG	2.20	0.42
12:L:35:GLY:O	12:L:83:VAL:HG12	2.20	0.42
13:M:23:TYR:CE2	13:M:70:LEU:HD13	2.55	0.42
19:S:20:LEU:HD12	19:S:20:LEU:HA	1.87	0.42
19:S:40:ILE:HD11	19:S:62:ILE:HD12	2.01	0.42
20:T:33:ILE:CD1	20:T:63:ILE:HA	2.50	0.42
20:T:87:LYS:O	20:T:91:LEU:HG	2.20	0.42
1:A:1120:G:O6	1:A:1153:C:N4	2.53	0.42
1:A:1250:A:N1	1:A:1251:A:C2	2.88	0.42
1:A:1504:G:H4'	1:A:1505:G:H5'	2.02	0.42
1:A:358:U:H2'	1:A:359:U:H6	1.84	0.42
1:A:474:G:H2'	1:A:475:G:O4'	2.20	0.42
1:A:484:G:O2'	1:A:485:G:OP2	2.26	0.42
1:A:509:A:C3'	1:A:509:A:C8	3.03	0.42
1:A:585:G:C6	1:A:586:C:C4	3.08	0.42
1:A:693:G:C6	1:A:694:A:C5	3.07	0.42
3:C:6:HIS:HD2	3:C:8:ILE:H	1.67	0.42
4:D:187:ARG:HD2	4:D:187:ARG:HA	1.15	0.42
6:F:30:LEU:HD23	6:F:75:LEU:HD21	2.01	0.42
6:F:98:LEU:HB2	6:F:101:ALA:HB2	2.02	0.42
7:G:104:LEU:HD23	7:G:104:LEU:N	2.34	0.42
7:G:124:LEU:HD23	7:G:124:LEU:HA	1.60	0.42
17:Q:4:LYS:HG2	17:Q:6:LEU:CD2	2.49	0.42
1:A:1320:C:O2'	19:S:73:GLU:OE1	2.35	0.42
20:T:42:GLN:HA	20:T:42:GLN:OE1	2.13	0.42
1:A:1112:C:H1'	3:C:179:ARG:NH1	2.35	0.41
1:A:1134:G:C6	1:A:1141:C:C4	3.07	0.41
1:A:1197:G:H5''	1:A:1198:G:OP2	2.20	0.41
1:A:284:G:H2'	1:A:285:G:C8	2.54	0.41
1:A:527:7MG:O2'	1:A:535:A:N1	2.37	0.41
1:A:578:C:H2'	1:A:579:G:O4'	2.20	0.41
4:D:187:ARG:NH1	4:D:188:LEU:H	2.18	0.41
5:E:53:LEU:HA	5:E:53:LEU:HD23	1.66	0.41
5:E:80:ILE:HD12	5:E:91:LEU:HB2	2.00	0.41
6:F:23:LYS:O	6:F:27:GLN:HG2	2.20	0.41
8:H:4:ASP:OD2	8:H:85:ARG:NH1	2.53	0.41
6:F:41:GLU:OE1	18:R:35:ARG:NH2	2.53	0.41
18:R:53:ARG:HA	18:R:56:THR:OG1	2.19	0.41
1:A:1144:G:N2	1:A:1146:A:H62	2.17	0.41
1:A:1243:C:H5''	21:U:8:THR:HG22	2.02	0.41
1:A:134:A:H2'	1:A:135:C:O4'	2.19	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1399:C:H4'	1:A:1400:5MC:H5''	2.02	0.41
1:A:1435:G:H2'	1:A:1436:U:H6	1.79	0.41
1:A:940:C:H2'	1:A:941:G:O4'	2.20	0.41
2:B:124:SER:HB2	2:B:126:GLU:OE1	2.20	0.41
1:A:1250:A:H4'	9:I:68:GLY:CA	2.50	0.41
11:K:44:SER:H	11:K:47:VAL:HB	1.85	0.41
12:L:55:VAL:HG12	12:L:69:TYR:HA	2.02	0.41
18:R:22:VAL:HG23	18:R:55:ARG:O	2.20	0.41
20:T:33:ILE:O	20:T:34:LYS:C	2.58	0.41
1:A:1070:U:O2	1:A:1106:G:C2	2.73	0.41
1:A:109:A:H2'	1:A:326:G:N2	2.35	0.41
1:A:1171:G:C6	1:A:1172:C:N4	2.88	0.41
1:A:1296:C:H4'	1:A:1302:U:C5	2.54	0.41
1:A:1541:PSU:C6	1:A:1541:PSU:H3'	2.53	0.41
1:A:27:G:H1	1:A:556:C:N4	2.18	0.41
1:A:831:U:O2'	1:A:832:C:H5'	2.21	0.41
2:B:102:LEU:HB3	2:B:180:LEU:HD11	2.02	0.41
2:B:28:PHE:CD2	2:B:28:PHE:O	2.74	0.41
4:D:57:ARG:HG3	4:D:202:LEU:HD13	2.03	0.41
4:D:38:TYR:CD1	4:D:45:GLN:HG2	2.55	0.41
8:H:6:ILE:HG23	8:H:6:ILE:HD12	1.66	0.41
9:I:126:SER:O	9:I:128:ARG:N	2.53	0.41
20:T:41:ILE:O	20:T:44:ALA:HB3	2.21	0.41
1:A:1118:C:H1'	1:A:1179:A:C5	2.54	0.41
1:A:1118:C:H5'	9:I:104:ARG:HG3	2.02	0.41
1:A:141:A:H1'	1:A:182:U:O2	2.20	0.41
1:A:431:A:H2'	1:A:432:A:O4'	2.20	0.41
1:A:922:G:N2	1:A:1396:A:C5	2.89	0.41
2:B:158:LEU:HA	2:B:158:LEU:HD23	1.70	0.41
4:D:120:LEU:HA	4:D:120:LEU:HD23	1.72	0.41
7:G:58:PRO:HA	7:G:61:VAL:HB	2.03	0.41
11:K:18:ARG:O	11:K:33:THR:HG22	2.21	0.41
1:A:1226:C:C5	13:M:104:ARG:HA	2.54	0.41
13:M:23:TYR:HB3	13:M:67:GLU:CA	2.48	0.41
16:P:22:THR:HA	16:P:33:ILE:HG13	2.02	0.41
17:Q:10:VAL:HG23	17:Q:54:GLY:H	1.85	0.41
1:A:1172:C:O2'	1:A:1173:G:H5'	2.20	0.41
1:A:1053:G:O2'	1:A:1199:U:H5	2.01	0.41
1:A:1250:A:C2	1:A:1287:A:C2	3.09	0.41
1:A:1255:G:C2'	1:A:1279:A:H61	2.31	0.41
1:A:88:A:H2'	1:A:89:C:H6	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:182:ILE:HA	2:B:183:PRO:HD3	1.78	0.41
2:B:79:ASP:O	2:B:82:ARG:N	2.54	0.41
4:D:27:TYR:HE1	4:D:168:ARG:HH22	1.68	0.41
8:H:104:ARG:CZ	8:H:138:TRP:CZ2	3.04	0.41
12:L:30:ALA:HA	12:L:31:PRO:HD3	1.68	0.41
14:N:12:ARG:HB2	14:N:13:THR:H	1.61	0.41
21:U:3:LYS:HB2	21:U:3:LYS:HE3	1.75	0.41
1:A:1130:A:OP1	1:A:1131:G:N7	2.53	0.41
1:A:1351:U:H4'	7:G:33:ASP:OD2	2.20	0.41
1:A:379:C:N4	1:A:384:G:H1	2.18	0.41
1:A:491:G:C2	1:A:492:G:C8	3.07	0.41
1:A:824:C:H2'	1:A:825:G:C8	2.56	0.41
2:B:76:GLN:O	2:B:208:ILE:HD12	2.20	0.41
3:C:32:LEU:HG	3:C:32:LEU:H	1.58	0.41
4:D:62:GLN:NE2	4:D:66:ARG:HD2	2.35	0.41
5:E:148:VAL:O	5:E:152:ARG:HG3	2.20	0.41
6:F:36:ARG:NH1	6:F:36:ARG:HB3	2.21	0.41
9:I:49:PRO:HB2	9:I:81:ILE:HG22	2.02	0.41
13:M:18:ALA:O	13:M:21:TYR:HB2	2.19	0.41
16:P:8:ARG:HB3	16:P:28:ARG:NH1	2.35	0.41
19:S:21:GLU:O	19:S:25:LYS:HB2	2.21	0.41
20:T:49:ALA:O	20:T:52:ALA:HB3	2.20	0.41
1:A:1073:U:O2	2:B:104:ASN:ND2	2.54	0.41
1:A:1249:C:H5'	1:A:1250:A:OP2	2.21	0.41
1:A:147:G:H1	1:A:175:C:H42	1.69	0.41
1:A:966:M2G:N7	1:A:967:5MC:HM52	2.35	0.41
4:D:120:LEU:HD23	4:D:125:HIS:CD2	2.56	0.41
1:A:1119:C:OP1	9:I:83:ARG:NH1	2.53	0.41
9:I:94:ALA:O	9:I:98:PRO:HG3	2.21	0.41
12:L:33:ARG:HG3	12:L:61:THR:OG1	2.20	0.41
12:L:85:ILE:CG2	12:L:98:TYR:HB3	2.49	0.41
13:M:22:ILE:HG22	13:M:23:TYR:H	1.86	0.41
13:M:40:ASN:HD21	13:M:42:ALA:HB3	1.86	0.41
14:N:36:PHE:C	14:N:36:PHE:HD1	2.24	0.41
17:Q:65:ILE:HB	17:Q:69:LYS:HB3	2.03	0.41
1:A:1226:C:N4	13:M:104:ARG:HG3	2.36	0.41
1:A:268:C:H2'	1:A:269:C:H6	1.85	0.41
1:A:372:C:H1'	1:A:373:A:OP2	2.21	0.41
1:A:854:G:C2	1:A:855:G:C8	3.08	0.41
2:B:211:ILE:O	2:B:215:LEU:HB2	2.20	0.41
3:C:25:GLY:HA3	3:C:29:TYR:HB2	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:203:VAL:O	4:D:206:PHE:HB3	2.21	0.41
4:D:22:LYS:CB	4:D:26:CYS:HB2	2.51	0.41
5:E:91:LEU:N	5:E:91:LEU:HD23	2.35	0.41
7:G:58:PRO:HA	7:G:61:VAL:CG2	2.51	0.41
12:L:84:LEU:HA	12:L:84:LEU:HD12	1.91	0.41
16:P:19:ILE:HD12	16:P:38:TYR:N	2.36	0.41
17:Q:12:SER:HB3	17:Q:20:THR:HB	2.02	0.41
17:Q:24:GLU:HG3	17:Q:39:SER:HB3	2.03	0.41
17:Q:20:THR:CG2	17:Q:41:LYS:HG2	2.51	0.41
18:R:37:VAL:O	18:R:40:LEU:N	2.54	0.41
20:T:58:LYS:HG3	20:T:58:LYS:O	2.19	0.41
1:A:1133:G:C2	1:A:1134:G:C8	3.08	0.41
1:A:861:G:C6	1:A:862:C:C4	3.08	0.41
1:A:922:G:C2	1:A:1396:A:C6	3.09	0.41
1:A:965:A:OP1	1:A:1198:G:H5''	2.20	0.41
2:B:155:LEU:HA	2:B:155:LEU:HD23	1.64	0.41
2:B:46:LYS:HA	2:B:49:GLU:OE2	2.20	0.41
3:C:182:ILE:HA	3:C:202:ILE:O	2.20	0.41
