Full wwPDB EM Validation Report ⓘ

Nov 29, 2025 – 08:26 am GMT

PDB ID	:	9QF4 / pdb_00009qf4
EMDB ID	:	EMD-53098
Title	:	Structure of P. furiosus 70S ribosome grown at 95 degC
Authors	:	Matzov, D.; Georgeson, G.; Westhof, E.; Schwartz, S.; Shalev-Benami, M.
Deposited on	:	2025-03-11
Resolution	:	2.59 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

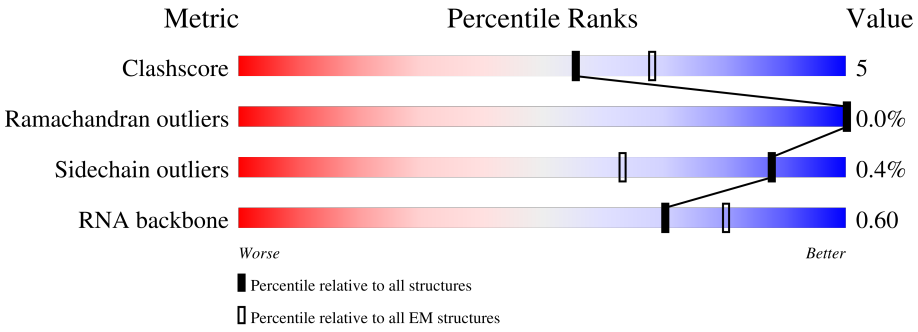
EMDB validation analysis	:	0.0.1.dev129
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.46

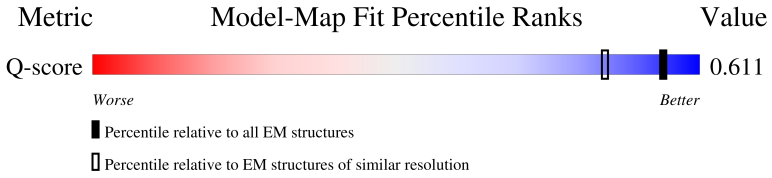
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 2.59 Å.

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





Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	210492	15764	-
Ramachandran outliers	207382	16835	-
Sidechain outliers	206894	16415	-
RNA backbone	6643	2191	-
Q-score	-	25397	7741 (2.09 - 3.09)

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

Mol	Chain	Length	Quality of chain
1	A1	1497	59% 31% 9%
2	Aa	202	90% 7%
3	Ab	210	7% 83% 10% 7%

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Mol	Chain	Length	Quality of chain
4	Ac	198	85% 9% 7%
5	Ad	180	88% 9%
6	Ae	243	91% 9%
7	Af	236	80% 16%
8	Ag	125	84% 15%
9	Ah	215	91% 9%
10	Ai	130	85% 15%
11	Aj	127	92% 6%
12	Ak	135	87% 13%
13	Al	102	22% 68% 29%
14	Am	137	85% 8% 7%
15	An	147	91% 8%
16	Ao	148	84% 11% 5%
17	Ap	56	5% 68% 30%
18	Aq	158	88% 11%
19	Ar	113	92% 5%
20	As	67	78% 18%
21	At	132	87% 6% 7%
22	Au	150	90% 9%
23	Av	99	87% 9%
23	Bl	99	5% 73% 20% 7%
24	Aw	63	90% 6%
25	Ax	71	6% 72% 18% 10%
26	Ay	60	82% 10% 7%
27	B1	3051	60% 29% 7%

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Mol	Chain	Length	Quality of chain
28	B2	125	68% 27% 5%
29	BA	239	88% 11%
30	BB	365	88% 12%
31	BC	255	90% 9%
32	BD	186	87% 12%
33	BE	184	95% 5%
34	BF	123	93% 6%
34	BG	123	6% 88% 10%
35	BH	181	82% 12% 7%
36	BI	142	92% 8%
37	BJ	141	92% 7%
38	BK	83	83% 13%
38	BL	83	90% 8%
39	BM	147	82% 18%
40	BN	194	86% 13%
41	BO	203	85% 11%
42	BP	120	87% 12%
43	BQ	150	91% 7%
44	BR	97	93% 6%
45	BS	155	86% 12%
46	BT	86	94% 6%
47	BU	121	81% 18%
48	BV	66	76% 20% 5%
49	BW	72	7% 83% 14%
50	BX	155	87% 12%

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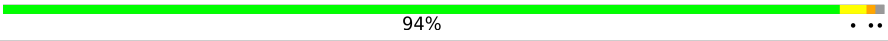
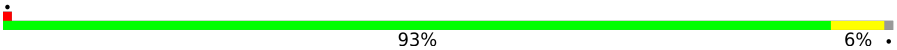
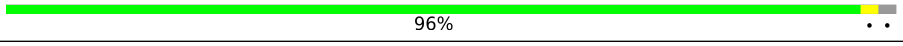
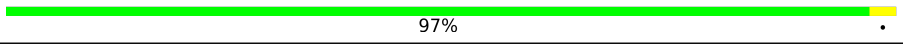
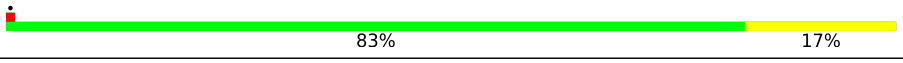
Mol	Chain	Length	Quality of chain
51	BY	99	
52	BZ	95	
53	Ba	130	
54	Bb	89	
55	Bc	87	
56	Bd	62	
57	Be	83	
58	Bf	51	
59	Bg	51	
60	Bh	37	
61	Bi	94	
62	Bj	77	
63	Bk	64	

2 Entry composition

There are 65 unique types of molecules in this entry. The entry contains 165982 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	N	O	P	S		
1	A1	1490	32245	14415	5941	10398	1490	1	0	0

- Molecule 2 is a protein called Small ribosomal subunit protein uS2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	Aa	196	1568	1015	270	279	4	0	0

- Molecule 3 is a protein called Small ribosomal subunit protein uS3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	Ab	195	1528	977	282	266	3	0	0

- Molecule 4 is a protein called Small ribosomal subunit protein eS1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	Ac	185	1520	983	265	267	5	0	0

- Molecule 5 is a protein called Small ribosomal subunit protein uS4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	Ad	175	1470	924	284	258	4	0	0

- Molecule 6 is a protein called Small ribosomal subunit protein eS4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	Ae	242	1981	1280	356	340	5	0	0

- Molecule 7 is a protein called Small ribosomal subunit protein uS5.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	Af	226	Total	C	N	O	S	0	0
			1788	1131	334	316	7		

- Molecule 8 is a protein called Small ribosomal subunit protein eS6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	Ag	124	Total	C	N	O	S	0	0
			975	618	179	177	1		

- Molecule 9 is a protein called Small ribosomal subunit protein uS7.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	Ah	214	Total	C	N	O	S	0	0
			1728	1095	325	301	7		

- Molecule 10 is a protein called Small ribosomal subunit protein uS8.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	Ai	129	Total	C	N	O	S	0	0
			1028	668	178	180	2		

- Molecule 11 is a protein called Small ribosomal subunit protein eS8.

Mol	Chain	Residues	Atoms				AltConf	Trace
11	Aj	125	Total	C	N	O	0	0
			986	612	205	169		

- Molecule 12 is a protein called Small ribosomal subunit protein uS9.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	Ak	135	Total	C	N	O	S	0	0
			1069	669	205	190	5		

- Molecule 13 is a protein called Small ribosomal subunit protein uS10.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	Al	99	Total	C	N	O	S	0	0
			798	494	155	146	3		

- Molecule 14 is a protein called Small ribosomal subunit protein uS11.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	Am	127	Total	C	N	O	S	0	0
			954	591	190	171	2		

- Molecule 15 is a protein called Small ribosomal subunit protein uS12.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	An	146	Total	C	N	O	S	0	0
			1141	724	220	194	3		

- Molecule 16 is a protein called Small ribosomal subunit protein uS13.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	Ao	141	Total	C	N	O	S	0	0
			1119	704	220	190	5		

- Molecule 17 is a protein called Small ribosomal subunit protein uS14.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Ap	55	Total	C	N	O	S	0	0
			451	286	93	67	5		

- Molecule 18 is a protein called Small ribosomal subunit protein uS15.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	Aq	157	Total	C	N	O	S	0	0
			1296	826	246	220	4		

- Molecule 19 is a protein called Small ribosomal subunit protein uS17.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	Ar	107	Total	C	N	O	S	0	0
			877	560	165	149	3		

- Molecule 20 is a protein called Small ribosomal subunit protein eS17.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	As	64	Total	C	N	O	S	0	0
			527	333	101	91	2		

- Molecule 21 is a protein called Small ribosomal subunit protein uS19.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	At	123	Total	C	N	O	S	0	0
			996	638	186	166	6		

- Molecule 22 is a protein called Small ribosomal subunit protein eS19.

Mol	Chain	Residues	Atoms				AltConf	Trace
22	Au	149	Total	C	N	O	0	0
			1221	790	219	212		

- Molecule 23 is a protein called Small ribosomal subunit protein eS24.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	Av	95	Total	C	N	O	S	0	0
			791	514	129	145	3		
23	Bl	92	Total	C	N	O	S	0	0
			765	498	125	140	2		

- Molecule 24 is a protein called Small ribosomal subunit protein eS27.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	Aw	61	Total	C	N	O	S	0	0
			464	298	83	78	5		

- Molecule 25 is a protein called Small ribosomal subunit protein eS28.

Mol	Chain	Residues	Atoms				AltConf	Trace
25	Ax	64	Total	C	N	O	0	0
			508	311	101	96		

- Molecule 26 is a protein called Zn-ribbon RNA-binding protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	Ay	56	Total	C	N	O	S	0	0
			434	272	78	76	8		

- Molecule 27 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
27	B1	2931	Total	C	N	O	P	S	0	0
			63503	28372	11737	20462	2931	1		

- Molecule 28 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	B2	125	Total	C	N	O	P	0	0
			2695	1202	494	874	125		

- Molecule 29 is a protein called Large ribosomal subunit protein uL2.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	BA	237	Total	C	N	O	S	0	0
			1820	1158	344	314	4		

- Molecule 30 is a protein called Large ribosomal subunit protein uL3.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BB	364	Total	C	N	O	S	0	0
			2904	1865	526	499	14		

- Molecule 31 is a protein called Large ribosomal subunit protein uL4.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BC	255	Total	C	N	O	S	0	0
			2026	1288	391	342	5		

- Molecule 32 is a protein called Large ribosomal subunit protein uL5.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	BD	183	Total	C	N	O	S	0	0
			1420	891	274	247	8		

- Molecule 33 is a protein called Large ribosomal subunit protein uL6.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	BE	183	Total	C	N	O	S	0	0
			1468	951	251	265	1		

- Molecule 34 is a protein called Large ribosomal subunit protein eL8.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	BF	122	Total	C	N	O	S	0	0
			927	591	153	180	3		
34	BG	120	Total	C	N	O	S	0	0
			913	583	151	177	2		

- Molecule 35 is a protein called Large ribosomal subunit protein uL16.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BH	169	Total	C	N	O	S	0	0
			1376	873	263	234	6		

- Molecule 36 is a protein called Large ribosomal subunit protein uL13.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BI	142	Total	C	N	O	S	0	0
			1150	737	215	195	3		

- Molecule 37 is a protein called Large ribosomal subunit protein uL14.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BJ	140	Total	C	N	O	S	0	0
			1062	660	214	185	3		

- Molecule 38 is a protein called Large ribosomal subunit protein eL14.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	BK	80	Total	C	N	O	S	0	0
			609	383	118	107	1		
38	BL	82	Total	C	N	O	S	0	0
			621	391	120	109	1		

- Molecule 39 is a protein called Large ribosomal subunit protein uL15.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	BM	147	Total	C	N	O	S	0	0
			1154	727	227	195	5		

- Molecule 40 is a protein called Large ribosomal subunit protein eL15.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BN	193	Total	C	N	O	S	0	0
			1587	1015	315	252	5		

- Molecule 41 is a protein called Large ribosomal subunit protein uL18.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	BO	196	Total	C	N	O	S	0	0
			1564	999	295	269	1		

- Molecule 42 is a protein called Large ribosomal subunit protein eL18.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	BP	120	Total	C	N	O	S	0	0
			966	606	186	171	3		

- Molecule 43 is a protein called Large ribosomal subunit protein eL19.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	BQ	148	Total	C	N	O	S	0	0
			1238	783	252	199	4		

- Molecule 44 is a protein called Large ribosomal subunit protein eL21.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BR	96	Total	C	N	O	S	0	0
			794	506	161	126	1		

- Molecule 45 is a protein called Large ribosomal subunit protein uL22.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	BS	152	Total	C	N	O	S	0	0
			1207	773	227	203	4		

- Molecule 46 is a protein called Large ribosomal subunit protein uL23.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BT	86	Total	C	N	O	S	0	0
			696	449	120	126	1		

- Molecule 47 is a protein called Large ribosomal subunit protein uL24.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BU	120	Total	C	N	O	S	0	0
			1003	635	194	170	4		

- Molecule 48 is a protein called Large ribosomal subunit protein eL24.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	BV	63	Total	C	N	O	S	0	0
			533	339	103	85	6		

- Molecule 49 is a protein called Large ribosomal subunit protein uL29.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	BW	70	Total	C	N	O	S	0	0
			565	351	111	99	4		

- Molecule 50 is a protein called Large ribosomal subunit protein uL30.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	BX	154	Total	C	N	O	S	0	0
			1235	783	234	212	6		

- Molecule 51 is a protein called Large ribosomal subunit protein eL30.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	BY	97	Total	C	N	O	S	0	0
			734	478	116	139	1		

- Molecule 52 is a protein called Large ribosomal subunit protein eL31.

Mol	Chain	Residues	Atoms				AltConf	Trace
52	BZ	94	Total	C	N	O	0	0
			746	487	138	121		

- Molecule 53 is a protein called Large ribosomal subunit protein eL32.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	Ba	128	Total	C	N	O	S	0	0
			1082	693	218	170	1		

- Molecule 54 is a protein called Large ribosomal subunit protein eL34.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	Bb	88	Total	C	N	O	S	0	0
			733	460	157	105	11		

- Molecule 55 is a protein called Large ribosomal subunit protein eL33.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Bc	86	Total	C	N	O	S	0	0
			677	429	131	116	1		

- Molecule 56 is a protein called Large ribosomal subunit protein eL37.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	Bd	61	Total	C	N	O	S	0	0
			493	304	109	76	4		

- Molecule 57 is a protein called Large ribosomal subunit protein eL43.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	Be	82	Total	C	N	O	S	0	0
			616	383	127	101	5		

- Molecule 58 is a protein called Large ribosomal subunit protein eL39.

Mol	Chain	Residues	Atoms				AltConf	Trace
58	Bf	50	Total	C	N	O	0	0
			437	279	97	61		

- Molecule 59 is a protein called Large ribosomal subunit protein eL40.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	Bg	46	Total	C	N	O	S	0	0
			375	238	77	56	4		

- Molecule 60 is a protein called Small ribosomal subunit protein eS32.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Bh	37	Total	C	N	O	S	0	0
			348	221	85	40	2		

- Molecule 61 is a protein called Large ribosomal subunit protein eL42.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Bi	94	Total	C	N	O	S	0	0
			787	499	161	122	5		

- Molecule 62 is a protein called Large ribosomal subunit protein eL20.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	Bj	77	Total	C	N	O	S	0	0
			659	425	118	115	1		

- Molecule 63 is a protein called C2H2-type domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	Bk	63	Total	C	N	O	S	0	0
			523	335	105	80	3		

- Molecule 64 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
64	Af	1	Total	Zn	0
			1	1	
64	Ap	1	Total	Zn	0
			1	1	
64	Ar	1	Total	Zn	0
			1	1	
64	Aw	1	Total	Zn	0
			1	1	
64	Ay	2	Total	Zn	0
			2	2	
64	BV	1	Total	Zn	0
			1	1	
64	Bb	1	Total	Zn	0
			1	1	
64	Bd	1	Total	Zn	0
			1	1	
64	Be	1	Total	Zn	0
			1	1	
64	Bg	1	Total	Zn	0
			1	1	
64	Bi	1	Total	Zn	0
			1	1	
64	Bk	1	Total	Zn	0
			1	1	

- Molecule 65 is water.

Mol	Chain	Residues	Atoms		AltConf
65	A1	607	Total	O	0
			607	607	
65	Aa	5	Total	O	0
			5	5	
65	Ac	3	Total	O	0
			3	3	
65	Ad	7	Total	O	0
			7	7	
65	Ae	15	Total	O	0
			15	15	

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Mol	Chain	Residues	Atoms	AltConf
65	Af	7	Total O 7 7	0
65	Ag	1	Total O 1 1	0
65	Ah	2	Total O 2 2	0
65	Ai	10	Total O 10 10	0
65	Aj	7	Total O 7 7	0
65	Ak	3	Total O 3 3	0
65	Al	5	Total O 5 5	0
65	Am	4	Total O 4 4	0
65	An	13	Total O 13 13	0
65	Ap	1	Total O 1 1	0
65	Aq	7	Total O 7 7	0
65	Ar	7	Total O 7 7	0
65	At	2	Total O 2 2	0
65	Au	4	Total O 4 4	0
65	Av	2	Total O 2 2	0
65	Aw	3	Total O 3 3	0
65	Ay	1	Total O 1 1	0
65	B1	1513	Total O 1513 1513	0
65	B2	17	Total O 17 17	0
65	BA	25	Total O 25 25	0
65	BB	20	Total O 20 20	0

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Mol	Chain	Residues	Atoms	AltConf
65	BC	22	Total O 22 22	0
65	BE	1	Total O 1 1	0
65	BF	1	Total O 1 1	0
65	BH	10	Total O 10 10	0
65	BI	6	Total O 6 6	0
65	BJ	5	Total O 5 5	0
65	BM	22	Total O 22 22	0
65	BN	26	Total O 26 26	0
65	BO	3	Total O 3 3	0
65	BP	4	Total O 4 4	0
65	BQ	10	Total O 10 10	0
65	BR	10	Total O 10 10	0
65	BS	15	Total O 15 15	0
65	BT	4	Total O 4 4	0
65	BU	6	Total O 6 6	0
65	BV	1	Total O 1 1	0
65	BW	1	Total O 1 1	0
65	BX	7	Total O 7 7	0
65	BY	1	Total O 1 1	0
65	BZ	2	Total O 2 2	0
65	Ba	14	Total O 14 14	0

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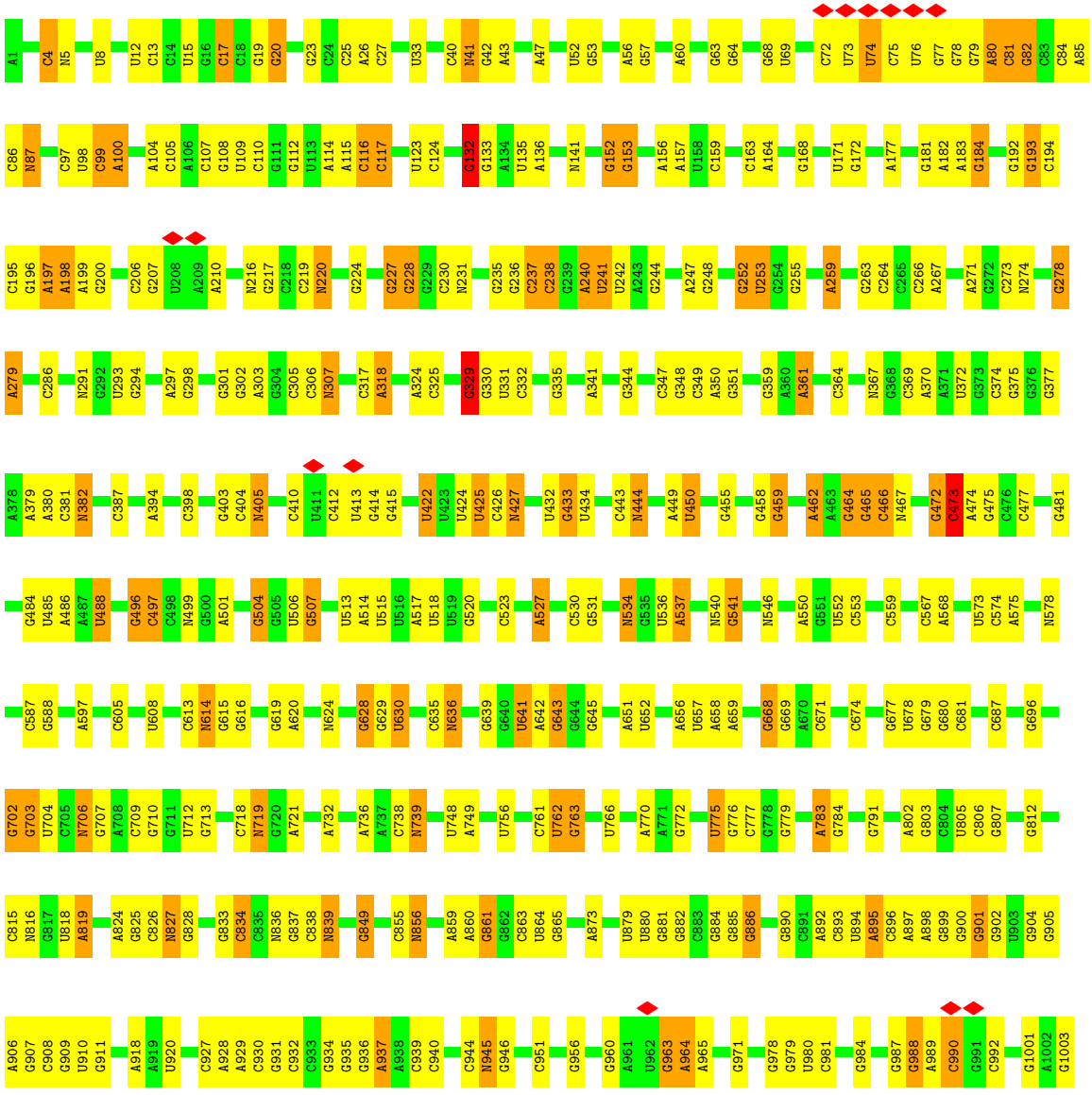
Mol	Chain	Residues	Atoms	AltConf
65	Bb	1	Total O 1 1	0
65	Bc	5	Total O 5 5	0
65	Bd	6	Total O 6 6	0
65	Be	2	Total O 2 2	0
65	Bf	8	Total O 8 8	0
65	Bg	2	Total O 2 2	0
65	Bh	2	Total O 2 2	0
65	Bi	3	Total O 3 3	0
65	Bk	4	Total O 4 4	0

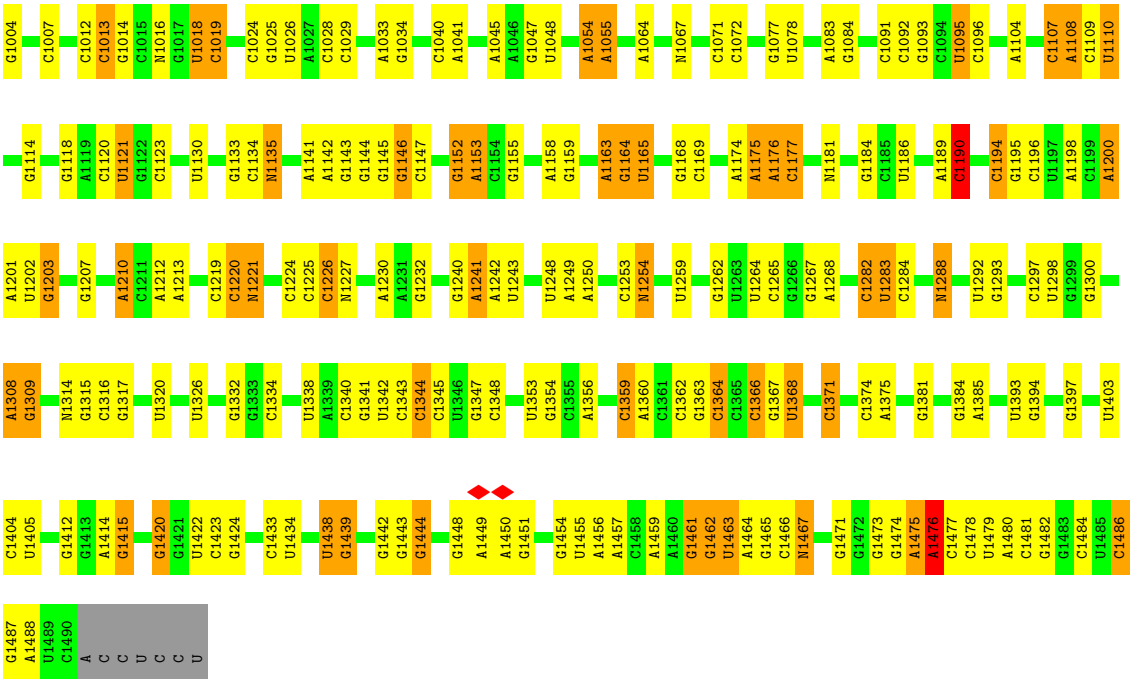
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide 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 atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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

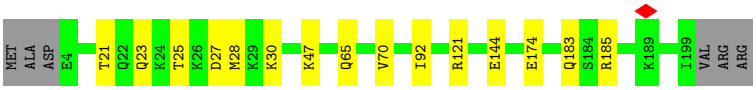
Chain A1:





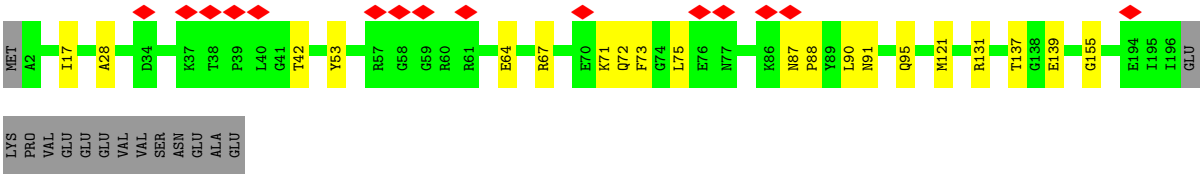
• Molecule 2: Small ribosomal subunit protein uS2

Chain Aa:



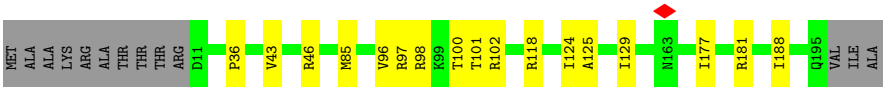
• Molecule 3: Small ribosomal subunit protein uS3

Chain Ab:



• Molecule 4: Small ribosomal subunit protein eS1

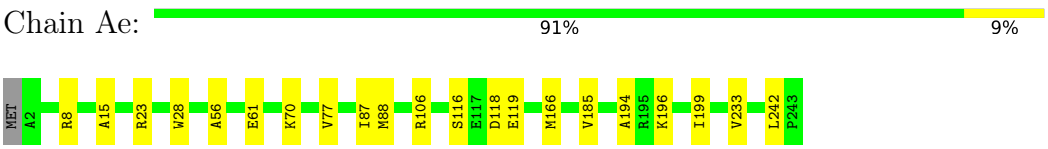
Chain Ac:



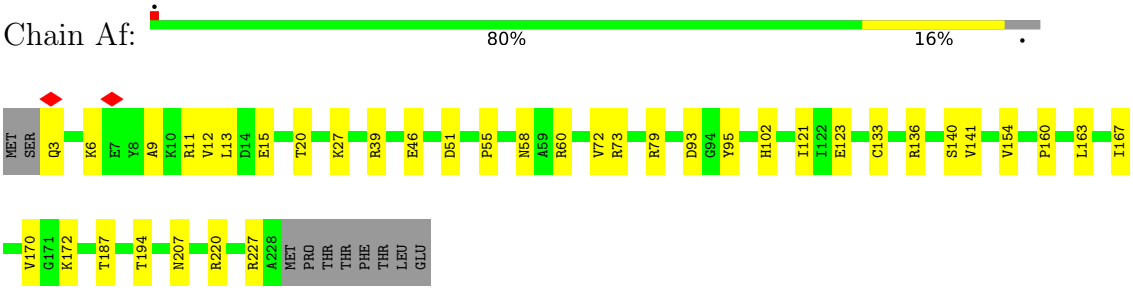
• Molecule 5: Small ribosomal subunit protein uS4

Chain Ad:

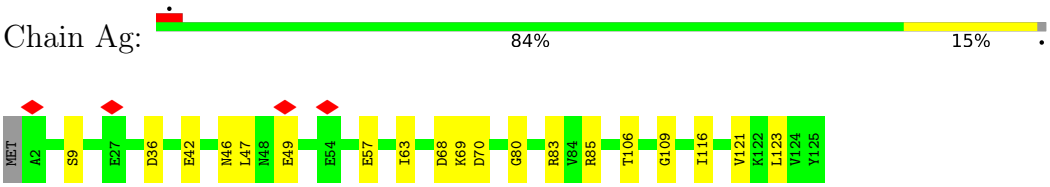
• Molecule 6: Small ribosomal subunit protein eS4



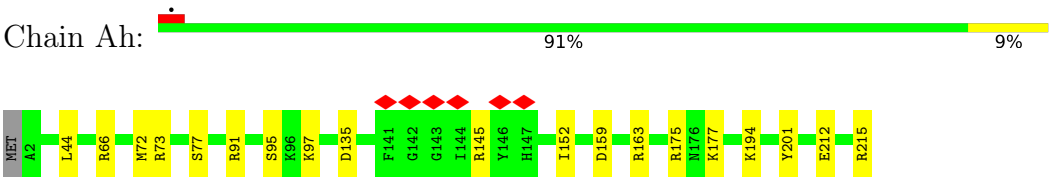
• Molecule 7: Small ribosomal subunit protein uS5



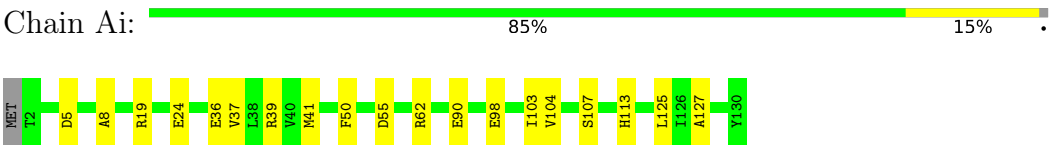
• Molecule 8: Small ribosomal subunit protein eS6



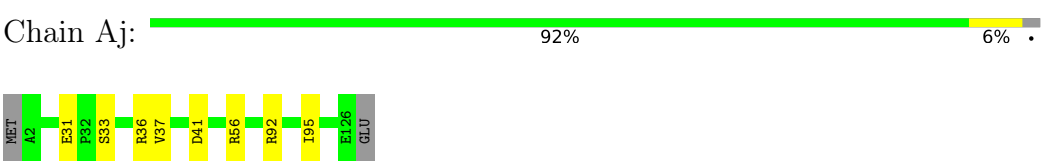
• Molecule 9: Small ribosomal subunit protein uS7



• Molecule 10: Small ribosomal subunit protein uS8

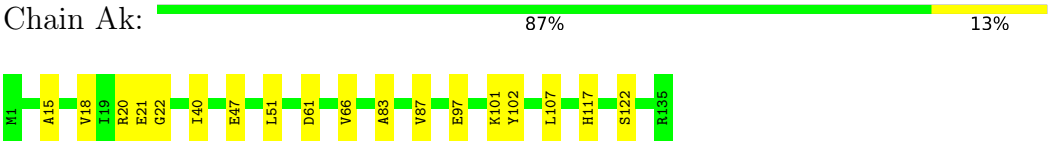


• Molecule 11: Small ribosomal subunit protein eS8



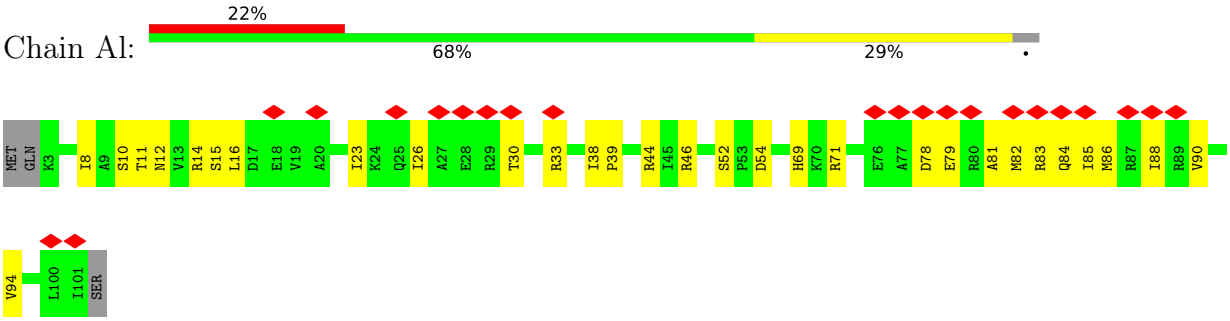
• Molecule 12: Small ribosomal subunit protein uS9

Chain Ak:



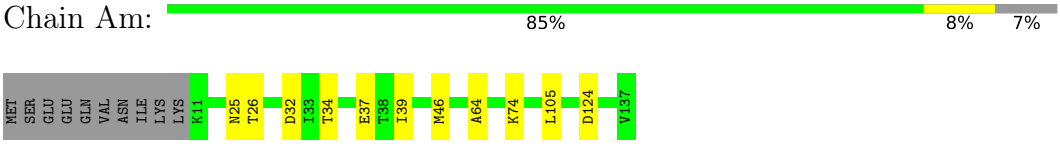
• Molecule 13: Small ribosomal subunit protein uS10

Chain Al:



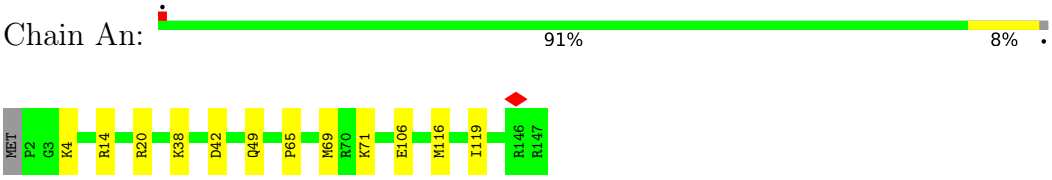
• Molecule 14: Small ribosomal subunit protein uS11

Chain Am:



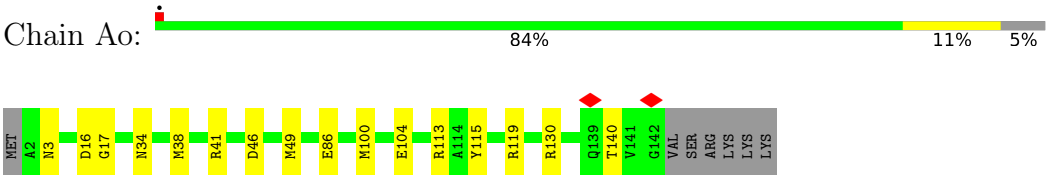
• Molecule 15: Small ribosomal subunit protein uS12

Chain An:



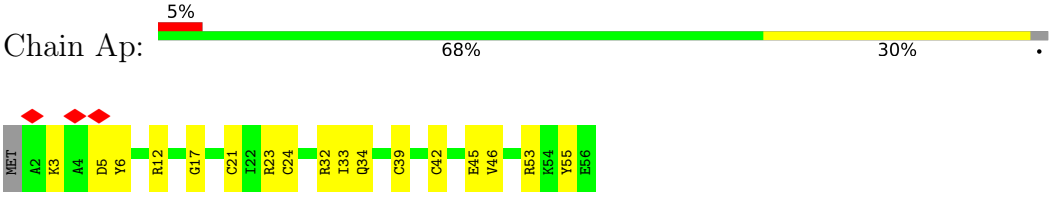
• Molecule 16: Small ribosomal subunit protein uS13

Chain Ao:



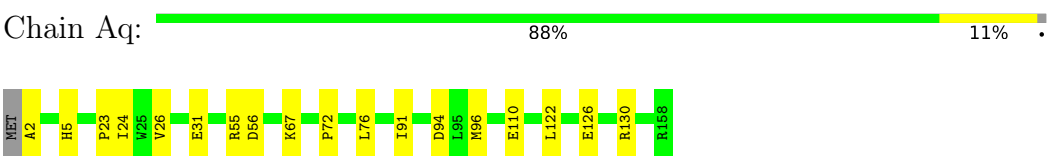
• Molecule 17: Small ribosomal subunit protein uS14

Chain Ap:



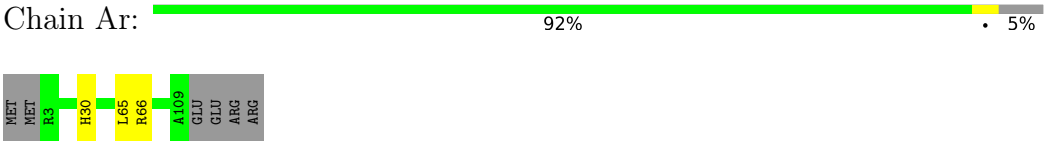
• Molecule 18: Small ribosomal subunit protein uS15

Chain Aq:



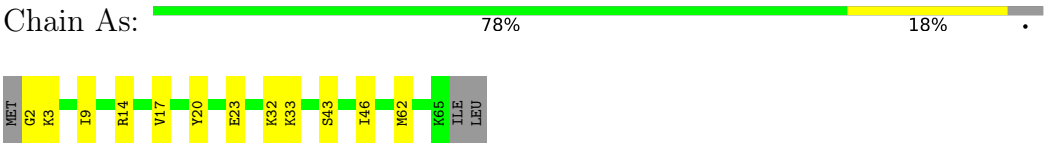
• Molecule 19: Small ribosomal subunit protein uS17

Chain Ar:



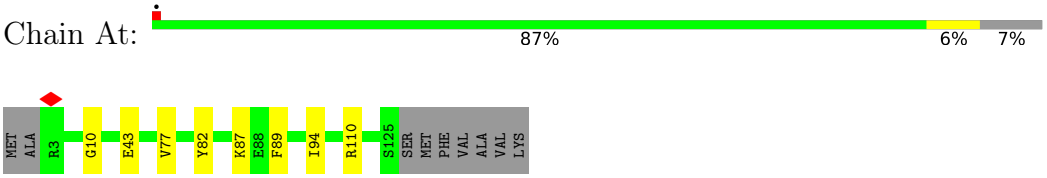
• Molecule 20: Small ribosomal subunit protein eS17

Chain As:



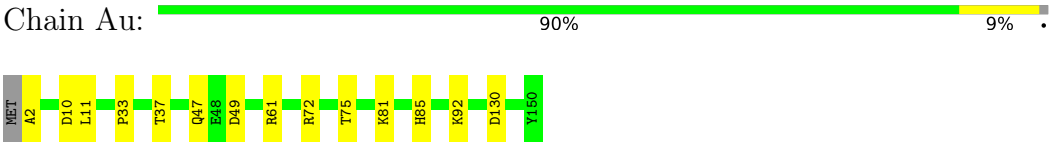
• Molecule 21: Small ribosomal subunit protein uS19

Chain At:



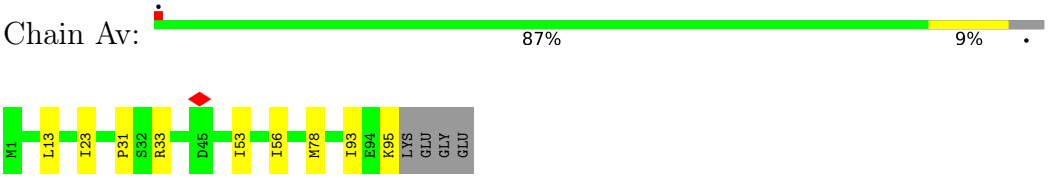
• Molecule 22: Small ribosomal subunit protein eS19

Chain Au:



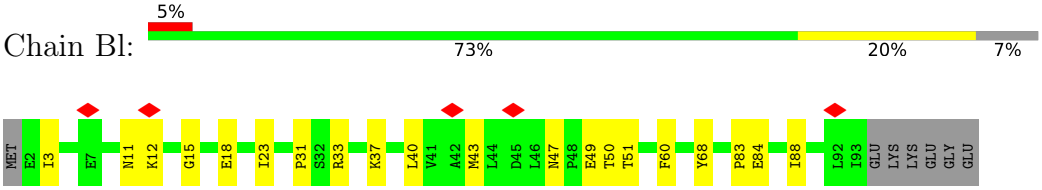
• Molecule 23: Small ribosomal subunit protein eS24

Chain Av:



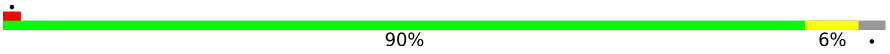
• Molecule 23: Small ribosomal subunit protein eS24

Chain Bl:



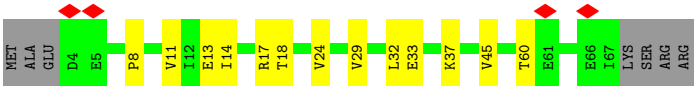
• Molecule 24: Small ribosomal subunit protein eS27

Chain Aw:



• Molecule 25: Small ribosomal subunit protein eS28

Chain Ax:

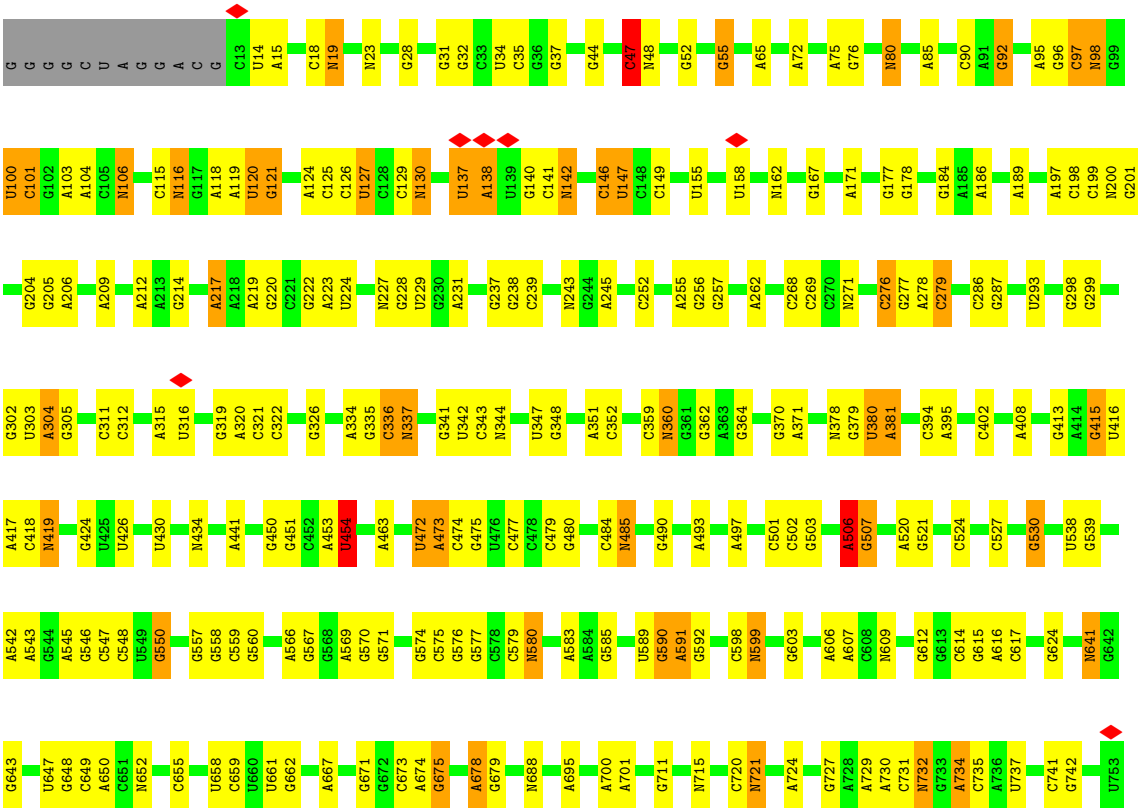


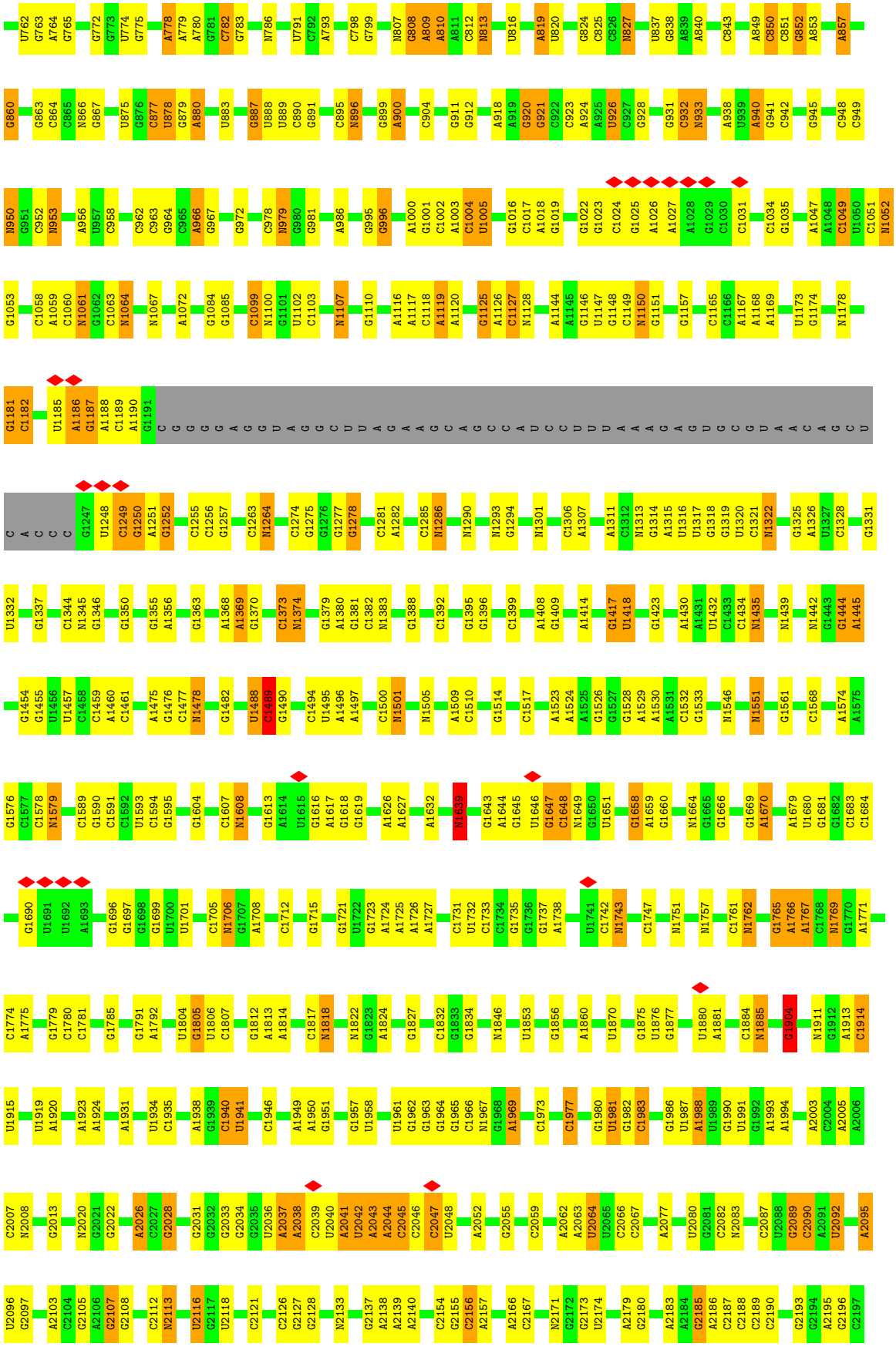
• Molecule 26: Zn-ribbon RNA-binding protein

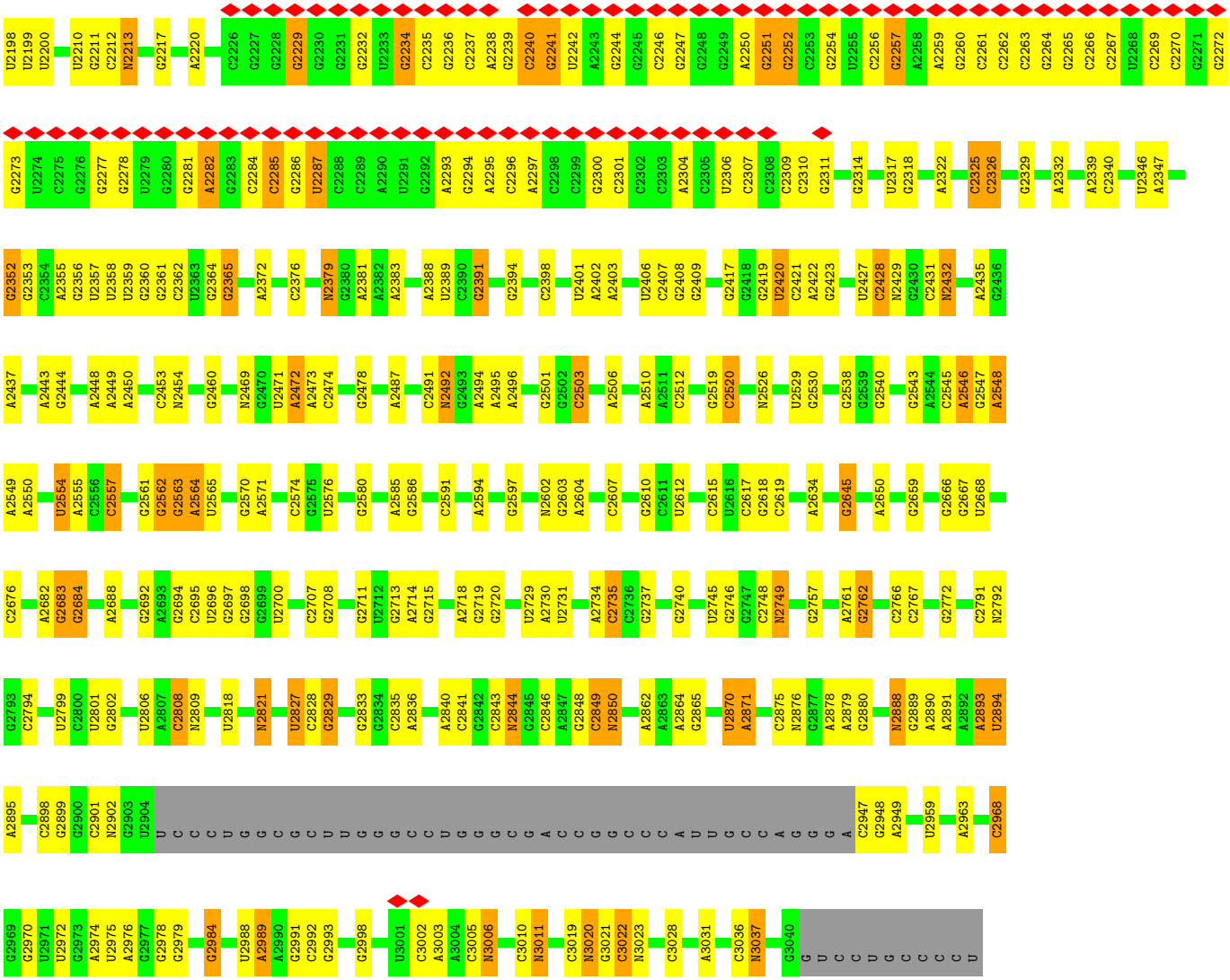
Chain Ay:

• Molecule 27: 23S rRNA

Chain B1:

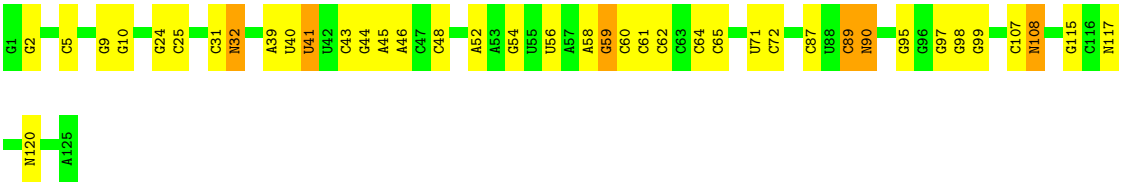






• Molecule 28: 5S rRNA

Chain B2:

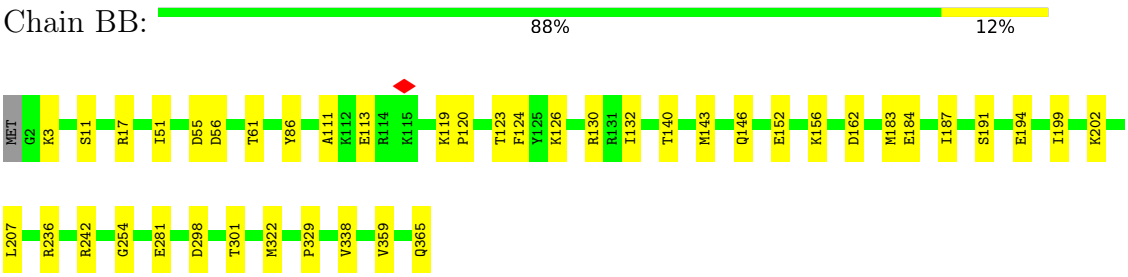


• Molecule 29: Large ribosomal subunit protein uL2

Chain BA:

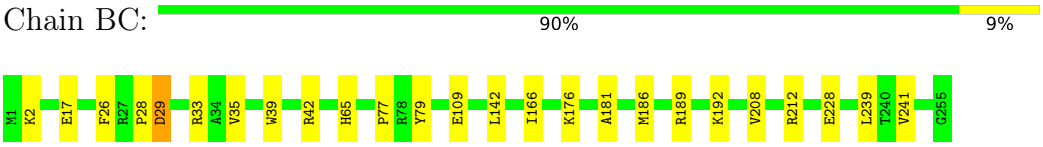
• Molecule 30: Large ribosomal subunit protein uL3

Chain BB:



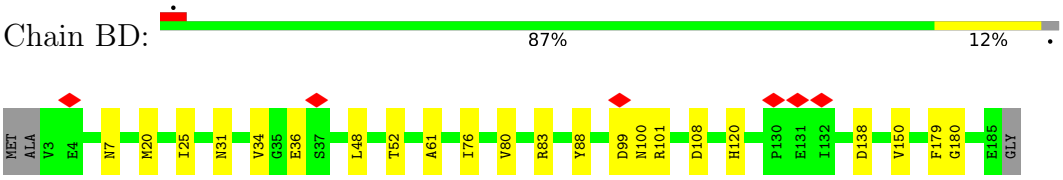
• Molecule 31: Large ribosomal subunit protein uL4

Chain BC:



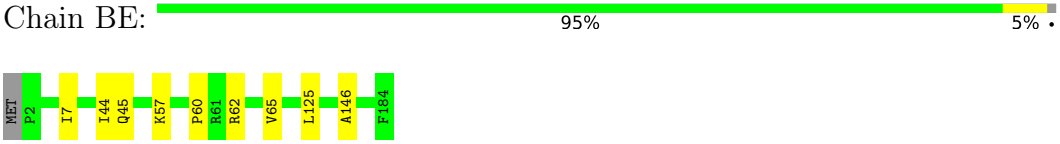
• Molecule 32: Large ribosomal subunit protein uL5

Chain BD:



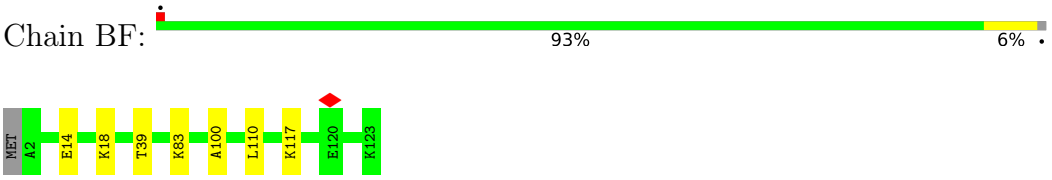
• Molecule 33: Large ribosomal subunit protein uL6

Chain BE:



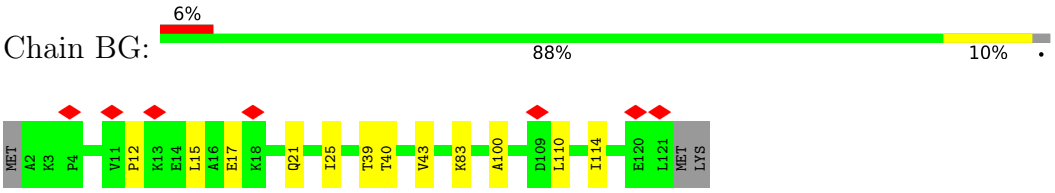
• Molecule 34: Large ribosomal subunit protein eL8

Chain BF:



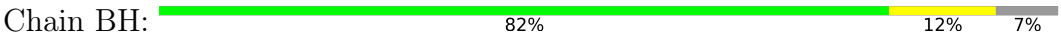
• Molecule 34: Large ribosomal subunit protein eL8

Chain BG:

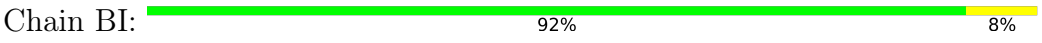


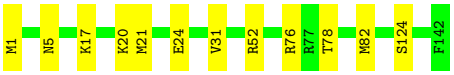
• Molecule 35: Large ribosomal subunit protein uL16

Chain BH:

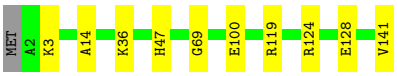


• Molecule 36: Large ribosomal subunit protein uL13

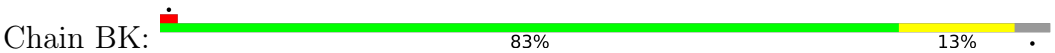


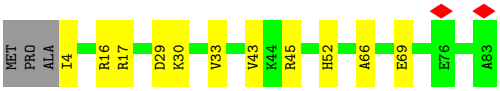


• Molecule 37: Large ribosomal subunit protein uL14

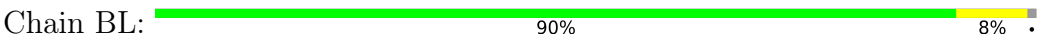


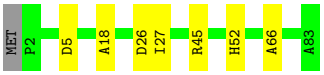
• Molecule 38: Large ribosomal subunit protein eL14



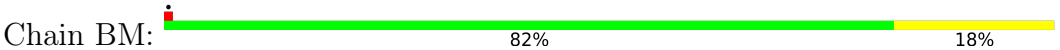


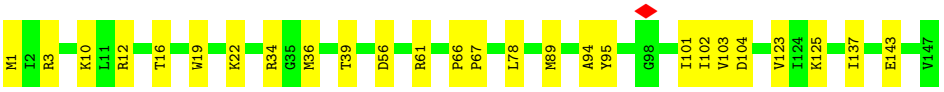
• Molecule 38: Large ribosomal subunit protein eL14



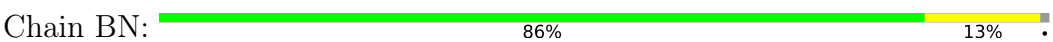


• Molecule 39: Large ribosomal subunit protein uL15

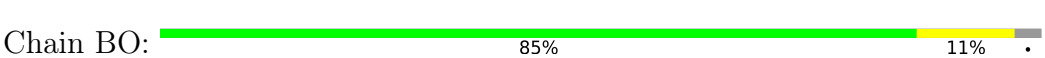




• Molecule 40: Large ribosomal subunit protein eL15

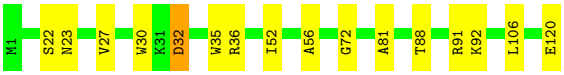


• Molecule 41: Large ribosomal subunit protein uL18



• Molecule 42: Large ribosomal subunit protein eL18

Chain BP:

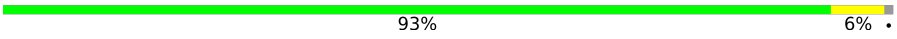


• Molecule 43: Large ribosomal subunit protein eL19

Chain BQ:

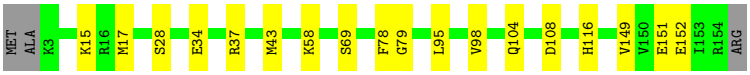
• Molecule 44: Large ribosomal subunit protein eL21

Chain BR:



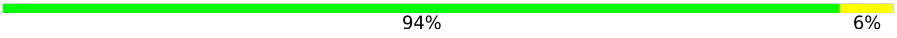
• Molecule 45: Large ribosomal subunit protein uL22

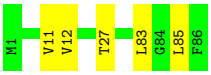
Chain BS:



• Molecule 46: Large ribosomal subunit protein uL23

Chain BT:





• Molecule 47: Large ribosomal subunit protein uL24

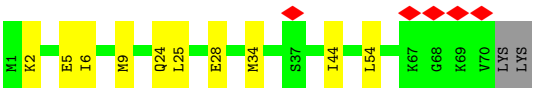
Chain BU:

• Molecule 48: Large ribosomal subunit protein eL24

Chain BV:

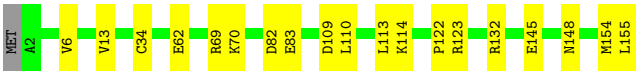
• Molecule 49: Large ribosomal subunit protein uL29

Chain BW:



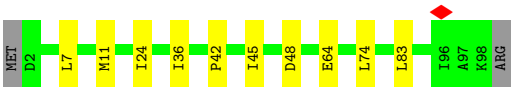
• Molecule 50: Large ribosomal subunit protein uL30

Chain BX:



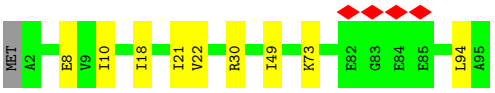
• Molecule 51: Large ribosomal subunit protein eL30

Chain BY:



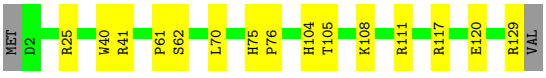
• Molecule 52: Large ribosomal subunit protein eL31

Chain BZ:



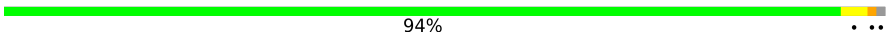
• Molecule 53: Large ribosomal subunit protein eL32

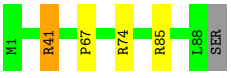
Chain Ba:



• Molecule 54: Large ribosomal subunit protein eL34

Chain Bb:





• Molecule 55: Large ribosomal subunit protein eL33

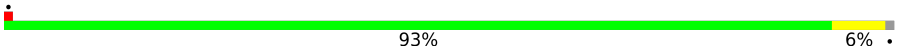
Chain Bc:

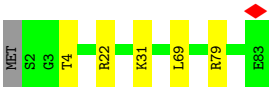
• Molecule 56: Large ribosomal subunit protein eL37

Chain Bd:

• Molecule 57: Large ribosomal subunit protein eL43

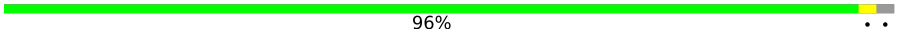
Chain Be:





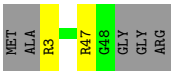
• Molecule 58: Large ribosomal subunit protein eL39

Chain Bf:



• Molecule 59: Large ribosomal subunit protein eL40

Chain Bg:

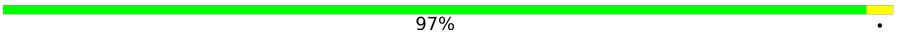


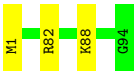
• Molecule 60: Small ribosomal subunit protein eS32

Chain Bh:

• Molecule 61: Large ribosomal subunit protein eL42

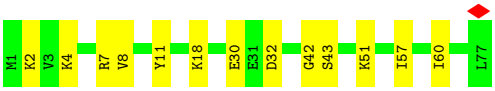
Chain Bi:





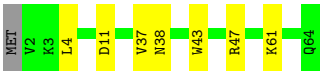
• Molecule 62: Large ribosomal subunit protein eL20

Chain Bj:



• Molecule 63: C2H2-type domain-containing protein

Chain Bk:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	169992	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	1.01	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	3000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	3.282	Depositor
Minimum map value	-1.916	Depositor
Average map value	0.004	Depositor
Map value standard deviation	0.090	Depositor
Recommended contour level	0.18	Depositor
Map size (Å)	443.52002, 443.52002, 443.52002	wwPDB
Map dimensions	448, 448, 448	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.99000007, 0.99000007, 0.99000007	Depositor

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: UR3, ZN, 4SU, 4AC, OMU, LV2, 5MC, OMG, OMC, 2MG, LHH, 5MU, MA6, 7MG, A2M

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	A1	0.15	1/33222 (0.0%)	0.26	1/51763 (0.0%)
2	Aa	0.11	0/1599	0.25	0/2162
3	Ab	0.13	0/1550	0.32	0/2083
4	Ac	0.10	0/1546	0.27	0/2072
5	Ad	0.11	0/1494	0.24	0/2003
6	Ae	0.11	0/2030	0.27	0/2739
7	Af	0.12	0/1818	0.30	0/2449
8	Ag	0.13	0/990	0.38	0/1327
9	Ah	0.11	0/1765	0.27	0/2371
10	Ai	0.12	0/1049	0.28	0/1408
11	Aj	0.11	0/995	0.25	0/1327
12	Ak	0.12	0/1085	0.28	0/1452
13	Al	0.17	0/806	0.42	0/1083
14	Am	0.11	0/972	0.24	0/1309
15	An	0.11	0/1158	0.29	0/1539
16	Ao	0.11	0/1138	0.27	0/1532
17	Ap	0.12	0/460	0.32	0/606
18	Aq	0.12	0/1324	0.29	0/1780
19	Ar	0.12	0/899	0.25	0/1215
20	As	0.12	0/533	0.35	0/708
21	At	0.10	0/1016	0.24	0/1358
22	Au	0.10	0/1251	0.24	0/1686
23	Av	0.11	0/807	0.29	0/1082
23	Bl	0.44	2/781 (0.3%)	0.71	3/1049 (0.3%)
24	Aw	0.12	0/471	0.31	0/634
25	Ax	0.13	0/510	0.41	0/684
26	Ay	0.11	0/448	0.28	0/610
27	B1	0.14	1/66129 (0.0%)	0.25	0/102990
28	B2	0.10	0/2881	0.21	0/4483
29	BA	0.12	0/1865	0.30	0/2519
30	BB	0.12	0/2970	0.31	0/3993
31	BC	0.12	0/2068	0.28	0/2787

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
32	BD	0.16	0/1442	0.37	0/1933
33	BE	0.11	0/1499	0.24	0/2022
34	BF	0.12	0/939	0.30	0/1267
34	BG	0.14	0/925	0.41	0/1250
35	BH	0.12	0/1405	0.26	0/1886
36	BI	0.11	0/1168	0.25	0/1561
37	BJ	0.11	0/1075	0.27	0/1448
38	BK	0.12	0/613	0.34	0/822
38	BL	0.10	0/626	0.25	0/840
39	BM	0.15	0/1175	0.40	0/1563
40	BN	0.12	0/1626	0.26	0/2169
41	BO	0.11	0/1602	0.26	0/2158
42	BP	0.12	0/980	0.24	0/1313
43	BQ	0.11	0/1254	0.23	0/1655
44	BR	0.11	0/815	0.24	0/1090
45	BS	0.12	0/1234	0.28	0/1662
46	BT	0.13	0/705	0.32	0/946
47	BU	0.12	0/1019	0.29	0/1360
48	BV	0.13	0/548	0.29	0/731
49	BW	0.14	0/566	0.31	0/749
50	BX	0.12	0/1254	0.30	0/1677
51	BY	0.12	0/744	0.27	0/1004
52	BZ	0.13	0/760	0.28	0/1024
53	Ba	0.11	0/1107	0.26	0/1477
54	Bb	0.11	0/751	0.24	0/999
55	Bc	0.11	0/686	0.32	0/916
56	Bd	0.11	0/504	0.25	0/667
57	Be	0.11	0/625	0.25	0/832
58	Bf	0.13	0/445	0.25	0/593
59	Bg	0.10	0/384	0.25	0/509
60	Bh	0.12	0/354	0.24	0/458
61	Bi	0.10	0/805	0.24	0/1064
62	Bj	0.12	0/669	0.32	0/884
63	Bk	0.11	0/533	0.26	0/703
All	All	0.14	4/168467 (0.0%)	0.27	4/248035 (0.0%)

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	Bl	83	PRO	CG-CD	-8.20	1.22	1.50
23	Bl	83	PRO	N-CD	5.25	1.55	1.47
1	A1	775	OMU	O3'-P	5.07	1.61	1.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	857	A2M	O3'-P	5.00	1.61	1.56

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	Bl	83	PRO	CA-N-CD	-11.89	95.35	112.00
23	Bl	83	PRO	N-CD-CG	-11.30	86.25	103.20
1	A1	237	C	C4'-C3'-O3'	6.67	123.01	113.00
23	Bl	83	PRO	CA-CB-CG	-6.52	92.12	104.50

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A1	32245	0	16371	313	0
2	Aa	1568	0	1625	10	0
3	Ab	1528	0	1611	14	0
4	Ac	1520	0	1603	14	0
5	Ad	1470	0	1542	12	0
6	Ae	1981	0	2051	13	0
7	Af	1788	0	1842	25	0
8	Ag	975	0	1032	14	0
9	Ah	1728	0	1775	15	0
10	Ai	1028	0	1065	14	0
11	Aj	986	0	1070	5	0
12	Ak	1069	0	1121	12	0
13	Al	798	0	845	26	0
14	Am	954	0	981	9	0
15	An	1141	0	1232	9	0
16	Ao	1119	0	1153	11	0
17	Ap	451	0	472	11	0
18	Aq	1296	0	1369	13	0
19	Ar	877	0	898	3	0
20	As	527	0	559	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
21	At	996	0	1053	6	0
22	Au	1221	0	1263	12	0
23	Av	791	0	819	7	0
23	Bl	765	0	788	15	0
24	Aw	464	0	503	4	0
25	Ax	508	0	533	10	0
26	Ay	434	0	402	5	0
27	B1	63503	0	32151	530	0
28	B2	2695	0	1371	27	0
29	BA	1820	0	1889	20	0
30	BB	2904	0	3061	29	0
31	BC	2026	0	2137	18	0
32	BD	1420	0	1441	15	0
33	BE	1468	0	1507	5	0
34	BF	927	0	971	4	0
34	BG	913	0	960	8	0
35	BH	1376	0	1403	12	0
36	BI	1150	0	1240	9	0
37	BJ	1062	0	1127	8	0
38	BK	609	0	665	7	0
38	BL	621	0	678	4	0
39	BM	1154	0	1219	21	0
40	BN	1587	0	1683	17	0
41	BO	1564	0	1572	18	0
42	BP	966	0	1019	11	0
43	BQ	1238	0	1365	9	0
44	BR	794	0	836	5	0
45	BS	1207	0	1255	12	0
46	BT	696	0	754	5	0
47	BU	1003	0	1074	19	0
48	BV	533	0	523	10	0
49	BW	565	0	618	6	0
50	BX	1235	0	1314	15	0
51	BY	734	0	779	7	0
52	BZ	746	0	803	6	0
53	Ba	1082	0	1172	10	0
54	Bb	733	0	800	3	0
55	Bc	677	0	731	5	0
56	Bd	493	0	502	8	0
57	Be	616	0	655	4	0
58	Bf	437	0	498	1	0
59	Bg	375	0	394	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	Bh	348	0	409	4	0
61	Bi	787	0	833	3	0
62	Bj	659	0	699	8	0
63	Bk	523	0	563	6	0
64	Af	1	0	0	0	0
64	Ap	1	0	0	0	0
64	Ar	1	0	0	0	0
64	Aw	1	0	0	0	0
64	Ay	2	0	0	0	0
64	BV	1	0	0	0	0
64	Bb	1	0	0	0	0
64	Bd	1	0	0	0	0
64	Be	1	0	0	0	0
64	Bg	1	0	0	0	0
64	Bi	1	0	0	0	0
64	Bk	1	0	0	0	0
65	A1	607	0	0	7	0
65	Aa	5	0	0	0	0
65	Ac	3	0	0	0	0
65	Ad	7	0	0	0	0
65	Ae	15	0	0	1	0
65	Af	7	0	0	0	0
65	Ag	1	0	0	0	0
65	Ah	2	0	0	0	0
65	Ai	10	0	0	0	0
65	Aj	7	0	0	0	0
65	Ak	3	0	0	0	0
65	Al	5	0	0	0	0
65	Am	4	0	0	0	0
65	An	13	0	0	1	0
65	Ap	1	0	0	0	0
65	Aq	7	0	0	1	0
65	Ar	7	0	0	0	0
65	At	2	0	0	0	0
65	Au	4	0	0	0	0
65	Av	2	0	0	0	0
65	Aw	3	0	0	0	0
65	Ay	1	0	0	0	0
65	B1	1513	0	0	43	0
65	B2	17	0	0	0	0
65	BA	25	0	0	0	0
65	BB	20	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
65	BC	22	0	0	2	0
65	BE	1	0	0	0	0
65	BF	1	0	0	0	0
65	BH	10	0	0	0	0
65	BI	6	0	0	1	0
65	BJ	5	0	0	0	0
65	BM	22	0	0	0	0
65	BN	26	0	0	0	0
65	BO	3	0	0	0	0
65	BP	4	0	0	0	0
65	BQ	10	0	0	1	0
65	BR	10	0	0	1	0
65	BS	15	0	0	1	0
65	BT	4	0	0	0	0
65	BU	6	0	0	0	0
65	BV	1	0	0	0	0
65	BW	1	0	0	0	0
65	BX	7	0	0	0	0
65	BY	1	0	0	0	0
65	BZ	2	0	0	0	0
65	Ba	14	0	0	0	0
65	Bb	1	0	0	0	0
65	Bc	5	0	0	0	0
65	Bd	6	0	0	0	0
65	Be	2	0	0	0	0
65	Bf	8	0	0	0	0
65	Bg	2	0	0	0	0
65	Bh	2	0	0	0	0
65	Bi	3	0	0	0	0
65	Bk	4	0	0	0	0
All	All	165982	0	118249	1324	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 5.

