Full wwPDB EM Validation Report ⓘ

Dec 17, 2022 – 09:09 am GMT

PDB ID	:	6YLX
EMDB ID	:	EMD-10841
Title	:	pre-60S State NE1 (TAP-Flag-Nop53)
Authors	:	Kater, L.; Beckmann, R.
Deposited on	:	2020-04-07
Resolution	:	3.90 Å(reported)
Based on initial models	:	6ELZ, 3JCT, 6N8J

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

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

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

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

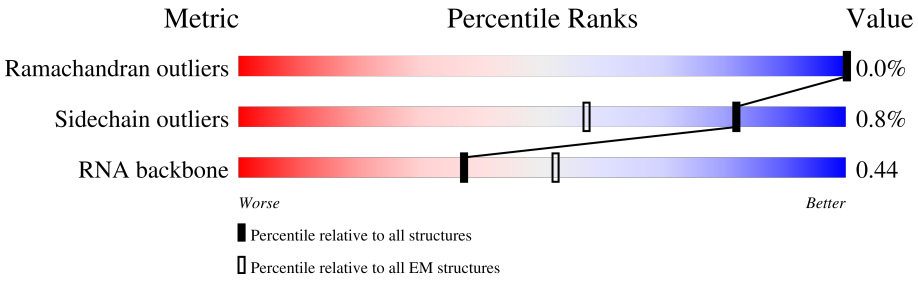
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

1 Overall quality at a glance

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

The reported resolution of this entry is 3.90 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)
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

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	B	387	13% 92% 8%
2	C	362	90% 9%
3	E	176	5% 85% 11%
4	F	244	84% 7% 9%
5	G	256	10% 69% 5% 25%
6	H	191	8% 94% 6%
7	K	376	46% 68% 32%
8	L	199	15% 84% 10% 6%

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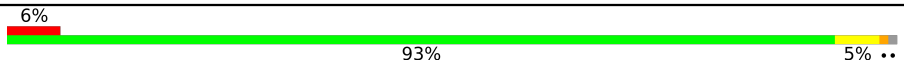
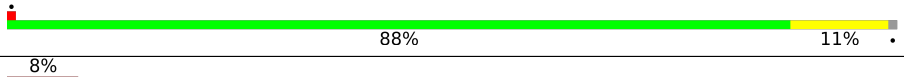
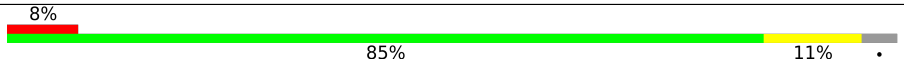
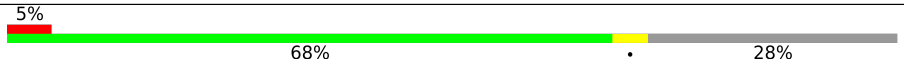
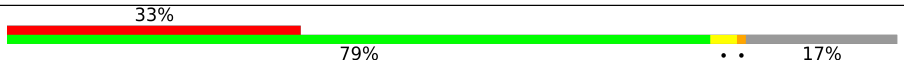
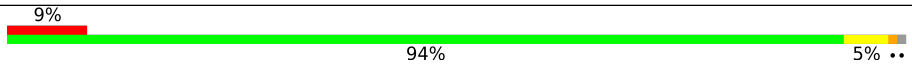
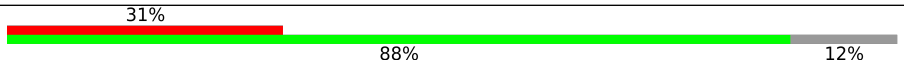
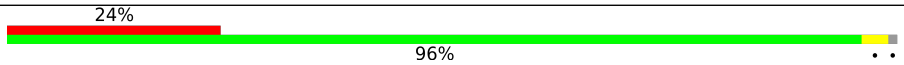
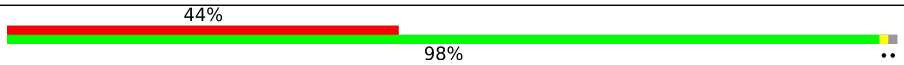
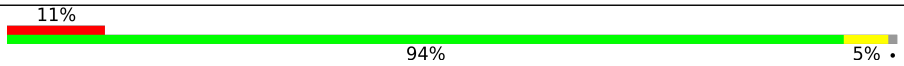
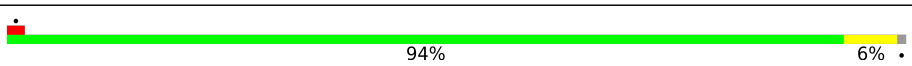
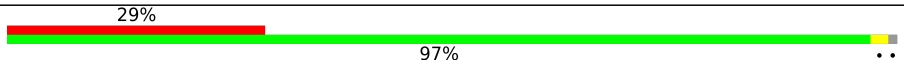
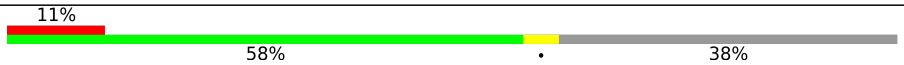
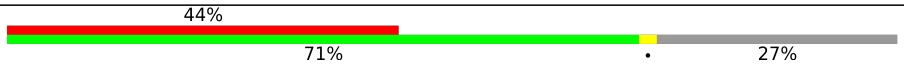
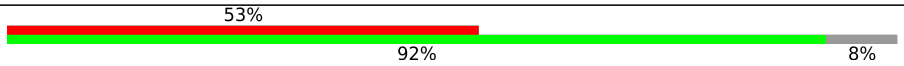
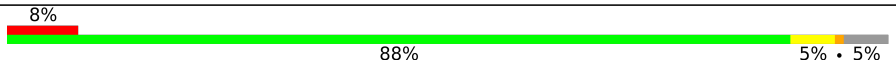
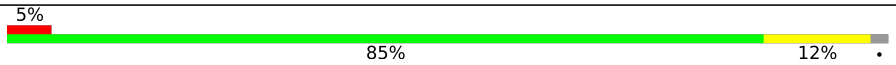
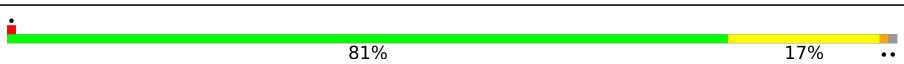
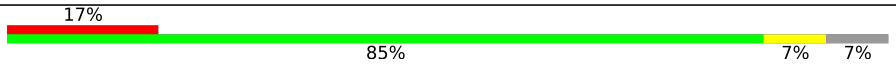
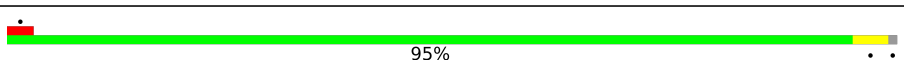
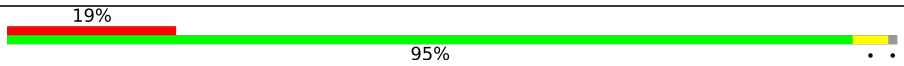
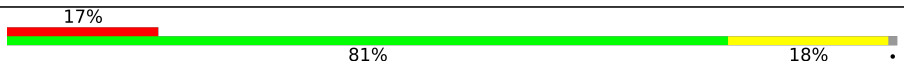
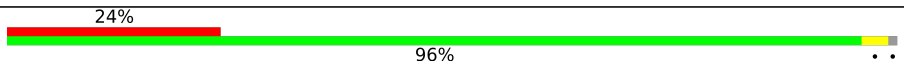
Mol	Chain	Length	Quality of chain
9	M	138	
10	N	204	
11	O	199	
12	P	184	
13	Q	186	
14	R	189	
15	S	172	
16	T	160	
17	U	121	
18	V	137	
19	W	236	
20	X	142	
21	Y	127	
22	Z	136	
23	a	149	
24	b	647	
25	c	105	
26	d	113	
27	e	130	
28	f	107	
29	g	121	
30	h	120	
31	i	100	
32	j	88	
33	k	78	

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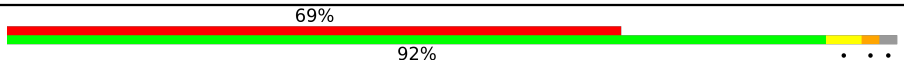
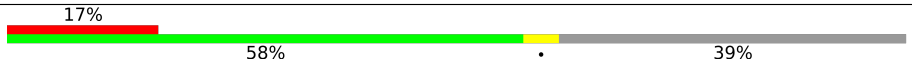
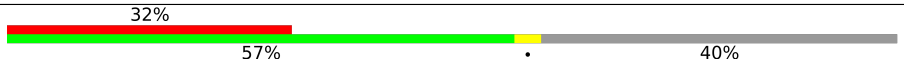
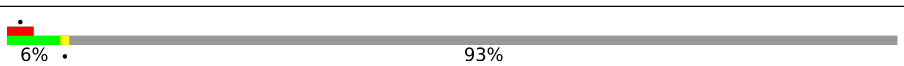
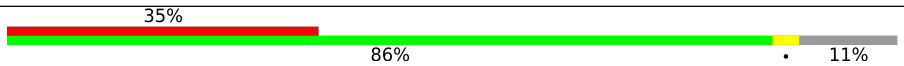
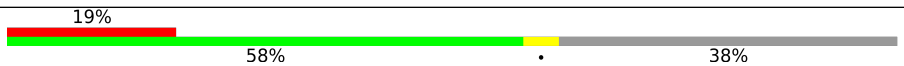
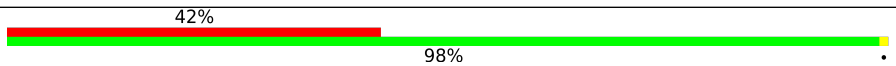
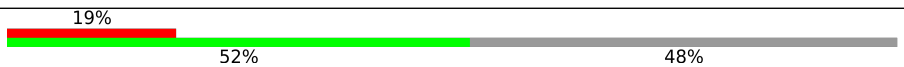
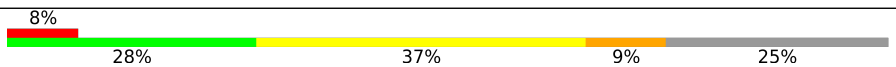
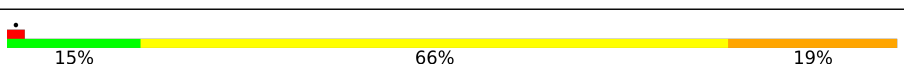
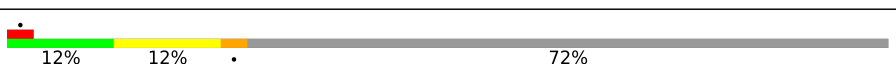
Mol	Chain	Length	Quality of chain
34	l	51	
35	n	605	
36	o	220	
37	q	455	
38	r	261	
39	s	520	
40	t	322	
41	u	199	
42	y	245	
43	z	106	
44	1	3396	
45	2	158	
46	6	232	
47	w	841	

2 Entry composition (i)

There are 47 unique types of molecules in this entry. The entry contains 118882 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	B	386	3081	1956	584	533	8	0	0

- Molecule 2 is a protein called 60S ribosomal protein L4-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	C	361	2749	1730	522	494	3	0	0

- Molecule 3 is a protein called 60S ribosomal protein L6-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	E	156	1239	800	222	216	1	0	0

- Molecule 4 is a protein called 60S ribosomal protein L7-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	F	222	1784	1151	324	308	1	0	0

- Molecule 5 is a protein called 60S ribosomal protein L8-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	G	192	1515	974	267	272	2	0	0

- Molecule 6 is a protein called 60S ribosomal protein L9-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	H	191	1518	963	274	277	4	0	0

- Molecule 7 is a protein called Proteasome-interacting protein CIC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	K	256	Total	C	N	O	S	0	0
			2064	1332	342	387	3		

- Molecule 8 is a protein called 60S ribosomal protein L13-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
8	L	187	Total	C	N	O	0	0
			1499	934	307	258		

- Molecule 9 is a protein called 60S ribosomal protein L14-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	M	137	Total	C	N	O	S	0	0
			1059	678	200	179	2		

- Molecule 10 is a protein called 60S ribosomal protein L15-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	N	180	Total	C	N	O	S	0	0
			1543	968	325	249	1		

- Molecule 11 is a protein called 60S ribosomal protein L16-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	O	197	Total	C	N	O	S	0	0
			1555	1003	289	262	1		

- Molecule 12 is a protein called 60S ribosomal protein L17-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
12	P	176	Total	C	N	O	0	0
			1397	868	279	250		

- Molecule 13 is a protein called 60S ribosomal protein L18-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	Q	134	Total	C	N	O	S	0	0
			1035	659	196	179	1		

- Molecule 14 is a protein called 60S ribosomal protein L19-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
14	R	156	Total	C	N	O	0	0
			1258	781	265	212		

- Molecule 15 is a protein called 60S ribosomal protein L20-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	S	171	Total	C	N	O	S	0	0
			1437	925	266	243	3		

- Molecule 16 is a protein called 60S ribosomal protein L21-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	T	56	Total	C	N	O	S	0	0
			434	268	86	79	1		

- Molecule 17 is a protein called 60S ribosomal protein L22-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
17	U	106	Total	C	N	O	0	0
			844	545	138	161		

- Molecule 18 is a protein called 60S ribosomal protein L23-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	V	136	Total	C	N	O	S	0	0
			1003	628	189	179	7		

- Molecule 19 is a protein called Ribosome assembly factor MRT4.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	W	234	Total	C	N	O	S	0	0
			1885	1194	323	362	6		

- Molecule 20 is a protein called 60S ribosomal protein L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	X	141	Total	C	N	O	S	0	0
			1100	705	196	197	2		

- Molecule 21 is a protein called 60S ribosomal protein L26-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	Y	126	Total 993	C 625	N 192	O 176	0	0

- Molecule 22 is a protein called 60S ribosomal protein L27-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
22	Z	135	Total 1092	C 710	N 202	O 180	0	0

- Molecule 23 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	a	93	Total 735	C 479	N 130	O 125	S 1	0	0

- Molecule 24 is a protein called Nucleolar GTP-binding protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	b	470	Total 3814	C 2424	N 663	O 709	S 18	0	0

- Molecule 25 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	c	97	Total 743	C 479	N 124	O 139	S 1	0	0

- Molecule 26 is a protein called 60S ribosomal protein L31-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	d	107	Total 873	C 553	N 165	O 154	S 1	0	0

- Molecule 27 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	e	127	Total 1020	C 647	N 205	O 167	S 1	0	0

- Molecule 28 is a protein called 60S ribosomal protein L33-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	f	106	Total 850	C 540	N 165	O 144	S 1	0	0

- Molecule 29 is a protein called 60S ribosomal protein L34-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	g	112	Total 881	C 546	N 179	O 152	S 4	0	0

- Molecule 30 is a protein called 60S ribosomal protein L35-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	h	119	Total 969	C 615	N 186	O 167	S 1	0	0

- Molecule 31 is a protein called 60S ribosomal protein L36-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	i	99	Total 771	C 481	N 156	O 132	S 2	0	0

- Molecule 32 is a protein called 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	j	87	Total 681	C 414	N 148	O 114	S 5	0	0

- Molecule 33 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms				AltConf	Trace
33	k	77	Total 612	C 391	N 115	O 106	0	0

- Molecule 34 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	l	50	Total 436	C 272	N 97	O 65	S 2	0	0

- Molecule 35 is a protein called Pescadillo homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	n	371	Total	C	N	O	S	0	0
			3030	1963	523	534	10		

- Molecule 36 is a protein called Ribosome biogenesis protein 15.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	o	133	Total	C	N	O	S	0	0
			1107	716	198	189	4		

- Molecule 37 is a protein called Ribosome biogenesis protein NOP53.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	q	87	Total	C	N	O	S	0	0
			723	450	129	143	1		

- Molecule 38 is a protein called Ribosome biogenesis protein NSA2.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	r	217	Total	C	N	O	S	0	0
			1760	1110	334	309	7		

- Molecule 39 is a protein called Nuclear GTP-binding protein NUG1.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	s	36	Total	C	N	O	S	0	0
			301	184	69	46	2		

- Molecule 40 is a protein called Ribosome biogenesis protein RLP7.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	t	287	Total	C	N	O	S	0	0
			2306	1459	427	417	3		

- Molecule 41 is a protein called Ribosome biogenesis protein RLP24.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	u	123	Total	C	N	O	S	0	0
			1040	652	211	168	9		

- Molecule 42 is a protein called Eukaryotic translation initiation factor 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	y	244	Total	C	N	O	S	0	0
			1849	1146	319	377	7		

- Molecule 43 is a protein called UPF0642 protein YBL028C.

Mol	Chain	Residues	Atoms				AltConf	Trace
43	z	55	Total	C	N	O	0	0
			444	273	88	83		

- Molecule 44 is a RNA chain called 25S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	1	2534	Total	C	N	O	P	0	0
			54232	24220	9799	17679	2534		

- Molecule 45 is a RNA chain called 5.8S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	2	158	Total	C	N	O	P	0	0
			3353	1500	586	1109	158		

- Molecule 46 is a RNA chain called ITS2.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	6	65	Total	C	N	O	P	0	0
			1370	614	228	463	65		

- Molecule 47 is a protein called 27S pre-rRNA (guanosine(2922)-2'-O)-methyltransferase.