4:D:20:TYR:CD2	4:D:20:TYR:N	2.88	0.41
1:A:8:A:H5'	5:E:101:ILE:HG23	2.02	0.41
6:F:91:VAL:HG12	6:F:92:LYS:O	2.21	0.41
12:L:98:TYR:CD1	12:L:98:TYR:N	2.89	0.41
13:M:54:VAL:HA	13:M:57:ARG:CD	2.50	0.41
15:O:21:ASP:OD2	15:O:23:GLY:N	2.54	0.41
16:P:4:ILE:O	16:P:66:PRO:HA	2.21	0.41
1:A:1164:G:C2	1:A:1165:C:C2	3.09	0.41
1:A:1285:A:H5'	1:A:1286:A:C5	2.56	0.41
1:A:1295:G:C6	1:A:1296:C:C4	3.08	0.41
1:A:976:G:C8	1:A:1358:U:O2	2.74	0.41
1:A:1375:A:N1	1:A:1376:U:C2	2.89	0.41
1:A:458:C:H2'	1:A:459:G:O4'	2.21	0.41
1:A:519:C:H2'	1:A:520:A:C8	2.55	0.41
1:A:738:C:OP1	6:F:92:LYS:HD3	2.21	0.41
3:C:113:ALA:HB3	3:C:114:PRO:HD3	2.03	0.41
4:D:192:GLU:O	4:D:194:LEU:N	2.54	0.41
7:G:42:ILE:HG21	7:G:42:ILE:HD13	1.88	0.41
8:H:86:ILE:HG21	8:H:133:LEU:HB3	2.02	0.41
9:I:111:ARG:HG2	9:I:112:LYS:N	2.36	0.41
10:J:24:VAL:HG12	10:J:24:VAL:O	2.21	0.41
12:L:7:ILE:HG23	17:Q:34:LYS:HE2	2.02	0.41
1:A:24:U:H2'	1:A:25:C:C6	2.56	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:686:U:HO2'	1:A:687:A:H8	1.59	0.41
1:A:70:G:C6	1:A:73:C:C4	3.09	0.41
1:A:95:U:H2'	1:A:96:G:H8	1.85	0.41
1:A:974:A:H4'	1:A:975:A:H3'	2.03	0.41
1:A:976:G:OP2	1:A:1358:U:H1'	2.21	0.41
2:B:236:TYR:HD2	2:B:236:TYR:HA	1.78	0.41
3:C:137:ALA:HA	3:C:140:ARG:CZ	2.51	0.41
4:D:196:LEU:HA	4:D:197:PRO:HD3	1.65	0.41
9:I:5:TYR:CE1	9:I:18:PHE:HE2	2.39	0.41
11:K:25:TYR:CZ	11:K:88:GLY:HA2	2.56	0.41
17:Q:67:LYS:O	17:Q:68:ARG:HB3	2.21	0.41
1:A:1150:U:H2'	1:A:1151:A:H5'	2.03	0.40
1:A:1172:C:H2'	1:A:1173:G:C8	2.55	0.40
1:A:1182:G:H4'	1:A:1183:A:C5'	2.49	0.40
1:A:132:C:O3'	20:T:74:LYS:NZ	2.50	0.40
1:A:349:A:H2'	1:A:350:G:C5'	2.50	0.40
2:B:188:ALA:O	2:B:202:PRO:HA	2.21	0.40
4:D:199:ASN:HD22	4:D:202:LEU:HG	1.86	0.40
5:E:55:VAL:HG12	5:E:56:GLN:N	2.35	0.40
7:G:37:ASN:HB3	7:G:38:LEU:HD12	2.03	0.40
1:A:1368:G:OP2	9:I:112:LYS:HD3	2.21	0.40
11:K:120:ARG:HA	11:K:121:PRO:HD3	1.86	0.40
11:K:58:PRO:HB2	11:K:93:GLN:HG3	2.02	0.40
15:O:36:ILE:HA	15:O:59:MET:HE2	2.03	0.40
19:S:18:LYS:HD2	19:S:31:ILE:HG12	2.03	0.40
1:A:1126:U:H6	1:A:1126:U:C5'	2.35	0.40
1:A:1213:A:N1	1:A:1215:G:H1'	2.36	0.40
1:A:1513:A:H2'	1:A:1514:C:C6	2.55	0.40
1:A:1528:U:H2'	1:A:1528:U:H6	1.65	0.40
1:A:266:G:P	25:A:2234:HOH:O	2.79	0.40
1:A:245:C:O2	1:A:283:C:N3	2.55	0.40
1:A:393:A:O2'	1:A:394:G:H5'	2.21	0.40
1:A:575:G:O2'	1:A:821:G:H5'	2.21	0.40
1:A:782:A:H2'	1:A:783:C:O4'	2.21	0.40
1:A:830:G:C5	1:A:831:U:C5	3.10	0.40
1:A:981:U:O4	1:A:1222:G:O6	2.40	0.40
2:B:97:TRP:CZ2	2:B:101:MET:HB2	2.57	0.40
1:A:1112:C:O2'	3:C:179:ARG:NH1	2.54	0.40
3:C:114:PRO:HG3	3:C:185:GLY:HA3	2.04	0.40
5:E:105:VAL:HG11	5:E:131:ILE:HG22	2.03	0.40
5:E:86:ALA:CB	5:E:125:SER:HB3	2.50	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:151:TYR:N	7:G:151:TYR:CD1	2.89	0.40
8:H:103:VAL:HG12	8:H:108:GLY:HA3	2.03	0.40
9:I:51:ARG:HH11	9:I:51:ARG:HB2	1.86	0.40
9:I:53:VAL:C	9:I:55:ALA:H	2.24	0.40
13:M:36:LYS:HD2	13:M:59:TYR:OH	2.21	0.40
16:P:3:LYS:HG3	16:P:65:GLN:O	2.21	0.40
20:T:74:LYS:HD3	20:T:74:LYS:HA	1.72	0.40
1:A:1003:G:C2	1:A:1003(A):G:C5	3.09	0.40
1:A:1066:C:C2'	1:A:1067:A:H5'	2.50	0.40
1:A:1476:G:H2'	1:A:1477:C:C6	2.57	0.40
1:A:1402:4OC:O2	1:A:1500:A:N1	2.55	0.40
1:A:1527:C:C2'	1:A:1528:U:H5'	2.52	0.40
1:A:287:U:C2'	1:A:288:A:H5'	2.52	0.40
1:A:325:A:N6	1:A:326:G:C2	2.90	0.40
1:A:631:G:H2'	1:A:632:A:C8	2.57	0.40
1:A:88:A:C4	1:A:89:C:C6	3.09	0.40
2:B:23:ARG:O	2:B:24:TRP:HD1	2.05	0.40
4:D:30:LYS:C	4:D:32:ALA:N	2.73	0.40
8:H:6:ILE:HG13	8:H:31:PHE:HE2	1.86	0.40
1:A:943:U:H1'	9:I:124:GLN:HE22	1.86	0.40
1:A:779:C:H5''	11:K:122:LYS:HB3	2.02	0.40
14:N:23:ARG:HD3	14:N:28:GLY:O	2.20	0.40
15:O:21:ASP:OD1	15:O:24:SER:OG	2.25	0.40
15:O:39:LEU:HA	15:O:39:LEU:HD12	1.77	0.40
16:P:9:PHE:HD1	16:P:9:PHE:HA	1.64	0.40
17:Q:22:LEU:HD12	17:Q:40:LYS:O	2.21	0.40
1:A:1081:G:H5''	1:A:1081:G:C8	2.57	0.40
1:A:1422:G:C2	1:A:1423:G:C8	3.10	0.40
1:A:1540:PSU:H3'	1:A:1540:PSU:C6	2.57	0.40
1:A:428:G:C6	1:A:430:A:C6	3.09	0.40
1:A:820:U:H4'	1:A:821:G:OP2	2.22	0.40
3:C:6:HIS:CD2	3:C:8:ILE:HB	2.56	0.40
4:D:152:SER:HA	4:D:155:LEU:HD21	2.03	0.40
10:J:22:LYS:NZ	10:J:90:LEU:HD12	2.37	0.40
13:M:54:VAL:HG23	13:M:57:ARG:HH11	1.87	0.40
19:S:50:ALA:HA	19:S:58:VAL:O	2.20	0.40
20:T:62:LEU:HD22	20:T:62:LEU:O	2.21	0.40
20:T:80:ARG:NH1	20:T:80:ARG:HG3	2.37	0.40
1:A:1164:G:C8	1:A:1164:G:OP2	2.74	0.40
1:A:987:G:N2	1:A:1219:U:O2	2.54	0.40
1:A:1321:C:C5	1:A:1322:C:C2	3.08	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1539:C:C4	1:A:1540:PSU:C2	3.09	0.40
1:A:20:U:H3'	1:A:20:U:C6	2.56	0.40
1:A:418:C:H1'	1:A:540:G:O2'	2.22	0.40
1:A:943:U:C2'	1:A:944:G:H5'	2.51	0.40
1:A:990:C:H42	1:A:1215:G:H1	1.68	0.40
3:C:51:GLY:O	3:C:115:LEU:HG	2.21	0.40
12:L:10:LEU:HA	12:L:10:LEU:HD22	1.75	0.40
1:A:227:G:H21	16:P:62:VAL:HG12	1.86	0.40
19:S:64:GLU:O	19:S:67:VAL:HG23	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	
2	B	232/256 (91%)	199 (86%)	30 (13%)	3 (1%)	12	47
3	C	204/239 (85%)	172 (84%)	30 (15%)	2 (1%)	15	51
4	D	206/209 (99%)	186 (90%)	17 (8%)	3 (2%)	10	44
5	E	148/162 (91%)	137 (93%)	9 (6%)	2 (1%)	11	45
6	F	99/101 (98%)	96 (97%)	3 (3%)	0	100	100
7	G	153/156 (98%)	137 (90%)	15 (10%)	1 (1%)	22	59
8	H	136/138 (99%)	129 (95%)	7 (5%)	0	100	100
9	I	125/128 (98%)	112 (90%)	12 (10%)	1 (1%)	19	56
10	J	96/105 (91%)	74 (77%)	20 (21%)	2 (2%)	7	38
11	K	114/129 (88%)	98 (86%)	16 (14%)	0	100	100
12	L	121/135 (90%)	105 (87%)	14 (12%)	2 (2%)	9	42
13	M	116/126 (92%)	103 (89%)	10 (9%)	3 (3%)	5	33
14	N	58/61 (95%)	48 (83%)	10 (17%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	O	85/89 (96%)	75 (88%)	10 (12%)	0	100	100
16	P	81/88 (92%)	74 (91%)	6 (7%)	1 (1%)	13	49
17	Q	97/105 (92%)	90 (93%)	7 (7%)	0	100	100
18	R	68/88 (77%)	60 (88%)	8 (12%)	0	100	100
19	S	78/93 (84%)	70 (90%)	5 (6%)	3 (4%)	3	27
20	T	97/106 (92%)	81 (84%)	16 (16%)	0	100	100
21	U	22/27 (82%)	20 (91%)	2 (9%)	0	100	100
All	All	2336/2541 (92%)	2066 (88%)	247 (11%)	23 (1%)	15	51