All (1324) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Ag:46:ASN:ND2	8:Ag:49:GLU:HG2	1.58	1.18
8:Ag:46:ASN:HD21	8:Ag:49:GLU:HG2	0.95	1.05
8:Ag:46:ASN:HD21	8:Ag:49:GLU:CG	1.81	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Al:26:ILE:HD11	13:Al:84:GLN:HB3	1.52	0.91
25:Ax:18:THR:O	25:Ax:24:VAL:HG12	1.70	0.91
46:BT:11:VAL:HB	46:BT:27:THR:HG23	1.58	0.85
27:B1:28:G:H22	27:B1:550:OMG:H1'	1.44	0.82
5:Ad:106:GLN:HE21	5:Ad:122:ARG:HB2	1.42	0.82
27:B1:1824:A:H61	27:B1:2121:C:H42	1.25	0.82
39:BM:36:MET:O	39:BM:39:THR:HG23	1.79	0.82
26:Ay:32:CYS:HB3	26:Ay:55:CYS:SG	2.18	0.82
27:B1:506:A2M:H5"	27:B1:506:A2M:H8	1.63	0.81
27:B1:1987:U:O2'	27:B1:1988:A:N7	2.17	0.78
27:B1:2419:G:H22	27:B1:2427:U:H3	1.32	0.78
5:Ad:106:GLN:NE2	5:Ad:122:ARG:HB2	1.97	0.77
27:B1:574:G:N2	55:Bc:76:PRO:O	2.18	0.76
49:BW:6:ILE:HA	49:BW:9:MET:HE2	1.67	0.76
50:BX:83:GLU:N	50:BX:83:GLU:OE2	2.19	0.75
13:Al:79:GLU:OE1	13:Al:83:ARG:NH2	2.20	0.74
1:A1:1444:G:H4'	60:Bh:26:LEU:HD21	1.67	0.74
25:Ax:18:THR:O	25:Ax:24:VAL:CG1	2.36	0.74
27:B1:28:G:N2	27:B1:550:OMG:H1'	2.03	0.73
62:Bj:30:GLU:N	62:Bj:30:GLU:OE2	2.20	0.73
27:B1:2105:G:O2'	27:B1:2107:G:OP2	2.06	0.72
1:A1:635:C:H2'	1:A1:636:4AC:H6	1.71	0.72
18:Aq:31:GLU:N	18:Aq:31:GLU:OE2	2.22	0.72
1:A1:74:U:O2'	1:A1:76:U:OP2	2.08	0.72
27:B1:978:C:H2'	27:B1:979:4AC:H6	1.73	0.71
1:A1:1454:G:H1'	1:A1:1475:MA6:H2	1.72	0.71
1:A1:84:C:H2'	1:A1:85:A:C8	2.25	0.71
3:Ab:17:ILE:HG12	3:Ab:73:PHE:CD2	2.26	0.71
1:A1:615:G:H2'	1:A1:616:G:C8	2.27	0.70
39:BM:123:VAL:HG12	39:BM:143:GLU:HB2	1.72	0.70
47:BU:43:ASN:O	47:BU:119:ARG:NH1	2.24	0.70
13:Al:44:ARG:HH21	13:Al:46:ARG:HH21	1.39	0.69
27:B1:1321:C:H2'	27:B1:1322:4AC:H6	1.73	0.69
11:Aj:31:GLU:N	11:Aj:31:GLU:OE2	2.23	0.69
8:Ag:70:ASP:OD2	8:Ag:83:ARG:NH2	2.26	0.69
27:B1:418:C:H2'	27:B1:419:4AC:H6	1.75	0.69
47:BU:34:GLU:OE1	47:BU:34:GLU:N	2.19	0.68
1:A1:1462:G:O2'	1:A1:1463:U:OP2	2.11	0.68
2:Aa:65:GLN:N	2:Aa:65:GLN:OE1	2.26	0.68
27:B1:1459:C:OP2	65:B1:3101:HOH:O	2.12	0.68
27:B1:1476:G:OP1	65:B1:3101:HOH:O	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BO:44:HIS:H	41:BO:64:THR:CG2	2.07	0.67
1:A1:766:U:O2'	1:A1:860:A:N1	2.28	0.67
27:B1:583:A:N3	27:B1:1374:4AC:O2'	2.25	0.67
27:B1:589:U:O4	34:BG:83:LYS:NZ	2.26	0.67
27:B1:97:5MC:H2'	27:B1:98:4AC:H6	1.77	0.66
1:A1:828:G:N7	65:A1:1534:HOH:O	2.29	0.66
30:BB:298:ASP:OD1	30:BB:301:THR:OG1	2.13	0.66
1:A1:1064:A:H61	3:Ab:155:GLY:HA3	1.60	0.66
15:An:49:GLN:HG2	15:An:106:GLU:HG3	1.77	0.66
21:At:43:GLU:OE2	21:At:43:GLU:N	2.20	0.66
42:BP:22:SER:HB2	42:BP:30:TRP:HB2	1.78	0.66
1:A1:398:C:O2'	1:A1:575:A:N3	2.26	0.66
27:B1:480:G:OP2	47:BU:10:LYS:NZ	2.28	0.66
8:Ag:85:ARG:HG2	8:Ag:106:THR:HG22	1.77	0.65
23:Av:33:ARG:NH2	23:Av:53:ILE:O	2.30	0.65
46:BT:11:VAL:HB	46:BT:27:THR:CG2	2.27	0.65
1:A1:77:G:H2'	1:A1:78:G:H8	1.61	0.65
27:B1:1374:4AC:OP1	53:Ba:111:ARG:NH2	2.29	0.65
1:A1:302:G:N3	5:Ad:2:GLY:N	2.45	0.65
1:A1:433:G:OP1	23:Av:33:ARG:NH1	2.29	0.65
27:B1:1607:C:H2'	27:B1:1608:4AC:H6	1.77	0.65
27:B1:1977:5MC:O2'	27:B1:2052:A:N3	2.27	0.64
27:B1:2538:G:OP1	61:Bi:82:ARG:NH1	2.30	0.64
32:BD:31:ASN:HB3	32:BD:138:ASP:OD1	1.97	0.64
23:Bl:23:ILE:HG21	23:Bl:31:PRO:HG3	1.79	0.64
20:As:33:LYS:NZ	20:As:33:LYS:O	2.30	0.64
27:B1:1824:A:H61	27:B1:2121:C:N4	1.95	0.64
27:B1:2970:G:OP2	30:BB:130:ARG:NH2	2.30	0.64
27:B1:3005:C:H2'	27:B1:3006:4AC:H6	1.80	0.64
18:Aq:67:LYS:NZ	18:Aq:72:PRO:O	2.31	0.64
27:B1:1256:C:H4'	35:BH:177:LEU:HB3	1.80	0.64
27:B1:1350:G:OP2	31:BC:176:LYS:NZ	2.30	0.64
1:A1:1334:C:O2	9:Ah:95:SER:OG	2.16	0.64
27:B1:1594:C:H2'	27:B1:1595:G:H8	1.63	0.64
1:A1:668:OMG:H2'	1:A1:669:G:C8	2.33	0.64
27:B1:764:A:H2	42:BP:120:GLU:HG3	1.62	0.64
1:A1:1241:A:O2'	1:A1:1243:U:OP2	2.16	0.63
27:B1:2038:A:N6	27:B1:2042:U:OP2	2.18	0.63
40:BN:141:LYS:NZ	63:Bk:11:ASP:OD2	2.31	0.63
1:A1:906:A:H2'	1:A1:907:G:C8	2.33	0.63
1:A1:1143:G:O2'	1:A1:1144:G:N7	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BP:36:ARG:NH1	42:BP:120:GLU:OE1	2.27	0.63
1:A1:474:A:OP1	15:An:71:LYS:NZ	2.32	0.63
23:Bl:84:GLU:O	23:Bl:88:ILE:HG12	1.97	0.63
15:An:14:ARG:NH2	19:Ar:65:LEU:O	2.32	0.63
15:An:69:MET:HE2	15:An:69:MET:HA	1.80	0.63
27:B1:1919:U:OP2	27:B1:1924:A:N6	2.26	0.63
27:B1:1993:A:OP2	27:B1:2013:G:N2	2.30	0.63
27:B1:2407:C:H2'	27:B1:2408:G:H8	1.64	0.63
27:B1:303:U:H3'	27:B1:304:A:H5'	1.81	0.63
27:B1:658:U:O2'	39:BM:22:LYS:NZ	2.32	0.63
1:A1:1367:G:H2'	1:A1:1368:OMU:H6	1.82	0.62
27:B1:816:U:H3	27:B1:931:G:H1	1.45	0.62
42:BP:22:SER:OG	42:BP:27:VAL:O	2.16	0.62
1:A1:404:C:H2'	1:A1:405:4AC:H6	1.82	0.62
27:B1:942:C:OP1	27:B1:966:A:O2'	2.18	0.62
27:B1:1337:G:N7	39:BM:10:LYS:NZ	2.41	0.62
1:A1:898:A:N3	1:A1:1338:U:O2'	2.31	0.62
27:B1:2772:G:O4'	37:BJ:3:LYS:NZ	2.33	0.62
1:A1:906:A:H2'	1:A1:907:G:H8	1.65	0.62
27:B1:1063:C:H2'	27:B1:1064:4AC:H6	1.80	0.62
34:BG:12:PRO:HG2	34:BG:15:LEU:HB2	1.81	0.62
6:Ae:15:ALA:O	6:Ae:23:ARG:NH2	2.33	0.62
1:A1:1184:G:OP2	1:A1:1284:C:N4	2.33	0.62
13:Al:10:SER:HB3	13:Al:16:LEU:HD13	1.82	0.62
1:A1:939:C:O2	17:Ap:12:ARG:NH1	2.33	0.61
10:Ai:90:GLU:OE2	10:Ai:113:HIS:NE2	2.32	0.61
39:BM:104:ASP:HA	39:BM:125:LYS:HG3	1.82	0.61
27:B1:2229:G:O6	27:B1:2309:C:N4	2.33	0.61
1:A1:628:G:OP1	4:Ac:118:ARG:NH2	2.33	0.61
28:B2:107:C:H2'	28:B2:108:4AC:H6	1.82	0.61
27:B1:2762:G:OP2	27:B1:2846:C:O2'	2.18	0.61
28:B2:52:A:H5"	41:BO:170:GLY:H	1.64	0.61
1:A1:1045:A:N7	20:As:2:GLY:N	2.48	0.61
27:B1:3036:C:H2'	27:B1:3037:4AC:H6	1.81	0.61
31:BC:192:LYS:NZ	65:BC:303:HOH:O	2.32	0.61
1:A1:1288:4AC:OP1	22:Au:81:LYS:NZ	2.33	0.61
5:Ad:67:GLU:OE1	5:Ad:70:ARG:NH1	2.33	0.61
28:B2:54:G:H21	32:BD:20:MET:HE3	1.65	0.61
27:B1:2799:U:OP2	65:B1:3102:HOH:O	2.16	0.61
7:Af:39:ARG:NH1	7:Af:123:GLU:OE1	2.32	0.60
34:BF:18:LYS:HG2	34:BF:110:LEU:HD11	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A1:86:C:H2'	1:A1:87:4AC:H6	1.81	0.60
27:B1:2112:C:H2'	27:B1:2113:4AC:H6	1.83	0.60
27:B1:2836:A:OP1	65:B1:3102:HOH:O	2.16	0.60
1:A1:63:G:H2'	1:A1:64:G:C8	2.37	0.60
1:A1:964:A:N3	1:A1:990:C:O2'	2.35	0.60
1:A1:1283:U:O2'	21:At:110:ARG:NH1	2.33	0.60
28:B2:97:G:H2'	28:B2:98:G:H8	1.66	0.60
50:BX:123:ARG:HH22	50:BX:155:LEU:HD21	1.66	0.60
23:Bl:49:GLU:OE2	23:Bl:49:GLU:N	2.30	0.60
1:A1:1092:C:HO2'	22:Au:2:ALA:N	1.99	0.60
1:A1:1259:U:O2'	9:Ah:177:LYS:NZ	2.35	0.60
27:B1:1060:C:H2'	27:B1:1061:4AC:H6	1.83	0.60
1:A1:374:C:H2'	1:A1:375:G:H8	1.66	0.59
31:BC:142:LEU:HD23	31:BC:241:VAL:HG22	1.84	0.59
37:BJ:124:ARG:O	37:BJ:128:GLU:HG2	2.02	0.59
27:B1:2749:4AC:O2'	30:BB:132:ILE:O	2.19	0.59
39:BM:95:TYR:CE1	39:BM:102:ILE:HD11	2.37	0.59
1:A1:381:C:H2'	1:A1:382:4AC:H6	1.84	0.59
9:Ah:72:MET:HE1	9:Ah:97:LYS:HD2	1.83	0.59
27:B1:2835:C:O2'	30:BB:365:GLN:OXT	2.20	0.59
4:Ac:124:ILE:O	4:Ac:181:ARG:N	2.35	0.59
23:Bl:18:GLU:HB3	23:Bl:68:TYR:HE1	1.67	0.59
9:Ah:66:ARG:NH2	9:Ah:159:ASP:OD1	2.32	0.59
10:Ai:36:GLU:OE1	10:Ai:39:ARG:NH1	2.36	0.59
1:A1:901:OMG:H3'	9:Ah:77:SER:OG	2.03	0.59
28:B2:98:G:H2'	28:B2:99:G:H8	1.68	0.59
1:A1:1340:C:OP1	25:Ax:17:ARG:NH2	2.36	0.59
27:B1:727:G:N2	27:B1:730:A:OP2	2.33	0.59
27:B1:2519:G:O2'	27:B1:2520:C:O5'	2.20	0.59
27:B1:615:G:H2'	27:B1:616:A:C8	2.38	0.59
17:Ap:3:LYS:HG3	17:Ap:5:ASP:HB2	1.85	0.58
62:Bj:2:LYS:HE2	62:Bj:4:LYS:HG2	1.84	0.58
1:A1:306:C:H2'	1:A1:307:4AC:H6	1.85	0.58
1:A1:1155:G:OP2	3:Ab:131:ARG:NH2	2.36	0.58
5:Ad:166:PRO:HA	5:Ad:169:MET:HE2	1.84	0.58
1:A1:1466:C:H2'	1:A1:1467:4AC:H6	1.84	0.58
22:Au:75:THR:HB	22:Au:92:LYS:HE2	1.86	0.58
27:B1:1885:4AC:OP2	43:BQ:76:ARG:NH1	2.36	0.58
41:BO:44:HIS:H	41:BO:64:THR:HG21	1.67	0.58
45:BS:95:LEU:HA	45:BS:98:VAL:HG12	1.83	0.58
1:A1:1033:A:OP1	7:Af:102:HIS:NE2	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A1:1253:C:H2’	1:A1:1254:4AC:H6	1.85	0.58
6:Ae:56:ALA:HB1	6:Ae:61:GLU:HG3	1.86	0.58
56:Bd:25:ARG:HG2	56:Bd:25:ARG:HH11	1.67	0.58
11:Aj:36:ARG:NH1	11:Aj:92:ARG:O	2.37	0.58
27:B1:479:C:N4	65:B1:3187:HOH:O	2.35	0.58
27:B1:1434:C:H2’	27:B1:1435:4AC:H6	1.85	0.58
51:BY:48:ASP:OD1	54:Bb:85:ARG:NH2	2.26	0.58
1:A1:1095:U:O2	1:A1:1096:C:N4	2.33	0.58
2:Aa:21:THR:HG22	2:Aa:23:GLN:H	1.69	0.58
27:B1:1824:A:N6	27:B1:2121:C:H42	2.00	0.58
1:A1:1207:G:OP1	22:Au:37:THR:OG1	2.20	0.58
28:B2:87:C:O2’	28:B2:89:C:OP1	2.21	0.58
37:BJ:141:VAL:HG11	48:BV:23:VAL:HG11	1.84	0.58
2:Aa:30:LYS:O	2:Aa:47:LYS:NZ	2.34	0.57
27:B1:720:C:H2’	27:B1:721:4AC:H6	1.85	0.57
27:B1:2443:A:H2’	27:B1:2444:G:C8	2.39	0.57
34:BG:110:LEU:O	34:BG:114:ILE:HG12	2.04	0.57
27:B1:262:A:H62	27:B1:298:G:H21	1.52	0.57
27:B1:424:G:N2	40:BN:194:LYS:OXT	2.37	0.57
27:B1:2864:A:OP1	33:BE:62:ARG:NH1	2.35	0.57
28:B2:89:C:H2’	28:B2:90:4AC:H6	1.86	0.57
35:BH:46:GLU:OE1	35:BH:48:SER:OG	2.21	0.57
38:BL:18:ALA:HB3	54:Bb:67:PRO:HG2	1.86	0.57
1:A1:78:G:H2’	1:A1:79:G:H8	1.70	0.57
48:BV:53:THR:HG22	48:BV:55:ALA:H	1.69	0.57
34:BG:17:GLU:O	34:BG:21:GLN:NE2	2.37	0.57
1:A1:1134:C:H2’	1:A1:1135:4AC:H6	1.87	0.57
1:A1:219:C:H2’	1:A1:220:4AC:H6	1.86	0.57
1:A1:1479:U:H2’	1:A1:1480:A:H8	1.70	0.57
27:B1:1923:A:OP1	65:B1:3103:HOH:O	2.17	0.57
27:B1:2473:A:O2’	44:BR:79:ASP:OD2	2.23	0.57
1:A1:1114:G:OP1	13:Al:69:HIS:ND1	2.37	0.57
15:An:20:ARG:NH2	65:An:202:HOH:O	2.35	0.57
27:B1:2285:C:H2’	27:B1:2286:G:C8	2.40	0.57
27:B1:679:G:OP2	39:BM:12:ARG:NH2	2.38	0.57
27:B1:2089:G:O2’	27:B1:2092:U:OP2	2.21	0.57
4:Ac:36:PRO:HG2	14:Am:37:GLU:HG2	1.85	0.56
18:Aq:130:ARG:NH1	65:Aq:203:HOH:O	2.37	0.56
27:B1:413:G:N7	65:B1:3115:HOH:O	2.33	0.56
1:A1:1371:OMC:H4’	27:B1:2041:A:H61	1.69	0.56
16:Ao:86:GLU:O	21:At:10:GLY:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:2103:A:N7	65:B1:3236:HOH:O	2.32	0.56
32:BD:48:LEU:O	32:BD:52:THR:OG1	2.22	0.56
38:BK:45:ARG:NH2	38:BK:66:ALA:O	2.31	0.56
27:B1:779:A:H2'	27:B1:780:A:C8	2.40	0.56
36:BI:76:ARG:NH1	65:BI:202:HOH:O	2.38	0.56
22:Au:10:ASP:OD1	22:Au:11:LEU:N	2.38	0.56
48:BV:10:CYS:HA	48:BV:53:THR:HG23	1.87	0.56
4:Ac:101:THR:HG22	4:Ac:125:ALA:HB3	1.87	0.56
27:B1:1058:C:H2'	27:B1:1059:A:H8	1.70	0.56
43:BQ:2:ASN:N	65:BQ:201:HOH:O	2.37	0.56
48:BV:5:ASN:O	48:BV:13:PRO:HA	2.04	0.56
6:Ae:8:ARG:NH1	65:Ae:301:HOH:O	2.39	0.56
27:B1:44:G:N7	65:B1:3243:HOH:O	2.33	0.56
27:B1:2034:G:N2	27:B1:2047:5MC:O2	2.39	0.56
1:A1:1084:G:OP1	12:Ak:20:ARG:NH2	2.33	0.56
3:Ab:72:GLN:HE21	3:Ab:73:PHE:HE1	1.51	0.56
26:Ay:41:GLU:O	26:Ay:45:VAL:HG23	2.06	0.56
1:A1:960:G:O2'	1:A1:964:A:OP2	2.24	0.56
4:Ac:43:VAL:HG23	4:Ac:46:ARG:HD2	1.87	0.56
6:Ae:70:LYS:NZ	23:Av:13:LEU:O	2.36	0.56
16:Ao:113:ARG:CZ	27:B1:1026:A:H2'	2.36	0.56
27:B1:2272:G:H2'	27:B1:2273:G:H8	1.71	0.56
38:BK:29:ASP:OD1	38:BK:30:LYS:N	2.39	0.56
1:A1:818:U:H2'	1:A1:819:A2M:H8	1.87	0.56
27:B1:453:A:H2'	27:B1:454:OMU:H6	1.88	0.56
28:B2:31:C:H2'	28:B2:32:4AC:H6	1.88	0.56
1:A1:1175:A:H2'	1:A1:1176:A:H5"	1.88	0.55
6:Ae:87:ILE:HG22	6:Ae:88:MET:HG2	1.86	0.55
8:Ag:63:ILE:HA	8:Ag:121:VAL:HG12	1.88	0.55
27:B1:1578:C:H2'	27:B1:1579:4AC:H6	1.88	0.55
1:A1:117:OMC:O2	1:A1:227:OMG:N2	2.29	0.55
27:B1:18:C:H2'	27:B1:19:4AC:H6	1.87	0.55
27:B1:662:G:H2'	27:B1:2154:C:C5	2.41	0.55
27:B1:2329:G:N2	27:B1:2332:A:OP2	2.39	0.55
17:Ap:39:CYS:HB2	17:Ap:42:CYS:SG	2.46	0.55
27:B1:764:A:C2	42:BP:120:GLU:HG3	2.42	0.55
27:B1:1281:C:OP2	36:BI:124:SER:OG	2.24	0.55
13:Al:23:ILE:O	13:Al:26:ILE:HG22	2.06	0.55
27:B1:304:A:H2'	27:B1:305:G:C8	2.41	0.55
27:B1:606:A:H2'	27:B1:607:A:H8	1.71	0.55
27:B1:2379:4AC:O2	27:B1:2391:OMG:N2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:B2:9:G:OP1	41:BO:24:ARG:NH1	2.40	0.55
2:Aa:70:VAL:HG12	2:Aa:92:ILE:HB	1.89	0.55
5:Ad:61:ALA:O	5:Ad:70:ARG:NH2	2.39	0.55
27:B1:1496:A:H2'	27:B1:1497:A:C8	2.42	0.55
1:A1:1374:C:H2'	1:A1:1375:A:C8	2.42	0.55
12:Ak:83:ALA:O	12:Ak:87:VAL:HG23	2.06	0.55
27:B1:1805:G:H5'	27:B1:1806:U:H5'	1.89	0.55
1:A1:541:OMG:N2	1:A1:709:C:OP2	2.36	0.54
1:A1:856:4AC:O2	1:A1:861:OMG:N2	2.39	0.54
27:B1:1418:U:OP2	65:B1:3105:HOH:O	2.18	0.54
27:B1:2242:U:N3	27:B1:2272:G:O2'	2.40	0.54
27:B1:2443:A:H2'	27:B1:2444:G:H8	1.71	0.54
27:B1:2449:A:N6	41:BO:19:THR:O	2.40	0.54
27:B1:1500:C:H2'	27:B1:1501:4AC:H6	1.88	0.54
27:B1:1914:OMC:HM22	27:B1:1915:U:H5'	1.87	0.54
30:BB:111:ALA:HB1	30:BB:120:PRO:HD2	1.88	0.54
27:B1:167:G:O3'	56:Bd:44:ARG:NH2	2.40	0.54
27:B1:1001:G:H2'	27:B1:1002:C:C6	2.42	0.54
1:A1:235:G:H2'	1:A1:236:G:C8	2.42	0.54
13:Al:82:MET:HA	13:Al:85:ILE:HB	1.89	0.54
42:BP:72:GLY:O	42:BP:92:LYS:NZ	2.37	0.54
1:A1:235:G:OP1	19:Ar:66:ARG:NH1	2.41	0.54
27:B1:178:G:OP2	65:B1:3107:HOH:O	2.18	0.54
27:B1:304:A:H2'	27:B1:305:G:H8	1.73	0.54
27:B1:2185:G:N2	27:B1:2186:A:N1	2.52	0.54
27:B1:1168:A:H2'	27:B1:1169:A:C8	2.43	0.54
27:B1:2431:C:H2'	27:B1:2432:4AC:H6	1.90	0.54
40:BN:157:ARG:HB2	40:BN:162:LEU:HB2	1.89	0.54
45:BS:69:SER:OG	65:BS:201:HOH:O	2.14	0.54
7:Af:13:LEU:O	7:Af:27:LYS:NZ	2.37	0.54
23:Av:23:ILE:HG21	23:Av:31:PRO:HG3	1.90	0.54
27:B1:649:C:H2'	27:B1:650:A:C8	2.42	0.54
27:B1:2364:G:O2'	27:B1:2612:U:OP1	2.21	0.54
1:A1:849:G:O2'	1:A1:865:G:O6	2.24	0.54
17:Ap:42:CYS:O	17:Ap:46:VAL:HG22	2.07	0.54
42:BP:32:ASP:HA	42:BP:35:TRP:CD1	2.43	0.54
27:B1:557:G:H2'	27:B1:558:G:H8	1.73	0.54
8:Ag:57:GLU:OE2	8:Ag:57:GLU:N	2.41	0.53
27:B1:1125:G:C8	50:BX:13:VAL:HG22	2.43	0.53
1:A1:1190:5MC:H4'	16:Ao:140:THR:HA	1.90	0.53
28:B2:10:G:O6	41:BO:12:ARG:NH1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:649:C:H2'	27:B1:650:A:H8	1.73	0.53
27:B1:673:C:H2'	27:B1:674:A:H8	1.71	0.53
33:BE:7:ILE:HD12	33:BE:65:VAL:HG22	1.91	0.53
62:Bj:7:ARG:HB2	62:Bj:60:ILE:HD13	1.91	0.53
3:Ab:72:GLN:NE2	3:Ab:73:PHE:CE1	2.71	0.53
7:Af:51:ASP:OD1	7:Af:58:ASN:ND2	2.33	0.53
27:B1:92:G:OP1	47:BU:72:LYS:NZ	2.26	0.53
27:B1:1514:G:O2'	27:B1:1951:G:O2'	2.25	0.53
63:Bk:38:ASN:OD1	63:Bk:47:ARG:NH2	2.41	0.53
10:Ai:37:VAL:O	10:Ai:41:MET:HG3	2.08	0.53
27:B1:812:C:H2'	27:B1:813:4AC:H6	1.91	0.53
27:B1:1181:G:O2'	27:B1:1182:C:OP1	2.26	0.53
27:B1:2026:A:HO2'	29:BA:215:THR:HG1	1.57	0.53
1:A1:432:U:O2'	23:Av:56:ILE:O	2.25	0.53
1:A1:472:G:H4'	1:A1:473:5MC:O5'	2.08	0.53
27:B1:661:U:O2'	27:B1:1119:A:N1	2.41	0.53
30:BB:56:ASP:OD1	30:BB:56:ASP:N	2.40	0.53
18:Aq:122:LEU:O	18:Aq:126:GLU:HG2	2.08	0.53
27:B1:967:G:OP2	65:B1:3106:HOH:O	2.18	0.53
47:BU:5:SER:O	47:BU:11:GLN:NE2	2.41	0.53
27:B1:293:U:O4	34:BF:83:LYS:NZ	2.40	0.53
27:B1:598:C:H2'	27:B1:599:4AC:H6	1.90	0.53
1:A1:838:C:H2'	1:A1:839:4AC:H6	1.90	0.53
7:Af:3:GLN:HB3	7:Af:6:LYS:HB2	1.90	0.53
7:Af:15:GLU:OE2	7:Af:15:GLU:N	2.42	0.53
16:Ao:41:ARG:HD3	22:Au:33:PRO:HB3	1.91	0.53
27:B1:1938:A:OP2	29:BA:233:ARG:NH2	2.42	0.53
45:BS:34:GLU:OE1	45:BS:37:ARG:NH1	2.41	0.53
1:A1:738:C:H2'	1:A1:739:4AC:H6	1.91	0.53
27:B1:2044:A:O2'	27:B1:2045:C:O2	2.16	0.53
27:B1:2261:C:H42	27:B1:2278:G:H1	1.57	0.52
36:BI:17:LYS:O	36:BI:21:MET:HG3	2.09	0.52
1:A1:718:C:H2'	1:A1:719:4AC:H6	1.91	0.52
27:B1:2359:U:H5"	27:B1:2360:G:H5'	1.91	0.52
27:B1:2379:4AC:C2	27:B1:2391:OMG:HN21	2.22	0.52
38:BL:45:ARG:NH2	38:BL:66:ALA:O	2.35	0.52
10:Ai:62:ARG:HG3	10:Ai:62:ARG:HH11	1.75	0.52
27:B1:721:4AC:O2'	27:B1:791:U:OP1	2.26	0.52
27:B1:996:G:O2'	27:B1:1053:G:O6	2.24	0.52
27:B1:1961:U:OP1	29:BA:167:ARG:NH2	2.42	0.52
27:B1:2198:U:H2'	27:B1:2199:U:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BM:16:THR:HG22	39:BM:19:TRP:H	1.73	0.52
2:Aa:25:THR:HG22	2:Aa:27:ASP:H	1.75	0.52
29:BA:47:GLU:OE1	29:BA:60:ARG:NH1	2.43	0.52
61:Bi:1:MET:N	61:Bi:88:LYS:O	2.39	0.52
1:A1:472:G:N2	15:An:65:PRO:O	2.43	0.52
1:A1:1438:U:H2'	1:A1:1439:G:H8	1.73	0.52
27:B1:337:4AC:H5"	47:BU:119:ARG:HG2	1.92	0.52
27:B1:643:G:O2'	27:B1:1363:G:OP1	2.26	0.52
27:B1:1373:C:H5"	53:Ba:104:HIS:HB2	1.91	0.52
27:B1:2748:C:H2'	27:B1:2749:4AC:H6	1.92	0.52
30:BB:187:ILE:HD13	30:BB:199:ILE:HD11	1.91	0.52
39:BM:89:MET:HE2	39:BM:101:ILE:HD11	1.92	0.52
1:A1:864:U:OP2	60:Bh:2:LYS:NZ	2.39	0.52
1:A1:1248:U:OP2	22:Au:72:ARG:NH1	2.37	0.52
10:Ai:5:ASP:HB3	10:Ai:8:ALA:HB3	1.92	0.52
27:B1:1306:C:H2'	27:B1:1307:A:C8	2.45	0.52
27:B1:1455:G:OP2	27:B1:1455:G:N2	2.32	0.52
27:B1:1568:C:O2'	38:BL:52:HIS:ND1	2.36	0.52
39:BM:102:ILE:C	39:BM:102:ILE:HD12	2.34	0.52
44:BR:11:LYS:NZ	65:BR:101:HOH:O	2.41	0.52
1:A1:1054:A:H4'	1:A1:1055:A:O5'	2.09	0.52
1:A1:1083:A:H4'	12:Ak:18:VAL:HG21	1.92	0.52
4:Ac:101:THR:HG21	4:Ac:129:ILE:HG12	1.92	0.52
8:Ag:42:GLU:N	8:Ag:42:GLU:OE2	2.42	0.52
27:B1:106:4AC:O2'	27:B1:334:A:O2'	2.23	0.52
27:B1:3019:C:H2'	27:B1:3020:4AC:H6	1.92	0.52
46:BT:12:VAL:HG11	49:BW:34:MET:HE2	1.90	0.52
1:A1:629:G:H2'	1:A1:630:U:C6	2.45	0.52
1:A1:1240:G:H4'	1:A1:1241:A:OP2	2.08	0.52
27:B1:1306:C:H2'	27:B1:1307:A:H8	1.75	0.52
27:B1:1528:G:O6	65:B1:3104:HOH:O	2.18	0.52
27:B1:1705:C:H2'	27:B1:1706:4AC:H6	1.92	0.52
43:BQ:15:LEU:HD13	43:BQ:52:LYS:HB2	1.92	0.52
1:A1:536:U:H2'	1:A1:537:A:H8	1.75	0.52
10:Ai:104:VAL:HG22	10:Ai:125:LEU:HD23	1.91	0.52
27:B1:2417:G:N2	32:BD:108:ASP:OD2	2.36	0.52
28:B2:43:C:O2	32:BD:83:ARG:NH1	2.43	0.52
1:A1:680:G:OP1	1:A1:812:G:N2	2.38	0.52
27:B1:1827:G:O2'	27:B1:2116:U:O4	2.20	0.52
27:B1:2185:G:O2'	27:B1:2187:C:N4	2.27	0.52
1:A1:123:U:H2'	1:A1:124:C:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A1:940:C:O2	17:Ap:17:GLY:N	2.39	0.51
1:A1:1013:5MC:H2'	1:A1:1014:G:H8	1.75	0.51
45:BS:116:HIS:HB3	45:BS:149:VAL:HB	1.93	0.51
1:A1:112:G:O2'	19:Ar:30:HIS:ND1	2.43	0.51
1:A1:895:A:H2'	1:A1:896:C:C6	2.45	0.51
27:B1:209:A:N3	27:B1:224:U:O2'	2.39	0.51
27:B1:2064:U:OP1	27:B1:2720:G:O2'	2.26	0.51
27:B1:2574:C:O2'	27:B1:2576:U:O4	2.20	0.51
27:B1:2376:C:OP1	44:BR:7:SER:OG	2.28	0.51
27:B1:2491:C:H2'	27:B1:2492:4AC:H6	1.90	0.51
1:A1:271:A:N6	65:A1:1603:HOH:O	2.42	0.51
1:A1:677:G:OP1	4:Ac:98:ARG:NH2	2.39	0.51
27:B1:2713:G:H2'	27:B1:2714:A:C8	2.46	0.51
27:B1:674:A:H2'	27:B1:675:OMG:H8	1.74	0.51
42:BP:81:ALA:HB3	42:BP:106:LEU:HD22	1.91	0.51
1:A1:109:U:H2'	1:A1:110:C:C6	2.46	0.51
1:A1:1320:U:OP1	17:Ap:32:ARG:HG3	2.11	0.51
7:Af:20:THR:OG1	7:Af:46:GLU:OE2	2.28	0.51
10:Ai:24:GLU:OE1	10:Ai:62:ARG:HD3	2.11	0.51
18:Aq:24:ILE:HD12	18:Aq:24:ILE:H	1.75	0.51
21:At:82:TYR:HB3	21:At:89:PHE:HB3	1.92	0.51
23:Av:93:ILE:HG22	23:Av:95:LYS:H	1.75	0.51
28:B2:98:G:H2'	28:B2:99:G:C8	2.46	0.51
28:B2:98:G:OP1	62:Bj:51:LYS:NZ	2.36	0.51
30:BB:152:GLU:O	30:BB:156:LYS:HG2	2.11	0.51
1:A1:116:C:O2'	1:A1:259:A:N3	2.36	0.51
1:A1:567:C:H2'	1:A1:568:A:H8	1.75	0.51
27:B1:415:G:OP2	40:BN:44:ARG:NH1	2.44	0.51
27:B1:590:G:H8	27:B1:590:G:OP2	1.93	0.51
28:B2:59:G:H4'	32:BD:150:VAL:HG11	1.93	0.51
1:A1:619:G:H22	1:A1:696:G:H1	1.57	0.51
1:A1:900:G:OP1	9:Ah:73:ARG:NH1	2.40	0.51
4:Ac:46:ARG:NH2	14:Am:37:GLU:OE1	2.44	0.51
13:Al:26:ILE:O	13:Al:30:THR:OG1	2.21	0.51
1:A1:374:C:H2'	1:A1:375:G:C8	2.45	0.51
27:B1:658:U:H2'	27:B1:659:C:C6	2.46	0.51
27:B1:1904:OMG:HN21	27:B1:2113:4AC:C2	2.23	0.51
27:B1:2683:G:H2'	27:B1:2684:OMG:C8	2.45	0.51
27:B1:2697:G:OP2	27:B1:2697:G:N2	2.42	0.51
35:BH:21:GLU:O	35:BH:24:ARG:NH2	2.43	0.51
2:Aa:174:GLU:OE1	2:Aa:185:ARG:NH1	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:2234:G:O2'	27:B1:2244:G:OP1	2.24	0.51
27:B1:2254:G:O2'	27:B1:2282:A:N1	2.44	0.51
1:A1:506:U:H2'	1:A1:507:OMG:H8	1.76	0.50
27:B1:612:G:N7	38:BK:16:ARG:NH1	2.59	0.50
27:B1:1294:G:OP1	55:Bc:11:ARG:NH1	2.42	0.50
27:B1:1049:C:OP1	35:BH:19:ARG:NH1	2.41	0.50
35:BH:133:LEU:HD12	35:BH:133:LEU:C	2.36	0.50
1:A1:911:G:OP2	16:Ao:130:ARG:NH1	2.44	0.50
1:A1:1220:C:H2'	1:A1:1221:4AC:H6	1.93	0.50
1:A1:1404:C:H2'	1:A1:1405:U:H6	1.76	0.50
27:B1:1168:A:H2'	27:B1:1169:A:H8	1.77	0.50
27:B1:2992:C:H2'	27:B1:2993:G:H8	1.77	0.50
1:A1:156:A:H2'	1:A1:157:A:C8	2.46	0.50
8:Ag:68:ASP:HA	8:Ag:116:ILE:HA	1.93	0.50
27:B1:2272:G:H2'	27:B1:2273:G:C8	2.45	0.50
35:BH:4:ARG:NH2	35:BH:9:ASP:OD1	2.44	0.50
23:Bl:12:LYS:NZ	23:Bl:12:LYS:HB3	2.27	0.50
1:A1:78:G:H2'	1:A1:79:G:C8	2.46	0.50
1:A1:1018:U:H4'	1:A1:1019:C:O5'	2.10	0.50
25:Ax:33:GLU:HA	25:Ax:37:LYS:HD3	1.94	0.50
1:A1:856:4AC:C2	1:A1:861:OMG:HN21	2.24	0.50
1:A1:23:G:O2'	1:A1:293:U:OP1	2.29	0.50
1:A1:318:A:H2	1:A1:329:OMG:HN21	1.59	0.50
27:B1:962:C:H5'	27:B1:2546:A:O2'	2.11	0.50
27:B1:1459:C:H2'	27:B1:1460:A:C8	2.47	0.50
27:B1:2013:G:N2	65:B1:3322:HOH:O	2.40	0.50
27:B1:2188:C:H2'	27:B1:2189:C:C6	2.47	0.50
27:B1:2189:C:H2'	27:B1:2190:C:H6	1.76	0.50
39:BM:36:MET:HE2	39:BM:36:MET:HA	1.94	0.50
40:BN:68:LYS:NZ	40:BN:121:GLU:OE2	2.41	0.50
1:A1:1464:A:H2'	1:A1:1465:G:C8	2.46	0.50
3:Ab:88:PRO:O	3:Ab:95:GLN:NE2	2.44	0.50
16:Ao:46:ASP:O	16:Ao:49:MET:HG2	2.12	0.50
27:B1:1509:A:OP1	40:BN:103:LYS:NZ	2.44	0.50
43:BQ:116:ASP:OD1	43:BQ:116:ASP:N	2.39	0.50
1:A1:1145:G:O2'	1:A1:1146:G:OP1	2.29	0.50
1:A1:1200:A:H2	1:A1:1203:G:N3	2.09	0.50
25:Ax:11:VAL:HG12	25:Ax:29:VAL:HG12	1.93	0.50
27:B1:177:G:OP1	40:BN:194:LYS:NZ	2.43	0.50
27:B1:268:C:H2'	27:B1:269:C:H6	1.76	0.50
27:B1:2139:A:H2'	27:B1:2140:A:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:2357:U:H2'	27:B1:2358:U:C6	2.47	0.50
27:B1:2615:C:OP1	65:B1:3109:HOH:O	2.20	0.50
31:BC:33:ARG:HD2	39:BM:1:MET:HE1	1.94	0.50
50:BX:70:LYS:HE2	50:BX:155:LEU:HD13	1.94	0.50
1:A1:1423:C:H2'	1:A1:1424:G:O4'	2.11	0.49
9:Ah:194:LYS:HG2	9:Ah:201:TYR:CZ	2.47	0.49
13:Al:52:SER:OG	13:Al:54:ASP:O	2.29	0.49
27:B1:217:A:H62	27:B1:450:G:H21	1.60	0.49
27:B1:1369:A:OP1	53:Ba:40:TRP:HB3	2.12	0.49
31:BC:35:VAL:HG13	31:BC:228:GLU:HG3	1.93	0.49
1:A1:81:C:O2'	1:A1:82:G:H8	1.95	0.49
1:A1:1230:A:N3	1:A1:1288:4AC:O2'	2.43	0.49
1:A1:1462:G:OP1	65:A1:1501:HOH:O	2.19	0.49
3:Ab:87:ASN:HB3	3:Ab:90:LEU:HB2	1.94	0.49
27:B1:1186:A:O2'	27:B1:1187:G:OP1	2.27	0.49
38:BK:69:GLU:CD	38:BK:69:GLU:H	2.20	0.49
41:BO:44:HIS:H	41:BO:64:THR:HG22	1.76	0.49
44:BR:35:PHE:HE1	44:BR:95:PRO:HG3	1.76	0.49
54:Bb:41:ARG:HH12	54:Bb:74:ARG:HE	1.59	0.49
55:Bc:3:ILE:HB	55:Bc:86:ILE:HB	1.94	0.49
1:A1:197:A:H2'	1:A1:198:A:C8	2.47	0.49
1:A1:465:G:H4'	1:A1:466:5MC:H5"	1.93	0.49
1:A1:1438:U:O2'	1:A1:1439:G:OP1	2.28	0.49
27:B1:603:G:OP1	50:BX:155:LEU:HD11	2.12	0.49
27:B1:1331:G:N2	27:B1:1332:U:O4	2.44	0.49
27:B1:2355:A:H2'	27:B1:2356:G:C8	2.48	0.49
31:BC:189:ARG:NH1	65:BC:306:HOH:O	2.43	0.49
37:BJ:100:GLU:OE1	48:BV:25:ASN:ND2	2.45	0.49
1:A1:1093:G:N7	22:Au:2:ALA:N	2.61	0.49
6:Ae:185:VAL:HG11	6:Ae:199:ILE:HD11	1.95	0.49
14:Am:25:ASN:OD1	14:Am:26:THR:N	2.44	0.49
27:B1:34:U:OP2	31:BC:186:MET:HG2	2.13	0.49
27:B1:860:G:H5'	27:B1:1593:U:O2'	2.13	0.49
27:B1:1125:G:N7	50:BX:13:VAL:HG22	2.28	0.49
27:B1:1311:A:OP1	42:BP:23:ASN:ND2	2.37	0.49
1:A1:896:C:H2'	1:A1:897:A:H8	1.77	0.49
1:A1:1249:A:H2'	1:A1:1250:A:C8	2.48	0.49
27:B1:115:C:O2'	27:B1:127:U:O2'	2.22	0.49
27:B1:1188:A:H1'	27:B1:1252:G:H21	1.77	0.49
29:BA:42:ARG:NH1	29:BA:82:GLU:OE1	2.45	0.49
1:A1:806:C:H2'	1:A1:807:G:H8	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A1:860:A:C5	1:A1:861:OMG:H1'	2.47	0.49
27:B1:1127:C:O2'	53:Ba:62:SER:OG	2.28	0.49
27:B1:1286:4AC:O5'	27:B1:1286:4AC:H6	2.12	0.49
27:B1:1982:G:H3'	27:B1:1983:5MC:HM53	1.94	0.49
27:B1:2988:U:H4'	27:B1:2989:A:H5'	1.94	0.49
32:BD:100:ASN:HB3	32:BD:180:GLY:HA2	1.94	0.49
47:BU:90:GLU:OE2	47:BU:90:GLU:HA	2.13	0.49
1:A1:361:A2M:O5'	1:A1:361:A2M:H8	2.12	0.49
1:A1:1316:C:H2'	1:A1:1317:G:H8	1.78	0.49
27:B1:37:G:N3	27:B1:490:G:O2'	2.46	0.49
27:B1:793:A:N3	31:BC:33:ARG:NH2	2.55	0.49
27:B1:1188:A:H1'	27:B1:1252:G:N2	2.28	0.49
4:Ac:97:ARG:O	4:Ac:100:THR:OG1	2.31	0.49
6:Ae:233:VAL:HG11	6:Ae:242:LEU:HD11	1.95	0.49
9:Ah:145:ARG:H	9:Ah:145:ARG:HD3	1.77	0.49
27:B1:268:C:H2'	27:B1:269:C:C6	2.48	0.49
27:B1:490:G:OP2	65:B1:3111:HOH:O	2.20	0.49
27:B1:933:4AC:O2'	56:Bd:51:TRP:O	2.25	0.49
27:B1:949:C:H2'	27:B1:950:4AC:H6	1.93	0.49
27:B1:2821:4AC:O7	65:B1:3108:HOH:O	2.20	0.49
52:BZ:21:ILE:HG13	52:BZ:22:VAL:HG13	1.95	0.49
13:Al:33:ARG:CZ	13:Al:33:ARG:HA	2.43	0.49
27:B1:2833:G:OP1	48:BV:35:ARG:NH2	2.46	0.49
1:A1:40:C:H2'	1:A1:41:4AC:H6	1.94	0.48
1:A1:152:OMG:HM23	8:Ag:9:SER:HB3	1.95	0.48
13:Al:10:SER:HB2	13:Al:94:VAL:HG22	1.94	0.48
13:Al:81:ALA:O	13:Al:85:ILE:HD13	2.13	0.48
27:B1:137:U:O2'	27:B1:138:A:O4'	2.31	0.48
27:B1:2200:U:OP2	27:B1:2352:G:N2	2.41	0.48
18:Aq:23:PRO:HG2	18:Aq:26:VAL:HG23	1.95	0.48
27:B1:530:OMG:HM23	27:B1:530:OMG:H1'	1.67	0.48
23:Bl:37:LYS:HZ2	23:Bl:51:THR:HG23	1.78	0.48
6:Ae:118:ASP:OD1	6:Ae:119:GLU:N	2.47	0.48
27:B1:100:U:H5"	27:B1:101:C:H3'	1.95	0.48
27:B1:724:A:O4'	27:B1:734:A:N6	2.46	0.48
27:B1:1884:C:H2'	27:B1:1885:4AC:H6	1.96	0.48
27:B1:2251:G:H2'	27:B1:2252:G:C8	2.48	0.48
1:A1:377:G:N2	1:A1:380:A:OP2	2.39	0.48
1:A1:703:G:N2	24:Aw:11:SER:O	2.44	0.48
27:B1:591:A:H2'	27:B1:592:G:C8	2.48	0.48
27:B1:603:G:OP1	50:BX:123:ARG:NH2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BS:17:MET:HG2	45:BS:151:GLU:HG3	1.94	0.48
47:BU:110:GLU:HA	47:BU:110:GLU:OE1	2.12	0.48
23:Bl:11:ASN:O	23:Bl:15:GLY:N	2.43	0.48
1:A1:1077:G:H5'	13:Al:38:ILE:HD11	1.96	0.48
2:Aa:183:GLN:OE1	2:Aa:183:GLN:HA	2.13	0.48
27:B1:506:A2M:H3'	27:B1:507:G:O4'	2.13	0.48
27:B1:731:C:H2'	27:B1:732:4AC:H6	1.95	0.48
27:B1:963:C:H41	27:B1:2548:A:H5"	1.78	0.48
27:B1:1742:C:H2'	27:B1:1743:4AC:H6	1.95	0.48
1:A1:294:G:N2	1:A1:297:A:OP2	2.37	0.48
1:A1:1473:G:H2'	1:A1:1475:MA6:OP2	2.13	0.48
27:B1:115:C:H2'	27:B1:116:4AC:H6	1.95	0.48
27:B1:1993:A:H2'	27:B1:1994:A:C8	2.48	0.48
1:A1:266:C:H2'	1:A1:267:A:C8	2.49	0.48
1:A1:496:G:H2'	1:A1:497:C:C6	2.49	0.48
1:A1:902:G:OP2	9:Ah:77:SER:OG	2.25	0.48
27:B1:347:U:H2'	27:B1:348:G:O4'	2.13	0.48
27:B1:765:G:H22	27:B1:981:G:P	2.37	0.48
32:BD:34:VAL:HG23	32:BD:36:GLU:H	1.78	0.48
1:A1:1109:C:H2'	1:A1:1110:OMU:H6	1.95	0.48
27:B1:484:C:N4	27:B1:485:4AC:O7	2.47	0.48
32:BD:120:HIS:O	32:BD:120:HIS:ND1	2.42	0.48
46:BT:83:LEU:HB3	46:BT:85:LEU:HD13	1.96	0.48
1:A1:372:U:O2'	6:Ae:28:TRP:O	2.31	0.48
1:A1:899:G:OP1	9:Ah:163:ARG:NH2	2.46	0.48
1:A1:1163:A:H4'	1:A1:1164:G:O5'	2.14	0.48
27:B1:840:A:OP1	57:Be:4:THR:OG1	2.21	0.48
27:B1:2195:A:H2'	27:B1:2196:G:C8	2.49	0.48
35:BH:69:VAL:HG21	35:BH:152:ALA:HB2	1.96	0.48
39:BM:78:LEU:HD21	39:BM:137:ILE:HD11	1.94	0.48
1:A1:1471:G:O6	60:Bh:21:LYS:NZ	2.47	0.47
9:Ah:212:GLU:OE2	9:Ah:215:ARG:NE	2.44	0.47
14:Am:32:ASP:OD2	14:Am:34:THR:OG1	2.28	0.47
27:B1:1286:4AC:O7	27:B1:1286:4AC:H5	2.14	0.47
27:B1:2361:G:H2'	27:B1:2362:C:H6	1.80	0.47
41:BO:71:PHE:O	41:BO:191:ARG:NH1	2.47	0.47
1:A1:651:A:H2'	1:A1:652:U:H6	1.79	0.47
16:Ao:16:ASP:OD1	16:Ao:17:GLY:N	2.47	0.47
27:B1:2898:C:H2'	27:B1:2899:G:H8	1.78	0.47
28:B2:45:A:O4'	32:BD:83:ARG:NE	2.47	0.47
35:BH:51:THR:HG22	35:BH:132:ILE:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A1:472:G:O2'	1:A1:484:G:N2	2.46	0.47
2:Aa:121:ARG:NH2	2:Aa:144:GLU:O	2.46	0.47
27:B1:1530:A:H1'	27:B1:1551:4AC:H1'	1.97	0.47
37:BJ:119:ARG:NH1	37:BJ:119:ARG:HB2	2.28	0.47
1:A1:1292:U:H2'	1:A1:1293:G:O4'	2.15	0.47
5:Ad:48:LEU:HB2	5:Ad:100:ILE:HD12	1.96	0.47
27:B1:257:G:OP1	63:Bk:43:TRP:NE1	2.40	0.47
27:B1:319:G:H2'	27:B1:320:A:C8	2.50	0.47
27:B1:320:A:H2'	27:B1:321:C:C6	2.48	0.47
27:B1:1626:A:H2'	27:B1:1627:A:C8	2.48	0.47
27:B1:1949:A:H2'	27:B1:1950:A:C8	2.50	0.47
1:A1:674:C:O2	4:Ac:96:VAL:HG11	2.14	0.47
1:A1:1404:C:H2'	1:A1:1405:U:C6	2.50	0.47
1:A1:1414:A:H2'	1:A1:1415:G:O4'	2.13	0.47
26:Ay:51:LYS:NZ	26:Ay:51:LYS:HB3	2.29	0.47
27:B1:1278:G:H5'	36:BI:78:THR:HG23	1.96	0.47
27:B1:2734:A:H2'	27:B1:2735:OMC:C6	2.50	0.47
40:BN:186:ILE:HG22	40:BN:191:GLY:HA2	1.97	0.47
3:Ab:17:ILE:HA	3:Ab:73:PHE:CE2	2.49	0.47
4:Ac:85:MET:HE3	4:Ac:85:MET:HB3	1.79	0.47
11:Aj:33:SER:HB3	11:Aj:56:ARG:HD3	1.96	0.47
27:B1:463:A:OP2	65:B1:3115:HOH:O	2.20	0.47
27:B1:1409:G:N7	45:BS:28:SER:OG	2.38	0.47
27:B1:1478:4AC:OP2	65:B1:3112:HOH:O	2.20	0.47
30:BB:130:ARG:NH1	65:BB:405:HOH:O	2.42	0.47
34:BG:21:GLN:O	34:BG:25:ILE:HG12	2.15	0.47
36:BI:5:ASN:HA	36:BI:31:VAL:HG12	1.97	0.47
45:BS:95:LEU:O	45:BS:98:VAL:HG12	2.15	0.47
1:A1:19:G:N2	65:A1:1571:HOH:O	2.36	0.47
1:A1:783:A:H2'	1:A1:784:G:O4'	2.15	0.47
3:Ab:17:ILE:HG12	3:Ab:73:PHE:HD2	1.76	0.47
7:Af:60:ARG:HB2	7:Af:60:ARG:CZ	2.45	0.47
27:B1:1509:A:H2'	27:B1:1510:C:C6	2.50	0.47
27:B1:1593:U:H2'	27:B1:1594:C:C6	2.49	0.47
27:B1:1962:G:OP1	29:BA:185:ARG:NH1	2.48	0.47
27:B1:2139:A:H2'	27:B1:2140:A:H8	1.78	0.47
27:B1:2843:C:H2'	27:B1:2844:4AC:H6	1.96	0.47
30:BB:61:THR:HG22	37:BJ:14:ALA:HB1	1.97	0.47
35:BH:12:VAL:HG12	35:BH:56:GLN:HG3	1.95	0.47
23:Bl:84:GLU:H	23:Bl:84:GLU:CD	2.20	0.47
1:A1:613:C:H2'	1:A1:614:4AC:H6	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Ai:19:ARG:HB3	10:Ai:19:ARG:NH1	2.30	0.47
27:B1:774:U:H2'	27:B1:775:G:C8	2.49	0.47
27:B1:774:U:H2'	27:B1:775:G:H8	1.80	0.47
1:A1:712:U:H2'	1:A1:713:G:O4'	2.15	0.47
27:B1:779:A:H2'	27:B1:780:A:H8	1.80	0.47
27:B1:1459:C:H2'	27:B1:1460:A:H8	1.79	0.47
27:B1:2234:G:O6	27:B1:2304:A:N6	2.48	0.47
1:A1:171:U:H2'	1:A1:172:G:H8	1.79	0.47
1:A1:1200:A:N7	1:A1:1265:C:H1'	2.30	0.47
27:B1:673:C:H2'	27:B1:674:A:C8	2.49	0.47
27:B1:1356:A:H5"	53:Ba:105:THR:HG23	1.96	0.47
27:B1:2310:C:H2'	27:B1:2311:G:H8	1.80	0.47
27:B1:2325:C:O2'	27:B1:2326:C:OP1	2.30	0.47
1:A1:15:U:O2'	1:A1:527:A:N6	2.47	0.46
1:A1:1438:U:HO2'	1:A1:1439:G:P	2.36	0.46
18:Aq:55:ARG:NH1	18:Aq:56:ASP:OD1	2.49	0.46
27:B1:1277:G:N2	36:BI:82:MET:SD	2.77	0.46
27:B1:1286:4AC:O2'	62:Bj:42:GLY:O	2.31	0.46
1:A1:252:G:H2'	1:A1:253:U:C6	2.50	0.46
1:A1:317:C:O2'	1:A1:1397:G:H1'	2.15	0.46
1:A1:506:U:H2'	1:A1:507:OMG:C8	2.51	0.46
1:A1:837:G:OP2	15:An:4:LYS:NZ	2.47	0.46
7:Af:220:ARG:NH1	10:Ai:98:GLU:O	2.48	0.46
27:B1:674:A:H2'	27:B1:675:OMG:C8	2.49	0.46
27:B1:837:U:H2'	27:B1:838:G:O4'	2.15	0.46
1:A1:4:C:OP2	7:Af:187:THR:OG1	2.30	0.46
1:A1:207:G:O2'	1:A1:210:A:N6	2.48	0.46
1:A1:1344:C:H2'	1:A1:1345:C:H6	1.81	0.46
1:A1:1481:C:H2'	1:A1:1482:G:C8	2.51	0.46
7:Af:9:ALA:HB2	7:Af:55:PRO:HG3	1.98	0.46
13:Al:14:ARG:HD3	13:Al:14:ARG:HA	1.72	0.46
14:Am:39:ILE:HG23	14:Am:74:LYS:HD2	1.96	0.46
27:B1:2978:G:H2'	27:B1:2979:G:H8	1.79	0.46
30:BB:17:ARG:HB2	30:BB:236:ARG:NH2	2.31	0.46
34:BG:39:THR:HG23	34:BG:100:ALA:HB2	1.97	0.46
38:BK:17:ARG:HG2	38:BK:43:VAL:HG22	1.96	0.46
39:BM:94:ALA:HB2	39:BM:103:VAL:HG13	1.96	0.46
1:A1:859:A:H2'	1:A1:860:A:C8	2.51	0.46
27:B1:877:5MC:H3'	27:B1:878:U:H4'	1.98	0.46
27:B1:923:C:OP1	65:B1:3110:HOH:O	2.20	0.46
27:B1:1149:C:H2'	27:B1:1150:4AC:H6	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:1285:C:H2'	27:B1:1286:4AC:H6	1.96	0.46
27:B1:1958:U:H2'	29:BA:123:ARG:HG3	1.97	0.46
1:A1:896:C:C2	1:A1:897:A:C8	3.03	0.46
3:Ab:71:LYS:NZ	3:Ab:72:GLN:HB2	2.30	0.46
27:B1:678:A:OP2	65:B1:3116:HOH:O	2.21	0.46
27:B1:924:A:OP1	27:B1:926:OMU:H5	2.15	0.46
27:B1:1004:C:O2'	27:B1:1005:U:OP1	2.32	0.46
49:BW:24:GLN:O	49:BW:28:GLU:HG2	2.15	0.46
55:Bc:59:ARG:NH1	55:Bc:60:VAL:O	2.49	0.46
27:B1:319:G:H2'	27:B1:320:A:H8	1.81	0.46
27:B1:940:A2M:HM'3	27:B1:940:A2M:H1'	1.72	0.46
27:B1:2317:U:H2'	27:B1:2318:G:H8	1.80	0.46
27:B1:2791:C:O2'	37:BJ:47:HIS:O	2.34	0.46
27:B1:2898:C:H2'	27:B1:2899:G:C8	2.50	0.46
28:B2:40:U:H3'	28:B2:41:U:H4'	1.96	0.46
1:A1:944:C:H2'	1:A1:945:4AC:H6	1.98	0.46
1:A1:1196:C:O2'	22:Au:85:HIS:O	2.27	0.46
20:As:9:ILE:HD11	20:As:46:ILE:HD12	1.97	0.46
27:B1:380:U:O2'	27:B1:381:A:OP1	2.30	0.46
27:B1:1024:C:H2'	27:B1:1025:G:C8	2.50	0.46
27:B1:1414:A:N3	27:B1:2128:G:O2'	2.47	0.46
27:B1:1594:C:H2'	27:B1:1595:G:C8	2.48	0.46
27:B1:1731:C:H2'	27:B1:1732:U:H6	1.81	0.46
1:A1:12:U:H2'	1:A1:13:C:C6	2.51	0.46
27:B1:1408:A:N1	27:B1:2138:A:H5"	2.31	0.46
27:B1:2610:G:N2	65:B1:3348:HOH:O	2.43	0.46
27:B1:2666:G:OP1	65:B1:3113:HOH:O	2.20	0.46
28:B2:58:A:N3	28:B2:59:G:C8	2.84	0.46
41:BO:63:HIS:CD2	41:BO:65:ARG:HB2	2.51	0.46
1:A1:1384:G:H2'	1:A1:1385:A:H8	1.79	0.46
13:Al:88:ILE:HG22	13:Al:90:VAL:H	1.81	0.46
27:B1:1726:A:H2'	27:B1:1727:A:H8	1.81	0.46
27:B1:2978:G:H2'	27:B1:2979:G:C8	2.51	0.46
28:B2:97:G:H2'	28:B2:98:G:C8	2.49	0.46
36:BI:20:LYS:O	36:BI:24:GLU:HG2	2.16	0.46
38:BK:4:ILE:HG21	38:BK:33:VAL:HG11	1.98	0.46
50:BX:145:GLU:O	50:BX:148:ASN:ND2	2.43	0.46
27:B1:887:OMG:H1'	27:B1:887:OMG:HM23	1.49	0.46
27:B1:2408:G:H2'	27:B1:2409:G:H8	1.80	0.46
50:BX:110:LEU:HD23	50:BX:113:LEU:HD22	1.97	0.46
1:A1:1481:C:H2'	1:A1:1482:G:H8	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Ak:21:GLU:OE1	12:Ak:22:GLY:N	2.49	0.45
13:Al:10:SER:OG	13:Al:11:THR:N	2.49	0.45
27:B1:1761:C:H2'	27:B1:1762:4AC:H6	1.99	0.45
40:BN:23:LEU:O	40:BN:27:MET:HG3	2.17	0.45
1:A1:879:U:H2'	1:A1:880:U:C6	2.51	0.45
7:Af:95:TYR:HB3	7:Af:121:ILE:HD11	1.98	0.45
27:B1:321:C:H2'	27:B1:322:C:H6	1.81	0.45
27:B1:575:C:H2'	27:B1:576:G:H8	1.82	0.45
27:B1:813:4AC:H5	27:B1:813:4AC:O7	2.15	0.45
27:B1:875:U:OP2	65:B1:3103:HOH:O	2.21	0.45
27:B1:2284:C:N3	27:B1:2285:C:N4	2.64	0.45
27:B1:2696:U:OP1	65:B1:3117:HOH:O	2.21	0.45
27:B1:2992:C:H2'	27:B1:2993:G:C8	2.51	0.45
41:BO:118:PHE:CD1	41:BO:137:ILE:HD12	2.51	0.45
23:Bl:37:LYS:NZ	23:Bl:51:THR:HG23	2.31	0.45
1:A1:945:4AC:H2'	1:A1:946:G:H8	1.81	0.45
1:A1:1438:U:H2'	1:A1:1439:G:C8	2.51	0.45
9:Ah:44:LEU:HD11	12:Ak:40:ILE:HG13	1.98	0.45
27:B1:1034:C:H2'	27:B1:1035:G:H8	1.81	0.45
27:B1:1475:A:H2'	27:B1:1477:C:H5	1.82	0.45
27:B1:1737:G:H2'	27:B1:1738:A:H8	1.81	0.45
27:B1:2077:A:N3	27:B1:2676:C:O2'	2.41	0.45
27:B1:2240:C:N4	27:B1:2241:G:O6	2.49	0.45
34:BF:14:GLU:OE2	34:BF:117:LYS:NZ	2.49	0.45
1:A1:573:U:H2'	1:A1:574:C:H6	1.81	0.45
1:A1:1077:G:N2	1:A1:1078:U:O4	2.48	0.45
8:Ag:69:LYS:HD2	8:Ag:69:LYS:O	2.17	0.45
9:Ah:135:ASP:HB2	9:Ah:152:ILE:HD11	1.99	0.45
13:Al:78:ASP:OD1	13:Al:79:GLU:N	2.50	0.45
27:B1:926:OMU:OP2	65:B1:3110:HOH:O	2.21	0.45
27:B1:1765:G:H4'	27:B1:1766:A:O5'	2.16	0.45
27:B1:2428:OMC:HM23	27:B1:2428:OMC:H1'	1.81	0.45
27:B1:2474:C:OP2	65:B1:3114:HOH:O	2.20	0.45
56:Bd:25:ARG:HG2	56:Bd:25:ARG:NH1	2.29	0.45
1:A1:99:C:H4'	1:A1:100:A:O5'	2.17	0.45
1:A1:153:OMG:H1'	1:A1:153:OMG:HM23	1.65	0.45
1:A1:881:G:H2'	1:A1:882:G:C8	2.51	0.45
1:A1:1091:C:O2'	22:Au:130:ASP:OD2	2.35	0.45
1:A1:1240:G:O5'	1:A1:1241:A:H5'	2.16	0.45
2:Aa:28:MET:HB3	2:Aa:28:MET:HE3	1.85	0.45
7:Af:136:ARG:HH11	7:Af:136:ARG:HG3	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:95:A:H2'	27:B1:96:G:O4'	2.17	0.45
27:B1:146:C:O2'	27:B1:147:U:OP1	2.32	0.45
27:B1:348:G:N1	27:B1:351:A:OP2	2.41	0.45
27:B1:1475:A:H2'	27:B1:1477:C:C5	2.51	0.45
27:B1:1963:G:N2	65:B1:3197:HOH:O	2.49	0.45
27:B1:2264:G:H2'	27:B1:2265:G:H8	1.81	0.45
27:B1:2406:U:H2'	27:B1:2407:C:C6	2.52	0.45
30:BB:86:TYR:OH	30:BB:184:GLU:OE2	2.34	0.45
60:Bh:32:LYS:HB3	60:Bh:32:LYS:HE3	1.71	0.45
1:A1:477:C:C5	15:An:116:MET:HE1	2.52	0.45
1:A1:908:C:H2'	1:A1:909:G:H8	1.82	0.45
1:A1:1202:U:O2'	9:Ah:91:ARG:O	2.28	0.45
10:Ai:55:ASP:HB3	24:Aw:6:ILE:HG12	1.98	0.45
26:Ay:51:LYS:HG2	26:Ay:58:GLU:HB2	1.99	0.45
27:B1:416:U:H2'	27:B1:417:A:H8	1.82	0.45
27:B1:1732:U:H2'	27:B1:1733:C:H6	1.82	0.45
27:B1:2126:C:H2'	27:B1:2127:G:C8	2.52	0.45
27:B1:2277:G:H2'	27:B1:2278:G:C8	2.52	0.45
45:BS:58:LYS:HB3	45:BS:58:LYS:HE3	1.72	0.45
52:BZ:94:LEU:HD23	52:BZ:94:LEU:HA	1.85	0.45
63:Bk:4:LEU:HD13	63:Bk:37:VAL:HG13	1.98	0.45
1:A1:855:C:H2'	1:A1:856:4AC:H6	1.99	0.45
1:A1:937:A:N6	1:A1:1186:U:O5'	2.50	0.45
18:Aq:94:ASP:N	18:Aq:94:ASP:OD1	2.49	0.45
27:B1:336:5MC:O3'	47:BU:118:ARG:NH1	2.50	0.45
27:B1:1488:OMU:HM22	27:B1:1489:OMC:H5"	1.97	0.45
27:B1:2407:C:H2'	27:B1:2408:G:C8	2.47	0.45
41:BO:75:GLY:HA2	41:BO:171:TYR:HE1	1.81	0.45
45:BS:108:ASP:N	45:BS:152:GLU:OE1	2.49	0.45
1:A1:20:G:N3	65:A1:1576:HOH:O	2.36	0.45
1:A1:123:U:H2'	1:A1:124:C:H6	1.81	0.45
1:A1:904:G:N1	1:A1:1300:G:OP2	2.48	0.45
1:A1:1359:C:N4	1:A1:1364:OMC:OP1	2.49	0.45
27:B1:1256:C:H2'	27:B1:1257:G:C8	2.52	0.45
27:B1:1613:G:O2'	27:B1:2818:U:O4	2.32	0.45
27:B1:1977:5MC:O2	27:B1:2028:OMG:N2	2.33	0.45
31:BC:166:ILE:HG22	31:BC:239:LEU:HD21	1.97	0.45
35:BH:94:LEU:HD11	35:BH:123:ALA:HB2	1.98	0.45
56:Bd:19:ARG:HA	56:Bd:26:VAL:HA	1.98	0.45
1:A1:240:A:H4'	1:A1:241:U:O5'	2.16	0.45
1:A1:513:U:H4'	1:A1:514:A:H3'	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A1:1393:U:H2'	1:A1:1394:G:O4'	2.17	0.45
12:Ak:51:LEU:HD11	12:Ak:102:TYR:CD2	2.52	0.45
27:B1:506:A2M:H2	27:B1:931:G:N3	2.32	0.45
27:B1:890:C:H2'	27:B1:891:G:H8	1.82	0.45
30:BB:281:GLU:HG3	30:BB:329:PRO:HD3	1.99	0.45
47:BU:28:SER:HA	47:BU:45:PRO:HA	1.99	0.45
1:A1:84:C:H2'	1:A1:85:A:H8	1.75	0.45
1:A1:1024:C:H2'	1:A1:1025:G:H8	1.81	0.45
1:A1:1168:G:H2'	1:A1:1169:C:C6	2.51	0.45
1:A1:1353:U:H2'	1:A1:1354:G:C8	2.52	0.45
7:Af:12:VAL:HG11	7:Af:51:ASP:HB3	1.99	0.45
27:B1:104:A:C2	47:BU:20:LEU:HB3	2.52	0.45
27:B1:239:C:OP2	27:B1:2512:C:O2'	2.27	0.45
27:B1:506:A2M:H8	27:B1:506:A2M:C5'	2.42	0.45
27:B1:887:OMG:OP1	65:B1:3120:HOH:O	2.21	0.45
27:B1:2286:G:O2'	27:B1:2287:U:O5'	2.35	0.45
52:BZ:18:ILE:HD12	52:BZ:30:ARG:HG3	1.99	0.45
1:A1:68:G:H2'	1:A1:69:U:C6	2.52	0.44
1:A1:826:C:H2'	1:A1:827:4AC:H6	1.97	0.44
6:Ae:116:SER:OG	6:Ae:118:ASP:OD1	2.35	0.44
14:Am:64:ALA:HB1	14:Am:105:LEU:HD13	1.99	0.44
17:Ap:21:CYS:SG	17:Ap:24:CYS:N	2.82	0.44
17:Ap:33:ILE:HG22	17:Ap:34:GLN:HG2	1.98	0.44
27:B1:222:G:OP2	63:Bk:61:LYS:NZ	2.44	0.44
27:B1:520:A:H5"	47:BU:91:VAL:HG21	1.98	0.44
27:B1:1423:G:H5"	52:BZ:49:ILE:HG23	1.99	0.44
1:A1:252:G:O2'	1:A1:253:U:OP1	2.29	0.44
1:A1:266:C:H2'	1:A1:267:A:H8	1.81	0.44
1:A1:1366:5MC:H2'	1:A1:1367:G:C8	2.52	0.44
6:Ae:166:MET:HE2	6:Ae:166:MET:HB2	1.89	0.44
27:B1:506:A2M:OP1	56:Bd:27:SER:OG	2.20	0.44
27:B1:1460:A:H2'	27:B1:1461:C:C6	2.52	0.44
27:B1:2692:G:O2'	27:B1:2695:C:OP2	2.28	0.44
28:B2:58:A:O2'	28:B2:59:G:H8	2.00	0.44
28:B2:60:C:C2	28:B2:61:C:C5	3.05	0.44
32:BD:7:ASN:N	32:BD:7:ASN:OD1	2.50	0.44
50:BX:62:GLU:H	50:BX:62:GLU:CD	2.24	0.44
7:Af:136:ARG:HG3	7:Af:136:ARG:NH1	2.31	0.44
8:Ag:80:GLY:O	8:Ag:109:GLY:HA3	2.16	0.44
27:B1:286:C:H2'	27:B1:287:G:H8	1.82	0.44
27:B1:2026:A:O2'	29:BA:215:THR:OG1	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:2711:G:N2	27:B1:2714:A:OP2	2.36	0.44
33:BE:44:ILE:HG13	33:BE:57:LYS:HD2	1.99	0.44
38:BL:26:ASP:OD1	38:BL:27:ILE:N	2.48	0.44
40:BN:82:PRO:HA	40:BN:85:MET:HG3	1.99	0.44
62:Bj:8:VAL:HG22	62:Bj:57:ILE:HG12	1.99	0.44
13:Al:44:ARG:HH21	13:Al:46:ARG:NH2	2.11	0.44
27:B1:641:4AC:H6	27:B1:641:4AC:O5'	2.17	0.44
27:B1:1957:G:OP1	29:BA:54:ARG:NH2	2.33	0.44
27:B1:2188:C:H2'	27:B1:2189:C:H6	1.82	0.44
27:B1:2210:U:H2'	27:B1:2211:G:H8	1.81	0.44
29:BA:99:LEU:HD23	29:BA:102:ILE:HD12	1.98	0.44
1:A1:76:U:H3'	1:A1:77:G:C8	2.52	0.44
1:A1:980:U:H2'	1:A1:981:C:C6	2.52	0.44
3:Ab:64:GLU:OE2	3:Ab:67:ARG:NH2	2.50	0.44
13:Al:12:ASN:OD1	13:Al:15:SER:N	2.39	0.44
20:As:43:SER:OG	20:As:46:ILE:HB	2.17	0.44
27:B1:394:C:H2'	27:B1:395:A:C8	2.52	0.44
27:B1:503:G:N2	27:B1:506:A2M:OP2	2.39	0.44
27:B1:900:A:H5'	29:BA:176:GLY:HA2	2.00	0.44
27:B1:1277:G:OP1	36:BI:52:ARG:NH2	2.48	0.44
27:B1:1526:G:OP2	65:B1:3104:HOH:O	2.21	0.44
27:B1:1658:G:H5'	27:B1:1660:G:O4'	2.18	0.44
27:B1:1964:G:OP1	29:BA:10:ARG:NH2	2.51	0.44
27:B1:2893:A:H4'	27:B1:2894:U:O5'	2.17	0.44
29:BA:54:ARG:O	29:BA:55:THR:OG1	2.30	0.44
31:BC:29:ASP:OD1	31:BC:29:ASP:N	2.38	0.44
52:BZ:22:VAL:HG11	52:BZ:30:ARG:HG2	1.98	0.44
1:A1:80:A:O2'	1:A1:81:C:P	2.76	0.44
1:A1:464:OMG:H8	1:A1:464:OMG:H2'	1.46	0.44
1:A1:515:U:H4'	1:A1:517:A:H62	1.82	0.44
1:A1:1224:C:H2'	1:A1:1225:C:H6	1.83	0.44
1:A1:1461:G:OP1	1:A1:1464:A:H4'	2.17	0.44
8:Ag:36:ASP:OD1	8:Ag:36:ASP:N	2.50	0.44
10:Ai:62:ARG:HG3	10:Ai:62:ARG:NH1	2.33	0.44
13:Al:39:PRO:HA	13:Al:71:ARG:HD3	1.98	0.44
27:B1:31:G:H2'	27:B1:32:G:C8	2.52	0.44
31:BC:77:PRO:HG2	31:BC:79:TYR:CE2	2.52	0.44
51:BY:7:LEU:O	51:BY:11:MET:HG3	2.17	0.44
51:BY:64:GLU:OE2	51:BY:64:GLU:HA	2.17	0.44
1:A1:656:A:H5"	1:A1:657:U:H3'	1.99	0.44
1:A1:834:OMC:HM23	1:A1:834:OMC:H1'	1.84	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Ae:106:ARG:HD2	6:Ae:194:ALA:HB3	2.00	0.44
10:Ai:103:ILE:HB	10:Ai:127:ALA:HB3	1.99	0.44
16:Ao:115:TYR:CZ	16:Ao:119:ARG:HD2	2.52	0.44
27:B1:129:C:H2'	27:B1:130:4AC:H6	2.00	0.44
27:B1:700:A:H2'	27:B1:701:A:C8	2.53	0.44
27:B1:1731:C:H2'	27:B1:1732:U:C6	2.53	0.44
27:B1:2888:4AC:H2'	27:B1:2889:G:O4'	2.18	0.44
47:BU:53:ARG:NE	47:BU:63:GLU:OE2	2.45	0.44
48:BV:57:GLN:H	48:BV:57:GLN:HG2	1.61	0.44
53:Ba:108:LYS:HG2	53:Ba:129:ARG:HH12	1.83	0.44
1:A1:712:U:O2'	1:A1:838:C:O2	2.36	0.44
1:A1:1034:G:H5'	7:Af:73:ARG:HD3	2.00	0.44
3:Ab:137:THR:O	3:Ab:137:THR:OG1	2.35	0.44
27:B1:167:G:OP2	27:B1:167:G:N2	2.35	0.44
27:B1:507:G:N7	56:Bd:54:LYS:HE3	2.33	0.44
27:B1:808:OMG:C3'	27:B1:809:A:H5"	2.48	0.44
30:BB:140:THR:HB	30:BB:143:MET:HG3	2.00	0.44
50:BX:122:PRO:HD3	50:BX:154:MET:HE3	1.99	0.44
5:Ad:150:ASP:OD1	5:Ad:150:ASP:C	2.61	0.44
13:Al:16:LEU:HD22	13:Al:69:HIS:HB2	2.00	0.44
17:Ap:23:ARG:NH2	17:Ap:45:GLU:OE1	2.50	0.44
27:B1:538:U:H2'	27:B1:539:G:O4'	2.17	0.44
27:B1:614:C:O2'	38:BK:52:HIS:ND1	2.42	0.44
27:B1:1590:G:H2'	27:B1:1591:C:C6	2.53	0.44
27:B1:2707:C:H2'	27:B1:2708:G:C8	2.53	0.44
31:BC:33:ARG:NH1	31:BC:109:GLU:OE2	2.50	0.44
1:A1:422:U:HO2'	5:Ad:129:HIS:HE2	1.66	0.43
27:B1:577:G:H5"	55:Bc:49:SER:HB3	2.00	0.43
27:B1:798:C:H2'	27:B1:799:G:H8	1.83	0.43
27:B1:952:C:H2'	27:B1:953:4AC:H6	2.00	0.43
27:B1:1651:U:OP2	43:BQ:107:ARG:NH2	2.51	0.43
27:B1:2095:A:OP2	65:B1:3118:HOH:O	2.21	0.43
27:B1:2963:A:O2'	65:B1:3119:HOH:O	2.21	0.43
27:B1:2975:U:H2'	27:B1:2976:A:C8	2.53	0.43
27:B1:3022:C:O2	30:BB:365:GLN:NE2	2.50	0.43
30:BB:124:PHE:C	30:BB:126:LYS:H	2.26	0.43
51:BY:36:ILE:HB	51:BY:83:LEU:HG	2.00	0.43
1:A1:100:A:OP2	65:A1:1502:HOH:O	2.21	0.43
18:Aq:76:LEU:HD23	18:Aq:76:LEU:HA	1.83	0.43
27:B1:1325:G:OP1	50:BX:114:LYS:NZ	2.43	0.43
27:B1:1934:U:H2'	27:B1:1935:C:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:2037:A:H8	27:B1:2043:A:H62	1.65	0.43
27:B1:2827:U:OP1	27:B1:2829:G:H4'	2.18	0.43
28:B2:71:U:H2'	28:B2:72:C:C6	2.53	0.43
29:BA:65:ASN:HD21	29:BA:67:ILE:HD12	1.83	0.43
45:BS:43:MET:HE3	45:BS:43:MET:HB3	1.86	0.43
23:Bl:40:LEU:HD12	23:Bl:40:LEU:HA	1.83	0.43
1:A1:207:G:N2	1:A1:210:A:OP2	2.43	0.43
7:Af:72:VAL:HG13	7:Af:79:ARG:HB3	2.00	0.43
7:Af:140:SER:OG	7:Af:141:VAL:N	2.52	0.43
11:Aj:37:VAL:HG22	11:Aj:95:ILE:HD11	1.99	0.43
12:Ak:117:HIS:ND1	12:Ak:122:SER:O	2.52	0.43
23:Av:78:MET:HE2	23:Av:78:MET:HB3	1.96	0.43
27:B1:485:4AC:HM72	47:BU:9:ARG:NH1	2.33	0.43
27:B1:1454:G:N2	27:B1:1457:U:C4	2.86	0.43
27:B1:2603:G:H2'	27:B1:2604:A:H8	1.81	0.43
27:B1:2870:U:H1'	27:B1:2871:A:H5"	2.01	0.43
29:BA:36:THR:HG21	29:BA:156:ARG:HD3	1.99	0.43
42:BP:52:ILE:O	42:BP:56:ALA:HB3	2.19	0.43
1:A1:824:A:H2'	1:A1:825:G:C8	2.53	0.43
1:A1:1297:C:O2'	9:Ah:175:ARG:NH1	2.51	0.43
1:A1:1371:OMC:HM23	1:A1:1371:OMC:H1'	1.86	0.43
27:B1:648:G:H2'	27:B1:649:C:C6	2.53	0.43
27:B1:931:G:H3'	27:B1:932:5MC:HM53	1.99	0.43
27:B1:2346:U:H2'	27:B1:2347:A:H8	1.83	0.43
1:A1:616:G:N2	1:A1:791:G:H4'	2.34	0.43
1:A1:1145:G:O2'	1:A1:1147:C:OP2	2.36	0.43
1:A1:1212:A:H2'	1:A1:1213:A:C8	2.54	0.43
1:A1:1308:A:H1'	1:A1:1309:G:OP2	2.18	0.43
4:Ac:85:MET:HE3	4:Ac:188:ILE:HB	2.01	0.43
27:B1:1000:A:H2'	27:B1:1001:G:C8	2.54	0.43
27:B1:2310:C:H2'	27:B1:2311:G:C8	2.54	0.43
27:B1:2494:A:H1'	41:BO:137:ILE:HD13	2.00	0.43
53:Ba:40:TRP:CZ2	53:Ba:61:PRO:HD2	2.53	0.43
1:A1:472:G:H5'	1:A1:473:5MC:C6	2.54	0.43
1:A1:945:4AC:H5	1:A1:945:4AC:CM7	2.48	0.43
1:A1:963:G:N2	1:A1:988:G:O2'	2.51	0.43
1:A1:1001:G:H1'	1:A1:1177:C:H5"	2.00	0.43
1:A1:1308:A:H4'	1:A1:1309:G:O5'	2.18	0.43
1:A1:1403:U:H2'	1:A1:1404:C:C6	2.53	0.43
20:As:14:ARG:HA	20:As:17:VAL:HG12	2.01	0.43
25:Ax:60:THR:O	25:Ax:60:THR:OG1	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:90:C:OP1	47:BU:72:LYS:NZ	2.32	0.43
27:B1:545:A:H5"	27:B1:546:G:H3'	1.99	0.43
27:B1:1150:4AC:H5	27:B1:1150:4AC:O7	2.17	0.43
27:B1:2766:C:H2'	27:B1:2767:C:H6	1.83	0.43
41:BO:52:ASP:HB3	41:BO:55:GLY:O	2.19	0.43
1:A1:278:G:H4'	1:A1:279:A:O5'	2.18	0.43
27:B1:1189:C:N4	27:B1:1249:C:H41	2.16	0.43
27:B1:1388:G:H5'	39:BM:3:ARG:HD2	2.00	0.43
27:B1:1639:4AC:H5	27:B1:1639:4AC:O7	2.19	0.43
27:B1:1817:C:H2'	27:B1:1818:4AC:H6	2.00	0.43
27:B1:1876:U:H2'	27:B1:1877:G:O4'	2.18	0.43
27:B1:2251:G:H21	27:B1:2297:A:H1'	1.83	0.43
27:B1:2325:C:HO2'	27:B1:2326:C:P	2.41	0.43
27:B1:2585:A:N6	27:B1:2597:G:O2'	2.47	0.43
32:BD:61:ALA:HB2	32:BD:76:ILE:HG13	2.00	0.43
33:BE:125:LEU:HD12	33:BE:146:ALA:HA	2.01	0.43
41:BO:161:GLU:OE1	41:BO:165:ARG:NH1	2.51	0.43
27:B1:778:A:N1	27:B1:2487:A:O2'	2.46	0.43
27:B1:2198:U:OP1	65:B1:3121:HOH:O	2.21	0.43
27:B1:2254:G:O2'	27:B1:2257:G:O2'	2.33	0.43
32:BD:99:ASP:O	32:BD:101:ARG:N	2.49	0.43
37:BJ:36:LYS:HG3	37:BJ:69:GLY:HA2	2.00	0.43
49:BW:25:LEU:HD11	49:BW:44:ILE:HG23	2.01	0.43
1:A1:1226:OMC:HM23	1:A1:1226:OMC:H1'	1.88	0.43
1:A1:1384:G:H2'	1:A1:1385:A:C8	2.54	0.43
12:Ak:87:VAL:HG21	12:Ak:107:LEU:HD21	2.01	0.43
27:B1:85:A:C2	27:B1:103:A:C5	3.07	0.43
27:B1:106:4AC:O7	27:B1:106:4AC:H5	2.19	0.43
27:B1:863:G:O2'	27:B1:899:G:H4'	2.19	0.43
27:B1:1647:G:H2'	27:B1:1648:5MC:C6	2.53	0.43
27:B1:2645:G:N7	59:Bg:47:ARG:HG3	2.34	0.43
39:BM:102:ILE:HG22	39:BM:123:VAL:CG2	2.49	0.43
40:BN:60:VAL:HG22	40:BN:132:MET:HB2	2.01	0.43
1:A1:779:G:OP1	18:Aq:2:ALA:N	2.52	0.43
5:Ad:30:MET:HE3	5:Ad:30:MET:HB3	1.78	0.43
13:Al:86:MET:HE3	13:Al:86:MET:HB3	1.94	0.43
18:Aq:110:GLU:OE1	18:Aq:110:GLU:C	2.62	0.43
27:B1:149:C:OP1	40:BN:38:ARG:NH1	2.47	0.43
27:B1:184:G:H4'	39:BM:34:ARG:HD2	2.01	0.43
27:B1:678:A:N1	27:B1:945:G:O2'	2.42	0.43
27:B1:2212:C:H2'	27:B1:2213:4AC:H6	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:B2:39:A:H2'	28:B2:40:U:C6	2.54	0.43
31:BC:208:VAL:O	31:BC:212:ARG:HB2	2.19	0.43
1:A1:1152:G:H4'	1:A1:1153:A:O5'	2.18	0.42
1:A1:1422:U:H2'	1:A1:1423:C:C6	2.53	0.42
7:Af:167:ILE:O	7:Af:172:LYS:NZ	2.41	0.42
27:B1:199:C:OP2	56:Bd:50:ARG:HG3	2.19	0.42
27:B1:1417:G:OP2	65:B1:3105:HOH:O	2.21	0.42
27:B1:1490:G:O2'	27:B1:1524:A:N3	2.45	0.42
27:B1:1931:A:C2	27:B1:1969:A:H4'	2.54	0.42
27:B1:2156:C:N4	27:B1:2688:A:O4'	2.52	0.42
27:B1:2251:G:H2'	27:B1:2252:G:H8	1.83	0.42
27:B1:2408:G:H2'	27:B1:2409:G:C8	2.53	0.42
30:BB:51:ILE:HG22	30:BB:359:VAL:HA	2.00	0.42
31:BC:2:LYS:NZ	31:BC:17:GLU:OE1	2.47	0.42
43:BQ:122:MET:HE3	43:BQ:122:MET:HB3	1.85	0.42
1:A1:184:G:H2'	1:A1:184:G:N3	2.34	0.42
1:A1:227:OMG:HM22	1:A1:228:OMG:H4'	2.01	0.42
1:A1:427:4AC:O7	1:A1:427:4AC:H5	2.19	0.42
1:A1:641:U:O4	1:A1:658:A:H1'	2.19	0.42
7:Af:93:ASP:OD1	7:Af:227:ARG:HA	2.19	0.42
13:Al:33:ARG:HA	13:Al:33:ARG:NH1	2.34	0.42
17:Ap:6:TYR:N	17:Ap:6:TYR:CD1	2.87	0.42
20:As:33:LYS:HA	20:As:33:LYS:HD2	1.90	0.42
27:B1:231:A:N1	27:B1:245:A:H5"	2.34	0.42
27:B1:1189:C:C2	27:B1:1190:A:C8	3.07	0.42
27:B1:1659:A:C2	51:BY:42:PRO:HG3	2.54	0.42
27:B1:2420:U:H2'	27:B1:2421:C:C6	2.54	0.42
27:B1:2563:G:H4'	27:B1:2564:A:O5'	2.18	0.42
30:BB:123:THR:HG23	30:BB:124:PHE:O	2.18	0.42
36:BI:1:MET:HE2	36:BI:1:MET:HB3	1.76	0.42
48:BV:60:ARG:HE	48:BV:60:ARG:HB2	1.61	0.42
49:BW:2:LYS:HB2	49:BW:5:GLU:HG2	2.01	0.42
1:A1:1455:U:H4'	1:A1:1476:MA6:H2	2.00	0.42
2:Aa:27:ASP:N	2:Aa:27:ASP:OD1	2.52	0.42
11:Aj:41:ASP:OD1	11:Aj:41:ASP:N	2.52	0.42
27:B1:47:OMC:N4	27:B1:204:G:OP2	2.50	0.42
27:B1:115:C:HO2'	27:B1:127:U:HO2'	1.58	0.42
27:B1:548:C:OP2	65:B1:3122:HOH:O	2.21	0.42
27:B1:1618:G:H2'	27:B1:1619:G:H8	1.83	0.42
27:B1:2372:A:H4'	44:BR:2:VAL:HG13	2.01	0.42
27:B1:2495:A:H2'	27:B1:2496:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:2570:G:C4	27:B1:2571:A:C8	3.06	0.42
27:B1:2707:C:H2'	27:B1:2708:G:H8	1.83	0.42
30:BB:152:GLU:HG2	30:BB:156:LYS:HE3	2.02	0.42
30:BB:191:SER:HB3	30:BB:194:GLU:HB2	2.01	0.42
1:A1:97:C:H2'	1:A1:98:U:C6	2.55	0.42
1:A1:884:G:C2	1:A1:886:G:C8	3.07	0.42
1:A1:1478:C:H2'	1:A1:1479:U:H6	1.84	0.42
27:B1:197:A:H2'	27:B1:198:C:O4'	2.19	0.42
27:B1:402:C:H1'	63:Bk:47:ARG:HG2	2.01	0.42
27:B1:1870:U:O4	43:BQ:74:ARG:NH2	2.52	0.42
27:B1:2306:U:H2'	27:B1:2307:C:C6	2.54	0.42
29:BA:37:GLN:O	29:BA:38:GLU:HG2	2.19	0.42
34:BF:39:THR:HG23	34:BF:100:ALA:HB2	2.01	0.42
46:BT:27:THR:HG23	46:BT:27:THR:O	2.19	0.42
47:BU:45:PRO:O	47:BU:112:ARG:NH2	2.47	0.42
1:A1:536:U:H1'	27:B1:850:C:H41	1.84	0.42
1:A1:1145:G:H3'	1:A1:1146:G:H5"	2.02	0.42
21:At:77:VAL:HA	21:At:94:ILE:HG22	2.02	0.42
27:B1:140:G:H2'	27:B1:141:C:C6	2.54	0.42
27:B1:559:C:H2'	27:B1:560:G:H8	1.84	0.42
27:B1:1072:A:N6	65:B1:3296:HOH:O	2.37	0.42
27:B1:1314:G:OP2	23:Bl:33:ARG:NH2	2.38	0.42
27:B1:2026:A:H5"	29:BA:235:THR:HB	2.02	0.42
27:B1:2554:OMU:HM22	27:B1:2555:A:H5"	2.02	0.42
27:B1:2947:C:H2'	27:B1:2948:G:O4'	2.19	0.42
35:BH:42:ASP:OD1	35:BH:42:ASP:C	2.62	0.42
41:BO:74:LYS:HG3	41:BO:176:LEU:HB2	2.01	0.42
1:A1:152:OMG:HM23	1:A1:152:OMG:H1'	1.53	0.42
1:A1:379:A:H2'	1:A1:380:A:C8	2.55	0.42
1:A1:643:G:O5'	14:Am:46:MET:HG2	2.19	0.42
1:A1:1107:C:H5"	1:A1:1108:A:OP1	2.19	0.42
1:A1:1341:G:H2'	1:A1:1342:U:C6	2.55	0.42
16:Ao:34:ASN:O	16:Ao:38:MET:HG3	2.19	0.42
27:B1:341:G:OP2	47:BU:42:ARG:NH2	2.53	0.42
27:B1:956:A:H4'	27:B1:972:G:N2	2.34	0.42
27:B1:1647:G:H2'	27:B1:1648:5MC:H6	1.84	0.42
27:B1:1761:C:O2'	27:B1:1767:A:N1	2.41	0.42
27:B1:1853:U:O3'	57:Be:22:ARG:NH2	2.53	0.42
27:B1:1986:G:H2'	27:B1:1987:U:O4'	2.20	0.42
31:BC:26:PHE:CE2	31:BC:28:PRO:HG3	2.55	0.42
61:Bi:1:MET:HE2	61:Bi:1:MET:HB3	1.92	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A1:305:C:H2'	1:A1:306:C:H6	1.85	0.42
1:A1:449:A:H2'	1:A1:450:U:H5	1.83	0.42
1:A1:458:G:H2'	1:A1:459:OMG:H8	1.84	0.42
1:A1:488:OMU:H6	1:A1:488:OMU:O5'	2.20	0.42
1:A1:802:A:O2'	4:Ac:177:ILE:O	2.36	0.42
1:A1:944:C:C5	1:A1:945:4AC:HM73	2.55	0.42
1:A1:1121:U:OP2	20:As:3:LYS:NZ	2.48	0.42
3:Ab:28:ALA:HB2	3:Ab:53:TYR:HD2	1.84	0.42
27:B1:741:C:H2'	27:B1:742:G:O4'	2.19	0.42
27:B1:2126:C:H2'	27:B1:2127:G:H8	1.83	0.42
27:B1:2332:A:O5'	27:B1:2332:A:H8	2.03	0.42
27:B1:2808:OMC:HM23	27:B1:2808:OMC:H1'	1.78	0.42
30:BB:202:LYS:HD3	30:BB:207:LEU:HD13	2.01	0.42
39:BM:66:PRO:HA	39:BM:67:PRO:HD3	1.97	0.42
1:A1:195:C:H2'	1:A1:196:G:O4'	2.19	0.42
1:A1:534:4AC:H5"	18:Aq:5:HIS:ND1	2.35	0.42
1:A1:905:G:C2	1:A1:906:A:C8	3.07	0.42
13:Al:82:MET:HE2	13:Al:82:MET:C	2.45	0.42
20:As:62:MET:HA	20:As:62:MET:HE2	2.02	0.42
25:Ax:24:VAL:HG23	25:Ax:45:VAL:O	2.18	0.42
27:B1:336:5MC:H2'	27:B1:337:4AC:H6	2.02	0.42
27:B1:782:C:H2'	27:B1:783:G:H8	1.84	0.42
27:B1:1494:C:H2'	27:B1:1495:U:C6	2.55	0.42
27:B1:2137:G:OP2	65:B1:3127:HOH:O	2.22	0.42
29:BA:28:VAL:HG11	29:BA:72:ILE:HG13	2.01	0.42
34:BG:15:LEU:HA	34:BG:15:LEU:HD23	1.82	0.42
50:BX:145:GLU:O	50:BX:145:GLU:HG3	2.19	0.42
53:Ba:75:HIS:CG	53:Ba:76:PRO:HD2	2.55	0.42
1:A1:536:U:H2'	1:A1:537:A:C8	2.52	0.42
1:A1:1363:G:H2'	1:A1:1364:OMC:O4'	2.20	0.42
5:Ad:129:HIS:ND1	5:Ad:158:SER:OG	2.42	0.42
25:Ax:13:GLU:HG2	25:Ax:14:ILE:N	2.35	0.42
27:B1:237:G:OP2	27:B1:239:C:N4	2.49	0.42
27:B1:867:G:N7	65:B1:3297:HOH:O	2.37	0.42
27:B1:1099:OMC:HM23	27:B1:1099:OMC:H1'	1.90	0.42
27:B1:1319:G:H2'	27:B1:1320:U:C6	2.55	0.42
27:B1:2189:C:H2'	27:B1:2190:C:C6	2.53	0.42
27:B1:2529:U:H2'	27:B1:2530:G:C8	2.54	0.42
27:B1:2529:U:H2'	27:B1:2530:G:H8	1.84	0.42
27:B1:2865:G:OP1	27:B1:2865:G:N2	2.49	0.42
50:BX:6:VAL:O	50:BX:34:CYS:HA	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BY:24:ILE:HD11	51:BY:45:ILE:HG23	2.02	0.42
1:A1:1118:G:OP1	20:As:32:LYS:NZ	2.46	0.42
27:B1:137:U:H2'	27:B1:138:A:C8	2.55	0.42
27:B1:277:G:C6	27:B1:279:C:H5'	2.55	0.42
27:B1:819:A:N1	27:B1:923:C:H1'	2.35	0.42
27:B1:1249:C:H5"	27:B1:1250:G:N7	2.35	0.42
40:BN:3:MET:HE1	40:BN:45:LEU:HD23	2.00	0.42
1:A1:449:A:H2'	1:A1:450:U:C5	2.55	0.41
1:A1:567:C:H2'	1:A1:568:A:C8	2.53	0.41
1:A1:1040:C:H2'	1:A1:1041:A:C8	2.55	0.41
3:Ab:42:THR:HG21	3:Ab:75:LEU:HD22	2.02	0.41
6:Ae:196:LYS:NZ	6:Ae:242:LEU:O	2.42	0.41
12:Ak:15:ALA:HB2	12:Ak:66:VAL:HG13	2.02	0.41
27:B1:493:A:OP1	65:B1:3126:HOH:O	2.22	0.41
27:B1:1346:G:H1'	31:BC:39:TRP:CZ2	2.54	0.41
27:B1:1726:A:H2'	27:B1:1727:A:C8	2.54	0.41
1:A1:536:U:H1'	27:B1:850:C:N4	2.34	0.41
1:A1:1443:G:H2'	1:A1:1444:G:C8	2.55	0.41
27:B1:579:C:H2'	27:B1:580:4AC:H6	2.03	0.41
27:B1:827:4AC:P	29:BA:23:ARG:HH21	2.43	0.41
27:B1:1263:C:H2'	27:B1:1264:4AC:H6	2.01	0.41
27:B1:1670:A:N3	27:B1:1712:C:O2'	2.44	0.41
27:B1:1771:A:OP1	65:B1:3120:HOH:O	2.21	0.41
27:B1:1940:C:H1'	27:B1:1941:U:OP2	2.19	0.41
28:B2:52:A:H5"	41:BO:170:GLY:N	2.33	0.41
1:A1:97:C:H2'	1:A1:98:U:H6	1.84	0.41
1:A1:496:G:O2'	1:A1:497:C:OP1	2.34	0.41
1:A1:615:G:H2'	1:A1:616:G:H8	1.83	0.41
1:A1:918:A:C4	21:At:87:LYS:HE3	2.55	0.41
27:B1:1444:G:H4'	27:B1:1445:A:O5'	2.19	0.41
27:B1:1604:G:H5"	43:BQ:64:LYS:HD3	2.02	0.41
43:BQ:135:LYS:HA	43:BQ:138:LEU:HB3	2.01	0.41
53:Ba:117:ARG:HD2	53:Ba:120:GLU:OE2	2.20	0.41
1:A1:135:U:H2'	1:A1:136:A:H8	1.86	0.41
1:A1:331:U:H2'	1:A1:332:C:C6	2.56	0.41
1:A1:702:G:H5'	1:A1:703:G:OP2	2.20	0.41
1:A1:1282:C:OP2	65:A1:1503:HOH:O	2.21	0.41
1:A1:1347:G:H2'	1:A1:1348:C:H6	1.85	0.41
27:B1:141:C:H2'	27:B1:142:4AC:H6	2.02	0.41
27:B1:1248:U:H5'	27:B1:1249:C:OP2	2.20	0.41
27:B1:2066:C:N4	27:B1:2090:C:O4'	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BO:177:ASP:OD2	41:BO:179:GLU:HB2	2.20	0.41
1:A1:895:A:H2'	1:A1:896:C:H6	1.84	0.41
1:A1:930:C:H5"	1:A1:932:C:C6	2.55	0.41
1:A1:1433:C:H2'	1:A1:1434:U:C6	2.56	0.41
27:B1:453:A:H1'	27:B1:2005:A:C2	2.56	0.41
27:B1:2545:C:OP1	65:B1:3124:HOH:O	2.22	0.41
27:B1:2991:G:H2'	27:B1:2992:C:C6	2.55	0.41
32:BD:25:ILE:HD12	32:BD:88:TYR:CE2	2.55	0.41
40:BN:35:VAL:HG12	40:BN:36:VAL:HG23	2.02	0.41
1:A1:668:OMG:H1'	1:A1:668:OMG:HM23	1.59	0.41
1:A1:805:U:H2'	1:A1:806:C:H6	1.84	0.41
12:Ak:47:GLU:OE2	12:Ak:102:TYR:OH	2.30	0.41
25:Ax:8:PRO:HB2	25:Ax:32:LEU:HD12	2.01	0.41
27:B1:228:G:H2'	27:B1:229:U:O4'	2.21	0.41
27:B1:566:A:H2'	27:B1:566:A:N3	2.36	0.41
27:B1:1875:G:H2'	27:B1:1876:U:C6	2.55	0.41
27:B1:2988:U:C4	48:BV:51:LYS:HB2	2.55	0.41
27:B1:3010:C:H2'	27:B1:3011:4AC:H6	2.01	0.41
30:BB:113:GLU:HG2	30:BB:119:LYS:NZ	2.35	0.41
39:BM:101:ILE:O	39:BM:123:VAL:HG22	2.20	0.41
7:Af:170:VAL:HG21	7:Af:194:THR:HG23	2.02	0.41
10:Ai:50:PHE:HA	10:Ai:62:ARG:O	2.20	0.41
17:Ap:53:ARG:HE	17:Ap:53:ARG:HB3	1.56	0.41
22:Au:47:GLN:C	22:Au:49:ASP:H	2.29	0.41
25:Ax:33:GLU:OE2	25:Ax:33:GLU:N	2.54	0.41
27:B1:474:C:H2'	27:B1:475:G:C8	2.55	0.41
27:B1:589:U:H3'	27:B1:590:G:H5'	2.02	0.41
27:B1:824:G:H2'	27:B1:825:C:C6	2.56	0.41
27:B1:1102:U:H2'	27:B1:1103:C:H6	1.86	0.41
27:B1:1590:G:H2'	27:B1:1591:C:H6	1.86	0.41
27:B1:2262:C:O2'	27:B1:2263:C:O4'	2.26	0.41
27:B1:2361:G:H2'	27:B1:2362:C:C6	2.55	0.41
27:B1:2666:G:H2'	27:B1:2667:G:C8	2.54	0.41
27:B1:2801:U:H2'	27:B1:2802:G:H8	1.86	0.41
28:B2:44:G:N2	28:B2:48:C:C2	2.89	0.41
39:BM:95:TYR:CD1	39:BM:102:ILE:HD11	2.55	0.41
45:BS:15:LYS:HE3	45:BS:15:LYS:HB2	1.82	0.41
52:BZ:10:ILE:HD13	52:BZ:73:LYS:HG3	2.01	0.41
57:Be:79:ARG:HD3	57:Be:79:ARG:HA	1.81	0.41
23:Bl:47:ASN:HB3	23:Bl:50:THR:OG1	2.21	0.41
1:A1:329:OMG:C2	1:A1:330:G:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A1:762:OMU:HM23	1:A1:762:OMU:H1'	1.67	0.41
1:A1:892:A:O2'	1:A1:894:U:OP1	2.31	0.41
12:Ak:22:GLY:HA3	12:Ak:61:ASP:CG	2.46	0.41
27:B1:711:G:H4'	31:BC:42:ARG:HB3	2.02	0.41
27:B1:808:OMG:H2'	27:B1:809:A:H5"	2.02	0.41
27:B1:1181:G:O2'	27:B1:1182:C:P	2.79	0.41
27:B1:1319:G:H4'	23:Bl:60:PHE:HA	2.02	0.41
27:B1:1683:C:H2'	27:B1:1684:C:C6	2.56	0.41
27:B1:2300:G:H2'	27:B1:2301:C:C6	2.56	0.41
30:BB:183:MET:HE3	30:BB:183:MET:HB2	1.77	0.41
42:BP:88:THR:HG23	42:BP:91:ARG:HH21	1.86	0.41
51:BY:74:LEU:HD11	51:BY:83:LEU:HD22	2.02	0.41
59:Bg:3:ARG:HG2	59:Bg:3:ARG:HH11	1.85	0.41
1:A1:52:U:H2'	1:A1:53:G:H8	1.86	0.41
1:A1:132:OMG:H2'	1:A1:133:G:H5'	2.03	0.41
1:A1:361:A2M:H1'	1:A1:361:A2M:HM'3	1.65	0.41
1:A1:674:C:N3	4:Ac:102:ARG:NH1	2.68	0.41
1:A1:910:U:H2'	1:A1:911:G:H8	1.86	0.41
1:A1:910:U:H2'	1:A1:911:G:C8	2.55	0.41
1:A1:945:4AC:H6	1:A1:945:4AC:O5'	2.21	0.41
1:A1:1168:G:H2'	1:A1:1169:C:H6	1.85	0.41
1:A1:1210:A:OP2	22:Au:61:ARG:NH1	2.35	0.41
1:A1:1342:U:H2'	1:A1:1343:C:C6	2.56	0.41
5:Ad:14:PRO:HA	5:Ad:15:PRO:HD3	1.99	0.41
7:Af:39:ARG:HD3	26:Ay:9:PRO:HD2	2.03	0.41
7:Af:154:VAL:HG22	7:Af:187:THR:HG22	2.03	0.41
16:Ao:104:GLU:OE2	16:Ao:104:GLU:HA	2.20	0.41
27:B1:120:U:H4'	27:B1:121:G:O5'	2.20	0.41
27:B1:762:U:H2'	27:B1:763:G:O4'	2.21	0.41
27:B1:849:A:O2'	27:B1:851:C:OP2	2.36	0.41
27:B1:1430:A:H1'	27:B1:1432:U:OP2	2.21	0.41
27:B1:1454:G:O6	58:Bf:2:ALA:HB1	2.21	0.41
27:B1:1658:G:H5"	27:B1:1659:A:H3'	2.02	0.41
27:B1:1904:OMG:N2	27:B1:2113:4AC:O2	2.49	0.41
27:B1:1980:G:H2'	27:B1:1981:OMU:H6	2.03	0.41
27:B1:2388:A:H2'	27:B1:2389:U:C6	2.55	0.41
27:B1:2471:U:OP2	27:B1:2472:A:O2'	2.30	0.41
27:B1:2503:C:OP2	65:B1:3125:HOH:O	2.22	0.41
28:B2:39:A:C2	28:B2:44:G:C2	3.08	0.41
28:B2:61:C:C2	28:B2:62:C:C5	3.08	0.41
30:BB:322:MET:HE1	30:BB:338:VAL:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BG:40:THR:HA	34:BG:43:VAL:HG22	2.02	0.41
41:BO:194:GLU:OE1	41:BO:194:GLU:C	2.64	0.41
49:BW:6:ILE:HG23	49:BW:54:LEU:HD23	2.02	0.41
53:Ba:25:ARG:HG3	53:Ba:41:ARG:HB2	2.03	0.41
62:Bj:11:TYR:CE2	62:Bj:18:LYS:HE3	2.56	0.41
23:Bl:18:GLU:HB3	23:Bl:68:TYR:CE1	2.51	0.41
1:A1:443:C:H2'	1:A1:444:4AC:H6	2.03	0.41
1:A1:462:A:N3	1:A1:497:C:O2'	2.51	0.41
1:A1:671:C:O2'	14:Am:124:ASP:OD2	2.39	0.41
1:A1:1462:G:HO2'	1:A1:1463:U:P	2.43	0.41
12:Ak:97:GLU:O	12:Ak:101:LYS:HD3	2.21	0.41
15:An:38:LYS:O	15:An:42:ASP:HB2	2.21	0.41
27:B1:106:4AC:H6	27:B1:106:4AC:O5'	2.21	0.41
27:B1:201:G:H4'	40:BN:106:ARG:NH2	2.36	0.41
27:B1:647:U:H2'	27:B1:648:G:C8	2.56	0.41
27:B1:734:A:O2'	27:B1:772:G:O2'	2.34	0.41
27:B1:1151:G:N2	62:Bj:43:SER:HB2	2.36	0.41
27:B1:1355:G:H1'	27:B1:1380:A:N6	2.36	0.41
27:B1:1940:C:H4'	27:B1:1941:U:O5'	2.21	0.41
32:BD:48:LEU:HD13	32:BD:80:VAL:HG23	2.02	0.41
50:BX:69:ARG:NH1	50:BX:82:ASP:OD2	2.53	0.41
1:A1:25:C:H2'	1:A1:26:A:H8	1.85	0.40
1:A1:706:4AC:H2'	1:A1:707:G:O4'	2.21	0.40
1:A1:762:OMU:H2'	1:A1:763:OMG:C8	2.55	0.40
1:A1:945:4AC:H2'	1:A1:946:G:C8	2.55	0.40
1:A1:1025:G:H2'	1:A1:1026:U:C6	2.57	0.40
8:Ag:47:LEU:HD13	8:Ag:123:LEU:HD21	2.03	0.40
20:As:20:TYR:HB3	20:As:23:GLU:HB2	2.02	0.40
27:B1:55:OMG:N2	27:B1:116:4AC:O2	2.39	0.40
27:B1:2266:C:H2'	27:B1:2267:C:C6	2.56	0.40
39:BM:102:ILE:HD12	39:BM:102:ILE:O	2.21	0.40
57:Be:31:LYS:HG3	57:Be:69:LEU:HD21	2.03	0.40
1:A1:192:G:H2'	1:A1:193:G:O4'	2.21	0.40
1:A1:552:U:H2'	1:A1:553:C:H6	1.87	0.40
1:A1:1071:C:H2'	1:A1:1072:C:H6	1.86	0.40
1:A1:1141:A:H2'	1:A1:1142:A:O4'	2.21	0.40
7:Af:133:CYS:HB2	7:Af:160:PRO:HA	2.03	0.40
24:Aw:5:ILE:HD12	24:Aw:6:ILE:N	2.35	0.40
27:B1:359:C:H2'	27:B1:360:4AC:H6	2.03	0.40
27:B1:809:A:H2'	27:B1:810:A:C8	2.56	0.40
27:B1:979:4AC:H5	27:B1:979:4AC:O7	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:2421:C:OP2	27:B1:2422:A:O2'	2.31	0.40
30:BB:242:ARG:HH11	30:BB:254:GLY:HA2	1.87	0.40
33:BE:7:ILE:HB	33:BE:60:PRO:HG3	2.03	0.40
45:BS:78:PHE:HA	45:BS:79:GLY:HA3	1.83	0.40
1:A1:87:4AC:H5'	1:A1:136:A:O2'	2.21	0.40
1:A1:163:C:C2	1:A1:164:A:C8	3.09	0.40
1:A1:301:G:H2'	1:A1:302:G:O4'	2.22	0.40
1:A1:347:C:O2'	1:A1:348:G:H5'	2.22	0.40
1:A1:1480:A:H2'	1:A1:1481:C:C6	2.55	0.40
13:Al:26:ILE:HG21	13:Al:26:ILE:HD13	1.85	0.40
16:Ao:100:MET:HE3	16:Ao:100:MET:HB2	1.94	0.40
27:B1:278:A:O2'	27:B1:279:C:H5"	2.21	0.40
27:B1:426:U:C5'	40:BN:192:LYS:HB2	2.51	0.40
27:B1:995:G:N3	27:B1:2383:A:H2'	2.36	0.40
27:B1:1107:4AC:H6	27:B1:1107:4AC:O5'	2.22	0.40
27:B1:1382:C:C5	31:BC:181:ALA:HB2	2.57	0.40
27:B1:1769:4AC:OP2	65:B1:3123:HOH:O	2.22	0.40
28:B2:64:C:O2'	28:B2:65:C:H5'	2.21	0.40
40:BN:76:TRP:CD1	40:BN:76:TRP:H	2.37	0.40
47:BU:105:LEU:HB3	47:BU:107:LEU:HD13	2.03	0.40
48:BV:48:ARG:HH22	48:BV:62:GLN:NE2	2.20	0.40
23:Bl:3:ILE:HB	23:Bl:43:MET:HE1	2.04	0.40
1:A1:444:4AC:H5	1:A1:444:4AC:O7	2.22	0.40
1:A1:597:A:N7	10:Ai:107:SER:HA	2.36	0.40
7:Af:11:ARG:HB3	7:Af:11:ARG:NH1	2.36	0.40
13:Al:8:ILE:HG13	13:Al:71:ARG:HB2	2.04	0.40
18:Aq:91:ILE:HD11	18:Aq:96:MET:SD	2.62	0.40
24:Aw:8:MET:HE3	24:Aw:8:MET:HB3	1.90	0.40
27:B1:472:U:O2'	27:B1:473:A:OP1	2.35	0.40
27:B1:1990:G:H2'	27:B1:1991:U:C6	2.55	0.40
27:B1:2849:C:H2'	27:B1:2850:4AC:H6	2.03	0.40
29:BA:117:ASP:OD1	29:BA:118:GLY:N	2.55	0.40
30:BB:86:TYR:HB2	30:BB:162:ASP:HB3	2.04	0.40
30:BB:143:MET:HA	30:BB:146:GLN:HG3	2.03	0.40
1:A1:79:G:C4	1:A1:80:A:C8	3.09	0.40
1:A1:107:C:H2'	1:A1:108:G:H8	1.87	0.40
1:A1:639:G:H4'	14:Am:37:GLU:OE2	2.22	0.40
1:A1:1165:OMU:HM23	1:A1:1165:OMU:H1'	1.92	0.40
1:A1:1224:C:H2'	1:A1:1225:C:C6	2.56	0.40
27:B1:137:U:O2'	27:B1:138:A:O5'	2.39	0.40
27:B1:729:A:H2'	27:B1:730:A:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:852:G:H2'	27:B1:853:A:C8	2.57	0.40
27:B1:895:C:H2'	27:B1:896:4AC:H6	2.03	0.40
27:B1:2195:A:H2'	27:B1:2196:G:H8	1.84	0.40
27:B1:2262:C:N3	27:B1:2278:G:N2	2.70	0.40
27:B1:2562:OMG:HM21	27:B1:2564:A:H2'	2.02	0.40
27:B1:2794:C:H4'	30:BB:11:SER:HB2	2.03	0.40
30:BB:55:ASP:OD1	30:BB:56:ASP:N	2.54	0.40
35:BH:77:VAL:HG12	35:BH:81:ASN:HB2	2.03	0.40
47:BU:53:ARG:HD2	47:BU:55:MET:HE2	2.02	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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	Aa	194/202 (96%)	193 (100%)	1 (0%)	0	100	100
3	Ab	193/210 (92%)	188 (97%)	5 (3%)	0	100	100
4	Ac	183/198 (92%)	182 (100%)	1 (0%)	0	100	100
5	Ad	173/180 (96%)	171 (99%)	2 (1%)	0	100	100
6	Ae	240/243 (99%)	232 (97%)	8 (3%)	0	100	100
7	Af	224/236 (95%)	217 (97%)	7 (3%)	0	100	100
8	Ag	122/125 (98%)	115 (94%)	7 (6%)	0	100	100
9	Ah	212/215 (99%)	205 (97%)	7 (3%)	0	100	100
10	Ai	127/130 (98%)	123 (97%)	4 (3%)	0	100	100
11	Aj	123/127 (97%)	122 (99%)	1 (1%)	0	100	100
12	Ak	133/135 (98%)	128 (96%)	5 (4%)	0	100	100
13	Al	97/102 (95%)	92 (95%)	5 (5%)	0	100	100
14	Am	125/137 (91%)	121 (97%)	4 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	An	144/147 (98%)	141 (98%)	3 (2%)	0	100	100
16	Ao	139/148 (94%)	133 (96%)	6 (4%)	0	100	100
17	Ap	53/56 (95%)	52 (98%)	1 (2%)	0	100	100
18	Aq	155/158 (98%)	153 (99%)	2 (1%)	0	100	100
19	Ar	105/113 (93%)	103 (98%)	2 (2%)	0	100	100
20	As	62/67 (92%)	59 (95%)	3 (5%)	0	100	100
21	At	121/132 (92%)	120 (99%)	1 (1%)	0	100	100
22	Au	147/150 (98%)	145 (99%)	2 (1%)	0	100	100
23	Av	93/99 (94%)	91 (98%)	2 (2%)	0	100	100
23	Bl	90/99 (91%)	85 (94%)	5 (6%)	0	100	100
24	Aw	59/63 (94%)	59 (100%)	0	0	100	100
25	Ax	62/71 (87%)	58 (94%)	4 (6%)	0	100	100
26	Ay	54/60 (90%)	51 (94%)	3 (6%)	0	100	100
29	BA	235/239 (98%)	224 (95%)	11 (5%)	0	100	100
30	BB	362/365 (99%)	347 (96%)	15 (4%)	0	100	100
31	BC	253/255 (99%)	246 (97%)	7 (3%)	0	100	100
32	BD	181/186 (97%)	172 (95%)	9 (5%)	0	100	100
33	BE	181/184 (98%)	177 (98%)	4 (2%)	0	100	100
34	BF	120/123 (98%)	116 (97%)	4 (3%)	0	100	100
34	BG	118/123 (96%)	117 (99%)	1 (1%)	0	100	100
35	BH	165/181 (91%)	163 (99%)	2 (1%)	0	100	100
36	BI	140/142 (99%)	139 (99%)	1 (1%)	0	100	100
37	BJ	138/141 (98%)	138 (100%)	0	0	100	100
38	BK	78/83 (94%)	74 (95%)	4 (5%)	0	100	100
38	BL	80/83 (96%)	77 (96%)	3 (4%)	0	100	100
39	BM	145/147 (99%)	135 (93%)	9 (6%)	1 (1%)	19	38
40	BN	191/194 (98%)	190 (100%)	1 (0%)	0	100	100
41	BO	194/203 (96%)	192 (99%)	2 (1%)	0	100	100
42	BP	118/120 (98%)	118 (100%)	0	0	100	100
43	BQ	146/150 (97%)	143 (98%)	3 (2%)	0	100	100
44	BR	94/97 (97%)	94 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
45	BS	150/155 (97%)	146 (97%)	4 (3%)	0	100	100
46	BT	84/86 (98%)	84 (100%)	0	0	100	100
47	BU	118/121 (98%)	117 (99%)	1 (1%)	0	100	100
48	BV	61/66 (92%)	61 (100%)	0	0	100	100
49	BW	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
50	BX	152/155 (98%)	150 (99%)	2 (1%)	0	100	100
51	BY	95/99 (96%)	93 (98%)	2 (2%)	0	100	100
52	BZ	92/95 (97%)	89 (97%)	3 (3%)	0	100	100
53	Ba	126/130 (97%)	125 (99%)	1 (1%)	0	100	100
54	Bb	86/89 (97%)	86 (100%)	0	0	100	100
55	Bc	84/87 (97%)	81 (96%)	3 (4%)	0	100	100
56	Bd	59/62 (95%)	54 (92%)	5 (8%)	0	100	100
57	Be	80/83 (96%)	79 (99%)	1 (1%)	0	100	100
58	Bf	48/51 (94%)	46 (96%)	2 (4%)	0	100	100
59	Bg	44/51 (86%)	44 (100%)	0	0	100	100
60	Bh	35/37 (95%)	35 (100%)	0	0	100	100
61	Bi	92/94 (98%)	92 (100%)	0	0	100	100
62	Bj	75/77 (97%)	73 (97%)	2 (3%)	0	100	100
63	Bk	61/64 (95%)	60 (98%)	1 (2%)	0	100	100
All	All	7979/8293 (96%)	7783 (98%)	195 (2%)	1 (0%)	100	100