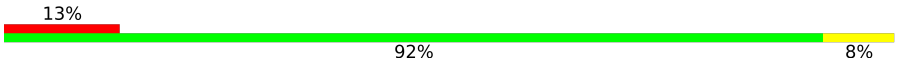
Mol	Chain	Residues	Atoms					AltConf	Trace
47	w	360	Total	C	N	O	S	0	0
			2898	1860	507	516	15		

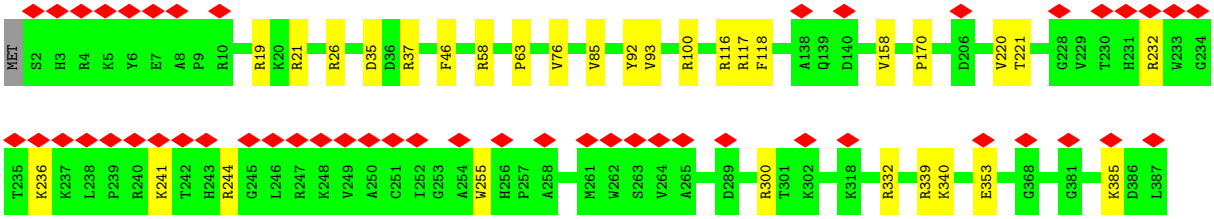
3 Residue-property plots (i)

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: 60S ribosomal protein L3

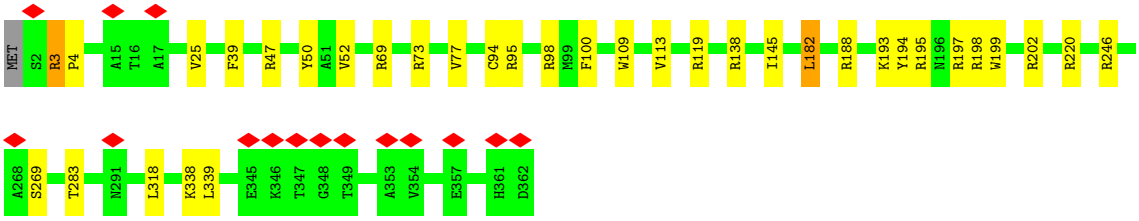
Chain B:





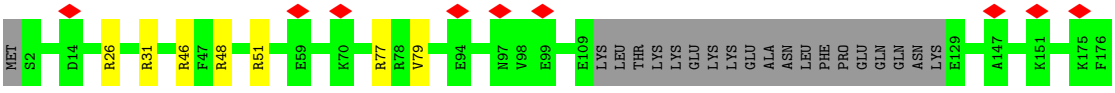
• Molecule 2: 60S ribosomal protein L4-A

Chain C:



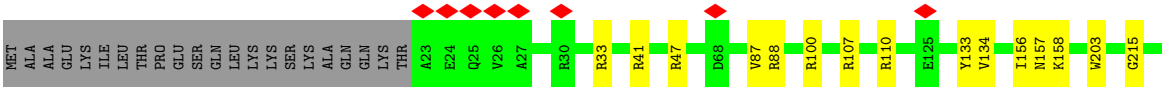
• Molecule 3: 60S ribosomal protein L6-A

Chain E:



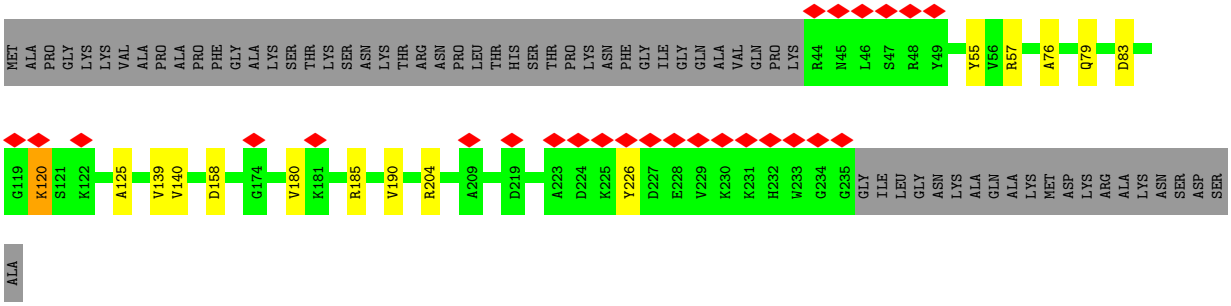
• Molecule 4: 60S ribosomal protein L7-A

Chain F:



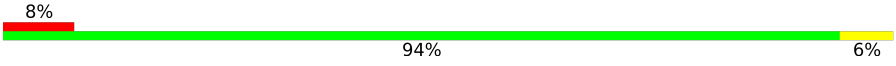
• Molecule 5: 60S ribosomal protein L8-A

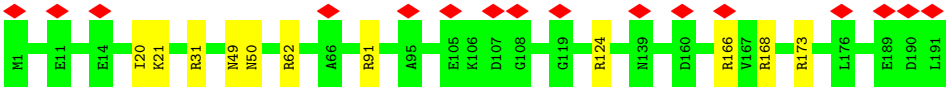
Chain G:



• Molecule 6: 60S ribosomal protein L9-A

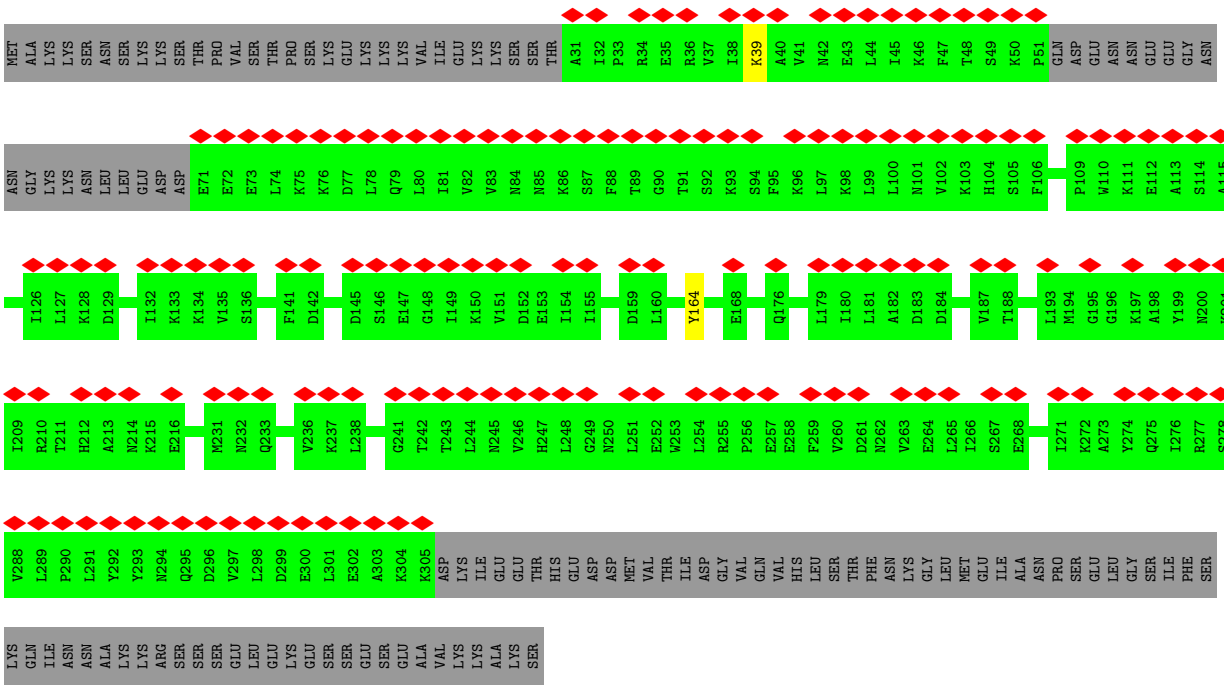
Chain H:





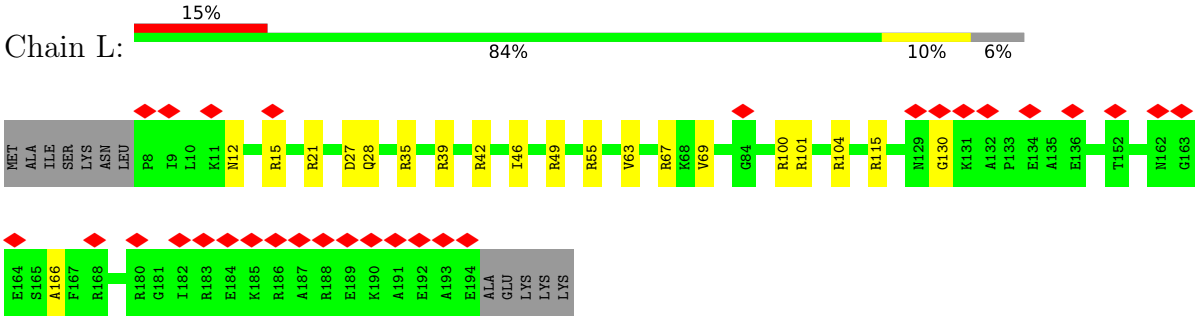
• Molecule 7: Proteasome-interacting protein CIC1

Chain K:



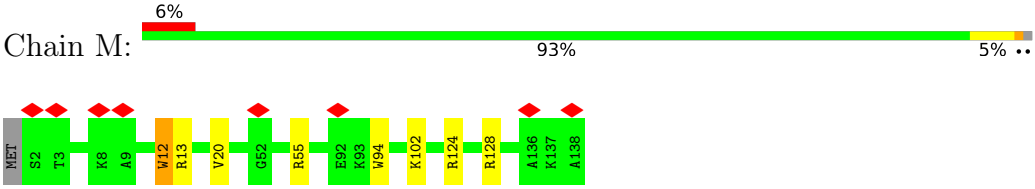
• Molecule 8: 60S ribosomal protein L13-A

Chain L:



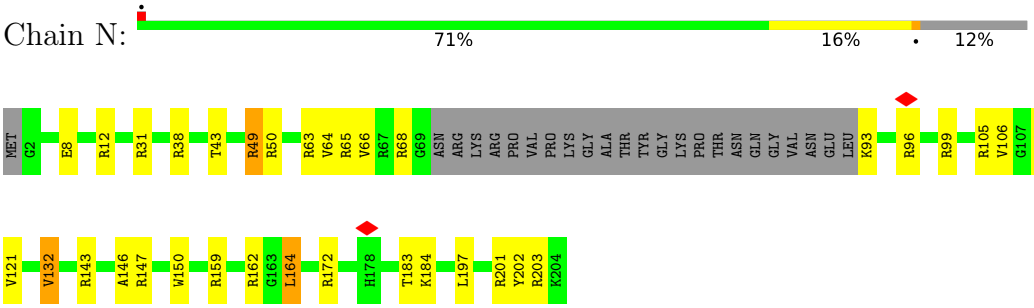
• Molecule 9: 60S ribosomal protein L14-A

Chain M:



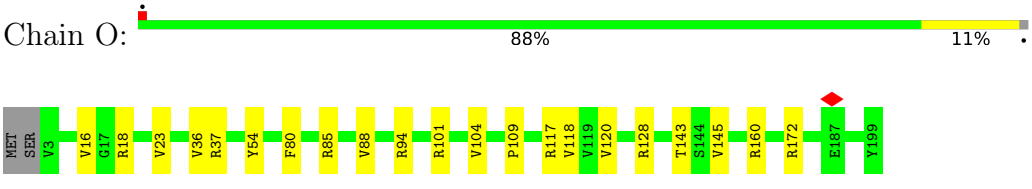
• Molecule 10: 60S ribosomal protein L15-A

Chain N:



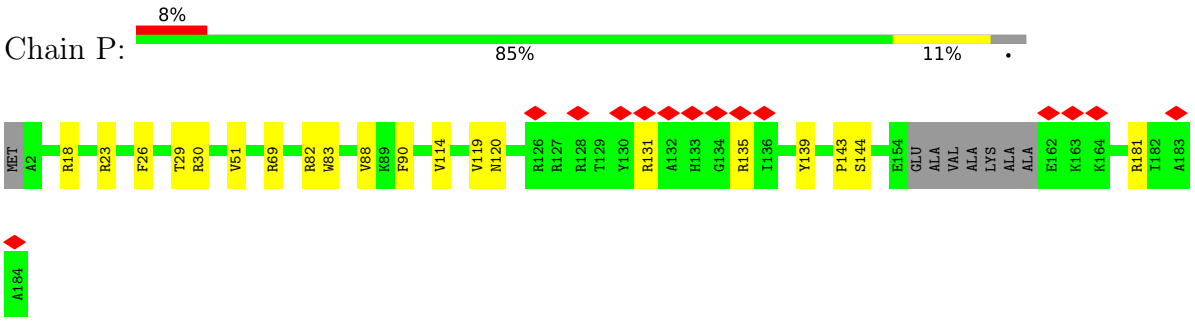
• Molecule 11: 60S ribosomal protein L16-A

Chain O:



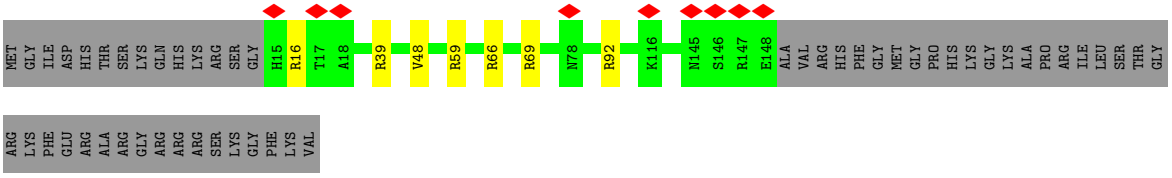
• Molecule 12: 60S ribosomal protein L17-A

Chain P:



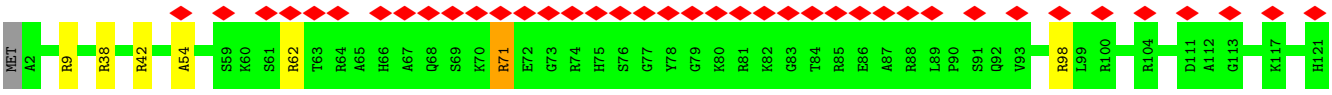
• Molecule 13: 60S ribosomal protein L18-A

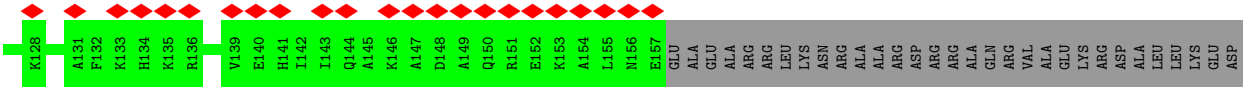
Chain Q:



• Molecule 14: 60S ribosomal protein L19-A

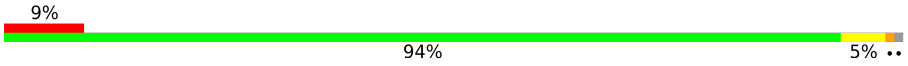
Chain R:

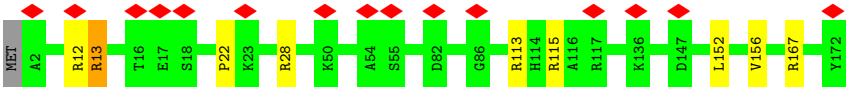




• Molecule 15: 60S ribosomal protein L20-A

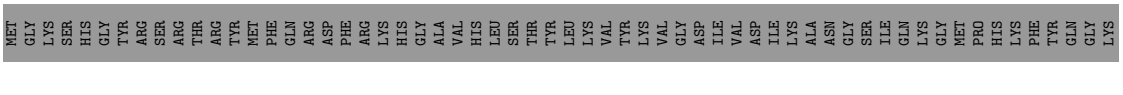
Chain S:

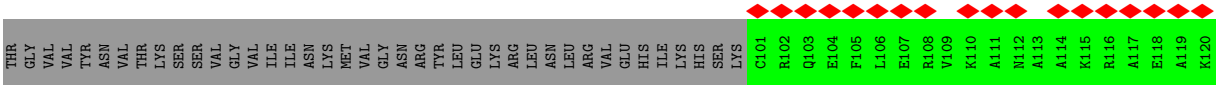


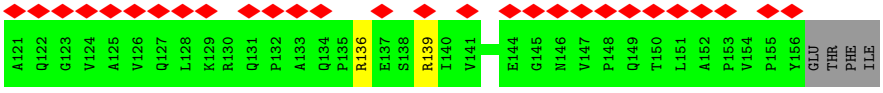


• Molecule 16: 60S ribosomal protein L21-A

Chain T:

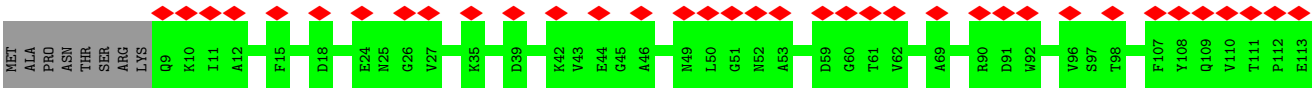


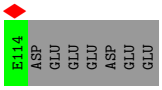




• Molecule 17: 60S ribosomal protein L22-A

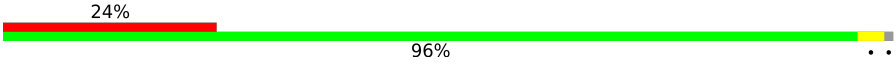
Chain U:

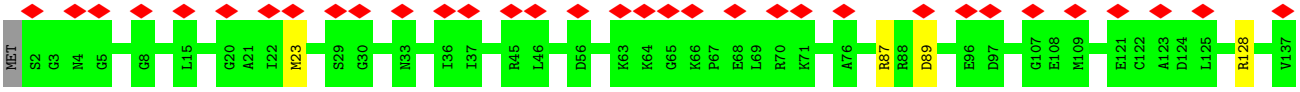




• Molecule 18: 60S ribosomal protein L23-A

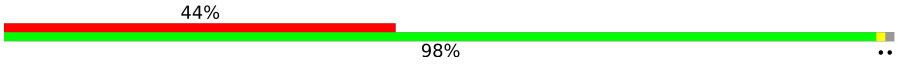
Chain V:

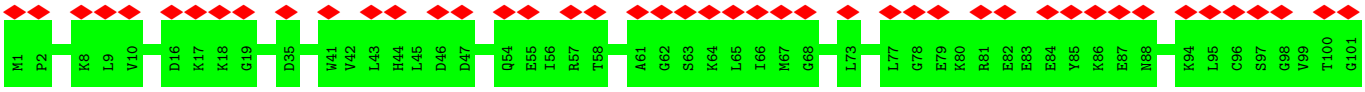


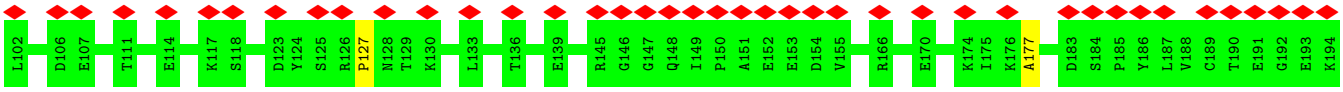


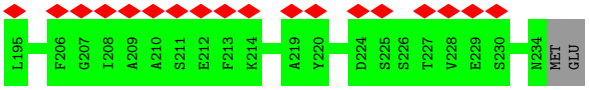
• Molecule 19: Ribosome assembly factor MRT4

Chain W:



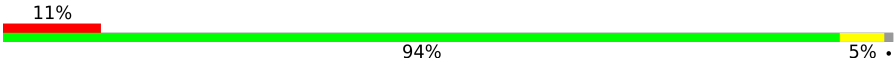


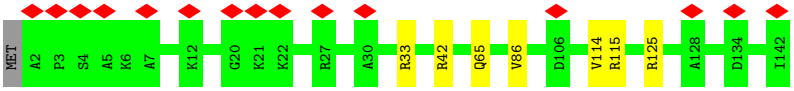




• Molecule 20: 60S ribosomal protein L25

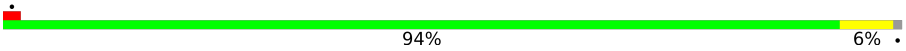
Chain X:





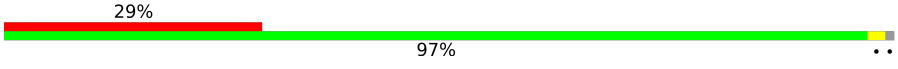
• Molecule 21: 60S ribosomal protein L26-A

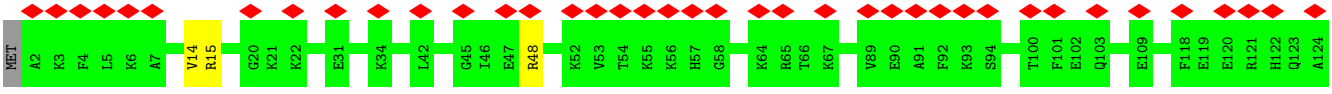
Chain Y:



• Molecule 22: 60S ribosomal protein L27-A

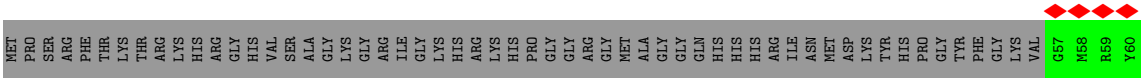
Chain Z:

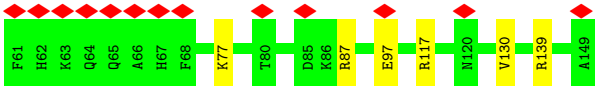




• Molecule 23: 60S ribosomal protein L28

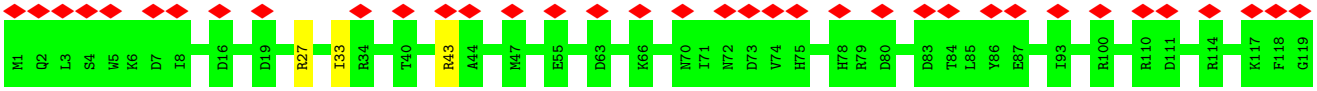
Chain a:

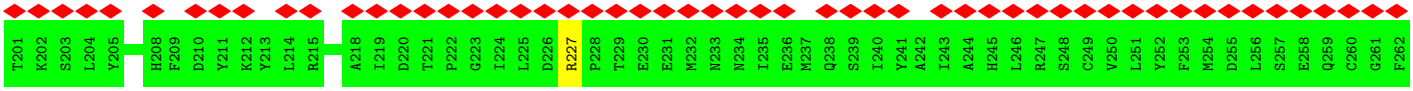


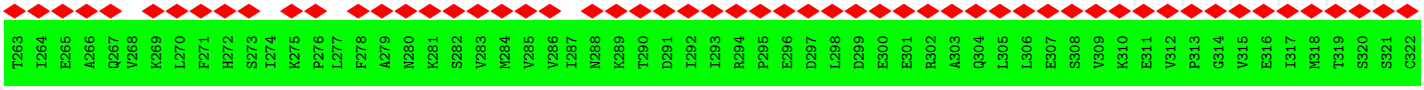


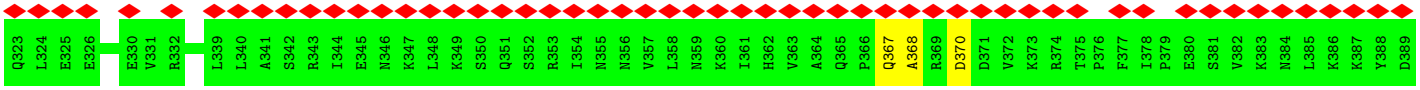
• Molecule 24: Nucleolar GTP-binding protein 1

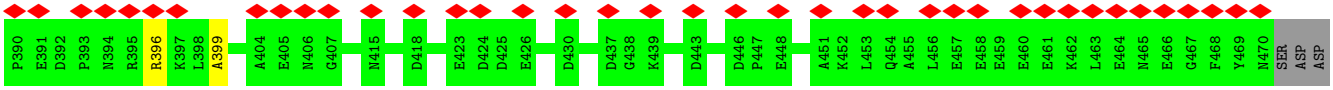
Chain b:

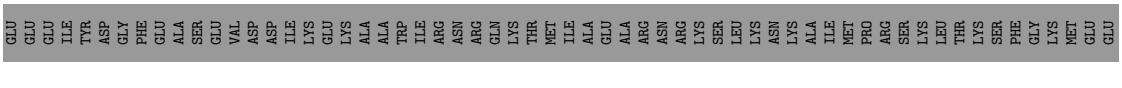






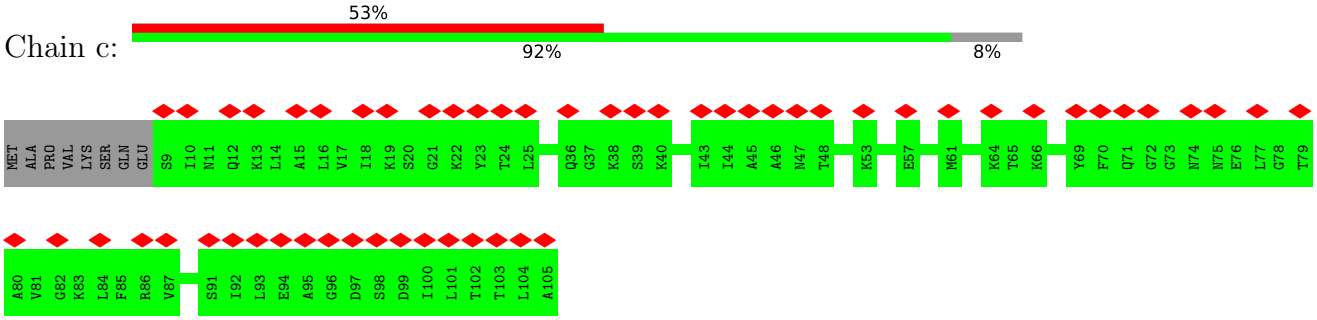






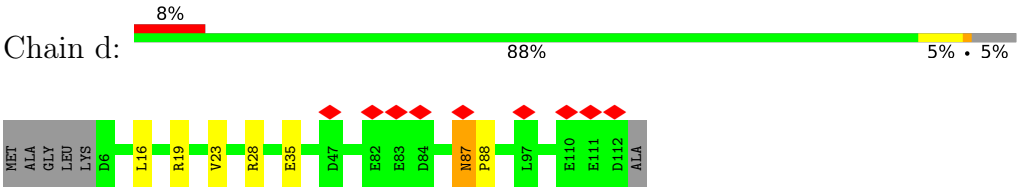
• Molecule 25: 60S ribosomal protein L30

Chain c:



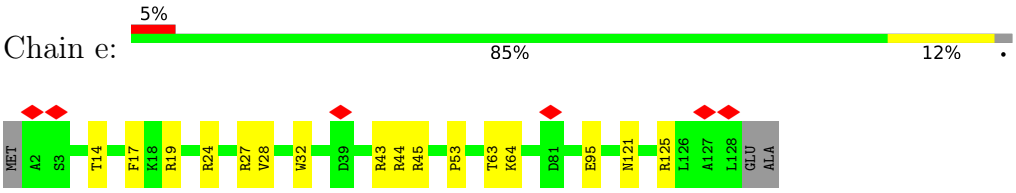
• Molecule 26: 60S ribosomal protein L31-A

Chain d:



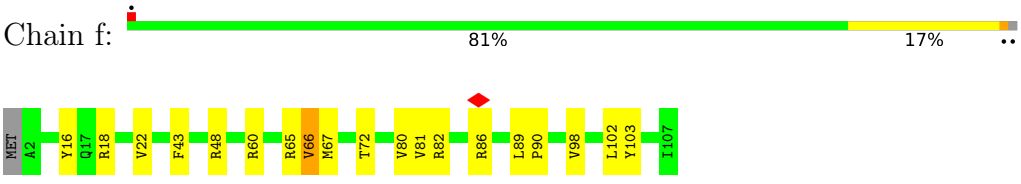
• Molecule 27: 60S ribosomal protein L32

Chain e:



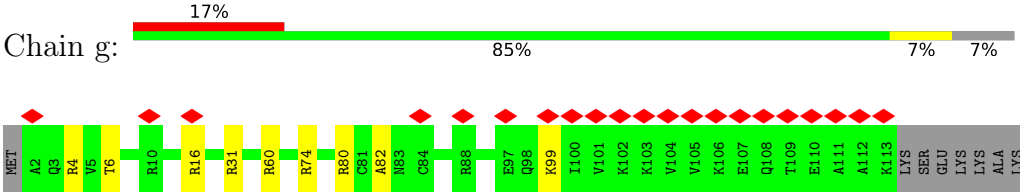
• Molecule 28: 60S ribosomal protein L33-A

Chain f:



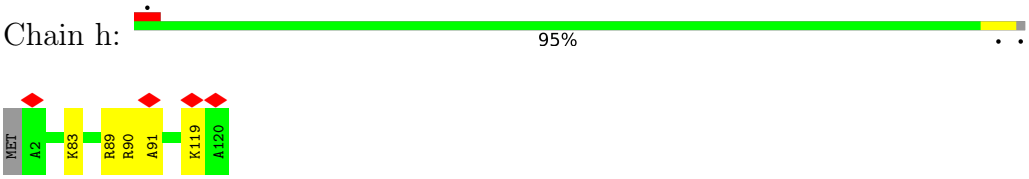
• Molecule 29: 60S ribosomal protein L34-A

Chain g:



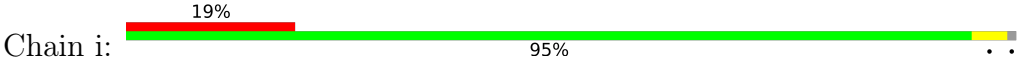
• Molecule 30: 60S ribosomal protein L35-A

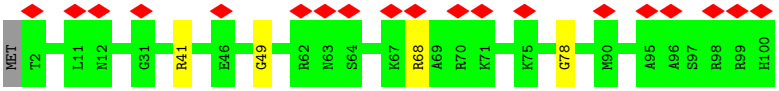
Chain h:



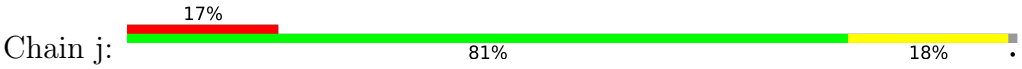
• Molecule 31: 60S ribosomal protein L36-A

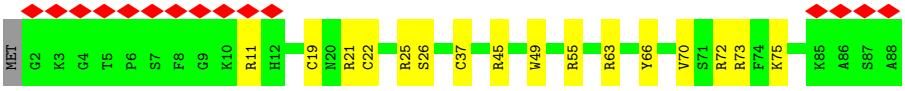
Chain i:



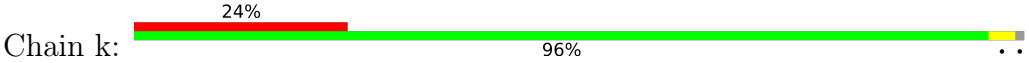


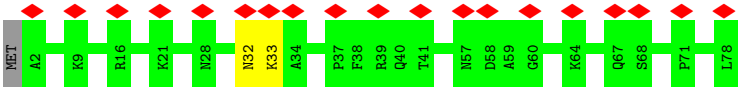
• Molecule 32: 60S ribosomal protein L37-A



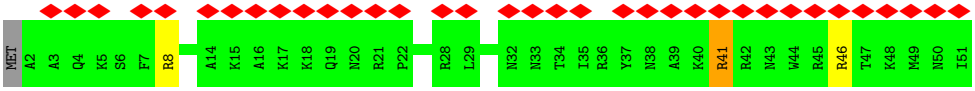


• Molecule 33: 60S ribosomal protein L38

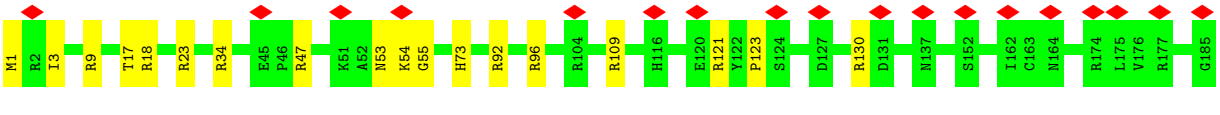


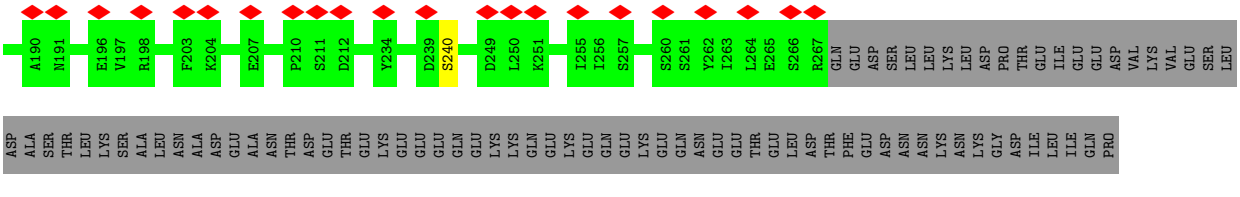


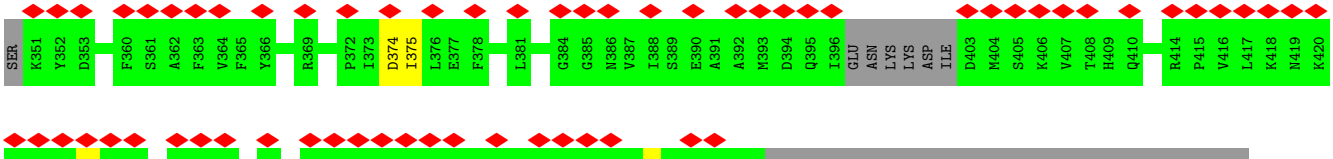
• Molecule 34: 60S ribosomal protein L39