All (23) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
19	S	31	ILE
19	S	70	LYS
2	B	21	ARG
2	B	24	TRP
3	C	15	THR
12	L	28	LYS
19	S	30	LEU
4	D	35	ARG
7	G	59	LEU
9	I	117	HIS
2	B	229	VAL
4	D	160	GLN
13	M	59	TYR
13	M	61	GLU
5	E	129	ILE
10	J	34	VAL
3	C	66	VAL
4	D	5	ILE
13	M	7	VAL
16	P	53	VAL
5	E	70	PRO
10	J	72	VAL
12	L	25	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 X-ray entries followed by that with respect to entries of similar resolution.

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	
2	B	202/220 (92%)	146 (72%)	56 (28%)	0	3
3	C	160/188 (85%)	107 (67%)	53 (33%)	0	1
4	D	180/181 (99%)	141 (78%)	39 (22%)	1	7
5	E	115/123 (94%)	78 (68%)	37 (32%)	0	1
6	F	90/90 (100%)	66 (73%)	24 (27%)	0	3
7	G	126/127 (99%)	92 (73%)	34 (27%)	0	3
8	H	119/119 (100%)	89 (75%)	30 (25%)	0	4
9	I	98/99 (99%)	77 (79%)	21 (21%)	1	7
10	J	87/92 (95%)	71 (82%)	16 (18%)	1	10
11	K	88/99 (89%)	66 (75%)	22 (25%)	0	4
12	L	103/110 (94%)	73 (71%)	30 (29%)	0	2
13	M	94/101 (93%)	71 (76%)	23 (24%)	0	5
14	N	49/50 (98%)	41 (84%)	8 (16%)	2	15
15	O	79/80 (99%)	61 (77%)	18 (23%)	1	6
16	P	72/74 (97%)	60 (83%)	12 (17%)	2	14
17	Q	94/97 (97%)	71 (76%)	23 (24%)	0	5
18	R	61/77 (79%)	45 (74%)	16 (26%)	0	4
19	S	71/80 (89%)	50 (70%)	21 (30%)	0	2
20	T	76/82 (93%)	54 (71%)	22 (29%)	0	2
21	U	19/22 (86%)	15 (79%)	4 (21%)	1	7
All	All	1983/2111 (94%)	1474 (74%)	509 (26%)	0	4

All (509) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	8	LYS
2	B	10	LEU
2	B	12	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	16	HIS
2	B	19	HIS
2	B	23	ARG
2	B	24	TRP
2	B	26	PRO
2	B	30	ARG
2	B	33	TYR
2	B	39	ILE
2	B	46	LYS
2	B	48	MET
2	B	49	GLU
2	B	51	LEU
2	B	53	ARG
2	B	59	GLU
2	B	69	LEU
2	B	75	LYS
2	B	84	GLU
2	B	87	ARG
2	B	92	TYR
2	B	96	ARG
2	B	97	TRP
2	B	98	LEU
2	B	102	LEU
2	B	106	LYS
2	B	121	LEU
2	B	127	ILE
2	B	129	GLU
2	B	142	LEU
2	B	144	ARG
2	B	147	LYS
2	B	150	SER
2	B	153	ARG
2	B	154	LEU
2	B	157	ARG
2	B	165	VAL
2	B	169	LYS
2	B	175	ARG
2	B	178	ARG
2	B	180	LEU
2	B	184	VAL
2	B	185	ILE
2	B	187	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	193	ASP
2	B	196	LEU
2	B	197	VAL
2	B	200	ILE
2	B	215	LEU
2	B	216	SER
2	B	217	ARG
2	B	223	ILE
2	B	226	ARG
2	B	231	GLU
2	B	236	TYR
3	C	3	ASN
3	C	4	LYS
3	C	14	ILE
3	C	15	THR
3	C	20	SER
3	C	21	ARG
3	C	26	LYS
3	C	28	GLN
3	C	30	ARG
3	C	32	LEU
3	C	33	LEU
3	C	34	LEU
3	C	39	ILE
3	C	49	SER
3	C	57	ILE
3	C	62	ASP
3	C	63	ASN
3	C	64	VAL
3	C	75	VAL
3	C	79	ARG
3	C	86	VAL
3	C	91	LEU
3	C	94	LEU
3	C	98	ASN
3	C	101	LEU
3	C	102	ASN
3	C	112	SER
3	C	115	LEU
3	C	118	GLN
3	C	127	ARG
3	C	130	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	C	131	ARG
3	C	132	ARG
3	C	135	LYS
3	C	139	GLN
3	C	147	LYS
3	C	156	ARG
3	C	157	ILE
3	C	162	GLN
3	C	165	THR
3	C	167	TRP
3	C	172	ARG
3	C	175	LEU
3	C	178	LEU
3	C	188	LEU
3	C	190	ARG
3	C	193	TYR
3	C	195	VAL
3	C	196	LEU
3	C	198	VAL
3	C	203	PHE
3	C	204	LEU
3	C	207	VAL
4	D	5	ILE
4	D	9	CYS
4	D	12	CYS
4	D	15	GLU
4	D	19	LEU
4	D	20	TYR
4	D	22	LYS
4	D	25	ARG
4	D	26	CYS
4	D	30	LYS
4	D	50	ARG
4	D	58	LEU
4	D	61	LYS
4	D	64	LEU
4	D	71	SER
4	D	73	ARG
4	D	83	SER
4	D	86	LYS
4	D	91	SER
4	D	108	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	D	112	VAL
4	D	115	ARG
4	D	119	GLN
4	D	120	LEU
4	D	122	ARG
4	D	127	THR
4	D	129	ASN
4	D	137	SER
4	D	140	VAL
4	D	141	ARG
4	D	148	VAL
4	D	157	LEU
4	D	174	LEU
4	D	186	LEU
4	D	187	ARG
4	D	192	GLU
4	D	194	LEU
4	D	198	VAL
4	D	202	LEU
5	E	12	LEU
5	E	16	THR
5	E	18	ARG
5	E	19	MET
5	E	20	GLN
5	E	25	ARG
5	E	26	PHE
5	E	31	LEU
5	E	34	VAL
5	E	41	VAL
5	E	53	LEU
5	E	56	GLN
5	E	60	TYR
5	E	61	TYR
5	E	67	VAL
5	E	68	GLU
5	E	75	THR
5	E	76	ILE
5	E	79	GLU
5	E	80	ILE
5	E	84	PHE
5	E	87	SER
5	E	92	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	E	100	VAL
5	E	112	LEU
5	E	116	THR
5	E	117	ASP
5	E	121	LYS
5	E	125	SER
5	E	126	ARG
5	E	130	ASN
5	E	131	ILE
5	E	144	THR
5	E	147	ASP
5	E	148	VAL
5	E	151	LEU
5	E	152	ARG
6	F	5	GLU
6	F	9	VAL
6	F	15	ASP
6	F	19	LEU
6	F	23	LYS
6	F	36	ARG
6	F	37	VAL
6	F	39	LYS
6	F	43	LEU
6	F	54	LYS
6	F	55	ASP
6	F	61	LEU
6	F	69	GLU
6	F	70	ASP
6	F	71	ARG
6	F	74	ASP
6	F	75	LEU
6	F	82	ARG
6	F	83	ASP
6	F	87	ARG
6	F	93	SER
6	F	97	PHE
6	F	98	LEU
6	F	100	ASN
7	G	3	ARG
7	G	5	ARG
7	G	6	ARG
7	G	8	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	G	15	ASP
7	G	22	LEU
7	G	24	THR
7	G	30	ILE
7	G	31	MET
7	G	32	ARG
7	G	49	ILE
7	G	50	ILE
7	G	52	GLU
7	G	53	LYS
7	G	54	THR
7	G	57	GLU
7	G	67	GLU
7	G	72	ARG
7	G	80	VAL
7	G	86	GLN
7	G	87	VAL
7	G	89	MET
7	G	91	VAL
7	G	95	ARG
7	G	106	GLN
7	G	110	GLN
7	G	111	ARG
7	G	113	GLU
7	G	115	ARG
7	G	125	MET
7	G	126	ASP
7	G	129	GLU
7	G	146	GLU
7	G	155	ARG
8	H	3	THR
8	H	5	PRO
8	H	6	ILE
8	H	8	ASP
8	H	11	THR
8	H	19	VAL
8	H	26	VAL
8	H	29	SER
8	H	35	ILE
8	H	50	ARG
8	H	51	VAL
8	H	63	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	H	79	VAL
8	H	81	HIS
8	H	83	ILE
8	H	85	ARG
8	H	86	ILE
8	H	88	LYS
8	H	91	ARG
8	H	92	ARG
8	H	95	VAL
8	H	98	LYS
8	H	104	ARG
8	H	105	ARG
8	H	115	SER
8	H	120	THR
8	H	122	ARG
8	H	127	LEU
8	H	129	VAL
8	H	133	LEU
9	I	4	TYR
9	I	5	TYR
9	I	20	ARG
9	I	26	VAL
9	I	27	THR
9	I	53	VAL
9	I	65	VAL
9	I	66	ARG
9	I	70	LYS
9	I	78	LYS
9	I	79	LEU
9	I	102	LEU
9	I	104	ARG
9	I	107	ARG
9	I	109	VAL
9	I	112	LYS
9	I	113	LYS
9	I	114	TYR
9	I	121	ARG
9	I	127	LYS
9	I	128	ARG
10	J	3	LYS
10	J	8	LEU
10	J	17	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	J	21	GLN
10	J	30	SER
10	J	38	ILE
10	J	43	ARG
10	J	48	THR
10	J	59	SER
10	J	65	LEU
10	J	68	HIS
10	J	69	ASN
10	J	79	ARG
10	J	82	ILE
10	J	89	ASP
10	J	96	ILE
11	K	11	LYS
11	K	13	GLN
11	K	14	VAL
11	K	18	ARG
11	K	29	ILE
11	K	30	VAL
11	K	32	ILE
11	K	40	ILE
11	K	48	ILE
11	K	75	TYR
11	K	77	MET
11	K	79	SER
11	K	85	ARG
11	K	87	THR
11	K	98	LEU
11	K	101	SER
11	K	104	GLN
11	K	105	VAL
11	K	109	VAL
11	K	116	HIS
11	K	117	ASN
11	K	119	CYS
12	L	6	THR
12	L	10	LEU
12	L	11	VAL
12	L	12	ARG
12	L	18	VAL
12	L	19	ARG
12	L	20	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	L	33	ARG
12	L	36	VAL
12	L	41	ARG
12	L	43	VAL
12	L	47	LYS
12	L	53	ARG
12	L	55	VAL
12	L	59	ARG
12	L	61	THR
12	L	62	SER
12	L	64	TYR
12	L	66	VAL
12	L	79	GLU
12	L	80	HIS
12	L	81	SER
12	L	97	ARG
12	L	98	TYR
12	L	101	VAL
12	L	112	ASP
12	L	115	LYS
12	L	119	LYS
12	L	122	THR
12	L	126	LYS
13	M	3	ARG
13	M	12	ASN
13	M	14	ARG
13	M	16	ASP
13	M	19	LEU
13	M	27	LYS
13	M	34	LEU
13	M	35	GLU
13	M	48	LEU
13	M	49	THR
13	M	56	LEU
13	M	60	VAL
13	M	66	LEU
13	M	67	GLU
13	M	70	LEU
13	M	71	ARG
13	M	74	VAL
13	M	80	ARG
13	M	103	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	M	109	THR
13	M	110	ARG
13	M	113	PRO
13	M	115	LYS
14	N	21	TYR
14	N	24	CYS
14	N	31	ARG
14	N	36	PHE
14	N	41	ARG
14	N	45	ARG
14	N	58	LYS
14	N	60	SER
15	O	4	THR
15	O	9	GLN
15	O	10	LYS
15	O	17	ARG
15	O	32	LEU
15	O	33	THR
15	O	34	LEU
15	O	38	ARG
15	O	42	HIS
15	O	45	VAL
15	O	48	LYS
15	O	52	SER
15	O	56	LEU
15	O	63	ARG
15	O	65	ARG
15	O	67	LEU
15	O	70	LEU
15	O	75	PRO
16	P	3	LYS
16	P	8	ARG
16	P	27	LYS
16	P	31	LYS
16	P	44	THR
16	P	54	GLU
16	P	55	ARG
16	P	62	VAL
16	P	68	ASP
16	P	72	ARG
16	P	74	LEU
16	P	75	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	Q	6	LEU
17	Q	7	THR
17	Q	9	VAL
17	Q	10	VAL
17	Q	21	VAL
17	Q	34	LYS
17	Q	35	VAL
17	Q	36	ILE
17	Q	37	LYS
17	Q	50	LYS
17	Q	53	LEU
17	Q	57	VAL
17	Q	59	ILE
17	Q	60	ILE
17	Q	68	ARG
17	Q	74	LEU
17	Q	76	LEU
17	Q	81	ARG
17	Q	86	GLU
17	Q	87	LYS
17	Q	96	GLN
17	Q	97	SER
17	Q	99	SER
18	R	19	LYS
18	R	21	LYS
18	R	30	ASP
18	R	31	LEU
18	R	32	ARG
18	R	47	THR
18	R	50	ILE
18	R	51	LEU
18	R	55	ARG
18	R	56	THR
18	R	65	ILE
18	R	69	THR
18	R	71	LYS
18	R	84	LYS
18	R	87	ARG
18	R	88	LYS
19	S	3	ARG
19	S	5	LEU
19	S	7	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
19	S	15	LEU
19	S	18	LYS
19	S	20	LEU
19	S	29	ARG
19	S	31	ILE
19	S	33	THR
19	S	35	SER
19	S	39	THR
19	S	41	VAL
19	S	43	GLU
19	S	49	ILE
19	S	51	VAL
19	S	55	LYS
19	S	60	VAL
19	S	64	GLU
19	S	69	HIS
19	S	70	LYS
19	S	71	LEU
20	T	18	GLN
20	T	19	SER
20	T	20	LEU
20	T	25	ARG
20	T	30	LYS
20	T	33	ILE
20	T	35	THR
20	T	42	GLN
20	T	45	GLN
20	T	50	GLU
20	T	53	LEU
20	T	56	MET
20	T	62	LEU
20	T	72	LEU
20	T	75	ASN
20	T	79	ARG
20	T	84	LEU
20	T	86	ARG
20	T	90	GLN
20	T	91	LEU
20	T	92	LEU
20	T	99	LEU
21	U	8	THR
21	U	10	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	U	12	LYS
21	U	13	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (11) such sidechains are listed below:

Mol	Chain	Res	Type
4	D	119	GLN
4	D	123	HIS
4	D	129	ASN
6	F	84	ASN
8	H	82	HIS
9	I	124	GLN
10	J	56	HIS
10	J	62	HIS
17	Q	16	GLN
18	R	63	GLN
19	S	14	HIS

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	1508/1522 (99%)	422 (27%)	62 (4%)

All (422) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	6	G
1	A	7	G
1	A	8	A
1	A	9	G
1	A	21	G
1	A	22	G
1	A	31	G
1	A	32	A
1	A	39	G
1	A	41	G
1	A	44	G
1	A	47	C
1	A	48	C
1	A	49	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	50	A
1	A	51	A
1	A	66	G
1	A	70	G
1	A	73	C
1	A	81	U
1	A	82	U
1	A	88	A
1	A	92	C
1	A	96	G
1	A	99	C
1	A	101	A
1	A	108	G
1	A	116	A
1	A	121	C
1	A	129(A)	G
1	A	130	A
1	A	131	C
1	A	134	A
1	A	144	G
1	A	149	A
1	A	151	A
1	A	156	G
1	A	159	G
1	A	163	C
1	A	167	G
1	A	173	U
1	A	181	G
1	A	182	U
1	A	183	G
1	A	187	C
1	A	190(E)	U
1	A	190(G)	G
1	A	195	A
1	A	197	A
1	A	201	C
1	A	202	U
1	A	203	U
1	A	204	U
1	A	216	G
1	A	220	G
1	A	231	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	244	U
1	A	247	G
1	A	251	G
1	A	252	U
1	A	253	U
1	A	254	G
1	A	266	G
1	A	267	C
1	A	274	A
1	A	287	U
1	A	289	G
1	A	291	C
1	A	296	U
1	A	297	G
1	A	298	A
1	A	301	G
1	A	321	A
1	A	326	G
1	A	328	C
1	A	329	A
1	A	332	G
1	A	344	A
1	A	345	C
1	A	350	G
1	A	351	G
1	A	352	C
1	A	353	A
1	A	354	G
1	A	356	A
1	A	367	U
1	A	371	G
1	A	373	A
1	A	374	A
1	A	384	G
1	A	390	C
1	A	392	G
1	A	397	A
1	A	398	C
1	A	406	G
1	A	409	G
1	A	411	A
1	A	412	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	413	G
1	A	417	C
1	A	420	U
1	A	421	U
1	A	422	C
1	A	423	G
1	A	424	G
1	A	429	U
1	A	430	A
1	A	439	A
1	A	450	G
1	A	453	A
1	A	455	C
1	A	459	G
1	A	460	A
1	A	461	C
1	A	475	G
1	A	476	G
1	A	478	A
1	A	479	C
1	A	481	G
1	A	482	A
1	A	484	G
1	A	485	G
1	A	497	A
1	A	498	U
1	A	504	C
1	A	509	A
1	A	510	A
1	A	511	C
1	A	517	G
1	A	518	C
1	A	519	C
1	A	522	C
1	A	527	7MG
1	A	530	G
1	A	531	U
1	A	532	A
1	A	533	A
1	A	547	A
1	A	548	G
1	A	559	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	560	U
1	A	562	C
1	A	563	A
1	A	566	G
1	A	568	G
1	A	572	A
1	A	573	A
1	A	576	G
1	A	577	G
1	A	579	G
1	A	588	G
1	A	597	G
1	A	608	A
1	A	616	G
1	A	622	A
1	A	631	G
1	A	634	C
1	A	641	U
1	A	651	C
1	A	652	U
1	A	653	A
1	A	658	G
1	A	665	A
1	A	670	G
1	A	684	A
1	A	686	U
1	A	687	A
1	A	688	G
1	A	693	G
1	A	695	A
1	A	701	C
1	A	702	A
1	A	703	G
1	A	714	G
1	A	722	A
1	A	723	U
1	A	724	G
1	A	731	G
1	A	733	A
1	A	734	G
1	A	741	G
1	A	749	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	755	G
1	A	759	A
1	A	761	G
1	A	773	G
1	A	774	G
1	A	777	A
1	A	781	A
1	A	787	A
1	A	788	U
1	A	789	U
1	A	791	G
1	A	792	A
1	A	793	U
1	A	794	A
1	A	795	C
1	A	813	U
1	A	815	A
1	A	817	C
1	A	819	A
1	A	821	G
1	A	827	U
1	A	828	A
1	A	839	U
1	A	840	C
1	A	841	U
1	A	848	C
1	A	852	G
1	A	853	G
1	A	855	G
1	A	859	A
1	A	869	G
1	A	870	U
1	A	871	U
1	A	872	A
1	A	873	A
1	A	876	G
1	A	885	G
1	A	895	G
1	A	902	G
1	A	907	A
1	A	910	C
1	A	914	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	917	G
1	A	922	G
1	A	926	G
1	A	927	G
1	A	932	C
1	A	934	C
1	A	935	A
1	A	938	A
1	A	940	C
1	A	950	U
1	A	954	G
1	A	960	U
1	A	966	M2G
1	A	969	A
1	A	971	G
1	A	974	A
1	A	975	A
1	A	976	G
1	A	977	A
1	A	982	U
1	A	984	C
1	A	986	A
1	A	987	G
1	A	989	C
1	A	990	C
1	A	991	U
1	A	992	U
1	A	993	G
1	A	996	A
1	A	1004	A
1	A	1005	A
1	A	1007	C
1	A	1008	C
1	A	1010	G
1	A	1023	G
1	A	1024	G
1	A	1026	G
1	A	1027	C
1	A	1030(B)	C
1	A	1031	G
1	A	1037	C
1	A	1045	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1046	A
1	A	1049	U
1	A	1050	G
1	A	1051	C
1	A	1054	C
1	A	1060	C
1	A	1064	G
1	A	1065	U
1	A	1066	C
1	A	1068	G
1	A	1072	G
1	A	1085	U
1	A	1092	A
1	A	1093	A
1	A	1094	G
1	A	1095	U
1	A	1101	A
1	A	1104	G
1	A	1126	U
1	A	1127	G
1	A	1128	C
1	A	1129	C
1	A	1130	A
1	A	1131	G
1	A	1137	C
1	A	1139	G
1	A	1140	C
1	A	1141	C
1	A	1142	G
1	A	1145	C
1	A	1146	A
1	A	1149	C
1	A	1152	A
1	A	1159	U
1	A	1160	G
1	A	1161	C
1	A	1162	C
1	A	1164	G
1	A	1165	C
1	A	1168	A
1	A	1171	G
1	A	1172	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1176	A
1	A	1183	A
1	A	1184	G
1	A	1190	G
1	A	1194	U
1	A	1196	U
1	A	1197	G
1	A	1198	G
1	A	1200	C
1	A	1201	A
1	A	1202	G
1	A	1206	G
1	A	1210	C
1	A	1211	U
1	A	1212	U
1	A	1214	C
1	A	1223	C
1	A	1224	G
1	A	1225	A
1	A	1226	C
1	A	1228	C
1	A	1229	A
1	A	1233	G
1	A	1238	A
1	A	1241	G
1	A	1242	C
1	A	1243	C
1	A	1245	A
1	A	1249	C
1	A	1253	G
1	A	1257	U
1	A	1258	G
1	A	1260	C
1	A	1261	A
1	A	1270	C
1	A	1273	G
1	A	1277	C
1	A	1278	U
1	A	1279	A
1	A	1280	A
1	A	1281	U
1	A	1282	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1285	A
1	A	1286	A
1	A	1287	A
1	A	1289	A
1	A	1297	C
1	A	1300	G
1	A	1301	U
1	A	1302	U
1	A	1304	G
1	A	1305	G
1	A	1306	A
1	A	1311	G
1	A	1312	G
1	A	1315	U
1	A	1319	A
1	A	1320	C
1	A	1322	C
1	A	1332	A
1	A	1335	C
1	A	1336	C
1	A	1338	G
1	A	1340	A
1	A	1346	A
1	A	1347	G
1	A	1348	U
1	A	1353	G
1	A	1358	U
1	A	1359	C
1	A	1364	U
1	A	1370	G
1	A	1376	U
1	A	1378	C
1	A	1379	G
1	A	1380	U
1	A	1381	U
1	A	1394	A
1	A	1398	A
1	A	1399	C
1	A	1403	C
1	A	1411	C
1	A	1442	G
1	A	1443	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1446	A
1	A	1447	G
1	A	1451	A
1	A	1452	C
1	A	1454	G
1	A	1463	C
1	A	1464	G
1	A	1476	G
1	A	1483	A
1	A	1487	G
1	A	1489	G
1	A	1493	A
1	A	1494	G
1	A	1497	G
1	A	1498	UR3
1	A	1499	A
1	A	1502	A
1	A	1503	A
1	A	1504	G
1	A	1505	G
1	A	1506	U
1	A	1520	G
1	A	1522	U
1	A	1529	G
1	A	1530	G
1	A	1531	A
1	A	1533	C
1	A	1540	PSU
1	A	1541	PSU
1	A	1542	U

All (62) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A	5	U
1	A	20	U
1	A	21	G
1	A	49	U
1	A	108	G
1	A	115	G
1	A	129(A)	G
1	A	181	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	204	U
1	A	243	A
1	A	246	A
1	A	250	A
1	A	251	G
1	A	328	C
1	A	344	A
1	A	350	G
1	A	353	A
1	A	372	C
1	A	412	A
1	A	413	G
1	A	428	G
1	A	429	U
1	A	452	A
1	A	460	A
1	A	484	G
1	A	509	A
1	A	532	A
1	A	559	A
1	A	687	A
1	A	701	C
1	A	748	C
1	A	793	U
1	A	812	C
1	A	870	U
1	A	913	A
1	A	975	A
1	A	992	U
1	A	1004	A
1	A	1026	G
1	A	1049	U
1	A	1065	U
1	A	1067	A
1	A	1139	G
1	A	1145	C
1	A	1182	G
1	A	1183	A
1	A	1190	G
1	A	1201	A
1	A	1224	G
1	A	1257	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1281	U
1	A	1285	A
1	A	1300	G
1	A	1301	U
1	A	1335	C
1	A	1346	A
1	A	1347	G
1	A	1380	U
1	A	1442	G
1	A	1504	G
1	A	1505	G
1	A	1541	PSU