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
39	BM	56	ASP

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	Aa	167/173 (96%)	167 (100%)	0	100	100
3	Ab	152/167 (91%)	149 (98%)	3 (2%)	50	74
4	Ac	162/171 (95%)	162 (100%)	0	100	100
5	Ad	158/160 (99%)	158 (100%)	0	100	100
6	Ae	212/213 (100%)	211 (100%)	1 (0%)	86	95
7	Af	187/197 (95%)	185 (99%)	2 (1%)	70	86
8	Ag	107/108 (99%)	107 (100%)	0	100	100
9	Ah	183/184 (100%)	183 (100%)	0	100	100
10	Ai	107/108 (99%)	107 (100%)	0	100	100
11	Aj	101/103 (98%)	101 (100%)	0	100	100
12	Ak	110/111 (99%)	110 (100%)	0	100	100
13	Al	88/91 (97%)	88 (100%)	0	100	100
14	Am	94/104 (90%)	94 (100%)	0	100	100
15	An	118/121 (98%)	117 (99%)	1 (1%)	79	91
16	Ao	113/122 (93%)	112 (99%)	1 (1%)	75	90
17	Ap	44/46 (96%)	43 (98%)	1 (2%)	45	71
18	Aq	141/143 (99%)	141 (100%)	0	100	100
19	Ar	96/102 (94%)	96 (100%)	0	100	100
20	As	57/61 (93%)	57 (100%)	0	100	100
21	At	105/114 (92%)	105 (100%)	0	100	100
22	Au	126/127 (99%)	126 (100%)	0	100	100
23	Av	86/89 (97%)	86 (100%)	0	100	100
23	Bl	83/89 (93%)	83 (100%)	0	100	100
24	Aw	53/54 (98%)	53 (100%)	0	100	100
25	Ax	54/60 (90%)	54 (100%)	0	100	100
26	Ay	48/53 (91%)	47 (98%)	1 (2%)	48	73
29	BA	187/189 (99%)	187 (100%)	0	100	100
30	BB	311/312 (100%)	310 (100%)	1 (0%)	91	97
31	BC	213/213 (100%)	211 (99%)	2 (1%)	75	90
32	BD	142/158 (90%)	141 (99%)	1 (1%)	81	93
33	BE	155/156 (99%)	154 (99%)	1 (1%)	84	94
34	BF	97/99 (98%)	97 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	BG	96/99 (97%)	96 (100%)	0	100	100
35	BH	142/152 (93%)	141 (99%)	1 (1%)	81	93
36	BI	122/122 (100%)	122 (100%)	0	100	100
37	BJ	107/108 (99%)	107 (100%)	0	100	100
38	BK	64/66 (97%)	64 (100%)	0	100	100
38	BL	65/66 (98%)	64 (98%)	1 (2%)	60	81
39	BM	117/117 (100%)	116 (99%)	1 (1%)	75	90
40	BN	161/162 (99%)	159 (99%)	2 (1%)	67	85
41	BO	158/169 (94%)	158 (100%)	0	100	100
42	BP	101/101 (100%)	100 (99%)	1 (1%)	73	88
43	BQ	128/130 (98%)	128 (100%)	0	100	100
44	BR	86/87 (99%)	86 (100%)	0	100	100
45	BS	126/130 (97%)	125 (99%)	1 (1%)	79	91
46	BT	77/77 (100%)	77 (100%)	0	100	100
47	BU	110/110 (100%)	110 (100%)	0	100	100
48	BV	54/56 (96%)	54 (100%)	0	100	100
49	BW	60/66 (91%)	60 (100%)	0	100	100
50	BX	132/133 (99%)	130 (98%)	2 (2%)	60	81
51	BY	78/80 (98%)	78 (100%)	0	100	100
52	BZ	76/83 (92%)	75 (99%)	1 (1%)	65	84
53	Ba	115/117 (98%)	114 (99%)	1 (1%)	75	90
54	Bb	80/81 (99%)	79 (99%)	1 (1%)	65	84
55	Bc	73/74 (99%)	72 (99%)	1 (1%)	62	82
56	Bd	49/51 (96%)	49 (100%)	0	100	100
57	Be	60/61 (98%)	60 (100%)	0	100	100
58	Bf	46/47 (98%)	46 (100%)	0	100	100
59	Bg	37/39 (95%)	37 (100%)	0	100	100
60	Bh	34/35 (97%)	34 (100%)	0	100	100
61	Bi	82/83 (99%)	82 (100%)	0	100	100
62	Bj	72/72 (100%)	71 (99%)	1 (1%)	62	82
63	Bk	54/55 (98%)	54 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	6819/7027 (97%)	6790 (100%)	29 (0%)	88 96

All (29) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	Ab	91	ASN
3	Ab	121	MET
3	Ab	139	GLU
6	Ae	77	VAL
7	Af	163	LEU
7	Af	207	ASN
15	An	119	ILE
16	Ao	3	ASN
17	Ap	55	TYR
26	Ay	55	CYS
30	BB	3	LYS
31	BC	29	ASP
31	BC	65	HIS
32	BD	179	PHE
33	BE	45	GLN
35	BH	74	GLN
38	BL	5	ASP
39	BM	61	ARG
40	BN	41	ARG
40	BN	174	ASN
42	BP	32	ASP
45	BS	104	GLN
50	BX	109	ASP
50	BX	132	ARG
52	BZ	8	GLU
53	Ba	70	LEU
54	Bb	41	ARG
55	Bc	47	SER
62	Bj	32	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
4	Ac	153	ASN
31	BC	204	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A1	1489/1497 (99%)	233 (15%)	16 (1%)
27	B1	2928/3051 (95%)	409 (13%)	28 (0%)
28	B2	124/125 (99%)	11 (8%)	0
All	All	4541/4673 (97%)	653 (14%)	44 (0%)

All (653) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A1	4	C
1	A1	17	5MC
1	A1	20	G
1	A1	27	C
1	A1	33	U
1	A1	42	G
1	A1	43	A
1	A1	47	A
1	A1	56	A
1	A1	57	G
1	A1	60	A
1	A1	72	C
1	A1	73	U
1	A1	74	U
1	A1	75	C
1	A1	80	A
1	A1	81	C
1	A1	82	G
1	A1	100	A
1	A1	104	A
1	A1	105	C
1	A1	114	A
1	A1	115	A
1	A1	116	C
1	A1	132	OMG
1	A1	159	C
1	A1	168	G
1	A1	177	A
1	A1	181	G
1	A1	182	A
1	A1	183	A
1	A1	184	G
1	A1	193	G

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Mol	Chain	Res	Type
1	A1	194	C
1	A1	197	A
1	A1	198	A
1	A1	199	A
1	A1	200	G
1	A1	206	C
1	A1	217	G
1	A1	224	G
1	A1	237	C
1	A1	238	LHH
1	A1	241	U
1	A1	242	U
1	A1	244	G
1	A1	247	A
1	A1	248	G
1	A1	253	U
1	A1	255	G
1	A1	259	A
1	A1	263	G
1	A1	264	C
1	A1	278	G
1	A1	279	A
1	A1	286	C
1	A1	298	G
1	A1	303	A
1	A1	318	A
1	A1	324	A
1	A1	325	C
1	A1	329	OMG
1	A1	335	G
1	A1	341	A
1	A1	344	G
1	A1	349	C
1	A1	350	A
1	A1	351	G
1	A1	359	G
1	A1	364	C
1	A1	369	C
1	A1	370	A
1	A1	387	C
1	A1	394	A
1	A1	403	G

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Mol	Chain	Res	Type
1	A1	410	C
1	A1	412	C
1	A1	413	U
1	A1	414	G
1	A1	415	G
1	A1	422	U
1	A1	424	U
1	A1	425	OMU
1	A1	433	G
1	A1	434	U
1	A1	450	U
1	A1	462	A
1	A1	465	G
1	A1	473	5MC
1	A1	475	G
1	A1	485	U
1	A1	486	A
1	A1	497	C
1	A1	501	A
1	A1	504	OMG
1	A1	518	U
1	A1	520	G
1	A1	527	A
1	A1	530	C
1	A1	531	G
1	A1	537	A
1	A1	550	A
1	A1	559	C
1	A1	587	C
1	A1	588	G
1	A1	608	U
1	A1	620	A
1	A1	628	G
1	A1	630	U
1	A1	641	U
1	A1	642	A
1	A1	643	G
1	A1	659	A
1	A1	678	U
1	A1	679	G
1	A1	702	G
1	A1	703	G

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Mol	Chain	Res	Type
1	A1	704	U
1	A1	710	G
1	A1	721	A
1	A1	732	A
1	A1	736	A
1	A1	748	U
1	A1	749	A
1	A1	770	A
1	A1	772	G
1	A1	775	OMU
1	A1	776	G
1	A1	783	A
1	A1	803	G
1	A1	849	G
1	A1	873	A
1	A1	885	G
1	A1	886	G
1	A1	890	G
1	A1	893	C
1	A1	895	A
1	A1	920	U
1	A1	928	A
1	A1	929	A
1	A1	931	G
1	A1	934	G
1	A1	935	G
1	A1	936	G
1	A1	937	A
1	A1	956	G
1	A1	963	G
1	A1	964	A
1	A1	965	A
1	A1	971	G
1	A1	978	G
1	A1	979	G
1	A1	984	G
1	A1	987	G
1	A1	988	G
1	A1	989	A
1	A1	990	C
1	A1	992	C
1	A1	1007	C

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Mol	Chain	Res	Type
1	A1	1018	U
1	A1	1019	C
1	A1	1047	G
1	A1	1048	U
1	A1	1054	A
1	A1	1055	A
1	A1	1095	U
1	A1	1104	A
1	A1	1108	A
1	A1	1120	C
1	A1	1121	U
1	A1	1130	U
1	A1	1133	G
1	A1	1146	G
1	A1	1153	A
1	A1	1158	A
1	A1	1159	G
1	A1	1163	A
1	A1	1164	G
1	A1	1174	A
1	A1	1175	A
1	A1	1176	A
1	A1	1177	C
1	A1	1189	A
1	A1	1190	5MC
1	A1	1194	OMC
1	A1	1195	G
1	A1	1198	A
1	A1	1200	A
1	A1	1201	A
1	A1	1203	G
1	A1	1210	A
1	A1	1219	C
1	A1	1220	C
1	A1	1232	G
1	A1	1241	A
1	A1	1242	A
1	A1	1262	G
1	A1	1264	U
1	A1	1267	G
1	A1	1268	A
1	A1	1282	C

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Mol	Chain	Res	Type
1	A1	1283	U
1	A1	1298	U
1	A1	1308	A
1	A1	1309	G
1	A1	1315	G
1	A1	1326	U
1	A1	1332	G
1	A1	1344	C
1	A1	1356	A
1	A1	1359	C
1	A1	1360	A
1	A1	1381	G
1	A1	1412	G
1	A1	1415	G
1	A1	1420	OMG
1	A1	1439	G
1	A1	1442	G
1	A1	1444	G
1	A1	1448	G
1	A1	1449	A
1	A1	1450	A
1	A1	1451	G
1	A1	1456	A
1	A1	1459	A
1	A1	1461	G
1	A1	1463	U
1	A1	1474	G
1	A1	1476	MA6
1	A1	1477	C
1	A1	1486	5MC
1	A1	1487	G
1	A1	1488	A
27	B1	14	U
27	B1	15	A
27	B1	35	C
27	B1	47	OMC
27	B1	52	G
27	B1	65	A
27	B1	72	A
27	B1	75	A
27	B1	76	G
27	B1	80	4AC

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Mol	Chain	Res	Type
27	B1	92	G
27	B1	101	C
27	B1	118	A
27	B1	119	A
27	B1	120	U
27	B1	121	G
27	B1	124	A
27	B1	125	C
27	B1	127	U
27	B1	137	U
27	B1	138	A
27	B1	147	U
27	B1	155	U
27	B1	158	U
27	B1	171	A
27	B1	186	A
27	B1	189	A
27	B1	205	G
27	B1	206	A
27	B1	212	A
27	B1	217	A
27	B1	219	A
27	B1	220	G
27	B1	223	A
27	B1	238	G
27	B1	255	A
27	B1	256	G
27	B1	276	LHH
27	B1	279	C
27	B1	299	G
27	B1	302	G
27	B1	304	A
27	B1	312	C
27	B1	315	A
27	B1	316	U
27	B1	326	G
27	B1	335	G
27	B1	342	U
27	B1	343	C
27	B1	352	C
27	B1	362	G
27	B1	364	G

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Mol	Chain	Res	Type
27	B1	370	G
27	B1	371	A
27	B1	379	G
27	B1	381	A
27	B1	408	A
27	B1	415	G
27	B1	430	U
27	B1	441	A
27	B1	451	G
27	B1	454	OMU
27	B1	473	A
27	B1	477	C
27	B1	497	A
27	B1	506	A2M
27	B1	507	G
27	B1	521	G
27	B1	524	C
27	B1	543	A
27	B1	547	C
27	B1	567	G
27	B1	569	A
27	B1	570	G
27	B1	571	G
27	B1	585	G
27	B1	590	G
27	B1	591	A
27	B1	617	C
27	B1	624	G
27	B1	655	C
27	B1	667	A
27	B1	671	G
27	B1	678	A
27	B1	695	A
27	B1	734	A
27	B1	735	C
27	B1	737	U
27	B1	778	A
27	B1	782	C
27	B1	809	A
27	B1	810	A
27	B1	819	A
27	B1	820	U

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Mol	Chain	Res	Type
27	B1	843	C
27	B1	850	C
27	B1	852	G
27	B1	857	A2M
27	B1	860	G
27	B1	864	C
27	B1	878	U
27	B1	879	G
27	B1	880	A2M
27	B1	883	5MU
27	B1	888	5MU
27	B1	889	U
27	B1	900	A
27	B1	911	G
27	B1	912	G
27	B1	918	A
27	B1	920	OMG
27	B1	921	OMG
27	B1	928	G
27	B1	938	A
27	B1	941	G
27	B1	948	C
27	B1	958	C
27	B1	964	G
27	B1	966	A
27	B1	986	A
27	B1	996	G
27	B1	1003	A
27	B1	1005	U
27	B1	1016	G
27	B1	1017	C
27	B1	1018	A
27	B1	1019	G
27	B1	1022	G
27	B1	1023	G
27	B1	1027	A
27	B1	1031	C
27	B1	1047	A
27	B1	1049	C
27	B1	1051	C
27	B1	1052	4AC
27	B1	1084	G

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Mol	Chain	Res	Type
27	B1	1085	G
27	B1	1110	G
27	B1	1116	A
27	B1	1117	A
27	B1	1118	C
27	B1	1119	A
27	B1	1120	A
27	B1	1125	G
27	B1	1126	A
27	B1	1127	C
27	B1	1144	A
27	B1	1146	G
27	B1	1147	U
27	B1	1148	G
27	B1	1157	G
27	B1	1165	C
27	B1	1167	A
27	B1	1173	U
27	B1	1174	G
27	B1	1182	C
27	B1	1185	U
27	B1	1186	A
27	B1	1187	G
27	B1	1249	C
27	B1	1250	G
27	B1	1251	A
27	B1	1252	G
27	B1	1255	C
27	B1	1274	C
27	B1	1275	G
27	B1	1278	G
27	B1	1282	A
27	B1	1315	A
27	B1	1316	U
27	B1	1317	U
27	B1	1318	G
27	B1	1326	A
27	B1	1328	C
27	B1	1369	A
27	B1	1370	G
27	B1	1373	C
27	B1	1379	G

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Mol	Chain	Res	Type
27	B1	1381	G
27	B1	1392	C
27	B1	1395	G
27	B1	1396	G
27	B1	1399	C
27	B1	1417	G
27	B1	1418	U
27	B1	1445	A
27	B1	1482	G
27	B1	1489	OMC
27	B1	1517	C
27	B1	1523	A
27	B1	1529	A
27	B1	1532	C
27	B1	1561	G
27	B1	1574	A
27	B1	1576	G
27	B1	1589	C
27	B1	1616	G
27	B1	1617	A
27	B1	1632	A
27	B1	1639	4AC
27	B1	1643	G
27	B1	1644	A
27	B1	1645	G
27	B1	1646	U
27	B1	1647	G
27	B1	1658	G
27	B1	1666	G
27	B1	1669	G
27	B1	1670	A
27	B1	1679	A
27	B1	1680	U
27	B1	1681	G
27	B1	1690	G
27	B1	1697	G
27	B1	1699	G
27	B1	1701	U
27	B1	1708	A
27	B1	1715	G
27	B1	1721	G
27	B1	1723	G

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Mol	Chain	Res	Type
27	B1	1724	A
27	B1	1725	A
27	B1	1735	G
27	B1	1747	C
27	B1	1766	A
27	B1	1767	A
27	B1	1774	C
27	B1	1775	A
27	B1	1779	G
27	B1	1780	C
27	B1	1781	C
27	B1	1785	G
27	B1	1791	G
27	B1	1792	A
27	B1	1804	U
27	B1	1805	G
27	B1	1807	C
27	B1	1812	G
27	B1	1813	A
27	B1	1814	A
27	B1	1834	G
27	B1	1856	G
27	B1	1860	A
27	B1	1880	U
27	B1	1881	A
27	B1	1904	OMG
27	B1	1913	A
27	B1	1920	A
27	B1	1940	C
27	B1	1941	U
27	B1	1969	A
27	B1	1988	A
27	B1	2003	A
27	B1	2026	A
27	B1	2031	G
27	B1	2033	G
27	B1	2036	U
27	B1	2037	A
27	B1	2038	A
27	B1	2039	C
27	B1	2040	U
27	B1	2041	A

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Mol	Chain	Res	Type
27	B1	2043	A
27	B1	2044	A
27	B1	2045	C
27	B1	2048	U
27	B1	2055	G
27	B1	2062	A
27	B1	2063	A
27	B1	2064	U
27	B1	2080	U
27	B1	2089	G
27	B1	2090	C
27	B1	2092	U
27	B1	2095	A
27	B1	2096	U
27	B1	2097	G
27	B1	2107	G
27	B1	2116	U
27	B1	2118	U
27	B1	2155	G
27	B1	2156	C
27	B1	2157	A
27	B1	2167	C
27	B1	2174	U
27	B1	2179	A
27	B1	2183	A
27	B1	2185	G
27	B1	2193	G
27	B1	2217	G
27	B1	2220	A
27	B1	2229	G
27	B1	2232	G
27	B1	2234	G
27	B1	2235	C
27	B1	2236	G
27	B1	2237	C
27	B1	2238	A
27	B1	2239	G
27	B1	2240	C
27	B1	2241	G
27	B1	2246	C
27	B1	2247	G
27	B1	2250	A

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Mol	Chain	Res	Type
27	B1	2252	G
27	B1	2256	C
27	B1	2257	G
27	B1	2260	G
27	B1	2269	C
27	B1	2270	C
27	B1	2281	G
27	B1	2282	A
27	B1	2285	C
27	B1	2287	U
27	B1	2293	A
27	B1	2294	G
27	B1	2295	A
27	B1	2296	C
27	B1	2314	G
27	B1	2322	A
27	B1	2326	C
27	B1	2339	A
27	B1	2340	C
27	B1	2352	G
27	B1	2353	G
27	B1	2365	OMG
27	B1	2381	A
27	B1	2394	G
27	B1	2398	C
27	B1	2402	A
27	B1	2403	A
27	B1	2420	U
27	B1	2423	G
27	B1	2435	A
27	B1	2437	A
27	B1	2448	A
27	B1	2450	A
27	B1	2460	G
27	B1	2472	A
27	B1	2478	G
27	B1	2501	G
27	B1	2503	C
27	B1	2510	A
27	B1	2520	C
27	B1	2543	G
27	B1	2546	A

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Mol	Chain	Res	Type
27	B1	2547	G
27	B1	2548	A
27	B1	2550	A
27	B1	2557	OMC
27	B1	2561	G
27	B1	2563	G
27	B1	2564	A
27	B1	2580	G
27	B1	2586	G
27	B1	2591	C
27	B1	2594	A
27	B1	2618	G
27	B1	2619	C
27	B1	2634	A
27	B1	2645	G
27	B1	2650	A
27	B1	2682	A
27	B1	2683	G
27	B1	2694	G
27	B1	2698	G
27	B1	2715	G
27	B1	2718	A
27	B1	2719	G
27	B1	2729	U
27	B1	2730	A
27	B1	2731	U
27	B1	2737	G
27	B1	2745	U
27	B1	2746	G
27	B1	2761	A
27	B1	2762	G
27	B1	2806	U
27	B1	2827	U
27	B1	2828	C
27	B1	2829	G
27	B1	2840	A
27	B1	2841	C
27	B1	2848	G
27	B1	2849	C
27	B1	2862	A
27	B1	2871	A
27	B1	2878	A

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Mol	Chain	Res	Type
27	B1	2879	A
27	B1	2880	G
27	B1	2890	A
27	B1	2891	A
27	B1	2893	A
27	B1	2894	U
27	B1	2895	A
27	B1	2949	A
27	B1	2959	U
27	B1	2968	LHH
27	B1	2972	U
27	B1	2974	A
27	B1	2984	OMG
27	B1	2989	A
27	B1	2998	G
27	B1	3002	C
27	B1	3003	A
27	B1	3021	G
27	B1	3022	C
27	B1	3028	C
27	B1	3031	A
28	B2	2	G
28	B2	5	C
28	B2	24	G
28	B2	25	C
28	B2	41	U
28	B2	46	A
28	B2	56	U
28	B2	59	G
28	B2	89	C
28	B2	95	G
28	B2	115	G

All (44) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A1	80	A
1	A1	99	C
1	A1	240	A
1	A1	252	G
1	A1	278	G
1	A1	472	G

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Mol	Chain	Res	Type
1	A1	496	G
1	A1	963	G
1	A1	1018	U
1	A1	1054	A
1	A1	1107	C
1	A1	1152	G
1	A1	1163	A
1	A1	1308	A
1	A1	1438	U
1	A1	1462	G
27	B1	100	U
27	B1	120	U
27	B1	126	C
27	B1	146	C
27	B1	311	C
27	B1	315	A
27	B1	380	U
27	B1	472	U
27	B1	542	A
27	B1	888	5MU
27	B1	1004	C
27	B1	1181	G
27	B1	1186	A
27	B1	1368	A
27	B1	1444	G
27	B1	1696	G
27	B1	1765	G
27	B1	1940	C
27	B1	2042	U
27	B1	2166	A
27	B1	2173	G
27	B1	2251	G
27	B1	2259	A
27	B1	2325	C
27	B1	2549	A
27	B1	2563	G
27	B1	2870	U
27	B1	2893	A