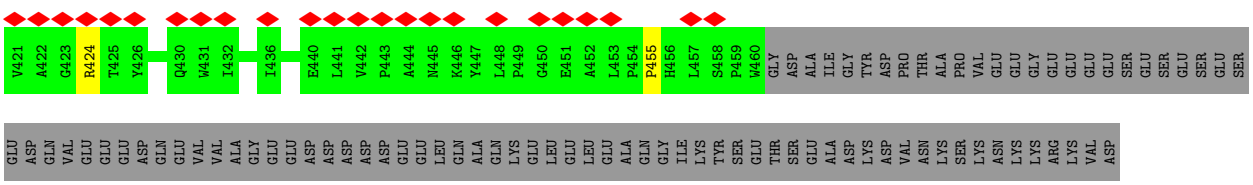


• Molecule 35: Pescadillo homolog

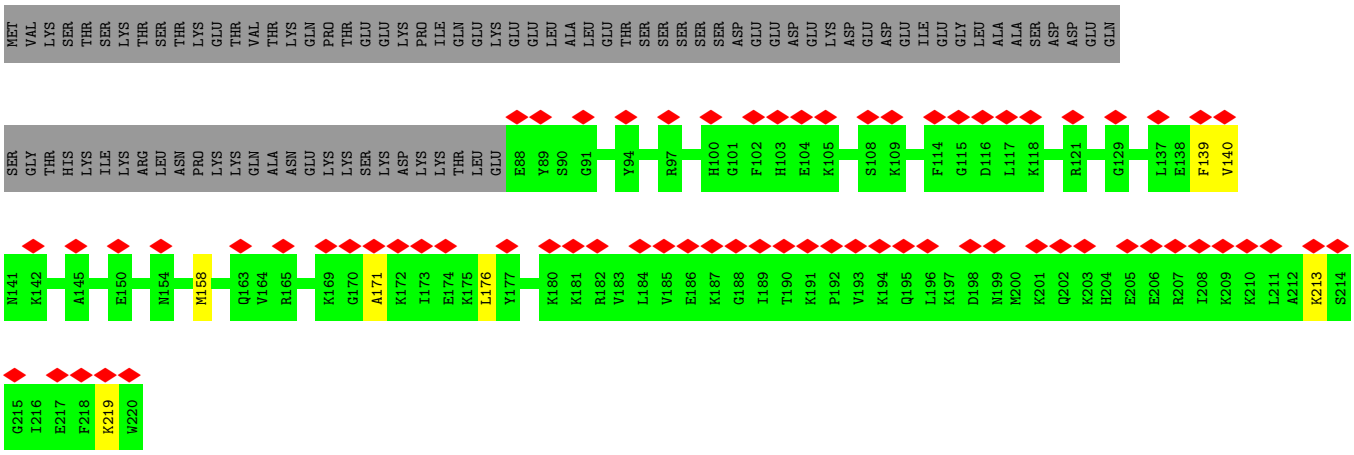




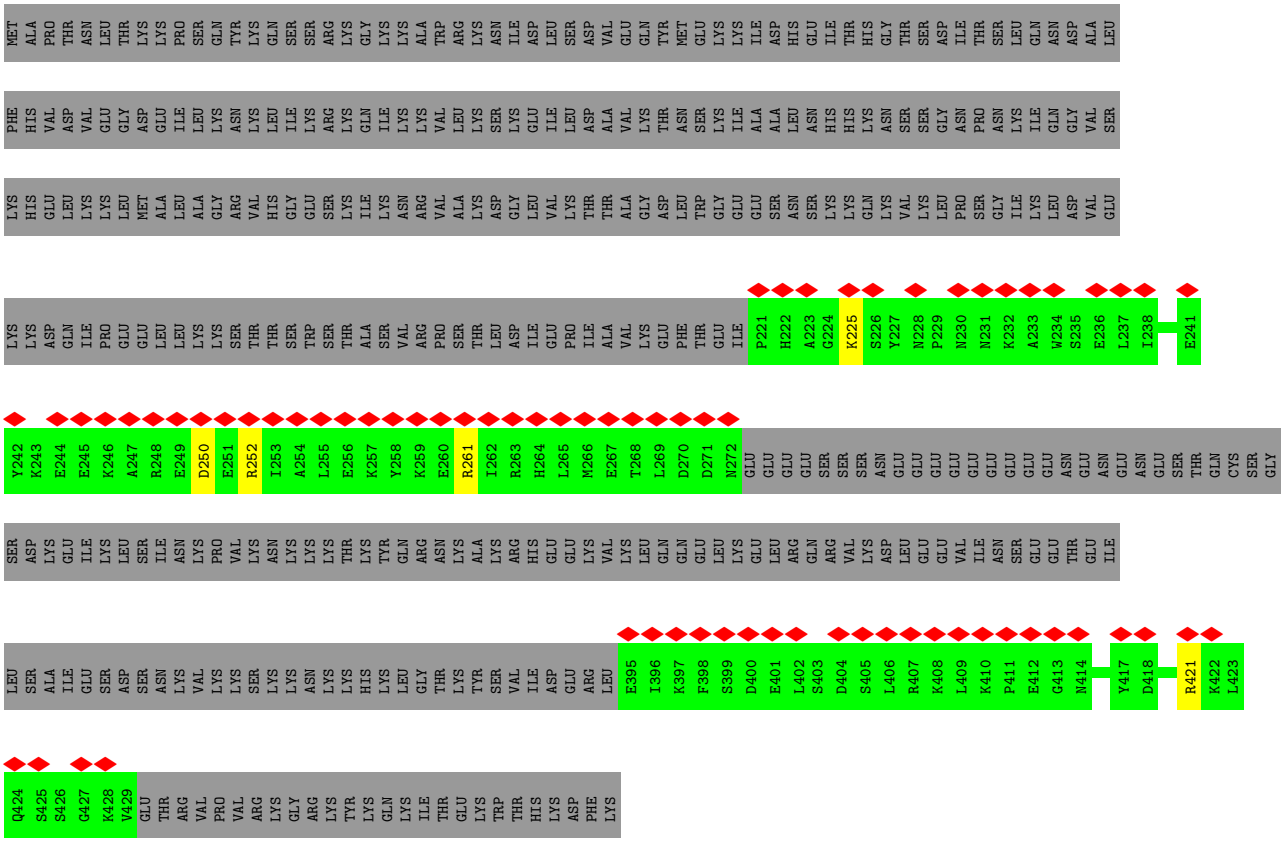




• Molecule 36: Ribosome biogenesis protein 15

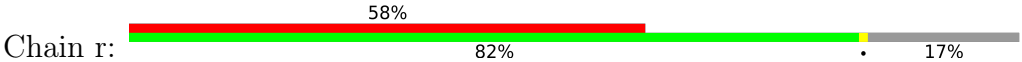


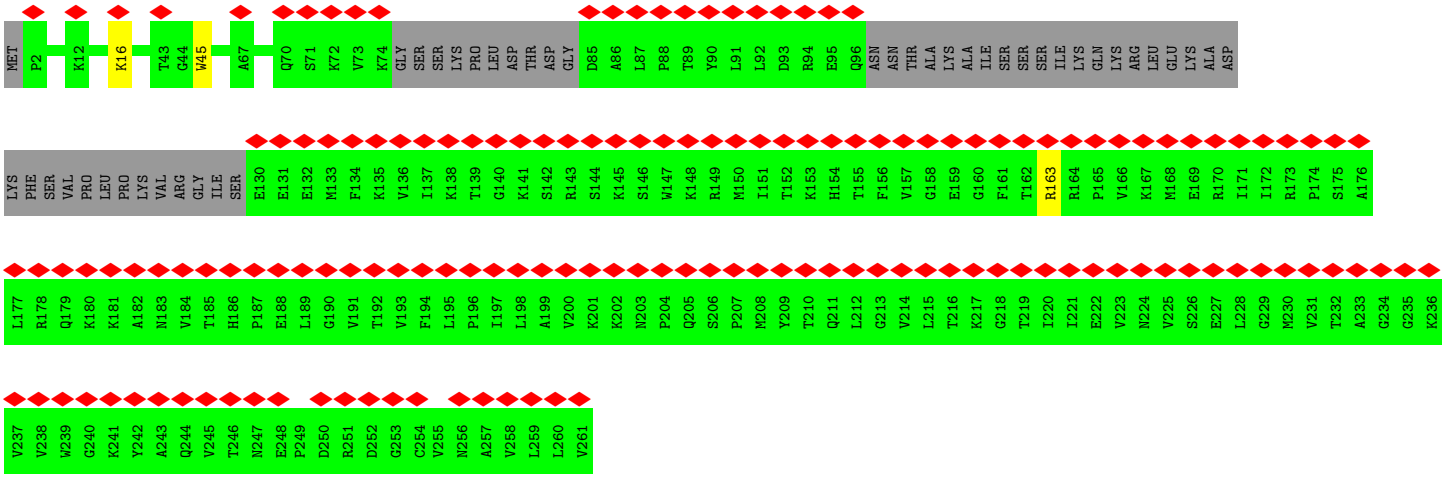
• Molecule 37: Ribosome biogenesis protein NOP53



• Molecule 38: Ribosome biogenesis protein NSA2

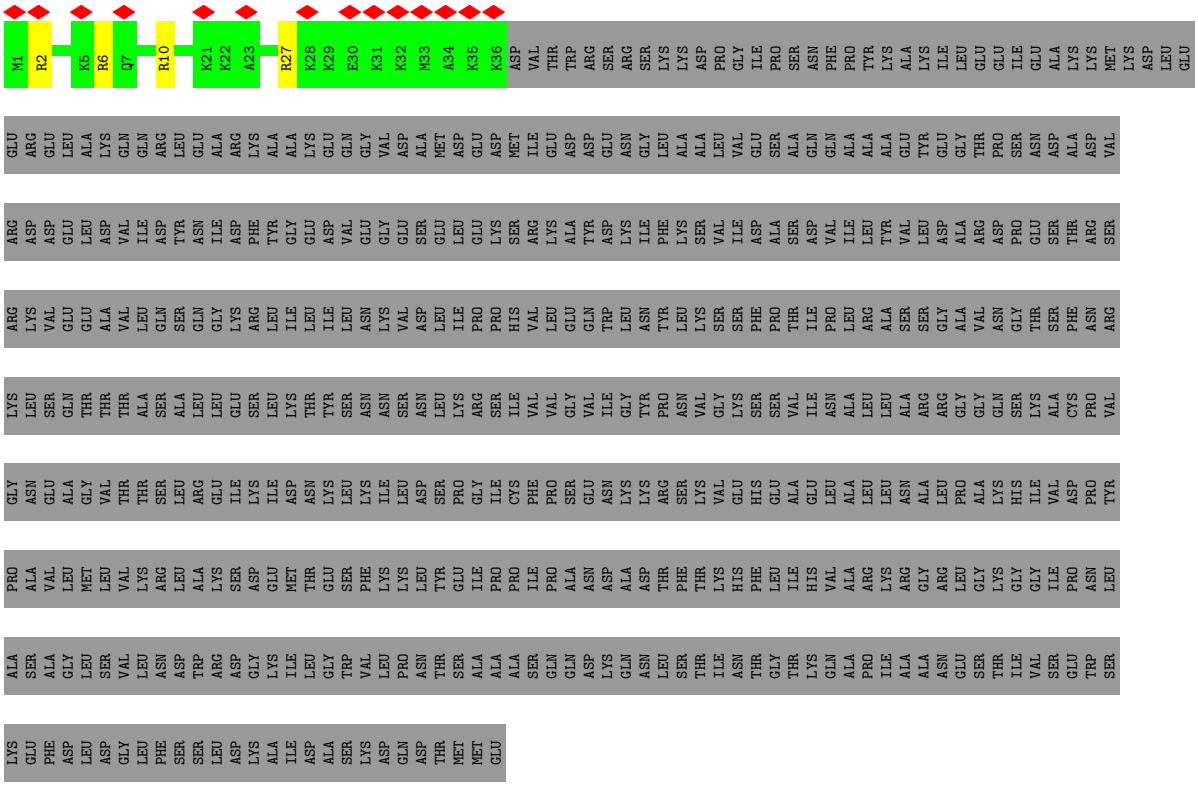
Chain r:





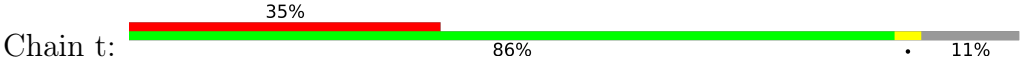
• Molecule 39: Nuclear GTP-binding protein NUG1

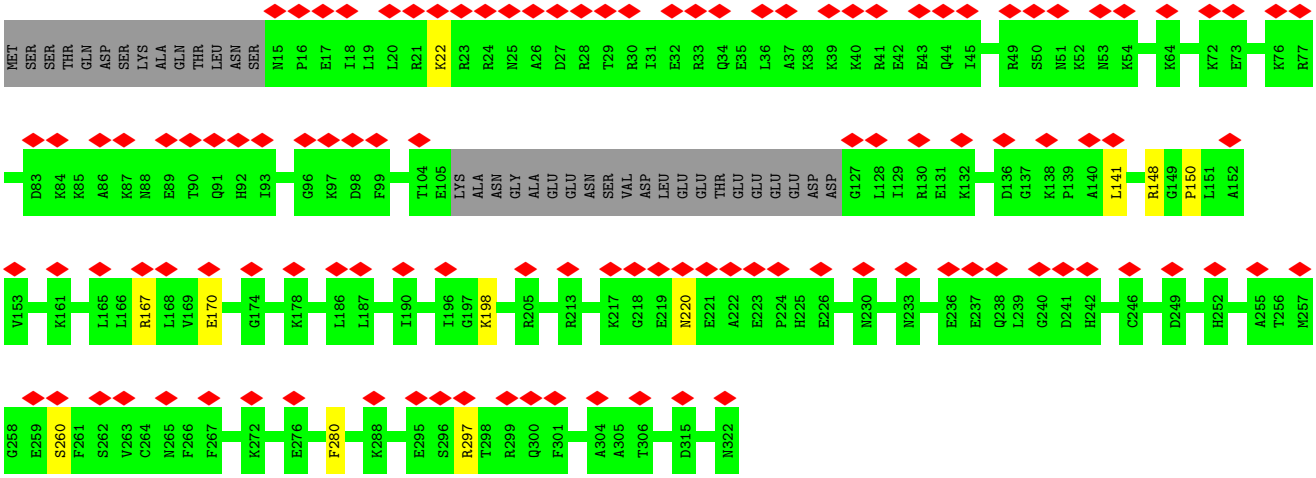
Chain s:



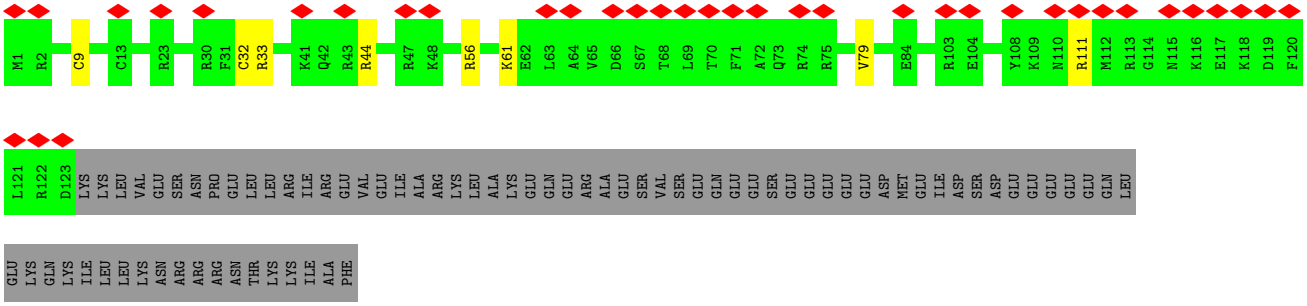
• Molecule 40: Ribosome biogenesis protein RLP7

Chain t:

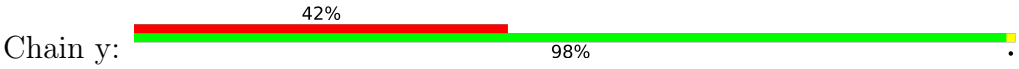


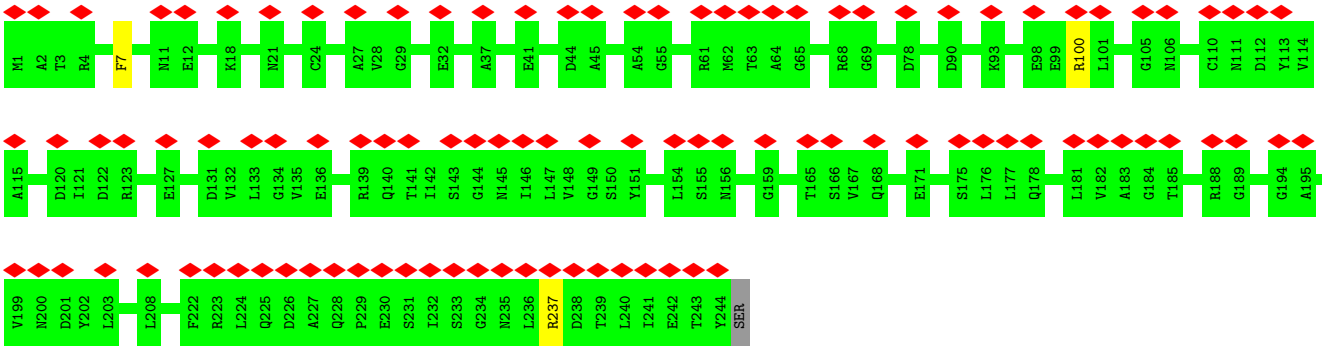


• Molecule 41: Ribosome biogenesis protein RLP24

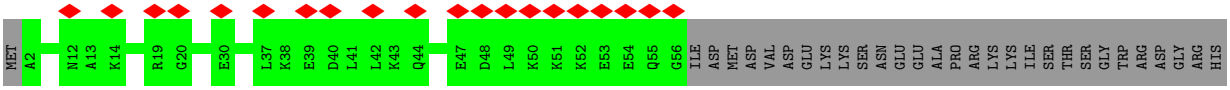


• Molecule 42: Eukaryotic translation initiation factor 6





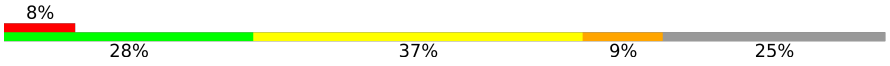
• Molecule 43: UPF0642 protein YBL028C

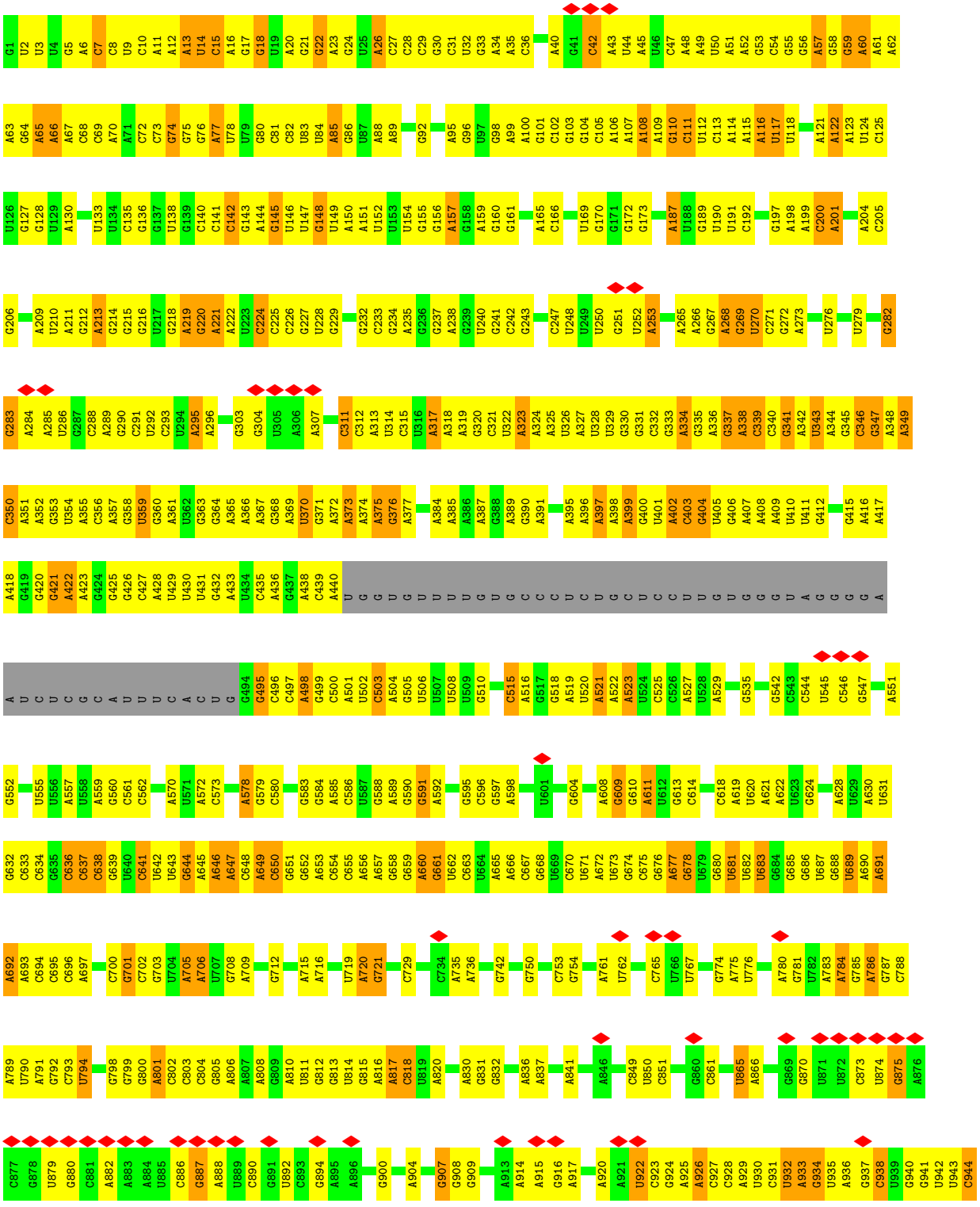


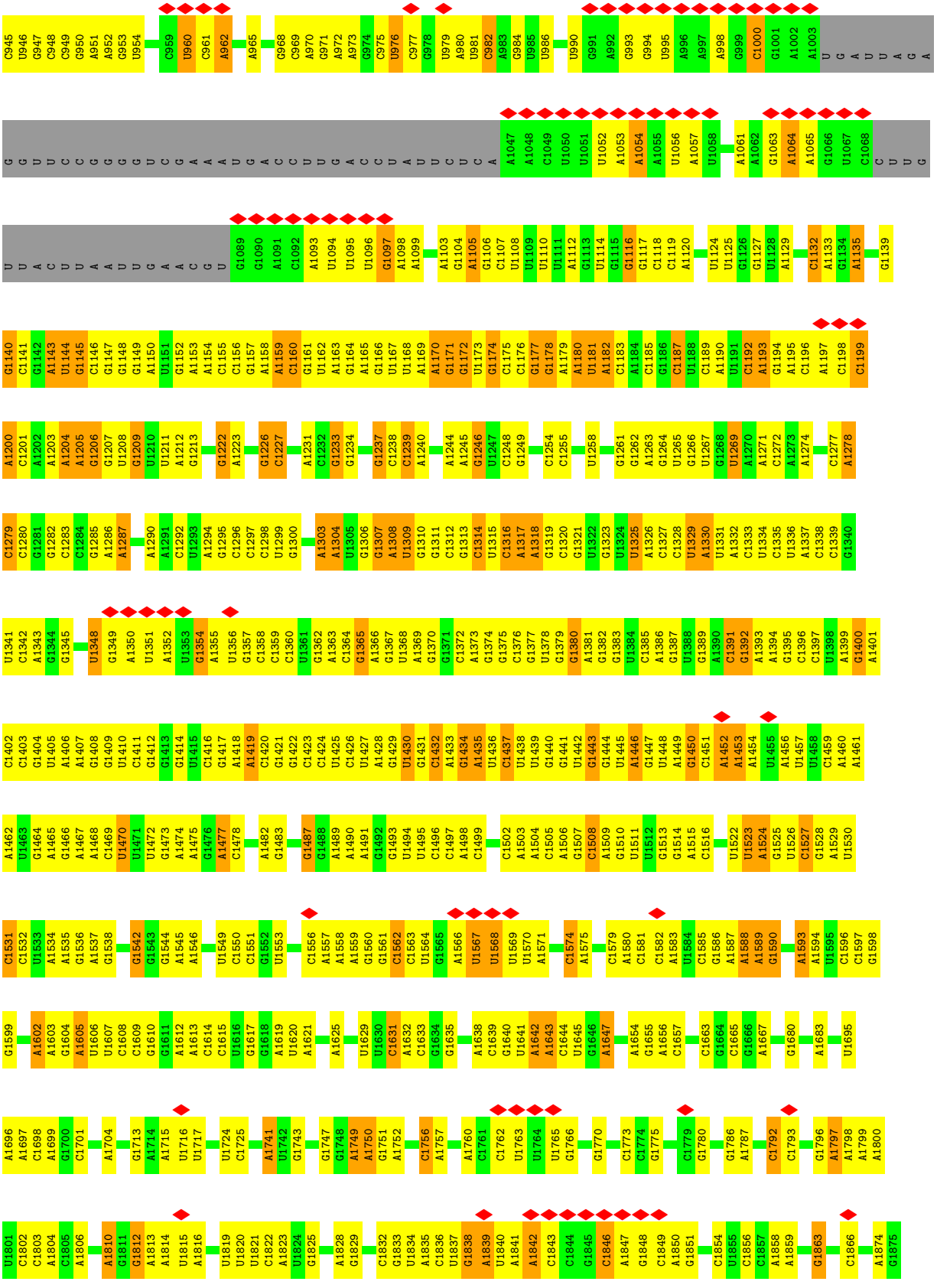
HIS
THR
TYR
LYS
LYS
ALA
LYS
LEU
MET
LYS
GLN
SER
LYS
LYS
LYS
THR
SER
PHE
THR
ARG
PHE

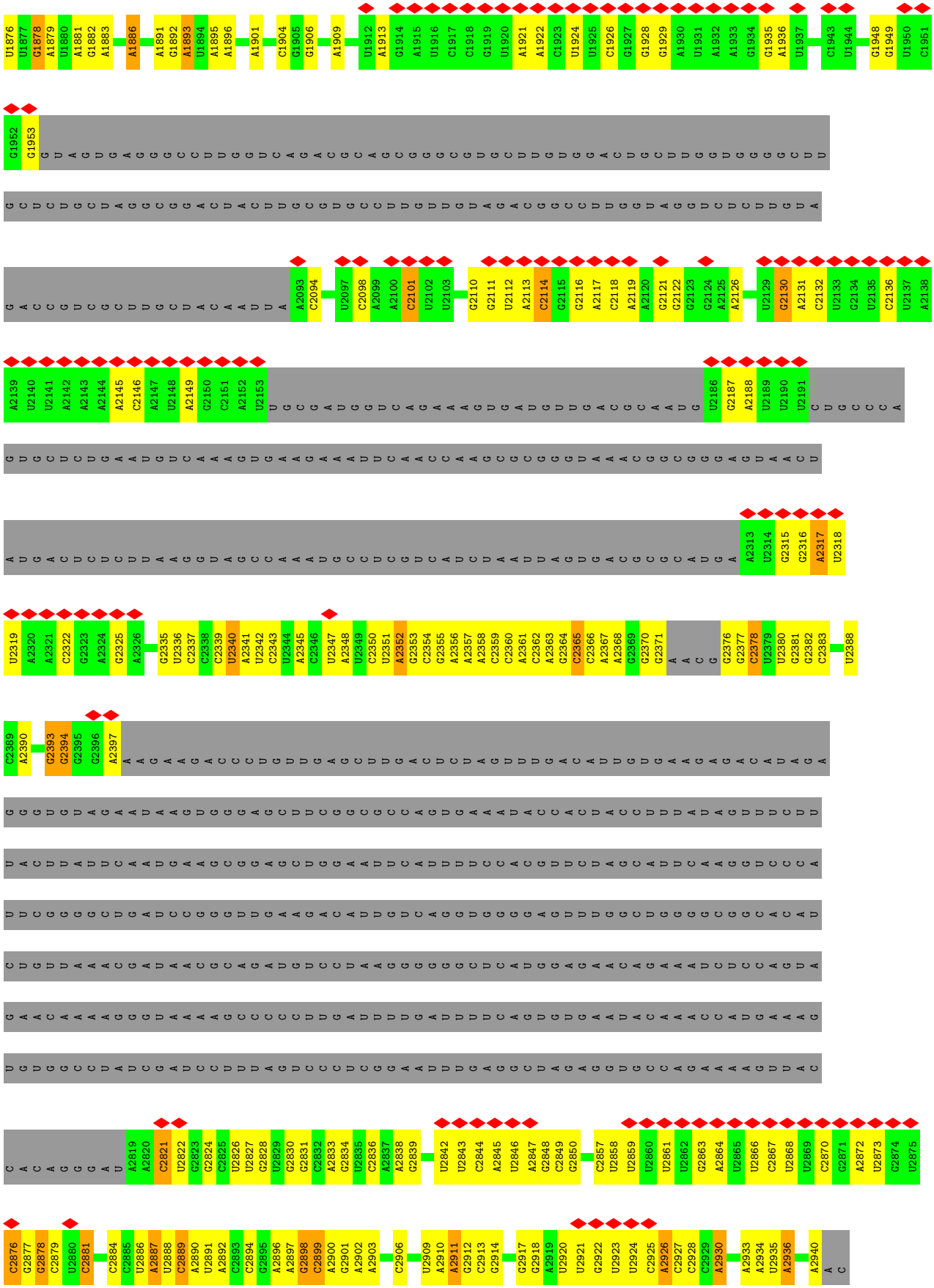
• Molecule 44: 25S rRNA

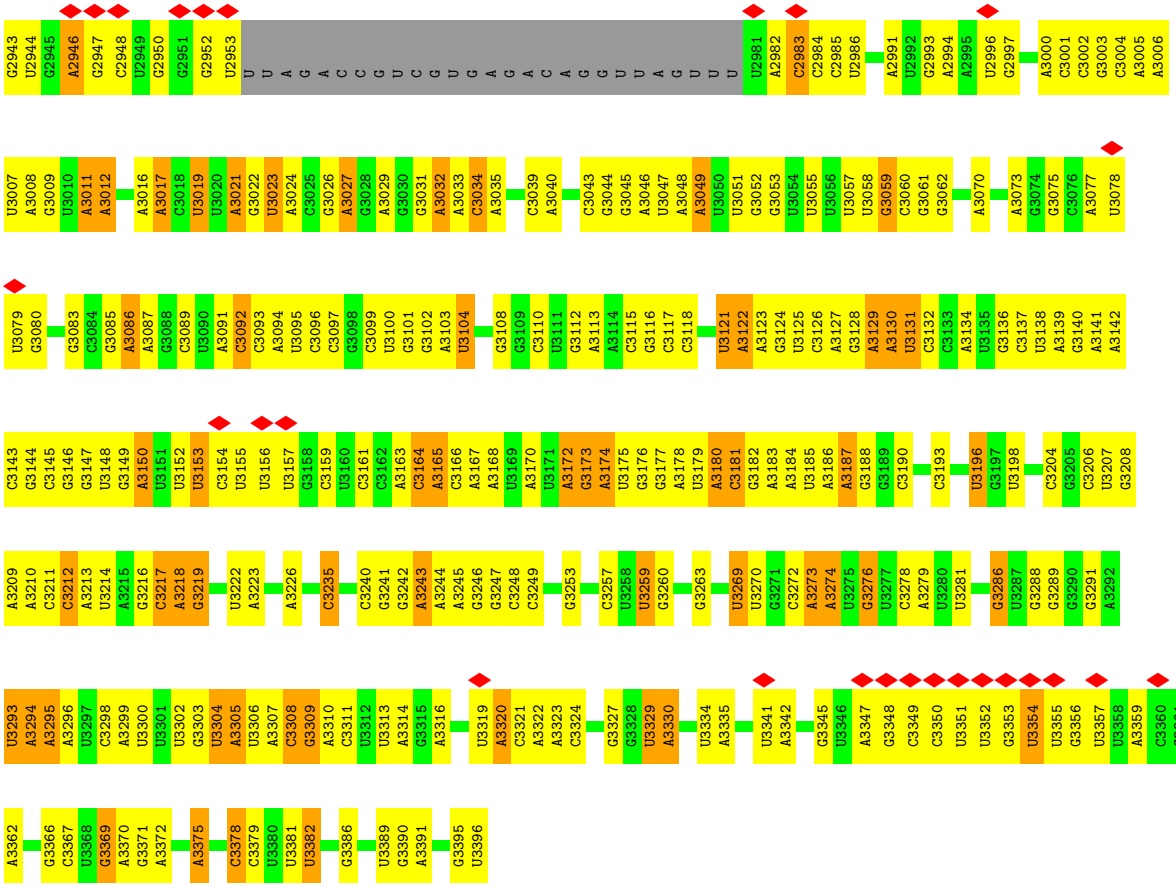
Chain 1:





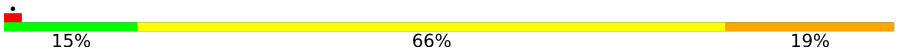


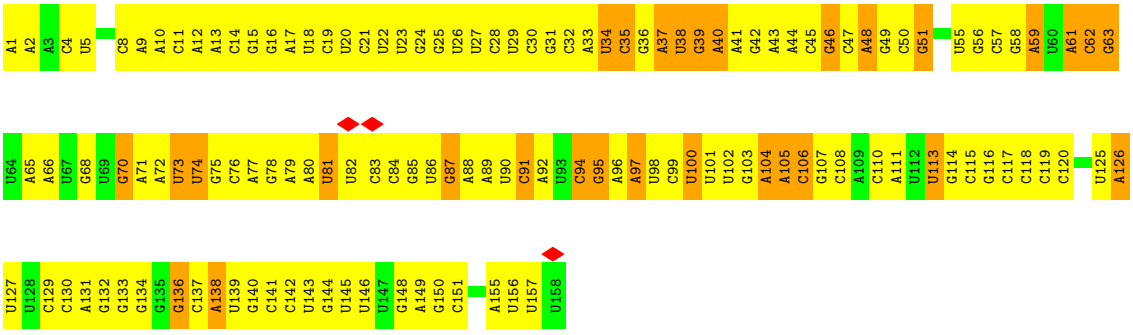




• Molecule 45: 5.8S rRNA

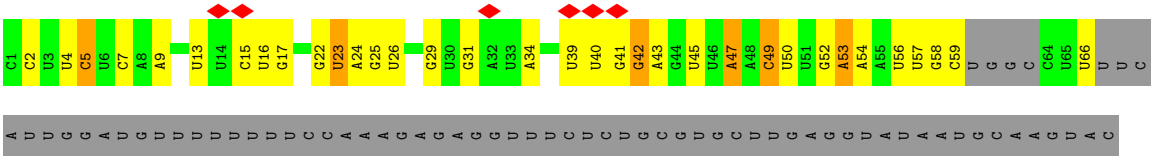
Chain 2:

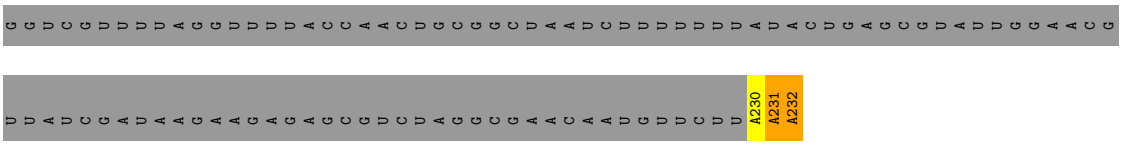




• Molecule 46: ITS2

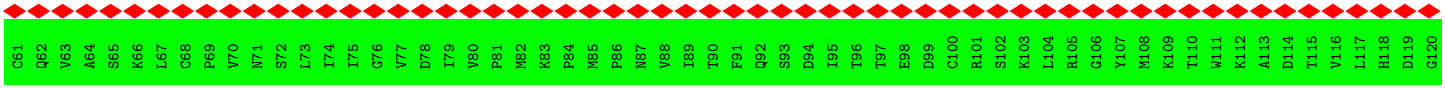
Chain 6:

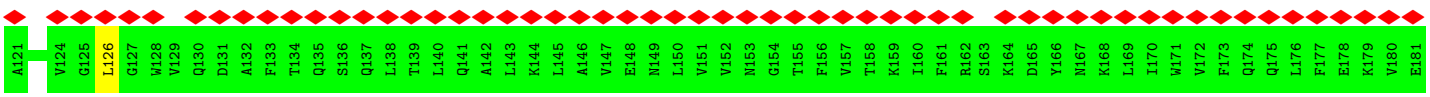


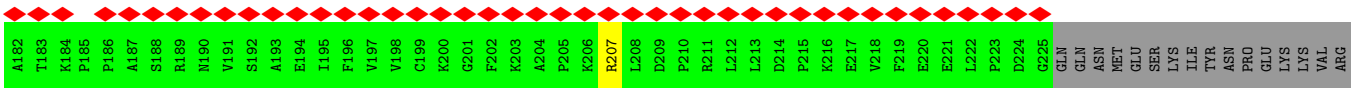


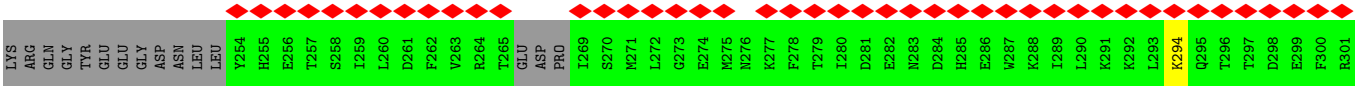
• Molecule 47: 27S pre-rRNA (guanosine(2922)-2'-O)-methyltransferase

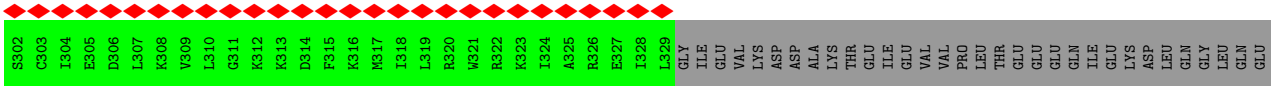
Chain w:

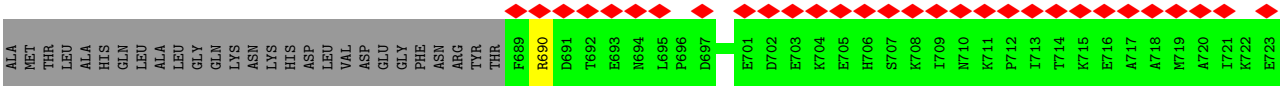


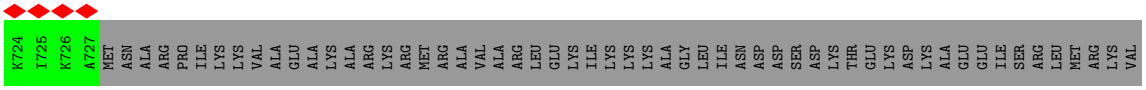


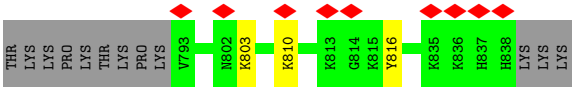











THR
LYS
LYS
PRO
LYS
THR
LYS
PRO
LYS
V793
N802
K803
K810
K813
G814
K815
Y816
K835
K836
H837
H838
LYS
LYS
LYS

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	29163	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	24	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.483	Depositor
Minimum map value	-0.257	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.013	Depositor
Recommended contour level	0.055	Depositor
Map size (Å)	416.25598, 416.25598, 416.25598	wwPDB
Map dimensions	384, 384, 384	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.084, 1.084, 1.084	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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	B	1.10	6/3152 (0.2%)	1.05	15/4239 (0.4%)
2	C	1.33	14/2801 (0.5%)	1.10	22/3792 (0.6%)
3	E	0.95	0/1260	0.96	9/1694 (0.5%)
4	F	1.23	5/1821 (0.3%)	1.00	10/2451 (0.4%)
5	G	0.91	5/1542 (0.3%)	0.92	3/2083 (0.1%)
6	H	0.86	0/1539	0.95	8/2073 (0.4%)
7	K	0.47	0/2098	0.75	0/2830
8	L	1.08	2/1524 (0.1%)	1.12	13/2046 (0.6%)
9	M	1.04	3/1074 (0.3%)	0.98	6/1446 (0.4%)
10	N	1.49	12/1575 (0.8%)	1.28	29/2106 (1.4%)
11	O	1.51	13/1585 (0.8%)	1.11	13/2128 (0.6%)
12	P	1.35	12/1419 (0.8%)	1.06	9/1904 (0.5%)
13	Q	1.10	1/1050 (0.1%)	1.06	8/1419 (0.6%)
14	R	0.69	0/1275	0.91	7/1702 (0.4%)
15	S	1.01	1/1473 (0.1%)	1.01	9/1980 (0.5%)
16	T	0.44	0/440	0.93	2/594 (0.3%)
17	U	0.56	0/861	0.73	0/1167
18	V	0.68	0/1018	0.89	2/1369 (0.1%)
19	W	0.50	0/1918	0.81	0/2586
20	X	1.18	3/1116 (0.3%)	0.93	4/1503 (0.3%)
21	Y	1.17	2/1004 (0.2%)	1.06	7/1341 (0.5%)
22	Z	0.54	0/1118	0.78	2/1497 (0.1%)
23	a	0.80	0/751	0.96	3/1013 (0.3%)
24	b	0.57	1/3885 (0.0%)	0.85	6/5242 (0.1%)
25	c	0.43	0/751	0.72	0/1008
26	d	1.00	1/887 (0.1%)	0.98	4/1191 (0.3%)
27	e	1.40	7/1041 (0.7%)	1.09	10/1394 (0.7%)
28	f	1.72	7/868 (0.8%)	1.25	12/1168 (1.0%)
29	g	0.80	0/891	1.07	8/1191 (0.7%)
30	h	1.12	0/978	1.03	2/1301 (0.2%)
31	i	0.73	0/778	0.91	2/1034 (0.2%)
32	j	1.49	8/696 (1.1%)	1.34	10/923 (1.1%)
33	k	0.64	0/618	0.89	0/826
34	l	0.69	0/443	1.12	4/588 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
35	n	0.74	0/3101	0.91	12/4187 (0.3%)
36	o	0.55	0/1129	0.84	0/1502
37	q	0.47	0/733	0.90	4/977 (0.4%)
38	r	0.63	0/1789	0.91	3/2389 (0.1%)
39	s	0.70	0/301	1.15	3/386 (0.8%)
40	t	0.54	0/2333	0.89	3/3128 (0.1%)
41	u	0.72	0/1061	0.99	6/1410 (0.4%)
42	y	0.52	0/1872	0.79	2/2548 (0.1%)
43	z	0.58	0/445	0.89	0/585
44	1	1.93	1801/60703 (3.0%)	1.96	3153/94630 (3.3%)
45	2	2.45	221/3746 (5.9%)	2.31	330/5832 (5.7%)
46	6	0.96	1/1527 (0.1%)	1.50	26/2371 (1.1%)
47	w	0.46	0/2952	0.76	0/3965
All	All	1.55	2126/126942 (1.7%)	1.61	3781/184739 (2.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B	0	7
2	C	0	6
4	F	0	2
5	G	0	5
6	H	0	3
7	K	0	1
8	L	0	5
9	M	0	1
10	N	0	1
12	P	0	1
14	R	0	1
15	S	0	2
18	V	0	1
19	W	0	2
20	X	0	1
23	a	0	2
24	b	0	3
26	d	0	1
27	e	0	1
28	f	0	2
29	g	0	2

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
30	h	0	3
31	i	0	2
33	k	0	2
35	n	0	11
36	o	0	5
37	q	0	1
38	r	0	1
39	s	0	1
40	t	0	5
41	u	0	2
42	y	0	1
47	w	0	2
All	All	0	86