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

15 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	5MC	A	1400	1	15,22,23	0.79	0	19,32,35	1.46	3 (15%)
1	UR3	A	1498	1,23	14,22,23	1.36	3 (21%)	15,32,35	1.14	2 (13%)
1	7MG	A	527	1	22,26,27	2.23	6 (27%)	28,39,42	1.53	5 (17%)
1	PSU	A	1540	1	17,21,22	1.16	1 (5%)	20,30,33	3.72	5 (25%)
1	M2G	A	966	1	20,27,28	1.03	1 (5%)	22,40,43	2.41	5 (22%)
1	4OC	A	1402	1	16,23,24	1.55	3 (18%)	17,32,35	0.95	1 (5%)
12	0TD	L	92	12	4,9,10	1.29	1 (25%)	3,11,13	4.84	2 (66%)
1	MA6	A	1519	1	19,26,27	1.82	5 (26%)	18,38,41	0.78	1 (5%)
1	5MC	A	1407	1	15,22,23	0.78	0	19,32,35	1.22	3 (15%)
1	2MG	A	1207	1	19,26,27	2.94	3 (15%)	21,38,41	2.30	3 (14%)
1	MA6	A	1518	1	19,26,27	1.07	1 (5%)	18,38,41	1.15	2 (11%)
1	5MC	A	1404	1	15,22,23	1.00	2 (13%)	19,32,35	0.90	1 (5%)
1	PSU	A	516	1,23	17,21,22	1.51	2 (11%)	20,30,33	3.93	5 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	PSU	A	1541	1	17,21,22	1.76	2 (11%)	20,30,33	5.00	9 (45%)
1	5MC	A	967	1	15,22,23	0.91	1 (6%)	19,32,35	1.05	3 (15%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	5MC	A	1400	1	-	2/5/25/26	0/2/2/2
1	UR3	A	1498	1,23	-	0/5/25/26	0/2/2/2
1	7MG	A	527	1	-	2/7/37/38	0/3/3/3
1	PSU	A	1540	1	-	2/7/25/26	0/2/2/2
1	M2G	A	966	1	-	3/7/29/30	0/3/3/3
1	4OC	A	1402	1	-	4/9/29/30	0/2/2/2
12	0TD	L	92	12	-	1/3/12/14	-
1	MA6	A	1519	1	-	4/7/29/30	0/3/3/3
1	5MC	A	1407	1	-	0/5/25/26	0/2/2/2
1	2MG	A	1207	1	-	0/5/27/28	0/3/3/3
1	MA6	A	1518	1	-	2/7/29/30	0/3/3/3
1	5MC	A	1404	1	-	0/5/25/26	0/2/2/2
1	PSU	A	516	1,23	-	0/7/25/26	0/2/2/2
1	PSU	A	1541	1	-	5/7/25/26	0/2/2/2
1	5MC	A	967	1	-	0/5/25/26	0/2/2/2

All (31) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1207	2MG	C2-N2	10.11	1.42	1.34
1	A	1207	2MG	C6-N1	6.27	1.44	1.33
1	A	527	7MG	C2-N2	5.15	1.44	1.33
1	A	527	7MG	C8-N9	-4.92	1.34	1.45
1	A	1541	PSU	C5-C1'	4.90	1.56	1.52
1	A	1541	PSU	C4-N3	4.67	1.41	1.33
1	A	516	PSU	C4-N3	4.61	1.41	1.33
1	A	1519	MA6	C9-N6	4.48	1.56	1.45
1	A	527	7MG	C6-C5	4.19	1.47	1.41
1	A	1540	PSU	C4-N3	4.02	1.40	1.33
1	A	1402	4OC	CM4-N4	3.85	1.51	1.45
1	A	1519	MA6	C2-N1	3.68	1.40	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	527	7MG	CM7-N7	-3.65	1.39	1.46
1	A	1207	2MG	C2-N1	3.51	1.45	1.34
1	A	1498	UR3	C6-N1	-3.25	1.31	1.35
1	A	1519	MA6	C6-N1	3.08	1.37	1.33
1	A	966	M2G	C6-N1	3.07	1.38	1.33
1	A	1402	4OC	C6-N1	-2.91	1.32	1.35
1	A	1402	4OC	C4-N3	-2.77	1.28	1.34
1	A	527	7MG	C4-N3	2.71	1.37	1.34
1	A	1519	MA6	C2-N3	2.54	1.36	1.32
1	A	1518	MA6	C2-N1	2.53	1.38	1.33
1	A	1404	5MC	C6-C5	-2.39	1.33	1.40
1	A	1498	UR3	O3'-C3'	2.36	1.48	1.43
1	A	516	PSU	O4'-C1'	-2.34	1.41	1.44
1	A	1404	5MC	C2-N3	2.19	1.42	1.38
1	A	1519	MA6	C4-N3	2.17	1.38	1.35
1	A	1498	UR3	C4-N3	-2.14	1.35	1.38
1	A	527	7MG	O5'-C5'	-2.12	1.39	1.44
1	A	967	5MC	C2-N3	2.07	1.42	1.38
12	L	92	0TD	O-C	2.06	1.28	1.19

All (50) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1541	PSU	N1-C2-N3	-16.33	115.44	128.43
1	A	516	PSU	N1-C2-N3	-13.95	117.34	128.43
1	A	1540	PSU	N1-C2-N3	-11.42	119.35	128.43
1	A	1541	PSU	C4-N3-C2	10.17	123.73	115.14
1	A	1207	2MG	C5-C6-N1	-8.70	111.53	123.43
1	A	966	M2G	C5-C6-N1	-8.39	111.95	123.43
1	A	516	PSU	C4-N3-C2	8.26	122.11	115.14
1	A	1540	PSU	C4-N3-C2	7.15	121.18	115.14
1	A	1540	PSU	C5-C1'-C2'	-6.99	102.85	115.32
1	A	1541	PSU	O4'-C1'-C5	6.15	119.45	109.93
12	L	92	0TD	CSB-SB-CB	-6.10	89.85	101.85
12	L	92	0TD	CB-CA-N	-5.73	96.88	109.10
1	A	966	M2G	C6-N1-C2	5.66	122.92	116.18
1	A	1541	PSU	C5-C1'-C2'	-5.03	106.35	115.32
1	A	1540	PSU	C5-C4-N3	-4.93	119.02	125.36
1	A	1207	2MG	C6-N1-C2	4.36	122.98	115.18
1	A	1400	5MC	CM5-C5-C4	-4.27	117.39	121.72
1	A	1541	PSU	C5-C4-N3	-4.21	119.94	125.36
1	A	516	PSU	C5-C4-N3	-4.04	120.16	125.36

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1541	PSU	C6-N1-C2	3.80	121.62	115.36
1	A	527	7MG	C5-C4-N3	-3.71	120.44	126.49
1	A	527	7MG	N7-C8-N9	3.62	108.56	103.38
1	A	527	7MG	N3-C4-N9	3.57	131.50	126.91
1	A	516	PSU	C6-N1-C2	3.32	120.83	115.36
1	A	1407	5MC	CM5-C5-C4	-3.31	118.38	121.72
1	A	1541	PSU	C3'-C2'-C1'	-2.97	98.51	101.93
1	A	1400	5MC	CM5-C5-C6	2.97	124.94	118.68
1	A	516	PSU	C5-C1'-C2'	2.93	120.55	115.32
1	A	1518	MA6	N1-C6-N6	-2.91	113.99	117.06
1	A	966	M2G	N1-C2-N2	-2.79	114.37	117.19
1	A	1518	MA6	C1'-N9-C4	-2.78	121.76	126.64
1	A	1541	PSU	C4-C5-C1'	2.75	126.31	121.12
1	A	1402	4OC	CM4-N4-C4	-2.63	120.71	122.97
1	A	1540	PSU	C6-N1-C2	2.56	119.58	115.36
1	A	1498	UR3	C3'-C2'-C1'	2.52	104.78	100.98
1	A	966	M2G	CM1-N2-C2	-2.51	118.90	121.29
1	A	527	7MG	C2-N3-C4	2.50	120.80	113.89
1	A	967	5MC	CM5-C5-C4	-2.35	119.34	121.72
1	A	967	5MC	CM5-C5-C6	2.30	123.54	118.68
1	A	1519	MA6	N1-C6-N6	2.26	119.43	117.06
1	A	1541	PSU	O4'-C4'-C3'	-2.18	100.80	105.11
1	A	1207	2MG	C1'-N9-C4	-2.17	122.82	126.64
1	A	967	5MC	C2-N3-C4	2.16	118.63	116.02
1	A	966	M2G	C2-N3-C4	-2.14	112.84	115.28
1	A	1400	5MC	C5-C4-N3	2.09	124.56	121.26
1	A	1407	5MC	CM5-C5-C6	2.05	123.01	118.68
1	A	1404	5MC	C5-C4-N3	2.03	124.47	121.26
1	A	1498	UR3	C2'-C3'-C4'	2.03	106.59	102.64
1	A	527	7MG	C6-N1-C2	2.02	119.14	115.93
1	A	1407	5MC	C5-C4-N3	2.01	124.42	121.26

There are no chirality outliers.

All (25) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A	1402	4OC	O4'-C4'-C5'-O5'
1	A	1402	4OC	N3-C4-N4-CM4
1	A	1402	4OC	C5-C4-N4-CM4
12	L	92	0TD	CG-CB-SB-CSB
1	A	1519	MA6	C5-C6-N6-C9
1	A	1519	MA6	C5-C6-N6-C10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
1	A	1519	MA6	N1-C6-N6-C9
1	A	1541	PSU	O4'-C1'-C5-C6
1	A	1541	PSU	O4'-C4'-C5'-O5'
1	A	1400	5MC	O4'-C4'-C5'-O5'
1	A	527	7MG	C3'-C4'-C5'-O5'
1	A	1402	4OC	C3'-C4'-C5'-O5'
1	A	1518	MA6	O4'-C4'-C5'-O5'
1	A	1541	PSU	C3'-C4'-C5'-O5'
1	A	1400	5MC	C3'-C4'-C5'-O5'
1	A	527	7MG	O4'-C4'-C5'-O5'
1	A	1540	PSU	O4'-C4'-C5'-O5'
1	A	1518	MA6	C3'-C4'-C5'-O5'
1	A	1540	PSU	C3'-C4'-C5'-O5'
1	A	1519	MA6	N1-C6-N6-C10
1	A	1541	PSU	C2'-C1'-C5-C6
1	A	1541	PSU	O4'-C1'-C5-C4
1	A	966	M2G	N1-C2-N2-CM1
1	A	966	M2G	N1-C2-N2-CM2
1	A	966	M2G	N3-C2-N2-CM2

There are no ring outliers.