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

311 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	4AC	A1	274	1	21,24,25	3.26	10 (47%)	29,34,37	1.08	4 (13%)
27	OMC	B1	1832	27	19,22,23	3.12	8 (42%)	26,31,34	0.73	0
27	OMG	B1	2562	27	18,26,27	2.56	8 (44%)	19,38,41	1.51	4 (21%)
27	OMG	B1	2391	27	18,26,27	2.54	8 (44%)	19,38,41	1.52	5 (26%)
1	4AC	A1	945	1	21,24,25	3.39	10 (47%)	29,34,37	1.76	6 (20%)
27	4AC	B1	1762	27	21,24,25	3.21	10 (47%)	29,34,37	1.03	3 (10%)
1	5MC	A1	1190	1	18,22,23	3.17	7 (38%)	26,32,35	0.99	2 (7%)
27	4AC	B1	360	27	21,24,25	3.25	10 (47%)	29,34,37	1.08	4 (13%)
27	4AC	B1	950	27	21,24,25	3.23	10 (47%)	29,34,37	1.07	3 (10%)
1	5MC	A1	466	1	18,22,23	3.19	7 (38%)	26,32,35	1.01	2 (7%)
1	5MC	A1	681	1	18,22,23	3.16	7 (38%)	26,32,35	1.01	2 (7%)
27	4AC	B1	786	27	21,24,25	3.27	9 (42%)	29,34,37	1.11	4 (13%)
27	4AC	B1	2888	27	21,24,25	3.25	10 (47%)	29,34,37	1.10	4 (13%)
27	4AC	B1	1639	27	21,24,25	3.30	9 (42%)	29,34,37	1.27	5 (17%)
27	OMG	B1	1904	27	18,26,27	2.53	8 (44%)	19,38,41	1.51	5 (26%)
27	5MC	B1	932	27	18,22,23	3.12	7 (38%)	26,32,35	0.99	2 (7%)
27	4AC	B1	1885	27	21,24,25	3.26	10 (47%)	29,34,37	1.08	4 (13%)
27	4AC	B1	200	27	21,24,25	3.25	10 (47%)	29,34,37	1.08	3 (10%)
27	OMG	B1	1533	27	18,26,27	2.55	8 (44%)	19,38,41	1.48	4 (21%)
27	OMG	B1	2365	27	18,26,27	2.57	8 (44%)	19,38,41	1.50	4 (21%)
27	OMU	B1	2554	27	19,22,23	3.27	7 (36%)	26,31,34	1.70	5 (19%)
1	4AC	A1	1227	1	21,24,25	3.30	10 (47%)	29,34,37	1.12	4 (13%)
27	4AC	B1	162	27	21,24,25	3.26	9 (42%)	29,34,37	1.09	4 (13%)
27	4AC	B1	609	27	21,24,25	3.27	9 (42%)	29,34,37	1.10	3 (10%)
1	4AC	A1	467	1	21,24,25	3.28	9 (42%)	29,34,37	1.12	3 (10%)
27	4AC	B1	485	27	21,24,25	3.24	10 (47%)	29,34,37	1.06	4 (13%)
27	4AC	B1	1150	27	21,24,25	3.20	10 (47%)	29,34,37	1.16	3 (10%)
27	4AC	B1	933	27	21,24,25	3.16	10 (47%)	29,34,37	1.02	2 (6%)
27	4AC	B1	130	27	21,24,25	3.25	10 (47%)	29,34,37	1.05	3 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
27	4AC	B1	1649	27	21,24,25	3.23	10 (47%)	29,34,37	1.08	4 (13%)
27	4AC	B1	896	27	21,24,25	3.24	10 (47%)	29,34,37	1.02	2 (6%)
1	OMU	A1	488	1	19,22,23	3.29	7 (36%)	26,31,34	1.68	5 (19%)
27	OMU	B1	926	27	19,22,23	3.25	7 (36%)	26,31,34	1.72	5 (19%)
1	LV2	A1	927	1	20,23,24	3.33	7 (35%)	26,33,36	0.61	0
27	OMC	B1	2735	27	19,22,23	3.10	8 (42%)	26,31,34	0.81	0
27	4AC	B1	2083	27	21,24,25	3.26	9 (42%)	29,34,37	1.08	4 (13%)
27	4AC	B1	1757	27	21,24,25	3.25	10 (47%)	29,34,37	1.15	4 (13%)
27	4AC	B1	2792	27	21,24,25	3.25	10 (47%)	29,34,37	1.09	4 (13%)
1	5MC	A1	1484	1	18,22,23	3.14	7 (38%)	26,32,35	0.98	2 (7%)
27	5MC	B1	2047	27	18,22,23	3.18	7 (38%)	26,32,35	1.04	2 (7%)
27	OMG	B1	887	27	18,26,27	2.58	8 (44%)	19,38,41	1.52	4 (21%)
27	OMG	B1	675	27	18,26,27	2.56	8 (44%)	19,38,41	1.57	5 (26%)
27	4AC	B1	2020	27	21,24,25	3.27	9 (42%)	29,34,37	1.10	3 (10%)
1	OMC	A1	1194	1	19,22,23	3.12	8 (42%)	26,31,34	0.72	0
1	4AC	A1	367	1	21,24,25	3.26	10 (47%)	29,34,37	1.07	3 (10%)
27	4AC	B1	2492	27	21,24,25	3.28	10 (47%)	29,34,37	1.11	4 (13%)
27	OMC	B1	47	27	19,22,23	3.13	8 (42%)	26,31,34	0.95	2 (7%)
1	A2M	A1	361	1	18,25,26	4.23	7 (38%)	18,36,39	2.36	4 (22%)
1	4AC	A1	1221	1	21,24,25	3.28	9 (42%)	29,34,37	1.11	4 (13%)
1	4AC	A1	1467	1	21,24,25	3.26	10 (47%)	29,34,37	1.13	4 (13%)
27	OMG	B1	921	27	18,26,27	2.58	8 (44%)	19,38,41	1.57	4 (21%)
1	5MC	A1	605	1	18,22,23	3.14	7 (38%)	26,32,35	1.05	2 (7%)
27	4AC	B1	827	27	21,24,25	3.24	9 (42%)	29,34,37	1.10	4 (13%)
27	OMG	B1	920	27	18,26,27	2.59	8 (44%)	19,38,41	1.49	4 (21%)
28	4AC	B2	90	28	21,24,25	3.26	9 (42%)	29,34,37	1.11	4 (13%)
27	4AC	B1	337	27	21,24,25	3.25	10 (47%)	29,34,37	1.10	4 (13%)
27	OMC	B1	2059	27	19,22,23	3.11	8 (42%)	26,31,34	0.81	0
1	4SU	A1	756	1	18,21,22	3.87	8 (44%)	26,30,33	2.18	4 (15%)
27	4AC	B1	2876	27	21,24,25	3.27	10 (47%)	29,34,37	1.13	5 (17%)
1	4AC	A1	427	1	21,24,25	3.33	9 (42%)	29,34,37	1.27	5 (17%)
27	4AC	B1	1383	27	21,24,25	3.26	9 (42%)	29,34,37	1.07	3 (10%)
1	5MC	A1	951	1	18,22,23	3.18	7 (38%)	26,32,35	0.99	2 (7%)
1	4AC	A1	739	1	21,24,25	3.29	9 (42%)	29,34,37	1.10	3 (10%)
27	4AC	B1	1478	27	21,24,25	3.23	10 (47%)	29,34,37	1.08	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	4AC	A1	827	1	21,24,25	3.27	10 (47%)	29,34,37	1.06	3 (10%)
1	OMG	A1	504	1	18,26,27	2.59	8 (44%)	19,38,41	1.50	4 (21%)
27	4AC	B1	2602	27	21,24,25	3.26	9 (42%)	29,34,37	1.08	4 (13%)
1	OMC	A1	761	1	19,22,23	3.11	8 (42%)	26,31,34	0.88	0
27	4AC	B1	2429	27	21,24,25	3.27	9 (42%)	29,34,37	1.06	3 (10%)
1	4AC	A1	231	1	21,24,25	3.26	9 (42%)	29,34,37	1.10	4 (13%)
1	A2M	A1	819	1	18,25,26	4.25	7 (38%)	18,36,39	2.28	4 (22%)
1	4AC	A1	5	1	21,24,25	3.27	10 (47%)	29,34,37	1.08	3 (10%)
27	5MC	B1	1973	27	18,22,23	3.15	7 (38%)	26,32,35	1.06	2 (7%)
27	4AC	B1	732	27	21,24,25	3.27	9 (42%)	29,34,37	1.10	3 (10%)
1	OMC	A1	1028	1	19,22,23	0.47	0	26,31,34	0.84	1 (3%)
1	4AC	A1	856	1	21,24,25	3.25	10 (47%)	29,34,37	1.10	3 (10%)
27	OMC	B1	2607	27	19,22,23	3.12	8 (42%)	26,31,34	0.71	0
1	OMU	A1	425	1	19,22,23	3.31	7 (36%)	26,31,34	1.67	4 (15%)
27	OMC	B1	2557	27	19,22,23	3.11	8 (42%)	26,31,34	0.80	0
27	OMG	B1	2180	27	18,26,27	2.57	8 (44%)	19,38,41	1.54	4 (21%)
27	4AC	B1	98	27	21,24,25	3.24	9 (42%)	29,34,37	1.07	3 (10%)
1	4AC	A1	1314	1	21,24,25	3.22	9 (42%)	29,34,37	1.04	2 (6%)
1	4AC	A1	836	1	21,24,25	3.26	10 (47%)	29,34,37	1.07	3 (10%)
27	4AC	B1	142	27	21,24,25	3.30	9 (42%)	29,34,37	1.11	4 (13%)
1	4AC	A1	499	1	21,24,25	3.26	9 (42%)	29,34,37	1.09	4 (13%)
27	OMC	B1	1099	27	19,22,23	3.07	8 (42%)	26,31,34	0.71	0
1	4AC	A1	706	1	21,24,25	3.27	10 (47%)	29,34,37	1.09	4 (13%)
1	OMG	A1	329	1	18,26,27	2.59	8 (44%)	19,38,41	1.56	4 (21%)
27	4AC	B1	1128	27	21,24,25	3.29	10 (47%)	29,34,37	1.23	5 (17%)
27	5MC	B1	2087	27	18,22,23	3.13	7 (38%)	26,32,35	1.02	2 (7%)
27	5MC	B1	1966	27	18,22,23	3.14	7 (38%)	26,32,35	1.03	2 (7%)
1	OMC	A1	1371	1	19,22,23	3.14	8 (42%)	26,31,34	0.82	0
1	OMG	A1	1420	1	18,26,27	2.59	8 (44%)	19,38,41	1.49	4 (21%)
1	OMG	A1	541	1	18,26,27	2.57	8 (44%)	19,38,41	1.52	4 (21%)
1	OMG	A1	833	1	18,26,27	2.56	8 (44%)	19,38,41	1.52	4 (21%)
27	4AC	B1	116	27	21,24,25	3.22	10 (47%)	29,34,37	1.05	3 (10%)
1	MA6	A1	1457	1	18,26,27	1.02	1 (5%)	19,38,41	4.60	3 (15%)
1	5MC	A1	17	1	18,22,23	3.14	7 (38%)	26,32,35	0.99	2 (7%)
27	4AC	B1	2379	27	21,24,25	3.21	10 (47%)	29,34,37	1.07	2 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
27	4AC	B1	1439	27	21,24,25	3.23	9 (42%)	29,34,37	1.07	4 (13%)
1	OMC	A1	117	1	19,22,23	3.11	8 (42%)	26,31,34	0.73	0
27	4AC	B1	721	27	21,24,25	3.24	10 (47%)	29,34,37	1.12	4 (13%)
27	4AC	B1	1178	27	21,24,25	3.27	9 (42%)	29,34,37	1.04	3 (10%)
1	4AC	A1	624	1	21,24,25	3.27	10 (47%)	29,34,37	1.10	4 (13%)
1	4AC	A1	291	1	21,24,25	3.25	10 (47%)	29,34,37	1.05	3 (10%)
27	4AC	B1	243	27	21,24,25	3.24	10 (47%)	29,34,37	1.08	3 (10%)
27	OMG	B1	1965	27	18,26,27	2.58	8 (44%)	19,38,41	1.50	4 (21%)
1	5MC	A1	273	1	18,22,23	3.16	7 (38%)	26,32,35	1.01	2 (7%)
1	5MU	A1	926	1	19,22,23	0.47	0	28,32,35	0.66	0
27	4AC	B1	1290	27	21,24,25	3.23	9 (42%)	29,34,37	1.07	3 (10%)
1	OMU	A1	1110	1	19,22,23	3.29	7 (36%)	26,31,34	1.67	4 (15%)
1	5MC	A1	230	1	18,22,23	3.15	7 (38%)	26,32,35	1.03	2 (7%)
1	2MG	A1	1004	1	18,26,27	2.53	7 (38%)	16,38,41	1.45	4 (25%)
27	4AC	B1	1664	27	21,24,25	3.20	10 (47%)	29,34,37	1.00	2 (6%)
27	4AC	B1	2850	27	21,24,25	3.25	9 (42%)	29,34,37	1.08	3 (10%)
27	4SU	B1	2565	27	18,21,22	3.83	8 (44%)	26,30,33	2.22	5 (19%)
1	OMG	A1	901	1	18,26,27	2.59	8 (44%)	19,38,41	1.54	4 (21%)
1	7MG	A1	481	1	22,26,27	3.82	10 (45%)	29,39,42	2.04	9 (31%)
27	4AC	B1	1286	27	21,24,25	3.34	9 (42%)	29,34,37	1.42	5 (17%)
28	4AC	B2	120	28	21,24,25	3.28	9 (42%)	29,34,37	1.10	3 (10%)
1	4AC	A1	614	1	21,24,25	3.26	10 (47%)	29,34,37	1.09	4 (13%)
1	OMC	A1	426	1	19,22,23	3.13	8 (42%)	26,31,34	0.82	0
27	4AC	B1	2454	27	21,24,25	3.28	10 (47%)	29,34,37	1.09	4 (13%)
1	4AC	A1	220	1	21,24,25	3.28	10 (47%)	29,34,37	1.15	3 (10%)
1	OMG	A1	464	1	18,26,27	2.56	8 (44%)	19,38,41	1.58	5 (26%)
27	5MC	B1	2453	27	18,22,23	3.16	7 (38%)	26,32,35	0.99	2 (7%)
1	4AC	A1	546	1	21,24,25	3.27	9 (42%)	29,34,37	1.10	3 (10%)
27	OMU	B1	2401	27	19,22,23	3.27	7 (36%)	26,31,34	1.72	5 (19%)
1	OMG	A1	668	1	18,26,27	2.58	8 (44%)	19,38,41	1.52	4 (21%)
1	4AC	A1	307	1	21,24,25	3.25	9 (42%)	29,34,37	1.11	4 (13%)
27	4AC	B1	1818	27	21,24,25	3.24	10 (47%)	29,34,37	1.07	4 (13%)
27	4AC	B1	271	27	21,24,25	3.29	9 (42%)	29,34,37	1.14	4 (13%)
27	4AC	B1	1822	27	21,24,25	3.24	10 (47%)	29,34,37	1.14	3 (10%)
27	4AC	B1	1743	27	21,24,25	3.29	9 (42%)	29,34,37	1.12	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	4AC	A1	382	1	21,24,25	3.28	10 (47%)	29,34,37	1.10	4 (13%)
27	4AC	B1	1608	27	21,24,25	3.27	10 (47%)	29,34,37	1.09	4 (13%)
27	4AC	B1	1706	27	21,24,25	3.28	9 (42%)	29,34,37	1.10	4 (13%)
27	A2M	B1	880	27	18,25,26	4.26	8 (44%)	18,36,39	2.30	4 (22%)
27	4AC	B1	1769	27	21,24,25	3.22	10 (47%)	29,34,37	1.03	3 (10%)
27	5MC	B1	2067	27	18,22,23	3.16	7 (38%)	26,32,35	1.00	1 (3%)
27	5MC	B1	97	27	18,22,23	3.15	7 (38%)	26,32,35	1.02	2 (7%)
1	5MC	A1	1366	1	18,22,23	3.17	7 (38%)	26,32,35	0.95	1 (3%)
27	4AC	B1	1345	27	21,24,25	3.23	9 (42%)	29,34,37	1.06	3 (10%)
1	4AC	A1	534	1	21,24,25	3.27	10 (47%)	29,34,37	1.06	4 (13%)
1	OMG	A1	763	1	18,26,27	2.61	8 (44%)	19,38,41	1.56	4 (21%)
1	4AC	A1	1181	1	21,24,25	3.20	9 (42%)	29,34,37	1.01	2 (6%)
1	5MC	A1	687	1	18,22,23	3.15	7 (38%)	26,32,35	0.99	2 (7%)
27	LHH	B1	2968	27	22,25,26	1.95	7 (31%)	29,35,38	1.17	3 (10%)
27	4AC	B1	1435	27	21,24,25	3.22	10 (47%)	29,34,37	1.09	4 (13%)
27	OMC	B1	2808	27	19,22,23	3.11	8 (42%)	26,31,34	0.74	0
27	4AC	B1	2821	27	21,24,25	3.27	9 (42%)	29,34,37	1.06	3 (10%)
1	4AC	A1	578	1	21,24,25	3.28	10 (47%)	29,34,37	1.09	3 (10%)
1	LHH	A1	238	1	22,25,26	1.89	5 (22%)	29,35,38	1.45	5 (17%)
27	OMC	B1	2428	27	19,22,23	3.14	8 (42%)	26,31,34	0.74	0
27	4AC	B1	19	27	21,24,25	3.22	10 (47%)	29,34,37	1.09	3 (10%)
27	OMC	B1	904	27	19,22,23	3.10	8 (42%)	26,31,34	0.75	0
27	4AC	B1	1551	27	21,24,25	3.25	10 (47%)	29,34,37	1.03	3 (10%)
28	4AC	B2	32	28	21,24,25	3.30	9 (42%)	29,34,37	1.07	3 (10%)
27	4AC	B1	688	27	21,24,25	3.25	10 (47%)	29,34,37	1.08	3 (10%)
27	4AC	B1	1264	27	21,24,25	3.27	9 (42%)	29,34,37	1.11	4 (13%)
27	OMG	B1	2028	27	18,26,27	2.56	8 (44%)	19,38,41	1.49	4 (21%)
1	OMU	A1	1165	1	19,22,23	3.28	7 (36%)	26,31,34	1.70	5 (19%)
28	4AC	B2	108	28	21,24,25	3.26	9 (42%)	29,34,37	1.15	4 (13%)
1	OMG	A1	132	1	18,26,27	2.59	8 (44%)	19,38,41	1.51	4 (21%)
27	A2M	B1	506	27	18,25,26	4.25	8 (44%)	18,36,39	2.44	6 (33%)
27	OMG	B1	2022	27	18,26,27	2.56	8 (44%)	19,38,41	1.50	4 (21%)
27	4AC	B1	2469	27	21,24,25	3.25	10 (47%)	29,34,37	1.10	4 (13%)
1	4AC	A1	719	1	21,24,25	3.25	10 (47%)	29,34,37	1.07	3 (10%)
27	4AC	B1	1052	27	21,24,25	3.23	9 (42%)	29,34,37	1.09	3 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
27	4AC	B1	1322	27	21,24,25	3.27	10 (47%)	29,34,37	1.18	5 (17%)
1	OMG	A1	153	1	18,26,27	2.59	8 (44%)	19,38,41	1.52	4 (21%)
27	4AC	B1	344	27	21,24,25	3.28	10 (47%)	29,34,37	1.09	4 (13%)
27	OMU	B1	2668	27	19,22,23	3.26	7 (36%)	26,31,34	1.72	5 (19%)
27	4AC	B1	1100	27	21,24,25	3.24	10 (47%)	29,34,37	1.07	3 (10%)
27	OMC	B1	1914	27	19,22,23	3.09	8 (42%)	26,31,34	0.89	1 (3%)
27	4AC	B1	1067	27	21,24,25	3.26	9 (42%)	29,34,37	1.08	4 (13%)
27	4AC	B1	1911	27	21,24,25	3.25	10 (47%)	29,34,37	1.05	3 (10%)
1	4AC	A1	1016	1	21,24,25	3.28	9 (42%)	29,34,37	1.07	3 (10%)
27	4AC	B1	2113	27	21,24,25	3.22	10 (47%)	29,34,37	1.09	4 (13%)
1	OMU	A1	8	1	19,22,23	3.26	7 (36%)	26,31,34	1.71	5 (19%)
1	OMG	A1	507	1	18,26,27	2.58	8 (44%)	19,38,41	1.54	4 (21%)
27	5MC	B1	1983	27	18,22,23	3.16	7 (38%)	26,32,35	0.99	1 (3%)
27	LHH	B1	276	27	22,25,26	1.94	6 (27%)	29,35,38	1.26	4 (13%)
1	4AC	A1	1288	1	21,24,25	3.26	9 (42%)	29,34,37	1.09	3 (10%)
27	OMU	B1	1981	27	19,22,23	3.27	7 (36%)	26,31,34	1.66	5 (19%)
27	OMG	B1	2740	27	18,26,27	2.58	8 (44%)	19,38,41	1.53	4 (21%)
27	LHH	B1	527	27	22,25,26	1.92	6 (27%)	29,35,38	1.22	4 (13%)
27	4AC	B1	434	27	21,24,25	3.24	9 (42%)	29,34,37	1.09	3 (10%)
1	MA6	A1	1476	1	18,26,27	1.01	1 (5%)	19,38,41	4.59	3 (15%)
1	OMC	A1	1364	1	19,22,23	3.10	8 (42%)	26,31,34	0.73	0
1	4AC	A1	141	1	21,24,25	3.30	9 (42%)	29,34,37	1.13	3 (10%)
27	4AC	B1	2171	27	21,24,25	3.24	10 (47%)	29,34,37	1.08	4 (13%)
27	4AC	B1	2213	27	21,24,25	3.26	9 (42%)	29,34,37	1.09	3 (10%)
27	4AC	B1	48	27	21,24,25	3.20	10 (47%)	29,34,37	1.01	3 (10%)
27	OMG	B1	2540	27	18,26,27	2.57	8 (44%)	19,38,41	1.51	4 (21%)
27	OMG	B1	2684	27	18,26,27	2.57	8 (44%)	19,38,41	1.52	4 (21%)
1	OMG	A1	227	1	18,26,27	2.57	8 (44%)	19,38,41	1.52	4 (21%)
1	4AC	A1	816	1	21,24,25	3.26	10 (47%)	29,34,37	1.07	3 (10%)
27	4AC	B1	866	27	21,24,25	3.23	10 (47%)	29,34,37	1.04	3 (10%)
27	4AC	B1	2133	27	21,24,25	3.22	10 (47%)	29,34,37	1.07	3 (10%)
1	OMG	A1	1003	1	18,26,27	2.59	8 (44%)	19,38,41	1.49	4 (21%)
1	OMU	A1	775	1	19,22,23	3.27	7 (36%)	26,31,34	1.71	5 (19%)
1	4AC	A1	41	1	21,24,25	3.26	9 (42%)	29,34,37	1.06	3 (10%)
27	OMG	B1	2984	27	18,26,27	2.57	8 (44%)	19,38,41	1.55	4 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
27	OMC	B1	2007	27	19,22,23	3.11	8 (42%)	26,31,34	0.76	0
1	4AC	A1	216	1	21,24,25	3.30	10 (47%)	29,34,37	1.11	4 (13%)
27	5MC	B1	2901	27	18,22,23	3.14	7 (38%)	26,32,35	1.02	2 (7%)
27	4AC	B1	378	27	21,24,25	3.24	10 (47%)	29,34,37	1.08	3 (10%)
27	A2M	B1	940	27	18,25,26	4.26	7 (38%)	18,36,39	2.27	4 (22%)
27	4AC	B1	807	27	21,24,25	3.26	10 (47%)	29,34,37	1.15	4 (13%)
1	4AC	A1	839	1	21,24,25	3.22	10 (47%)	29,34,37	1.08	3 (10%)
27	4AC	B1	2902	27	21,24,25	3.26	9 (42%)	29,34,37	1.10	3 (10%)
27	4AC	B1	3023	27	21,24,25	3.25	9 (42%)	29,34,37	1.09	3 (10%)
1	4AC	A1	540	1	21,24,25	3.27	9 (42%)	29,34,37	1.10	4 (13%)
27	4AC	B1	1846	27	21,24,25	3.27	10 (47%)	29,34,37	1.12	4 (13%)
27	4AC	B1	1751	27	21,24,25	3.28	9 (42%)	29,34,37	1.10	4 (13%)
27	4AC	B1	3020	27	21,24,25	3.27	9 (42%)	29,34,37	1.10	4 (13%)
1	OMC	A1	834	1	19,22,23	3.09	8 (42%)	26,31,34	0.76	0
27	4AC	B1	1967	27	21,24,25	3.20	10 (47%)	29,34,37	1.06	3 (10%)
27	4AC	B1	715	27	21,24,25	3.24	10 (47%)	29,34,37	1.07	3 (10%)
27	4AC	B1	1313	27	21,24,25	3.29	9 (42%)	29,34,37	1.16	4 (13%)
27	4AC	B1	1301	27	21,24,25	3.27	10 (47%)	29,34,37	1.67	5 (17%)
27	4AC	B1	23	27	21,24,25	3.24	9 (42%)	29,34,37	1.08	3 (10%)
27	5MC	B1	336	27	18,22,23	3.13	7 (38%)	26,32,35	1.06	2 (7%)
27	OMC	B1	2046	27	19,22,23	3.15	8 (42%)	26,31,34	0.82	0
1	MA6	A1	1475	1	18,26,27	0.99	1 (5%)	19,38,41	4.64	3 (15%)
27	5MC	B1	1648	27	18,22,23	3.18	7 (38%)	26,32,35	1.08	3 (11%)
27	OMU	B1	1488	27	19,22,23	3.24	7 (36%)	26,31,34	1.70	5 (19%)
1	5MC	A1	777	1	18,22,23	3.14	7 (38%)	26,32,35	1.03	2 (7%)
27	OMC	B1	1489	27	19,22,23	3.10	8 (42%)	26,31,34	0.77	0
27	4AC	B1	1501	27	21,24,25	3.25	9 (42%)	29,34,37	1.09	4 (13%)
1	5MC	A1	1362	1	18,22,23	3.17	7 (38%)	26,32,35	1.02	2 (7%)
27	5MC	B1	2617	27	18,22,23	3.16	7 (38%)	26,32,35	1.03	2 (7%)
27	4AC	B1	1064	27	21,24,25	3.26	10 (47%)	29,34,37	1.11	4 (13%)
27	4AC	B1	1442	27	21,24,25	3.24	10 (47%)	29,34,37	1.05	3 (10%)
27	4AC	B1	3037	27	21,24,25	3.27	9 (42%)	29,34,37	1.14	4 (13%)
27	5MC	B1	2875	27	18,22,23	3.14	7 (38%)	26,32,35	1.02	2 (7%)
1	5MC	A1	473	1	18,22,23	3.16	7 (38%)	26,32,35	0.98	2 (7%)
1	4AC	A1	1135	1	21,24,25	3.29	9 (42%)	29,34,37	1.11	3 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
27	OMC	B1	501	27	19,22,23	3.12	8 (42%)	26,31,34	0.89	1 (3%)
27	5MU	B1	883	27	19,22,23	0.45	0	28,32,35	0.74	0
27	OMG	B1	55	27	18,26,27	2.55	8 (44%)	19,38,41	1.50	4 (21%)
27	4AC	B1	599	27	21,24,25	3.29	9 (42%)	29,34,37	1.14	4 (13%)
1	OMG	A1	152	1	18,26,27	2.60	8 (44%)	19,38,41	1.55	4 (21%)
1	5MC	A1	815	1	18,22,23	3.15	7 (38%)	26,32,35	1.01	2 (7%)
27	4AC	B1	1546	27	21,24,25	3.23	10 (47%)	29,34,37	1.07	3 (10%)
27	UR3	B1	2700	27	19,22,23	3.22	7 (36%)	26,32,35	1.56	4 (15%)
1	4AC	A1	1254	1	21,24,25	3.28	9 (42%)	29,34,37	1.14	4 (13%)
27	OMG	B1	2108	27	18,26,27	2.55	8 (44%)	19,38,41	1.53	4 (21%)
1	OMG	A1	228	1	18,26,27	2.56	8 (44%)	19,38,41	1.53	4 (21%)
1	5MC	A1	863	1	18,22,23	3.16	7 (38%)	26,32,35	1.04	2 (7%)
27	4AC	B1	1374	27	21,24,25	3.27	9 (42%)	29,34,37	1.06	3 (10%)
27	4AC	B1	419	27	21,24,25	3.27	10 (47%)	29,34,37	1.12	4 (13%)
1	5MC	A1	1123	1	18,22,23	3.19	7 (38%)	26,32,35	1.04	2 (7%)
27	5MC	B1	2082	27	18,22,23	3.16	7 (38%)	26,32,35	0.98	1 (3%)
1	5MC	A1	1012	1	18,22,23	3.17	7 (38%)	26,32,35	0.97	2 (7%)
27	5MU	B1	888	27	19,22,23	0.47	0	28,32,35	0.66	0
27	OMG	B1	214	27	18,26,27	2.59	8 (44%)	19,38,41	1.57	4 (21%)
27	4AC	B1	580	27	21,24,25	3.27	10 (47%)	29,34,37	1.04	3 (10%)
1	5MC	A1	1486	1	18,22,23	3.17	7 (38%)	26,32,35	1.11	2 (7%)
1	OMG	A1	459	1	18,26,27	2.58	8 (44%)	19,38,41	1.51	4 (21%)
1	4AC	A1	444	1	21,24,25	3.25	9 (42%)	29,34,37	1.11	3 (10%)
1	OMU	A1	762	1	19,22,23	3.27	7 (36%)	26,31,34	1.72	4 (15%)
1	5MC	A1	523	1	18,22,23	3.16	7 (38%)	26,32,35	1.00	2 (7%)
27	5MC	B1	877	27	18,22,23	3.11	7 (38%)	26,32,35	1.05	2 (7%)
27	OMG	B1	530	27	18,26,27	2.59	8 (44%)	19,38,41	1.50	4 (21%)
27	4AC	B1	2749	27	21,24,25	3.25	10 (47%)	29,34,37	1.08	4 (13%)
27	4AC	B1	641	27	21,24,25	3.26	9 (42%)	29,34,37	1.08	3 (10%)
27	OMG	B1	2659	27	18,26,27	2.58	8 (44%)	19,38,41	1.54	4 (21%)
27	A2M	B1	857	27	18,25,26	4.18	7 (38%)	18,36,39	2.25	4 (22%)
27	LHH	B1	1946	27	22,25,26	1.96	7 (31%)	29,35,38	1.15	4 (13%)
27	A2M	B1	2506	27	18,25,26	4.23	7 (38%)	18,36,39	2.33	4 (22%)
27	4AC	B1	80	27	21,24,25	3.24	10 (47%)	29,34,37	1.09	3 (10%)
27	4AC	B1	2809	27	21,24,25	3.23	10 (47%)	29,34,37	1.04	3 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
27	4AC	B1	106	27	21,24,25	3.32	9 (42%)	29,34,37	1.28	5 (17%)
27	4AC	B1	953	27	21,24,25	3.24	10 (47%)	29,34,37	1.05	3 (10%)
1	4AC	A1	405	1	21,24,25	3.27	9 (42%)	29,34,37	1.12	4 (13%)
27	4AC	B1	2844	27	21,24,25	3.23	9 (42%)	29,34,37	1.06	3 (10%)
27	4AC	B1	813	27	21,24,25	3.33	9 (42%)	29,34,37	1.41	5 (17%)
27	4AC	B1	3006	27	21,24,25	3.27	9 (42%)	29,34,37	1.10	4 (13%)
28	4AC	B2	117	28	21,24,25	3.27	10 (47%)	29,34,37	1.08	3 (10%)
27	4AC	B1	2432	27	21,24,25	3.27	10 (47%)	29,34,37	1.10	4 (13%)
27	4AC	B1	979	27	21,24,25	3.29	9 (42%)	29,34,37	1.25	5 (17%)
1	OMG	A1	861	1	18,26,27	2.57	8 (44%)	19,38,41	1.52	4 (21%)
1	LHH	A1	1029	1	22,25,26	1.90	5 (22%)	29,35,38	1.24	4 (13%)
27	LHH	B1	502	27	22,25,26	1.91	7 (31%)	29,35,38	1.20	4 (13%)
27	4AC	B1	1579	27	21,24,25	3.28	9 (42%)	29,34,37	1.12	4 (13%)
27	OMG	B1	808	27	18,26,27	2.56	8 (44%)	19,38,41	1.52	4 (21%)
27	4AC	B1	1061	27	21,24,25	3.27	9 (42%)	29,34,37	1.11	4 (13%)
27	OMU	B1	454	27	19,22,23	3.31	7 (36%)	26,31,34	1.69	5 (19%)
1	4AC	A1	87	1	21,24,25	3.28	10 (47%)	29,34,37	1.12	3 (10%)
1	OMG	A1	455	1	18,26,27	2.58	8 (44%)	19,38,41	1.54	4 (21%)
1	OMC	A1	1226	1	19,22,23	3.12	8 (42%)	26,31,34	0.77	0
27	4AC	B1	652	27	21,24,25	3.23	9 (42%)	29,34,37	1.10	3 (10%)
27	4AC	B1	2526	27	21,24,25	3.25	9 (42%)	29,34,37	1.11	4 (13%)
27	4AC	B1	227	27	21,24,25	3.26	10 (47%)	29,34,37	1.07	3 (10%)
27	4AC	B1	1107	27	21,24,25	3.23	10 (47%)	29,34,37	1.02	3 (10%)
27	5MC	B1	1344	27	18,22,23	3.14	7 (38%)	26,32,35	1.04	2 (7%)
27	OMG	B1	550	27	18,26,27	2.57	8 (44%)	19,38,41	1.62	4 (21%)
1	OMU	A1	1368	1	19,22,23	3.31	7 (36%)	26,31,34	1.70	4 (15%)
1	4AC	A1	1067	1	21,24,25	3.28	10 (47%)	29,34,37	1.09	3 (10%)
27	4AC	B1	1505	27	21,24,25	3.26	9 (42%)	29,34,37	1.10	3 (10%)
27	4AC	B1	2008	27	21,24,25	3.26	9 (42%)	29,34,37	1.07	3 (10%)
27	5MC	B1	252	27	18,22,23	3.14	7 (38%)	26,32,35	1.04	2 (7%)
27	OMG	B1	2757	27	18,26,27	2.58	8 (44%)	19,38,41	1.57	4 (21%)
1	5MC	A1	1013	1	18,22,23	3.15	7 (38%)	26,32,35	0.98	2 (7%)
27	5MC	B1	1977	27	18,22,23	3.15	7 (38%)	26,32,35	0.98	2 (7%)
1	OMG	A1	645	1	18,26,27	2.57	8 (44%)	19,38,41	1.47	4 (21%)
1	4AC	A1	636	1	21,24,25	3.28	9 (42%)	29,34,37	1.13	5 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
27	4AC	B1	1293	27	21,24,25	3.26	9 (42%)	29,34,37	1.05	3 (10%)
27	4AC	B1	3011	27	21,24,25	3.25	9 (42%)	29,34,37	1.07	3 (10%)

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	4AC	A1	274	1	-	0/11/29/30	0/2/2/2
27	OMC	B1	1832	27	-	0/9/27/28	0/2/2/2
27	OMG	B1	2562	27	-	0/5/27/28	0/3/3/3
27	OMG	B1	2391	27	-	3/5/27/28	0/3/3/3
1	4AC	A1	945	1	-	2/11/29/30	0/2/2/2
27	4AC	B1	1762	27	-	0/11/29/30	0/2/2/2
1	5MC	A1	1190	1	-	2/7/25/26	0/2/2/2
27	4AC	B1	360	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	950	27	-	0/11/29/30	0/2/2/2
1	5MC	A1	466	1	-	3/7/25/26	0/2/2/2
1	5MC	A1	681	1	-	0/7/25/26	0/2/2/2
27	4AC	B1	786	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	2888	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1639	27	-	2/11/29/30	0/2/2/2
27	OMG	B1	1904	27	-	1/5/27/28	0/3/3/3
27	5MC	B1	932	27	-	0/7/25/26	0/2/2/2
27	4AC	B1	1885	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	200	27	-	0/11/29/30	0/2/2/2
27	OMG	B1	1533	27	-	0/5/27/28	0/3/3/3
27	OMG	B1	2365	27	-	2/5/27/28	0/3/3/3
27	OMU	B1	2554	27	-	0/9/27/28	0/2/2/2
1	4AC	A1	1227	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	162	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	609	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	467	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	485	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1150	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	933	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	130	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1649	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	896	27	-	0/11/29/30	0/2/2/2
1	OMU	A1	488	1	-	0/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	OMU	B1	926	27	-	4/9/27/28	0/2/2/2
1	LV2	A1	927	1	-	0/9/29/30	0/2/2/2
27	OMC	B1	2735	27	-	0/9/27/28	0/2/2/2
27	4AC	B1	2083	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1757	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	2792	27	-	0/11/29/30	0/2/2/2
1	5MC	A1	1484	1	-	0/7/25/26	0/2/2/2
27	5MC	B1	2047	27	-	0/7/25/26	0/2/2/2
27	OMG	B1	887	27	-	2/5/27/28	0/3/3/3
27	OMG	B1	675	27	-	0/5/27/28	0/3/3/3
27	4AC	B1	2020	27	-	0/11/29/30	0/2/2/2
1	OMC	A1	1194	1	-	2/9/27/28	0/2/2/2
1	4AC	A1	367	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	2492	27	-	0/11/29/30	0/2/2/2
27	OMC	B1	47	27	-	3/9/27/28	0/2/2/2
1	A2M	A1	361	1	-	1/5/27/28	0/3/3/3
1	4AC	A1	1221	1	-	0/11/29/30	0/2/2/2
1	4AC	A1	1467	1	-	0/11/29/30	0/2/2/2
27	OMG	B1	921	27	-	1/5/27/28	0/3/3/3
1	5MC	A1	605	1	-	0/7/25/26	0/2/2/2
27	4AC	B1	827	27	-	0/11/29/30	0/2/2/2
27	OMG	B1	920	27	-	1/5/27/28	0/3/3/3
28	4AC	B2	90	28	-	0/11/29/30	0/2/2/2
27	4AC	B1	337	27	-	0/11/29/30	0/2/2/2
27	OMC	B1	2059	27	-	0/9/27/28	0/2/2/2
1	4SU	A1	756	1	-	0/7/25/26	0/2/2/2
27	4AC	B1	2876	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	427	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	1383	27	-	2/11/29/30	0/2/2/2
1	5MC	A1	951	1	-	0/7/25/26	0/2/2/2
1	4AC	A1	739	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	1478	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	827	1	-	0/11/29/30	0/2/2/2
1	OMG	A1	504	1	-	3/5/27/28	0/3/3/3
27	4AC	B1	2602	27	-	0/11/29/30	0/2/2/2
1	OMC	A1	761	1	-	1/9/27/28	0/2/2/2
27	4AC	B1	2429	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	231	1	-	0/11/29/30	0/2/2/2
1	A2M	A1	819	1	-	0/5/27/28	0/3/3/3
1	4AC	A1	5	1	-	1/11/29/30	0/2/2/2
27	5MC	B1	1973	27	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	4AC	B1	732	27	-	0/11/29/30	0/2/2/2
1	OMC	A1	1028	1	-	0/9/27/28	0/2/2/2
1	4AC	A1	856	1	-	0/11/29/30	0/2/2/2
27	OMC	B1	2607	27	-	2/9/27/28	0/2/2/2
1	OMU	A1	425	1	-	4/9/27/28	0/2/2/2
27	OMC	B1	2557	27	-	1/9/27/28	0/2/2/2
27	OMG	B1	2180	27	-	0/5/27/28	0/3/3/3
27	4AC	B1	98	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	1314	1	-	0/11/29/30	0/2/2/2
1	4AC	A1	836	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	142	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	499	1	-	2/11/29/30	0/2/2/2
27	OMC	B1	1099	27	-	0/9/27/28	0/2/2/2
1	4AC	A1	706	1	-	0/11/29/30	0/2/2/2
1	OMG	A1	329	1	-	3/5/27/28	0/3/3/3
27	4AC	B1	1128	27	-	0/11/29/30	0/2/2/2
27	5MC	B1	2087	27	-	0/7/25/26	0/2/2/2
27	5MC	B1	1966	27	-	0/7/25/26	0/2/2/2
1	OMC	A1	1371	1	-	0/9/27/28	0/2/2/2
1	OMG	A1	1420	1	-	3/5/27/28	0/3/3/3
1	OMG	A1	541	1	-	0/5/27/28	0/3/3/3
1	OMG	A1	833	1	-	0/5/27/28	0/3/3/3
27	4AC	B1	116	27	-	0/11/29/30	0/2/2/2
1	MA6	A1	1457	1	-	1/7/29/30	0/3/3/3
1	5MC	A1	17	1	-	2/7/25/26	0/2/2/2
27	4AC	B1	2379	27	-	2/11/29/30	0/2/2/2
27	4AC	B1	1439	27	-	0/11/29/30	0/2/2/2
1	OMC	A1	117	1	-	0/9/27/28	0/2/2/2
27	4AC	B1	721	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1178	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	624	1	-	0/11/29/30	0/2/2/2
1	4AC	A1	291	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	243	27	-	0/11/29/30	0/2/2/2
27	OMG	B1	1965	27	-	0/5/27/28	0/3/3/3
1	5MC	A1	273	1	-	0/7/25/26	0/2/2/2
1	5MU	A1	926	1	-	1/7/25/26	0/2/2/2
27	4AC	B1	1290	27	-	0/11/29/30	0/2/2/2
1	OMU	A1	1110	1	-	0/9/27/28	0/2/2/2
1	5MC	A1	230	1	-	0/7/25/26	0/2/2/2
1	2MG	A1	1004	1	-	0/5/27/28	0/3/3/3
27	4AC	B1	1664	27	-	0/11/29/30	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	4AC	B1	2850	27	-	0/11/29/30	0/2/2/2
27	4SU	B1	2565	27	-	0/7/25/26	0/2/2/2
1	OMG	A1	901	1	-	0/5/27/28	0/3/3/3
1	7MG	A1	481	1	-	0/7/37/38	0/3/3/3
27	4AC	B1	1286	27	-	0/11/29/30	0/2/2/2
28	4AC	B2	120	28	-	0/11/29/30	0/2/2/2
1	4AC	A1	614	1	-	0/11/29/30	0/2/2/2
1	OMC	A1	426	1	-	0/9/27/28	0/2/2/2
27	4AC	B1	2454	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	220	1	-	0/11/29/30	0/2/2/2
1	OMG	A1	464	1	-	1/5/27/28	0/3/3/3
27	5MC	B1	2453	27	-	0/7/25/26	0/2/2/2
1	4AC	A1	546	1	-	0/11/29/30	0/2/2/2
27	OMU	B1	2401	27	-	1/9/27/28	0/2/2/2
1	OMG	A1	668	1	-	1/5/27/28	0/3/3/3
1	4AC	A1	307	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	1818	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	271	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1822	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1743	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	382	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	1608	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1706	27	-	0/11/29/30	0/2/2/2
27	A2M	B1	880	27	-	2/5/27/28	0/3/3/3
27	4AC	B1	1769	27	-	0/11/29/30	0/2/2/2
27	5MC	B1	2067	27	-	0/7/25/26	0/2/2/2
27	5MC	B1	97	27	-	0/7/25/26	0/2/2/2
1	5MC	A1	1366	1	-	0/7/25/26	0/2/2/2
27	4AC	B1	1345	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	534	1	-	0/11/29/30	0/2/2/2
1	OMG	A1	763	1	-	0/5/27/28	0/3/3/3
1	4AC	A1	1181	1	-	0/11/29/30	0/2/2/2
1	5MC	A1	687	1	-	0/7/25/26	0/2/2/2
27	LHH	B1	2968	27	-	2/13/31/32	0/2/2/2
27	4AC	B1	1435	27	-	0/11/29/30	0/2/2/2
27	OMC	B1	2808	27	-	1/9/27/28	0/2/2/2
27	4AC	B1	2821	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	578	1	-	0/11/29/30	0/2/2/2
1	LHH	A1	238	1	-	6/13/31/32	0/2/2/2
27	OMC	B1	2428	27	-	1/9/27/28	0/2/2/2
27	4AC	B1	19	27	-	0/11/29/30	0/2/2/2
27	OMC	B1	904	27	-	0/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	4AC	B1	1551	27	-	0/11/29/30	0/2/2/2
28	4AC	B2	32	28	-	0/11/29/30	0/2/2/2
27	4AC	B1	688	27	-	2/11/29/30	0/2/2/2
27	4AC	B1	1264	27	-	0/11/29/30	0/2/2/2
27	OMG	B1	2028	27	-	0/5/27/28	0/3/3/3
1	OMU	A1	1165	1	-	0/9/27/28	0/2/2/2
28	4AC	B2	108	28	-	0/11/29/30	0/2/2/2
1	OMG	A1	132	1	-	2/5/27/28	0/3/3/3
27	A2M	B1	506	27	-	1/5/27/28	0/3/3/3
27	OMG	B1	2022	27	-	0/5/27/28	0/3/3/3
27	4AC	B1	2469	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	719	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	1052	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1322	27	-	1/11/29/30	0/2/2/2
1	OMG	A1	153	1	-	1/5/27/28	0/3/3/3
27	4AC	B1	344	27	-	0/11/29/30	0/2/2/2
27	OMU	B1	2668	27	-	1/9/27/28	0/2/2/2
27	4AC	B1	1100	27	-	0/11/29/30	0/2/2/2
27	OMC	B1	1914	27	-	1/9/27/28	0/2/2/2
27	4AC	B1	1067	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1911	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	1016	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	2113	27	-	0/11/29/30	0/2/2/2
1	OMU	A1	8	1	-	5/9/27/28	0/2/2/2
1	OMG	A1	507	1	-	0/5/27/28	0/3/3/3
27	5MC	B1	1983	27	-	0/7/25/26	0/2/2/2
27	LHH	B1	276	27	-	2/13/31/32	0/2/2/2
1	4AC	A1	1288	1	-	0/11/29/30	0/2/2/2
27	OMU	B1	1981	27	-	0/9/27/28	0/2/2/2
27	OMG	B1	2740	27	-	0/5/27/28	0/3/3/3
27	LHH	B1	527	27	-	2/13/31/32	0/2/2/2
27	4AC	B1	434	27	-	0/11/29/30	0/2/2/2
1	MA6	A1	1476	1	-	2/7/29/30	0/3/3/3
1	OMC	A1	1364	1	-	0/9/27/28	0/2/2/2
1	4AC	A1	141	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	2171	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	2213	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	48	27	-	0/11/29/30	0/2/2/2
27	OMG	B1	2540	27	-	0/5/27/28	0/3/3/3
27	OMG	B1	2684	27	-	0/5/27/28	0/3/3/3
1	OMG	A1	227	1	-	0/5/27/28	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	4AC	A1	816	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	866	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	2133	27	-	0/11/29/30	0/2/2/2
1	OMG	A1	1003	1	-	1/5/27/28	0/3/3/3
1	OMU	A1	775	1	-	6/9/27/28	0/2/2/2
1	4AC	A1	41	1	-	0/11/29/30	0/2/2/2
27	OMG	B1	2984	27	-	2/5/27/28	0/3/3/3
27	OMC	B1	2007	27	-	0/9/27/28	0/2/2/2
1	4AC	A1	216	1	-	0/11/29/30	0/2/2/2
27	5MC	B1	2901	27	-	0/7/25/26	0/2/2/2
27	4AC	B1	378	27	-	0/11/29/30	0/2/2/2
27	A2M	B1	940	27	-	1/5/27/28	0/3/3/3
27	4AC	B1	807	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	839	1	-	1/11/29/30	0/2/2/2
27	4AC	B1	2902	27	-	2/11/29/30	0/2/2/2
27	4AC	B1	3023	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	540	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	1846	27	-	3/11/29/30	0/2/2/2
27	4AC	B1	1751	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	3020	27	-	0/11/29/30	0/2/2/2
1	OMC	A1	834	1	-	0/9/27/28	0/2/2/2
27	4AC	B1	1967	27	-	1/11/29/30	0/2/2/2
27	4AC	B1	715	27	-	2/11/29/30	0/2/2/2
27	4AC	B1	1313	27	-	1/11/29/30	0/2/2/2
27	4AC	B1	1301	27	-	2/11/29/30	0/2/2/2
27	4AC	B1	23	27	-	0/11/29/30	0/2/2/2
27	5MC	B1	336	27	-	0/7/25/26	0/2/2/2
27	OMC	B1	2046	27	-	0/9/27/28	0/2/2/2
1	MA6	A1	1475	1	-	0/7/29/30	0/3/3/3
27	5MC	B1	1648	27	-	3/7/25/26	0/2/2/2
27	OMU	B1	1488	27	-	0/9/27/28	0/2/2/2
1	5MC	A1	777	1	-	0/7/25/26	0/2/2/2
27	OMC	B1	1489	27	-	2/9/27/28	0/2/2/2
27	4AC	B1	1501	27	-	0/11/29/30	0/2/2/2
1	5MC	A1	1362	1	-	2/7/25/26	0/2/2/2
27	5MC	B1	2617	27	-	0/7/25/26	0/2/2/2
27	4AC	B1	1064	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1442	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	3037	27	-	0/11/29/30	0/2/2/2
27	5MC	B1	2875	27	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	5MC	A1	473	1	-	1/7/25/26	0/2/2/2
1	4AC	A1	1135	1	-	0/11/29/30	0/2/2/2
27	OMC	B1	501	27	-	1/9/27/28	0/2/2/2
27	5MU	B1	883	27	-	2/7/25/26	0/2/2/2
27	OMG	B1	55	27	-	0/5/27/28	0/3/3/3
27	4AC	B1	599	27	-	0/11/29/30	0/2/2/2
1	OMG	A1	152	1	-	1/5/27/28	0/3/3/3
1	5MC	A1	815	1	-	0/7/25/26	0/2/2/2
27	4AC	B1	1546	27	-	0/11/29/30	0/2/2/2
27	UR3	B1	2700	27	-	2/7/25/26	0/2/2/2
1	4AC	A1	1254	1	-	0/11/29/30	0/2/2/2
27	OMG	B1	2108	27	-	0/5/27/28	0/3/3/3
1	OMG	A1	228	1	-	1/5/27/28	0/3/3/3
1	5MC	A1	863	1	-	0/7/25/26	0/2/2/2
27	4AC	B1	1374	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	419	27	-	0/11/29/30	0/2/2/2
1	5MC	A1	1123	1	-	0/7/25/26	0/2/2/2
27	5MC	B1	2082	27	-	0/7/25/26	0/2/2/2
1	5MC	A1	1012	1	-	0/7/25/26	0/2/2/2
27	5MU	B1	888	27	-	5/7/25/26	0/2/2/2
27	OMG	B1	214	27	-	0/5/27/28	0/3/3/3
27	4AC	B1	580	27	-	0/11/29/30	0/2/2/2
1	5MC	A1	1486	1	-	6/7/25/26	0/2/2/2
1	OMG	A1	459	1	-	0/5/27/28	0/3/3/3
1	4AC	A1	444	1	-	0/11/29/30	0/2/2/2
1	OMU	A1	762	1	-	1/9/27/28	0/2/2/2
1	5MC	A1	523	1	-	0/7/25/26	0/2/2/2
27	5MC	B1	877	27	-	0/7/25/26	0/2/2/2
27	OMG	B1	530	27	-	2/5/27/28	0/3/3/3
27	4AC	B1	2749	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	641	27	-	1/11/29/30	0/2/2/2
27	OMG	B1	2659	27	-	0/5/27/28	0/3/3/3
27	A2M	B1	857	27	-	2/5/27/28	0/3/3/3
27	LHH	B1	1946	27	-	2/13/31/32	0/2/2/2
27	A2M	B1	2506	27	-	0/5/27/28	0/3/3/3
27	4AC	B1	80	27	-	2/11/29/30	0/2/2/2
27	4AC	B1	2809	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	106	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	953	27	-	0/11/29/30	0/2/2/2
1	4AC	A1	405	1	-	0/11/29/30	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	4AC	B1	2844	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	813	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	3006	27	-	0/11/29/30	0/2/2/2
28	4AC	B2	117	28	-	0/11/29/30	0/2/2/2
27	4AC	B1	2432	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	979	27	-	1/11/29/30	0/2/2/2
1	OMG	A1	861	1	-	1/5/27/28	0/3/3/3
1	LHH	A1	1029	1	-	3/13/31/32	0/2/2/2
27	LHH	B1	502	27	-	3/13/31/32	0/2/2/2
27	4AC	B1	1579	27	-	0/11/29/30	0/2/2/2
27	OMG	B1	808	27	-	0/5/27/28	0/3/3/3
27	4AC	B1	1061	27	-	0/11/29/30	0/2/2/2
27	OMU	B1	454	27	-	3/9/27/28	0/2/2/2
1	4AC	A1	87	1	-	0/11/29/30	0/2/2/2
1	OMG	A1	455	1	-	1/5/27/28	0/3/3/3
1	OMC	A1	1226	1	-	0/9/27/28	0/2/2/2
27	4AC	B1	652	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	2526	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	227	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	1107	27	-	0/11/29/30	0/2/2/2
27	5MC	B1	1344	27	-	0/7/25/26	0/2/2/2
27	OMG	B1	550	27	-	0/5/27/28	0/3/3/3
1	OMU	A1	1368	1	-	0/9/27/28	0/2/2/2
1	4AC	A1	1067	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	1505	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	2008	27	-	0/11/29/30	0/2/2/2
27	5MC	B1	252	27	-	0/7/25/26	0/2/2/2
27	OMG	B1	2757	27	-	0/5/27/28	0/3/3/3
1	5MC	A1	1013	1	-	0/7/25/26	0/2/2/2
27	5MC	B1	1977	27	-	0/7/25/26	0/2/2/2
1	OMG	A1	645	1	-	1/5/27/28	0/3/3/3
1	4AC	A1	636	1	-	0/11/29/30	0/2/2/2
27	4AC	B1	1293	27	-	0/11/29/30	0/2/2/2
27	4AC	B1	3011	27	-	0/11/29/30	0/2/2/2