All (2126) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	346	C	N1-C6	-13.06	1.29	1.37
44	1	945	C	C4-C5	-12.55	1.32	1.43
44	1	1437	C	C4-C5	-12.42	1.33	1.43
44	1	1332	A	N7-C5	-12.41	1.31	1.39
44	1	407	A	N9-C4	-12.35	1.30	1.37
44	1	1432	C	N1-C6	-12.07	1.29	1.37
45	2	105	A	N7-C5	-11.84	1.32	1.39
44	1	1381	A	N9-C4	-11.44	1.30	1.37
44	1	1419	A	N9-C4	-11.36	1.31	1.37
44	1	1426	C	C4-C5	-11.30	1.33	1.43
45	2	21	C	C4-C5	-11.06	1.34	1.43
44	1	344	A	N7-C5	-11.02	1.32	1.39
44	1	342	A	N9-C4	-10.87	1.31	1.37
44	1	630	A	C5-C6	-10.84	1.31	1.41
44	1	352	A	C6-N6	-10.64	1.25	1.33
44	1	27	C	C4-C5	-10.55	1.34	1.43
44	1	3004	C	C4-C5	-10.54	1.34	1.43
44	1	1435	A	N9-C4	-10.53	1.31	1.37
44	1	54	C	C4-C5	-10.49	1.34	1.43
44	1	1444	G	N7-C5	-10.44	1.32	1.39
44	1	1175	C	N1-C6	-10.39	1.30	1.37
44	1	1175	C	C4-C5	-10.27	1.34	1.43
44	1	634	C	C4-C5	-10.13	1.34	1.43
44	1	656	A	N7-C5	-10.13	1.33	1.39
44	1	29	C	C4-C5	-10.13	1.34	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1376	C	C4-C5	-10.05	1.34	1.43
44	1	1165	A	C6-N6	-10.03	1.25	1.33
44	1	334	A	N9-C4	-10.03	1.31	1.37
44	1	1161	G	N7-C5	-10.02	1.33	1.39
44	1	660	A	N9-C4	-9.96	1.31	1.37
45	2	44	A	C6-N6	-9.96	1.25	1.33
44	1	630	A	N7-C5	-9.89	1.33	1.39
44	1	1150	A	N7-C5	-9.88	1.33	1.39
44	1	1372	C	C4-C5	-9.86	1.35	1.43
44	1	1423	C	C4-C5	-9.85	1.35	1.43
45	2	19	C	C4-C5	-9.82	1.35	1.43
44	1	633	C	C4-C5	-9.80	1.35	1.43
44	1	944	C	N1-C6	-9.80	1.31	1.37
44	1	340	C	C4-C5	-9.75	1.35	1.43
44	1	346	C	C4-C5	-9.73	1.35	1.43
45	2	14	C	C4-C5	-9.73	1.35	1.43
44	1	3137	C	C4-C5	-9.72	1.35	1.43
44	1	345	G	N7-C5	-9.67	1.33	1.39
44	1	347	G	N7-C5	-9.66	1.33	1.39
44	1	655	C	C4-C5	-9.66	1.35	1.43
44	1	2354	C	C4-C5	-9.65	1.35	1.43
44	1	1424	C	C4-C5	-9.63	1.35	1.43
44	1	1332	A	C5-C6	-9.61	1.32	1.41
44	1	344	A	C5-C6	-9.56	1.32	1.41
44	1	1333	C	C4-C5	-9.52	1.35	1.43
44	1	1342	C	C4-C5	-9.42	1.35	1.43
44	1	1614	C	C4-C5	-9.41	1.35	1.43
44	1	65	A	N9-C4	-9.38	1.32	1.37
44	1	16	A	C5-C6	-9.36	1.32	1.41
45	2	13	A	N7-C5	-9.36	1.33	1.39
44	1	801	A	N7-C5	-9.31	1.33	1.39
44	1	409	A	C6-N6	-9.31	1.26	1.33
44	1	58	G	N7-C5	-9.30	1.33	1.39
44	1	680	G	N9-C8	-9.28	1.31	1.37
44	1	1170	A	N7-C5	-9.28	1.33	1.39
44	1	1836	C	C4-C5	-9.24	1.35	1.43
44	1	106	A	C6-N6	-9.23	1.26	1.33
44	1	1328	C	N1-C6	-9.20	1.31	1.37
44	1	408	A	N9-C4	-9.17	1.32	1.37
44	1	323	A	N7-C5	-9.13	1.33	1.39
45	2	40	A	N9-C4	-9.13	1.32	1.37
44	1	31	C	C4-C5	-9.09	1.35	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	350	C	C4-C5	-9.08	1.35	1.43
44	1	1496	C	C4-C5	-9.04	1.35	1.43
44	1	396	A	C6-N6	-9.03	1.26	1.33
44	1	332	C	C4-C5	-9.02	1.35	1.43
44	1	1420	C	C4-C5	-9.02	1.35	1.43
44	1	3008	A	C6-N6	-9.01	1.26	1.33
45	2	40	A	C6-N6	-8.98	1.26	1.33
44	1	665	A	N9-C4	-8.98	1.32	1.37
44	1	696	C	C4-C5	-8.96	1.35	1.43
45	2	12	A	N9-C4	-8.96	1.32	1.37
45	2	96	A	C6-N6	-8.96	1.26	1.33
44	1	660	A	N3-C4	-8.96	1.29	1.34
44	1	323	A	C5-C6	-8.96	1.32	1.41
44	1	1434	G	N7-C5	-8.95	1.33	1.39
44	1	51	A	N9-C4	-8.95	1.32	1.37
44	1	3046	A	N9-C4	-8.94	1.32	1.37
44	1	1426	C	N3-C4	-8.94	1.27	1.33
44	1	407	A	C6-N6	-8.90	1.26	1.33
44	1	28	C	N1-C6	-8.89	1.31	1.37
44	1	342	A	N9-C8	-8.87	1.30	1.37
44	1	1312	C	N1-C6	-8.86	1.31	1.37
45	2	40	A	C6-N1	-8.86	1.29	1.35
44	1	344	A	C6-N6	-8.86	1.26	1.33
44	1	947	G	N7-C5	-8.85	1.33	1.39
44	1	341	G	N7-C5	-8.83	1.33	1.39
44	1	504	A	N9-C4	-8.83	1.32	1.37
44	1	1338	C	C4-C5	-8.82	1.35	1.43
45	2	26	U	C4-C5	-8.79	1.35	1.43
44	1	1383	G	N7-C5	-8.79	1.33	1.39
44	1	349	A	N9-C4	-8.79	1.32	1.37
44	1	1146	C	C4-C5	-8.79	1.35	1.43
44	1	375	A	N9-C4	-8.79	1.32	1.37
44	1	1446	A	N9-C4	-8.77	1.32	1.37
44	1	1298	C	C4-C5	-8.76	1.35	1.43
44	1	1428	A	C6-N6	-8.76	1.26	1.33
44	1	1403	C	C4-C5	-8.76	1.35	1.43
44	1	16	A	N9-C4	-8.74	1.32	1.37
44	1	363	G	N7-C5	-8.74	1.34	1.39
44	1	20	A	N9-C4	-8.71	1.32	1.37
44	1	1158	A	N7-C5	-8.70	1.34	1.39
45	2	103	G	N7-C5	-8.67	1.34	1.39
44	1	1160	C	C4-C5	-8.66	1.36	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	16	A	N7-C5	-8.64	1.34	1.39
44	1	1338	C	N1-C6	-8.63	1.31	1.37
45	2	28	C	C4-C5	-8.63	1.36	1.43
44	1	1179	A	C6-N6	-8.60	1.27	1.33
44	1	1338	C	N3-C4	-8.59	1.27	1.33
44	1	810	A	N9-C4	-8.59	1.32	1.37
44	1	3150	A	N9-C4	-8.59	1.32	1.37
44	1	52	A	C6-N6	-8.58	1.27	1.33
44	1	1310	G	N9-C4	-8.57	1.31	1.38
44	1	349	A	C5-C6	-8.57	1.33	1.41
44	1	663	C	C4-C5	-8.56	1.36	1.43
44	1	1377	G	C2-N2	-8.55	1.26	1.34
44	1	346	C	C5-C6	-8.53	1.27	1.34
44	1	801	A	C6-N6	-8.52	1.27	1.33
44	1	972	A	N9-C4	-8.49	1.32	1.37
44	1	1437	C	N3-C4	-8.49	1.28	1.33
44	1	1615	C	C4-C5	-8.47	1.36	1.43
44	1	944	C	C4-C5	-8.46	1.36	1.43
44	1	1177	G	N9-C8	-8.46	1.31	1.37
44	1	589	A	C6-N6	-8.45	1.27	1.33
44	1	695	C	C4-C5	-8.44	1.36	1.43
44	1	2367	A	N9-C4	-8.43	1.32	1.37
44	1	77	A	N9-C4	-8.43	1.32	1.37
45	2	141	C	N3-C4	-8.43	1.28	1.33
44	1	941	G	N9-C8	-8.42	1.31	1.37
44	1	691	A	N9-C4	-8.39	1.32	1.37
44	1	1147	G	N7-C5	-8.38	1.34	1.39
44	1	350	C	C5-C6	-8.38	1.27	1.34
44	1	428	A	C6-N6	-8.37	1.27	1.33
44	1	56	G	N9-C4	-8.36	1.31	1.38
44	1	3379	C	C4-C5	-8.36	1.36	1.43
44	1	1317	A	N9-C4	-8.34	1.32	1.37
44	1	2356	A	N9-C4	-8.34	1.32	1.37
44	1	1594	A	C6-N6	-8.33	1.27	1.33
44	1	23	A	N9-C4	-8.32	1.32	1.37
45	2	137	C	C4-C5	-8.32	1.36	1.43
44	1	1613	A	N9-C4	-8.30	1.32	1.37
44	1	1363	A	C5-C6	-8.28	1.33	1.41
44	1	803	C	C4-C5	-8.27	1.36	1.43
44	1	1416	C	C4-C5	-8.26	1.36	1.43
44	1	409	A	N9-C8	-8.25	1.31	1.37
45	2	43	A	N9-C4	-8.25	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	2	120	C	C4-C5	-8.25	1.36	1.43
44	1	27	C	C5-C6	-8.23	1.27	1.34
44	1	1420	C	N1-C6	-8.23	1.32	1.37
44	1	656	A	C6-N6	-8.23	1.27	1.33
45	2	105	A	C5-C6	-8.22	1.33	1.41
44	1	82	C	C4-C5	-8.21	1.36	1.43
44	1	63	A	N7-C5	-8.21	1.34	1.39
44	1	1428	A	C5-C6	-8.21	1.33	1.41
44	1	225	C	C4-C5	-8.20	1.36	1.43
44	1	658	G	N7-C5	-8.19	1.34	1.39
45	2	42	G	N9-C4	-8.18	1.31	1.38
44	1	407	A	C5-C6	-8.17	1.33	1.41
44	1	60	A	N7-C5	-8.16	1.34	1.39
44	1	349	A	N7-C5	-8.16	1.34	1.39
44	1	928	C	C4-C5	-8.15	1.36	1.43
44	1	692	A	N9-C4	-8.15	1.32	1.37
44	1	804	C	C4-C5	-8.15	1.36	1.43
44	1	1337	A	N9-C4	-8.15	1.32	1.37
44	1	433	A	C6-N6	-8.14	1.27	1.33
44	1	65	A	N9-C8	-8.14	1.31	1.37
44	1	1422	G	N7-C5	-8.14	1.34	1.39
45	2	45	C	C4-C5	-8.12	1.36	1.43
44	1	1175	C	N3-C4	-8.12	1.28	1.33
44	1	224	C	C4-C5	-8.10	1.36	1.43
44	1	693	A	N9-C4	-8.10	1.32	1.37
45	2	105	A	N9-C8	-8.08	1.31	1.37
44	1	1836	C	N3-C4	-8.07	1.28	1.33
44	1	3273	A	C6-N6	-8.07	1.27	1.33
44	1	657	A	N9-C4	-8.07	1.33	1.37
44	1	348	A	N7-C5	-8.06	1.34	1.39
44	1	1179	A	C5-C6	-8.04	1.33	1.41
44	1	931	C	C4-C5	-8.04	1.36	1.43
44	1	1396	C	C4-C5	-8.03	1.36	1.43
44	1	28	C	N3-C4	-8.03	1.28	1.33
44	1	3173	G	C2-N2	-8.02	1.26	1.34
44	1	427	C	C4-C5	-8.02	1.36	1.43
44	1	660	A	N7-C5	-8.01	1.34	1.39
44	1	28	C	C4-C5	-8.00	1.36	1.43
44	1	1165	A	N9-C4	-8.00	1.33	1.37
44	1	1179	A	N9-C4	-8.00	1.33	1.37
44	1	1446	A	C6-N6	-7.99	1.27	1.33
44	1	34	A	N9-C4	-7.99	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	672	A	N9-C4	-7.97	1.33	1.37
44	1	64	G	N9-C8	-7.96	1.32	1.37
45	2	35	C	C4-C5	-7.96	1.36	1.43
44	1	2367	A	C6-N6	-7.95	1.27	1.33
44	1	2352	A	N9-C4	-7.94	1.33	1.37
44	1	1404	G	N9-C4	-7.94	1.31	1.38
44	1	111	C	N1-C6	-7.93	1.32	1.37
44	1	349	A	C6-N6	-7.92	1.27	1.33
44	1	344	A	N9-C4	-7.92	1.33	1.37
44	1	628	A	C6-N6	-7.91	1.27	1.33
44	1	1178	G	N9-C8	-7.91	1.32	1.37
44	1	1496	C	N3-C4	-7.90	1.28	1.33
44	1	1527	C	C4-C5	-7.89	1.36	1.43
44	1	1397	C	C4-C5	-7.87	1.36	1.43
44	1	322	U	C4-C5	-7.87	1.36	1.43
44	1	3139	A	N7-C5	-7.86	1.34	1.39
45	2	142	C	C4-C5	-7.86	1.36	1.43
44	1	808	A	N9-C4	-7.83	1.33	1.37
45	2	13	A	C6-N6	-7.83	1.27	1.33
45	2	104	A	N7-C5	-7.83	1.34	1.39
44	1	949	C	C4-C5	-7.83	1.36	1.43
44	1	226	C	N1-C6	-7.81	1.32	1.37
44	1	1170	A	C5-C6	-7.81	1.34	1.41
44	1	3183	A	C5-C6	-7.80	1.34	1.41
45	2	104	A	N9-C4	-7.79	1.33	1.37
44	1	368	G	N9-C4	-7.76	1.31	1.38
44	1	1159	A	N7-C5	-7.76	1.34	1.39
44	1	945	C	N3-C4	-7.74	1.28	1.33
45	2	17	A	N7-C5	-7.73	1.34	1.39
44	1	1363	A	C6-N6	-7.73	1.27	1.33
44	1	1420	C	C5-C6	-7.72	1.28	1.34
44	1	12	A	N7-C5	-7.72	1.34	1.39
28	f	102	LEU	C-N	-7.72	1.16	1.34
44	1	933	A	C5-C6	-7.71	1.34	1.41
44	1	428	A	C5-C6	-7.71	1.34	1.41
44	1	663	C	C5-C6	-7.71	1.28	1.34
44	1	500	C	C4-C5	-7.70	1.36	1.43
44	1	1496	C	C5-C6	-7.70	1.28	1.34
44	1	1602	A	N9-C4	-7.69	1.33	1.37
44	1	345	G	N9-C8	-7.69	1.32	1.37
44	1	369	A	C5-C6	-7.68	1.34	1.41
44	1	1308	A	C6-N6	-7.68	1.27	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	2910	A	C6-N6	-7.68	1.27	1.33
44	1	971	G	N9-C4	-7.68	1.31	1.38
44	1	927	C	C4-C5	-7.67	1.36	1.43
44	1	338	A	C6-N6	-7.67	1.27	1.33
12	P	119	VAL	CB-CG2	-7.66	1.36	1.52
44	1	353	G	C2-N3	-7.66	1.26	1.32
44	1	653	A	N7-C5	-7.65	1.34	1.39
44	1	340	C	N1-C6	-7.64	1.32	1.37
44	1	670	C	C4-C5	-7.62	1.36	1.43
44	1	693	A	C6-N6	-7.61	1.27	1.33
44	1	371	G	N9-C8	-7.61	1.32	1.37
44	1	1440	G	N9-C8	-7.61	1.32	1.37
44	1	3008	A	C5-C6	-7.61	1.34	1.41
44	1	3308	C	C4-C5	-7.60	1.36	1.43
44	1	654	C	C4-C5	-7.59	1.36	1.43
44	1	2355	G	N9-C4	-7.59	1.31	1.38
45	2	43	A	C5-C6	-7.59	1.34	1.41
44	1	22	G	N9-C8	-7.58	1.32	1.37
44	1	64	G	N7-C5	-7.58	1.34	1.39
44	1	353	G	N9-C4	-7.57	1.31	1.38
44	1	665	A	C5-C6	-7.56	1.34	1.41
44	1	1598	G	N7-C5	-7.56	1.34	1.39
44	1	339	C	N1-C6	-7.55	1.32	1.37
44	1	1333	C	N3-C4	-7.55	1.28	1.33
44	1	363	G	N9-C8	-7.55	1.32	1.37
45	2	97	A	N9-C4	-7.54	1.33	1.37
44	1	630	A	C6-N6	-7.54	1.27	1.33
44	1	1176	C	N1-C6	-7.54	1.32	1.37
45	2	36	G	N7-C5	-7.53	1.34	1.39
45	2	37	A	N9-C4	-7.53	1.33	1.37
12	P	119	VAL	CB-CG1	-7.53	1.37	1.52
44	1	63	A	C6-N6	-7.53	1.27	1.33
44	1	29	C	N1-C6	-7.52	1.32	1.37
45	2	10	A	N7-C5	-7.51	1.34	1.39
44	1	1420	C	C4-N4	-7.51	1.27	1.33
45	2	21	C	N3-C4	-7.50	1.28	1.33
44	1	2357	A	N9-C4	-7.50	1.33	1.37
45	2	44	A	C5-C6	-7.50	1.34	1.41
44	1	1187	C	N3-C4	-7.49	1.28	1.33
45	2	105	A	C6-N6	-7.49	1.27	1.33
45	2	40	A	N3-C4	-7.48	1.30	1.34
45	2	30	C	C4-C5	-7.47	1.36	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	667	C	C4-C5	-7.47	1.36	1.43
44	1	321	C	C4-C5	-7.46	1.36	1.43
44	1	356	C	N1-C6	-7.46	1.32	1.37
44	1	1339	C	C4-C5	-7.46	1.36	1.43
44	1	3008	A	N9-C4	-7.46	1.33	1.37
44	1	943	U	N3-C4	-7.44	1.31	1.38
44	1	60	A	C5-C6	-7.43	1.34	1.41
44	1	1439	U	C4-C5	-7.43	1.36	1.43
44	1	69	C	N3-C4	-7.42	1.28	1.33
44	1	86	G	C2-N3	-7.41	1.26	1.32
44	1	657	A	C6-N6	-7.39	1.28	1.33
44	1	3273	A	N9-C4	-7.39	1.33	1.37
44	1	1437	C	C5-C6	-7.39	1.28	1.34
44	1	1332	A	C8-N7	-7.38	1.26	1.31
27	e	28	VAL	CB-CG2	-7.37	1.37	1.52
44	1	1363	A	N7-C5	-7.37	1.34	1.39
44	1	3097	C	C4-C5	-7.37	1.37	1.43
45	2	22	U	N1-C6	-7.36	1.31	1.38
44	1	27	C	N1-C6	-7.35	1.32	1.37
44	1	144	A	C6-N6	-7.35	1.28	1.33
44	1	611	A	N9-C4	-7.35	1.33	1.37
45	2	104	A	N9-C8	-7.35	1.31	1.37
44	1	52	A	C5-C6	-7.35	1.34	1.41
44	1	106	A	C6-N1	-7.34	1.30	1.35
44	1	321	C	N1-C6	-7.34	1.32	1.37
44	1	31	C	N3-C4	-7.34	1.28	1.33
44	1	416	A	N9-C4	-7.34	1.33	1.37
45	2	115	C	C4-C5	-7.33	1.37	1.43
44	1	638	C	C4-C5	-7.33	1.37	1.43
44	1	1406	A	C6-N6	-7.33	1.28	1.33
44	1	1150	A	C5-C6	-7.33	1.34	1.41
44	1	1609	C	C4-C5	-7.32	1.37	1.43
44	1	792	G	N7-C5	-7.32	1.34	1.39
44	1	58	G	C5-C6	-7.32	1.35	1.42
44	1	407	A	N7-C5	-7.32	1.34	1.39
44	1	661	G	N9-C4	-7.31	1.32	1.38
44	1	81	C	C4-C5	-7.31	1.37	1.43
44	1	367	A	C6-N6	-7.31	1.28	1.33
44	1	1402	C	C4-C5	-7.30	1.37	1.43
44	1	656	A	C5-C6	-7.29	1.34	1.41
44	1	102	C	C4-C5	-7.29	1.37	1.43
44	1	586	C	C4-C5	-7.29	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	336	A	N7-C5	-7.29	1.34	1.39
44	1	334	A	N7-C5	-7.28	1.34	1.39
44	1	10	C	C4-C5	-7.27	1.37	1.43
44	1	369	A	N9-C8	-7.27	1.31	1.37
44	1	1179	A	N7-C5	-7.27	1.34	1.39
44	1	327	A	N9-C4	-7.27	1.33	1.37
44	1	652	G	N9-C8	-7.27	1.32	1.37
44	1	366	A	N7-C5	-7.26	1.34	1.39
44	1	933	A	N9-C4	-7.26	1.33	1.37
44	1	353	G	C2-N2	-7.26	1.27	1.34
44	1	373	A	C5-C6	-7.26	1.34	1.41