13 monomers are involved in 24 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	A	1400	5MC	1	0
1	A	1498	UR3	2	0
1	A	527	7MG	2	0
1	A	1540	PSU	2	0
1	A	966	M2G	1	0
1	A	1402	4OC	1	0
12	L	92	0TD	2	0
1	A	1519	MA6	3	0
1	A	1407	5MC	1	0
1	A	1518	MA6	3	0
1	A	1404	5MC	7	0
1	A	1541	PSU	2	0
1	A	967	5MC	1	0

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 276 ligands modelled in this entry, 275 are monoatomic - leaving 1 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
22	SRY	A	1601	-	40,42,42	2.39	10 (25%)	49,63,63	2.57	22 (44%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	SRY	A	1601	-	-	2/20/87/87	0/3/3/3

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	A	1601	SRY	CD1-N31	9.72	1.50	1.33
22	A	1601	SRY	CA1-N11	5.94	1.43	1.33
22	A	1601	SRY	O53-C53	-4.21	1.34	1.44
22	A	1601	SRY	C11-N11	-3.26	1.40	1.45
22	A	1601	SRY	CA1-NB1	2.88	1.46	1.34
22	A	1601	SRY	CD1-NE1	2.63	1.45	1.34
22	A	1601	SRY	O51-C51	-2.59	1.36	1.43
22	A	1601	SRY	C21-C31	-2.51	1.48	1.53
22	A	1601	SRY	C23-N23	-2.31	1.43	1.47
22	A	1601	SRY	O32-C32	-2.15	1.40	1.44

All (22) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	A	1601	SRY	O13-C13-C23	6.61	119.64	108.24
22	A	1601	SRY	C13-O13-C22	-6.39	105.15	116.25
22	A	1601	SRY	C12-O42-C42	-5.68	99.45	108.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	A	1601	SRY	CI3-N23-C23	-4.65	107.62	114.38
22	A	1601	SRY	C41-C31-N31	4.50	118.39	110.91
22	A	1601	SRY	O41-C12-O42	-4.27	106.80	111.43
22	A	1601	SRY	O51-C51-C61	-3.76	101.65	110.35
22	A	1601	SRY	O61-C61-C11	3.57	116.86	109.66
22	A	1601	SRY	O42-C42-C32	3.52	109.36	104.33
22	A	1601	SRY	O13-C22-C32	3.10	118.98	111.75
22	A	1601	SRY	C13-O53-C53	-3.05	107.70	113.69
22	A	1601	SRY	O21-C21-C11	2.98	115.67	109.66
22	A	1601	SRY	C13-C23-N23	2.92	116.23	111.00
22	A	1601	SRY	O32-C32-C22	2.50	117.42	111.62
22	A	1601	SRY	C12-O41-C41	-2.48	111.82	117.96
22	A	1601	SRY	O51-C51-C41	2.38	116.26	109.94
22	A	1601	SRY	C43-C33-C23	-2.32	106.95	110.34
22	A	1601	SRY	C61-C11-N11	-2.24	106.38	110.62
22	A	1601	SRY	O61-C61-C51	-2.24	105.17	110.35
22	A	1601	SRY	O41-C41-C51	2.19	113.11	107.28
22	A	1601	SRY	C51-C61-C11	-2.11	107.25	110.34
22	A	1601	SRY	O43-C43-C33	2.03	115.03	110.35

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	A	1601	SRY	C13-C23-N23-CI3
22	A	1601	SRY	C21-C31-N31-CD1

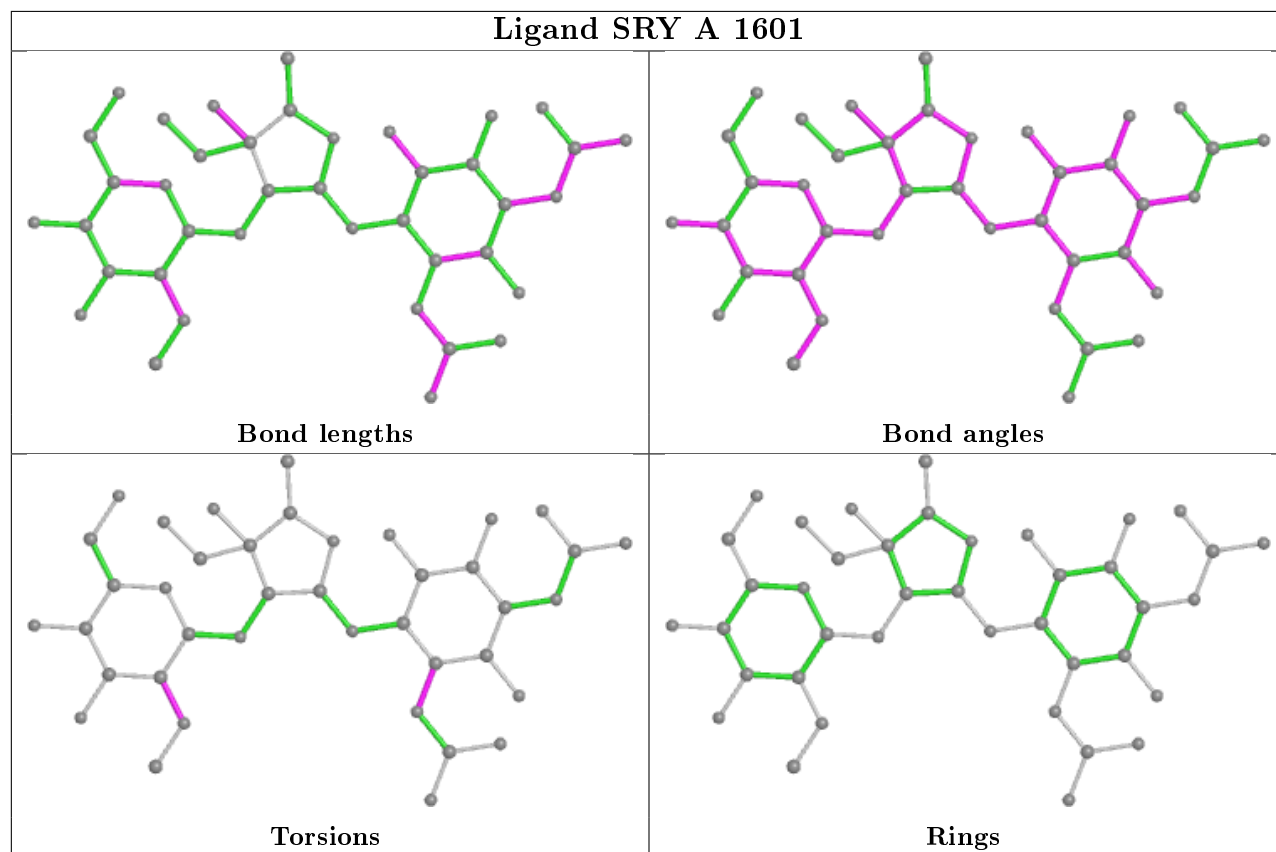
There are no ring outliers.

1 monomer is involved in 7 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	A	1601	SRY	7	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and

any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



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 Fit of model and data i

6.1 Protein, DNA and RNA chains i

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	1498/1522 (98%)	-0.45	18 (1%) 79 68	74, 131, 262, 364	0
2	B	234/256 (91%)	-0.63	1 (0%) 92 88	82, 143, 231, 264	0
3	C	206/239 (86%)	-0.20	10 (4%) 29 21	123, 191, 239, 272	0
4	D	208/209 (99%)	-0.50	1 (0%) 91 85	85, 134, 177, 200	0
5	E	150/162 (92%)	-0.61	0 100 100	73, 106, 144, 182	0
6	F	101/101 (100%)	-0.75	0 100 100	106, 153, 181, 203	0
7	G	155/156 (99%)	-0.38	5 (3%) 47 34	128, 180, 226, 251	0
8	H	138/138 (100%)	-0.70	0 100 100	68, 96, 145, 159	0
9	I	127/128 (99%)	-0.31	2 (1%) 72 60	126, 199, 236, 258	0
10	J	98/105 (93%)	0.28	9 (9%) 9 6	165, 229, 278, 305	0
11	K	116/129 (89%)	-0.62	0 100 100	94, 131, 177, 219	0
12	L	123/135 (91%)	-0.51	0 100 100	71, 124, 172, 206	0
13	M	118/126 (93%)	-0.37	2 (1%) 70 58	122, 164, 204, 231	0
14	N	60/61 (98%)	0.29	5 (8%) 11 8	133, 189, 234, 267	0
15	O	87/89 (97%)	-0.54	0 100 100	74, 122, 165, 180	0
16	P	83/88 (94%)	-0.60	0 100 100	92, 125, 166, 203	0
17	Q	99/105 (94%)	-0.67	0 100 100	84, 107, 140, 168	0
18	R	70/88 (79%)	-0.71	0 100 100	92, 129, 180, 220	0
19	S	80/93 (86%)	0.17	5 (6%) 20 13	174, 217, 268, 283	0
20	T	99/106 (93%)	-0.64	1 (1%) 82 72	95, 130, 179, 210	0
21	U	24/27 (88%)	1.40	8 (33%) 0 0	151, 187, 219, 221	0
All	All	3874/4063 (95%)	-0.44	67 (1%) 70 58	68, 141, 239, 364	0

All (67) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	C	103	VAL	6.2
3	C	193	TYR	5.9
10	J	37	PRO	4.6
10	J	34	VAL	4.5
1	A	793	U	4.4
1	A	994	A	4.3
3	C	102	ASN	4.2
10	J	33	GLN	4.2
19	S	40	ILE	4.2
21	U	18	TYR	4.1
1	A	1129	C	3.9
1	A	1037	C	3.9
21	U	17	THR	3.9
20	T	106	ALA	3.8
14	N	11	LYS	3.8
1	A	993	G	3.7
10	J	90	LEU	3.7
21	U	24	ARG	3.7
21	U	25	LYS	3.6
1	A	81	U	3.5
19	S	41	VAL	3.4
1	A	1539	C	3.4
7	G	7	ALA	3.3
10	J	36	GLY	3.3
2	B	231	GLU	3.3
14	N	18	VAL	3.3
3	C	65	ALA	3.2
7	G	2	ALA	3.1
10	J	74	ILE	3.1
1	A	995	C	3.1
3	C	156	ARG	3.0
3	C	66	VAL	3.0
14	N	3	ARG	3.0
19	S	4	SER	3.0
3	C	68	VAL	2.9
7	G	8	GLU	2.9
9	I	8	GLY	2.8
1	A	1036	G	2.7
13	M	117	VAL	2.7
4	D	45	GLN	2.7
10	J	38	ILE	2.7
1	A	1018	C	2.7
7	G	5	ARG	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	G	79	ARG	2.7
21	U	11	GLY	2.6
1	A	792	A	2.6
21	U	8	THR	2.6
14	N	4	LYS	2.6
1	A	1020	U	2.6
21	U	5	ASP	2.5
3	C	146	ALA	2.5
13	M	6	GLY	2.5
14	N	2	ALA	2.4
1	A	202	U	2.4
1	A	1019	C	2.4
3	C	161	GLU	2.3
10	J	89	ASP	2.3
9	I	102	LEU	2.3
10	J	73	ASP	2.2
19	S	69	HIS	2.2
1	A	1007	C	2.2
19	S	79	THR	2.1
3	C	104	GLN	2.1
1	A	1257	U	2.1
21	U	9	ARG	2.1
1	A	1124	G	2.0
1	A	1144	G	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
1	PSU	A	1540	20/21	0.79	0.74	207,241,323,324	0
1	PSU	A	1541	20/21	0.81	0.44	159,231,317,318	0
1	2MG	A	1207	24/25	0.91	0.28	175,210,229,233	0
1	M2G	A	966	25/26	0.94	0.20	123,141,169,173	0
1	5MC	A	1400	21/22	0.95	0.19	95,124,131,135	0
1	PSU	A	516	20/21	0.95	0.12	110,141,152,153	0
1	5MC	A	1407	21/22	0.95	0.16	136,148,157,159	0
1	5MC	A	1404	21/22	0.96	0.19	114,124,129,132	0
1	UR3	A	1498	21/22	0.96	0.18	112,123,141,146	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
1	MA6	A	1519	24/25	0.96	0.19	105,122,132,134	0
1	5MC	A	967	21/22	0.96	0.17	129,133,145,149	0
12	0TD	L	92	10/11	0.97	0.37	87,120,138,251	0
1	4OC	A	1402	22/23	0.97	0.18	108,117,120,127	0
1	7MG	A	527	24/25	0.98	0.13	103,112,124,131	0
1	MA6	A	1518	24/25	0.98	0.10	121,127,148,148	0