All (2607) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	940	A2M	O4'-C1'	15.34	1.62	1.41
1	A1	819	A2M	O4'-C1'	15.32	1.62	1.41
27	B1	880	A2M	O4'-C1'	15.32	1.62	1.41
27	B1	506	A2M	O4'-C1'	15.27	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	361	A2M	O4'-C1'	15.17	1.62	1.41
27	B1	2506	A2M	O4'-C1'	15.11	1.62	1.41
27	B1	857	A2M	O4'-C1'	15.03	1.62	1.41
1	A1	481	7MG	C8-N9	9.61	1.51	1.46
1	A1	927	LV2	C4-N3	9.30	1.46	1.32
27	B1	2700	UR3	C2-N1	8.78	1.51	1.38
27	B1	2565	4SU	C4-N3	8.61	1.46	1.37
1	A1	756	4SU	C4-N3	8.60	1.46	1.37
27	B1	1983	5MC	C6-C5	7.94	1.47	1.34
1	A1	1123	5MC	C6-C5	7.91	1.47	1.34
27	B1	1977	5MC	C6-C5	7.91	1.47	1.34
27	B1	2453	5MC	C6-C5	7.91	1.47	1.34
1	A1	1012	5MC	C6-C5	7.90	1.47	1.34
1	A1	951	5MC	C6-C5	7.90	1.47	1.34
27	B1	2067	5MC	C6-C5	7.90	1.47	1.34
27	B1	2082	5MC	C6-C5	7.90	1.47	1.34
27	B1	2617	5MC	C6-C5	7.89	1.47	1.34
27	B1	2047	5MC	C6-C5	7.89	1.47	1.34
1	A1	1366	5MC	C6-C5	7.89	1.47	1.34
1	A1	762	OMU	C2-N3	7.88	1.52	1.38
1	A1	605	5MC	C6-C5	7.88	1.47	1.34
1	A1	681	5MC	C6-C5	7.88	1.47	1.34
27	B1	454	OMU	C2-N3	7.87	1.52	1.38
1	A1	1486	5MC	C6-C5	7.87	1.47	1.34
27	B1	97	5MC	C6-C5	7.87	1.47	1.34
27	B1	1966	5MC	C6-C5	7.87	1.47	1.34
1	A1	230	5MC	C6-C5	7.86	1.47	1.34
1	A1	523	5MC	C6-C5	7.86	1.47	1.34
1	A1	488	OMU	C2-N3	7.86	1.52	1.38
1	A1	17	5MC	C6-C5	7.86	1.47	1.34
1	A1	1013	5MC	C6-C5	7.86	1.47	1.34
1	A1	863	5MC	C6-C5	7.85	1.47	1.34
1	A1	425	OMU	C2-N3	7.85	1.52	1.38
1	A1	687	5MC	C6-C5	7.85	1.47	1.34
1	A1	273	5MC	C6-C5	7.85	1.47	1.34
1	A1	1368	OMU	C2-N3	7.85	1.52	1.38
1	A1	473	5MC	C6-C5	7.84	1.47	1.34
1	A1	1190	5MC	C6-C5	7.84	1.47	1.34
27	B1	2401	OMU	C2-N3	7.84	1.51	1.38
27	B1	1648	5MC	C6-C5	7.83	1.47	1.34
1	A1	1362	5MC	C6-C5	7.83	1.47	1.34
1	A1	777	5MC	C6-C5	7.83	1.47	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	1165	OMU	C2-N3	7.83	1.51	1.38
1	A1	815	5MC	C6-C5	7.83	1.47	1.34
27	B1	1344	5MC	C6-C5	7.82	1.47	1.34
1	A1	466	5MC	C6-C5	7.82	1.47	1.34
27	B1	2875	5MC	C6-C5	7.81	1.47	1.34
1	A1	1368	OMU	C2-N1	7.81	1.51	1.38
27	B1	2901	5MC	C6-C5	7.80	1.47	1.34
1	A1	481	7MG	C5-N7	7.80	1.44	1.35
1	A1	1110	OMU	C2-N3	7.80	1.51	1.38
27	B1	1981	OMU	C2-N3	7.79	1.51	1.38
1	A1	1484	5MC	C6-C5	7.79	1.47	1.34
27	B1	454	OMU	C2-N1	7.78	1.50	1.38
27	B1	2087	5MC	C6-C5	7.78	1.47	1.34
27	B1	1973	5MC	C6-C5	7.77	1.47	1.34
27	B1	336	5MC	C6-C5	7.77	1.47	1.34
27	B1	1488	OMU	C2-N3	7.76	1.51	1.38
1	A1	425	OMU	C2-N1	7.76	1.50	1.38
27	B1	2554	OMU	C2-N3	7.76	1.51	1.38
1	A1	775	OMU	C2-N3	7.76	1.51	1.38
27	B1	877	5MC	C6-C5	7.74	1.47	1.34
1	A1	8	OMU	C2-N3	7.72	1.51	1.38
27	B1	932	5MC	C6-C5	7.72	1.47	1.34
27	B1	926	OMU	C2-N3	7.72	1.51	1.38
27	B1	2668	OMU	C2-N3	7.72	1.51	1.38
27	B1	252	5MC	C6-C5	7.71	1.47	1.34
1	A1	1110	OMU	C2-N1	7.68	1.50	1.38
1	A1	775	OMU	C2-N1	7.60	1.50	1.38
1	A1	762	OMU	C2-N1	7.60	1.50	1.38
1	A1	756	4SU	C2-N1	7.58	1.50	1.38
1	A1	1165	OMU	C2-N1	7.56	1.50	1.38
27	B1	1981	OMU	C2-N1	7.56	1.50	1.38
27	B1	2401	OMU	C2-N1	7.55	1.50	1.38
1	A1	488	OMU	C2-N1	7.55	1.50	1.38
27	B1	2554	OMU	C2-N1	7.54	1.50	1.38
1	A1	8	OMU	C2-N1	7.52	1.50	1.38
27	B1	2668	OMU	C2-N1	7.50	1.50	1.38
27	B1	926	OMU	C2-N1	7.45	1.50	1.38
27	B1	1488	OMU	C2-N1	7.45	1.50	1.38
1	A1	1371	OMC	C2-N3	7.41	1.51	1.36
1	A1	761	OMC	C2-N3	7.40	1.51	1.36
27	B1	2735	OMC	C2-N3	7.37	1.51	1.36
27	B1	2428	OMC	C2-N3	7.36	1.51	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	501	OMC	C2-N3	7.36	1.51	1.36
27	B1	1286	4AC	C4-N3	7.36	1.45	1.32
1	A1	1194	OMC	C2-N3	7.36	1.51	1.36
1	A1	1226	OMC	C2-N3	7.36	1.51	1.36
1	A1	426	OMC	C2-N3	7.36	1.51	1.36
27	B1	2607	OMC	C2-N3	7.35	1.51	1.36
27	B1	2046	OMC	C2-N3	7.35	1.51	1.36
27	B1	1832	OMC	C2-N3	7.35	1.51	1.36
27	B1	2007	OMC	C2-N3	7.34	1.51	1.36
27	B1	2557	OMC	C2-N3	7.34	1.51	1.36
27	B1	47	OMC	C2-N3	7.33	1.51	1.36
1	A1	945	4AC	C4-N3	7.33	1.45	1.32
1	A1	117	OMC	C2-N3	7.33	1.51	1.36
27	B1	813	4AC	C4-N3	7.31	1.45	1.32
27	B1	904	OMC	C2-N3	7.31	1.51	1.36
27	B1	1914	OMC	C2-N3	7.31	1.51	1.36
27	B1	2059	OMC	C2-N3	7.30	1.51	1.36
27	B1	2808	OMC	C2-N3	7.29	1.51	1.36
1	A1	427	4AC	C4-N3	7.29	1.45	1.32
27	B1	1489	OMC	C2-N3	7.28	1.51	1.36
1	A1	1364	OMC	C2-N3	7.27	1.51	1.36
1	A1	834	OMC	C2-N3	7.26	1.51	1.36
27	B1	2565	4SU	C2-N1	7.23	1.50	1.38
27	B1	106	4AC	C4-N3	7.21	1.45	1.32
27	B1	1639	4AC	C4-N3	7.17	1.45	1.32
27	B1	979	4AC	C4-N3	7.16	1.45	1.32
27	B1	271	4AC	C4-N3	7.15	1.45	1.32
27	B1	1099	OMC	C2-N3	7.15	1.50	1.36
1	A1	1016	4AC	C4-N3	7.15	1.45	1.32
1	A1	827	4AC	C4-N3	7.14	1.45	1.32
27	B1	142	4AC	C4-N3	7.14	1.45	1.32
27	B1	599	4AC	C4-N3	7.14	1.45	1.32
27	B1	1743	4AC	C4-N3	7.14	1.45	1.32
1	A1	141	4AC	C4-N3	7.14	1.45	1.32
28	B2	32	4AC	C4-N3	7.13	1.45	1.32
1	A1	1221	4AC	C4-N3	7.12	1.45	1.32
1	A1	216	4AC	C4-N3	7.12	1.45	1.32
1	A1	534	4AC	C4-N3	7.12	1.45	1.32
1	A1	1135	4AC	C4-N3	7.12	1.45	1.32
27	B1	1264	4AC	C4-N3	7.11	1.45	1.32
1	A1	1227	4AC	C4-N3	7.11	1.45	1.32
1	A1	444	4AC	C4-N3	7.10	1.45	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2020	4AC	C4-N3	7.10	1.45	1.32
27	B1	2454	4AC	C4-N3	7.10	1.45	1.32
27	B1	3020	4AC	C4-N3	7.10	1.45	1.32
27	B1	344	4AC	C4-N3	7.10	1.45	1.32
1	A1	614	4AC	C4-N3	7.10	1.45	1.32
1	A1	1067	4AC	C4-N3	7.10	1.45	1.32
27	B1	732	4AC	C4-N3	7.10	1.45	1.32
1	A1	467	4AC	C4-N3	7.09	1.45	1.32
1	A1	578	4AC	C4-N3	7.09	1.45	1.32
1	A1	624	4AC	C4-N3	7.09	1.45	1.32
27	B1	1128	4AC	C4-N3	7.09	1.45	1.32
1	A1	739	4AC	C4-N3	7.08	1.45	1.32
27	B1	1061	4AC	C4-N3	7.08	1.45	1.32
1	A1	546	4AC	C4-N3	7.08	1.45	1.32
27	B1	786	4AC	C4-N3	7.08	1.45	1.32
27	B1	1374	4AC	C4-N3	7.08	1.45	1.32
27	B1	1579	4AC	C4-N3	7.08	1.45	1.32
28	B2	120	4AC	C4-N3	7.08	1.45	1.32
27	B1	688	4AC	C4-N3	7.07	1.45	1.32
27	B1	2429	4AC	C4-N3	7.07	1.45	1.32
1	A1	87	4AC	C4-N3	7.07	1.45	1.32
27	B1	580	4AC	C4-N3	7.07	1.45	1.32
1	A1	816	4AC	C4-N3	7.07	1.45	1.32
1	A1	1288	4AC	C4-N3	7.06	1.45	1.32
27	B1	1313	4AC	C4-N3	7.06	1.45	1.32
27	B1	609	4AC	C4-N3	7.06	1.45	1.32
27	B1	1150	4AC	C4-N3	7.06	1.45	1.32
1	A1	5	4AC	C4-N3	7.06	1.45	1.32
1	A1	220	4AC	C4-N3	7.06	1.45	1.32
1	A1	231	4AC	C4-N3	7.06	1.45	1.32
1	A1	719	4AC	C4-N3	7.05	1.45	1.32
1	A1	367	4AC	C4-N3	7.05	1.45	1.32
1	A1	274	4AC	C4-N3	7.05	1.45	1.32
27	B1	1751	4AC	C4-N3	7.05	1.45	1.32
27	B1	3037	4AC	C4-N3	7.05	1.45	1.32
1	A1	382	4AC	C4-N3	7.05	1.45	1.32
27	B1	1178	4AC	C4-N3	7.05	1.45	1.32
28	B2	117	4AC	C4-N3	7.04	1.45	1.32
27	B1	2492	4AC	C4-N3	7.04	1.45	1.32
27	B1	3023	4AC	C4-N3	7.04	1.45	1.32
1	A1	1254	4AC	C4-N3	7.04	1.45	1.32
27	B1	641	4AC	C4-N3	7.04	1.45	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	540	4AC	C4-N3	7.04	1.45	1.32
27	B1	2850	4AC	C4-N3	7.03	1.45	1.32
27	B1	3006	4AC	C4-N3	7.03	1.45	1.32
27	B1	2171	4AC	C4-N3	7.03	1.45	1.32
27	B1	2602	4AC	C4-N3	7.03	1.45	1.32
28	B2	108	4AC	C4-N3	7.03	1.45	1.32
27	B1	1706	4AC	C4-N3	7.03	1.45	1.32
27	B1	2888	4AC	C4-N3	7.03	1.45	1.32
27	B1	2821	4AC	C4-N3	7.03	1.45	1.32
1	A1	41	4AC	C4-N3	7.03	1.45	1.32
27	B1	162	4AC	C4-N3	7.03	1.45	1.32
27	B1	337	4AC	C4-N3	7.03	1.45	1.32
27	B1	1293	4AC	C4-N3	7.03	1.45	1.32
27	B1	1664	4AC	C4-N3	7.03	1.45	1.32
1	A1	405	4AC	C4-N3	7.03	1.45	1.32
27	B1	80	4AC	C4-N3	7.02	1.45	1.32
27	B1	2083	4AC	C4-N3	7.02	1.45	1.32
27	B1	2876	4AC	C4-N3	7.02	1.45	1.32
1	A1	836	4AC	C4-N3	7.02	1.45	1.32
27	B1	2792	4AC	C4-N3	7.02	1.45	1.32
27	B1	2432	4AC	C4-N3	7.02	1.45	1.32
1	A1	1314	4AC	C4-N3	7.02	1.45	1.32
27	B1	2469	4AC	C4-N3	7.01	1.45	1.32
1	A1	291	4AC	C4-N3	7.01	1.45	1.32
27	B1	1885	4AC	C4-N3	7.01	1.45	1.32
27	B1	1301	4AC	C4-N3	7.01	1.45	1.32
1	A1	706	4AC	C4-N3	7.01	1.45	1.32
27	B1	1762	4AC	C4-N3	7.01	1.45	1.32
27	B1	1322	4AC	C4-N3	7.00	1.45	1.32
27	B1	1383	4AC	C4-N3	7.00	1.45	1.32
27	B1	896	4AC	C4-N3	7.00	1.45	1.32
27	B1	434	4AC	C4-N3	7.00	1.45	1.32
27	B1	2902	4AC	C4-N3	7.00	1.45	1.32
27	B1	1846	4AC	C4-N3	7.00	1.45	1.32
27	B1	1501	4AC	C4-N3	7.00	1.45	1.32
1	A1	1181	4AC	C4-N3	7.00	1.45	1.32
27	B1	1911	4AC	C4-N3	7.00	1.45	1.32
27	B1	3011	4AC	C4-N3	6.99	1.45	1.32
27	B1	715	4AC	C4-N3	6.99	1.45	1.32
1	A1	636	4AC	C4-N3	6.99	1.45	1.32
27	B1	227	4AC	C4-N3	6.99	1.45	1.32
27	B1	1757	4AC	C4-N3	6.99	1.45	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	499	4AC	C4-N3	6.99	1.45	1.32
27	B1	1052	4AC	C4-N3	6.99	1.45	1.32
27	B1	866	4AC	C4-N3	6.99	1.45	1.32
27	B1	130	4AC	C4-N3	6.99	1.45	1.32
27	B1	2008	4AC	C4-N3	6.99	1.45	1.32
1	A1	307	4AC	C4-N3	6.98	1.45	1.32
27	B1	360	4AC	C4-N3	6.98	1.45	1.32
27	B1	953	4AC	C4-N3	6.98	1.45	1.32
27	B1	1100	4AC	C4-N3	6.98	1.45	1.32
27	B1	1442	4AC	C4-N3	6.98	1.45	1.32
27	B1	1551	4AC	C4-N3	6.98	1.45	1.32
27	B1	1505	4AC	C4-N3	6.98	1.45	1.32
27	B1	2213	4AC	C4-N3	6.98	1.45	1.32
27	B1	378	4AC	C4-N3	6.98	1.45	1.32
27	B1	1064	4AC	C4-N3	6.98	1.45	1.32
27	B1	2700	UR3	C6-C5	6.98	1.51	1.35
27	B1	1608	4AC	C4-N3	6.98	1.45	1.32
27	B1	1818	4AC	C4-N3	6.98	1.45	1.32
27	B1	1345	4AC	C4-N3	6.98	1.45	1.32
27	B1	1546	4AC	C4-N3	6.98	1.45	1.32
27	B1	950	4AC	C4-N3	6.97	1.44	1.32
27	B1	1107	4AC	C4-N3	6.97	1.44	1.32
27	B1	23	4AC	C4-N3	6.97	1.44	1.32
28	B2	90	4AC	C4-N3	6.97	1.44	1.32
27	B1	419	4AC	C4-N3	6.96	1.44	1.32
27	B1	1067	4AC	C4-N3	6.96	1.44	1.32
27	B1	1435	4AC	C4-N3	6.96	1.44	1.32
27	B1	807	4AC	C4-N3	6.96	1.44	1.32
27	B1	827	4AC	C4-N3	6.96	1.44	1.32
1	A1	1467	4AC	C4-N3	6.96	1.44	1.32
27	B1	2749	4AC	C4-N3	6.95	1.44	1.32
27	B1	200	4AC	C4-N3	6.95	1.44	1.32
27	B1	98	4AC	C4-N3	6.95	1.44	1.32
27	B1	1290	4AC	C4-N3	6.95	1.44	1.32
27	B1	1439	4AC	C4-N3	6.94	1.44	1.32
27	B1	1822	4AC	C4-N3	6.93	1.44	1.32
27	B1	243	4AC	C4-N3	6.93	1.44	1.32
27	B1	1769	4AC	C4-N3	6.92	1.44	1.32
27	B1	721	4AC	C4-N3	6.92	1.44	1.32
27	B1	2526	4AC	C4-N3	6.92	1.44	1.32
27	B1	2844	4AC	C4-N3	6.92	1.44	1.32
27	B1	933	4AC	C4-N3	6.91	1.44	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1649	4AC	C4-N3	6.90	1.44	1.32
27	B1	652	4AC	C4-N3	6.90	1.44	1.32
27	B1	485	4AC	C4-N3	6.90	1.44	1.32
27	B1	1478	4AC	C4-N3	6.89	1.44	1.32
27	B1	116	4AC	C4-N3	6.89	1.44	1.32
27	B1	2809	4AC	C4-N3	6.88	1.44	1.32
27	B1	2133	4AC	C4-N3	6.88	1.44	1.32
1	A1	856	4AC	C4-N3	6.87	1.44	1.32
1	A1	839	4AC	C4-N3	6.86	1.44	1.32
27	B1	2379	4AC	C4-N3	6.83	1.44	1.32
27	B1	48	4AC	C4-N3	6.82	1.44	1.32
27	B1	2113	4AC	C4-N3	6.81	1.44	1.32
27	B1	1967	4AC	C4-N3	6.79	1.44	1.32
27	B1	19	4AC	C4-N3	6.78	1.44	1.32
27	B1	2565	4SU	C2-N3	6.71	1.49	1.38
1	A1	756	4SU	C2-N3	6.68	1.49	1.38
27	B1	2046	OMC	C6-C5	6.63	1.50	1.35
27	B1	1914	OMC	C6-C5	6.60	1.50	1.35
1	A1	1371	OMC	C6-C5	6.60	1.50	1.35
27	B1	2607	OMC	C6-C5	6.60	1.50	1.35
27	B1	2428	OMC	C6-C5	6.59	1.50	1.35
1	A1	761	OMC	C6-C5	6.57	1.50	1.35
27	B1	1832	OMC	C6-C5	6.57	1.50	1.35
1	A1	834	OMC	C6-C5	6.57	1.50	1.35
27	B1	2059	OMC	C6-C5	6.57	1.50	1.35
1	A1	1226	OMC	C6-C5	6.56	1.50	1.35
1	A1	117	OMC	C6-C5	6.56	1.50	1.35
1	A1	426	OMC	C6-C5	6.56	1.50	1.35
1	A1	1194	OMC	C6-C5	6.56	1.50	1.35
27	B1	2808	OMC	C6-C5	6.55	1.50	1.35
27	B1	501	OMC	C6-C5	6.55	1.50	1.35
27	B1	2735	OMC	C6-C5	6.54	1.50	1.35
1	A1	1364	OMC	C6-C5	6.54	1.50	1.35
27	B1	904	OMC	C6-C5	6.54	1.50	1.35
27	B1	1489	OMC	C6-C5	6.53	1.50	1.35
27	B1	2007	OMC	C6-C5	6.53	1.50	1.35
27	B1	47	OMC	C6-C5	6.53	1.50	1.35
27	B1	2557	OMC	C6-C5	6.52	1.50	1.35
27	B1	1099	OMC	C6-C5	6.51	1.50	1.35
27	B1	1286	4AC	C2-N3	6.50	1.49	1.36
27	B1	2506	A2M	O4'-C4'	-6.49	1.30	1.45
1	A1	945	4AC	C2-N3	6.44	1.49	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	813	4AC	C2-N3	6.42	1.49	1.36
1	A1	856	4AC	C6-C5	6.40	1.49	1.35
1	A1	361	A2M	O4'-C4'	-6.38	1.30	1.45
27	B1	880	A2M	O4'-C4'	-6.37	1.30	1.45
1	A1	636	4AC	C6-C5	6.37	1.49	1.35
27	B1	2379	4AC	C6-C5	6.36	1.49	1.35
27	B1	106	4AC	C2-N3	6.36	1.49	1.36
1	A1	839	4AC	C6-C5	6.35	1.49	1.35
27	B1	19	4AC	C6-C5	6.35	1.49	1.35
1	A1	427	4AC	C2-N3	6.34	1.49	1.36
27	B1	1478	4AC	C6-C5	6.33	1.49	1.35
27	B1	652	4AC	C6-C5	6.33	1.49	1.35
27	B1	48	4AC	C6-C5	6.33	1.49	1.35
27	B1	1885	4AC	C6-C5	6.32	1.49	1.35
27	B1	580	4AC	C6-C5	6.32	1.49	1.35
27	B1	130	4AC	C6-C5	6.32	1.49	1.35
1	A1	216	4AC	C6-C5	6.32	1.49	1.35
1	A1	307	4AC	C6-C5	6.32	1.49	1.35
27	B1	1551	4AC	C6-C5	6.31	1.49	1.35
27	B1	940	A2M	O4'-C4'	-6.31	1.30	1.45
1	A1	775	OMU	C6-C5	6.31	1.49	1.35
27	B1	1608	4AC	C6-C5	6.31	1.49	1.35
27	B1	2821	4AC	C6-C5	6.31	1.49	1.35
1	A1	1368	OMU	C6-C5	6.31	1.49	1.35
27	B1	1178	4AC	C6-C5	6.31	1.49	1.35
1	A1	220	4AC	C6-C5	6.31	1.49	1.35
1	A1	1227	4AC	C6-C5	6.31	1.49	1.35
27	B1	2113	4AC	C6-C5	6.31	1.49	1.35
27	B1	1313	4AC	C6-C5	6.31	1.49	1.35
28	B2	90	4AC	C6-C5	6.30	1.49	1.35
1	A1	8	OMU	C6-C5	6.30	1.49	1.35
1	A1	41	4AC	C6-C5	6.30	1.49	1.35
27	B1	896	4AC	C6-C5	6.30	1.49	1.35
27	B1	419	4AC	C6-C5	6.30	1.49	1.35
27	B1	1822	4AC	C6-C5	6.30	1.49	1.35
27	B1	2008	4AC	C6-C5	6.30	1.49	1.35
1	A1	1110	OMU	C6-C5	6.30	1.49	1.35
27	B1	1067	4AC	C6-C5	6.30	1.49	1.35
27	B1	2526	4AC	C6-C5	6.30	1.49	1.35
27	B1	2809	4AC	C6-C5	6.29	1.49	1.35
27	B1	227	4AC	C6-C5	6.29	1.49	1.35
27	B1	506	A2M	O4'-C4'	-6.29	1.30	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2213	4AC	C6-C5	6.29	1.49	1.35
28	B2	117	4AC	C6-C5	6.29	1.49	1.35
1	A1	578	4AC	C6-C5	6.29	1.49	1.35
27	B1	485	4AC	C6-C5	6.29	1.49	1.35
1	A1	488	OMU	C6-C5	6.29	1.49	1.35
27	B1	2492	4AC	C6-C5	6.29	1.49	1.35
27	B1	807	4AC	C6-C5	6.29	1.49	1.35
1	A1	1016	4AC	C6-C5	6.29	1.49	1.35
27	B1	1706	4AC	C6-C5	6.29	1.49	1.35
27	B1	1967	4AC	C6-C5	6.29	1.49	1.35
1	A1	467	4AC	C6-C5	6.29	1.49	1.35
27	B1	2429	4AC	C6-C5	6.28	1.49	1.35
1	A1	274	4AC	C6-C5	6.28	1.49	1.35
1	A1	5	4AC	C6-C5	6.28	1.49	1.35
1	A1	382	4AC	C6-C5	6.28	1.49	1.35
27	B1	344	4AC	C6-C5	6.28	1.49	1.35
27	B1	1505	4AC	C6-C5	6.28	1.49	1.35
27	B1	1579	4AC	C6-C5	6.28	1.49	1.35
27	B1	142	4AC	C6-C5	6.28	1.49	1.35
1	A1	819	A2M	O4'-C4'	-6.28	1.31	1.45
27	B1	200	4AC	C6-C5	6.28	1.49	1.35
27	B1	715	4AC	C6-C5	6.28	1.49	1.35
27	B1	1107	4AC	C6-C5	6.28	1.49	1.35
1	A1	739	4AC	C6-C5	6.28	1.49	1.35
27	B1	243	4AC	C6-C5	6.28	1.49	1.35
1	A1	1254	4AC	C6-C5	6.28	1.49	1.35
27	B1	1639	4AC	C2-N3	6.28	1.49	1.36
27	B1	1293	4AC	C6-C5	6.27	1.49	1.35
27	B1	3006	4AC	C6-C5	6.27	1.49	1.35
27	B1	2454	4AC	C6-C5	6.27	1.49	1.35
1	A1	141	4AC	C6-C5	6.27	1.49	1.35
1	A1	1467	4AC	C6-C5	6.27	1.49	1.35
1	A1	499	4AC	C6-C5	6.27	1.49	1.35
1	A1	1067	4AC	C6-C5	6.27	1.49	1.35
27	B1	2432	4AC	C6-C5	6.27	1.49	1.35
27	B1	1100	4AC	C6-C5	6.27	1.49	1.35
1	A1	405	4AC	C6-C5	6.27	1.49	1.35
1	A1	816	4AC	C6-C5	6.27	1.49	1.35
27	B1	378	4AC	C6-C5	6.27	1.49	1.35
1	A1	706	4AC	C6-C5	6.27	1.49	1.35
1	A1	1135	4AC	C6-C5	6.27	1.49	1.35
27	B1	1442	4AC	C6-C5	6.27	1.49	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	546	4AC	C6-C5	6.27	1.49	1.35
27	B1	116	4AC	C6-C5	6.27	1.49	1.35
1	A1	291	4AC	C6-C5	6.27	1.49	1.35
1	A1	534	4AC	C6-C5	6.27	1.49	1.35
27	B1	454	OMU	C6-C5	6.27	1.49	1.35
27	B1	1751	4AC	C6-C5	6.26	1.49	1.35
27	B1	2902	4AC	C6-C5	6.26	1.49	1.35
1	A1	836	4AC	C6-C5	6.26	1.49	1.35
27	B1	98	4AC	C6-C5	6.26	1.49	1.35
1	A1	425	OMU	C6-C5	6.26	1.49	1.35
27	B1	2133	4AC	C6-C5	6.26	1.49	1.35
27	B1	337	4AC	C6-C5	6.26	1.49	1.35
28	B2	32	4AC	C6-C5	6.26	1.49	1.35
27	B1	1769	4AC	C6-C5	6.26	1.49	1.35
27	B1	360	4AC	C6-C5	6.26	1.49	1.35
27	B1	2401	OMU	C6-C5	6.26	1.49	1.35
27	B1	721	4AC	C6-C5	6.26	1.49	1.35
27	B1	953	4AC	C6-C5	6.26	1.49	1.35
27	B1	2020	4AC	C6-C5	6.26	1.49	1.35
1	A1	624	4AC	C6-C5	6.26	1.49	1.35
27	B1	1649	4AC	C6-C5	6.26	1.49	1.35
1	A1	1165	OMU	C6-C5	6.26	1.49	1.35
27	B1	2554	OMU	C6-C5	6.26	1.49	1.35
27	B1	2876	4AC	C6-C5	6.25	1.49	1.35
27	B1	866	4AC	C6-C5	6.25	1.49	1.35
1	A1	1288	4AC	C6-C5	6.25	1.49	1.35
1	A1	87	4AC	C6-C5	6.25	1.49	1.35
27	B1	2749	4AC	C6-C5	6.25	1.49	1.35
1	A1	231	4AC	C6-C5	6.25	1.49	1.35
1	A1	827	4AC	C6-C5	6.25	1.49	1.35
27	B1	1846	4AC	C6-C5	6.25	1.49	1.35
27	B1	1290	4AC	C6-C5	6.25	1.49	1.35
27	B1	2469	4AC	C6-C5	6.25	1.49	1.35
1	A1	540	4AC	C6-C5	6.25	1.49	1.35
27	B1	786	4AC	C6-C5	6.24	1.49	1.35
27	B1	1322	4AC	C6-C5	6.24	1.49	1.35
27	B1	1383	4AC	C6-C5	6.24	1.49	1.35
28	B2	120	4AC	C6-C5	6.24	1.49	1.35
27	B1	1743	4AC	C6-C5	6.24	1.49	1.35
27	B1	609	4AC	C6-C5	6.24	1.49	1.35
27	B1	1818	4AC	C6-C5	6.24	1.49	1.35
27	B1	2668	OMU	C6-C5	6.24	1.49	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	23	4AC	C6-C5	6.24	1.49	1.35
27	B1	688	4AC	C6-C5	6.24	1.49	1.35
27	B1	2083	4AC	C6-C5	6.24	1.49	1.35
27	B1	1911	4AC	C6-C5	6.23	1.49	1.35
27	B1	979	4AC	C2-N3	6.23	1.49	1.36
27	B1	641	4AC	C6-C5	6.23	1.49	1.35
27	B1	1488	OMU	C6-C5	6.23	1.49	1.35
27	B1	1128	4AC	C2-N3	6.23	1.49	1.36
27	B1	926	OMU	C6-C5	6.23	1.49	1.35
27	B1	1064	4AC	C6-C5	6.23	1.49	1.35
27	B1	1061	4AC	C6-C5	6.23	1.49	1.35
27	B1	2850	4AC	C6-C5	6.23	1.49	1.35
1	A1	1135	4AC	C2-N3	6.23	1.49	1.36
27	B1	1435	4AC	C6-C5	6.23	1.49	1.35
27	B1	162	4AC	C6-C5	6.23	1.49	1.35
27	B1	3020	4AC	C6-C5	6.22	1.49	1.35
27	B1	1546	4AC	C6-C5	6.22	1.49	1.35
27	B1	2844	4AC	C6-C5	6.22	1.49	1.35
27	B1	1345	4AC	C6-C5	6.22	1.49	1.35
27	B1	1439	4AC	C6-C5	6.22	1.49	1.35
27	B1	1501	4AC	C6-C5	6.22	1.49	1.35
27	B1	2792	4AC	C6-C5	6.22	1.49	1.35
27	B1	3037	4AC	C2-N3	6.22	1.49	1.36
27	B1	80	4AC	C6-C5	6.22	1.49	1.35
27	B1	857	A2M	O4'-C4'	-6.22	1.31	1.45
27	B1	599	4AC	C6-C5	6.22	1.49	1.35
1	A1	719	4AC	C6-C5	6.22	1.49	1.35
1	A1	1221	4AC	C6-C5	6.21	1.49	1.35
1	A1	762	OMU	C6-C5	6.21	1.49	1.35
1	A1	614	4AC	C6-C5	6.21	1.49	1.35
27	B1	3011	4AC	C6-C5	6.21	1.49	1.35
27	B1	732	4AC	C6-C5	6.21	1.49	1.35
27	B1	1981	OMU	C6-C5	6.21	1.49	1.35
27	B1	2602	4AC	C6-C5	6.21	1.49	1.35
27	B1	599	4AC	C2-N3	6.21	1.48	1.36
27	B1	950	4AC	C6-C5	6.21	1.49	1.35
27	B1	2888	4AC	C6-C5	6.21	1.49	1.35
1	A1	1221	4AC	C2-N3	6.20	1.48	1.36
27	B1	1374	4AC	C6-C5	6.20	1.49	1.35
27	B1	2171	4AC	C6-C5	6.20	1.49	1.35
1	A1	756	4SU	C6-C5	6.20	1.49	1.35
1	A1	367	4AC	C6-C5	6.20	1.49	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2565	4SU	C6-C5	6.20	1.49	1.35
28	B2	108	4AC	C6-C5	6.20	1.49	1.35
27	B1	271	4AC	C2-N3	6.20	1.48	1.36
27	B1	1301	4AC	C6-C5	6.19	1.49	1.35
1	A1	1227	4AC	C2-N3	6.19	1.48	1.36
1	A1	87	4AC	C2-N3	6.19	1.48	1.36
1	A1	141	4AC	C2-N3	6.18	1.48	1.36
27	B1	142	4AC	C2-N3	6.18	1.48	1.36
27	B1	1264	4AC	C6-C5	6.18	1.49	1.35
27	B1	1743	4AC	C2-N3	6.18	1.48	1.36
27	B1	271	4AC	C6-C5	6.18	1.49	1.35
28	B2	120	4AC	C2-N3	6.18	1.48	1.36
27	B1	3037	4AC	C6-C5	6.18	1.49	1.35
27	B1	344	4AC	C2-N3	6.17	1.48	1.36
1	A1	1314	4AC	C6-C5	6.17	1.49	1.35
27	B1	827	4AC	C6-C5	6.17	1.49	1.35
27	B1	2492	4AC	C2-N3	6.17	1.48	1.36
27	B1	1264	4AC	C2-N3	6.17	1.48	1.36
1	A1	534	4AC	C2-N3	6.17	1.48	1.36
27	B1	1706	4AC	C2-N3	6.17	1.48	1.36
28	B2	32	4AC	C2-N3	6.17	1.48	1.36
1	A1	1016	4AC	C2-N3	6.17	1.48	1.36
27	B1	3023	4AC	C6-C5	6.16	1.49	1.35
1	A1	216	4AC	C2-N3	6.16	1.48	1.36
1	A1	220	4AC	C2-N3	6.16	1.48	1.36
1	A1	739	4AC	C2-N3	6.16	1.48	1.36
27	B1	1374	4AC	C2-N3	6.16	1.48	1.36
28	B2	108	4AC	C2-N3	6.15	1.48	1.36
27	B1	2429	4AC	C2-N3	6.15	1.48	1.36
27	B1	1313	4AC	C2-N3	6.15	1.48	1.36
27	B1	1322	4AC	C2-N3	6.15	1.48	1.36
27	B1	1751	4AC	C2-N3	6.15	1.48	1.36
1	A1	382	4AC	C2-N3	6.15	1.48	1.36
1	A1	444	4AC	C2-N3	6.15	1.48	1.36
1	A1	540	4AC	C2-N3	6.15	1.48	1.36
27	B1	434	4AC	C6-C5	6.15	1.49	1.35
1	A1	1067	4AC	C2-N3	6.15	1.48	1.36
27	B1	1052	4AC	C6-C5	6.14	1.49	1.35
27	B1	1128	4AC	C6-C5	6.14	1.49	1.35
1	A1	444	4AC	C6-C5	6.14	1.49	1.35
1	A1	405	4AC	C2-N3	6.14	1.48	1.36
27	B1	732	4AC	C2-N3	6.14	1.48	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1757	4AC	C6-C5	6.14	1.49	1.35
1	A1	1254	4AC	C2-N3	6.14	1.48	1.36
27	B1	1150	4AC	C2-N3	6.14	1.48	1.36
27	B1	2020	4AC	C2-N3	6.14	1.48	1.36
1	A1	827	4AC	C2-N3	6.14	1.48	1.36
27	B1	1579	4AC	C2-N3	6.13	1.48	1.36
1	A1	5	4AC	C2-N3	6.13	1.48	1.36
1	A1	467	4AC	C2-N3	6.13	1.48	1.36
27	B1	1608	4AC	C2-N3	6.13	1.48	1.36
1	A1	636	4AC	C2-N3	6.13	1.48	1.36
27	B1	2454	4AC	C2-N3	6.13	1.48	1.36
27	B1	3020	4AC	C2-N3	6.13	1.48	1.36
27	B1	1757	4AC	C2-N3	6.13	1.48	1.36
27	B1	2008	4AC	C2-N3	6.13	1.48	1.36
27	B1	162	4AC	C2-N3	6.13	1.48	1.36
27	B1	3006	4AC	C2-N3	6.13	1.48	1.36
1	A1	546	4AC	C2-N3	6.12	1.48	1.36
27	B1	1762	4AC	C6-C5	6.12	1.49	1.35
27	B1	609	4AC	C2-N3	6.12	1.48	1.36
27	B1	1061	4AC	C2-N3	6.12	1.48	1.36
27	B1	641	4AC	C2-N3	6.12	1.48	1.36
27	B1	1664	4AC	C6-C5	6.12	1.49	1.35
27	B1	1383	4AC	C2-N3	6.12	1.48	1.36
27	B1	2432	4AC	C2-N3	6.12	1.48	1.36
1	A1	231	4AC	C2-N3	6.11	1.48	1.36
1	A1	614	4AC	C2-N3	6.11	1.48	1.36
27	B1	2083	4AC	C2-N3	6.11	1.48	1.36
1	A1	499	4AC	C2-N3	6.11	1.48	1.36
1	A1	624	4AC	C2-N3	6.11	1.48	1.36
1	A1	1181	4AC	C6-C5	6.11	1.49	1.35
27	B1	1067	4AC	C2-N3	6.11	1.48	1.36
27	B1	688	4AC	C2-N3	6.10	1.48	1.36
1	A1	836	4AC	C2-N3	6.10	1.48	1.36
27	B1	3023	4AC	C2-N3	6.10	1.48	1.36
27	B1	3011	4AC	C2-N3	6.10	1.48	1.36
1	A1	578	4AC	C2-N3	6.10	1.48	1.36
28	B2	117	4AC	C2-N3	6.10	1.48	1.36
1	A1	719	4AC	C2-N3	6.10	1.48	1.36
27	B1	786	4AC	C2-N3	6.09	1.48	1.36
27	B1	2876	4AC	C2-N3	6.09	1.48	1.36
27	B1	2213	4AC	C2-N3	6.09	1.48	1.36
27	B1	2792	4AC	C2-N3	6.09	1.48	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	816	4AC	C2-N3	6.09	1.48	1.36
1	A1	427	4AC	C6-C5	6.09	1.49	1.35
1	A1	706	4AC	C2-N3	6.09	1.48	1.36
27	B1	2602	4AC	C2-N3	6.09	1.48	1.36
27	B1	827	4AC	C2-N3	6.09	1.48	1.36
27	B1	1846	4AC	C2-N3	6.09	1.48	1.36
27	B1	2749	4AC	C2-N3	6.08	1.48	1.36
27	B1	1885	4AC	C2-N3	6.08	1.48	1.36
27	B1	2850	4AC	C2-N3	6.08	1.48	1.36
27	B1	360	4AC	C2-N3	6.08	1.48	1.36
27	B1	2821	4AC	C2-N3	6.08	1.48	1.36
27	B1	1064	4AC	C2-N3	6.08	1.48	1.36
27	B1	2844	4AC	C2-N3	6.08	1.48	1.36
1	A1	274	4AC	C2-N3	6.08	1.48	1.36
27	B1	434	4AC	C2-N3	6.08	1.48	1.36
27	B1	580	4AC	C2-N3	6.08	1.48	1.36
27	B1	1178	4AC	C2-N3	6.08	1.48	1.36
27	B1	979	4AC	C6-C5	6.08	1.49	1.35
27	B1	1639	4AC	C6-C5	6.08	1.49	1.35
27	B1	950	4AC	C2-N3	6.08	1.48	1.36
1	A1	1288	4AC	C2-N3	6.08	1.48	1.36
1	A1	307	4AC	C2-N3	6.07	1.48	1.36
27	B1	243	4AC	C2-N3	6.07	1.48	1.36
27	B1	2902	4AC	C2-N3	6.07	1.48	1.36
27	B1	378	4AC	C2-N3	6.07	1.48	1.36
1	A1	41	4AC	C2-N3	6.06	1.48	1.36
27	B1	1505	4AC	C2-N3	6.06	1.48	1.36
27	B1	2888	4AC	C2-N3	6.06	1.48	1.36
27	B1	1052	4AC	C2-N3	6.06	1.48	1.36
27	B1	419	4AC	C2-N3	6.06	1.48	1.36
27	B1	1911	4AC	C2-N3	6.06	1.48	1.36
27	B1	106	4AC	C6-C5	6.06	1.49	1.35
27	B1	1818	4AC	C2-N3	6.06	1.48	1.36
1	A1	291	4AC	C2-N3	6.06	1.48	1.36
27	B1	1435	4AC	C2-N3	6.06	1.48	1.36
27	B1	2171	4AC	C2-N3	6.06	1.48	1.36
1	A1	367	4AC	C2-N3	6.06	1.48	1.36
27	B1	23	4AC	C2-N3	6.06	1.48	1.36
27	B1	80	4AC	C2-N3	6.06	1.48	1.36
1	A1	1181	4AC	C2-N3	6.05	1.48	1.36
27	B1	1439	4AC	C2-N3	6.05	1.48	1.36
27	B1	1822	4AC	C2-N3	6.05	1.48	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	807	4AC	C2-N3	6.05	1.48	1.36
27	B1	1345	4AC	C2-N3	6.05	1.48	1.36
27	B1	1501	4AC	C2-N3	6.05	1.48	1.36
28	B2	90	4AC	C2-N3	6.05	1.48	1.36
27	B1	933	4AC	C6-C5	6.05	1.49	1.35
27	B1	1293	4AC	C2-N3	6.05	1.48	1.36
27	B1	2469	4AC	C2-N3	6.05	1.48	1.36
27	B1	1100	4AC	C2-N3	6.04	1.48	1.36
27	B1	1290	4AC	C2-N3	6.04	1.48	1.36
27	B1	98	4AC	C2-N3	6.04	1.48	1.36
27	B1	337	4AC	C2-N3	6.04	1.48	1.36
1	A1	945	4AC	C6-C5	6.04	1.49	1.35
1	A1	1467	4AC	C2-N3	6.04	1.48	1.36
27	B1	721	4AC	C2-N3	6.04	1.48	1.36
27	B1	2526	4AC	C2-N3	6.04	1.48	1.36
27	B1	1551	4AC	C2-N3	6.03	1.48	1.36
27	B1	200	4AC	C2-N3	6.03	1.48	1.36
1	A1	1314	4AC	C2-N3	6.03	1.48	1.36
27	B1	227	4AC	C2-N3	6.02	1.48	1.36
27	B1	130	4AC	C2-N3	6.02	1.48	1.36
27	B1	1442	4AC	C2-N3	6.01	1.48	1.36
27	B1	953	4AC	C2-N3	6.01	1.48	1.36
27	B1	1546	4AC	C2-N3	6.01	1.48	1.36
27	B1	715	4AC	C2-N3	6.01	1.48	1.36
27	B1	896	4AC	C2-N3	6.01	1.48	1.36
27	B1	1664	4AC	C2-N3	6.01	1.48	1.36
27	B1	1107	4AC	C2-N3	6.00	1.48	1.36
27	B1	2809	4AC	C2-N3	6.00	1.48	1.36
27	B1	485	4AC	C2-N3	6.00	1.48	1.36
27	B1	1649	4AC	C2-N3	6.00	1.48	1.36
27	B1	1769	4AC	C2-N3	6.00	1.48	1.36
1	A1	856	4AC	C2-N3	5.99	1.48	1.36
27	B1	866	4AC	C2-N3	5.99	1.48	1.36
27	B1	933	4AC	C2-N3	5.99	1.48	1.36
27	B1	1301	4AC	C2-N3	5.98	1.48	1.36
27	B1	1478	4AC	C2-N3	5.98	1.48	1.36
27	B1	1762	4AC	C2-N3	5.97	1.48	1.36
27	B1	116	4AC	C2-N3	5.96	1.48	1.36
27	B1	2133	4AC	C2-N3	5.96	1.48	1.36
27	B1	1150	4AC	C6-C5	5.95	1.48	1.35
27	B1	652	4AC	C2-N3	5.94	1.48	1.36
27	B1	813	4AC	C6-C5	5.94	1.48	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	19	4AC	C2-N3	5.92	1.48	1.36
27	B1	1967	4AC	C2-N3	5.92	1.48	1.36
27	B1	2113	4AC	C2-N3	5.92	1.48	1.36
27	B1	2700	UR3	C2-N3	5.90	1.50	1.39
1	A1	839	4AC	C2-N3	5.88	1.48	1.36
27	B1	2379	4AC	C2-N3	5.88	1.48	1.36
27	B1	48	4AC	C2-N3	5.87	1.48	1.36
27	B1	1286	4AC	C6-C5	5.87	1.48	1.35
1	A1	481	7MG	C2-N3	5.84	1.47	1.33
1	A1	927	LV2	C2-N3	5.83	1.48	1.36
1	A1	1362	5MC	C4-N3	5.80	1.43	1.34
1	A1	1190	5MC	C4-N3	5.80	1.43	1.34
27	B1	2047	5MC	C4-N3	5.80	1.43	1.34
1	A1	927	LV2	C6-C5	5.77	1.48	1.35
1	A1	466	5MC	C4-N3	5.76	1.43	1.34
1	A1	1012	5MC	C4-N3	5.75	1.43	1.34
1	A1	1123	5MC	C4-N3	5.75	1.43	1.34
27	B1	2453	5MC	C4-N3	5.74	1.43	1.34
27	B1	252	5MC	C4-N3	5.74	1.43	1.34
27	B1	1648	5MC	C4-N3	5.73	1.43	1.34
1	A1	687	5MC	C4-N3	5.73	1.43	1.34
1	A1	473	5MC	C4-N3	5.72	1.43	1.34
1	A1	951	5MC	C4-N3	5.72	1.43	1.34
27	B1	2067	5MC	C4-N3	5.72	1.43	1.34
27	B1	2087	5MC	C4-N3	5.72	1.43	1.34
1	A1	815	5MC	C4-N3	5.72	1.43	1.34
1	A1	1366	5MC	C4-N3	5.72	1.43	1.34
1	A1	273	5MC	C4-N3	5.71	1.43	1.34
1	A1	1484	5MC	C4-N3	5.70	1.43	1.34
27	B1	2875	5MC	C4-N3	5.70	1.43	1.34
27	B1	1973	5MC	C4-N3	5.70	1.43	1.34
1	A1	863	5MC	C4-N3	5.70	1.43	1.34
1	A1	17	5MC	C4-N3	5.69	1.43	1.34
1	A1	1013	5MC	C4-N3	5.69	1.43	1.34
27	B1	2082	5MC	C4-N3	5.68	1.43	1.34
1	A1	1486	5MC	C4-N3	5.68	1.43	1.34
27	B1	1344	5MC	C4-N3	5.68	1.43	1.34
1	A1	523	5MC	C4-N3	5.67	1.43	1.34
27	B1	932	5MC	C4-N3	5.67	1.43	1.34
27	B1	2617	5MC	C4-N3	5.67	1.43	1.34
27	B1	877	5MC	C4-N3	5.67	1.43	1.34
1	A1	481	7MG	C4-N9	5.66	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	97	5MC	C4-N3	5.65	1.43	1.34
27	B1	2901	5MC	C4-N3	5.65	1.43	1.34
27	B1	336	5MC	C4-N3	5.64	1.43	1.34
1	A1	605	5MC	C4-N3	5.64	1.43	1.34
1	A1	777	5MC	C4-N3	5.64	1.43	1.34
27	B1	1983	5MC	C4-N3	5.63	1.43	1.34
1	A1	681	5MC	C4-N3	5.63	1.43	1.34
1	A1	466	5MC	C2-N3	5.62	1.47	1.36
1	A1	230	5MC	C4-N3	5.62	1.43	1.34
27	B1	1966	5MC	C4-N3	5.62	1.43	1.34
27	B1	1648	5MC	C2-N3	5.61	1.47	1.36
1	A1	1123	5MC	C2-N3	5.61	1.47	1.36
27	B1	2047	5MC	C2-N3	5.60	1.47	1.36
1	A1	1012	5MC	C2-N3	5.58	1.47	1.36
27	B1	252	5MC	C2-N3	5.57	1.47	1.36
1	A1	1190	5MC	C2-N3	5.57	1.47	1.36
27	B1	1977	5MC	C4-N3	5.57	1.43	1.34
1	A1	863	5MC	C2-N3	5.56	1.47	1.36
1	A1	473	5MC	C2-N3	5.56	1.47	1.36
1	A1	1366	5MC	C2-N3	5.55	1.47	1.36
1	A1	481	7MG	C4-N3	5.55	1.47	1.34
1	A1	1486	5MC	C2-N3	5.55	1.47	1.36
1	A1	815	5MC	C2-N3	5.55	1.47	1.36
1	A1	273	5MC	C2-N3	5.55	1.47	1.36
27	B1	336	5MC	C2-N3	5.54	1.47	1.36
1	A1	951	5MC	C2-N3	5.54	1.47	1.36
1	A1	681	5MC	C2-N3	5.54	1.47	1.36
1	A1	230	5MC	C2-N3	5.53	1.47	1.36
1	A1	523	5MC	C2-N3	5.53	1.47	1.36
1	A1	1362	5MC	C2-N3	5.53	1.47	1.36
27	B1	1977	5MC	C2-N3	5.53	1.47	1.36
27	B1	932	5MC	C2-N3	5.53	1.47	1.36
27	B1	97	5MC	C2-N3	5.52	1.47	1.36
27	B1	1973	5MC	C2-N3	5.52	1.47	1.36
27	B1	2067	5MC	C2-N3	5.52	1.47	1.36
27	B1	2901	5MC	C2-N3	5.52	1.47	1.36
27	B1	2082	5MC	C2-N3	5.51	1.47	1.36
27	B1	2875	5MC	C2-N3	5.51	1.47	1.36
27	B1	2087	5MC	C2-N3	5.51	1.47	1.36
1	A1	1013	5MC	C2-N3	5.50	1.47	1.36
27	B1	877	5MC	C2-N3	5.50	1.47	1.36
1	A1	777	5MC	C2-N3	5.50	1.47	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	605	5MC	C2-N3	5.50	1.47	1.36
27	B1	1344	5MC	C2-N3	5.50	1.47	1.36
1	A1	687	5MC	C2-N3	5.49	1.47	1.36
1	A1	1484	5MC	C2-N3	5.49	1.47	1.36
1	A1	17	5MC	C2-N3	5.48	1.47	1.36
27	B1	2453	5MC	C2-N3	5.48	1.47	1.36
27	B1	530	OMG	C2-N3	5.46	1.46	1.33
1	A1	1420	OMG	C2-N3	5.45	1.46	1.33
1	A1	153	OMG	C2-N3	5.45	1.46	1.33
1	A1	763	OMG	C2-N3	5.44	1.46	1.33
1	A1	645	OMG	C2-N3	5.44	1.46	1.33
27	B1	1966	5MC	C2-N3	5.44	1.47	1.36
27	B1	2617	5MC	C2-N3	5.44	1.47	1.36
1	A1	459	OMG	C2-N3	5.44	1.46	1.33
27	B1	1983	5MC	C2-N3	5.43	1.47	1.36
1	A1	1003	OMG	C2-N3	5.40	1.46	1.33
1	A1	152	OMG	C2-N3	5.39	1.46	1.33
1	A1	1004	2MG	C2-N2	5.38	1.45	1.33
1	A1	504	OMG	C2-N3	5.38	1.46	1.33
1	A1	132	OMG	C2-N3	5.38	1.46	1.33
1	A1	945	4AC	C7-N4	5.38	1.47	1.37
1	A1	668	OMG	C2-N3	5.37	1.46	1.33
27	B1	887	OMG	C2-N3	5.36	1.46	1.33
27	B1	2659	OMG	C2-N3	5.36	1.46	1.33
27	B1	920	OMG	C2-N3	5.36	1.46	1.33
1	A1	901	OMG	C2-N3	5.36	1.46	1.33
27	B1	2540	OMG	C2-N3	5.34	1.46	1.33
1	A1	833	OMG	C2-N3	5.34	1.46	1.33
27	B1	2684	OMG	C2-N3	5.34	1.46	1.33
27	B1	2740	OMG	C2-N3	5.34	1.46	1.33
1	A1	329	OMG	C2-N3	5.34	1.46	1.33
1	A1	455	OMG	C2-N3	5.34	1.46	1.33
27	B1	921	OMG	C2-N3	5.33	1.46	1.33
27	B1	1533	OMG	C2-N3	5.33	1.46	1.33
27	B1	214	OMG	C2-N3	5.32	1.46	1.33
27	B1	1965	OMG	C2-N3	5.31	1.46	1.33
27	B1	808	OMG	C2-N3	5.30	1.46	1.33
27	B1	55	OMG	C2-N3	5.29	1.46	1.33
27	B1	2028	OMG	C2-N3	5.29	1.46	1.33
1	A1	227	OMG	C2-N3	5.28	1.46	1.33
27	B1	2365	OMG	C2-N3	5.28	1.46	1.33
27	B1	2562	OMG	C2-N3	5.28	1.46	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2428	OMC	C4-N3	5.27	1.45	1.34
27	B1	2984	OMG	C2-N3	5.27	1.46	1.33
27	B1	550	OMG	C2-N3	5.27	1.46	1.33
27	B1	2022	OMG	C2-N3	5.26	1.46	1.33
1	A1	228	OMG	C2-N3	5.25	1.46	1.33
1	A1	861	OMG	C2-N3	5.25	1.45	1.33
1	A1	507	OMG	C2-N3	5.24	1.45	1.33
27	B1	2757	OMG	C2-N3	5.22	1.45	1.33
27	B1	2180	OMG	C2-N3	5.22	1.45	1.33
1	A1	541	OMG	C2-N3	5.22	1.45	1.33
1	A1	426	OMC	C4-N3	5.22	1.45	1.34
27	B1	2007	OMC	C4-N3	5.22	1.45	1.34
1	A1	464	OMG	C2-N3	5.21	1.45	1.33
27	B1	2607	OMC	C4-N3	5.21	1.45	1.34
1	A1	1226	OMC	C4-N3	5.20	1.45	1.34
27	B1	2108	OMG	C2-N3	5.19	1.45	1.33
27	B1	1832	OMC	C4-N3	5.19	1.45	1.34
1	A1	1194	OMC	C4-N3	5.19	1.44	1.34
27	B1	2046	OMC	C4-N3	5.18	1.44	1.34
27	B1	2391	OMG	C2-N3	5.18	1.45	1.33
27	B1	1489	OMC	C4-N3	5.16	1.44	1.34
27	B1	2808	OMC	C4-N3	5.16	1.44	1.34
1	A1	117	OMC	C4-N3	5.16	1.44	1.34
1	A1	1371	OMC	C4-N3	5.16	1.44	1.34
27	B1	675	OMG	C2-N3	5.15	1.45	1.33
27	B1	2557	OMC	C4-N3	5.15	1.44	1.34
27	B1	904	OMC	C4-N3	5.15	1.44	1.34
27	B1	47	OMC	C4-N3	5.15	1.44	1.34
1	A1	1364	OMC	C4-N3	5.15	1.44	1.34
27	B1	1904	OMG	C2-N3	5.14	1.45	1.33
27	B1	501	OMC	C4-N3	5.12	1.44	1.34
27	B1	1099	OMC	C4-N3	5.12	1.44	1.34
27	B1	813	4AC	C7-N4	5.12	1.46	1.37
1	A1	834	OMC	C4-N3	5.11	1.44	1.34
27	B1	2059	OMC	C4-N3	5.10	1.44	1.34
27	B1	1286	4AC	C7-N4	5.10	1.46	1.37
27	B1	2735	OMC	C4-N3	5.08	1.44	1.34
27	B1	106	4AC	C7-N4	5.07	1.46	1.37
1	A1	761	OMC	C4-N3	5.06	1.44	1.34
1	A1	763	OMG	C4-N3	5.02	1.49	1.37
1	A1	1420	OMG	C4-N3	5.01	1.49	1.37
1	A1	427	4AC	C7-N4	5.00	1.46	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	152	OMG	C4-N3	4.98	1.49	1.37
1	A1	153	OMG	C4-N3	4.97	1.49	1.37
27	B1	214	OMG	C4-N3	4.96	1.49	1.37
1	A1	1003	OMG	C4-N3	4.96	1.49	1.37
1	A1	668	OMG	C4-N3	4.96	1.49	1.37
27	B1	2540	OMG	C4-N3	4.95	1.49	1.37
27	B1	1533	OMG	C4-N3	4.95	1.49	1.37
27	B1	887	OMG	C4-N3	4.95	1.49	1.37
27	B1	1301	4AC	C7-N4	4.95	1.46	1.37
1	A1	459	OMG	C4-N3	4.95	1.49	1.37
1	A1	504	OMG	C4-N3	4.95	1.49	1.37
27	B1	2684	OMG	C4-N3	4.95	1.49	1.37
27	B1	1965	OMG	C4-N3	4.94	1.49	1.37
27	B1	2659	OMG	C4-N3	4.94	1.49	1.37
27	B1	920	OMG	C4-N3	4.94	1.49	1.37
1	A1	132	OMG	C4-N3	4.94	1.49	1.37
27	B1	530	OMG	C4-N3	4.94	1.49	1.37
27	B1	808	OMG	C4-N3	4.94	1.49	1.37
27	B1	2562	OMG	C4-N3	4.94	1.49	1.37
1	A1	645	OMG	C4-N3	4.94	1.49	1.37
1	A1	1004	2MG	C4-N3	4.94	1.49	1.37
27	B1	979	4AC	C7-N4	4.93	1.46	1.37
27	B1	1914	OMC	C4-N3	4.93	1.44	1.34
27	B1	2740	OMG	C4-N3	4.93	1.49	1.37
27	B1	550	OMG	C4-N3	4.92	1.49	1.37
1	A1	227	OMG	C4-N3	4.92	1.49	1.37
1	A1	901	OMG	C4-N3	4.92	1.49	1.37
1	A1	507	OMG	C4-N3	4.92	1.49	1.37
1	A1	455	OMG	C4-N3	4.91	1.49	1.37
1	A1	329	OMG	C4-N3	4.91	1.49	1.37
1	A1	833	OMG	C4-N3	4.91	1.49	1.37
27	B1	1639	4AC	C7-N4	4.91	1.46	1.37
27	B1	2757	OMG	C4-N3	4.90	1.49	1.37
1	A1	1004	2MG	C2-N1	4.90	1.44	1.36
27	B1	55	OMG	C4-N3	4.90	1.49	1.37
27	B1	2365	OMG	C4-N3	4.90	1.49	1.37
27	B1	2022	OMG	C4-N3	4.89	1.49	1.37
27	B1	2028	OMG	C4-N3	4.89	1.49	1.37
27	B1	1128	4AC	C7-N4	4.88	1.46	1.37
1	A1	861	OMG	C4-N3	4.87	1.49	1.37
27	B1	921	OMG	C4-N3	4.87	1.49	1.37
27	B1	2984	OMG	C4-N3	4.87	1.49	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	276	LHH	C7-N4	4.86	1.46	1.37
27	B1	2108	OMG	C4-N3	4.86	1.49	1.37
27	B1	2180	OMG	C4-N3	4.85	1.49	1.37
1	A1	945	4AC	C4-N4	4.85	1.46	1.39
27	B1	271	4AC	C7-N4	4.85	1.46	1.37
1	A1	541	OMG	C4-N3	4.84	1.49	1.37
1	A1	228	OMG	C4-N3	4.84	1.49	1.37
27	B1	1264	4AC	C7-N4	4.82	1.46	1.37
27	B1	641	4AC	C7-N4	4.82	1.46	1.37
27	B1	2391	OMG	C4-N3	4.81	1.49	1.37
27	B1	530	OMG	C2-N2	4.81	1.45	1.34
27	B1	599	4AC	C7-N4	4.80	1.46	1.37
27	B1	1946	LHH	C7-N4	4.80	1.46	1.37
1	A1	152	OMG	C2-N2	4.80	1.45	1.34
27	B1	1904	OMG	C4-N3	4.79	1.49	1.37
27	B1	675	OMG	C4-N3	4.79	1.49	1.37
27	B1	3037	4AC	C7-N4	4.79	1.46	1.37
27	B1	2083	4AC	C7-N4	4.79	1.46	1.37
27	B1	1751	4AC	C7-N4	4.79	1.46	1.37
1	A1	1420	OMG	C2-N2	4.79	1.45	1.34
1	A1	153	OMG	C2-N2	4.78	1.45	1.34
1	A1	540	4AC	C7-N4	4.78	1.46	1.37
1	A1	1003	OMG	C2-N2	4.78	1.45	1.34
1	A1	1135	4AC	C7-N4	4.78	1.46	1.37
27	B1	1061	4AC	C7-N4	4.78	1.46	1.37
1	A1	504	OMG	C2-N2	4.78	1.45	1.34
1	A1	464	OMG	C4-N3	4.78	1.49	1.37
27	B1	550	OMG	C2-N2	4.77	1.45	1.34
27	B1	1706	4AC	C7-N4	4.77	1.46	1.37
1	A1	1227	4AC	C7-N4	4.77	1.46	1.37
1	A1	216	4AC	C7-N4	4.77	1.46	1.37
27	B1	1757	4AC	C7-N4	4.77	1.46	1.37
27	B1	142	4AC	C7-N4	4.76	1.46	1.37
1	A1	1254	4AC	C7-N4	4.76	1.46	1.37
1	A1	1221	4AC	C7-N4	4.76	1.46	1.37
28	B2	120	4AC	C7-N4	4.76	1.46	1.37
27	B1	786	4AC	C7-N4	4.76	1.46	1.37
27	B1	2365	OMG	C2-N2	4.76	1.45	1.34
27	B1	2540	OMG	C2-N2	4.76	1.45	1.34
1	A1	141	4AC	C7-N4	4.76	1.46	1.37
28	B2	32	4AC	C7-N4	4.76	1.46	1.37
1	A1	459	OMG	C2-N2	4.75	1.45	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	668	OMG	C2-N2	4.75	1.45	1.34
1	A1	763	OMG	C2-N2	4.75	1.45	1.34
27	B1	3020	4AC	C7-N4	4.75	1.46	1.37
27	B1	1293	4AC	C7-N4	4.75	1.46	1.37
1	A1	861	OMG	C2-N2	4.75	1.45	1.34
1	A1	455	OMG	C2-N2	4.75	1.45	1.34
27	B1	921	OMG	C2-N2	4.75	1.45	1.34
1	A1	546	4AC	C7-N4	4.75	1.46	1.37
27	B1	2740	OMG	C2-N2	4.75	1.45	1.34
27	B1	2020	4AC	C7-N4	4.75	1.46	1.37
1	A1	901	OMG	C2-N2	4.75	1.45	1.34
1	A1	132	OMG	C2-N2	4.75	1.45	1.34
27	B1	920	OMG	C2-N2	4.75	1.45	1.34
27	B1	1743	4AC	C7-N4	4.74	1.46	1.37
27	B1	2022	OMG	C2-N2	4.74	1.45	1.34
1	A1	645	OMG	C2-N2	4.74	1.45	1.34
27	B1	1313	4AC	C7-N4	4.74	1.46	1.37
1	A1	1067	4AC	C7-N4	4.74	1.46	1.37
27	B1	55	OMG	C2-N2	4.74	1.45	1.34
1	A1	220	4AC	C7-N4	4.74	1.46	1.37
27	B1	887	OMG	C2-N2	4.74	1.45	1.34
1	A1	467	4AC	C7-N4	4.73	1.45	1.37
27	B1	2684	OMG	C2-N2	4.73	1.45	1.34
1	A1	1288	4AC	C7-N4	4.73	1.45	1.37
27	B1	2902	4AC	C7-N4	4.73	1.45	1.37
27	B1	2028	OMG	C2-N2	4.73	1.45	1.34
27	B1	2180	OMG	C2-N2	4.73	1.45	1.34
27	B1	2562	OMG	C2-N2	4.73	1.45	1.34
27	B1	2984	OMG	C2-N2	4.73	1.45	1.34
28	B2	108	4AC	C7-N4	4.73	1.45	1.37
27	B1	827	4AC	C7-N4	4.73	1.45	1.37
27	B1	1965	OMG	C2-N2	4.73	1.45	1.34
27	B1	214	OMG	C2-N2	4.72	1.45	1.34
1	A1	444	4AC	C7-N4	4.72	1.45	1.37
27	B1	527	LHH	C7-N4	4.72	1.45	1.37
27	B1	2888	4AC	C7-N4	4.72	1.45	1.37
27	B1	808	OMG	C2-N2	4.72	1.45	1.34
27	B1	3023	4AC	C7-N4	4.72	1.45	1.37
27	B1	1064	4AC	C7-N4	4.72	1.45	1.37
1	A1	833	OMG	C2-N2	4.72	1.45	1.34
1	A1	624	4AC	C7-N4	4.71	1.45	1.37
27	B1	1383	4AC	C7-N4	4.71	1.45	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	507	OMG	C2-N2	4.71	1.45	1.34
27	B1	1533	OMG	C2-N2	4.71	1.45	1.34
27	B1	2968	LHH	C7-N4	4.71	1.45	1.37
1	A1	227	OMG	C2-N2	4.71	1.45	1.34
27	B1	1067	4AC	C7-N4	4.71	1.45	1.37
27	B1	2757	OMG	C2-N2	4.71	1.45	1.34
1	A1	739	4AC	C7-N4	4.71	1.45	1.37
1	A1	541	OMG	C2-N2	4.70	1.45	1.34
1	A1	1016	4AC	C7-N4	4.70	1.45	1.37
1	A1	228	OMG	C2-N2	4.70	1.45	1.34
27	B1	732	4AC	C7-N4	4.70	1.45	1.37
27	B1	344	4AC	C7-N4	4.70	1.45	1.37
27	B1	2008	4AC	C7-N4	4.70	1.45	1.37
27	B1	2391	OMG	C2-N2	4.70	1.45	1.34
27	B1	3011	4AC	C7-N4	4.70	1.45	1.37
27	B1	1322	4AC	C7-N4	4.70	1.45	1.37
27	B1	807	4AC	C7-N4	4.70	1.45	1.37
27	B1	1374	4AC	C7-N4	4.70	1.45	1.37
27	B1	2213	4AC	C7-N4	4.70	1.45	1.37
27	B1	2792	4AC	C7-N4	4.70	1.45	1.37
27	B1	609	4AC	C7-N4	4.70	1.45	1.37
27	B1	2659	OMG	C2-N2	4.70	1.45	1.34
1	A1	87	4AC	C7-N4	4.69	1.45	1.37
1	A1	405	4AC	C7-N4	4.69	1.45	1.37
1	A1	827	4AC	C7-N4	4.69	1.45	1.37
1	A1	481	7MG	C2-N2	4.69	1.45	1.34
1	A1	367	4AC	C7-N4	4.69	1.45	1.37
27	B1	434	4AC	C7-N4	4.69	1.45	1.37
27	B1	3006	4AC	C7-N4	4.69	1.45	1.37
27	B1	360	4AC	C7-N4	4.69	1.45	1.37
1	A1	231	4AC	C7-N4	4.69	1.45	1.37
27	B1	1904	OMG	C2-N2	4.69	1.45	1.34
27	B1	1608	4AC	C7-N4	4.69	1.45	1.37
27	B1	2454	4AC	C7-N4	4.69	1.45	1.37
1	A1	756	4SU	C5-C4	4.69	1.48	1.42
27	B1	2432	4AC	C7-N4	4.68	1.45	1.37
27	B1	2876	4AC	C7-N4	4.68	1.45	1.37
1	A1	614	4AC	C7-N4	4.68	1.45	1.37
1	A1	499	4AC	C7-N4	4.68	1.45	1.37
27	B1	2492	4AC	C7-N4	4.68	1.45	1.37
27	B1	162	4AC	C7-N4	4.68	1.45	1.37
27	B1	2429	4AC	C7-N4	4.68	1.45	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2850	4AC	C7-N4	4.68	1.45	1.37
27	B1	1501	4AC	C7-N4	4.67	1.45	1.37
1	A1	329	OMG	C2-N2	4.67	1.45	1.34
27	B1	2108	OMG	C2-N2	4.67	1.45	1.34
27	B1	80	4AC	C7-N4	4.67	1.45	1.37
27	B1	675	OMG	C2-N2	4.67	1.45	1.34
27	B1	1846	4AC	C7-N4	4.67	1.45	1.37
1	A1	382	4AC	C7-N4	4.67	1.45	1.37
27	B1	227	4AC	C7-N4	4.67	1.45	1.37
28	B2	117	4AC	C7-N4	4.67	1.45	1.37
1	A1	534	4AC	C7-N4	4.66	1.45	1.37
1	A1	291	4AC	C7-N4	4.66	1.45	1.37
27	B1	2565	4SU	C5-C4	4.66	1.48	1.42
28	B2	90	4AC	C7-N4	4.66	1.45	1.37
27	B1	1885	4AC	C7-N4	4.66	1.45	1.37
27	B1	1505	4AC	C7-N4	4.66	1.45	1.37
1	A1	578	4AC	C7-N4	4.66	1.45	1.37
27	B1	1579	4AC	C7-N4	4.66	1.45	1.37
27	B1	47	OMC	C2-N1	4.66	1.50	1.40
27	B1	23	4AC	C7-N4	4.66	1.45	1.37
1	A1	1467	4AC	C7-N4	4.66	1.45	1.37
27	B1	1818	4AC	C7-N4	4.66	1.45	1.37
27	B1	200	4AC	C7-N4	4.66	1.45	1.37
1	A1	636	4AC	C7-N4	4.66	1.45	1.37
27	B1	1178	4AC	C7-N4	4.65	1.45	1.37
27	B1	502	LHH	C7-N4	4.65	1.45	1.37
1	A1	464	OMG	C2-N2	4.65	1.45	1.34
1	A1	836	4AC	C7-N4	4.65	1.45	1.37
27	B1	950	4AC	C7-N4	4.65	1.45	1.37
27	B1	2469	4AC	C7-N4	4.65	1.45	1.37
27	B1	419	4AC	C7-N4	4.65	1.45	1.37
27	B1	1150	4AC	C7-N4	4.64	1.45	1.37
1	A1	706	4AC	C7-N4	4.64	1.45	1.37
27	B1	580	4AC	C7-N4	4.64	1.45	1.37
27	B1	2602	4AC	C7-N4	4.64	1.45	1.37
27	B1	1439	4AC	C7-N4	4.64	1.45	1.37
1	A1	238	LHH	C7-N4	4.64	1.45	1.37
27	B1	1345	4AC	C7-N4	4.64	1.45	1.37
1	A1	41	4AC	C7-N4	4.63	1.45	1.37
27	B1	1911	4AC	C7-N4	4.63	1.45	1.37
27	B1	1290	4AC	C7-N4	4.63	1.45	1.37
27	B1	1052	4AC	C7-N4	4.63	1.45	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	485	4AC	C7-N4	4.63	1.45	1.37
27	B1	2113	4AC	C7-N4	4.62	1.45	1.37
27	B1	337	4AC	C7-N4	4.62	1.45	1.37
27	B1	1100	4AC	C7-N4	4.62	1.45	1.37
27	B1	2046	OMC	C2-N1	4.62	1.50	1.40
1	A1	5	4AC	C7-N4	4.62	1.45	1.37
27	B1	2526	4AC	C7-N4	4.62	1.45	1.37
27	B1	2749	4AC	C7-N4	4.61	1.45	1.37
27	B1	721	4AC	C7-N4	4.61	1.45	1.37
27	B1	688	4AC	C7-N4	4.61	1.45	1.37
1	A1	816	4AC	C7-N4	4.61	1.45	1.37
27	B1	2809	4AC	C7-N4	4.61	1.45	1.37
27	B1	130	4AC	C7-N4	4.61	1.45	1.37
27	B1	715	4AC	C7-N4	4.61	1.45	1.37
1	A1	307	4AC	C7-N4	4.61	1.45	1.37
27	B1	2821	4AC	C7-N4	4.60	1.45	1.37
27	B1	1551	4AC	C7-N4	4.60	1.45	1.37
1	A1	719	4AC	C7-N4	4.59	1.45	1.37
1	A1	1314	4AC	C7-N4	4.59	1.45	1.37
27	B1	1546	4AC	C7-N4	4.59	1.45	1.37
27	B1	1442	4AC	C7-N4	4.59	1.45	1.37
27	B1	2171	4AC	C7-N4	4.59	1.45	1.37
27	B1	378	4AC	C7-N4	4.59	1.45	1.37
27	B1	1648	5MC	C2-N1	4.58	1.49	1.40
1	A1	274	4AC	C7-N4	4.58	1.45	1.37
27	B1	98	4AC	C7-N4	4.58	1.45	1.37
1	A1	1181	4AC	C7-N4	4.58	1.45	1.37
27	B1	896	4AC	C7-N4	4.57	1.45	1.37
1	A1	856	4AC	C7-N4	4.57	1.45	1.37
1	A1	427	4AC	C4-N4	4.57	1.46	1.39
27	B1	813	4AC	C4-N4	4.57	1.46	1.39
27	B1	276	LHH	C4-N4	4.57	1.46	1.39
27	B1	652	4AC	C7-N4	4.56	1.45	1.37
1	A1	1029	LHH	C7-N4	4.56	1.45	1.37
27	B1	2844	4AC	C7-N4	4.56	1.45	1.37
27	B1	866	4AC	C7-N4	4.56	1.45	1.37
27	B1	1762	4AC	C7-N4	4.55	1.45	1.37
27	B1	2133	4AC	C7-N4	4.54	1.45	1.37
27	B1	1822	4AC	C7-N4	4.54	1.45	1.37
27	B1	1435	4AC	C7-N4	4.54	1.45	1.37
27	B1	1769	4AC	C7-N4	4.54	1.45	1.37
27	B1	1286	4AC	C4-N4	4.54	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1649	4AC	C7-N4	4.53	1.45	1.37
27	B1	1664	4AC	C7-N4	4.53	1.45	1.37
27	B1	116	4AC	C7-N4	4.53	1.45	1.37
27	B1	1107	4AC	C7-N4	4.53	1.45	1.37
27	B1	953	4AC	C7-N4	4.52	1.45	1.37
1	A1	426	OMC	C2-N1	4.52	1.49	1.40
27	B1	2379	4AC	C7-N4	4.52	1.45	1.37
1	A1	839	4AC	C7-N4	4.51	1.45	1.37
27	B1	106	4AC	C4-N4	4.50	1.46	1.39
27	B1	243	4AC	C7-N4	4.50	1.45	1.37
1	A1	1371	OMC	C2-N1	4.50	1.49	1.40
27	B1	19	4AC	C7-N4	4.49	1.45	1.37
1	A1	466	5MC	C2-N1	4.49	1.49	1.40
1	A1	761	OMC	C2-N1	4.49	1.49	1.40
27	B1	1967	4AC	C7-N4	4.49	1.45	1.37
27	B1	2059	OMC	C2-N1	4.48	1.49	1.40
27	B1	933	4AC	C7-N4	4.48	1.45	1.37
27	B1	1478	4AC	C7-N4	4.48	1.45	1.37
27	B1	1639	4AC	C4-N4	4.48	1.46	1.39
27	B1	1914	OMC	C2-N1	4.48	1.49	1.40
1	A1	1486	5MC	C2-N1	4.47	1.49	1.40
1	A1	466	5MC	C6-N1	4.47	1.45	1.38
1	A1	1123	5MC	C2-N1	4.46	1.49	1.40
27	B1	1973	5MC	C2-N1	4.46	1.49	1.40
27	B1	1946	LHH	C4-N4	4.46	1.46	1.39
27	B1	501	OMC	C2-N1	4.45	1.49	1.40
1	A1	1226	OMC	C2-N1	4.44	1.49	1.40
1	A1	863	5MC	C2-N1	4.44	1.49	1.40
1	A1	1362	5MC	C2-N1	4.43	1.49	1.40
1	A1	540	4AC	C4-N4	4.43	1.46	1.39
1	A1	636	4AC	C4-N4	4.42	1.46	1.39
1	A1	951	5MC	C2-N1	4.42	1.49	1.40
1	A1	273	5MC	C2-N1	4.41	1.49	1.40
27	B1	904	OMC	C2-N1	4.41	1.49	1.40
1	A1	523	5MC	C2-N1	4.41	1.49	1.40
27	B1	1128	4AC	C4-N4	4.41	1.46	1.39
1	A1	1029	LHH	C4-N4	4.40	1.46	1.39
27	B1	2557	OMC	C2-N1	4.40	1.49	1.40
27	B1	2968	LHH	C4-N4	4.40	1.46	1.39
1	A1	1221	4AC	C4-N4	4.40	1.46	1.39
1	A1	382	4AC	C4-N4	4.40	1.46	1.39
27	B1	1301	4AC	C4-N4	4.39	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2428	OMC	C2-N1	4.39	1.49	1.40
27	B1	97	5MC	C2-N1	4.39	1.49	1.40
1	A1	473	5MC	C2-N1	4.39	1.49	1.40
27	B1	48	4AC	C7-N4	4.39	1.45	1.37
27	B1	2875	5MC	C2-N1	4.39	1.49	1.40
27	B1	2492	4AC	C4-N4	4.38	1.46	1.39
28	B2	32	4AC	C4-N4	4.38	1.46	1.39
1	A1	578	4AC	C4-N4	4.38	1.46	1.39
1	A1	1190	5MC	C2-N1	4.38	1.49	1.40
1	A1	1227	4AC	C4-N4	4.38	1.46	1.39
1	A1	1194	OMC	C2-N1	4.38	1.49	1.40
1	A1	1254	4AC	C4-N4	4.38	1.46	1.39
27	B1	336	5MC	C2-N1	4.38	1.49	1.40
1	A1	706	4AC	C4-N4	4.37	1.46	1.39
27	B1	527	LHH	C4-N4	4.37	1.46	1.39
27	B1	252	5MC	C2-N1	4.37	1.49	1.40
1	A1	681	5MC	C6-N1	4.37	1.45	1.38
27	B1	1832	OMC	C2-N1	4.37	1.49	1.40
1	A1	1366	5MC	C6-N1	4.37	1.45	1.38
27	B1	2007	OMC	C2-N1	4.37	1.49	1.40
27	B1	2735	OMC	C2-N1	4.37	1.49	1.40
28	B2	120	4AC	C4-N4	4.36	1.46	1.39
1	A1	238	LHH	C4-N4	4.36	1.46	1.39
1	A1	815	5MC	C2-N1	4.36	1.49	1.40
27	B1	3006	4AC	C4-N4	4.36	1.46	1.39
27	B1	2432	4AC	C4-N4	4.36	1.46	1.39
27	B1	271	4AC	C4-N4	4.36	1.46	1.39
1	A1	739	4AC	C4-N4	4.36	1.46	1.39
1	A1	1467	4AC	C4-N4	4.36	1.46	1.39
1	A1	230	5MC	C2-N1	4.36	1.49	1.40
1	A1	1013	5MC	C2-N1	4.36	1.49	1.40
27	B1	1344	5MC	C2-N1	4.36	1.49	1.40
27	B1	1983	5MC	C6-N1	4.36	1.45	1.38
1	A1	1135	4AC	C4-N4	4.35	1.46	1.39
27	B1	1313	4AC	C2-N1	4.35	1.49	1.40
27	B1	1966	5MC	C2-N1	4.35	1.49	1.40
1	A1	605	5MC	C2-N1	4.35	1.49	1.40
1	A1	856	4AC	C4-N4	4.35	1.46	1.39
27	B1	1743	4AC	C4-N4	4.35	1.46	1.39
27	B1	3037	4AC	C4-N4	4.35	1.46	1.39
27	B1	1983	5MC	C2-N1	4.35	1.49	1.40
1	A1	216	4AC	C4-N4	4.35	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	599	4AC	C4-N4	4.35	1.46	1.39
1	A1	1486	5MC	C6-N1	4.35	1.45	1.38
28	B2	108	4AC	C4-N4	4.35	1.46	1.39
27	B1	979	4AC	C4-N4	4.34	1.46	1.39
27	B1	2808	OMC	C2-N1	4.34	1.49	1.40
27	B1	1313	4AC	C4-N4	4.34	1.46	1.39
27	B1	1977	5MC	C2-N1	4.34	1.49	1.40
1	A1	777	5MC	C2-N1	4.34	1.49	1.40
1	A1	1012	5MC	C2-N1	4.34	1.49	1.40
1	A1	681	5MC	C2-N1	4.34	1.49	1.40
1	A1	87	4AC	C4-N4	4.34	1.46	1.39
27	B1	2454	4AC	C4-N4	4.33	1.46	1.39
1	A1	499	4AC	C4-N4	4.33	1.46	1.39
27	B1	1489	OMC	C2-N1	4.33	1.49	1.40
27	B1	1061	4AC	C4-N4	4.33	1.46	1.39
27	B1	1322	4AC	C4-N4	4.33	1.46	1.39
27	B1	2047	5MC	C6-N1	4.33	1.45	1.38
27	B1	1286	4AC	C2-N1	4.33	1.49	1.40
27	B1	2047	5MC	C2-N1	4.33	1.49	1.40
27	B1	419	4AC	C4-N4	4.33	1.46	1.39
1	A1	1366	5MC	C2-N1	4.33	1.49	1.40
27	B1	2876	4AC	C2-N1	4.33	1.49	1.40
1	A1	687	5MC	C2-N1	4.33	1.49	1.40
1	A1	141	4AC	C4-N4	4.33	1.46	1.39
1	A1	1364	OMC	C2-N1	4.32	1.49	1.40
27	B1	1977	5MC	C6-N1	4.32	1.45	1.38
27	B1	1706	4AC	C4-N4	4.32	1.46	1.39
27	B1	2901	5MC	C2-N1	4.32	1.49	1.40
27	B1	1579	4AC	C4-N4	4.32	1.46	1.39
1	A1	1012	5MC	C6-N1	4.32	1.45	1.38
27	B1	786	4AC	C4-N4	4.32	1.46	1.39
27	B1	2067	5MC	C2-N1	4.32	1.49	1.40
27	B1	932	5MC	C2-N1	4.32	1.49	1.40
1	A1	1123	5MC	C6-N1	4.31	1.45	1.38
27	B1	142	4AC	C4-N4	4.31	1.46	1.39
27	B1	1751	4AC	C4-N4	4.31	1.46	1.39
27	B1	2453	5MC	C2-N1	4.31	1.49	1.40
1	A1	467	4AC	C4-N4	4.31	1.46	1.39
27	B1	2082	5MC	C6-N1	4.31	1.45	1.38
27	B1	1067	4AC	C4-N4	4.31	1.46	1.39
27	B1	2617	5MC	C2-N1	4.31	1.49	1.40
1	A1	220	4AC	C4-N4	4.31	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	624	4AC	C4-N4	4.31	1.46	1.39
27	B1	3023	4AC	C4-N4	4.31	1.46	1.39
1	A1	951	5MC	C6-N1	4.31	1.45	1.38
27	B1	3011	4AC	C4-N4	4.31	1.46	1.39
1	A1	367	4AC	C4-N4	4.31	1.46	1.39
1	A1	1067	4AC	C4-N4	4.31	1.46	1.39
27	B1	2082	5MC	C2-N1	4.31	1.49	1.40
1	A1	834	OMC	C2-N1	4.30	1.49	1.40
1	A1	1190	5MC	C6-N1	4.30	1.45	1.38
27	B1	807	4AC	C4-N4	4.30	1.46	1.39
27	B1	2067	5MC	C6-N1	4.30	1.45	1.38
27	B1	721	4AC	C4-N4	4.30	1.46	1.39
27	B1	2850	4AC	C4-N4	4.30	1.46	1.39
1	A1	816	4AC	C4-N4	4.30	1.46	1.39
1	A1	17	5MC	C2-N1	4.29	1.49	1.40
27	B1	2087	5MC	C2-N1	4.29	1.49	1.40
28	B2	117	4AC	C4-N4	4.29	1.46	1.39
27	B1	1846	4AC	C4-N4	4.29	1.46	1.39
27	B1	2429	4AC	C4-N4	4.29	1.46	1.39
1	A1	405	4AC	C4-N4	4.29	1.46	1.39
1	A1	1484	5MC	C2-N1	4.29	1.49	1.40
27	B1	485	4AC	C4-N4	4.29	1.46	1.39
27	B1	2792	4AC	C4-N4	4.29	1.46	1.39
27	B1	2821	4AC	C4-N4	4.29	1.46	1.39
27	B1	2453	5MC	C6-N1	4.29	1.45	1.38
27	B1	979	4AC	C2-N1	4.29	1.49	1.40
27	B1	200	4AC	C4-N4	4.29	1.46	1.39
27	B1	2617	5MC	C6-N1	4.29	1.45	1.38
27	B1	2876	4AC	C4-N4	4.29	1.46	1.39
1	A1	863	5MC	C6-N1	4.29	1.45	1.38
27	B1	1501	4AC	C4-N4	4.29	1.46	1.39
1	A1	220	4AC	C2-N1	4.29	1.49	1.40
27	B1	2607	OMC	C2-N1	4.29	1.49	1.40
27	B1	130	4AC	C4-N4	4.29	1.46	1.39
1	A1	777	5MC	C6-N1	4.29	1.45	1.38
1	A1	274	4AC	C4-N4	4.29	1.46	1.39
27	B1	1911	4AC	C4-N4	4.29	1.46	1.39
27	B1	1648	5MC	C6-N1	4.28	1.45	1.38
27	B1	2602	4AC	C4-N4	4.28	1.46	1.39
1	A1	17	5MC	C6-N1	4.28	1.45	1.38
27	B1	1478	4AC	C4-N4	4.28	1.46	1.39
1	A1	534	4AC	C4-N4	4.28	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1178	4AC	C4-N4	4.28	1.46	1.39
27	B1	1885	4AC	C4-N4	4.28	1.45	1.39
27	B1	2020	4AC	C4-N4	4.28	1.45	1.39
1	A1	273	5MC	C6-N1	4.28	1.45	1.38
1	A1	1013	5MC	C6-N1	4.28	1.45	1.38
1	A1	1016	4AC	C4-N4	4.28	1.45	1.39
27	B1	732	4AC	C4-N4	4.28	1.45	1.39
27	B1	1374	4AC	C4-N4	4.28	1.45	1.39
27	B1	227	4AC	C4-N4	4.28	1.45	1.39
27	B1	609	4AC	C4-N4	4.28	1.45	1.39
27	B1	1743	4AC	C2-N1	4.28	1.49	1.40
27	B1	2526	4AC	C4-N4	4.27	1.45	1.39
1	A1	117	OMC	C2-N1	4.27	1.49	1.40
27	B1	1818	4AC	C4-N4	4.27	1.45	1.39
1	A1	687	5MC	C6-N1	4.27	1.45	1.38
1	A1	1362	5MC	C6-N1	4.27	1.45	1.38
1	A1	230	5MC	C6-N1	4.27	1.45	1.38
1	A1	291	4AC	C4-N4	4.27	1.45	1.39
27	B1	142	4AC	C2-N1	4.27	1.49	1.40
1	A1	546	4AC	C4-N4	4.27	1.45	1.39
27	B1	1099	OMC	C2-N1	4.27	1.49	1.40
1	A1	41	4AC	C4-N4	4.27	1.45	1.39
1	A1	523	5MC	C6-N1	4.27	1.45	1.38
27	B1	1322	4AC	C2-N1	4.27	1.49	1.40
27	B1	1846	4AC	C2-N1	4.27	1.49	1.40
27	B1	344	4AC	C4-N4	4.27	1.45	1.39
27	B1	1551	4AC	C4-N4	4.26	1.45	1.39
27	B1	2008	4AC	C4-N4	4.26	1.45	1.39
27	B1	688	4AC	C4-N4	4.26	1.45	1.39
27	B1	360	4AC	C4-N4	4.26	1.45	1.39
27	B1	1383	4AC	C4-N4	4.26	1.45	1.39
27	B1	1064	4AC	C2-N1	4.26	1.49	1.40
27	B1	2469	4AC	C4-N4	4.26	1.45	1.39
1	A1	719	4AC	C4-N4	4.26	1.45	1.39
28	B2	90	4AC	C4-N4	4.26	1.45	1.39
28	B2	32	4AC	C2-N1	4.26	1.49	1.40
1	A1	231	4AC	C4-N4	4.25	1.45	1.39
27	B1	1608	4AC	C4-N4	4.25	1.45	1.39
27	B1	2213	4AC	C4-N4	4.25	1.45	1.39
1	A1	1484	5MC	C6-N1	4.25	1.45	1.38
27	B1	97	5MC	C6-N1	4.25	1.45	1.38
1	A1	836	4AC	C4-N4	4.25	1.45	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	1467	4AC	C2-N1	4.25	1.49	1.40
27	B1	336	5MC	C6-N1	4.25	1.45	1.38
27	B1	502	LHH	C4-N4	4.25	1.45	1.39
1	A1	5	4AC	C4-N4	4.25	1.45	1.39
27	B1	580	4AC	C4-N4	4.25	1.45	1.39
1	A1	1288	4AC	C4-N4	4.25	1.45	1.39
27	B1	337	4AC	C4-N4	4.25	1.45	1.39
27	B1	2083	4AC	C4-N4	4.25	1.45	1.39
27	B1	243	4AC	C4-N4	4.25	1.45	1.39
27	B1	1064	4AC	C4-N4	4.25	1.45	1.39
27	B1	2087	5MC	C6-N1	4.24	1.45	1.38
27	B1	877	5MC	C2-N1	4.24	1.49	1.40
27	B1	1579	4AC	C2-N1	4.24	1.49	1.40
1	A1	405	4AC	C2-N1	4.24	1.49	1.40
27	B1	3020	4AC	C4-N4	4.24	1.45	1.39
27	B1	434	4AC	C4-N4	4.24	1.45	1.39
27	B1	2901	5MC	C6-N1	4.24	1.45	1.38
27	B1	23	4AC	C4-N4	4.24	1.45	1.39
1	A1	927	LV2	C5-C4	4.24	1.49	1.41
27	B1	1966	5MC	C6-N1	4.24	1.45	1.38
27	B1	2171	4AC	C4-N4	4.24	1.45	1.39
27	B1	1293	4AC	C4-N4	4.24	1.45	1.39
27	B1	337	4AC	C2-N1	4.24	1.49	1.40
27	B1	419	4AC	C2-N1	4.23	1.49	1.40
27	B1	1442	4AC	C4-N4	4.23	1.45	1.39
27	B1	2113	4AC	C4-N4	4.23	1.45	1.39
27	B1	2749	4AC	C4-N4	4.23	1.45	1.39
27	B1	1345	4AC	C4-N4	4.23	1.45	1.39
27	B1	1264	4AC	C4-N4	4.23	1.45	1.39
27	B1	641	4AC	C4-N4	4.23	1.45	1.39
1	A1	756	4SU	C4-S4	-4.23	1.60	1.68
1	A1	444	4AC	C2-N1	4.23	1.49	1.40
27	B1	1649	4AC	C4-N4	4.23	1.45	1.39
27	B1	1973	5MC	C6-N1	4.23	1.45	1.38
28	B2	90	4AC	C2-N1	4.23	1.49	1.40
27	B1	2565	4SU	C4-S4	-4.23	1.60	1.68
27	B1	2902	4AC	C4-N4	4.22	1.45	1.39
1	A1	87	4AC	C2-N1	4.22	1.49	1.40
1	A1	427	4AC	C2-N1	4.22	1.49	1.40
1	A1	488	OMU	C4-N3	4.22	1.46	1.38
27	B1	1107	4AC	C4-N4	4.22	1.45	1.39
1	A1	839	4AC	C2-N1	4.22	1.49	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2875	5MC	C6-N1	4.22	1.45	1.38
27	B1	252	5MC	C6-N1	4.22	1.45	1.38