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q<0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
23	MG	A	1767	1/1	0.37	0.47	93,93,93,93	0
23	MG	A	1661	1/1	0.43	0.60	89,89,89,89	0
23	MG	A	1837	1/1	0.47	0.50	103,103,103,103	0
23	MG	A	1684	1/1	0.50	0.39	133,133,133,133	0
23	MG	A	1709	1/1	0.55	0.32	117,117,117,117	0
23	MG	A	1731	1/1	0.59	0.55	95,95,95,95	0
23	MG	H	204	1/1	0.67	0.65	105,105,105,105	0
23	MG	A	1794	1/1	0.67	0.53	127,127,127,127	0
23	MG	A	1748	1/1	0.67	0.16	143,143,143,143	0
23	MG	A	1673	1/1	0.69	0.51	73,73,73,73	0
23	MG	P	103	1/1	0.70	0.23	102,102,102,102	0
23	MG	A	1671	1/1	0.71	1.24	125,125,125,125	0
23	MG	A	1797	1/1	0.72	0.79	127,127,127,127	0
23	MG	Q	201	1/1	0.73	0.12	115,115,115,115	0
23	MG	A	1761	1/1	0.74	0.23	97,97,97,97	0
23	MG	A	1729	1/1	0.74	0.36	102,102,102,102	0
23	MG	S	101	1/1	0.74	0.19	93,93,93,93	0
23	MG	A	1793	1/1	0.75	1.41	105,105,105,105	0
23	MG	A	1658	1/1	0.75	0.63	120,120,120,120	0
23	MG	A	1720	1/1	0.76	0.56	112,112,112,112	0
23	MG	A	1663	1/1	0.76	0.11	109,109,109,109	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
23	MG	A	1737	1/1	0.77	0.30	128,128,128,128	0
23	MG	D	302	1/1	0.77	0.16	123,123,123,123	0
23	MG	A	1739	1/1	0.78	0.44	92,92,92,92	0
23	MG	A	1695	1/1	0.79	0.32	121,121,121,121	0
23	MG	A	1713	1/1	0.79	0.38	96,96,96,96	0
23	MG	A	1667	1/1	0.80	0.23	100,100,100,100	0
23	MG	A	1802	1/1	0.80	0.34	86,86,86,86	0
23	MG	A	1799	1/1	0.80	0.50	109,109,109,109	0
23	MG	A	1769	1/1	0.81	0.24	112,112,112,112	0
23	MG	A	1758	1/1	0.81	1.09	98,98,98,98	0
23	MG	N	102	1/1	0.81	0.35	112,112,112,112	0
23	MG	A	1832	1/1	0.82	0.26	109,109,109,109	0
23	MG	A	1841	1/1	0.82	0.47	392,392,392,392	0
23	MG	A	1710	1/1	0.82	0.53	73,73,73,73	0
23	MG	A	1798	1/1	0.82	0.65	122,122,122,122	0
23	MG	A	1760	1/1	0.82	0.29	105,105,105,105	0
23	MG	A	1719	1/1	0.82	0.20	113,113,113,113	0
23	MG	A	1796	1/1	0.82	0.49	107,107,107,107	0
23	MG	A	1779	1/1	0.82	0.34	91,91,91,91	0
23	MG	A	1659	1/1	0.83	0.20	108,108,108,108	0
23	MG	A	1613	1/1	0.83	0.45	98,98,98,98	0
23	MG	A	1747	1/1	0.83	0.35	111,111,111,111	0
23	MG	A	1804	1/1	0.83	0.55	77,77,77,77	0
23	MG	A	1741	1/1	0.83	0.27	113,113,113,113	0
23	MG	A	1753	1/1	0.84	0.18	168,168,168,168	0
23	MG	A	1733	1/1	0.84	0.28	111,111,111,111	0
23	MG	A	1782	1/1	0.84	0.18	108,108,108,108	0
23	MG	A	1632	1/1	0.85	0.24	105,105,105,105	0
23	MG	A	1693	1/1	0.85	0.18	104,104,104,104	0
23	MG	A	1823	1/1	0.85	0.23	317,317,317,317	0
23	MG	A	1700	1/1	0.85	0.32	107,107,107,107	0
23	MG	B	302	1/1	0.86	0.25	89,89,89,89	0
23	MG	A	1726	1/1	0.86	0.29	91,91,91,91	0
23	MG	A	1691	1/1	0.86	0.28	163,163,163,163	0
23	MG	M	201	1/1	0.86	0.55	101,101,101,101	0
23	MG	A	1743	1/1	0.86	0.24	113,113,113,113	0
23	MG	A	1607	1/1	0.86	0.12	156,156,156,156	0
23	MG	A	1624	1/1	0.86	0.34	97,97,97,97	0
23	MG	A	1784	1/1	0.86	0.79	93,93,93,93	0
23	MG	A	1715	1/1	0.87	0.08	120,120,120,120	0
23	MG	B	301	1/1	0.87	0.34	110,110,110,110	0
23	MG	A	1854	1/1	0.87	0.23	103,103,103,103	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
23	MG	A	1685	1/1	0.87	0.16	269,269,269,269	0
23	MG	A	1744	1/1	0.87	0.27	99,99,99,99	0
23	MG	A	1853	1/1	0.88	0.32	338,338,338,338	0
23	MG	A	1725	1/1	0.88	0.38	91,91,91,91	0
23	MG	A	1664	1/1	0.88	0.24	133,133,133,133	0
23	MG	A	1810	1/1	0.88	0.26	85,85,85,85	0
23	MG	J	201	1/1	0.88	0.37	107,107,107,107	0
23	MG	A	1740	1/1	0.88	0.33	123,123,123,123	0
23	MG	A	1786	1/1	0.88	0.22	78,78,78,78	0
23	MG	A	1817	1/1	0.88	0.99	312,312,312,312	0
23	MG	A	1750	1/1	0.88	0.41	115,115,115,115	0
23	MG	A	1833	1/1	0.89	0.12	98,98,98,98	0
23	MG	A	1680	1/1	0.89	0.43	104,104,104,104	0
23	MG	A	1768	1/1	0.90	0.22	112,112,112,112	0
23	MG	A	1718	1/1	0.90	0.17	95,95,95,95	0
23	MG	A	1677	1/1	0.90	0.32	97,97,97,97	0
23	MG	A	1781	1/1	0.90	0.48	101,101,101,101	0
23	MG	A	1815	1/1	0.90	0.26	355,355,355,355	0
23	MG	A	1759	1/1	0.90	0.37	96,96,96,96	0
23	MG	A	1772	1/1	0.90	0.50	117,117,117,117	0
23	MG	A	1745	1/1	0.90	0.38	85,85,85,85	0
23	MG	A	1787	1/1	0.90	0.17	81,81,81,81	0
23	MG	A	1738	1/1	0.90	0.26	89,89,89,89	0
23	MG	A	1835	1/1	0.90	0.56	128,128,128,128	0
23	MG	A	1783	1/1	0.91	0.13	133,133,133,133	0
23	MG	A	1746	1/1	0.91	0.23	123,123,123,123	0
23	MG	H	201	1/1	0.91	0.35	83,83,83,83	0
23	MG	A	1728	1/1	0.91	0.28	82,82,82,82	0
23	MG	A	1655	1/1	0.91	0.32	137,137,137,137	0
23	MG	A	1614	1/1	0.92	0.25	83,83,83,83	0
23	MG	A	1705	1/1	0.92	0.20	97,97,97,97	0
23	MG	A	1603	1/1	0.92	0.23	126,126,126,126	0
23	MG	A	1656	1/1	0.92	0.23	152,152,152,152	0
23	MG	A	1830	1/1	0.92	0.33	322,322,322,322	0
23	MG	A	1754	1/1	0.92	0.22	177,177,177,177	0
23	MG	A	1766	1/1	0.92	0.43	146,146,146,146	0
23	MG	A	1849	1/1	0.92	0.17	296,296,296,296	0
23	MG	A	1616	1/1	0.92	0.46	90,90,90,90	0
23	MG	A	1702	1/1	0.92	0.16	106,106,106,106	0
23	MG	A	1615	1/1	0.92	0.43	94,94,94,94	0
23	MG	A	1645	1/1	0.92	0.13	138,138,138,138	0
23	MG	A	1765	1/1	0.92	0.52	124,124,124,124	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
23	MG	A	1668	1/1	0.92	0.35	149,149,149,149	0
23	MG	T	201	1/1	0.92	0.22	92,92,92,92	0
23	MG	A	1626	1/1	0.92	0.25	146,146,146,146	0
23	MG	H	203	1/1	0.92	0.41	124,124,124,124	0
23	MG	A	1647	1/1	0.92	0.20	115,115,115,115	0
23	MG	A	1686	1/1	0.93	0.12	130,130,130,130	0
23	MG	A	1627	1/1	0.93	0.39	97,97,97,97	0
23	MG	A	1755	1/1	0.93	0.11	159,159,159,159	0
23	MG	A	1801	1/1	0.93	0.40	111,111,111,111	0
23	MG	A	1790	1/1	0.93	0.17	129,129,129,129	0
23	MG	A	1819	1/1	0.93	0.11	286,286,286,286	0
23	MG	A	1785	1/1	0.93	0.28	74,74,74,74	0
23	MG	A	1699	1/1	0.93	0.30	221,221,221,221	0
23	MG	A	1650	1/1	0.93	0.32	127,127,127,127	0
23	MG	A	1723	1/1	0.93	0.35	92,92,92,92	0
23	MG	A	1795	1/1	0.93	0.74	107,107,107,107	0
23	MG	A	1818	1/1	0.93	0.08	266,266,266,266	0
23	MG	A	1697	1/1	0.94	0.24	145,145,145,145	0
23	MG	A	1634	1/1	0.94	0.37	82,82,82,82	0
23	MG	H	202	1/1	0.94	0.15	83,83,83,83	0
23	MG	A	1682	1/1	0.94	0.13	171,171,171,171	0
23	MG	A	1827	1/1	0.94	0.18	200,200,200,200	0
23	MG	A	1811	1/1	0.94	0.12	87,87,87,87	0
23	MG	A	1813	1/1	0.94	0.28	228,228,228,228	0
23	MG	A	1676	1/1	0.94	0.23	81,81,81,81	0
23	MG	A	1812	1/1	0.94	0.28	183,183,183,183	0
23	MG	A	1674	1/1	0.94	0.27	94,94,94,94	0
23	MG	A	1721	1/1	0.94	0.23	115,115,115,115	0
23	MG	A	1639	1/1	0.94	0.14	116,116,116,116	0
23	MG	A	1712	1/1	0.94	0.23	91,91,91,91	0
23	MG	A	1752	1/1	0.94	0.10	110,110,110,110	0
23	MG	A	1660	1/1	0.94	0.13	173,173,173,173	0
23	MG	A	1848	1/1	0.94	0.24	336,336,336,336	0
23	MG	P	101	1/1	0.94	0.30	77,77,77,77	0
23	MG	A	1735	1/1	0.94	0.25	95,95,95,95	0
23	MG	A	1792	1/1	0.94	0.13	111,111,111,111	0
23	MG	A	1732	1/1	0.94	0.12	114,114,114,114	0
23	MG	A	1828	1/1	0.94	0.61	289,289,289,289	0
23	MG	E	201	1/1	0.94	0.06	228,228,228,228	0
23	MG	T	202	1/1	0.95	0.32	267,267,267,267	0
23	MG	A	1836	1/1	0.95	0.10	175,175,175,175	0
23	MG	A	1602	1/1	0.95	0.15	144,144,144,144	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
23	MG	A	1622	1/1	0.95	0.13	86,86,86,86	0
23	MG	A	1714	1/1	0.95	0.15	130,130,130,130	0
23	MG	A	1724	1/1	0.95	0.18	71,71,71,71	0
23	MG	A	1839	1/1	0.95	0.11	137,137,137,137	0
23	MG	A	1637	1/1	0.95	0.28	127,127,127,127	0
23	MG	A	1770	1/1	0.95	0.21	108,108,108,108	0
23	MG	A	1775	1/1	0.95	0.10	235,235,235,235	0
23	MG	A	1771	1/1	0.95	0.22	77,77,77,77	0
23	MG	A	1742	1/1	0.95	0.12	77,77,77,77	0
23	MG	A	1850	1/1	0.95	0.17	270,270,270,270	0
23	MG	A	1653	1/1	0.95	0.20	145,145,145,145	0
23	MG	A	1814	1/1	0.96	0.27	360,360,360,360	0
23	MG	A	1706	1/1	0.96	0.32	97,97,97,97	0
23	MG	A	1623	1/1	0.96	0.09	146,146,146,146	0
23	MG	A	1681	1/1	0.96	0.07	208,208,208,208	0
23	MG	A	1840	1/1	0.96	0.27	386,386,386,386	0
23	MG	A	1704	1/1	0.96	0.18	105,105,105,105	0
23	MG	A	1611	1/1	0.96	0.05	127,127,127,127	0
23	MG	A	1665	1/1	0.96	0.13	176,176,176,176	0
23	MG	A	1800	1/1	0.96	0.27	108,108,108,108	0
23	MG	P	102	1/1	0.96	0.25	100,100,100,100	0
22	SRY	A	1601	40/40	0.96	0.22	85,115,145,148	0
23	MG	A	1604	1/1	0.96	0.30	92,92,92,92	0
23	MG	A	1651	1/1	0.96	0.56	108,108,108,108	0
23	MG	A	1666	1/1	0.96	0.18	136,136,136,136	0
23	MG	A	1692	1/1	0.96	0.17	170,170,170,170	0
23	MG	A	1834	1/1	0.96	0.28	130,130,130,130	0
23	MG	A	1844	1/1	0.96	0.13	383,383,383,383	0
23	MG	A	1657	1/1	0.96	0.22	116,116,116,116	0
23	MG	A	1694	1/1	0.96	0.06	95,95,95,95	0
23	MG	A	1633	1/1	0.96	0.15	88,88,88,88	0
23	MG	A	1762	1/1	0.96	0.27	122,122,122,122	0
23	MG	A	1730	1/1	0.96	0.20	91,91,91,91	0
23	MG	A	1711	1/1	0.96	0.23	93,93,93,93	0
23	MG	A	1638	1/1	0.97	0.18	96,96,96,96	0
23	MG	A	1773	1/1	0.97	0.15	135,135,135,135	0
23	MG	A	1852	1/1	0.97	0.14	404,404,404,404	0
23	MG	A	1670	1/1	0.97	0.27	113,113,113,113	0
23	MG	A	1734	1/1	0.97	0.30	108,108,108,108	0
23	MG	A	1831	1/1	0.97	0.13	168,168,168,168	0
23	MG	A	1774	1/1	0.97	0.21	272,272,272,272	0
23	MG	A	1621	1/1	0.97	0.19	87,87,87,87	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
23	MG	A	1727	1/1	0.97	0.24	95,95,95,95	0
23	MG	A	1644	1/1	0.97	0.26	117,117,117,117	0
23	MG	A	1690	1/1	0.97	0.32	324,324,324,324	0
23	MG	A	1780	1/1	0.97	0.15	107,107,107,107	0
23	MG	A	1777	1/1	0.97	0.07	485,485,485,485	0
23	MG	A	1662	1/1	0.97	0.12	141,141,141,141	0
23	MG	A	1788	1/1	0.97	0.88	99,99,99,99	0
23	MG	A	1789	1/1	0.97	0.06	118,118,118,118	0
23	MG	A	1820	1/1	0.97	0.10	313,313,313,313	0
23	MG	A	1707	1/1	0.97	0.14	113,113,113,113	0
23	MG	A	1778	1/1	0.97	0.14	129,129,129,129	0
23	MG	A	1845	1/1	0.97	0.21	159,159,159,159	0
23	MG	A	1619	1/1	0.97	0.20	141,141,141,141	0
23	MG	A	1689	1/1	0.97	0.10	75,75,75,75	0
23	MG	A	1791	1/1	0.97	0.10	74,74,74,74	0
23	MG	M	202	1/1	0.97	0.53	111,111,111,111	0
23	MG	A	1708	1/1	0.97	0.19	135,135,135,135	0
23	MG	A	1678	1/1	0.97	0.24	149,149,149,149	0
23	MG	A	1847	1/1	0.97	0.15	296,296,296,296	0
23	MG	A	1805	1/1	0.97	0.06	93,93,93,93	0
23	MG	A	1809	1/1	0.97	0.18	96,96,96,96	0
23	MG	A	1648	1/1	0.97	0.09	227,227,227,227	0
23	MG	A	1764	1/1	0.97	0.09	118,118,118,118	0
23	MG	A	1822	1/1	0.97	0.04	157,157,157,157	0
23	MG	A	1826	1/1	0.97	0.10	304,304,304,304	0
23	MG	A	1636	1/1	0.98	0.34	176,176,176,176	0
23	MG	A	1610	1/1	0.98	0.18	129,129,129,129	0
23	MG	A	1756	1/1	0.98	0.07	203,203,203,203	0
23	MG	A	1763	1/1	0.98	0.14	93,93,93,93	0
23	MG	A	1851	1/1	0.98	0.16	208,208,208,208	0
23	MG	A	1687	1/1	0.98	0.07	210,210,210,210	0
23	MG	A	1683	1/1	0.98	0.22	159,159,159,159	0
23	MG	A	1675	1/1	0.98	0.18	79,79,79,79	0
23	MG	A	1612	1/1	0.98	0.13	75,75,75,75	0
23	MG	A	1698	1/1	0.98	0.05	170,170,170,170	0
23	MG	A	1736	1/1	0.98	0.13	84,84,84,84	0
23	MG	A	1640	1/1	0.98	0.19	96,96,96,96	0
23	MG	A	1652	1/1	0.98	0.11	114,114,114,114	0
23	MG	J	202	1/1	0.98	0.17	105,105,105,105	0
23	MG	A	1628	1/1	0.98	0.16	171,171,171,171	0
23	MG	A	1620	1/1	0.98	0.32	128,128,128,128	0
23	MG	A	1701	1/1	0.98	0.25	87,87,87,87	0