1	A1	636	4AC	C2-N1	4.22	1.49	1.40
1	A1	467	4AC	C2-N1	4.22	1.49	1.40
27	B1	1052	4AC	C2-N1	4.22	1.49	1.40
1	A1	614	4AC	C4-N4	4.22	1.45	1.39
27	B1	1546	4AC	C4-N4	4.22	1.45	1.39
27	B1	599	4AC	C2-N1	4.22	1.49	1.40
1	A1	827	4AC	C4-N4	4.22	1.45	1.39
1	A1	1254	4AC	C2-N1	4.21	1.49	1.40
27	B1	953	4AC	C4-N4	4.21	1.45	1.39
27	B1	1290	4AC	C4-N4	4.21	1.45	1.39
27	B1	813	4AC	C2-N1	4.21	1.49	1.40
27	B1	1757	4AC	C4-N4	4.21	1.45	1.39
28	B2	108	4AC	C2-N1	4.21	1.49	1.40
27	B1	715	4AC	C4-N4	4.21	1.45	1.39
1	A1	473	5MC	C6-N1	4.21	1.45	1.38
27	B1	2821	4AC	C2-N1	4.21	1.49	1.40
27	B1	827	4AC	C4-N4	4.21	1.45	1.39
1	A1	605	5MC	C6-N1	4.21	1.45	1.38
1	A1	739	4AC	C2-N1	4.21	1.49	1.40
27	B1	932	5MC	C6-N1	4.21	1.45	1.38
27	B1	652	4AC	C4-N4	4.21	1.45	1.39
27	B1	1505	4AC	C4-N4	4.21	1.45	1.39
27	B1	19	4AC	C2-N1	4.21	1.49	1.40
27	B1	2379	4AC	C4-N4	4.20	1.45	1.39
27	B1	2888	4AC	C4-N4	4.20	1.45	1.39
27	B1	98	4AC	C2-N1	4.20	1.49	1.40
27	B1	98	4AC	C4-N4	4.20	1.45	1.39
27	B1	3037	4AC	C2-N1	4.20	1.49	1.40
27	B1	1751	4AC	C2-N1	4.20	1.49	1.40
27	B1	1435	4AC	C4-N4	4.20	1.45	1.39
27	B1	1822	4AC	C2-N1	4.20	1.49	1.40
27	B1	162	4AC	C4-N4	4.20	1.45	1.39
27	B1	116	4AC	C4-N4	4.20	1.45	1.39
27	B1	1706	4AC	C2-N1	4.20	1.49	1.40
27	B1	243	4AC	C2-N1	4.20	1.49	1.40
1	A1	307	4AC	C4-N4	4.20	1.45	1.39
1	A1	839	4AC	C4-N4	4.19	1.45	1.39
27	B1	2526	4AC	C2-N1	4.19	1.49	1.40
27	B1	2602	4AC	C2-N1	4.19	1.49	1.40
1	A1	1135	4AC	C2-N1	4.19	1.49	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1639	4AC	C2-N1	4.18	1.49	1.40
27	B1	378	4AC	C4-N4	4.18	1.45	1.39
1	A1	444	4AC	C4-N4	4.18	1.45	1.39
27	B1	1608	4AC	C2-N1	4.18	1.49	1.40
1	A1	141	4AC	C2-N1	4.18	1.49	1.40
27	B1	1439	4AC	C4-N4	4.18	1.45	1.39
27	B1	2809	4AC	C4-N4	4.18	1.45	1.39
27	B1	2844	4AC	C4-N4	4.18	1.45	1.39
27	B1	732	4AC	C2-N1	4.18	1.49	1.40
27	B1	106	4AC	C2-N1	4.18	1.49	1.40
27	B1	652	4AC	C2-N1	4.18	1.49	1.40
27	B1	19	4AC	C4-N4	4.17	1.45	1.39
27	B1	877	5MC	C6-N1	4.17	1.45	1.38
27	B1	1128	4AC	C2-N1	4.17	1.49	1.40
27	B1	1822	4AC	C4-N4	4.17	1.45	1.39
1	A1	367	4AC	C2-N1	4.17	1.49	1.40
28	B2	120	4AC	C2-N1	4.17	1.49	1.40
1	A1	856	4AC	C2-N1	4.17	1.49	1.40
27	B1	48	4AC	C2-N1	4.17	1.49	1.40
1	A1	945	4AC	C2-N1	4.17	1.49	1.40
27	B1	2213	4AC	C2-N1	4.17	1.49	1.40
1	A1	815	5MC	C6-N1	4.17	1.45	1.38
1	A1	578	4AC	C2-N1	4.17	1.49	1.40
27	B1	1178	4AC	C2-N1	4.16	1.49	1.40
1	A1	216	4AC	C2-N1	4.16	1.49	1.40
27	B1	3011	4AC	C2-N1	4.16	1.49	1.40
27	B1	1100	4AC	C4-N4	4.16	1.45	1.39
1	A1	1221	4AC	C2-N1	4.16	1.49	1.40
1	A1	1288	4AC	C2-N1	4.16	1.49	1.40
27	B1	344	4AC	C2-N1	4.16	1.49	1.40
27	B1	1981	OMU	C4-N3	4.16	1.46	1.38
27	B1	130	4AC	C2-N1	4.16	1.49	1.40
27	B1	715	4AC	C2-N1	4.16	1.49	1.40
27	B1	950	4AC	C4-N4	4.16	1.45	1.39
27	B1	896	4AC	C2-N1	4.15	1.49	1.40
27	B1	3006	4AC	C2-N1	4.15	1.49	1.40
27	B1	2554	OMU	C4-N3	4.15	1.46	1.38
27	B1	2902	4AC	C2-N1	4.15	1.49	1.40
27	B1	2432	4AC	C2-N1	4.15	1.49	1.40
27	B1	1505	4AC	C2-N1	4.15	1.49	1.40
27	B1	2749	4AC	C2-N1	4.15	1.49	1.40
1	A1	624	4AC	C2-N1	4.15	1.49	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1967	4AC	C2-N1	4.15	1.49	1.40
28	B2	117	4AC	C2-N1	4.15	1.49	1.40
27	B1	1344	5MC	C6-N1	4.15	1.45	1.38
1	A1	5	4AC	C2-N1	4.15	1.49	1.40
27	B1	1757	4AC	C2-N1	4.15	1.49	1.40
27	B1	896	4AC	C4-N4	4.14	1.45	1.39
27	B1	786	4AC	C2-N1	4.14	1.49	1.40
27	B1	721	4AC	C2-N1	4.14	1.49	1.40
27	B1	80	4AC	C4-N4	4.14	1.45	1.39
27	B1	3020	4AC	C2-N1	4.14	1.49	1.40
27	B1	3023	4AC	C2-N1	4.14	1.49	1.40
27	B1	1762	4AC	C4-N4	4.14	1.45	1.39
27	B1	1967	4AC	C4-N4	4.14	1.45	1.39
27	B1	1442	4AC	C2-N1	4.14	1.49	1.40
27	B1	2020	4AC	C2-N1	4.14	1.49	1.40
1	A1	927	LV2	C2-N1	4.14	1.49	1.40
27	B1	609	4AC	C2-N1	4.14	1.49	1.40
27	B1	2454	4AC	C2-N1	4.14	1.49	1.40
1	A1	307	4AC	C2-N1	4.13	1.49	1.40
1	A1	1165	OMU	C4-N3	4.13	1.46	1.38
27	B1	688	4AC	C2-N1	4.13	1.49	1.40
27	B1	1762	4AC	C2-N1	4.13	1.49	1.40
1	A1	1016	4AC	C2-N1	4.13	1.48	1.40
27	B1	866	4AC	C4-N4	4.13	1.45	1.39
27	B1	454	OMU	C4-N3	4.13	1.46	1.38
27	B1	162	4AC	C2-N1	4.13	1.48	1.40
27	B1	2113	4AC	C2-N1	4.13	1.48	1.40
1	A1	1314	4AC	C4-N4	4.13	1.45	1.39
27	B1	1374	4AC	C2-N1	4.13	1.48	1.40
27	B1	1052	4AC	C4-N4	4.13	1.45	1.39
27	B1	227	4AC	C2-N1	4.13	1.48	1.40
1	A1	425	OMU	C4-N3	4.13	1.45	1.38
1	A1	816	4AC	C2-N1	4.12	1.48	1.40
1	A1	1227	4AC	C2-N1	4.12	1.48	1.40
1	A1	546	4AC	C2-N1	4.12	1.48	1.40
27	B1	271	4AC	C2-N1	4.12	1.48	1.40
27	B1	1150	4AC	C2-N1	4.12	1.48	1.40
27	B1	2429	4AC	C2-N1	4.12	1.48	1.40
27	B1	1313	4AC	C5-C4	4.12	1.49	1.40
27	B1	2133	4AC	C4-N4	4.12	1.45	1.39
27	B1	142	4AC	C5-C4	4.12	1.49	1.40
27	B1	2008	4AC	C5-C4	4.12	1.49	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1579	4AC	C5-C4	4.11	1.49	1.40
1	A1	382	4AC	C2-N1	4.11	1.48	1.40
27	B1	1505	4AC	C5-C4	4.11	1.49	1.40
27	B1	807	4AC	C2-N1	4.11	1.48	1.40
27	B1	2492	4AC	C2-N1	4.11	1.48	1.40
27	B1	1478	4AC	C2-N1	4.11	1.48	1.40
27	B1	434	4AC	C2-N1	4.11	1.48	1.40
27	B1	2133	4AC	C2-N1	4.11	1.48	1.40
1	A1	739	4AC	C5-C4	4.11	1.49	1.40
1	A1	540	4AC	C2-N1	4.11	1.48	1.40
27	B1	1435	4AC	C2-N1	4.11	1.48	1.40
27	B1	116	4AC	C5-C4	4.11	1.49	1.40
27	B1	1501	4AC	C2-N1	4.11	1.48	1.40
27	B1	953	4AC	C2-N1	4.10	1.48	1.40
1	A1	1110	OMU	C4-N3	4.10	1.45	1.38
27	B1	2469	4AC	C2-N1	4.10	1.48	1.40
1	A1	1314	4AC	C2-N1	4.10	1.48	1.40
27	B1	80	4AC	C2-N1	4.10	1.48	1.40
27	B1	2401	OMU	C4-N3	4.10	1.45	1.38
1	A1	719	4AC	C2-N1	4.10	1.48	1.40
27	B1	933	4AC	C2-N1	4.10	1.48	1.40
1	A1	1067	4AC	C2-N1	4.10	1.48	1.40
28	B2	117	4AC	C5-C4	4.10	1.49	1.40
27	B1	485	4AC	C5-C4	4.10	1.49	1.40
27	B1	609	4AC	C5-C4	4.10	1.49	1.40
28	B2	120	4AC	C5-C4	4.10	1.49	1.40
27	B1	1061	4AC	C2-N1	4.10	1.48	1.40
27	B1	1769	4AC	C4-N4	4.10	1.45	1.39
1	A1	291	4AC	C2-N1	4.10	1.48	1.40
27	B1	1885	4AC	C2-N1	4.10	1.48	1.40
1	A1	1181	4AC	C2-N1	4.09	1.48	1.40
27	B1	2171	4AC	C2-N1	4.09	1.48	1.40
27	B1	1822	4AC	C5-C4	4.09	1.49	1.40
27	B1	827	4AC	C2-N1	4.09	1.48	1.40
1	A1	762	OMU	C4-N3	4.09	1.45	1.38
27	B1	1264	4AC	C2-N1	4.09	1.48	1.40
27	B1	2844	4AC	C2-N1	4.09	1.48	1.40
27	B1	2902	4AC	C5-C4	4.09	1.49	1.40
27	B1	116	4AC	C2-N1	4.09	1.48	1.40
27	B1	1383	4AC	C2-N1	4.09	1.48	1.40
27	B1	2749	4AC	C5-C4	4.09	1.49	1.40
1	A1	614	4AC	C2-N1	4.09	1.48	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1546	4AC	C2-N1	4.09	1.48	1.40
1	A1	706	4AC	C5-C4	4.09	1.49	1.40
27	B1	2888	4AC	C2-N1	4.09	1.48	1.40
1	A1	231	4AC	C2-N1	4.09	1.48	1.40
1	A1	1227	4AC	C5-C4	4.09	1.49	1.40
1	A1	141	4AC	C5-C4	4.09	1.49	1.40
1	A1	836	4AC	C5-C4	4.09	1.49	1.40
1	A1	499	4AC	C2-N1	4.08	1.48	1.40
27	B1	2133	4AC	C5-C4	4.08	1.49	1.40
27	B1	2850	4AC	C2-N1	4.08	1.48	1.40
27	B1	1178	4AC	C5-C4	4.08	1.49	1.40
27	B1	580	4AC	C2-N1	4.08	1.48	1.40
1	A1	706	4AC	C2-N1	4.08	1.48	1.40
27	B1	1649	4AC	C2-N1	4.08	1.48	1.40
27	B1	1551	4AC	C5-C4	4.08	1.49	1.40
27	B1	200	4AC	C5-C4	4.08	1.49	1.40
1	A1	41	4AC	C2-N1	4.08	1.48	1.40
27	B1	866	4AC	C2-N1	4.08	1.48	1.40
27	B1	2432	4AC	C5-C4	4.08	1.49	1.40
27	B1	2821	4AC	C5-C4	4.08	1.49	1.40
27	B1	2083	4AC	C2-N1	4.08	1.48	1.40
1	A1	231	4AC	C5-C4	4.08	1.49	1.40
1	A1	624	4AC	C5-C4	4.08	1.49	1.40
27	B1	1100	4AC	C5-C4	4.08	1.49	1.40
1	A1	827	4AC	C5-C4	4.07	1.49	1.40
27	B1	807	4AC	C5-C4	4.07	1.49	1.40
27	B1	950	4AC	C2-N1	4.07	1.48	1.40
1	A1	836	4AC	C2-N1	4.07	1.48	1.40
1	A1	41	4AC	C5-C4	4.07	1.49	1.40
27	B1	1608	4AC	C5-C4	4.07	1.49	1.40
27	B1	1301	4AC	C2-N1	4.07	1.48	1.40
27	B1	1551	4AC	C2-N1	4.07	1.48	1.40
27	B1	1649	4AC	C5-C4	4.07	1.49	1.40
27	B1	23	4AC	C2-N1	4.07	1.48	1.40
27	B1	1100	4AC	C2-N1	4.07	1.48	1.40
1	A1	274	4AC	C5-C4	4.07	1.49	1.40
27	B1	2008	4AC	C2-N1	4.07	1.48	1.40
27	B1	360	4AC	C5-C4	4.07	1.49	1.40
27	B1	378	4AC	C5-C4	4.07	1.49	1.40
27	B1	1885	4AC	C5-C4	4.07	1.49	1.40
27	B1	227	4AC	C5-C4	4.07	1.49	1.40
27	B1	2379	4AC	C2-N1	4.07	1.48	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	1016	4AC	C5-C4	4.07	1.49	1.40
1	A1	816	4AC	C5-C4	4.07	1.49	1.40
27	B1	896	4AC	C5-C4	4.07	1.49	1.40
27	B1	378	4AC	C2-N1	4.07	1.48	1.40
27	B1	1107	4AC	C2-N1	4.07	1.48	1.40
1	A1	5	4AC	C5-C4	4.07	1.49	1.40
27	B1	2429	4AC	C5-C4	4.07	1.49	1.40
28	B2	32	4AC	C5-C4	4.07	1.49	1.40
1	A1	405	4AC	C5-C4	4.06	1.49	1.40
27	B1	1439	4AC	C2-N1	4.06	1.48	1.40
27	B1	1293	4AC	C2-N1	4.06	1.48	1.40
27	B1	1664	4AC	C2-N1	4.06	1.48	1.40
27	B1	2668	OMU	C4-N3	4.06	1.45	1.38
27	B1	2379	4AC	C5-C4	4.06	1.49	1.40
27	B1	2469	4AC	C5-C4	4.06	1.49	1.40
1	A1	636	4AC	C5-C4	4.06	1.49	1.40
27	B1	1067	4AC	C5-C4	4.06	1.49	1.40
27	B1	1345	4AC	C2-N1	4.06	1.48	1.40
1	A1	274	4AC	C2-N1	4.06	1.48	1.40
27	B1	162	4AC	C5-C4	4.06	1.49	1.40
27	B1	953	4AC	C5-C4	4.06	1.49	1.40
27	B1	2213	4AC	C5-C4	4.06	1.49	1.40
27	B1	2492	4AC	C5-C4	4.06	1.49	1.40
27	B1	2526	4AC	C5-C4	4.06	1.49	1.40
27	B1	1293	4AC	C5-C4	4.06	1.49	1.40
27	B1	360	4AC	C2-N1	4.06	1.48	1.40
27	B1	1150	4AC	C4-N4	4.06	1.45	1.39
27	B1	1301	4AC	C5-C4	4.06	1.49	1.40
27	B1	200	4AC	C2-N1	4.06	1.48	1.40
1	A1	546	4AC	C5-C4	4.06	1.49	1.40
1	A1	856	4AC	C5-C4	4.05	1.49	1.40
27	B1	2809	4AC	C5-C4	4.05	1.49	1.40
1	A1	775	OMU	C4-N3	4.05	1.45	1.38
1	A1	467	4AC	C5-C4	4.05	1.49	1.40
27	B1	419	4AC	C5-C4	4.05	1.49	1.40
27	B1	1290	4AC	C2-N1	4.05	1.48	1.40
1	A1	367	4AC	C5-C4	4.05	1.49	1.40
1	A1	216	4AC	C5-C4	4.05	1.49	1.40
27	B1	866	4AC	C5-C4	4.05	1.49	1.40
27	B1	1067	4AC	C2-N1	4.05	1.48	1.40
27	B1	1818	4AC	C2-N1	4.05	1.48	1.40
27	B1	641	4AC	C2-N1	4.05	1.48	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	48	4AC	C5-C4	4.05	1.49	1.40
1	A1	1368	OMU	C4-N3	4.05	1.45	1.38
27	B1	1442	4AC	C5-C4	4.05	1.49	1.40
27	B1	1439	4AC	C5-C4	4.05	1.49	1.40
27	B1	48	4AC	C4-N4	4.05	1.45	1.39
1	A1	444	4AC	C5-C4	4.05	1.49	1.40
27	B1	2792	4AC	C2-N1	4.05	1.48	1.40
27	B1	130	4AC	C5-C4	4.05	1.49	1.40
27	B1	1757	4AC	C5-C4	4.05	1.49	1.40
27	B1	2809	4AC	C2-N1	4.04	1.48	1.40
1	A1	220	4AC	C5-C4	4.04	1.49	1.40
28	B2	90	4AC	C5-C4	4.04	1.49	1.40
1	A1	578	4AC	C5-C4	4.04	1.49	1.40
27	B1	1911	4AC	C2-N1	4.04	1.48	1.40
27	B1	1290	4AC	C5-C4	4.04	1.49	1.40
27	B1	1501	4AC	C5-C4	4.04	1.49	1.40
27	B1	1967	4AC	C5-C4	4.04	1.49	1.40
1	A1	827	4AC	C2-N1	4.04	1.48	1.40
27	B1	715	4AC	C5-C4	4.04	1.49	1.40
27	B1	1374	4AC	C5-C4	4.04	1.49	1.40
1	A1	534	4AC	C2-N1	4.04	1.48	1.40
27	B1	485	4AC	C2-N1	4.04	1.48	1.40
1	A1	614	4AC	C5-C4	4.04	1.49	1.40
27	B1	2792	4AC	C5-C4	4.04	1.49	1.40
27	B1	2888	4AC	C5-C4	4.04	1.49	1.40
27	B1	1751	4AC	C5-C4	4.04	1.49	1.40
27	B1	1706	4AC	C5-C4	4.04	1.49	1.40
27	B1	2454	4AC	C5-C4	4.04	1.49	1.40
27	B1	1743	4AC	C5-C4	4.04	1.49	1.40
27	B1	3020	4AC	C5-C4	4.04	1.49	1.40
27	B1	580	4AC	C5-C4	4.04	1.49	1.40
27	B1	652	4AC	C5-C4	4.04	1.49	1.40
27	B1	1128	4AC	C5-C4	4.04	1.49	1.40
27	B1	2876	4AC	C5-C4	4.04	1.49	1.40
1	A1	382	4AC	C5-C4	4.03	1.49	1.40
1	A1	534	4AC	C5-C4	4.03	1.49	1.40
1	A1	1314	4AC	C5-C4	4.03	1.49	1.40
1	A1	1067	4AC	C5-C4	4.03	1.49	1.40
27	B1	599	4AC	C5-C4	4.03	1.49	1.40
1	A1	291	4AC	C5-C4	4.03	1.49	1.40
27	B1	1911	4AC	C5-C4	4.03	1.49	1.40
27	B1	2020	4AC	C5-C4	4.03	1.49	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	23	4AC	C5-C4	4.03	1.49	1.40
1	A1	1288	4AC	C5-C4	4.02	1.49	1.40
1	A1	307	4AC	C5-C4	4.02	1.49	1.40
27	B1	2113	4AC	C5-C4	4.02	1.49	1.40
27	B1	827	4AC	C5-C4	4.02	1.49	1.40
27	B1	3006	4AC	C5-C4	4.02	1.49	1.40
27	B1	2844	4AC	C5-C4	4.02	1.49	1.40
27	B1	98	4AC	C5-C4	4.02	1.49	1.40
1	A1	499	4AC	C5-C4	4.02	1.49	1.40
27	B1	2850	4AC	C5-C4	4.02	1.49	1.40
27	B1	344	4AC	C5-C4	4.02	1.49	1.40
27	B1	1488	OMU	C4-N3	4.02	1.45	1.38
1	A1	540	4AC	C5-C4	4.01	1.49	1.40
1	A1	1135	4AC	C5-C4	4.01	1.49	1.40
27	B1	786	4AC	C5-C4	4.01	1.49	1.40
27	B1	434	4AC	C5-C4	4.01	1.49	1.40
1	A1	1467	4AC	C5-C4	4.01	1.49	1.40
27	B1	19	4AC	C5-C4	4.01	1.49	1.40
27	B1	641	4AC	C5-C4	4.01	1.49	1.40
27	B1	1061	4AC	C5-C4	4.01	1.49	1.40
27	B1	1383	4AC	C5-C4	4.01	1.49	1.40
27	B1	3011	4AC	C5-C4	4.00	1.49	1.40
1	A1	839	4AC	C5-C4	4.00	1.49	1.40
27	B1	243	4AC	C5-C4	4.00	1.49	1.40
27	B1	271	4AC	C5-C4	4.00	1.49	1.40
1	A1	945	4AC	C5-C4	4.00	1.49	1.40
27	B1	1769	4AC	C2-N1	4.00	1.48	1.40
27	B1	1478	4AC	C5-C4	4.00	1.49	1.40
27	B1	337	4AC	C5-C4	4.00	1.49	1.40
27	B1	2171	4AC	C5-C4	4.00	1.49	1.40
27	B1	2602	4AC	C5-C4	4.00	1.49	1.40
1	A1	8	OMU	C4-N3	3.99	1.45	1.38
27	B1	1064	4AC	C5-C4	3.99	1.49	1.40
27	B1	926	OMU	C4-N3	3.99	1.45	1.38
27	B1	732	4AC	C5-C4	3.99	1.49	1.40
1	A1	1221	4AC	C5-C4	3.99	1.49	1.40
27	B1	721	4AC	C5-C4	3.99	1.49	1.40
27	B1	1264	4AC	C5-C4	3.99	1.49	1.40
27	B1	1818	4AC	C5-C4	3.99	1.49	1.40
27	B1	1769	4AC	C5-C4	3.99	1.49	1.40
27	B1	1846	4AC	C5-C4	3.99	1.49	1.40
27	B1	1546	4AC	C5-C4	3.98	1.49	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	688	4AC	C5-C4	3.98	1.49	1.40
27	B1	2083	4AC	C5-C4	3.98	1.49	1.40
27	B1	1664	4AC	C5-C4	3.98	1.49	1.40
27	B1	1107	4AC	C5-C4	3.97	1.49	1.40
1	A1	87	4AC	C5-C4	3.97	1.49	1.40
1	A1	1254	4AC	C5-C4	3.97	1.49	1.40
27	B1	80	4AC	C5-C4	3.97	1.49	1.40
27	B1	3023	4AC	C5-C4	3.96	1.49	1.40
27	B1	3037	4AC	C5-C4	3.96	1.49	1.40
27	B1	1664	4AC	C4-N4	3.96	1.45	1.39
27	B1	1639	4AC	C5-C4	3.95	1.49	1.40
1	A1	427	4AC	C5-C4	3.95	1.49	1.40
1	A1	719	4AC	C5-C4	3.95	1.49	1.40
28	B2	108	4AC	C5-C4	3.95	1.49	1.40
27	B1	1345	4AC	C5-C4	3.94	1.49	1.40
1	A1	1181	4AC	C4-N4	3.94	1.45	1.39
27	B1	1052	4AC	C5-C4	3.94	1.49	1.40
27	B1	950	4AC	C5-C4	3.93	1.49	1.40
27	B1	1762	4AC	C5-C4	3.93	1.49	1.40
27	B1	1435	4AC	C5-C4	3.93	1.49	1.40
27	B1	106	4AC	C5-C4	3.92	1.49	1.40
27	B1	1322	4AC	C5-C4	3.92	1.49	1.40
1	A1	1181	4AC	C5-C4	3.91	1.49	1.40
27	B1	2046	OMC	C4-N4	3.90	1.43	1.33
1	A1	761	OMC	C4-N4	3.90	1.43	1.33
27	B1	933	4AC	C4-N4	3.90	1.45	1.39
1	A1	1371	OMC	C4-N4	3.90	1.43	1.33
27	B1	979	4AC	C5-C4	3.89	1.49	1.40
27	B1	813	4AC	C5-C4	3.89	1.49	1.40
27	B1	2428	OMC	C4-N4	3.88	1.43	1.33
1	A1	1194	OMC	C4-N4	3.88	1.43	1.33
1	A1	1364	OMC	C4-N4	3.88	1.43	1.33
1	A1	117	OMC	C4-N4	3.87	1.43	1.33
1	A1	1226	OMC	C4-N4	3.87	1.43	1.33
1	A1	834	OMC	C4-N4	3.87	1.43	1.33
27	B1	2007	OMC	C4-N4	3.87	1.43	1.33
27	B1	2808	OMC	C4-N4	3.86	1.43	1.33
1	A1	426	OMC	C4-N4	3.86	1.43	1.33
27	B1	2607	OMC	C4-N4	3.86	1.43	1.33
27	B1	1150	4AC	C5-C4	3.86	1.49	1.40
27	B1	933	4AC	C5-C4	3.86	1.49	1.40
27	B1	1286	4AC	C5-C4	3.85	1.49	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	541	OMG	C6-N1	3.85	1.43	1.37
27	B1	1489	OMC	C4-N4	3.85	1.43	1.33
27	B1	47	OMC	C4-N4	3.85	1.43	1.33
1	A1	464	OMG	C6-N1	3.84	1.43	1.37
27	B1	1099	OMC	C4-N4	3.84	1.42	1.33
27	B1	1832	OMC	C4-N4	3.84	1.42	1.33
27	B1	2735	OMC	C4-N4	3.83	1.42	1.33
27	B1	2059	OMC	C4-N4	3.83	1.42	1.33
27	B1	904	OMC	C4-N4	3.83	1.42	1.33
27	B1	501	OMC	C4-N4	3.82	1.42	1.33
27	B1	675	OMG	C6-N1	3.82	1.43	1.37
27	B1	2557	OMC	C4-N4	3.81	1.42	1.33
1	A1	1004	2MG	C6-N1	3.81	1.43	1.37
27	B1	2180	OMG	C6-N1	3.80	1.43	1.37
1	A1	861	OMG	C6-N1	3.80	1.43	1.37
27	B1	2757	OMG	C6-N1	3.79	1.43	1.37
1	A1	481	7MG	C2-N1	3.79	1.47	1.37
1	A1	329	OMG	C6-N1	3.79	1.43	1.37
1	A1	455	OMG	C6-N1	3.78	1.43	1.37
27	B1	1914	OMC	C4-N4	3.78	1.42	1.33
1	A1	901	OMG	C6-N1	3.77	1.43	1.37
1	A1	504	OMG	C6-N1	3.77	1.43	1.37
1	A1	228	OMG	C6-N1	3.76	1.43	1.37
1	A1	507	OMG	C6-N1	3.76	1.43	1.37
1	A1	132	OMG	C6-N1	3.75	1.43	1.37
1	A1	152	OMG	C6-N1	3.75	1.43	1.37
27	B1	2108	OMG	C6-N1	3.74	1.43	1.37
27	B1	2659	OMG	C6-N1	3.73	1.43	1.37
1	A1	668	OMG	C6-N1	3.73	1.43	1.37
1	A1	763	OMG	C6-N1	3.72	1.43	1.37
27	B1	1965	OMG	C6-N1	3.71	1.43	1.37
1	A1	1003	OMG	C6-N1	3.71	1.43	1.37
1	A1	927	LV2	C4-N4	3.71	1.45	1.36
27	B1	550	OMG	C6-N1	3.71	1.43	1.37
27	B1	2365	OMG	C6-N1	3.71	1.43	1.37
1	A1	153	OMG	C6-N1	3.71	1.43	1.37
27	B1	530	OMG	C6-N1	3.70	1.43	1.37
27	B1	887	OMG	C6-N1	3.70	1.43	1.37
27	B1	920	OMG	C6-N1	3.70	1.43	1.37
27	B1	2391	OMG	C6-N1	3.70	1.43	1.37
27	B1	2984	OMG	C6-N1	3.69	1.43	1.37
27	B1	214	OMG	C6-N1	3.69	1.43	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2740	OMG	C6-N1	3.69	1.43	1.37
27	B1	2022	OMG	C6-N1	3.68	1.43	1.37
1	A1	1420	OMG	C6-N1	3.68	1.43	1.37
1	A1	833	OMG	C6-N1	3.67	1.43	1.37
1	A1	227	OMG	C6-N1	3.67	1.43	1.37
27	B1	921	OMG	C6-N1	3.66	1.43	1.37
1	A1	459	OMG	C6-N1	3.65	1.43	1.37
27	B1	2028	OMG	C6-N1	3.65	1.43	1.37
27	B1	808	OMG	C6-N1	3.65	1.43	1.37
27	B1	2684	OMG	C6-N1	3.65	1.43	1.37
27	B1	2540	OMG	C6-N1	3.64	1.43	1.37
1	A1	645	OMG	C6-N1	3.63	1.43	1.37
27	B1	2562	OMG	C6-N1	3.60	1.43	1.37
27	B1	1904	OMG	C6-N1	3.60	1.43	1.37
27	B1	55	OMG	C6-N1	3.56	1.43	1.37
1	A1	927	LV2	C6-N1	3.54	1.46	1.38
27	B1	1946	LHH	C2-N1	-3.53	1.32	1.40
27	B1	2046	OMC	C6-N1	3.53	1.46	1.38
27	B1	1533	OMG	C6-N1	3.53	1.43	1.37
27	B1	2968	LHH	C2-N1	-3.51	1.32	1.40
27	B1	502	LHH	C2-N1	-3.49	1.32	1.40
1	A1	481	7MG	C5-C6	3.46	1.52	1.43
1	A1	1029	LHH	C2-N1	-3.46	1.32	1.40
1	A1	1364	OMC	C6-N1	3.44	1.46	1.38
27	B1	501	OMC	C6-N1	3.44	1.46	1.38
27	B1	2428	OMC	C6-N1	3.43	1.46	1.38
27	B1	1832	OMC	C6-N1	3.43	1.46	1.38
27	B1	1099	OMC	C6-N1	3.43	1.46	1.38
27	B1	47	OMC	C6-N1	3.42	1.46	1.38
27	B1	2557	OMC	C6-N1	3.42	1.46	1.38
1	A1	117	OMC	C6-N1	3.41	1.46	1.38
1	A1	1226	OMC	C6-N1	3.41	1.46	1.38
27	B1	2808	OMC	C6-N1	3.41	1.46	1.38
1	A1	1371	OMC	C6-N1	3.41	1.46	1.38
1	A1	426	OMC	C6-N1	3.41	1.46	1.38
27	B1	1489	OMC	C6-N1	3.40	1.46	1.38
27	B1	527	LHH	C2-N1	-3.40	1.32	1.40
27	B1	2059	OMC	C6-N1	3.40	1.46	1.38
1	A1	834	OMC	C6-N1	3.40	1.46	1.38
27	B1	2007	OMC	C6-N1	3.40	1.46	1.38
27	B1	1914	OMC	C6-N1	3.40	1.46	1.38
27	B1	904	OMC	C6-N1	3.39	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2607	OMC	C6-N1	3.39	1.46	1.38
1	A1	1194	OMC	C6-N1	3.38	1.46	1.38
1	A1	238	LHH	C2-N1	-3.35	1.32	1.40
1	A1	481	7MG	C6-N1	3.35	1.45	1.38
27	B1	2735	OMC	C6-N1	3.34	1.46	1.38
1	A1	761	OMC	C6-N1	3.24	1.45	1.38
27	B1	1178	4AC	C6-N1	3.24	1.45	1.38
27	B1	3006	4AC	C6-N1	3.23	1.45	1.38
27	B1	48	4AC	C6-N1	3.23	1.45	1.38
1	A1	41	4AC	C6-N1	3.23	1.45	1.38
27	B1	276	LHH	C2-N1	-3.22	1.33	1.40
1	A1	141	4AC	C6-N1	3.22	1.45	1.38
27	B1	1769	4AC	C6-N1	3.22	1.45	1.38
1	A1	274	4AC	C6-N1	3.22	1.45	1.38
27	B1	98	4AC	C6-N1	3.21	1.45	1.38
27	B1	19	4AC	C6-N1	3.21	1.45	1.38
27	B1	580	4AC	C6-N1	3.21	1.45	1.38
28	B2	32	4AC	C6-N1	3.21	1.45	1.38
28	B2	117	4AC	C6-N1	3.21	1.45	1.38
27	B1	1579	4AC	C6-N1	3.21	1.45	1.38
27	B1	2821	4AC	C6-N1	3.21	1.45	1.38
27	B1	2809	4AC	C6-N1	3.20	1.45	1.38
27	B1	200	4AC	C6-N1	3.20	1.45	1.38
27	B1	1383	4AC	C6-N1	3.20	1.45	1.38
27	B1	1546	4AC	C6-N1	3.20	1.45	1.38
1	A1	839	4AC	C6-N1	3.20	1.45	1.38
1	A1	636	4AC	C6-N1	3.20	1.45	1.38
27	B1	227	4AC	C6-N1	3.20	1.45	1.38
1	A1	739	4AC	C6-N1	3.20	1.45	1.38
27	B1	1706	4AC	C6-N1	3.19	1.45	1.38
27	B1	2429	4AC	C6-N1	3.19	1.45	1.38
28	B2	120	4AC	C6-N1	3.19	1.45	1.38
1	A1	706	4AC	C6-N1	3.19	1.45	1.38
27	B1	2454	4AC	C6-N1	3.19	1.45	1.38
27	B1	1608	4AC	C6-N1	3.19	1.45	1.38
27	B1	419	4AC	C6-N1	3.19	1.45	1.38
1	A1	1467	4AC	C6-N1	3.19	1.45	1.38
27	B1	130	4AC	C6-N1	3.19	1.45	1.38
27	B1	1846	4AC	C6-N1	3.19	1.45	1.38
1	A1	5	4AC	C6-N1	3.18	1.45	1.38
1	A1	1067	4AC	C6-N1	3.18	1.45	1.38
27	B1	1067	4AC	C6-N1	3.18	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2876	4AC	C6-N1	3.18	1.45	1.38
1	A1	578	4AC	C6-N1	3.18	1.45	1.38
1	A1	216	4AC	C6-N1	3.18	1.45	1.38
1	A1	499	4AC	C6-N1	3.18	1.45	1.38
27	B1	896	4AC	C6-N1	3.18	1.45	1.38
28	B2	90	4AC	C6-N1	3.18	1.45	1.38
27	B1	116	4AC	C6-N1	3.18	1.45	1.38
1	A1	546	4AC	C6-N1	3.18	1.45	1.38
1	A1	816	4AC	C6-N1	3.18	1.45	1.38
27	B1	162	4AC	C6-N1	3.18	1.45	1.38
1	A1	827	4AC	C6-N1	3.17	1.45	1.38
1	A1	87	4AC	C6-N1	3.17	1.45	1.38
27	B1	953	4AC	C6-N1	3.17	1.45	1.38
1	A1	836	4AC	C6-N1	3.17	1.45	1.38
27	B1	2844	4AC	C6-N1	3.17	1.45	1.38
27	B1	1442	4AC	C6-N1	3.17	1.45	1.38
27	B1	715	4AC	C6-N1	3.17	1.45	1.38
27	B1	23	4AC	C6-N1	3.17	1.45	1.38
1	A1	231	4AC	C6-N1	3.17	1.45	1.38
27	B1	243	4AC	C6-N1	3.17	1.45	1.38
1	A1	624	4AC	C6-N1	3.17	1.45	1.38
27	B1	1649	4AC	C6-N1	3.17	1.45	1.38
27	B1	2526	4AC	C6-N1	3.17	1.45	1.38
27	B1	1822	4AC	C6-N1	3.16	1.45	1.38
1	A1	1227	4AC	C6-N1	3.16	1.45	1.38
27	B1	1290	4AC	C6-N1	3.16	1.45	1.38
27	B1	1885	4AC	C6-N1	3.16	1.45	1.38
27	B1	1911	4AC	C6-N1	3.16	1.45	1.38
27	B1	378	4AC	C6-N1	3.16	1.45	1.38
27	B1	866	4AC	C6-N1	3.16	1.45	1.38
27	B1	1478	4AC	C6-N1	3.16	1.45	1.38
27	B1	1505	4AC	C6-N1	3.16	1.45	1.38
27	B1	2379	4AC	C6-N1	3.16	1.45	1.38
1	A1	1004	2MG	C5-C6	3.16	1.53	1.47
27	B1	2133	4AC	C6-N1	3.16	1.45	1.38
27	B1	609	4AC	C6-N1	3.16	1.45	1.38
27	B1	2113	4AC	C6-N1	3.16	1.45	1.38
27	B1	2792	4AC	C6-N1	3.16	1.45	1.38
27	B1	1100	4AC	C6-N1	3.16	1.45	1.38
27	B1	344	4AC	C6-N1	3.16	1.45	1.38
1	A1	1016	4AC	C6-N1	3.15	1.45	1.38
27	B1	271	4AC	C6-N1	3.15	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2602	4AC	C6-N1	3.15	1.45	1.38
27	B1	1052	4AC	C6-N1	3.15	1.45	1.38
27	B1	2213	4AC	C6-N1	3.15	1.45	1.38
27	B1	2700	UR3	O4-C4	-3.15	1.16	1.23
27	B1	1374	4AC	C6-N1	3.15	1.45	1.38
27	B1	3011	4AC	C6-N1	3.15	1.45	1.38
27	B1	1967	4AC	C6-N1	3.15	1.45	1.38
27	B1	2008	4AC	C6-N1	3.15	1.45	1.38
27	B1	1107	4AC	C6-N1	3.15	1.45	1.38
27	B1	2020	4AC	C6-N1	3.15	1.45	1.38
27	B1	1551	4AC	C6-N1	3.15	1.45	1.38
27	B1	80	4AC	C6-N1	3.15	1.45	1.38
27	B1	1751	4AC	C6-N1	3.15	1.45	1.38
1	A1	405	4AC	C6-N1	3.15	1.45	1.38
27	B1	1743	4AC	C6-N1	3.15	1.45	1.38
27	B1	857	A2M	C6-N6	3.15	1.45	1.34
27	B1	142	4AC	C6-N1	3.15	1.45	1.38
27	B1	652	4AC	C6-N1	3.15	1.45	1.38
1	A1	467	4AC	C6-N1	3.15	1.45	1.38
27	B1	2171	4AC	C6-N1	3.15	1.45	1.38
27	B1	807	4AC	C6-N1	3.15	1.45	1.38
27	B1	1501	4AC	C6-N1	3.14	1.45	1.38
27	B1	1664	4AC	C6-N1	3.14	1.45	1.38
1	A1	534	4AC	C6-N1	3.14	1.45	1.38
27	B1	786	4AC	C6-N1	3.14	1.45	1.38
27	B1	2492	4AC	C6-N1	3.14	1.45	1.38
1	A1	1181	4AC	C6-N1	3.14	1.45	1.38
27	B1	1061	4AC	C6-N1	3.14	1.45	1.38
1	A1	856	4AC	C6-N1	3.14	1.45	1.38
27	B1	940	A2M	C6-N6	3.14	1.45	1.34
27	B1	1322	4AC	C6-N1	3.14	1.45	1.38
27	B1	1345	4AC	C6-N1	3.14	1.45	1.38
1	A1	819	A2M	C6-N6	3.14	1.45	1.34
27	B1	1293	4AC	C6-N1	3.14	1.45	1.38
1	A1	1288	4AC	C6-N1	3.14	1.45	1.38
27	B1	3020	4AC	C6-N1	3.14	1.45	1.38
1	A1	382	4AC	C6-N1	3.14	1.45	1.38
27	B1	1264	4AC	C6-N1	3.13	1.45	1.38
27	B1	1313	4AC	C6-N1	3.13	1.45	1.38
27	B1	485	4AC	C6-N1	3.13	1.45	1.38
27	B1	2469	4AC	C6-N1	3.13	1.45	1.38
1	A1	1135	4AC	C6-N1	3.13	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	337	4AC	C6-N1	3.13	1.45	1.38
1	A1	361	A2M	C6-N6	3.13	1.45	1.34
1	A1	291	4AC	C6-N1	3.13	1.45	1.38
1	A1	1221	4AC	C6-N1	3.13	1.45	1.38
1	A1	367	4AC	C6-N1	3.13	1.45	1.38
27	B1	950	4AC	C6-N1	3.13	1.45	1.38
27	B1	2749	4AC	C6-N1	3.13	1.45	1.38
27	B1	2850	4AC	C6-N1	3.12	1.45	1.38
27	B1	2432	4AC	C6-N1	3.12	1.45	1.38
27	B1	1439	4AC	C6-N1	3.12	1.45	1.38
27	B1	721	4AC	C6-N1	3.12	1.45	1.38
27	B1	506	A2M	C6-N6	3.12	1.45	1.34
27	B1	641	4AC	C6-N1	3.12	1.45	1.38
1	A1	719	4AC	C6-N1	3.12	1.45	1.38
27	B1	827	4AC	C6-N1	3.12	1.45	1.38
27	B1	3023	4AC	C6-N1	3.12	1.45	1.38
27	B1	434	4AC	C6-N1	3.12	1.45	1.38
27	B1	2902	4AC	C6-N1	3.12	1.45	1.38
27	B1	360	4AC	C6-N1	3.12	1.45	1.38
27	B1	1064	4AC	C6-N1	3.12	1.45	1.38
27	B1	599	4AC	C6-N1	3.11	1.45	1.38
27	B1	732	4AC	C6-N1	3.11	1.45	1.38
27	B1	3037	4AC	C6-N1	3.11	1.45	1.38
1	A1	307	4AC	C6-N1	3.11	1.45	1.38
1	A1	540	4AC	C6-N1	3.11	1.45	1.38
27	B1	1301	4AC	C6-N1	3.11	1.45	1.38
27	B1	688	4AC	C6-N1	3.11	1.45	1.38
27	B1	2888	4AC	C6-N1	3.11	1.45	1.38
27	B1	880	A2M	C6-N6	3.11	1.45	1.34
27	B1	2506	A2M	C6-N6	3.11	1.45	1.34
1	A1	1254	4AC	C6-N1	3.11	1.45	1.38
27	B1	1435	4AC	C6-N1	3.10	1.45	1.38
1	A1	227	OMG	C5-C6	3.10	1.53	1.47
1	A1	1314	4AC	C6-N1	3.10	1.45	1.38
27	B1	1818	4AC	C6-N1	3.10	1.45	1.38
1	A1	329	OMG	C5-C6	3.10	1.53	1.47
28	B2	108	4AC	C6-N1	3.09	1.45	1.38
1	A1	220	4AC	C6-N1	3.09	1.45	1.38
1	A1	614	4AC	C6-N1	3.09	1.45	1.38
27	B1	1762	4AC	C6-N1	3.09	1.45	1.38
27	B1	2083	4AC	C6-N1	3.08	1.45	1.38
27	B1	1128	4AC	C6-N1	3.08	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	427	4AC	C6-N1	3.08	1.45	1.38
27	B1	979	4AC	C6-N1	3.08	1.45	1.38
27	B1	940	A2M	O3'-C3'	-3.08	1.35	1.43
1	A1	464	OMG	C5-C6	3.08	1.53	1.47
27	B1	1757	4AC	C6-N1	3.07	1.45	1.38
1	A1	507	OMG	C5-C6	3.07	1.53	1.47
1	A1	668	OMG	C5-C6	3.06	1.53	1.47
27	B1	2984	OMG	C5-C6	3.06	1.53	1.47
1	A1	444	4AC	C6-N1	3.06	1.45	1.38
27	B1	933	4AC	C6-N1	3.06	1.45	1.38
1	A1	132	OMG	C5-C6	3.06	1.53	1.47
27	B1	530	OMG	C5-C6	3.06	1.53	1.47
27	B1	2365	OMG	C5-C6	3.05	1.53	1.47
1	A1	763	OMG	C5-C6	3.05	1.53	1.47
1	A1	152	OMG	C5-C6	3.05	1.53	1.47
27	B1	921	OMG	C5-C6	3.05	1.53	1.47
1	A1	504	OMG	C5-C6	3.04	1.53	1.47
27	B1	1639	4AC	C6-N1	3.04	1.45	1.38
27	B1	2757	OMG	C5-C6	3.04	1.53	1.47
27	B1	2180	OMG	C5-C6	3.04	1.53	1.47
1	A1	153	OMG	C5-C6	3.03	1.53	1.47
27	B1	2022	OMG	C5-C6	3.03	1.53	1.47
27	B1	2740	OMG	C5-C6	3.03	1.53	1.47
1	A1	945	4AC	C6-N1	3.03	1.45	1.38
27	B1	214	OMG	C5-C6	3.03	1.53	1.47
27	B1	675	OMG	C5-C6	3.03	1.53	1.47
27	B1	808	OMG	C5-C6	3.03	1.53	1.47
1	A1	901	OMG	C5-C6	3.02	1.53	1.47
27	B1	2562	OMG	C5-C6	3.02	1.53	1.47
27	B1	106	4AC	C6-N1	3.02	1.45	1.38
1	A1	455	OMG	C5-C6	3.02	1.53	1.47
27	B1	880	A2M	O3'-C3'	-3.01	1.35	1.43
27	B1	2684	OMG	C5-C6	3.01	1.53	1.47
1	A1	488	OMU	C6-N1	3.01	1.45	1.38
27	B1	887	OMG	C5-C6	3.01	1.53	1.47
1	A1	541	OMG	C5-C6	3.01	1.53	1.47
1	A1	1003	OMG	C5-C6	3.00	1.53	1.47
27	B1	2108	OMG	C5-C6	3.00	1.53	1.47
27	B1	2028	OMG	C5-C6	3.00	1.53	1.47
27	B1	2506	A2M	O3'-C3'	-3.00	1.35	1.43
27	B1	1150	4AC	C6-N1	3.00	1.45	1.38
27	B1	1286	4AC	C6-N1	2.99	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	459	OMG	C5-C6	2.99	1.53	1.47
1	A1	1420	OMG	C5-C6	2.98	1.53	1.47
27	B1	1965	OMG	C5-C6	2.98	1.53	1.47
1	A1	833	OMG	C5-C6	2.98	1.53	1.47
1	A1	228	OMG	C5-C6	2.98	1.53	1.47
27	B1	813	4AC	C6-N1	2.98	1.45	1.38
1	A1	861	OMG	C5-C6	2.98	1.53	1.47
27	B1	506	A2M	O3'-C3'	-2.97	1.36	1.43
1	A1	819	A2M	O3'-C3'	-2.96	1.36	1.43
27	B1	1981	OMU	C6-N1	2.96	1.45	1.38
27	B1	2540	OMG	C5-C6	2.95	1.53	1.47
1	A1	645	OMG	C5-C6	2.95	1.53	1.47
1	A1	1165	OMU	C6-N1	2.95	1.45	1.38
27	B1	926	OMU	O4-C4	-2.95	1.18	1.24
27	B1	2659	OMG	C5-C6	2.95	1.53	1.47
1	A1	1123	5MC	CM5-C5	2.94	1.58	1.50
1	A1	425	OMU	C6-N1	2.94	1.45	1.38
27	B1	2668	OMU	C6-N1	2.94	1.45	1.38
1	A1	1366	5MC	CM5-C5	2.94	1.58	1.50
27	B1	55	OMG	C5-C6	2.92	1.53	1.47
27	B1	550	OMG	C5-C6	2.92	1.53	1.47
27	B1	1344	5MC	CM5-C5	2.91	1.57	1.50
27	B1	2901	5MC	CM5-C5	2.91	1.57	1.50
27	B1	2391	OMG	C5-C6	2.91	1.53	1.47
1	A1	951	5MC	CM5-C5	2.91	1.57	1.50
27	B1	2668	OMU	O4-C4	-2.91	1.18	1.24
27	B1	1904	OMG	C5-C6	2.90	1.53	1.47
1	A1	777	5MC	CM5-C5	2.90	1.57	1.50
1	A1	8	OMU	O4-C4	-2.90	1.18	1.24
27	B1	1533	OMG	C5-C6	2.90	1.53	1.47
1	A1	1362	5MC	CM5-C5	2.90	1.57	1.50
1	A1	605	5MC	CM5-C5	2.90	1.57	1.50
27	B1	2554	OMU	C6-N1	2.89	1.45	1.38
1	A1	273	5MC	CM5-C5	2.89	1.57	1.50
1	A1	1110	OMU	C6-N1	2.89	1.45	1.38
1	A1	1368	OMU	C6-N1	2.89	1.45	1.38
27	B1	926	OMU	C6-N1	2.89	1.45	1.38
27	B1	454	OMU	C6-N1	2.89	1.45	1.38
1	A1	466	5MC	CM5-C5	2.89	1.57	1.50
27	B1	1966	5MC	CM5-C5	2.89	1.57	1.50
1	A1	687	5MC	CM5-C5	2.89	1.57	1.50
27	B1	1983	5MC	CM5-C5	2.89	1.57	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1488	OMU	C6-N1	2.89	1.45	1.38
1	A1	1484	5MC	CM5-C5	2.89	1.57	1.50
1	A1	775	OMU	C6-N1	2.89	1.45	1.38
1	A1	361	A2M	O3'-C3'	-2.89	1.36	1.43
1	A1	815	5MC	CM5-C5	2.89	1.57	1.50
27	B1	2875	5MC	CM5-C5	2.88	1.57	1.50
1	A1	523	5MC	CM5-C5	2.88	1.57	1.50
1	A1	8	OMU	C6-N1	2.88	1.44	1.38
27	B1	2401	OMU	C6-N1	2.88	1.44	1.38
1	A1	17	5MC	CM5-C5	2.88	1.57	1.50
27	B1	1973	5MC	CM5-C5	2.88	1.57	1.50
1	A1	863	5MC	CM5-C5	2.87	1.57	1.50
27	B1	1981	OMU	O4-C4	-2.87	1.18	1.24
1	A1	1013	5MC	CM5-C5	2.87	1.57	1.50
27	B1	97	5MC	CM5-C5	2.87	1.57	1.50
27	B1	2453	5MC	CM5-C5	2.87	1.57	1.50
27	B1	2082	5MC	CM5-C5	2.87	1.57	1.50
27	B1	2067	5MC	CM5-C5	2.87	1.57	1.50
27	B1	857	A2M	O3'-C3'	-2.86	1.36	1.43
1	A1	473	5MC	CM5-C5	2.86	1.57	1.50
27	B1	2554	OMU	O4-C4	-2.85	1.19	1.24
1	A1	1190	5MC	CM5-C5	2.85	1.57	1.50
1	A1	1368	OMU	O4-C4	-2.85	1.19	1.24
27	B1	2617	5MC	CM5-C5	2.85	1.57	1.50
1	A1	762	OMU	C6-N1	2.85	1.44	1.38
27	B1	932	5MC	CM5-C5	2.85	1.57	1.50
27	B1	1648	5MC	CM5-C5	2.85	1.57	1.50
27	B1	2087	5MC	CM5-C5	2.85	1.57	1.50
27	B1	252	5MC	CM5-C5	2.85	1.57	1.50
27	B1	454	OMU	O4-C4	-2.84	1.19	1.24
1	A1	1486	5MC	CM5-C5	2.84	1.57	1.50
27	B1	1488	OMU	O4-C4	-2.84	1.19	1.24
1	A1	1012	5MC	CM5-C5	2.84	1.57	1.50
27	B1	2047	5MC	CM5-C5	2.84	1.57	1.50
27	B1	920	OMG	C5-C6	2.84	1.53	1.47
27	B1	2401	OMU	C5-C4	2.84	1.49	1.43
1	A1	230	5MC	CM5-C5	2.83	1.57	1.50
27	B1	2401	OMU	O4-C4	-2.83	1.19	1.24
1	A1	819	A2M	O2'-C2'	2.83	1.49	1.42
27	B1	1977	5MC	CM5-C5	2.83	1.57	1.50
1	A1	756	4SU	C6-N1	2.83	1.44	1.38
1	A1	488	OMU	O4-C4	-2.83	1.19	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	1165	OMU	O4-C4	-2.83	1.19	1.24
27	B1	2565	4SU	C6-N1	2.82	1.44	1.38
27	B1	877	5MC	CM5-C5	2.82	1.57	1.50
27	B1	1769	4AC	O2-C2	-2.82	1.18	1.23
1	A1	775	OMU	O4-C4	-2.82	1.19	1.24
1	A1	681	5MC	CM5-C5	2.82	1.57	1.50
27	B1	675	OMG	C5-C4	-2.81	1.35	1.43
1	A1	425	OMU	O4-C4	-2.81	1.19	1.24
1	A1	8	OMU	C5-C4	2.80	1.49	1.43
1	A1	361	A2M	O2'-C2'	2.80	1.49	1.42
1	A1	762	OMU	O4-C4	-2.80	1.19	1.24
27	B1	550	OMG	C5-C4	-2.79	1.36	1.43
1	A1	1110	OMU	O4-C4	-2.79	1.19	1.24
27	B1	813	4AC	O2-C2	-2.78	1.18	1.23
1	A1	775	OMU	C5-C4	2.78	1.49	1.43
27	B1	1946	LHH	O2-C2	-2.78	1.18	1.23
27	B1	926	OMU	C5-C4	2.77	1.49	1.43
27	B1	880	A2M	O2'-C2'	2.77	1.49	1.42
1	A1	464	OMG	C2-N1	2.77	1.44	1.37
1	A1	1110	OMU	C5-C4	2.77	1.49	1.43
1	A1	861	OMG	C2-N1	2.77	1.44	1.37
1	A1	541	OMG	C5-C4	-2.77	1.36	1.43
27	B1	1107	4AC	O2-C2	-2.76	1.18	1.23
27	B1	360	4AC	O2-C2	-2.76	1.18	1.23
27	B1	2391	OMG	C2-N1	2.76	1.44	1.37
27	B1	1965	OMG	C2-N1	2.76	1.44	1.37
27	B1	2506	A2M	O2'-C2'	2.76	1.49	1.42
27	B1	485	4AC	O2-C2	-2.76	1.18	1.23
1	A1	541	OMG	C2-N1	2.76	1.44	1.37
27	B1	1832	OMC	O2-C2	-2.76	1.18	1.23
27	B1	921	OMG	C5-C4	-2.76	1.36	1.43
27	B1	2757	OMG	C5-C4	-2.76	1.36	1.43
27	B1	1439	4AC	O2-C2	-2.76	1.18	1.23
27	B1	1100	4AC	O2-C2	-2.75	1.18	1.23
27	B1	2668	OMU	C5-C4	2.75	1.49	1.43
27	B1	1301	4AC	O2-C2	-2.75	1.18	1.23
1	A1	488	OMU	C5-C4	2.75	1.49	1.43
27	B1	940	A2M	O2'-C2'	2.75	1.49	1.42
27	B1	506	A2M	O2'-C2'	2.75	1.49	1.42
1	A1	504	OMG	C2-N1	2.75	1.44	1.37
27	B1	857	A2M	O2'-C2'	2.75	1.49	1.42
27	B1	2391	OMG	C5-C4	-2.74	1.36	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	507	OMG	C2-N1	2.74	1.44	1.37
1	A1	455	OMG	C2-N1	2.74	1.44	1.37
27	B1	2171	4AC	O2-C2	-2.74	1.18	1.23
1	A1	425	OMU	C5-C4	2.74	1.49	1.43
27	B1	501	OMC	O2-C2	-2.73	1.18	1.23
1	A1	1368	OMU	C5-C4	2.73	1.49	1.43
27	B1	2984	OMG	C5-C4	-2.73	1.36	1.43
1	A1	1029	LHH	O2-C2	-2.73	1.18	1.23
1	A1	762	OMU	C5-C4	2.73	1.49	1.43
27	B1	527	LHH	O2-C2	-2.73	1.18	1.23
27	B1	896	4AC	O2-C2	-2.73	1.18	1.23
27	B1	214	OMG	C5-C4	-2.73	1.36	1.43
1	A1	459	OMG	C2-N1	2.73	1.44	1.37
27	B1	530	OMG	C2-N1	2.73	1.44	1.37
27	B1	19	4AC	O2-C2	-2.73	1.18	1.23
27	B1	641	4AC	O2-C2	-2.73	1.18	1.23
27	B1	1904	OMG	C2-N1	2.73	1.44	1.37
27	B1	688	4AC	O2-C2	-2.73	1.18	1.23
27	B1	2700	UR3	C6-N1	2.73	1.44	1.38
1	A1	836	4AC	O2-C2	-2.73	1.18	1.23
27	B1	1488	OMU	C5-C4	2.73	1.49	1.43
27	B1	1981	OMU	C5-C4	2.72	1.49	1.43
27	B1	2108	OMG	C5-C4	-2.72	1.36	1.43
27	B1	336	5MC	CM5-C5	2.72	1.57	1.50
27	B1	502	LHH	O2-C2	-2.72	1.18	1.23
27	B1	2740	OMG	C2-N1	2.72	1.44	1.37
27	B1	2888	4AC	O2-C2	-2.72	1.18	1.23
27	B1	2108	OMG	C2-N1	2.72	1.44	1.37
27	B1	580	4AC	O2-C2	-2.72	1.18	1.23
1	A1	1003	OMG	C2-N1	2.72	1.44	1.37
27	B1	1061	4AC	O2-C2	-2.72	1.18	1.23
27	B1	1442	4AC	O2-C2	-2.72	1.18	1.23
27	B1	1965	OMG	C5-C4	-2.72	1.36	1.43
1	A1	228	OMG	C2-N1	2.72	1.44	1.37
27	B1	106	4AC	O2-C2	-2.72	1.18	1.23
1	A1	132	OMG	C2-N1	2.72	1.44	1.37
27	B1	1150	4AC	O2-C2	-2.72	1.18	1.23
27	B1	2083	4AC	O2-C2	-2.72	1.18	1.23
27	B1	857	A2M	C5-C4	-2.72	1.33	1.40
27	B1	1904	OMG	C5-C4	-2.72	1.36	1.43
1	A1	1194	OMC	O2-C2	-2.72	1.18	1.23
1	A1	706	4AC	O2-C2	-2.72	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1649	4AC	O2-C2	-2.72	1.18	1.23
1	A1	901	OMG	C2-N1	2.71	1.44	1.37
27	B1	2028	OMG	C2-N1	2.71	1.44	1.37
27	B1	200	4AC	O2-C2	-2.71	1.18	1.23
27	B1	2808	OMC	O2-C2	-2.71	1.18	1.23
27	B1	2506	A2M	C5-C4	-2.71	1.33	1.40
27	B1	55	OMG	C5-C4	-2.71	1.36	1.43
27	B1	2180	OMG	C5-C4	-2.71	1.36	1.43
27	B1	2469	4AC	O2-C2	-2.71	1.18	1.23
27	B1	2213	4AC	O2-C2	-2.71	1.18	1.23
1	A1	833	OMG	C2-N1	2.71	1.44	1.37
1	A1	819	A2M	C5-C4	-2.71	1.33	1.40
27	B1	2133	4AC	O2-C2	-2.71	1.18	1.23
27	B1	2984	OMG	C2-N1	2.71	1.44	1.37
27	B1	807	4AC	O2-C2	-2.71	1.18	1.23
27	B1	2602	4AC	O2-C2	-2.71	1.18	1.23
27	B1	721	4AC	O2-C2	-2.71	1.18	1.23
27	B1	920	OMG	C2-N1	2.71	1.44	1.37
1	A1	329	OMG	C5-C4	-2.71	1.36	1.43
1	A1	507	OMG	C5-C4	-2.71	1.36	1.43
1	A1	152	OMG	C2-N1	2.71	1.44	1.37
27	B1	950	4AC	O2-C2	-2.70	1.18	1.23
27	B1	887	OMG	C2-N1	2.70	1.44	1.37
27	B1	1914	OMC	O2-C2	-2.70	1.18	1.23
27	B1	2968	LHH	O2-C2	-2.70	1.18	1.23
27	B1	3011	4AC	O2-C2	-2.70	1.18	1.23
1	A1	1165	OMU	C5-C4	2.70	1.49	1.43
27	B1	1664	4AC	O2-C2	-2.70	1.18	1.23
27	B1	2365	OMG	C2-N1	2.70	1.44	1.37
1	A1	231	4AC	O2-C2	-2.70	1.18	1.23
27	B1	2844	4AC	O2-C2	-2.70	1.18	1.23
27	B1	550	OMG	C2-N1	2.70	1.44	1.37
27	B1	921	OMG	C2-N1	2.70	1.44	1.37
1	A1	763	OMG	C2-N1	2.70	1.44	1.37
27	B1	652	4AC	O2-C2	-2.70	1.18	1.23
1	A1	668	OMG	C2-N1	2.70	1.44	1.37
1	A1	534	4AC	O2-C2	-2.70	1.18	1.23
27	B1	2180	OMG	C2-N1	2.70	1.44	1.37
27	B1	866	4AC	O2-C2	-2.70	1.18	1.23
27	B1	227	4AC	O2-C2	-2.70	1.18	1.23
27	B1	880	A2M	C5-C4	-2.70	1.33	1.40
27	B1	2022	OMG	C2-N1	2.70	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2526	4AC	O2-C2	-2.70	1.18	1.23
1	A1	227	OMG	C2-N1	2.70	1.44	1.37
1	A1	117	OMC	O2-C2	-2.70	1.18	1.23
1	A1	464	OMG	C5-C4	-2.70	1.36	1.43
1	A1	834	OMC	O2-C2	-2.70	1.18	1.23
1	A1	614	4AC	O2-C2	-2.70	1.18	1.23
1	A1	1420	OMG	C2-N1	2.70	1.44	1.37
27	B1	2554	OMU	C5-C4	2.70	1.49	1.43
1	A1	645	OMG	C2-N1	2.70	1.44	1.37
1	A1	329	OMG	C2-N1	2.70	1.44	1.37
27	B1	2659	OMG	C2-N1	2.70	1.44	1.37
27	B1	2659	OMG	C5-C4	-2.70	1.36	1.43
27	B1	2557	OMC	O2-C2	-2.70	1.18	1.23
1	A1	382	4AC	O2-C2	-2.69	1.18	1.23
27	B1	1099	OMC	O2-C2	-2.69	1.18	1.23
27	B1	2008	4AC	O2-C2	-2.69	1.18	1.23
27	B1	2809	4AC	O2-C2	-2.69	1.18	1.23
1	A1	307	4AC	O2-C2	-2.69	1.18	1.23
27	B1	1757	4AC	O2-C2	-2.69	1.18	1.23
27	B1	23	4AC	O2-C2	-2.69	1.18	1.23
27	B1	214	OMG	C2-N1	2.69	1.44	1.37
27	B1	940	A2M	C5-C4	-2.69	1.33	1.40
1	A1	1314	4AC	O2-C2	-2.69	1.18	1.23
27	B1	2562	OMG	C2-N1	2.69	1.44	1.37
1	A1	87	4AC	O2-C2	-2.69	1.18	1.23
27	B1	933	4AC	O2-C2	-2.69	1.18	1.23
27	B1	1505	4AC	O2-C2	-2.69	1.18	1.23
27	B1	2007	OMC	O2-C2	-2.69	1.18	1.23
27	B1	715	4AC	O2-C2	-2.69	1.18	1.23
27	B1	1345	4AC	O2-C2	-2.69	1.18	1.23
27	B1	2735	OMC	O2-C2	-2.69	1.18	1.23
27	B1	675	OMG	C2-N1	2.69	1.44	1.37
27	B1	2684	OMG	C2-N1	2.69	1.44	1.37
1	A1	152	OMG	C5-C4	-2.68	1.36	1.43
27	B1	953	4AC	O2-C2	-2.68	1.18	1.23
27	B1	2113	4AC	O2-C2	-2.68	1.18	1.23
27	B1	506	A2M	C5-C4	-2.68	1.33	1.40
27	B1	1064	4AC	O2-C2	-2.68	1.18	1.23
27	B1	2540	OMG	C2-N1	2.68	1.44	1.37
27	B1	1374	4AC	O2-C2	-2.68	1.18	1.23
27	B1	1706	4AC	O2-C2	-2.68	1.18	1.23
1	A1	291	4AC	O2-C2	-2.68	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	719	4AC	O2-C2	-2.68	1.18	1.23
27	B1	1128	4AC	O2-C2	-2.68	1.18	1.23
27	B1	2607	OMC	O2-C2	-2.68	1.18	1.23
1	A1	228	OMG	C5-C4	-2.68	1.36	1.43
27	B1	1478	4AC	O2-C2	-2.68	1.18	1.23
27	B1	1489	OMC	O2-C2	-2.68	1.18	1.23
27	B1	3020	4AC	O2-C2	-2.68	1.18	1.23
27	B1	454	OMU	C5-C4	2.68	1.49	1.43
1	A1	856	4AC	O2-C2	-2.68	1.18	1.23
27	B1	1293	4AC	O2-C2	-2.68	1.18	1.23
27	B1	920	OMG	C5-C4	-2.68	1.36	1.43
1	A1	5	4AC	O2-C2	-2.68	1.18	1.23
27	B1	434	4AC	O2-C2	-2.68	1.18	1.23
27	B1	827	4AC	O2-C2	-2.68	1.18	1.23
27	B1	1551	4AC	O2-C2	-2.68	1.18	1.23
1	A1	361	A2M	C5-C4	-2.67	1.33	1.40
27	B1	2492	4AC	O2-C2	-2.67	1.18	1.23
27	B1	2757	OMG	C2-N1	2.67	1.44	1.37
1	A1	238	LHH	O2-C2	-2.67	1.18	1.23
27	B1	1067	4AC	O2-C2	-2.67	1.18	1.23
1	A1	763	OMG	C5-C4	-2.67	1.36	1.43
1	A1	216	4AC	O2-C2	-2.67	1.18	1.23
27	B1	2432	4AC	O2-C2	-2.67	1.18	1.23
27	B1	271	4AC	O2-C2	-2.67	1.18	1.23
27	B1	1911	4AC	O2-C2	-2.67	1.18	1.23
27	B1	2792	4AC	O2-C2	-2.67	1.18	1.23
27	B1	979	4AC	O2-C2	-2.67	1.18	1.23
27	B1	1546	4AC	O2-C2	-2.67	1.18	1.23
1	A1	153	OMG	C2-N1	2.67	1.44	1.37
1	A1	1475	MA6	C5-C4	-2.67	1.33	1.40
27	B1	116	4AC	O2-C2	-2.67	1.18	1.23
27	B1	2821	4AC	O2-C2	-2.67	1.18	1.23
27	B1	1052	4AC	O2-C2	-2.67	1.18	1.23
27	B1	1501	4AC	O2-C2	-2.67	1.18	1.23
27	B1	419	4AC	O2-C2	-2.67	1.18	1.23
27	B1	2020	4AC	O2-C2	-2.67	1.18	1.23
27	B1	904	OMC	O2-C2	-2.67	1.18	1.23
27	B1	1967	4AC	O2-C2	-2.66	1.18	1.23
1	A1	578	4AC	O2-C2	-2.66	1.18	1.23
1	A1	455	OMG	C5-C4	-2.66	1.36	1.43
27	B1	2047	5MC	C4-N4	2.66	1.41	1.34
1	A1	41	4AC	O2-C2	-2.66	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	1435	4AC	O2-C2	-2.66	1.18	1.23
27	B1	1264	4AC	O2-C2	-2.66	1.18	1.23
27	B1	1966	5MC	C4-N4	2.66	1.41	1.34
27	B1	337	4AC	O2-C2	-2.66	1.18	1.23
1	A1	274	4AC	O2-C2	-2.66	1.18	1.23
1	A1	1467	4AC	O2-C2	-2.66	1.18	1.23
1	A1	1016	4AC	O2-C2	-2.66	1.18	1.23
27	B1	1751	4AC	O2-C2	-2.66	1.18	1.23
27	B1	808	OMG	C2-N1	2.66	1.44	1.37
27	B1	2850	4AC	O2-C2	-2.66	1.18	1.23
1	A1	1254	4AC	O2-C2	-2.66	1.18	1.23
27	B1	1846	4AC	O2-C2	-2.66	1.18	1.23
27	B1	2022	OMG	C5-C4	-2.66	1.36	1.43
27	B1	2740	OMG	C5-C4	-2.66	1.36	1.43
27	B1	1762	4AC	O2-C2	-2.66	1.18	1.23
27	B1	1533	OMG	C2-N1	2.65	1.44	1.37
1	A1	951	5MC	C4-N4	2.65	1.41	1.34
1	A1	227	OMG	C5-C4	-2.65	1.36	1.43
27	B1	130	4AC	O2-C2	-2.65	1.18	1.23
27	B1	1286	4AC	O2-C2	-2.65	1.18	1.23
27	B1	1608	4AC	O2-C2	-2.65	1.18	1.23
27	B1	1885	4AC	O2-C2	-2.65	1.18	1.23
27	B1	2902	4AC	O2-C2	-2.65	1.18	1.23
27	B1	2365	OMG	C5-C4	-2.65	1.36	1.43
27	B1	2540	OMG	C5-C4	-2.65	1.36	1.43
27	B1	276	LHH	O2-C2	-2.65	1.18	1.23
1	A1	540	4AC	O2-C2	-2.65	1.18	1.23
1	A1	1227	4AC	O2-C2	-2.65	1.18	1.23
27	B1	3037	4AC	O2-C2	-2.65	1.18	1.23
1	A1	427	4AC	O2-C2	-2.65	1.18	1.23
27	B1	609	4AC	O2-C2	-2.65	1.18	1.23
1	A1	861	OMG	C5-C4	-2.65	1.36	1.43
1	A1	1288	4AC	O2-C2	-2.65	1.18	1.23
1	A1	273	5MC	C4-N4	2.65	1.41	1.34
1	A1	1457	MA6	C5-C4	-2.65	1.33	1.40
1	A1	367	4AC	O2-C2	-2.65	1.18	1.23
27	B1	2454	4AC	O2-C2	-2.65	1.18	1.23
27	B1	1533	OMG	C5-C4	-2.65	1.36	1.43
1	A1	1012	5MC	C4-N4	2.65	1.41	1.34
1	A1	1371	OMC	O2-C2	-2.65	1.18	1.23
1	A1	1476	MA6	C5-C4	-2.65	1.33	1.40
27	B1	243	4AC	O2-C2	-2.65	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	B2	90	4AC	O2-C2	-2.65	1.18	1.23
27	B1	162	4AC	O2-C2	-2.65	1.18	1.23
1	A1	1364	OMC	O2-C2	-2.64	1.18	1.23
27	B1	2428	OMC	O2-C2	-2.64	1.18	1.23
27	B1	344	4AC	O2-C2	-2.64	1.18	1.23
27	B1	786	4AC	O2-C2	-2.64	1.18	1.23
1	A1	901	OMG	C5-C4	-2.64	1.36	1.43
27	B1	887	OMG	C5-C4	-2.64	1.36	1.43
1	A1	473	5MC	C4-N4	2.64	1.41	1.34
1	A1	1181	4AC	O2-C2	-2.64	1.18	1.23
27	B1	2379	4AC	O2-C2	-2.64	1.18	1.23
27	B1	1977	5MC	C4-N4	2.64	1.41	1.34
1	A1	1221	4AC	O2-C2	-2.64	1.18	1.23
27	B1	80	4AC	O2-C2	-2.64	1.18	1.23
1	A1	827	4AC	O2-C2	-2.64	1.18	1.23
27	B1	1822	4AC	O2-C2	-2.64	1.18	1.23
27	B1	808	OMG	C5-C4	-2.64	1.36	1.43
27	B1	378	4AC	O2-C2	-2.64	1.18	1.23
27	B1	1290	4AC	O2-C2	-2.64	1.18	1.23
27	B1	1639	4AC	O2-C2	-2.64	1.18	1.23
27	B1	47	OMC	O2-C2	-2.64	1.18	1.23
27	B1	2684	OMG	C5-C4	-2.64	1.36	1.43
1	A1	499	4AC	O2-C2	-2.64	1.18	1.23
27	B1	732	4AC	O2-C2	-2.64	1.18	1.23
1	A1	1067	4AC	O2-C2	-2.63	1.18	1.23
27	B1	1178	4AC	O2-C2	-2.63	1.18	1.23
27	B1	3023	4AC	O2-C2	-2.63	1.18	1.23
1	A1	839	4AC	O2-C2	-2.63	1.18	1.23
27	B1	599	4AC	O2-C2	-2.63	1.18	1.23
27	B1	1322	4AC	O2-C2	-2.63	1.18	1.23
27	B1	1383	4AC	O2-C2	-2.63	1.18	1.23
1	A1	833	OMG	C5-C4	-2.63	1.36	1.43
1	A1	1004	2MG	C5-C4	-2.63	1.36	1.43
27	B1	2059	OMC	O2-C2	-2.63	1.18	1.23
28	B2	117	4AC	O2-C2	-2.63	1.18	1.23
1	A1	405	4AC	O2-C2	-2.63	1.18	1.23
27	B1	2453	5MC	C4-N4	2.63	1.40	1.34
27	B1	2046	OMC	O2-C2	-2.63	1.18	1.23
1	A1	466	5MC	C4-N4	2.63	1.40	1.34
27	B1	252	5MC	C4-N4	2.63	1.40	1.34
1	A1	1003	OMG	C5-C4	-2.63	1.36	1.43
1	A1	1123	5MC	C4-N4	2.63	1.40	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	546	4AC	O2-C2	-2.63	1.18	1.23
1	A1	816	4AC	O2-C2	-2.63	1.18	1.23
27	B1	2562	OMG	C5-C4	-2.63	1.36	1.43
1	A1	761	OMC	O2-C2	-2.63	1.18	1.23
1	A1	815	5MC	C4-N4	2.63	1.40	1.34
27	B1	2749	4AC	O2-C2	-2.63	1.18	1.23
27	B1	1743	4AC	O2-C2	-2.63	1.18	1.23
27	B1	55	OMG	C2-N1	2.63	1.44	1.37
1	A1	1190	5MC	C4-N4	2.62	1.40	1.34
27	B1	2429	4AC	O2-C2	-2.62	1.18	1.23
1	A1	230	5MC	C4-N4	2.62	1.40	1.34
1	A1	426	OMC	O2-C2	-2.62	1.18	1.23
1	A1	1013	5MC	C4-N4	2.62	1.40	1.34
27	B1	2028	OMG	C5-C4	-2.62	1.36	1.43
27	B1	98	4AC	O2-C2	-2.62	1.18	1.23
1	A1	1366	5MC	C4-N4	2.62	1.40	1.34
1	A1	1226	OMC	O2-C2	-2.62	1.18	1.23
1	A1	523	5MC	C4-N4	2.62	1.40	1.34
27	B1	1973	5MC	C4-N4	2.62	1.40	1.34
1	A1	945	4AC	O2-C2	-2.62	1.18	1.23
27	B1	2876	4AC	O2-C2	-2.62	1.18	1.23
27	B1	2700	UR3	C5-C4	2.62	1.50	1.43
1	A1	504	OMG	C5-C4	-2.62	1.36	1.43
1	A1	687	5MC	C4-N4	2.62	1.40	1.34
28	B2	32	4AC	O2-C2	-2.62	1.18	1.23
27	B1	1344	5MC	C4-N4	2.61	1.40	1.34
1	A1	1362	5MC	C4-N4	2.61	1.40	1.34
28	B2	120	4AC	O2-C2	-2.61	1.18	1.23
1	A1	636	4AC	O2-C2	-2.61	1.18	1.23
1	A1	739	4AC	O2-C2	-2.61	1.18	1.23
27	B1	48	4AC	O2-C2	-2.61	1.18	1.23
27	B1	2087	5MC	C4-N4	2.61	1.40	1.34
1	A1	863	5MC	C4-N4	2.61	1.40	1.34
27	B1	1648	5MC	C4-N4	2.61	1.40	1.34
27	B1	2875	5MC	C4-N4	2.61	1.40	1.34
1	A1	467	4AC	O2-C2	-2.61	1.18	1.23
27	B1	1579	4AC	O2-C2	-2.61	1.18	1.23
27	B1	3006	4AC	O2-C2	-2.61	1.18	1.23
27	B1	530	OMG	C5-C4	-2.61	1.36	1.43
1	A1	668	OMG	C5-C4	-2.60	1.36	1.43
1	A1	141	4AC	O2-C2	-2.60	1.18	1.23
1	A1	1486	5MC	C4-N4	2.60	1.40	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	1484	5MC	C4-N4	2.60	1.40	1.34
27	B1	2617	5MC	C4-N4	2.60	1.40	1.34
27	B1	1818	4AC	O2-C2	-2.60	1.18	1.23
27	B1	2082	5MC	C4-N4	2.60	1.40	1.34
1	A1	444	4AC	O2-C2	-2.60	1.18	1.23
1	A1	624	4AC	O2-C2	-2.60	1.18	1.23
1	A1	132	OMG	C5-C4	-2.60	1.36	1.43
28	B2	108	4AC	O2-C2	-2.60	1.18	1.23
27	B1	2901	5MC	C4-N4	2.60	1.40	1.34
1	A1	1135	4AC	O2-C2	-2.60	1.18	1.23
27	B1	97	5MC	C4-N4	2.59	1.40	1.34
27	B1	932	5MC	C4-N4	2.59	1.40	1.34
27	B1	877	5MC	C4-N4	2.59	1.40	1.34
1	A1	220	4AC	O2-C2	-2.59	1.18	1.23
1	A1	17	5MC	C4-N4	2.59	1.40	1.34
1	A1	605	5MC	C4-N4	2.59	1.40	1.34
1	A1	681	5MC	C4-N4	2.59	1.40	1.34
27	B1	2067	5MC	C4-N4	2.59	1.40	1.34
27	B1	2046	OMC	C5-C4	2.58	1.48	1.42
27	B1	2428	OMC	C5-C4	2.58	1.48	1.42
1	A1	459	OMG	C5-C4	-2.58	1.36	1.43
27	B1	336	5MC	C4-N4	2.57	1.40	1.34
27	B1	1983	5MC	C4-N4	2.57	1.40	1.34
27	B1	142	4AC	O2-C2	-2.57	1.18	1.23
1	A1	777	5MC	C4-N4	2.57	1.40	1.34
1	A1	153	OMG	C5-C4	-2.57	1.36	1.43
27	B1	1313	4AC	O2-C2	-2.56	1.19	1.23
1	A1	645	OMG	C5-C4	-2.56	1.36	1.43
1	A1	1420	OMG	C5-C4	-2.55	1.36	1.43
27	B1	2607	OMC	C5-C4	2.54	1.48	1.42
27	B1	1832	OMC	C5-C4	2.53	1.48	1.42
27	B1	2700	UR3	O2-C2	-2.52	1.17	1.22
1	A1	481	7MG	O6-C6	-2.52	1.18	1.23
27	B1	1489	OMC	C5-C4	2.52	1.48	1.42
1	A1	834	OMC	C5-C4	2.51	1.48	1.42
27	B1	1099	OMC	C5-C4	2.51	1.48	1.42
1	A1	117	OMC	C5-C4	2.50	1.48	1.42
1	A1	1226	OMC	C5-C4	2.50	1.48	1.42
1	A1	1371	OMC	C5-C4	2.49	1.48	1.42
27	B1	2808	OMC	C5-C4	2.49	1.48	1.42
1	A1	1194	OMC	C5-C4	2.48	1.48	1.42
27	B1	2557	OMC	C5-C4	2.47	1.48	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	2007	OMC	C5-C4	2.46	1.48	1.42
27	B1	2059	OMC	C5-C4	2.46	1.48	1.42
1	A1	426	OMC	C5-C4	2.46	1.48	1.42
27	B1	501	OMC	C5-C4	2.46	1.48	1.42
1	A1	1364	OMC	C5-C4	2.46	1.48	1.42
27	B1	904	OMC	C5-C4	2.46	1.48	1.42
27	B1	47	OMC	C5-C4	2.43	1.48	1.42
27	B1	2565	4SU	O2-C2	-2.42	1.18	1.23
27	B1	1914	OMC	C5-C4	2.39	1.48	1.42
27	B1	550	OMG	O6-C6	-2.38	1.18	1.23
27	B1	55	OMG	O6-C6	-2.37	1.18	1.23
1	A1	329	OMG	O6-C6	-2.37	1.18	1.23
27	B1	2735	OMC	C5-C4	2.35	1.48	1.42
27	B1	2984	OMG	O6-C6	-2.34	1.18	1.23
27	B1	920	OMG	O6-C6	-2.34	1.18	1.23
1	A1	1029	LHH	C6-N1	-2.33	1.32	1.38
1	A1	761	OMC	C5-C4	2.33	1.48	1.42
27	B1	1533	OMG	O6-C6	-2.33	1.18	1.23
27	B1	675	OMG	O6-C6	-2.33	1.18	1.23
27	B1	2740	OMG	O6-C6	-2.32	1.18	1.23
1	A1	901	OMG	O6-C6	-2.32	1.18	1.23
27	B1	2659	OMG	O6-C6	-2.32	1.18	1.23
27	B1	2757	OMG	O6-C6	-2.32	1.18	1.23
27	B1	2540	OMG	O6-C6	-2.32	1.18	1.23
27	B1	2562	OMG	O6-C6	-2.31	1.18	1.23
27	B1	214	OMG	O6-C6	-2.31	1.18	1.23
27	B1	2028	OMG	O6-C6	-2.31	1.18	1.23
27	B1	1965	OMG	O6-C6	-2.31	1.18	1.23
27	B1	2180	OMG	O6-C6	-2.31	1.18	1.23
27	B1	527	LHH	C6-N1	-2.31	1.32	1.38
1	A1	756	4SU	O2-C2	-2.31	1.18	1.23
27	B1	2684	OMG	O6-C6	-2.31	1.18	1.23
27	B1	502	LHH	C6-N1	-2.31	1.32	1.38
27	B1	1904	OMG	O6-C6	-2.30	1.18	1.23
1	A1	227	OMG	O6-C6	-2.30	1.18	1.23
27	B1	2022	OMG	O6-C6	-2.30	1.18	1.23
1	A1	238	LHH	C6-N1	-2.30	1.32	1.38
1	A1	645	OMG	O6-C6	-2.30	1.18	1.23
27	B1	808	OMG	O6-C6	-2.30	1.18	1.23
27	B1	921	OMG	O6-C6	-2.30	1.18	1.23
27	B1	887	OMG	O6-C6	-2.29	1.18	1.23
27	B1	2365	OMG	O6-C6	-2.29	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A1	507	OMG	O6-C6	-2.28	1.18	1.23
1	A1	228	OMG	O6-C6	-2.28	1.18	1.23
1	A1	541	OMG	O6-C6	-2.28	1.18	1.23
1	A1	455	OMG	O6-C6	-2.27	1.18	1.23
1	A1	763	OMG	O6-C6	-2.27	1.18	1.23
1	A1	464	OMG	O6-C6	-2.27	1.18	1.23
1	A1	459	OMG	O6-C6	-2.27	1.18	1.23
27	B1	1946	LHH	C6-N1	-2.26	1.32	1.38
1	A1	132	OMG	O6-C6	-2.26	1.18	1.23
27	B1	2391	OMG	O6-C6	-2.26	1.18	1.23
27	B1	2108	OMG	O6-C6	-2.25	1.18	1.23
1	A1	833	OMG	O6-C6	-2.25	1.18	1.23
1	A1	861	OMG	O6-C6	-2.24	1.18	1.23
1	A1	1420	OMG	O6-C6	-2.24	1.18	1.23
1	A1	668	OMG	O6-C6	-2.24	1.18	1.23
1	A1	152	OMG	O6-C6	-2.24	1.18	1.23
27	B1	276	LHH	C6-N1	-2.23	1.32	1.38
27	B1	2968	LHH	C6-N1	-2.23	1.32	1.38
1	A1	504	OMG	O6-C6	-2.23	1.18	1.23
1	A1	153	OMG	O6-C6	-2.22	1.18	1.23
1	A1	1003	OMG	O6-C6	-2.22	1.18	1.23
1	A1	1004	2MG	O6-C6	-2.21	1.18	1.23
27	B1	530	OMG	O6-C6	-2.21	1.18	1.23
27	B1	2968	LHH	C2-N3	-2.19	1.31	1.36
1	A1	361	A2M	C2-N3	2.17	1.35	1.32
27	B1	1946	LHH	C2-N3	-2.13	1.32	1.36
1	A1	819	A2M	C2-N3	2.13	1.35	1.32
27	B1	1435	4AC	O7-C7	-2.11	1.18	1.23
27	B1	2506	A2M	C2-N3	2.11	1.35	1.32
27	B1	1301	4AC	O7-C7	-2.11	1.18	1.23
27	B1	506	A2M	O5'-C5'	-2.10	1.39	1.44
27	B1	337	4AC	O7-C7	-2.09	1.18	1.23
27	B1	940	A2M	C2-N3	2.09	1.35	1.32
1	A1	719	4AC	O7-C7	-2.08	1.18	1.23
27	B1	866	4AC	O7-C7	-2.08	1.18	1.23
27	B1	502	LHH	C2-N3	-2.08	1.32	1.36
1	A1	1467	4AC	O7-C7	-2.08	1.18	1.23
27	B1	1478	4AC	O7-C7	-2.08	1.18	1.23
27	B1	485	4AC	O7-C7	-2.07	1.18	1.23
27	B1	2133	4AC	O7-C7	-2.07	1.18	1.23
27	B1	1846	4AC	O7-C7	-2.07	1.18	1.23
27	B1	48	4AC	O7-C7	-2.07	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	857	A2M	C2-N3	2.06	1.35	1.32
27	B1	2379	4AC	O7-C7	-2.06	1.18	1.23
27	B1	1818	4AC	O7-C7	-2.06	1.18	1.23
27	B1	1967	4AC	O7-C7	-2.06	1.18	1.23
27	B1	243	4AC	O7-C7	-2.06	1.18	1.23
27	B1	1911	4AC	O7-C7	-2.06	1.18	1.23
1	A1	839	4AC	O7-C7	-2.06	1.18	1.23
27	B1	502	LHH	O7-C7	-2.06	1.18	1.23
27	B1	19	4AC	O7-C7	-2.05	1.18	1.23
27	B1	2171	4AC	O7-C7	-2.05	1.18	1.23
27	B1	419	4AC	O7-C7	-2.05	1.18	1.23
27	B1	2113	4AC	O7-C7	-2.05	1.18	1.23
27	B1	2809	4AC	O7-C7	-2.05	1.18	1.23
1	A1	382	4AC	O7-C7	-2.05	1.18	1.23
27	B1	2792	4AC	O7-C7	-2.05	1.18	1.23
1	A1	836	4AC	O7-C7	-2.05	1.18	1.23
1	A1	816	4AC	O7-C7	-2.05	1.18	1.23
27	B1	2749	4AC	O7-C7	-2.05	1.18	1.23
27	B1	953	4AC	O7-C7	-2.05	1.18	1.23
1	A1	534	4AC	O7-C7	-2.04	1.18	1.23
27	B1	933	4AC	O7-C7	-2.04	1.18	1.23
27	B1	506	A2M	C2-N3	2.04	1.35	1.32
27	B1	227	4AC	O7-C7	-2.04	1.18	1.23
1	A1	945	4AC	O7-C7	-2.04	1.18	1.23
27	B1	1107	4AC	O7-C7	-2.04	1.18	1.23
1	A1	706	4AC	O7-C7	-2.04	1.18	1.23
27	B1	896	4AC	O7-C7	-2.04	1.18	1.23
27	B1	1822	4AC	O7-C7	-2.04	1.18	1.23
1	A1	578	4AC	O7-C7	-2.04	1.18	1.23
1	A1	827	4AC	O7-C7	-2.04	1.18	1.23
27	B1	378	4AC	O7-C7	-2.04	1.18	1.23
27	B1	1100	4AC	O7-C7	-2.04	1.18	1.23
1	A1	367	4AC	O7-C7	-2.04	1.18	1.23
27	B1	527	LHH	C2-N3	-2.03	1.32	1.36
1	A1	614	4AC	O7-C7	-2.03	1.18	1.23
27	B1	1064	4AC	O7-C7	-2.03	1.18	1.23
27	B1	2888	4AC	O7-C7	-2.03	1.18	1.23
27	B1	2454	4AC	O7-C7	-2.03	1.18	1.23
27	B1	1649	4AC	O7-C7	-2.03	1.18	1.23
27	B1	580	4AC	O7-C7	-2.03	1.18	1.23
27	B1	200	4AC	O7-C7	-2.03	1.18	1.23
27	B1	1551	4AC	O7-C7	-2.03	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	B1	880	A2M	C2-N3	2.03	1.35	1.32
27	B1	360	4AC	O7-C7	-2.03	1.18	1.23
27	B1	950	4AC	O7-C7	-2.03	1.18	1.23
1	A1	856	4AC	O7-C7	-2.02	1.18	1.23
27	B1	1762	4AC	O7-C7	-2.02	1.18	1.23
27	B1	344	4AC	O7-C7	-2.02	1.18	1.23
27	B1	721	4AC	O7-C7	-2.02	1.18	1.23
1	A1	274	4AC	O7-C7	-2.02	1.18	1.23
27	B1	1664	4AC	O7-C7	-2.02	1.18	1.23
27	B1	130	4AC	O7-C7	-2.02	1.18	1.23
27	B1	715	4AC	O7-C7	-2.02	1.18	1.23
27	B1	80	4AC	O7-C7	-2.02	1.18	1.23
27	B1	2968	LHH	O7-C7	-2.02	1.18	1.23
27	B1	688	4AC	O7-C7	-2.02	1.18	1.23
27	B1	1128	4AC	O7-C7	-2.02	1.18	1.23
27	B1	1322	4AC	O7-C7	-2.01	1.18	1.23
1	A1	624	4AC	O7-C7	-2.01	1.18	1.23
27	B1	2469	4AC	O7-C7	-2.01	1.18	1.23
1	A1	1067	4AC	O7-C7	-2.01	1.18	1.23
27	B1	1946	LHH	O7-C7	-2.01	1.18	1.23
27	B1	276	LHH	C2-N3	-2.01	1.32	1.36
1	A1	216	4AC	O7-C7	-2.01	1.18	1.23
27	B1	2432	4AC	O7-C7	-2.01	1.18	1.23
1	A1	1227	4AC	O7-C7	-2.01	1.18	1.23
1	A1	220	4AC	O7-C7	-2.01	1.18	1.23
27	B1	1546	4AC	O7-C7	-2.01	1.18	1.23
27	B1	1150	4AC	O7-C7	-2.01	1.18	1.23
27	B1	116	4AC	O7-C7	-2.01	1.18	1.23
27	B1	1608	4AC	O7-C7	-2.01	1.18	1.23
27	B1	1885	4AC	O7-C7	-2.01	1.18	1.23
27	B1	880	A2M	O5'-C5'	-2.01	1.39	1.44
28	B2	117	4AC	O7-C7	-2.01	1.18	1.23
1	A1	5	4AC	O7-C7	-2.00	1.18	1.23
27	B1	1769	4AC	O7-C7	-2.00	1.18	1.23
27	B1	1757	4AC	O7-C7	-2.00	1.18	1.23
27	B1	1442	4AC	O7-C7	-2.00	1.18	1.23
27	B1	807	4AC	O7-C7	-2.00	1.18	1.23
1	A1	87	4AC	O7-C7	-2.00	1.18	1.23
1	A1	291	4AC	O7-C7	-2.00	1.18	1.23
27	B1	2876	4AC	O7-C7	-2.00	1.18	1.23
27	B1	2492	4AC	O7-C7	-2.00	1.18	1.23

All (997) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A1	1475	MA6	N1-C6-N6	-14.02	102.31	117.06
1	A1	1476	MA6	N1-C6-N6	-13.82	102.51	117.06
1	A1	1457	MA6	C1'-N9-C4	13.77	150.84	126.64
1	A1	1457	MA6	N1-C6-N6	-13.30	103.06	117.06
1	A1	1475	MA6	C1'-N9-C4	13.22	149.88	126.64
1	A1	1476	MA6	C1'-N9-C4	13.19	149.82	126.64
27	B1	2565	4SU	C4-N3-C2	-7.79	119.78	127.34
1	A1	756	4SU	C4-N3-C2	-7.61	119.95	127.34
1	A1	945	4AC	CM7-C7-N4	6.09	125.83	115.29
27	B1	1301	4AC	CM7-C7-N4	6.04	125.74	115.29
1	A1	361	A2M	C1'-N9-C4	5.68	136.63	126.64
27	B1	880	A2M	C1'-N9-C4	5.62	136.52	126.64
27	B1	2506	A2M	C1'-N9-C4	5.59	136.47	126.64
1	A1	819	A2M	N3-C2-N1	-5.57	119.97	128.68
1	A1	1475	MA6	N3-C2-N1	-5.57	119.97	128.68
27	B1	506	A2M	C1'-N9-C4	5.57	136.42	126.64
27	B1	857	A2M	N3-C2-N1	-5.54	120.02	128.68
27	B1	940	A2M	N3-C2-N1	-5.54	120.02	128.68
27	B1	2506	A2M	N3-C2-N1	-5.51	120.07	128.68
27	B1	880	A2M	N3-C2-N1	-5.49	120.10	128.68
27	B1	506	A2M	N3-C2-N1	-5.48	120.11	128.68
1	A1	819	A2M	C1'-N9-C4	5.46	136.24	126.64
27	B1	926	OMU	C4-N3-C2	-5.46	119.38	126.58
1	A1	361	A2M	N3-C2-N1	-5.45	120.15	128.68
1	A1	1457	MA6	N3-C2-N1	-5.45	120.16	128.68
27	B1	2565	4SU	C5-C4-N3	5.44	119.73	114.69
1	A1	1476	MA6	N3-C2-N1	-5.43	120.18	128.68
27	B1	940	A2M	C1'-N9-C4	5.43	136.17	126.64
27	B1	857	A2M	C1'-N9-C4	5.36	136.06	126.64
1	A1	756	4SU	C5-C4-N3	5.35	119.65	114.69
27	B1	2401	OMU	C4-N3-C2	-5.35	119.52	126.58
1	A1	8	OMU	C4-N3-C2	-5.35	119.53	126.58
1	A1	775	OMU	C4-N3-C2	-5.34	119.54	126.58
27	B1	2668	OMU	C4-N3-C2	-5.33	119.55	126.58
1	A1	762	OMU	C4-N3-C2	-5.33	119.55	126.58
27	B1	2554	OMU	C4-N3-C2	-5.27	119.63	126.58
1	A1	1165	OMU	C4-N3-C2	-5.21	119.71	126.58
27	B1	1488	OMU	C4-N3-C2	-5.21	119.71	126.58
1	A1	1110	OMU	C4-N3-C2	-5.17	119.76	126.58
1	A1	1368	OMU	C4-N3-C2	-5.17	119.76	126.58
1	A1	488	OMU	C4-N3-C2	-5.14	119.80	126.58
1	A1	425	OMU	C4-N3-C2	-5.08	119.88	126.58
27	B1	1981	OMU	C4-N3-C2	-5.08	119.88	126.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	454	OMU	C4-N3-C2	-5.02	119.96	126.58
1	A1	481	7MG	C5-C6-N1	5.01	119.82	110.99
1	A1	481	7MG	C2-N3-C4	4.54	120.38	112.30
27	B1	2700	UR3	C4-N3-C2	-4.31	120.50	124.56
1	A1	238	LHH	CM7-C7-N4	4.30	122.73	115.29
1	A1	481	7MG	C5-C4-N3	-4.12	120.27	128.13
1	A1	361	A2M	C5-C6-N6	-4.08	114.15	120.35
27	B1	2700	UR3	C1'-N1-C2	4.06	123.84	116.99
27	B1	1286	4AC	N4-C4-N3	3.94	120.47	113.85
27	B1	926	OMU	N3-C2-N1	3.94	120.12	114.89
1	A1	819	A2M	C5-C6-N6	-3.93	114.38	120.35
27	B1	880	A2M	C5-C6-N6	-3.93	114.39	120.35
27	B1	2506	A2M	C5-C6-N6	-3.92	114.39	120.35
27	B1	506	A2M	C5-C6-N6	-3.90	114.42	120.35
1	A1	8	OMU	N3-C2-N1	3.86	120.01	114.89
27	B1	857	A2M	C5-C6-N6	-3.85	114.50	120.35
1	A1	1368	OMU	N3-C2-N1	3.84	119.99	114.89
27	B1	940	A2M	C5-C6-N6	-3.84	114.52	120.35
1	A1	762	OMU	N3-C2-N1	3.83	119.98	114.89
1	A1	775	OMU	N3-C2-N1	3.81	119.95	114.89
27	B1	813	4AC	N4-C4-N3	3.81	120.24	113.85
1	A1	756	4SU	N3-C2-N1	3.81	119.94	114.89
27	B1	2668	OMU	N3-C2-N1	3.80	119.94	114.89
27	B1	2565	4SU	N3-C2-N1	3.80	119.94	114.89
27	B1	2401	OMU	N3-C2-N1	3.79	119.92	114.89
27	B1	1488	OMU	N3-C2-N1	3.78	119.91	114.89
1	A1	488	OMU	N3-C2-N1	3.77	119.89	114.89
1	A1	1165	OMU	N3-C2-N1	3.77	119.89	114.89
27	B1	454	OMU	N3-C2-N1	3.72	119.83	114.89
27	B1	2554	OMU	N3-C2-N1	3.71	119.81	114.89
1	A1	1110	OMU	N3-C2-N1	3.69	119.79	114.89
27	B1	1981	OMU	N3-C2-N1	3.67	119.77	114.89
27	B1	550	OMG	C5-C6-N1	3.61	120.33	113.95
1	A1	425	OMU	N3-C2-N1	3.60	119.67	114.89
1	A1	1029	LHH	N4-C4-N3	3.56	119.83	113.85
27	B1	921	OMG	C5-C6-N1	3.56	120.23	113.95
27	B1	214	OMG	C5-C6-N1	3.52	120.17	113.95
27	B1	2540	OMG	C5-C6-N1	3.52	120.17	113.95
1	A1	763	OMG	C5-C6-N1	3.51	120.15	113.95
1	A1	668	OMG	C5-C6-N1	3.51	120.14	113.95
27	B1	808	OMG	C5-C6-N1	3.51	120.14	113.95
27	B1	2740	OMG	C5-C6-N1	3.50	120.13	113.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A1	459	OMG	C5-C6-N1	3.49	120.12	113.95
1	A1	361	A2M	N6-C6-N1	3.49	125.82	118.57
1	A1	329	OMG	C5-C6-N1	3.49	120.11	113.95
27	B1	887	OMG	C5-C6-N1	3.48	120.10	113.95
1	A1	238	LHH	N4-C4-N3	3.47	119.69	113.85
27	B1	2365	OMG	C5-C6-N1	3.47	120.08	113.95
1	A1	153	OMG	C5-C6-N1	3.47	120.08	113.95
27	B1	2562	OMG	C5-C6-N1	3.47	120.08	113.95
1	A1	1004	2MG	C5-C6-N1	3.47	120.08	113.95
1	A1	152	OMG	C5-C6-N1	3.47	120.07	113.95
1	A1	455	OMG	C5-C6-N1	3.47	120.07	113.95
27	B1	530	OMG	C5-C6-N1	3.46	120.07	113.95
27	B1	2684	OMG	C5-C6-N1	3.46	120.07	113.95
27	B1	877	5MC	C5-C6-N1	-3.46	119.78	123.34
27	B1	2984	OMG	C5-C6-N1	3.46	120.06	113.95
1	A1	901	OMG	C5-C6-N1	3.46	120.06	113.95
27	B1	2659	OMG	C5-C6-N1	3.45	120.05	113.95
1	A1	833	OMG	C5-C6-N1	3.45	120.05	113.95
1	A1	227	OMG	C5-C6-N1	3.45	120.03	113.95
1	A1	427	4AC	N4-C4-N3	3.44	119.63	113.85
1	A1	1420	OMG	C5-C6-N1	3.44	120.03	113.95
1	A1	645	OMG	C5-C6-N1	3.44	120.03	113.95
27	B1	675	OMG	C5-C6-N1	3.44	120.02	113.95
27	B1	1965	OMG	C5-C6-N1	3.43	120.01	113.95
1	A1	1003	OMG	C5-C6-N1	3.43	120.01	113.95
27	B1	2757	OMG	C5-C6-N1	3.43	120.00	113.95
27	B1	2108	OMG	C5-C6-N1	3.43	120.00	113.95
1	A1	507	OMG	C5-C6-N1	3.42	120.00	113.95
1	A1	228	OMG	C5-C6-N1	3.42	119.99	113.95
1	A1	541	OMG	C5-C6-N1	3.42	119.98	113.95
27	B1	920	OMG	C5-C6-N1	3.42	119.98	113.95
27	B1	2668	OMU	C5-C4-N3	3.41	119.95	114.84
1	A1	132	OMG	C5-C6-N1	3.41	119.97	113.95
27	B1	55	OMG	C5-C6-N1	3.41	119.97	113.95
1	A1	945	4AC	C6-C5-C4	3.41	121.13	116.96
27	B1	506	A2M	N6-C6-N1	3.40	125.64	118.57
1	A1	504	OMG	C5-C6-N1	3.40	119.95	113.95
1	A1	861	OMG	C5-C6-N1	3.40	119.95	113.95
27	B1	2028	OMG	C5-C6-N1	3.39	119.94	113.95
27	B1	1533	OMG	C5-C6-N1	3.39	119.93	113.95
27	B1	2391	OMG	C5-C6-N1	3.38	119.92	113.95
27	B1	2554	OMU	C5-C4-N3	3.38	119.90	114.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A1	605	5MC	C5-C6-N1	-3.38	119.86	123.34
1	A1	464	OMG	C5-C6-N1	3.37	119.91	113.95
27	B1	106	4AC	N4-C4-N3	3.37	119.51	113.85
27	B1	336	5MC	C5-C6-N1	-3.37	119.87	123.34
27	B1	2022	OMG	C5-C6-N1	3.37	119.90	113.95
27	B1	2180	OMG	C5-C6-N1	3.36	119.89	113.95
1	A1	8	OMU	C5-C4-N3	3.36	119.86	114.84
27	B1	2506	A2M	N6-C6-N1	3.36	125.54	118.57
1	A1	819	A2M	N6-C6-N1	3.35	125.52	118.57
1	A1	775	OMU	C5-C4-N3	3.34	119.84	114.84
27	B1	2565	4SU	C5-C4-S4	-3.34	120.17	124.47
27	B1	1904	OMG	C5-C6-N1	3.33	119.83	113.95
27	B1	880	A2M	N6-C6-N1	3.33	125.49	118.57
1	A1	1110	OMU	C5-C4-N3	3.32	119.81	114.84
27	B1	2401	OMU	C5-C4-N3	3.32	119.81	114.84
1	A1	1165	OMU	C5-C4-N3	3.31	119.80	114.84
1	A1	425	OMU	C5-C4-N3	3.31	119.79	114.84
27	B1	926	OMU	C5-C4-N3	3.31	119.79	114.84
27	B1	1488	OMU	C5-C4-N3	3.30	119.78	114.84
27	B1	857	A2M	N6-C6-N1	3.30	125.43	118.57
27	B1	940	A2M	N6-C6-N1	3.30	125.42	118.57
1	A1	1362	5MC	C5-C6-N1	-3.29	119.95	123.34
1	A1	681	5MC	C5-C6-N1	-3.29	119.96	123.34
27	B1	2047	5MC	C5-C6-N1	-3.29	119.96	123.34
1	A1	756	4SU	C5-C4-S4	-3.28	120.25	124.47
1	A1	230	5MC	C5-C6-N1	-3.27	119.97	123.34
27	B1	1981	OMU	C5-C4-N3	3.27	119.73	114.84
27	B1	2901	5MC	C5-C6-N1	-3.26	119.98	123.34
1	A1	488	OMU	C5-C4-N3	3.25	119.70	114.84
27	B1	2453	5MC	C5-C6-N1	-3.24	120.00	123.34
27	B1	2617	5MC	C5-C6-N1	-3.24	120.00	123.34
27	B1	1966	5MC	C5-C6-N1	-3.24	120.00	123.34
27	B1	454	OMU	C5-C4-N3	3.24	119.68	114.84
27	B1	813	4AC	C6-C5-C4	3.23	120.91	116.96
1	A1	17	5MC	C5-C6-N1	-3.22	120.02	123.34
27	B1	2700	UR3	C6-N1-C2	-3.22	118.90	121.79
27	B1	527	LHH	N4-C4-N3	3.21	119.25	113.85
1	A1	777	5MC	C5-C6-N1	-3.21	120.03	123.34
1	A1	1368	OMU	C5-C4-N3	3.21	119.65	114.84
27	B1	502	LHH	N4-C4-N3	3.21	119.23	113.85
27	B1	2875	5MC	C5-C6-N1	-3.20	120.04	123.34
1	A1	762	OMU	C5-C4-N3	3.20	119.62	114.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	1301	4AC	O7-C7-N4	-3.19	116.65	121.82
1	A1	687	5MC	C5-C6-N1	-3.19	120.06	123.34
1	A1	523	5MC	C5-C6-N1	-3.18	120.06	123.34
27	B1	2087	5MC	C5-C6-N1	-3.16	120.09	123.34
1	A1	945	4AC	O7-C7-CM7	-3.14	116.22	122.06
27	B1	1639	4AC	N4-C4-N3	3.14	119.12	113.85
27	B1	2067	5MC	C5-C6-N1	-3.14	120.11	123.34
27	B1	97	5MC	C5-C6-N1	-3.14	120.11	123.34
1	A1	273	5MC	C5-C6-N1	-3.14	120.11	123.34
27	B1	1286	4AC	C6-C5-C4	3.13	120.79	116.96
1	A1	1013	5MC	C5-C6-N1	-3.13	120.12	123.34
27	B1	1344	5MC	C5-C6-N1	-3.13	120.12	123.34
27	B1	2082	5MC	C5-C6-N1	-3.12	120.13	123.34
1	A1	481	7MG	C4-C5-N7	3.12	109.86	105.53
1	A1	863	5MC	C5-C6-N1	-3.12	120.13	123.34
27	B1	1128	4AC	C6-C5-C4	3.12	120.78	116.96
1	A1	1012	5MC	C5-C6-N1	-3.11	120.13	123.34
27	B1	252	5MC	C5-C6-N1	-3.10	120.15	123.34
1	A1	951	5MC	C5-C6-N1	-3.09	120.16	123.34
27	B1	106	4AC	C6-C5-C4	3.09	120.74	116.96
1	A1	466	5MC	C5-C6-N1	-3.08	120.17	123.34
27	B1	1983	5MC	C5-C6-N1	-3.08	120.17	123.34
27	B1	979	4AC	N4-C4-N3	3.07	119.01	113.85
1	A1	1366	5MC	C5-C6-N1	-3.07	120.18	123.34
1	A1	815	5MC	C5-C6-N1	-3.06	120.19	123.34
27	B1	1977	5MC	C5-C6-N1	-3.06	120.19	123.34
1	A1	481	7MG	C5-C4-N9	3.05	110.30	106.35
27	B1	1973	5MC	C5-C6-N1	-3.02	120.24	123.34
1	A1	645	OMG	C2-N1-C6	-3.01	119.56	125.10
27	B1	276	LHH	O2-C2-N3	-3.01	117.44	122.33
1	A1	833	OMG	C2-N1-C6	-3.01	119.56	125.10
27	B1	530	OMG	C2-N1-C6	-3.00	119.57	125.10
27	B1	1639	4AC	C6-C5-C4	2.99	120.62	116.96
1	A1	464	OMG	C2-N1-C6	-2.99	119.59	125.10
1	A1	668	OMG	C2-N1-C6	-2.98	119.60	125.10
27	B1	921	OMG	C2-N1-C6	-2.98	119.61	125.10
1	A1	1190	5MC	C5-C6-N1	-2.97	120.28	123.34
1	A1	763	OMG	C2-N1-C6	-2.97	119.63	125.10
27	B1	550	OMG	C2-N1-C6	-2.97	119.63	125.10
1	A1	153	OMG	C2-N1-C6	-2.96	119.64	125.10
27	B1	1301	4AC	C6-C5-C4	2.95	120.57	116.96
1	A1	1420	OMG	C2-N1-C6	-2.95	119.67	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	808	OMG	C2-N1-C6	-2.95	119.67	125.10
27	B1	1128	4AC	N4-C4-N3	2.94	118.79	113.85
1	A1	1486	5MC	C5-C6-N1	-2.94	120.31	123.34
1	A1	427	4AC	C6-C5-C4	2.94	120.56	116.96
27	B1	887	OMG	C2-N1-C6	-2.94	119.69	125.10
1	A1	1123	5MC	C5-C6-N1	-2.94	120.32	123.34
1	A1	459	OMG	C2-N1-C6	-2.94	119.69	125.10
27	B1	2554	OMU	O4-C4-C5	-2.93	120.00	125.16
27	B1	2740	OMG	C2-N1-C6	-2.93	119.69	125.10
27	B1	807	4AC	C6-C5-C4	2.93	120.55	116.96
1	A1	455	OMG	C2-N1-C6	-2.93	119.70	125.10
1	A1	227	OMG	C2-N1-C6	-2.93	119.71	125.10
27	B1	214	OMG	C2-N1-C6	-2.92	119.72	125.10
27	B1	2540	OMG	C2-N1-C6	-2.92	119.72	125.10
1	A1	1165	OMU	O4-C4-C5	-2.92	120.03	125.16
1	A1	329	OMG	C2-N1-C6	-2.92	119.72	125.10
27	B1	1822	4AC	C6-C5-C4	2.92	120.53	116.96
1	A1	132	OMG	C2-N1-C6	-2.92	119.73	125.10
1	A1	541	OMG	C2-N1-C6	-2.91	119.73	125.10
1	A1	1484	5MC	C5-C6-N1	-2.91	120.34	123.34
27	B1	675	OMG	C2-N1-C6	-2.91	119.74	125.10
27	B1	2659	OMG	C2-N1-C6	-2.90	119.75	125.10
1	A1	945	4AC	C5-C4-N3	-2.90	117.92	122.59
28	B2	108	4AC	C6-C5-C4	2.90	120.51	116.96
1	A1	1003	OMG	C2-N1-C6	-2.90	119.76	125.10
27	B1	920	OMG	C2-N1-C6	-2.90	119.76	125.10
27	B1	1150	4AC	N4-C4-N3	2.90	118.72	113.85
1	A1	228	OMG	C2-N1-C6	-2.90	119.76	125.10
27	B1	786	4AC	C6-C5-C4	2.90	120.51	116.96
27	B1	1757	4AC	C6-C5-C4	2.90	120.50	116.96
27	B1	2562	OMG	C2-N1-C6	-2.89	119.77	125.10
27	B1	2668	OMU	O4-C4-C5	-2.89	120.08	125.16
27	B1	454	OMU	O4-C4-C5	-2.89	120.09	125.16
1	A1	901	OMG	C2-N1-C6	-2.89	119.78	125.10
27	B1	2684	OMG	C2-N1-C6	-2.88	119.79	125.10
27	B1	2984	OMG	C2-N1-C6	-2.88	119.79	125.10
27	B1	1946	LHH	N4-C4-N3	2.88	118.68	113.85
28	B2	120	4AC	C6-C5-C4	2.87	120.47	116.96
27	B1	2757	OMG	C2-N1-C6	-2.87	119.82	125.10
1	A1	504	OMG	C2-N1-C6	-2.87	119.82	125.10
27	B1	1505	4AC	C6-C5-C4	2.86	120.47	116.96
27	B1	2365	OMG	C2-N1-C6	-2.86	119.82	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A1	1254	4AC	C6-C5-C4	2.86	120.46	116.96
27	B1	2108	OMG	C2-N1-C6	-2.86	119.83	125.10
27	B1	271	4AC	C6-C5-C4	2.85	120.45	116.96
1	A1	307	4AC	C6-C5-C4	2.85	120.45	116.96
27	B1	1313	4AC	C6-C5-C4	2.85	120.44	116.96
27	B1	2984	OMG	C8-N7-C5	2.84	108.41	102.99
27	B1	2902	4AC	C6-C5-C4	2.84	120.43	116.96
27	B1	2492	4AC	C6-C5-C4	2.84	120.43	116.96
1	A1	762	OMU	O4-C4-C5	-2.84	120.17	125.16
1	A1	507	OMG	C2-N1-C6	-2.83	119.88	125.10
1	A1	444	4AC	C6-C5-C4	2.83	120.43	116.96
1	A1	546	4AC	C6-C5-C4	2.83	120.43	116.96
27	B1	2028	OMG	C2-N1-C6	-2.83	119.88	125.10
1	A1	488	OMU	O4-C4-C5	-2.83	120.19	125.16
1	A1	1067	4AC	C6-C5-C4	2.82	120.42	116.96
1	A1	833	OMG	C8-N7-C5	2.82	108.37	102.99
1	A1	141	4AC	C6-C5-C4	2.82	120.42	116.96
27	B1	2526	4AC	C6-C5-C4	2.82	120.42	116.96
1	A1	1110	OMU	O4-C4-C5	-2.82	120.20	125.16
27	B1	599	4AC	C6-C5-C4	2.82	120.41	116.96
1	A1	739	4AC	C6-C5-C4	2.82	120.41	116.96
1	A1	1288	4AC	C6-C5-C4	2.82	120.41	116.96
1	A1	861	OMG	C2-N1-C6	-2.82	119.91	125.10
27	B1	1965	OMG	C2-N1-C6	-2.82	119.91	125.10
27	B1	609	4AC	C6-C5-C4	2.81	120.41	116.96
27	B1	142	4AC	C6-C5-C4	2.81	120.40	116.96
27	B1	2888	4AC	C6-C5-C4	2.81	120.40	116.96
1	A1	467	4AC	C6-C5-C4	2.81	120.40	116.96
1	A1	220	4AC	C6-C5-C4	2.81	120.40	116.96
1	A1	231	4AC	C6-C5-C4	2.81	120.40	116.96
1	A1	481	7MG	O6-C6-C5	-2.81	120.66	127.54
27	B1	1649	4AC	C6-C5-C4	2.81	120.39	116.96
27	B1	2180	OMG	C2-N1-C6	-2.81	119.93	125.10
27	B1	921	OMG	C8-N7-C5	2.81	108.33	102.99
1	A1	540	4AC	C6-C5-C4	2.81	120.39	116.96
27	B1	1100	4AC	C6-C5-C4	2.80	120.39	116.96
1	A1	405	4AC	C6-C5-C4	2.80	120.39	116.96
1	A1	425	OMU	O4-C4-C5	-2.80	120.23	125.16
1	A1	152	OMG	C8-N7-C5	2.80	108.33	102.99
1	A1	481	7MG	C2-N1-C6	-2.80	119.99	125.10
27	B1	2180	OMG	C8-N7-C5	2.80	108.33	102.99
27	B1	1150	4AC	C6-C5-C4	2.80	120.39	116.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A1	152	OMG	C2-N1-C6	-2.80	119.94	125.10
27	B1	1981	OMU	O4-C4-C5	-2.80	120.24	125.16
27	B1	827	4AC	C6-C5-C4	2.80	120.38	116.96
27	B1	675	OMG	C8-N7-C5	2.79	108.31	102.99
27	B1	1488	OMU	O4-C4-C5	-2.79	120.25	125.16
1	A1	1227	4AC	C6-C5-C4	2.79	120.38	116.96
27	B1	1579	4AC	C6-C5-C4	2.79	120.38	116.96
27	B1	2020	4AC	C6-C5-C4	2.79	120.38	116.96
1	A1	541	OMG	C8-N7-C5	2.79	108.30	102.99
27	B1	360	4AC	C6-C5-C4	2.79	120.37	116.96
1	A1	1135	4AC	C6-C5-C4	2.79	120.37	116.96
27	B1	2454	4AC	C6-C5-C4	2.79	120.37	116.96
1	A1	473	5MC	C5-C6-N1	-2.79	120.47	123.34
27	B1	550	OMG	C8-N7-C5	2.79	108.30	102.99
27	B1	813	4AC	CM7-C7-N4	2.78	120.11	115.29
27	B1	344	4AC	C6-C5-C4	2.78	120.37	116.96
27	B1	378	4AC	C6-C5-C4	2.78	120.36	116.96
27	B1	1435	4AC	C6-C5-C4	2.78	120.36	116.96
27	B1	2469	4AC	C6-C5-C4	2.78	120.36	116.96
27	B1	2022	OMG	C2-N1-C6	-2.78	119.98	125.10
27	B1	1322	4AC	C6-C5-C4	2.78	120.36	116.96
27	B1	1608	4AC	C6-C5-C4	2.78	120.36	116.96
1	A1	1368	OMU	O4-C4-C5	-2.78	120.28	125.16
27	B1	2659	OMG	C8-N7-C5	2.78	108.28	102.99
1	A1	464	OMG	C8-N7-C5	2.78	108.28	102.99
27	B1	434	4AC	C6-C5-C4	2.77	120.36	116.96
1	A1	274	4AC	C6-C5-C4	2.77	120.36	116.96
27	B1	3037	4AC	C6-C5-C4	2.77	120.36	116.96
27	B1	3020	4AC	C6-C5-C4	2.77	120.35	116.96
27	B1	214	OMG	C8-N7-C5	2.77	108.27	102.99
27	B1	1533	OMG	C2-N1-C6	-2.77	120.00	125.10
27	B1	2401	OMU	O4-C4-C5	-2.77	120.29	125.16
1	A1	763	OMG	C8-N7-C5	2.77	108.27	102.99
27	B1	1751	4AC	C6-C5-C4	2.77	120.35	116.96
1	A1	329	OMG	C8-N7-C5	2.77	108.26	102.99
1	A1	836	4AC	C6-C5-C4	2.76	120.34	116.96
27	B1	2749	4AC	C6-C5-C4	2.76	120.34	116.96
1	A1	816	4AC	C6-C5-C4	2.76	120.34	116.96
27	B1	1067	4AC	C6-C5-C4	2.76	120.34	116.96
27	B1	1293	4AC	C6-C5-C4	2.76	120.34	116.96
1	A1	216	4AC	C6-C5-C4	2.76	120.34	116.96
27	B1	2757	OMG	C8-N7-C5	2.76	108.25	102.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	2684	OMG	C8-N7-C5	2.76	108.25	102.99
1	A1	1221	4AC	C6-C5-C4	2.76	120.33	116.96
27	B1	2850	4AC	C6-C5-C4	2.76	120.33	116.96
27	B1	271	4AC	N4-C4-N3	2.75	118.47	113.85
27	B1	55	OMG	C2-N1-C6	-2.75	120.04	125.10
1	A1	624	4AC	C6-C5-C4	2.75	120.32	116.96
1	A1	227	OMG	C8-N7-C5	2.75	108.22	102.99
1	A1	901	OMG	C8-N7-C5	2.75	108.22	102.99
27	B1	276	LHH	N4-C4-N3	2.75	118.46	113.85
27	B1	932	5MC	C5-C6-N1	-2.75	120.51	123.34
1	A1	455	OMG	C8-N7-C5	2.75	108.22	102.99
1	A1	228	OMG	C8-N7-C5	2.74	108.22	102.99
1	A1	775	OMU	O4-C4-C5	-2.74	120.34	125.16
27	B1	2740	OMG	C8-N7-C5	2.74	108.21	102.99
27	B1	200	4AC	C6-C5-C4	2.74	120.32	116.96
1	A1	1016	4AC	C6-C5-C4	2.74	120.31	116.96
1	A1	578	4AC	C6-C5-C4	2.74	120.31	116.96
27	B1	721	4AC	C6-C5-C4	2.74	120.31	116.96
27	B1	652	4AC	C6-C5-C4	2.74	120.31	116.96
27	B1	979	4AC	C6-C5-C4	2.74	120.31	116.96
27	B1	1743	4AC	C6-C5-C4	2.74	120.31	116.96
27	B1	808	OMG	C8-N7-C5	2.74	108.21	102.99
27	B1	337	4AC	C6-C5-C4	2.74	120.31	116.96
27	B1	2562	OMG	C8-N7-C5	2.74	108.20	102.99
1	A1	132	OMG	C8-N7-C5	2.73	108.20	102.99
27	B1	1290	4AC	C6-C5-C4	2.73	120.31	116.96
27	B1	227	4AC	C6-C5-C4	2.73	120.31	116.96
27	B1	866	4AC	C6-C5-C4	2.73	120.31	116.96
27	B1	2391	OMG	C2-N1-C6	-2.73	120.06	125.10
27	B1	1885	4AC	C6-C5-C4	2.73	120.30	116.96
28	B2	117	4AC	C6-C5-C4	2.73	120.30	116.96
1	A1	507	OMG	C8-N7-C5	2.73	108.19	102.99
27	B1	2022	OMG	C8-N7-C5	2.73	108.19	102.99
27	B1	2968	LHH	O2-C2-N3	-2.73	117.89	122.33
27	B1	1264	4AC	C6-C5-C4	2.73	120.30	116.96
27	B1	715	4AC	C6-C5-C4	2.73	120.30	116.96
27	B1	1818	4AC	C6-C5-C4	2.73	120.30	116.96
1	A1	499	4AC	C6-C5-C4	2.73	120.30	116.96
1	A1	856	4AC	C6-C5-C4	2.73	120.30	116.96
27	B1	1286	4AC	CM7-C7-N4	2.73	120.01	115.29
1	A1	614	4AC	C6-C5-C4	2.73	120.30	116.96
27	B1	1439	4AC	C6-C5-C4	2.73	120.30	116.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	2083	4AC	C6-C5-C4	2.73	120.30	116.96
27	B1	2213	4AC	C6-C5-C4	2.72	120.29	116.96
27	B1	2432	4AC	C6-C5-C4	2.72	120.29	116.96
1	A1	153	OMG	C8-N7-C5	2.72	108.18	102.99
27	B1	1911	4AC	C6-C5-C4	2.72	120.29	116.96
27	B1	2008	4AC	C6-C5-C4	2.72	120.29	116.96
27	B1	80	4AC	C6-C5-C4	2.72	120.29	116.96
27	B1	1501	4AC	C6-C5-C4	2.72	120.29	116.96
27	B1	1061	4AC	C6-C5-C4	2.72	120.29	116.96
1	A1	945	4AC	N4-C4-N3	2.72	118.42	113.85
1	A1	1467	4AC	C6-C5-C4	2.72	120.28	116.96
27	B1	3023	4AC	C6-C5-C4	2.72	120.28	116.96
1	A1	636	4AC	C6-C5-C4	2.71	120.28	116.96
27	B1	1374	4AC	C6-C5-C4	2.71	120.28	116.96
27	B1	1264	4AC	N4-C4-N3	2.71	118.40	113.85
1	A1	719	4AC	C6-C5-C4	2.71	120.28	116.96
27	B1	23	4AC	C6-C5-C4	2.71	120.28	116.96
27	B1	2602	4AC	C6-C5-C4	2.71	120.28	116.96
1	A1	1314	4AC	C6-C5-C4	2.71	120.27	116.96
27	B1	162	4AC	C6-C5-C4	2.71	120.27	116.96
1	A1	367	4AC	C6-C5-C4	2.71	120.27	116.96
27	B1	1757	4AC	N4-C4-N3	2.71	118.39	113.85
1	A1	668	OMG	C8-N7-C5	2.70	108.14	102.99
27	B1	2365	OMG	C8-N7-C5	2.70	108.14	102.99
27	B1	2429	4AC	C6-C5-C4	2.70	120.27	116.96
27	B1	2844	4AC	C6-C5-C4	2.70	120.27	116.96
1	A1	382	4AC	C6-C5-C4	2.70	120.27	116.96
1	A1	706	4AC	C6-C5-C4	2.70	120.27	116.96
1	A1	861	OMG	C8-N7-C5	2.70	108.13	102.99
1	A1	41	4AC	C6-C5-C4	2.70	120.26	116.96
27	B1	2792	4AC	C6-C5-C4	2.70	120.26	116.96
1	A1	1003	OMG	C8-N7-C5	2.69	108.12	102.99
27	B1	2821	4AC	C6-C5-C4	2.69	120.26	116.96
27	B1	1904	OMG	C2-N1-C6	-2.69	120.14	125.10
27	B1	1478	4AC	C6-C5-C4	2.69	120.25	116.96
27	B1	920	OMG	C8-N7-C5	2.69	108.12	102.99
27	B1	2540	OMG	C8-N7-C5	2.69	108.12	102.99
27	B1	1551	4AC	C6-C5-C4	2.69	120.25	116.96
28	B2	90	4AC	C6-C5-C4	2.69	120.25	116.96
27	B1	2108	OMG	C8-N7-C5	2.69	108.11	102.99
27	B1	55	OMG	C8-N7-C5	2.69	108.11	102.99
27	B1	1706	4AC	C6-C5-C4	2.68	120.25	116.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	1965	OMG	C8-N7-C5	2.68	108.10	102.99
1	A1	534	4AC	C6-C5-C4	2.68	120.24	116.96
1	A1	5	4AC	C6-C5-C4	2.68	120.24	116.96
1	A1	8	OMU	O4-C4-C5	-2.68	120.44	125.16
1	A1	459	OMG	C8-N7-C5	2.68	108.10	102.99
27	B1	688	4AC	C6-C5-C4	2.68	120.24	116.96
27	B1	887	OMG	C8-N7-C5	2.68	108.09	102.99
27	B1	1442	4AC	C6-C5-C4	2.68	120.24	116.96
27	B1	1286	4AC	O7-C7-CM7	-2.68	117.08	122.06
27	B1	530	OMG	C8-N7-C5	2.68	108.09	102.99
1	A1	504	OMG	C8-N7-C5	2.68	108.09	102.99
27	B1	485	4AC	C6-C5-C4	2.68	120.23	116.96
27	B1	3037	4AC	N4-C4-N3	2.67	118.34	113.85
1	A1	1420	OMG	C8-N7-C5	2.67	108.08	102.99
27	B1	2028	OMG	C8-N7-C5	2.67	108.08	102.99
27	B1	732	4AC	C6-C5-C4	2.67	120.23	116.96
27	B1	3011	4AC	C6-C5-C4	2.67	120.22	116.96
27	B1	2171	4AC	C6-C5-C4	2.67	120.22	116.96
27	B1	1383	4AC	C6-C5-C4	2.67	120.22	116.96
1	A1	87	4AC	C6-C5-C4	2.67	120.22	116.96
1	A1	827	4AC	C6-C5-C4	2.67	120.22	116.96
27	B1	950	4AC	C6-C5-C4	2.66	120.22	116.96
27	B1	1345	4AC	C6-C5-C4	2.66	120.22	116.96
1	A1	444	4AC	N4-C4-N3	2.66	118.32	113.85
27	B1	580	4AC	C6-C5-C4	2.66	120.22	116.96
27	B1	1533	OMG	C8-N7-C5	2.66	108.06	102.99
27	B1	1904	OMG	C8-N7-C5	2.66	108.06	102.99
1	A1	1221	4AC	N4-C4-N3	2.66	118.32	113.85
27	B1	2876	4AC	C6-C5-C4	2.66	120.21	116.96
27	B1	419	4AC	C6-C5-C4	2.66	120.21	116.96
27	B1	926	OMU	O4-C4-C5	-2.65	120.49	125.16
27	B1	2391	OMG	C8-N7-C5	2.65	108.04	102.99
27	B1	1064	4AC	C6-C5-C4	2.65	120.20	116.96
1	A1	481	7MG	N9-C4-N3	2.65	129.43	125.47
27	B1	3006	4AC	C6-C5-C4	2.65	120.20	116.96
1	A1	1004	2MG	C8-N7-C5	2.64	108.03	102.99
27	B1	1648	5MC	C5-C6-N1	-2.64	120.62	123.34
27	B1	896	4AC	C6-C5-C4	2.64	120.19	116.96
28	B2	32	4AC	C6-C5-C4	2.64	120.19	116.96
27	B1	243	4AC	C6-C5-C4	2.64	120.19	116.96
27	B1	599	4AC	N4-C4-N3	2.64	118.28	113.85
27	B1	1967	4AC	C6-C5-C4	2.64	120.19	116.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	1546	4AC	C6-C5-C4	2.63	120.18	116.96
27	B1	953	4AC	C6-C5-C4	2.63	120.18	116.96
27	B1	813	4AC	O7-C7-CM7	-2.63	117.17	122.06
27	B1	116	4AC	C6-C5-C4	2.63	120.17	116.96
27	B1	130	4AC	C6-C5-C4	2.62	120.17	116.96
1	A1	291	4AC	C6-C5-C4	2.62	120.17	116.96
1	A1	1135	4AC	N4-C4-N3	2.62	118.24	113.85
27	B1	2809	4AC	C6-C5-C4	2.62	120.16	116.96
27	B1	2379	4AC	C6-C5-C4	2.61	120.16	116.96
1	A1	645	OMG	C8-N7-C5	2.61	107.97	102.99
27	B1	1178	4AC	C6-C5-C4	2.61	120.15	116.96
27	B1	19	4AC	C6-C5-C4	2.60	120.15	116.96
27	B1	641	4AC	C6-C5-C4	2.60	120.15	116.96
28	B2	108	4AC	N4-C4-N3	2.59	118.20	113.85
27	B1	2113	4AC	C6-C5-C4	2.59	120.12	116.96
27	B1	2133	4AC	C6-C5-C4	2.58	120.12	116.96
27	B1	1664	4AC	C6-C5-C4	2.58	120.12	116.96
27	B1	813	4AC	C5-C4-N3	-2.58	118.45	122.59
27	B1	1052	4AC	C6-C5-C4	2.57	120.11	116.96
27	B1	1846	4AC	C6-C5-C4	2.57	120.11	116.96
27	B1	1762	4AC	C6-C5-C4	2.57	120.11	116.96
27	B1	502	LHH	O2-C2-N3	-2.57	118.15	122.33
1	A1	1227	4AC	N4-C4-N3	2.56	118.16	113.85
27	B1	98	4AC	C6-C5-C4	2.56	120.10	116.96
27	B1	641	4AC	N4-C4-N3	2.56	118.14	113.85
27	B1	732	4AC	N4-C4-N3	2.56	118.14	113.85
27	B1	1061	4AC	N4-C4-N3	2.55	118.14	113.85
1	A1	614	4AC	N4-C4-N3	2.55	118.14	113.85
27	B1	827	4AC	N4-C4-N3	2.55	118.14	113.85
27	B1	1769	4AC	C6-C5-C4	2.55	120.08	116.96
27	B1	786	4AC	N4-C4-N3	2.55	118.13	113.85
27	B1	1743	4AC	N4-C4-N3	2.54	118.12	113.85
1	A1	839	4AC	C6-C5-C4	2.54	120.07	116.96
27	B1	1107	4AC	C6-C5-C4	2.54	120.07	116.96
1	A1	220	4AC	N4-C4-N3	2.54	118.11	113.85
1	A1	141	4AC	N4-C4-N3	2.54	118.11	113.85
27	B1	1322	4AC	N4-C4-N3	2.54	118.11	113.85
27	B1	1313	4AC	N4-C4-N3	2.53	118.10	113.85
27	B1	1639	4AC	CM7-C7-N4	2.53	119.67	115.29
27	B1	3020	4AC	N4-C4-N3	2.53	118.10	113.85
27	B1	527	LHH	O2-C2-N3	-2.53	118.22	122.33
1	A1	1254	4AC	N4-C4-N3	2.52	118.09	113.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	2020	4AC	N4-C4-N3	2.52	118.09	113.85
27	B1	1286	4AC	C5-C4-N3	-2.52	118.54	122.59
27	B1	1501	4AC	N4-C4-N3	2.52	118.08	113.85
28	B2	32	4AC	N4-C4-N3	2.52	118.08	113.85
1	A1	467	4AC	N4-C4-N3	2.52	118.08	113.85
1	A1	216	4AC	N4-C4-N3	2.51	118.07	113.85
27	B1	2454	4AC	N4-C4-N3	2.51	118.07	113.85
1	A1	1181	4AC	C6-C5-C4	2.51	120.03	116.96
1	A1	624	4AC	N4-C4-N3	2.51	118.06	113.85
27	B1	2792	4AC	N4-C4-N3	2.50	118.05	113.85
1	A1	87	4AC	N4-C4-N3	2.50	118.04	113.85
1	A1	382	4AC	N4-C4-N3	2.49	118.04	113.85
1	A1	1016	4AC	N4-C4-N3	2.49	118.04	113.85
27	B1	276	LHH	C5-C4-N3	-2.49	118.59	122.59
1	A1	827	4AC	N4-C4-N3	2.48	118.02	113.85
1	A1	540	4AC	N4-C4-N3	2.48	118.02	113.85
27	B1	3023	4AC	N4-C4-N3	2.48	118.02	113.85
27	B1	106	4AC	CM7-C7-N4	2.48	119.59	115.29
27	B1	142	4AC	N4-C4-N3	2.48	118.02	113.85
27	B1	2850	4AC	N4-C4-N3	2.48	118.01	113.85
27	B1	344	4AC	N4-C4-N3	2.47	118.00	113.85
27	B1	950	4AC	N4-C4-N3	2.47	118.00	113.85
27	B1	1751	4AC	N4-C4-N3	2.47	117.99	113.85
28	B2	120	4AC	N4-C4-N3	2.46	117.99	113.85
1	A1	534	4AC	N4-C4-N3	2.46	117.98	113.85
27	B1	1128	4AC	CM7-C7-N4	2.46	119.55	115.29
27	B1	360	4AC	N4-C4-N3	2.46	117.98	113.85
1	A1	1067	4AC	N4-C4-N3	2.46	117.98	113.85
27	B1	80	4AC	N4-C4-N3	2.46	117.97	113.85
27	B1	2492	4AC	N4-C4-N3	2.45	117.97	113.85
1	A1	1028	OMC	O3'-C3'-C4'	2.45	118.13	111.05
27	B1	609	4AC	N4-C4-N3	2.44	117.95	113.85
27	B1	688	4AC	N4-C4-N3	2.44	117.95	113.85
27	B1	2968	LHH	C5-C4-N3	-2.44	118.67	122.59
1	A1	546	4AC	N4-C4-N3	2.44	117.94	113.85
27	B1	2083	4AC	N4-C4-N3	2.43	117.94	113.85
27	B1	1546	4AC	N4-C4-N3	2.43	117.93	113.85
27	B1	2602	4AC	N4-C4-N3	2.43	117.93	113.85
1	A1	1288	4AC	N4-C4-N3	2.43	117.93	113.85
27	B1	1818	4AC	N4-C4-N3	2.43	117.93	113.85
27	B1	1374	4AC	N4-C4-N3	2.43	117.93	113.85
27	B1	434	4AC	N4-C4-N3	2.42	117.92	113.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	2968	LHH	N4-C4-N3	2.42	117.92	113.85
27	B1	106	4AC	C5-C4-N3	-2.42	118.70	122.59
27	B1	2171	4AC	N4-C4-N3	2.42	117.91	113.85
1	A1	1181	4AC	N4-C4-N3	2.41	117.91	113.85
27	B1	2432	4AC	N4-C4-N3	2.41	117.91	113.85
27	B1	933	4AC	C6-C5-C4	2.41	119.91	116.96
27	B1	933	4AC	N4-C4-N3	2.41	117.90	113.85
27	B1	1706	4AC	N4-C4-N3	2.41	117.90	113.85
27	B1	807	4AC	N4-C4-N3	2.41	117.90	113.85
1	A1	427	4AC	C5-C4-N3	-2.41	118.72	122.59
1	A1	1029	LHH	C5-C4-N3	-2.41	118.72	122.59
27	B1	506	A2M	C5'-C4'-C3'	-2.41	106.16	115.18
27	B1	1052	4AC	N4-C4-N3	2.41	117.89	113.85
1	A1	231	4AC	N4-C4-N3	2.41	117.89	113.85
27	B1	502	LHH	CM7-C7-N4	2.40	119.45	115.29
1	A1	836	4AC	N4-C4-N3	2.40	117.89	113.85
1	A1	427	4AC	CM7-C7-N4	2.40	119.45	115.29
1	A1	405	4AC	N4-C4-N3	2.40	117.89	113.85
27	B1	252	5MC	CM5-C5-C6	-2.40	119.64	122.85
1	A1	578	4AC	N4-C4-N3	2.40	117.88	113.85
27	B1	3006	4AC	N4-C4-N3	2.40	117.88	113.85
27	B1	48	4AC	C6-C5-C4	2.40	119.90	116.96
27	B1	1301	4AC	O7-C7-CM7	-2.40	117.61	122.06
27	B1	1946	LHH	O2-C2-N3	-2.39	118.44	122.33
1	A1	367	4AC	N4-C4-N3	2.39	117.87	113.85
27	B1	2700	UR3	O2-C2-N3	-2.39	117.97	121.34
27	B1	1439	4AC	N4-C4-N3	2.39	117.86	113.85
1	A1	945	4AC	O7-C7-N4	-2.38	117.96	121.82
27	B1	1322	4AC	C5-C4-N3	-2.38	118.76	122.59
27	B1	1846	4AC	N4-C4-N3	2.38	117.84	113.85
1	A1	1314	4AC	N4-C4-N3	2.37	117.84	113.85
27	B1	2469	4AC	N4-C4-N3	2.37	117.84	113.85
27	B1	550	OMG	O6-C6-C5	-2.37	119.73	124.37
27	B1	419	4AC	C5-C4-N3	-2.37	118.77	122.59
1	A1	5	4AC	N4-C4-N3	2.37	117.84	113.85
1	A1	1254	4AC	C5-C4-N3	-2.37	118.78	122.59
27	B1	3011	4AC	N4-C4-N3	2.37	117.83	113.85
27	B1	1301	4AC	C5-C4-N3	-2.37	118.78	122.59
27	B1	162	4AC	N4-C4-N3	2.37	117.83	113.85
27	B1	2429	4AC	N4-C4-N3	2.37	117.83	113.85
27	B1	920	OMG	O6-C6-C5	-2.37	119.74	124.37
1	A1	739	4AC	N4-C4-N3	2.37	117.83	113.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A1	220	4AC	C5-C4-N3	-2.37	118.78	122.59
28	B2	117	4AC	N4-C4-N3	2.37	117.83	113.85
27	B1	1064	4AC	N4-C4-N3	2.36	117.82	113.85
27	B1	1579	4AC	N4-C4-N3	2.36	117.82	113.85
27	B1	1128	4AC	C5-C4-N3	-2.36	118.79	122.59
27	B1	2902	4AC	N4-C4-N3	2.36	117.82	113.85
27	B1	454	OMU	C1'-N1-C2	2.36	121.85	117.57
27	B1	2213	4AC	N4-C4-N3	2.36	117.82	113.85
27	B1	527	LHH	C5-C4-N3	-2.36	118.80	122.59
1	A1	459	OMG	O6-C6-C5	-2.35	119.78	124.37
1	A1	1029	LHH	CM7-C7-N4	2.35	119.35	115.29
27	B1	1639	4AC	C5-C4-N3	-2.35	118.82	122.59
27	B1	2876	4AC	N4-C4-N3	2.35	117.79	113.85
27	B1	337	4AC	N4-C4-N3	2.34	117.78	113.85
27	B1	1639	4AC	O7-C7-CM7	-2.34	117.71	122.06
27	B1	2113	4AC	C5-C4-N3	-2.34	118.83	122.59
27	B1	1383	4AC	N4-C4-N3	2.34	117.78	113.85
27	B1	47	OMC	O2-C2-N3	-2.34	118.53	122.33
27	B1	2047	5MC	CM5-C5-C6	-2.34	119.73	122.85
1	A1	382	4AC	C5-C4-N3	-2.34	118.83	122.59
1	A1	816	4AC	N4-C4-N3	2.33	117.77	113.85
27	B1	2888	4AC	N4-C4-N3	2.33	117.77	113.85
1	A1	87	4AC	C5-C4-N3	-2.33	118.84	122.59
27	B1	979	4AC	C5-C4-N3	-2.33	118.84	122.59
1	A1	636	4AC	C5-C4-N3	-2.33	118.84	122.59
27	B1	1946	LHH	C5-C4-N3	-2.33	118.84	122.59
1	A1	1029	LHH	O2-C2-N3	-2.33	118.55	122.33
27	B1	1345	4AC	N4-C4-N3	2.33	117.76	113.85
28	B2	90	4AC	N4-C4-N3	2.32	117.75	113.85
27	B1	1061	4AC	C5-C4-N3	-2.32	118.86	122.59
1	A1	291	4AC	N4-C4-N3	2.32	117.75	113.85
1	A1	1467	4AC	N4-C4-N3	2.32	117.75	113.85
27	B1	106	4AC	O7-C7-CM7	-2.32	117.75	122.06
27	B1	3006	4AC	C5-C4-N3	-2.32	118.86	122.59
27	B1	271	4AC	C5-C4-N3	-2.31	118.87	122.59
1	A1	636	4AC	N4-C4-N3	2.31	117.74	113.85
1	A1	1467	4AC	C5-C4-N3	-2.31	118.87	122.59
27	B1	641	4AC	C5-C4-N3	-2.31	118.87	122.59
1	A1	719	4AC	N4-C4-N3	2.31	117.73	113.85
27	B1	1664	4AC	N4-C4-N3	2.31	117.73	113.85
1	A1	238	LHH	O2-C2-N3	-2.31	118.58	122.33
1	A1	1004	2MG	O6-C6-C5	-2.30	119.87	124.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A1	856	4AC	C5-C4-N3	-2.30	118.89	122.59
1	A1	1420	OMG	O6-C6-C5	-2.30	119.88	124.37
27	B1	1762	4AC	N4-C4-N3	2.30	117.71	113.85
1	A1	499	4AC	N4-C4-N3	2.30	117.71	113.85
27	B1	23	4AC	N4-C4-N3	2.30	117.71	113.85
28	B2	108	4AC	C5-C4-N3	-2.29	118.90	122.59
27	B1	1067	4AC	N4-C4-N3	2.29	117.70	113.85
27	B1	2659	OMG	O6-C6-C5	-2.29	119.89	124.37
27	B1	1608	4AC	N4-C4-N3	2.29	117.70	113.85
1	A1	763	OMG	O6-C6-C5	-2.29	119.89	124.37
1	A1	1227	4AC	C5-C4-N3	-2.29	118.90	122.59
27	B1	1100	4AC	N4-C4-N3	2.29	117.70	113.85
27	B1	3037	4AC	C5-C4-N3	-2.29	118.91	122.59
1	A1	228	OMG	O6-C6-C5	-2.29	119.90	124.37
27	B1	2526	4AC	C5-C4-N3	-2.29	118.91	122.59
1	A1	481	7MG	N9-C8-N7	2.29	106.65	103.38
27	B1	2844	4AC	N4-C4-N3	2.29	117.69	113.85
27	B1	2492	4AC	C5-C4-N3	-2.29	118.91	122.59
1	A1	427	4AC	O7-C7-CM7	-2.29	117.81	122.06
1	A1	405	4AC	C5-C4-N3	-2.28	118.92	122.59
1	A1	41	4AC	N4-C4-N3	2.28	117.69	113.85
27	B1	1885	4AC	N4-C4-N3	2.28	117.68	113.85
27	B1	721	4AC	C5-C4-N3	-2.28	118.92	122.59
27	B1	599	4AC	C5-C4-N3	-2.28	118.92	122.59
27	B1	378	4AC	N4-C4-N3	2.28	117.68	113.85
27	B1	1706	4AC	C5-C4-N3	-2.28	118.93	122.59
27	B1	1435	4AC	N4-C4-N3	2.28	117.67	113.85
27	B1	1505	4AC	N4-C4-N3	2.28	117.67	113.85
1	A1	274	4AC	N4-C4-N3	2.27	117.67	113.85
27	B1	1579	4AC	C5-C4-N3	-2.27	118.93	122.59
1	A1	578	4AC	C5-C4-N3	-2.27	118.94	122.59
1	A1	1003	OMG	O6-C6-C5	-2.27	119.94	124.37
27	B1	1608	4AC	C5-C4-N3	-2.27	118.94	122.59
1	A1	152	OMG	O6-C6-C5	-2.27	119.94	124.37
1	A1	861	OMG	O6-C6-C5	-2.27	119.94	124.37
27	B1	1293	4AC	N4-C4-N3	2.27	117.66	113.85
27	B1	530	OMG	O6-C6-C5	-2.27	119.94	124.37
27	B1	200	4AC	N4-C4-N3	2.26	117.64	113.85
27	B1	652	4AC	C5-C4-N3	-2.26	118.96	122.59
27	B1	2008	4AC	N4-C4-N3	2.26	117.64	113.85
1	A1	153	OMG	O6-C6-C5	-2.26	119.96	124.37
27	B1	1344	5MC	CM5-C5-C6	-2.26	119.83	122.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A1	467	4AC	C5-C4-N3	-2.26	118.96	122.59
27	B1	1478	4AC	C5-C4-N3	-2.25	118.97	122.59
1	A1	132	OMG	O6-C6-C5	-2.25	119.97	124.37
27	B1	2469	4AC	C5-C4-N3	-2.25	118.97	122.59
1	A1	307	4AC	C5-C4-N3	-2.25	118.97	122.59
1	A1	645	OMG	O6-C6-C5	-2.25	119.98	124.37
27	B1	19	4AC	C5-C4-N3	-2.25	118.97	122.59
27	B1	2749	4AC	C5-C4-N3	-2.25	118.97	122.59
27	B1	979	4AC	CM7-C7-N4	2.25	119.18	115.29
27	B1	1178	4AC	N4-C4-N3	2.25	117.63	113.85
27	B1	1911	4AC	N4-C4-N3	2.25	117.63	113.85
27	B1	732	4AC	C5-C4-N3	-2.25	118.98	122.59
1	A1	668	OMG	O6-C6-C5	-2.25	119.98	124.37
27	B1	2876	4AC	C5-C4-N3	-2.25	118.98	122.59
1	A1	238	LHH	C5-C4-N3	-2.25	118.98	122.59
27	B1	142	4AC	C5-C4-N3	-2.25	118.98	122.59
1	A1	1467	4AC	CM7-C7-N4	2.24	119.18	115.29
27	B1	1505	4AC	C5-C4-N3	-2.24	118.98	122.59
27	B1	2432	4AC	C5-C4-N3	-2.24	118.98	122.59
27	B1	3020	4AC	C5-C4-N3	-2.24	118.98	122.59
27	B1	227	4AC	N4-C4-N3	2.24	117.62	113.85
1	A1	504	OMG	O6-C6-C5	-2.24	119.99	124.37
1	A1	706	4AC	CM7-C7-N4	2.24	119.17	115.29
27	B1	527	LHH	CM7-C7-N4	2.24	119.17	115.29
27	B1	98	4AC	C5-C4-N3	-2.24	118.99	122.59
27	B1	1546	4AC	C5-C4-N3	-2.24	118.99	122.59
27	B1	1822	4AC	N4-C4-N3	2.24	117.61	113.85
27	B1	502	LHH	C5-C4-N3	-2.24	118.99	122.59
27	B1	786	4AC	C5-C4-N3	-2.24	118.99	122.59
27	B1	1846	4AC	C5-C4-N3	-2.24	118.99	122.59
27	B1	2171	4AC	C5-C4-N3	-2.24	118.99	122.59
1	A1	901	OMG	O6-C6-C5	-2.24	120.00	124.37
27	B1	2875	5MC	CM5-C5-C6	-2.24	119.86	122.85
1	A1	455	OMG	O6-C6-C5	-2.23	120.01	124.37
1	A1	827	4AC	C5-C4-N3	-2.23	119.00	122.59
1	A1	719	4AC	C5-C4-N3	-2.23	119.00	122.59
27	B1	2020	4AC	C5-C4-N3	-2.23	119.00	122.59
27	B1	2108	OMG	O6-C6-C5	-2.23	120.01	124.37
1	A1	706	4AC	C5-C4-N3	-2.23	119.00	122.59
27	B1	3023	4AC	C5-C4-N3	-2.23	119.00	122.59
28	B2	32	4AC	C5-C4-N3	-2.23	119.00	122.59
27	B1	1128	4AC	O7-C7-CM7	-2.23	117.92	122.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	116	4AC	C5-C4-N3	-2.23	119.00	122.59
27	B1	1067	4AC	C5-C4-N3	-2.23	119.00	122.59
27	B1	721	4AC	N4-C4-N3	2.23	117.59	113.85
1	A1	216	4AC	C5-C4-N3	-2.23	119.01	122.59
1	A1	141	4AC	C5-C4-N3	-2.23	119.01	122.59
1	A1	499	4AC	C5-C4-N3	-2.23	119.01	122.59
1	A1	231	4AC	C5-C4-N3	-2.23	119.01	122.59
27	B1	2602	4AC	C5-C4-N3	-2.23	119.01	122.59
1	A1	833	OMG	O6-C6-C5	-2.22	120.03	124.37
27	B1	2113	4AC	N4-C4-N3	2.22	117.58	113.85
27	B1	243	4AC	C5-C4-N3	-2.22	119.02	122.59
27	B1	688	4AC	C5-C4-N3	-2.22	119.02	122.59
27	B1	2028	OMG	O6-C6-C5	-2.22	120.03	124.37
1	A1	540	4AC	C5-C4-N3	-2.22	119.02	122.59
1	A1	739	4AC	C5-C4-N3	-2.22	119.02	122.59
27	B1	887	OMG	O6-C6-C5	-2.22	120.04	124.37
27	B1	1818	4AC	C5-C4-N3	-2.22	119.02	122.59
27	B1	921	OMG	O6-C6-C5	-2.22	120.04	124.37
1	A1	307	4AC	N4-C4-N3	2.22	117.58	113.85
27	B1	1290	4AC	N4-C4-N3	2.22	117.58	113.85
27	B1	2749	4AC	N4-C4-N3	2.22	117.58	113.85
27	B1	1966	5MC	CM5-C5-C6	-2.22	119.89	122.85
1	A1	546	4AC	C5-C4-N3	-2.22	119.03	122.59
1	A1	706	4AC	N4-C4-N3	2.22	117.57	113.85
27	B1	1374	4AC	C5-C4-N3	-2.22	119.03	122.59
1	A1	1135	4AC	C5-C4-N3	-2.21	119.03	122.59
27	B1	200	4AC	C5-C4-N3	-2.21	119.03	122.59
27	B1	1501	4AC	C5-C4-N3	-2.21	119.03	122.59
1	A1	605	5MC	CM5-C5-C6	-2.21	119.89	122.85
27	B1	378	4AC	C5-C4-N3	-2.21	119.03	122.59
27	B1	2213	4AC	C5-C4-N3	-2.21	119.03	122.59
28	B2	120	4AC	C5-C4-N3	-2.21	119.03	122.59
27	B1	950	4AC	C5-C4-N3	-2.21	119.04	122.59
27	B1	419	4AC	N4-C4-N3	2.21	117.56	113.85
27	B1	485	4AC	C5-C4-N3	-2.21	119.04	122.59
27	B1	2850	4AC	C5-C4-N3	-2.21	119.04	122.59
27	B1	1264	4AC	C5-C4-N3	-2.21	119.04	122.59
1	A1	1288	4AC	C5-C4-N3	-2.21	119.04	122.59
27	B1	1435	4AC	C5-C4-N3	-2.21	119.04	122.59
1	A1	464	OMG	O6-C6-C5	-2.21	120.06	124.37
27	B1	344	4AC	C5-C4-N3	-2.20	119.05	122.59
27	B1	1533	OMG	O6-C6-C5	-2.20	120.07	124.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	485	4AC	CM7-C7-N4	2.20	119.11	115.29
27	B1	2526	4AC	N4-C4-N3	2.20	117.55	113.85
27	B1	243	4AC	N4-C4-N3	2.20	117.55	113.85
27	B1	866	4AC	N4-C4-N3	2.20	117.55	113.85
28	B2	90	4AC	C5-C4-N3	-2.20	119.05	122.59
1	A1	329	OMG	O6-C6-C5	-2.20	120.07	124.37
1	A1	541	OMG	O6-C6-C5	-2.20	120.07	124.37
1	A1	41	4AC	C5-C4-N3	-2.20	119.05	122.59
27	B1	2454	4AC	C5-C4-N3	-2.20	119.05	122.59
27	B1	1965	OMG	O6-C6-C5	-2.20	120.07	124.37
27	B1	1313	4AC	C5-C4-N3	-2.20	119.05	122.59
27	B1	2379	4AC	C5-C4-N3	-2.20	119.05	122.59
1	A1	1221	4AC	C5-C4-N3	-2.20	119.06	122.59
27	B1	2757	OMG	O6-C6-C5	-2.20	120.08	124.37
27	B1	336	5MC	CM5-C5-C6	-2.20	119.91	122.85
27	B1	827	4AC	C5-C4-N3	-2.20	119.06	122.59
27	B1	434	4AC	C5-C4-N3	-2.20	119.06	122.59
1	A1	1067	4AC	C5-C4-N3	-2.20	119.06	122.59
27	B1	609	4AC	C5-C4-N3	-2.20	119.06	122.59
27	B1	2984	OMG	O6-C6-C5	-2.20	120.08	124.37
27	B1	1064	4AC	C5-C4-N3	-2.20	119.06	122.59
1	A1	227	OMG	O6-C6-C5	-2.20	120.08	124.37
27	B1	2540	OMG	O6-C6-C5	-2.19	120.09	124.37
28	B2	117	4AC	C5-C4-N3	-2.19	119.06	122.59
27	B1	2565	4SU	O2-C2-N1	-2.19	119.87	122.79
1	A1	291	4AC	C5-C4-N3	-2.19	119.06	122.59
1	A1	624	4AC	C5-C4-N3	-2.19	119.06	122.59
27	B1	1100	4AC	C5-C4-N3	-2.19	119.06	122.59
1	A1	839	4AC	C5-C4-N3	-2.19	119.07	122.59
27	B1	214	OMG	O6-C6-C5	-2.19	120.09	124.37
27	B1	877	5MC	CM5-C5-C6	-2.19	119.92	122.85
27	B1	1293	4AC	C5-C4-N3	-2.19	119.07	122.59
1	A1	1016	4AC	C5-C4-N3	-2.19	119.07	122.59
27	B1	23	4AC	C5-C4-N3	-2.19	119.07	122.59
27	B1	130	4AC	C5-C4-N3	-2.19	119.07	122.59
27	B1	2888	4AC	C5-C4-N3	-2.19	119.07	122.59
27	B1	1442	4AC	N4-C4-N3	2.19	117.53	113.85
1	A1	815	5MC	CM5-C5-C6	-2.19	119.93	122.85
27	B1	2562	OMG	O6-C6-C5	-2.19	120.10	124.37
27	B1	1822	4AC	C5-C4-N3	-2.19	119.08	122.59
27	B1	1442	4AC	C5-C4-N3	-2.18	119.08	122.59
27	B1	1649	4AC	C5-C4-N3	-2.18	119.08	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	1914	OMC	O2-C2-N3	-2.18	118.78	122.33
27	B1	2391	OMG	O6-C6-C5	-2.18	120.11	124.37
27	B1	337	4AC	C5-C4-N3	-2.18	119.08	122.59
27	B1	1743	4AC	C5-C4-N3	-2.18	119.08	122.59
27	B1	19	4AC	O2-C2-N3	-2.18	118.78	122.33
27	B1	2740	OMG	O6-C6-C5	-2.18	120.11	124.37
27	B1	419	4AC	CM7-C7-N4	2.18	119.06	115.29
27	B1	2684	OMG	O6-C6-C5	-2.18	120.11	124.37
1	A1	523	5MC	CM5-C5-C6	-2.18	119.94	122.85
27	B1	1885	4AC	C5-C4-N3	-2.18	119.09	122.59
1	A1	1362	5MC	CM5-C5-C6	-2.18	119.94	122.85
27	B1	1973	5MC	CM5-C5-C6	-2.18	119.94	122.85
27	B1	2083	4AC	C5-C4-N3	-2.18	119.09	122.59
1	A1	5	4AC	C5-C4-N3	-2.18	119.09	122.59
1	A1	1227	4AC	CM7-C7-N4	2.18	119.06	115.29
27	B1	1649	4AC	N4-C4-N3	2.17	117.50	113.85
27	B1	360	4AC	C5-C4-N3	-2.17	119.09	122.59
27	B1	2492	4AC	CM7-C7-N4	2.17	119.05	115.29
27	B1	227	4AC	C5-C4-N3	-2.17	119.09	122.59
27	B1	2902	4AC	C5-C4-N3	-2.17	119.10	122.59
27	B1	1064	4AC	CM7-C7-N4	2.17	119.05	115.29
27	B1	1757	4AC	C5-C4-N3	-2.17	119.10	122.59
27	B1	55	OMG	O6-C6-C5	-2.17	120.13	124.37
27	B1	2365	OMG	O6-C6-C5	-2.17	120.13	124.37
1	A1	816	4AC	C5-C4-N3	-2.17	119.10	122.59
1	A1	775	OMU	O2-C2-N1	-2.17	119.90	122.79
27	B1	2180	OMG	O6-C6-C5	-2.17	120.13	124.37
27	B1	1751	4AC	C5-C4-N3	-2.17	119.10	122.59
1	A1	534	4AC	C5-C4-N3	-2.17	119.10	122.59
27	B1	2901	5MC	CM5-C5-C6	-2.17	119.95	122.85
27	B1	715	4AC	C5-C4-N3	-2.17	119.10	122.59
27	B1	580	4AC	C5-C4-N3	-2.17	119.11	122.59
1	A1	367	4AC	C5-C4-N3	-2.17	119.11	122.59
27	B1	1383	4AC	C5-C4-N3	-2.17	119.11	122.59
1	A1	614	4AC	C5-C4-N3	-2.17	119.11	122.59
27	B1	715	4AC	N4-C4-N3	2.17	117.49	113.85
27	B1	2008	4AC	C5-C4-N3	-2.16	119.11	122.59
27	B1	130	4AC	N4-C4-N3	2.16	117.48	113.85
27	B1	807	4AC	C5-C4-N3	-2.16	119.11	122.59
27	B1	47	OMC	C1'-N1-C2	2.16	123.24	118.42
27	B1	1107	4AC	N4-C4-N3	2.16	117.48	113.85
27	B1	3011	4AC	C5-C4-N3	-2.16	119.12	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	808	OMG	O6-C6-C5	-2.16	120.16	124.37
27	B1	1946	LHH	CM7-C7-N4	2.16	119.03	115.29
1	A1	507	OMG	O6-C6-C5	-2.16	120.16	124.37
27	B1	2844	4AC	C5-C4-N3	-2.16	119.12	122.59
27	B1	580	4AC	N4-C4-N3	2.15	117.47	113.85
27	B1	2429	4AC	C5-C4-N3	-2.15	119.13	122.59
1	A1	1484	5MC	CM5-C5-C6	-2.15	119.98	122.85
27	B1	116	4AC	N4-C4-N3	2.15	117.45	113.85
1	A1	274	4AC	C5-C4-N3	-2.15	119.14	122.59
27	B1	1439	4AC	C5-C4-N3	-2.15	119.14	122.59
27	B1	675	OMG	O6-C6-C5	-2.14	120.18	124.37
27	B1	1911	4AC	C5-C4-N3	-2.14	119.14	122.59
1	A1	863	5MC	CM5-C5-C6	-2.14	119.99	122.85
27	B1	162	4AC	C5-C4-N3	-2.14	119.15	122.59
1	A1	488	OMU	O2-C2-N1	-2.14	119.94	122.79
27	B1	501	OMC	O2-C2-N3	-2.14	118.86	122.33
1	A1	1123	5MC	CM5-C5-C6	-2.14	120.00	122.85
27	B1	1290	4AC	C5-C4-N3	-2.14	119.16	122.59
27	B1	926	OMU	O2-C2-N1	-2.14	119.95	122.79
1	A1	230	5MC	CM5-C5-C6	-2.13	120.00	122.85
27	B1	1322	4AC	O2-C2-N3	-2.13	118.86	122.33
27	B1	953	4AC	N4-C4-N3	2.13	117.43	113.85
1	A1	1013	5MC	CM5-C5-C6	-2.13	120.00	122.85
27	B1	271	4AC	CM7-C7-N4	2.13	118.98	115.29
27	B1	1107	4AC	C5-C4-N3	-2.13	119.17	122.59
1	A1	1254	4AC	CM7-C7-N4	2.13	118.98	115.29
1	A1	1165	OMU	O2-C2-N1	-2.13	119.96	122.79
27	B1	1488	OMU	O2-C2-N1	-2.13	119.96	122.79
27	B1	1551	4AC	C5-C4-N3	-2.13	119.17	122.59
27	B1	2792	4AC	C5-C4-N3	-2.13	119.17	122.59
1	A1	273	5MC	CM5-C5-C6	-2.13	120.01	122.85
27	B1	827	4AC	CM7-C7-N4	2.13	118.97	115.29
27	B1	2821	4AC	N4-C4-N3	2.13	117.42	113.85
27	B1	1061	4AC	CM7-C7-N4	2.13	118.97	115.29
27	B1	97	5MC	CM5-C5-C6	-2.12	120.01	122.85
27	B1	2821	4AC	C5-C4-N3	-2.12	119.18	122.59
27	B1	1904	OMG	O6-C6-C5	-2.12	120.22	124.37
1	A1	836	4AC	C5-C4-N3	-2.12	119.18	122.59
27	B1	1967	4AC	C5-C4-N3	-2.12	119.18	122.59
27	B1	953	4AC	C5-C4-N3	-2.12	119.18	122.59
27	B1	2133	4AC	C5-C4-N3	-2.12	119.18	122.59
27	B1	1769	4AC	N4-C4-N3	2.12	117.41	113.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	1608	4AC	CM7-C7-N4	2.12	118.96	115.29
1	A1	466	5MC	CM5-C5-C6	-2.12	120.02	122.85
27	B1	485	4AC	N4-C4-N3	2.12	117.41	113.85
1	A1	777	5MC	CM5-C5-C6	-2.11	120.03	122.85
27	B1	2554	OMU	O2-C2-N1	-2.11	119.98	122.79
1	A1	636	4AC	CM7-C7-N4	2.11	118.95	115.29
27	B1	98	4AC	N4-C4-N3	2.11	117.39	113.85
27	B1	2022	OMG	O6-C6-C5	-2.11	120.25	124.37
1	A1	951	5MC	CM5-C5-C6	-2.11	120.03	122.85
27	B1	1551	4AC	N4-C4-N3	2.11	117.39	113.85
27	B1	1345	4AC	C5-C4-N3	-2.11	119.20	122.59
27	B1	3037	4AC	CM7-C7-N4	2.11	118.94	115.29
27	B1	2133	4AC	N4-C4-N3	2.10	117.39	113.85
27	B1	1178	4AC	C5-C4-N3	-2.10	119.21	122.59
27	B1	2453	5MC	CM5-C5-C6	-2.10	120.04	122.85
1	A1	1004	2MG	CM2-N2-C2	-2.10	119.22	123.86
27	B1	1769	4AC	C5-C4-N3	-2.10	119.21	122.59
27	B1	3020	4AC	CM7-C7-N4	2.10	118.92	115.29
27	B1	1435	4AC	CM7-C7-N4	2.10	118.92	115.29
27	B1	721	4AC	CM7-C7-N4	2.09	118.92	115.29
27	B1	866	4AC	C5-C4-N3	-2.09	119.23	122.59
27	B1	2401	OMU	O2-C2-N1	-2.09	120.00	122.79
27	B1	2809	4AC	N4-C4-N3	2.09	117.36	113.85
27	B1	2888	4AC	CM7-C7-N4	2.09	118.91	115.29
1	A1	444	4AC	C5-C4-N3	-2.09	119.23	122.59
27	B1	675	OMG	N2-C2-N1	2.09	121.16	116.71
27	B1	1648	5MC	CM5-C5-C6	-2.09	120.06	122.85
1	A1	8	OMU	O2-C2-N1	-2.08	120.02	122.79
27	B1	276	LHH	CM7-C7-N4	2.08	118.90	115.29
27	B1	337	4AC	CM7-C7-N4	2.08	118.90	115.29
27	B1	1264	4AC	CM7-C7-N4	2.08	118.89	115.29
27	B1	2809	4AC	C5-C4-N3	-2.08	119.25	122.59
1	A1	681	5MC	CM5-C5-C6	-2.08	120.08	122.85
27	B1	2087	5MC	CM5-C5-C6	-2.07	120.08	122.85
27	B1	2876	4AC	O2-C2-N3	-2.07	118.96	122.33
1	A1	17	5MC	CM5-C5-C6	-2.07	120.08	122.85
1	A1	540	4AC	CM7-C7-N4	2.07	118.88	115.29
27	B1	2391	OMG	N2-C2-N1	2.07	121.12	116.71
27	B1	932	5MC	CM5-C5-C6	-2.07	120.08	122.85
27	B1	599	4AC	CM7-C7-N4	2.07	118.87	115.29
1	A1	839	4AC	O2-C2-N3	-2.07	118.97	122.33
27	B1	2876	4AC	CM7-C7-N4	2.07	118.87	115.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	80	4AC	C5-C4-N3	-2.07	119.27	122.59
1	A1	534	4AC	CM7-C7-N4	2.06	118.86	115.29
27	B1	1981	OMU	O2-C2-N1	-2.06	120.04	122.79
1	A1	1221	4AC	CM7-C7-N4	2.06	118.86	115.29
27	B1	1579	4AC	CM7-C7-N4	2.06	118.86	115.29
27	B1	48	4AC	O2-C2-N3	-2.06	118.98	122.33
27	B1	1052	4AC	C5-C4-N3	-2.06	119.28	122.59
1	A1	1190	5MC	CM5-C5-C6	-2.06	120.10	122.85
27	B1	1967	4AC	O2-C2-N3	-2.06	118.99	122.33
28	B2	90	4AC	CM7-C7-N4	2.06	118.85	115.29
1	A1	464	OMG	N2-C2-N1	2.05	121.08	116.71
27	B1	344	4AC	CM7-C7-N4	2.05	118.84	115.29
27	B1	2792	4AC	CM7-C7-N4	2.05	118.84	115.29
27	B1	1904	OMG	N2-C2-N1	2.05	121.07	116.71
27	B1	2668	OMU	O2-C2-N1	-2.05	120.07	122.79
27	B1	1067	4AC	CM7-C7-N4	2.05	118.83	115.29
1	A1	473	5MC	CM5-C5-C6	-2.05	120.12	122.85
27	B1	807	4AC	CM7-C7-N4	2.05	118.83	115.29
27	B1	1762	4AC	C5-C4-N3	-2.04	119.31	122.59
27	B1	1743	4AC	CM7-C7-N4	2.04	118.83	115.29
28	B2	108	4AC	CM7-C7-N4	2.04	118.82	115.29
27	B1	142	4AC	CM7-C7-N4	2.04	118.82	115.29
27	B1	48	4AC	C5-C4-N3	-2.04	119.31	122.59
27	B1	2432	4AC	CM7-C7-N4	2.04	118.82	115.29
1	A1	1486	5MC	CM5-C5-C6	-2.04	120.13	122.85
27	B1	3006	4AC	CM7-C7-N4	2.03	118.81	115.29
1	A1	499	4AC	CM7-C7-N4	2.03	118.81	115.29
27	B1	2454	4AC	CM7-C7-N4	2.03	118.81	115.29
27	B1	2469	4AC	CM7-C7-N4	2.03	118.81	115.29
1	A1	382	4AC	CM7-C7-N4	2.03	118.81	115.29
27	B1	2617	5MC	CM5-C5-C6	-2.03	120.13	122.85
27	B1	786	4AC	CM7-C7-N4	2.03	118.81	115.29
27	B1	1322	4AC	CM7-C7-N4	2.03	118.81	115.29
27	B1	2171	4AC	CM7-C7-N4	2.03	118.81	115.29
27	B1	2083	4AC	CM7-C7-N4	2.03	118.81	115.29
27	B1	1706	4AC	CM7-C7-N4	2.03	118.80	115.29
27	B1	1751	4AC	CM7-C7-N4	2.03	118.80	115.29
27	B1	1818	4AC	CM7-C7-N4	2.03	118.80	115.29
27	B1	1648	5MC	O2-C2-N3	-2.03	119.04	122.33
1	A1	238	LHH	O7-C7-N4	-2.03	118.54	121.82
1	A1	687	5MC	CM5-C5-C6	-2.03	120.14	122.85
1	A1	405	4AC	CM7-C7-N4	2.03	118.80	115.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	B1	1846	4AC	O2-C2-N3	-2.03	119.04	122.33
1	A1	274	4AC	CM7-C7-N4	2.02	118.80	115.29
27	B1	2602	4AC	CM7-C7-N4	2.02	118.79	115.29
1	A1	307	4AC	CM7-C7-N4	2.02	118.79	115.29
27	B1	1885	4AC	CM7-C7-N4	2.02	118.79	115.29
27	B1	1478	4AC	N4-C4-N3	2.02	117.24	113.85
27	B1	2526	4AC	CM7-C7-N4	2.02	118.79	115.29
27	B1	1313	4AC	CM7-C7-N4	2.02	118.78	115.29
1	A1	1012	5MC	CM5-C5-C6	-2.02	120.15	122.85
27	B1	979	4AC	O7-C7-CM7	-2.02	118.31	122.06
27	B1	162	4AC	CM7-C7-N4	2.02	118.78	115.29
27	B1	1501	4AC	CM7-C7-N4	2.02	118.78	115.29
1	A1	216	4AC	CM7-C7-N4	2.02	118.78	115.29
27	B1	360	4AC	CM7-C7-N4	2.02	118.78	115.29
27	B1	652	4AC	CM7-C7-N4	2.02	118.78	115.29
27	B1	1439	4AC	CM7-C7-N4	2.01	118.78	115.29
27	B1	1977	5MC	CM5-C5-C6	-2.01	120.16	122.85
1	A1	614	4AC	CM7-C7-N4	2.01	118.78	115.29
27	B1	2749	4AC	CM7-C7-N4	2.01	118.77	115.29
27	B1	506	A2M	C2'-C3'-C4'	2.01	106.36	101.99
27	B1	1757	4AC	CM7-C7-N4	2.01	118.77	115.29
1	A1	856	4AC	O2-C2-N3	-2.01	119.06	122.33
27	B1	1649	4AC	CM7-C7-N4	2.01	118.77	115.29
27	B1	2113	4AC	CM7-C7-N4	2.01	118.77	115.29
27	B1	896	4AC	N4-C4-N3	2.01	117.22	113.85
1	A1	231	4AC	CM7-C7-N4	2.00	118.76	115.29
1	A1	636	4AC	O2-C2-N3	-2.00	119.07	122.33
27	B1	1478	4AC	CM7-C7-N4	2.00	118.76	115.29
27	B1	1150	4AC	C5-C4-N3	-2.00	119.37	122.59
1	A1	624	4AC	CM7-C7-N4	2.00	118.76	115.29