Continued on next page...

Continued from previous page...

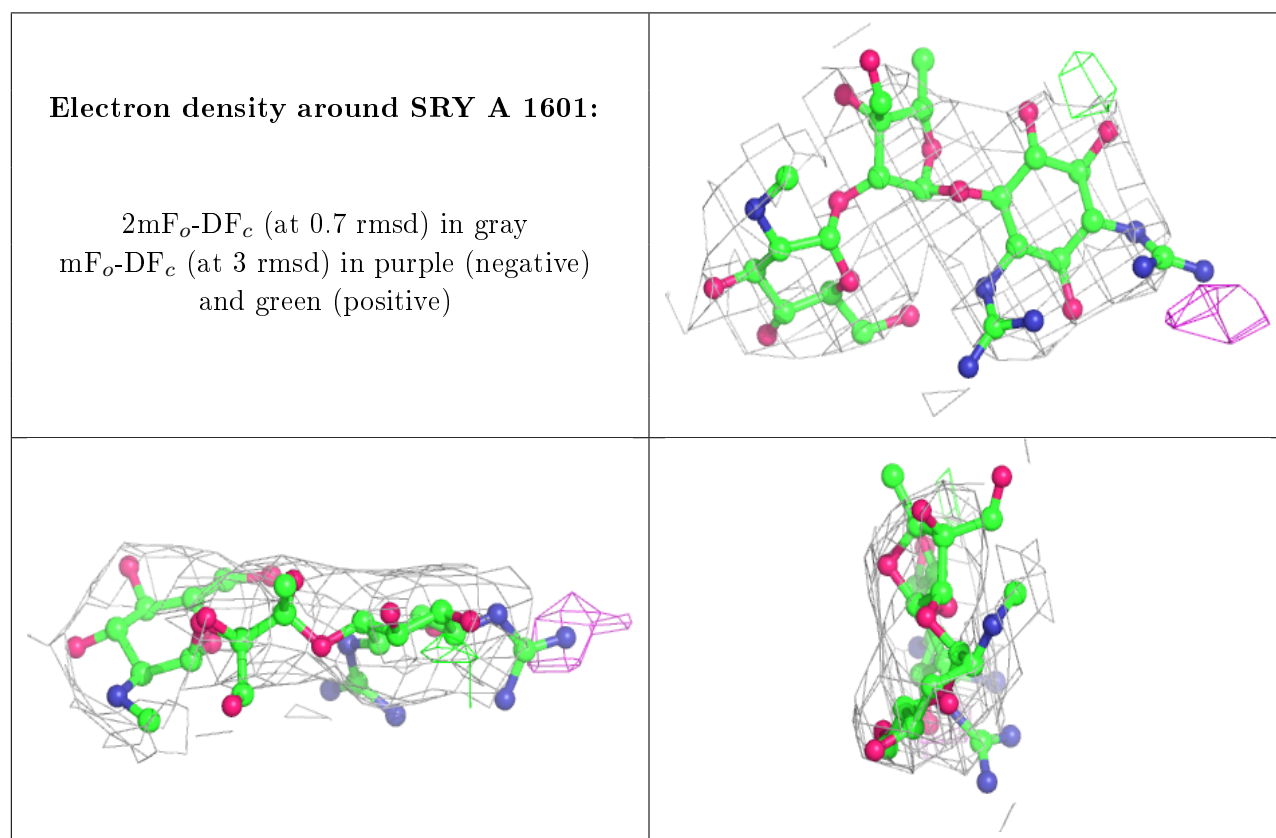
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
23	MG	A	1825	1/1	0.98	0.15	272,272,272,272	0
23	MG	A	1824	1/1	0.98	0.13	168,168,168,168	0
23	MG	A	1679	1/1	0.98	0.08	116,116,116,116	0
23	MG	A	1803	1/1	0.98	0.24	123,123,123,123	0
23	MG	A	1641	1/1	0.98	0.15	87,87,87,87	0
23	MG	A	1642	1/1	0.98	0.15	105,105,105,105	0
23	MG	A	1776	1/1	0.98	0.13	299,299,299,299	0
23	MG	A	1821	1/1	0.98	0.16	338,338,338,338	0
23	MG	A	1806	1/1	0.98	0.23	88,88,88,88	0
23	MG	A	1625	1/1	0.98	0.12	179,179,179,179	0
23	MG	A	1669	1/1	0.98	0.39	102,102,102,102	0
23	MG	A	1617	1/1	0.98	0.15	75,75,75,75	0
23	MG	A	1749	1/1	0.98	0.10	99,99,99,99	0
23	MG	A	1716	1/1	0.98	0.15	86,86,86,86	0
23	MG	A	1838	1/1	0.98	0.23	126,126,126,126	0
23	MG	A	1722	1/1	0.99	0.13	71,71,71,71	0
23	MG	A	1630	1/1	0.99	0.21	145,145,145,145	0
23	MG	A	1608	1/1	0.99	0.28	80,80,80,80	0
23	MG	A	1646	1/1	0.99	0.10	99,99,99,99	0
23	MG	A	1757	1/1	0.99	0.16	106,106,106,106	0
23	MG	A	1606	1/1	0.99	0.29	96,96,96,96	0
23	MG	A	1808	1/1	0.99	0.19	107,107,107,107	0
23	MG	A	1629	1/1	0.99	0.32	138,138,138,138	0
23	MG	A	1696	1/1	0.99	0.10	141,141,141,141	0
23	MG	A	1672	1/1	0.99	0.10	123,123,123,123	0
23	MG	A	1751	1/1	0.99	0.11	108,108,108,108	0
23	MG	A	1816	1/1	0.99	0.10	282,282,282,282	0
23	MG	A	1846	1/1	0.99	0.29	399,399,399,399	0
23	MG	A	1717	1/1	0.99	0.20	106,106,106,106	0
23	MG	A	1688	1/1	0.99	0.12	99,99,99,99	0
24	ZN	N	101	1/1	0.99	0.15	168,168,168,168	0
23	MG	A	1635	1/1	0.99	0.04	62,62,62,62	0
23	MG	A	1643	1/1	0.99	0.10	90,90,90,90	0
23	MG	A	1829	1/1	0.99	0.14	93,93,93,93	0
23	MG	A	1654	1/1	0.99	0.14	143,143,143,143	0
23	MG	A	1609	1/1	0.99	0.22	108,108,108,108	0
23	MG	A	1807	1/1	0.99	0.06	111,111,111,111	0
23	MG	A	1605	1/1	0.99	0.09	123,123,123,123	0
23	MG	A	1618	1/1	0.99	0.22	108,108,108,108	0
23	MG	A	1703	1/1	0.99	0.05	109,109,109,109	0
23	MG	A	1649	1/1	0.99	0.12	162,162,162,162	0
24	ZN	D	301	1/1	1.00	0.32	127,127,127,127	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
23	MG	A	1843	1/1	1.00	0.10	55,55,55,55	0
23	MG	A	1631	1/1	1.00	0.10	71,71,71,71	0
23	MG	A	1842	1/1	1.00	0.15	73,73,73,73	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.



6.5 Other polymers [i](#)

There are no such residues in this entry.