There are no chirality outliers.

All (163) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A1	132	OMG	O4'-C4'-C5'-O5'
1	A1	152	OMG	C1'-C2'-O2'-CM2
1	A1	153	OMG	C1'-C2'-O2'-CM2
1	A1	238	LHH	C5-C4-N4-C7
1	A1	238	LHH	N3-C4-N4-C7
1	A1	238	LHH	C3'-C4'-C5'-O5'
1	A1	238	LHH	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
1	A1	329	OMG	O4'-C4'-C5'-O5'
1	A1	329	OMG	C3'-C4'-C5'-O5'
1	A1	361	A2M	C1'-C2'-O2'-CM'
1	A1	425	OMU	C3'-C4'-C5'-O5'
1	A1	425	OMU	O4'-C4'-C5'-O5'
1	A1	645	OMG	C1'-C2'-O2'-CM2
1	A1	668	OMG	C1'-C2'-O2'-CM2
1	A1	762	OMU	C1'-C2'-O2'-CM2
1	A1	1029	LHH	C5-C4-N4-C7
1	A1	1029	LHH	N3-C4-N4-C7
1	A1	1029	LHH	C1'-C2'-O2'-C1
1	A1	1194	OMC	O4'-C4'-C5'-O5'
1	A1	1420	OMG	C3'-C4'-C5'-O5'
27	B1	47	OMC	C4'-C5'-O5'-P
27	B1	80	4AC	O4'-C4'-C5'-O5'
27	B1	80	4AC	C3'-C4'-C5'-O5'
27	B1	276	LHH	C3'-C4'-C5'-O5'
27	B1	276	LHH	O4'-C4'-C5'-O5'
27	B1	454	OMU	C3'-C4'-C5'-O5'
27	B1	454	OMU	O4'-C4'-C5'-O5'
27	B1	502	LHH	C5-C4-N4-C7
27	B1	502	LHH	N3-C4-N4-C7
27	B1	527	LHH	C5-C4-N4-C7
27	B1	527	LHH	N3-C4-N4-C7
27	B1	530	OMG	C1'-C2'-O2'-CM2
27	B1	857	A2M	C3'-C4'-C5'-O5'
27	B1	880	A2M	O4'-C4'-C5'-O5'
27	B1	880	A2M	C3'-C4'-C5'-O5'
27	B1	883	5MU	C3'-C4'-C5'-O5'
27	B1	883	5MU	O4'-C4'-C5'-O5'
27	B1	887	OMG	C1'-C2'-O2'-CM2
27	B1	888	5MU	O4'-C4'-C5'-O5'
27	B1	940	A2M	C1'-C2'-O2'-CM'
27	B1	2365	OMG	O4'-C4'-C5'-O5'
27	B1	2365	OMG	C3'-C4'-C5'-O5'
27	B1	2700	UR3	O4'-C1'-N1-C6
27	B1	2700	UR3	O4'-C1'-N1-C2
27	B1	2808	OMC	C1'-C2'-O2'-CM2
27	B1	2968	LHH	C3'-C4'-C5'-O5'
27	B1	2968	LHH	O4'-C4'-C5'-O5'
27	B1	2984	OMG	O4'-C4'-C5'-O5'
1	A1	775	OMU	C2'-C1'-N1-C6

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Mol	Chain	Res	Type	Atoms
1	A1	504	OMG	C4'-C5'-O5'-P
1	A1	8	OMU	O4'-C4'-C5'-O5'
1	A1	17	5MC	O4'-C4'-C5'-O5'
1	A1	466	5MC	O4'-C4'-C5'-O5'
1	A1	466	5MC	C3'-C4'-C5'-O5'
1	A1	775	OMU	O4'-C4'-C5'-O5'
1	A1	1190	5MC	O4'-C4'-C5'-O5'
1	A1	1190	5MC	C3'-C4'-C5'-O5'
1	A1	1194	OMC	C3'-C4'-C5'-O5'
27	B1	1648	5MC	C3'-C4'-C5'-O5'
1	A1	17	5MC	C3'-C4'-C5'-O5'
1	A1	132	OMG	C3'-C4'-C5'-O5'
1	A1	775	OMU	C3'-C4'-C5'-O5'
27	B1	688	4AC	O4'-C4'-C5'-O5'
27	B1	857	A2M	O4'-C4'-C5'-O5'
27	B1	1639	4AC	O4'-C4'-C5'-O5'
27	B1	1639	4AC	C3'-C4'-C5'-O5'
27	B1	1648	5MC	O4'-C4'-C5'-O5'
27	B1	2984	OMG	C3'-C4'-C5'-O5'
1	A1	775	OMU	C2'-C1'-N1-C2
27	B1	2391	OMG	C4'-C5'-O5'-P
1	A1	1420	OMG	O4'-C4'-C5'-O5'
1	A1	499	4AC	O4'-C4'-C5'-O5'
27	B1	1489	OMC	C3'-C4'-C5'-O5'
27	B1	1846	4AC	C3'-C4'-C5'-O5'
27	B1	2391	OMG	C3'-C4'-C5'-O5'
27	B1	715	4AC	O4'-C4'-C5'-O5'
27	B1	888	5MU	C2'-C1'-N1-C6
1	A1	1457	MA6	C5-C6-N6-C9
27	B1	1489	OMC	O4'-C4'-C5'-O5'
27	B1	2607	OMC	C3'-C4'-C5'-O5'
27	B1	2902	4AC	O4'-C4'-C5'-O5'
1	A1	8	OMU	C2'-C1'-N1-C6
27	B1	1846	4AC	O4'-C4'-C5'-O5'
27	B1	2379	4AC	O4'-C4'-C5'-O5'
1	A1	238	LHH	CM7-C7-N4-C4
1	A1	238	LHH	O7-C7-N4-C4
1	A1	945	4AC	O7-C7-N4-C4
1	A1	945	4AC	CM7-C7-N4-C4
27	B1	1301	4AC	O7-C7-N4-C4
27	B1	1301	4AC	CM7-C7-N4-C4
27	B1	2391	OMG	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
27	B1	454	OMU	C1'-C2'-O2'-CM2
27	B1	1946	LHH	C1'-C2'-O2'-C1
27	B1	2428	OMC	C1'-C2'-O2'-CM2
27	B1	926	OMU	C2'-C1'-N1-C6
1	A1	775	OMU	O4'-C1'-N1-C6
1	A1	1486	5MC	O4'-C1'-N1-C6
1	A1	329	OMG	C4'-C5'-O5'-P
1	A1	1420	OMG	C4'-C5'-O5'-P
27	B1	2557	OMC	C4'-C5'-O5'-P
1	A1	1486	5MC	O4'-C4'-C5'-O5'
27	B1	2668	OMU	C3'-C2'-O2'-CM2
27	B1	888	5MU	O4'-C1'-N1-C6
1	A1	228	OMG	C3'-C4'-C5'-O5'
1	A1	504	OMG	C3'-C4'-C5'-O5'
27	B1	921	OMG	C3'-C4'-C5'-O5'
1	A1	775	OMU	O4'-C1'-N1-C2
1	A1	1362	5MC	O4'-C4'-C5'-O5'
1	A1	5	4AC	O4'-C4'-C5'-O5'
27	B1	530	OMG	O4'-C4'-C5'-O5'
27	B1	641	4AC	O4'-C4'-C5'-O5'
27	B1	1383	4AC	O4'-C4'-C5'-O5'
27	B1	888	5MU	C2'-C1'-N1-C2
1	A1	1486	5MC	C4'-C5'-O5'-P
1	A1	8	OMU	O4'-C1'-N1-C6
27	B1	926	OMU	O4'-C1'-N1-C6
27	B1	688	4AC	C3'-C4'-C5'-O5'
1	A1	1486	5MC	O4'-C1'-N1-C2
1	A1	466	5MC	C4'-C5'-O5'-P
1	A1	861	OMG	C4'-C5'-O5'-P
1	A1	1476	MA6	C3'-C4'-C5'-O5'
1	A1	499	4AC	C3'-C4'-C5'-O5'
27	B1	47	OMC	C2'-C1'-N1-C6
27	B1	888	5MU	O4'-C1'-N1-C2
1	A1	926	5MU	C4'-C5'-O5'-P
27	B1	506	A2M	C4'-C5'-O5'-P
27	B1	926	OMU	O4'-C1'-N1-C2
27	B1	715	4AC	C3'-C4'-C5'-O5'
27	B1	1313	4AC	O4'-C4'-C5'-O5'
1	A1	8	OMU	O4'-C1'-N1-C2
1	A1	8	OMU	C2'-C1'-N1-C2
27	B1	887	OMG	O4'-C4'-C5'-O5'
27	B1	1967	4AC	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
27	B1	2607	OMC	O4'-C4'-C5'-O5'
1	A1	839	4AC	O4'-C4'-C5'-O5'
27	B1	2902	4AC	C3'-C4'-C5'-O5'
1	A1	425	OMU	C1'-C2'-O2'-CM2
27	B1	502	LHH	C1'-C2'-O2'-C1
1	A1	425	OMU	C3'-C2'-O2'-CM2
27	B1	920	OMG	C3'-C2'-O2'-CM2
27	B1	501	OMC	C2'-C1'-N1-C2
1	A1	473	5MC	C3'-C4'-C5'-O5'
1	A1	504	OMG	O4'-C4'-C5'-O5'
1	A1	1486	5MC	C3'-C4'-C5'-O5'
27	B1	47	OMC	C2'-C1'-N1-C2
27	B1	926	OMU	C2'-C1'-N1-C2
27	B1	1914	OMC	C2'-C1'-N1-C2
1	A1	1003	OMG	C4'-C5'-O5'-P
1	A1	455	OMG	O4'-C4'-C5'-O5'
1	A1	1362	5MC	C3'-C4'-C5'-O5'
27	B1	2379	4AC	C3'-C4'-C5'-O5'
27	B1	2401	OMU	O4'-C4'-C5'-O5'
1	A1	761	OMC	C2'-C1'-N1-C2
1	A1	1486	5MC	C2'-C1'-N1-C2
27	B1	1322	4AC	C2'-C1'-N1-C2
27	B1	1648	5MC	C2'-C1'-N1-C2
1	A1	1476	MA6	C4'-C5'-O5'-P
1	A1	464	OMG	O4'-C4'-C5'-O5'
27	B1	979	4AC	O4'-C4'-C5'-O5'
27	B1	1383	4AC	C3'-C4'-C5'-O5'
27	B1	1946	LHH	N3-C4-N4-C7
27	B1	1904	OMG	C3'-C4'-C5'-O5'
27	B1	1846	4AC	C2'-C1'-N1-C2

There are no ring outliers.

149 monomers are involved in 191 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
27	B1	2562	OMG	1	0
27	B1	2391	OMG	2	0
1	A1	945	4AC	6	0
27	B1	1762	4AC	1	0
1	A1	1190	5MC	1	0
27	B1	360	4AC	1	0
27	B1	950	4AC	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	A1	466	5MC	1	0
27	B1	2888	4AC	1	0
27	B1	1639	4AC	1	0
27	B1	1904	OMG	2	0
27	B1	932	5MC	1	0
27	B1	1885	4AC	2	0
27	B1	2554	OMU	1	0
27	B1	485	4AC	2	0
27	B1	1150	4AC	2	0
27	B1	933	4AC	1	0
27	B1	130	4AC	1	0
27	B1	896	4AC	1	0
1	A1	488	OMU	1	0
27	B1	926	OMU	2	0
27	B1	2735	OMC	1	0
27	B1	2047	5MC	1	0
27	B1	887	OMG	2	0
27	B1	675	OMG	2	0
27	B1	2492	4AC	1	0
27	B1	47	OMC	1	0
1	A1	361	A2M	2	0
1	A1	1221	4AC	1	0
1	A1	1467	4AC	1	0
27	B1	827	4AC	1	0
28	B2	90	4AC	1	0
27	B1	337	4AC	2	0
1	A1	427	4AC	1	0
1	A1	739	4AC	1	0
27	B1	1478	4AC	1	0
1	A1	827	4AC	1	0
1	A1	819	A2M	1	0
27	B1	732	4AC	1	0
1	A1	856	4AC	3	0
27	B1	98	4AC	1	0
27	B1	142	4AC	1	0
27	B1	1099	OMC	1	0
1	A1	706	4AC	1	0
1	A1	329	OMG	2	0
1	A1	1371	OMC	2	0
1	A1	541	OMG	1	0
27	B1	116	4AC	2	0
27	B1	2379	4AC	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	A1	117	OMC	1	0
27	B1	721	4AC	2	0
1	A1	1110	OMU	1	0
27	B1	2850	4AC	1	0
1	A1	901	OMG	1	0
27	B1	1286	4AC	4	0
1	A1	614	4AC	1	0
1	A1	220	4AC	1	0
1	A1	464	OMG	1	0
1	A1	668	OMG	2	0
1	A1	307	4AC	1	0
27	B1	1818	4AC	1	0
27	B1	1743	4AC	1	0
1	A1	382	4AC	1	0
27	B1	1608	4AC	1	0
27	B1	1706	4AC	1	0
27	B1	1769	4AC	1	0
27	B1	97	5MC	1	0
1	A1	1366	5MC	1	0
1	A1	534	4AC	1	0
1	A1	763	OMG	1	0
27	B1	1435	4AC	1	0
27	B1	2808	OMC	1	0
27	B1	2821	4AC	1	0
27	B1	2428	OMC	1	0
27	B1	19	4AC	1	0
27	B1	1551	4AC	1	0
28	B2	32	4AC	1	0
27	B1	1264	4AC	1	0
27	B1	2028	OMG	1	0
1	A1	1165	OMU	1	0
28	B2	108	4AC	1	0
1	A1	132	OMG	1	0
27	B1	506	A2M	6	0
1	A1	719	4AC	1	0
27	B1	1322	4AC	1	0
1	A1	153	OMG	1	0
27	B1	1914	OMC	1	0
27	B1	2113	4AC	3	0
1	A1	507	OMG	2	0
27	B1	1983	5MC	1	0
1	A1	1288	4AC	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
27	B1	1981	OMU	1	0
1	A1	1476	MA6	1	0
1	A1	1364	OMC	2	0
27	B1	2213	4AC	1	0
27	B1	2684	OMG	1	0
1	A1	227	OMG	2	0
1	A1	41	4AC	1	0
27	B1	940	A2M	1	0
1	A1	839	4AC	1	0
27	B1	3020	4AC	1	0
1	A1	834	OMC	1	0
27	B1	336	5MC	2	0
1	A1	1475	MA6	2	0
27	B1	1648	5MC	2	0
27	B1	1488	OMU	1	0
27	B1	1489	OMC	1	0
27	B1	1501	4AC	1	0
27	B1	1064	4AC	1	0
27	B1	3037	4AC	1	0
1	A1	473	5MC	2	0
1	A1	1135	4AC	1	0
27	B1	55	OMG	1	0
27	B1	599	4AC	1	0
1	A1	152	OMG	2	0
1	A1	1254	4AC	1	0
1	A1	228	OMG	1	0
27	B1	1374	4AC	2	0
27	B1	419	4AC	1	0
27	B1	580	4AC	1	0
1	A1	459	OMG	1	0
1	A1	444	4AC	2	0
1	A1	762	OMU	2	0
27	B1	877	5MC	1	0
27	B1	530	OMG	1	0
27	B1	2749	4AC	2	0
27	B1	641	4AC	1	0
27	B1	106	4AC	3	0
27	B1	953	4AC	1	0
1	A1	405	4AC	1	0
27	B1	2844	4AC	1	0
27	B1	813	4AC	2	0
27	B1	3006	4AC	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
27	B1	2432	4AC	1	0
27	B1	979	4AC	2	0
1	A1	861	OMG	3	0
27	B1	1579	4AC	1	0
27	B1	808	OMG	2	0
27	B1	1061	4AC	1	0
27	B1	454	OMU	1	0
1	A1	87	4AC	2	0
1	A1	1226	OMC	1	0
27	B1	1107	4AC	1	0
27	B1	550	OMG	2	0
1	A1	1368	OMU	1	0
1	A1	1013	5MC	1	0
27	B1	1977	5MC	2	0
1	A1	636	4AC	1	0
27	B1	3011	4AC	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 13 ligands modelled in this entry, 13 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

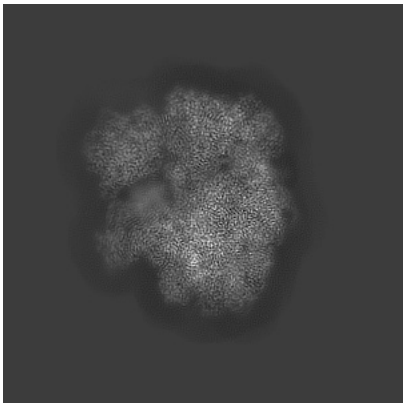
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-53098. These allow visual inspection of the internal detail of the map and identification of artifacts.

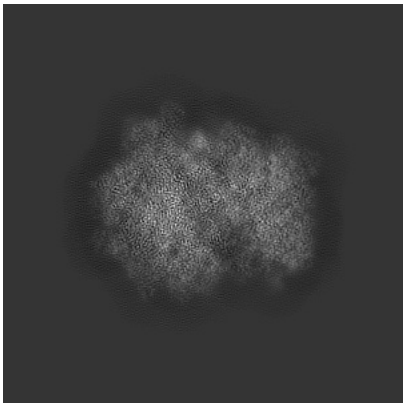
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

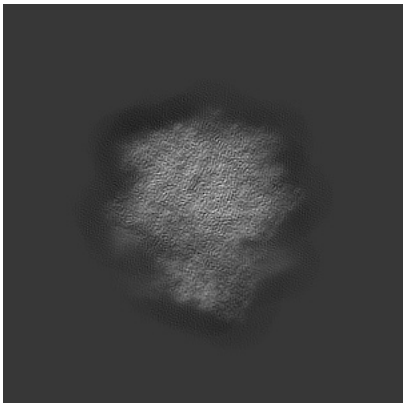
6.1.1 Primary map



X



Y

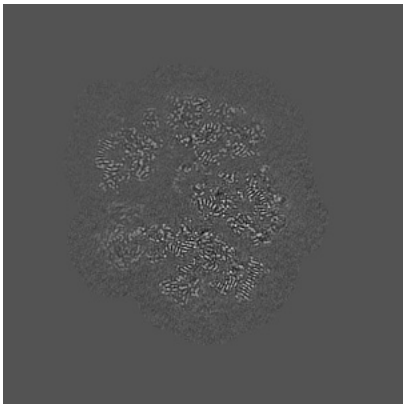


Z

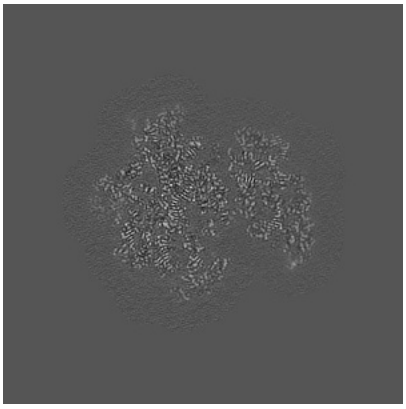
The images above show the map projected in three orthogonal directions.

6.2 Central slices

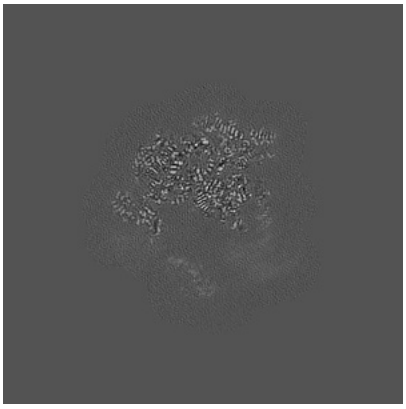
6.2.1 Primary map



X Index: 224



Y Index: 224

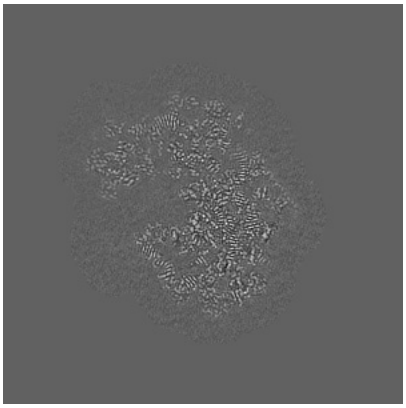


Z Index: 224

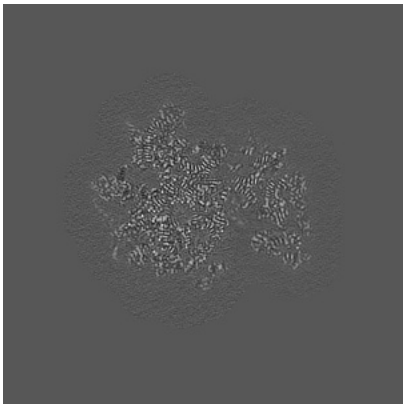
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

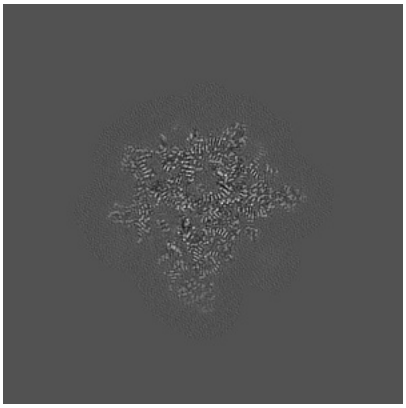
6.3.1 Primary map



X Index: 242



Y Index: 233

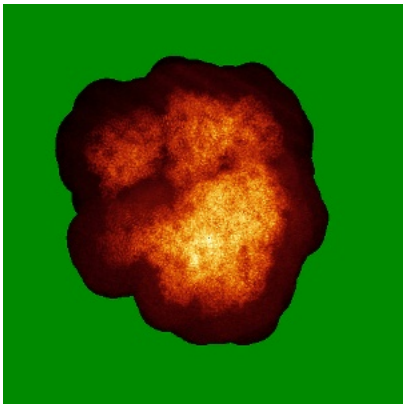


Z Index: 188

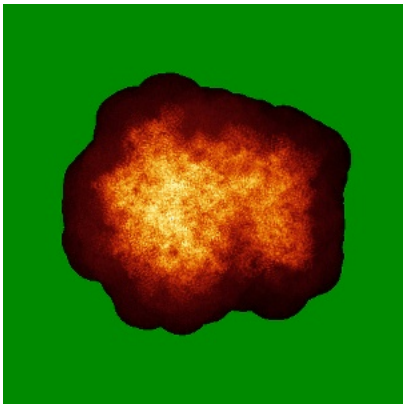
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

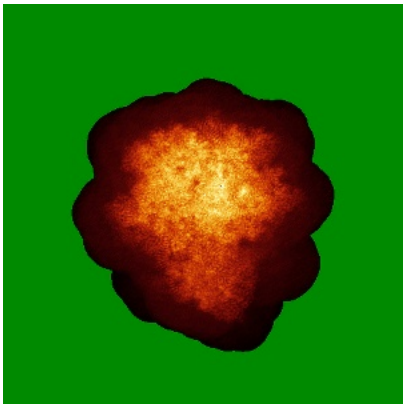
6.4.1 Primary map



X



Y

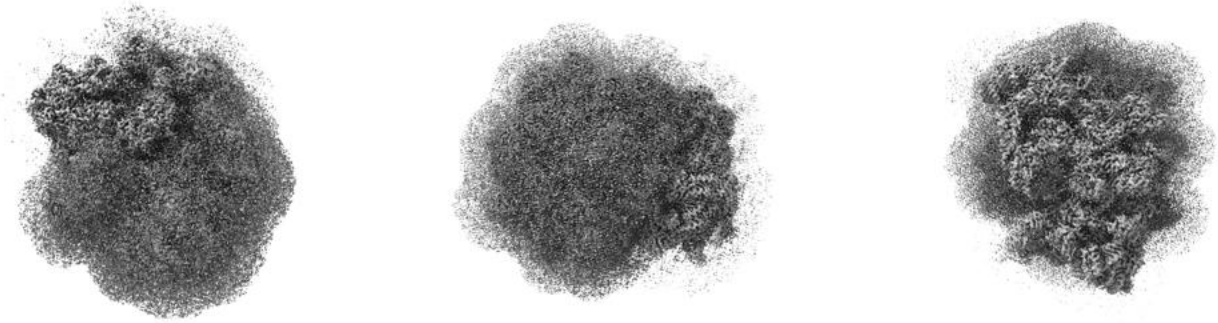


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.18. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

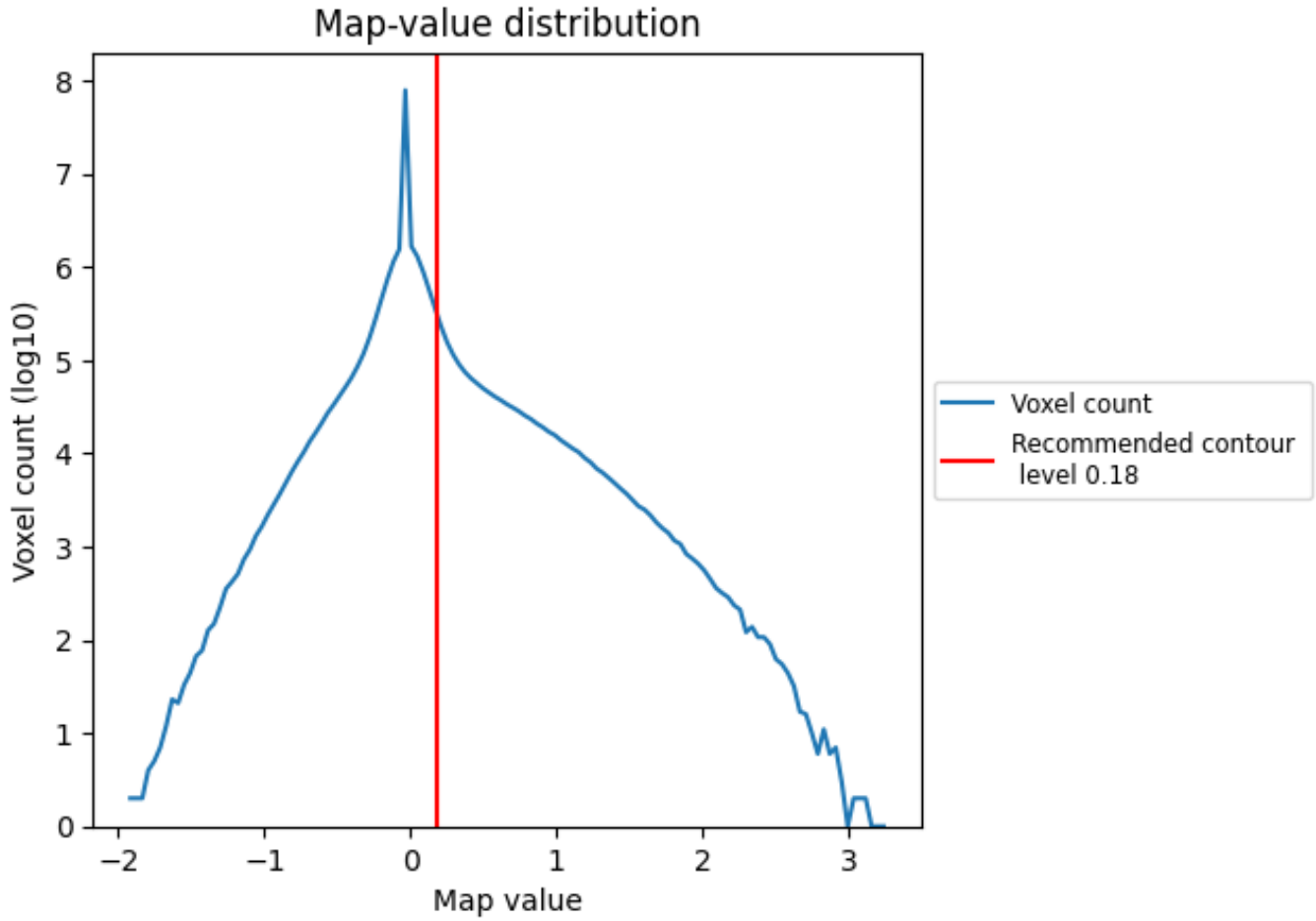
6.6 Mask visualisation (i)

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

7 Map analysis

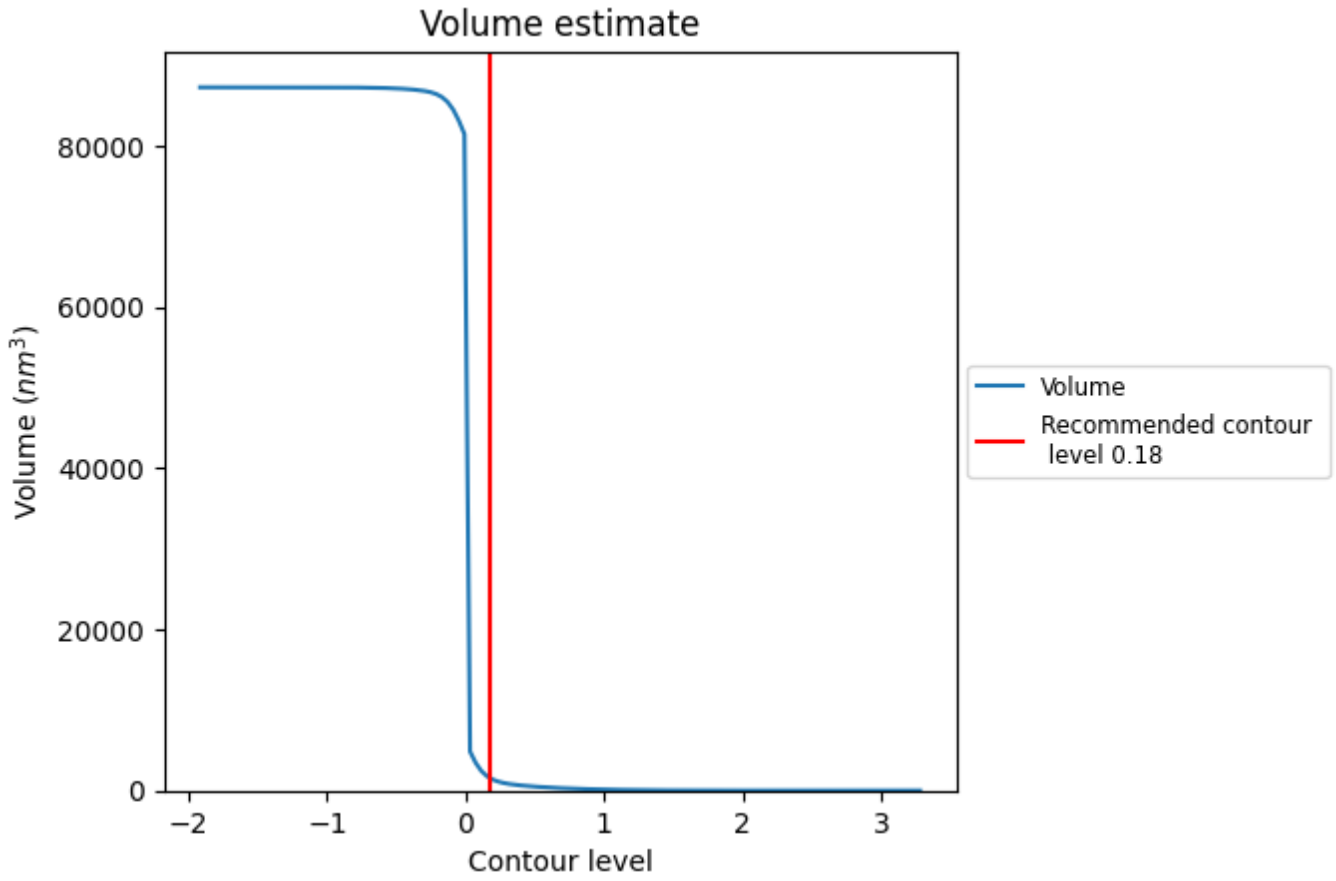
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

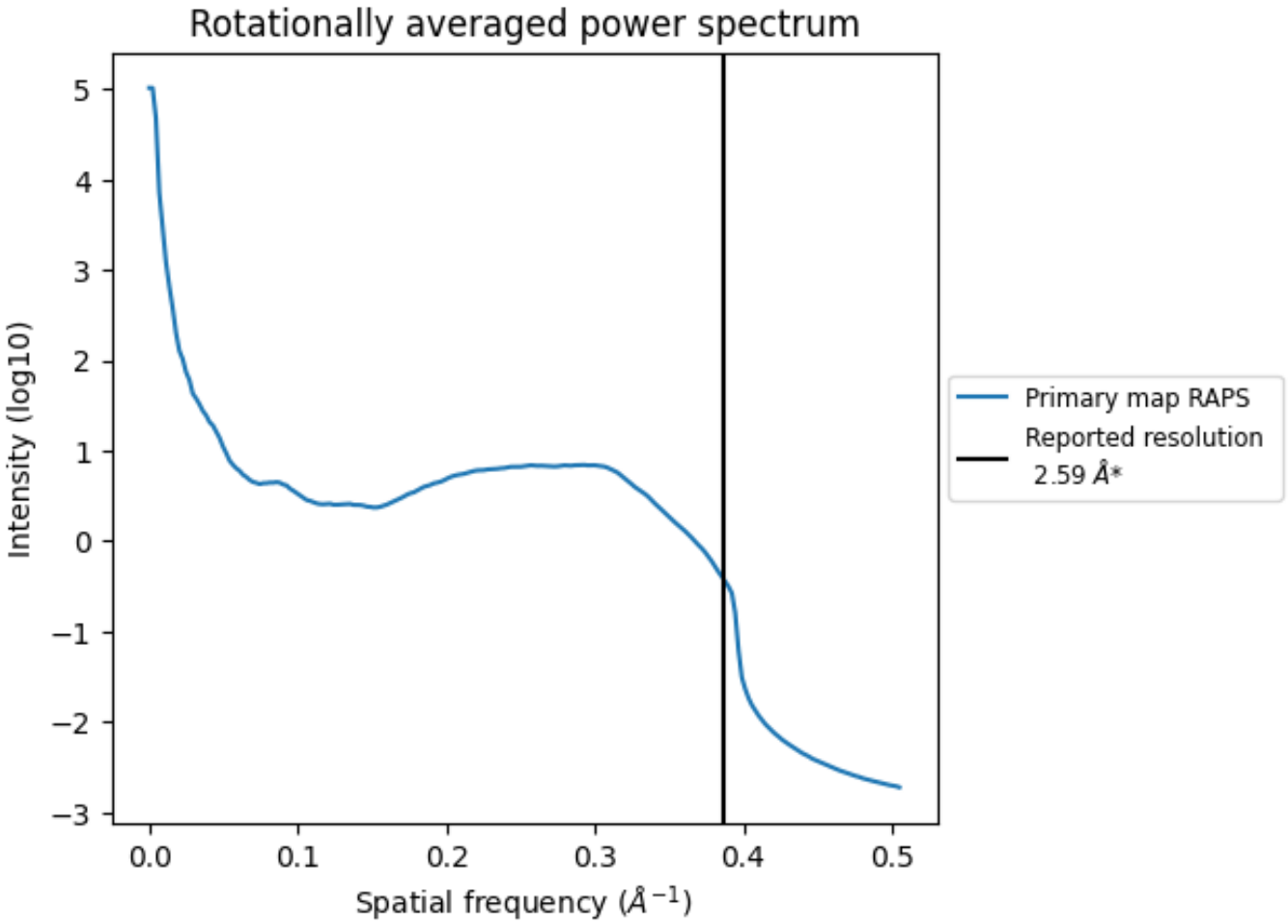
7.2 Volume estimate



The volume at the recommended contour level is 1531 nm^3; this corresponds to an approximate mass of 1383 kDa.

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

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.386 Å^{-1}

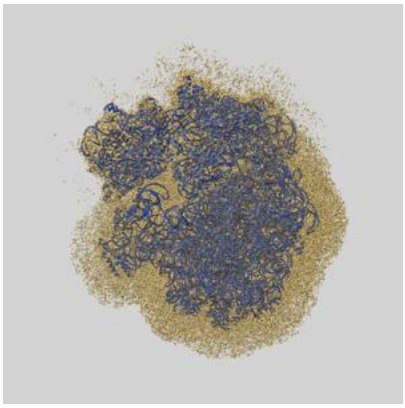
8 Fourier-Shell correlation (i)

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

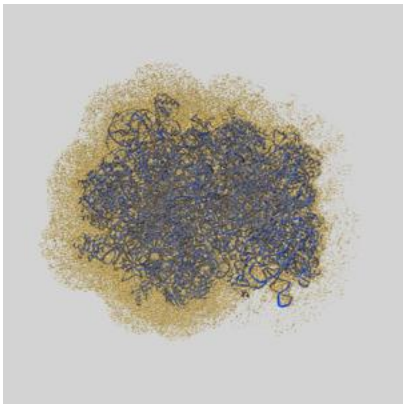
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-53098 and PDB model 9QF4. Per-residue inclusion information can be found in section 3 on page 19.

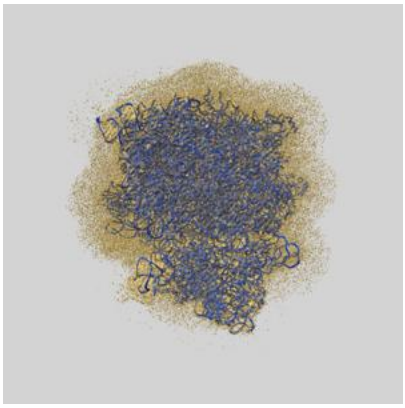
9.1 Map-model overlay



X



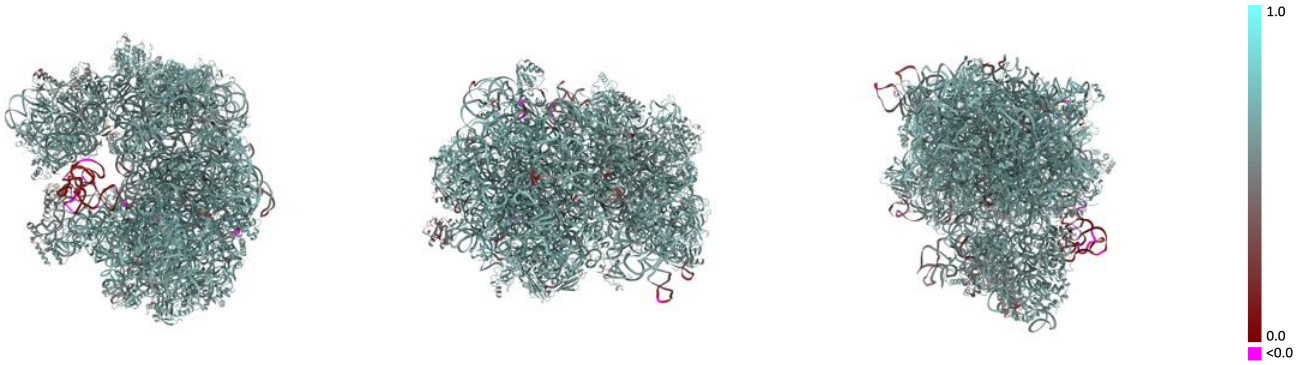
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.18 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

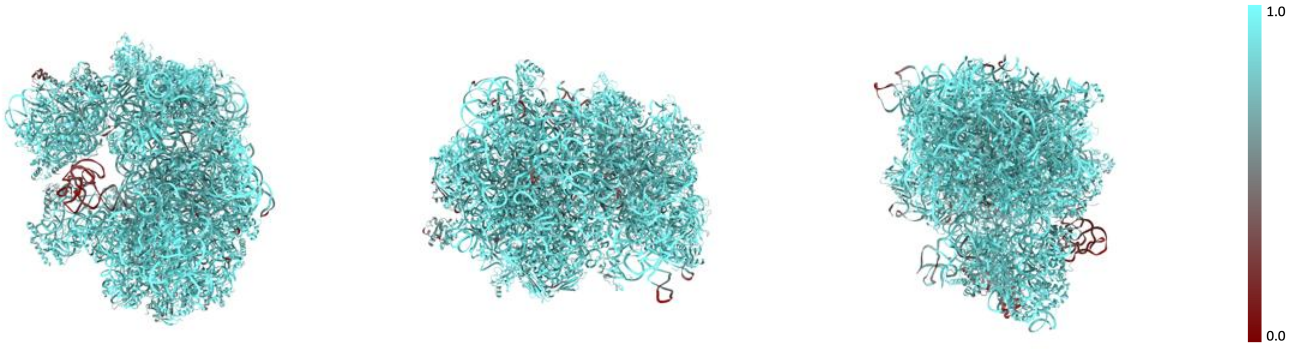
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

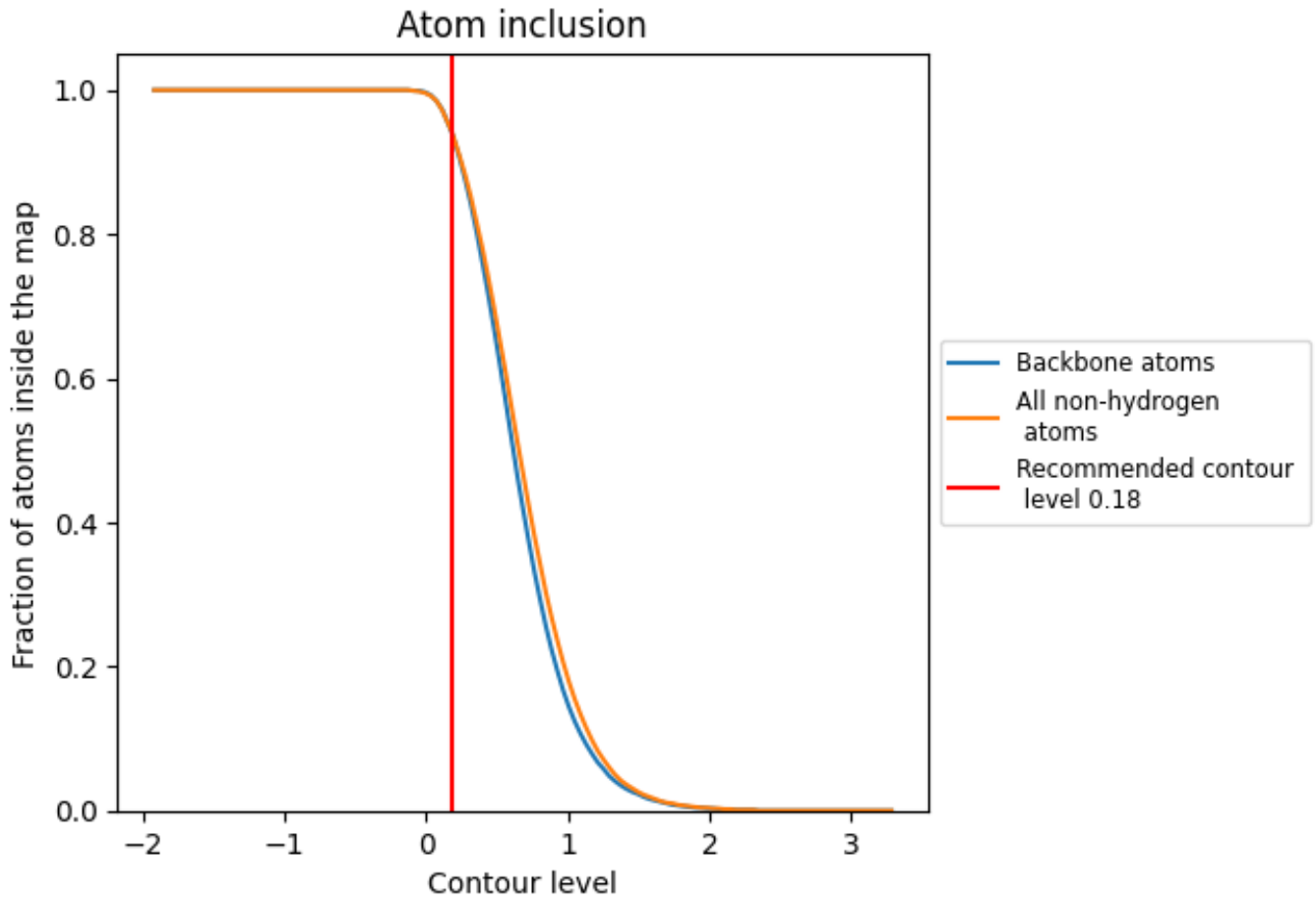
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.18).

9.4 Atom inclusion (i)



At the recommended contour level, 94% of all backbone atoms, 94% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.18) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9430	0.6110
A1	0.9560	0.6030
Aa	0.9180	0.6000
Ab	0.7910	0.5500
Ac	0.9140	0.6010
Ad	0.9420	0.6200
Ae	0.9560	0.6300
Af	0.9410	0.6240
Ag	0.8370	0.5520
Ah	0.8950	0.5950
Ai	0.9740	0.6430
Aj	0.9540	0.6310
Ak	0.9430	0.6200
Al	0.6910	0.5180
Am	0.9280	0.6030
An	0.9410	0.6250
Ao	0.9130	0.5950
Ap	0.8860	0.5690
Aq	0.9500	0.6280
Ar	0.9710	0.6430
As	0.8500	0.5520
At	0.9010	0.5920
Au	0.9480	0.6170
Av	0.9220	0.6050
Aw	0.9260	0.6040
Ax	0.8250	0.5600
Ay	0.9440	0.6180
B1	0.9470	0.6100
B2	0.9570	0.5840
BA	0.9850	0.6660
BB	0.9650	0.6500
BC	0.9790	0.6540
BD	0.7970	0.4940
BE	0.9450	0.6180
BF	0.9370	0.6170

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Chain	Atom inclusion	Q-score
BG	0.7330	0.4760
BH	0.9760	0.6450
BI	0.9770	0.6530
BJ	0.9780	0.6540
BK	0.9160	0.5800
BL	0.9460	0.6210
BM	0.9120	0.5910
BN	0.9960	0.6780
BO	0.9030	0.5760
BP	0.9830	0.6490
BQ	0.9750	0.6410
BR	0.9780	0.6600
BS	0.9900	0.6610
BT	0.9600	0.6420
BU	0.9680	0.6370
BV	0.9840	0.6520
BW	0.9030	0.6000
BX	0.9740	0.6480
BY	0.9310	0.6070
BZ	0.9550	0.6280
Ba	0.9790	0.6560
Bb	0.9840	0.6590
Bc	0.9710	0.6470
Bd	0.9920	0.6690
Be	0.9760	0.6580
Bf	0.9860	0.6630
Bg	0.9810	0.6370
Bh	0.9570	0.6380
Bi	0.9700	0.6540
Bj	0.9250	0.5950
Bk	0.9670	0.6410
Bl	0.7120	0.5210