44	1	1163	A	C5-C6	-7.25	1.34	1.41
44	1	805	G	N9-C8	-7.25	1.32	1.37
44	1	1373	A	N9-C4	-7.24	1.33	1.37
44	1	1614	C	N3-C4	-7.24	1.28	1.33
44	1	341	G	N9-C8	-7.24	1.32	1.37
45	2	20	U	C4-C5	-7.24	1.37	1.43
44	1	2352	A	N7-C5	-7.24	1.34	1.39
44	1	1147	G	N9-C8	-7.23	1.32	1.37
44	1	1419	A	C6-N6	-7.23	1.28	1.33
44	1	1155	C	N3-C4	-7.23	1.28	1.33
44	1	1337	A	C5-C6	-7.23	1.34	1.41
45	2	94	C	C4-C5	-7.23	1.37	1.43
44	1	585	A	N9-C4	-7.22	1.33	1.37
44	1	3141	A	C5-C6	-7.22	1.34	1.41
45	2	32	C	C4-C5	-7.22	1.37	1.43
45	2	48	A	N9-C4	-7.22	1.33	1.37
45	2	92	A	N9-C4	-7.22	1.33	1.37
44	1	409	A	N7-C5	-7.22	1.34	1.39
44	1	345	G	N1-C2	-7.21	1.31	1.37
44	1	1426	C	C4-N4	-7.21	1.27	1.33
45	2	41	A	N9-C8	-7.21	1.31	1.37
44	1	633	C	C4-N4	-7.20	1.27	1.33
44	1	1377	G	N9-C4	-7.20	1.32	1.38
45	2	108	C	N1-C6	-7.20	1.32	1.37
44	1	27	C	N3-C4	-7.19	1.28	1.33
44	1	504	A	C5-C6	-7.18	1.34	1.41
44	1	1326	A	C6-N6	-7.18	1.28	1.33
44	1	1183	C	C4-C5	-7.18	1.37	1.43
45	2	65	A	N9-C4	-7.17	1.33	1.37
44	1	585	A	C6-N6	-7.16	1.28	1.33
44	1	802	C	C4-C5	-7.16	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	17	G	N9-C8	-7.16	1.32	1.37
44	1	927	C	N1-C6	-7.16	1.32	1.37
44	1	3139	A	C5-C6	-7.16	1.34	1.41
44	1	63	A	N9-C4	-7.16	1.33	1.37
44	1	1407	A	C6-N6	-7.16	1.28	1.33
44	1	2366	C	C4-C5	-7.16	1.37	1.43
45	2	41	A	N9-C4	-7.16	1.33	1.37
44	1	680	G	N9-C4	-7.16	1.32	1.38
44	1	693	A	C5-C6	-7.16	1.34	1.41
44	1	349	A	N9-C8	-7.15	1.32	1.37
44	1	1365	G	N9-C8	-7.15	1.32	1.37
44	1	585	A	N7-C5	-7.15	1.34	1.39
44	1	107	A	N9-C8	-7.15	1.32	1.37
45	2	19	C	C5-C6	-7.14	1.28	1.34
44	1	396	A	N9-C4	-7.14	1.33	1.37
44	1	341	G	C5-C6	-7.13	1.35	1.42
44	1	334	A	C6-N6	-7.13	1.28	1.33
44	1	815	G	N7-C5	-7.13	1.34	1.39
44	1	1337	A	C6-N6	-7.13	1.28	1.33
44	1	1155	C	C4-C5	-7.12	1.37	1.43
44	1	1437	C	C4-N4	-7.12	1.27	1.33
44	1	405	U	C4-C5	-7.12	1.37	1.43
44	1	266	A	N9-C4	-7.12	1.33	1.37
44	1	1163	A	N9-C4	-7.11	1.33	1.37
45	2	13	A	C5-C6	-7.11	1.34	1.41
44	1	663	C	N1-C6	-7.11	1.32	1.37
44	1	373	A	C6-N6	-7.10	1.28	1.33
44	1	352	A	C5-C4	-7.10	1.33	1.38
44	1	3211	C	C4-C5	-7.10	1.37	1.43
44	1	639	G	N9-C8	-7.10	1.32	1.37
44	1	1558	A	C6-N6	-7.10	1.28	1.33
44	1	369	A	C6-N6	-7.09	1.28	1.33
44	1	1546	A	N9-C4	-7.09	1.33	1.37
44	1	3375	A	N7-C5	-7.09	1.34	1.39
45	2	140	G	N9-C8	-7.09	1.32	1.37
44	1	1509	A	N9-C4	-7.09	1.33	1.37
44	1	289	A	N7-C5	-7.08	1.34	1.39
44	1	62	A	N7-C5	-7.08	1.35	1.39
44	1	948	C	C4-C5	-7.08	1.37	1.43
44	1	20	A	N9-C8	-7.08	1.32	1.37
44	1	633	C	N1-C6	-7.08	1.32	1.37
45	2	40	A	N7-C5	-7.08	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	2	141	C	C4-N4	-7.08	1.27	1.33
44	1	1698	C	C4-C5	-7.08	1.37	1.43
44	1	793	C	C4-C5	-7.08	1.37	1.43
44	1	3296	A	N9-C4	-7.07	1.33	1.37
44	1	3139	A	N9-C8	-7.07	1.32	1.37
27	e	17	PHE	CD1-CE1	-7.07	1.25	1.39
44	1	1419	A	C5-C6	-7.07	1.34	1.41
44	1	1435	A	N7-C5	-7.06	1.35	1.39
45	2	15	G	N9-C8	-7.06	1.32	1.37
44	1	1160	C	N1-C6	-7.05	1.32	1.37
44	1	3137	C	N3-C4	-7.05	1.29	1.33
44	1	3006	A	N7-C5	-7.05	1.35	1.39
44	1	331	G	N7-C5	-7.05	1.35	1.39
44	1	659	G	N7-C5	-7.05	1.35	1.39
44	1	396	A	C5-C6	-7.04	1.34	1.41
44	1	500	C	N3-C4	-7.04	1.29	1.33
32	j	37	CYS	CB-SG	-7.04	1.70	1.82
44	1	375	A	C6-N6	-7.04	1.28	1.33
44	1	368	G	N9-C8	-7.04	1.32	1.37
44	1	2910	A	N9-C4	-7.04	1.33	1.37
44	1	1394	A	N9-C4	-7.03	1.33	1.37
44	1	3139	A	C6-N6	-7.03	1.28	1.33
44	1	26	A	N9-C4	-7.03	1.33	1.37
44	1	377	A	N9-C4	-7.03	1.33	1.37
44	1	1314	C	N1-C6	-7.03	1.32	1.37
44	1	2354	C	C5-C6	-7.03	1.28	1.34
44	1	1435	A	C6-N6	-7.02	1.28	1.33
44	1	409	A	C5-C6	-7.02	1.34	1.41
44	1	109	A	N9-C4	-7.01	1.33	1.37
44	1	12	A	C5-C6	-7.01	1.34	1.41
44	1	3186	A	N9-C4	-7.01	1.33	1.37
44	1	3187	A	N7-C5	-7.00	1.35	1.39
44	1	344	A	C5-C4	-7.00	1.33	1.38
44	1	947	G	N9-C8	-7.00	1.32	1.37
44	1	804	C	C5-C6	-7.00	1.28	1.34
44	1	54	C	C5-C6	-6.99	1.28	1.34
44	1	804	C	N1-C6	-6.99	1.32	1.37
44	1	1194	G	C6-N1	-6.98	1.34	1.39
44	1	1443	G	N7-C5	-6.98	1.35	1.39
44	1	100	A	N7-C5	-6.98	1.35	1.39
44	1	3183	A	N9-C4	-6.97	1.33	1.37
44	1	200	C	N1-C6	-6.97	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1401	A	C5-C6	-6.97	1.34	1.41
44	1	1432	C	C4-C5	-6.97	1.37	1.43
45	2	40	A	N1-C2	-6.97	1.28	1.34
44	1	1296	C	C4-C5	-6.96	1.37	1.43
45	2	57	C	C4-C5	-6.96	1.37	1.43
44	1	57	A	N9-C4	-6.96	1.33	1.37
44	1	334	A	C5-C6	-6.96	1.34	1.41
44	1	107	A	C5-C6	-6.95	1.34	1.41
44	1	655	C	C5-C6	-6.95	1.28	1.34
45	2	10	A	C5-C6	-6.95	1.34	1.41
44	1	296	A	C6-N6	-6.95	1.28	1.33
44	1	649	A	N7-C5	-6.95	1.35	1.39
44	1	1181	U	C2-N3	-6.95	1.32	1.37
44	1	364	G	C2-N2	-6.95	1.27	1.34
44	1	1522	U	C2-N3	-6.95	1.32	1.37
44	1	1330	A	C5-C6	-6.94	1.34	1.41
44	1	788	C	C4-C5	-6.93	1.37	1.43
44	1	353	G	N1-C2	-6.92	1.32	1.37
44	1	60	A	N9-C8	-6.92	1.32	1.37
44	1	320	G	N9-C8	-6.92	1.33	1.37
44	1	1165	A	C5-C6	-6.92	1.34	1.41
45	2	18	U	C4-C5	-6.91	1.37	1.43
44	1	226	C	C4-C5	-6.91	1.37	1.43
44	1	803	C	N3-C4	-6.91	1.29	1.33
44	1	1332	A	C6-N6	-6.90	1.28	1.33
45	2	47	C	N1-C6	-6.90	1.33	1.37
45	2	96	A	N9-C4	-6.90	1.33	1.37
44	1	1307	G	N7-C5	-6.90	1.35	1.39
44	1	26	A	N7-C5	-6.89	1.35	1.39
44	1	628	A	C5-C6	-6.89	1.34	1.41
45	2	16	G	N9-C4	-6.89	1.32	1.38
44	1	410	U	C4-C5	-6.88	1.37	1.43
11	O	80	PHE	CB-CG	-6.87	1.39	1.51
44	1	672	A	N7-C5	-6.87	1.35	1.39
44	1	788	C	N1-C6	-6.87	1.33	1.37
44	1	701	G	N7-C5	-6.86	1.35	1.39
44	1	700	C	N1-C6	-6.86	1.33	1.37
45	2	9	A	N7-C5	-6.86	1.35	1.39
44	1	8	C	C4-C5	-6.86	1.37	1.43
44	1	102	C	N1-C6	-6.86	1.33	1.37
44	1	3004	C	C5-C6	-6.86	1.28	1.34
44	1	662	U	C2-N3	-6.85	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	O	23	VAL	CB-CG2	-6.85	1.38	1.52
45	2	105	A	C5-C4	-6.84	1.33	1.38
45	2	41	A	N7-C5	-6.84	1.35	1.39
44	1	65	A	C5-C4	-6.84	1.33	1.38
44	1	1173	U	C4-C5	-6.84	1.37	1.43
45	2	92	A	N7-C5	-6.84	1.35	1.39
44	1	343	U	C2-N3	-6.83	1.32	1.37
44	1	661	G	C2-N3	-6.82	1.27	1.32
44	1	1376	C	N3-C4	-6.82	1.29	1.33
44	1	1171	G	N9-C8	-6.82	1.33	1.37
44	1	3089	C	C4-C5	-6.82	1.37	1.43
44	1	945	C	C4-N4	-6.81	1.27	1.33
44	1	200	C	C4-N4	-6.81	1.27	1.33
44	1	1162	U	C4-C5	-6.81	1.37	1.43
44	1	1397	C	N3-C4	-6.81	1.29	1.33
44	1	1429	G	N1-C2	-6.80	1.32	1.37
45	2	44	A	N7-C5	-6.80	1.35	1.39
44	1	920	A	C6-N6	-6.80	1.28	1.33
44	1	1444	G	C8-N7	-6.79	1.26	1.30
44	1	115	A	N9-C4	-6.79	1.33	1.37
44	1	665	A	N7-C5	-6.79	1.35	1.39
32	j	19	CYS	CB-SG	-6.79	1.70	1.82
45	2	13	A	N9-C4	-6.79	1.33	1.37
44	1	1165	A	C5-C4	-6.79	1.33	1.38
44	1	1321	G	N9-C8	-6.79	1.33	1.37
44	1	1797	A	C6-N6	-6.78	1.28	1.33
44	1	1327	C	N3-C4	-6.78	1.29	1.33
44	1	412	G	N7-C5	-6.78	1.35	1.39
44	1	3145	C	N1-C6	-6.78	1.33	1.37
44	1	47	C	C4-C5	-6.77	1.37	1.43
44	1	585	A	C5-C6	-6.76	1.34	1.41
44	1	1799	A	N9-C4	-6.76	1.33	1.37
44	1	3173	G	N1-C2	-6.76	1.32	1.37
44	1	35	A	N9-C4	-6.76	1.33	1.37
44	1	68	C	N1-C6	-6.75	1.33	1.37
44	1	1429	G	C2-N3	-6.75	1.27	1.32
44	1	1441	G	N9-C8	-6.75	1.33	1.37
44	1	665	A	C6-N6	-6.75	1.28	1.33
44	1	1158	A	C5-C6	-6.75	1.34	1.41
44	1	2360	C	C4-C5	-6.75	1.37	1.43
44	1	396	A	C5-C4	-6.75	1.34	1.38
44	1	941	G	N9-C4	-6.75	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	355	A	N9-C4	-6.74	1.33	1.37
44	1	1527	C	N3-C4	-6.74	1.29	1.33
45	2	58	G	N7-C5	-6.74	1.35	1.39
11	O	16	VAL	CB-CG2	-6.74	1.38	1.52
44	1	2353	G	N7-C5	-6.74	1.35	1.39
44	1	1330	A	N9-C4	-6.73	1.33	1.37
44	1	364	G	N9-C4	-6.73	1.32	1.38
44	1	1335	C	C4-C5	-6.73	1.37	1.43
44	1	656	A	N9-C8	-6.73	1.32	1.37
44	1	288	C	C4-C5	-6.72	1.37	1.43
44	1	936	A	C6-N6	-6.72	1.28	1.33
44	1	938	C	C4-C5	-6.72	1.37	1.43
44	1	353	G	N3-C4	-6.71	1.30	1.35
45	2	21	C	C5-C6	-6.71	1.28	1.34
44	1	107	A	N7-C5	-6.71	1.35	1.39
44	1	929	A	N9-C4	-6.71	1.33	1.37
44	1	1358	C	C4-C5	-6.71	1.37	1.43
45	2	37	A	N9-C8	-6.71	1.32	1.37
44	1	365	A	N7-C5	-6.71	1.35	1.39
44	1	1433	A	N9-C4	-6.71	1.33	1.37
44	1	1439	U	N1-C6	-6.71	1.31	1.38
44	1	222	A	N7-C5	-6.70	1.35	1.39
44	1	367	A	N9-C4	-6.70	1.33	1.37
44	1	1881	A	C5-C6	-6.69	1.35	1.41
44	1	1401	A	N9-C4	-6.69	1.33	1.37
45	2	4	C	C4-C5	-6.69	1.37	1.43
44	1	1379	G	N7-C5	-6.69	1.35	1.39
45	2	37	A	N7-C5	-6.69	1.35	1.39
1	B	220	VAL	CB-CG1	-6.69	1.38	1.52
44	1	372	A	N9-C4	-6.68	1.33	1.37
44	1	3008	A	N7-C5	-6.68	1.35	1.39
44	1	658	G	N9-C8	-6.68	1.33	1.37
44	1	3103	A	C6-N6	-6.67	1.28	1.33
44	1	105	C	N1-C6	-6.67	1.33	1.37
45	2	141	C	C4-C5	-6.67	1.37	1.43
44	1	291	C	C4-C5	-6.67	1.37	1.43
44	1	662	U	N3-C4	-6.66	1.32	1.38
44	1	349	A	C5-C4	-6.66	1.34	1.38
45	2	44	A	N9-C4	-6.66	1.33	1.37
44	1	56	G	N9-C8	-6.66	1.33	1.37
44	1	1176	C	N3-C4	-6.65	1.29	1.33
44	1	355	A	C6-N6	-6.65	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	3187	A	N9-C8	-6.65	1.32	1.37
44	1	324	A	C6-N6	-6.65	1.28	1.33
44	1	1297	C	C4-C5	-6.64	1.37	1.43
44	1	1423	C	N3-C4	-6.64	1.29	1.33
44	1	1178	G	N7-C5	-6.64	1.35	1.39
44	1	929	A	N7-C5	-6.64	1.35	1.39
44	1	3144	G	N9-C8	-6.64	1.33	1.37
28	f	98	VAL	CB-CG1	-6.63	1.39	1.52
44	1	342	A	C5-C6	-6.63	1.35	1.41
2	C	100	PHE	CB-CG	-6.63	1.40	1.51
44	1	267	G	N1-C2	-6.63	1.32	1.37
44	1	357	A	C5-C6	-6.63	1.35	1.41
44	1	685	G	N7-C5	-6.63	1.35	1.39
44	1	1459	C	N3-C4	-6.63	1.29	1.33
44	1	2352	A	N9-C8	-6.63	1.32	1.37
44	1	1319	G	N9-C4	-6.62	1.32	1.38
44	1	1194	G	N7-C5	-6.62	1.35	1.39
44	1	1372	C	N1-C6	-6.62	1.33	1.37
44	1	802	C	N1-C6	-6.62	1.33	1.37
44	1	1508	C	C4-C5	-6.62	1.37	1.43
44	1	3094	A	N9-C4	-6.62	1.33	1.37
44	1	1147	G	C6-N1	-6.61	1.34	1.39
44	1	1330	A	N9-C8	-6.61	1.32	1.37
44	1	1447	G	N9-C4	-6.61	1.32	1.38
44	1	330	G	N7-C5	-6.61	1.35	1.39
44	1	411	U	N1-C6	-6.61	1.32	1.38
44	1	399	A	N9-C4	-6.61	1.33	1.37
44	1	951	A	N7-C5	-6.60	1.35	1.39
44	1	11	A	C6-N6	-6.60	1.28	1.33
44	1	51	A	N7-C5	-6.60	1.35	1.39
44	1	1172	G	N3-C4	-6.60	1.30	1.35
44	1	1460	A	C5-C6	-6.60	1.35	1.41
44	1	222	A	C5-C6	-6.60	1.35	1.41
44	1	1156	C	C4-C5	-6.60	1.37	1.43
44	1	3274	A	N9-C4	-6.60	1.33	1.37
44	1	2367	A	C5-C6	-6.60	1.35	1.41
44	1	113	C	C4-C5	-6.59	1.37	1.43
44	1	1498	A	N7-C5	-6.59	1.35	1.39
44	1	3173	G	C2-N3	-6.59	1.27	1.32
44	1	3305	A	C6-N6	-6.59	1.28	1.33
44	1	3005	A	C5-C6	-6.59	1.35	1.41
44	1	215	G	N9-C4	-6.58	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1175	C	C4-N4	-6.58	1.28	1.33
44	1	1368	U	C4-C5	-6.58	1.37	1.43
45	2	42	G	N7-C5	-6.58	1.35	1.39
45	2	35	C	N3-C4	-6.58	1.29	1.33
44	1	295	A	N9-C4	-6.58	1.33	1.37
44	1	1369	A	N9-C4	-6.58	1.33	1.37
44	1	1426	C	C5-C6	-6.58	1.29	1.34
44	1	801	A	C5-C6	-6.58	1.35	1.41
44	1	920	A	N9-C4	-6.58	1.33	1.37
44	1	1175	C	C5-C6	-6.58	1.29	1.34
44	1	805	G	N9-C4	-6.57	1.32	1.38
44	1	339	C	N3-C4	-6.57	1.29	1.33
44	1	389	A	C6-N6	-6.57	1.28	1.33
44	1	611	A	C6-N6	-6.57	1.28	1.33
45	2	11	C	C4-C5	-6.57	1.37	1.43
44	1	123	A	N9-C4	-6.56	1.33	1.37
44	1	17	G	N7-C5	-6.56	1.35	1.39
44	1	406	G	N7-C5	-6.56	1.35	1.39
44	1	61	A	N7-C5	-6.56	1.35	1.39
44	1	3102	G	N7-C5	-6.55	1.35	1.39
44	1	1383	G	N9-C8	-6.55	1.33	1.37
44	1	2358	A	N7-C5	-6.55	1.35	1.39
44	1	2381	G	N9-C8	-6.54	1.33	1.37
44	1	354	U	C4-C5	-6.54	1.37	1.43
44	1	1377	G	N3-C4	-6.54	1.30	1.35
44	1	111	C	N3-C4	-6.54	1.29	1.33
44	1	1534	A	C6-N6	-6.54	1.28	1.33
44	1	406	G	C2-N3	-6.54	1.27	1.32
44	1	3094	A	C6-N6	-6.54	1.28	1.33
44	1	1510	G	C6-N1	-6.53	1.34	1.39
44	1	1799	A	C6-N6	-6.53	1.28	1.33
44	1	3126	C	N1-C6	-6.53	1.33	1.37
44	1	323	A	N9-C4	-6.53	1.33	1.37
44	1	58	G	C6-N1	-6.52	1.34	1.39
44	1	663	C	N3-C4	-6.51	1.29	1.33
44	1	405	U	N1-C6	-6.51	1.32	1.38
44	1	114	A	C5-C6	-6.50	1.35	1.41
2	C	25	VAL	CB-CG2	-6.50	1.39	1.52
44	1	110	G	N9-C8	-6.50	1.33	1.37
45	2	41	A	C6-N6	-6.50	1.28	1.33
44	1	369	A	N7-C5	-6.49	1.35	1.39
44	1	1328	C	C4-C5	-6.49	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	631	U	N1-C6	-6.49	1.32	1.38
44	1	632	G	N9-C8	-6.48	1.33	1.37
44	1	3243	A	N9-C4	-6.48	1.33	1.37
44	1	637	C	C4-C5	-6.48	1.37	1.43
44	1	1146	C	N1-C6	-6.48	1.33	1.37
44	1	1376	C	N1-C6	-6.48	1.33	1.37
44	1	942	U	C2-N3	-6.47	1.33	1.37
44	1	213	A	C6-N6	-6.47	1.28	1.33
44	1	345	G	C2-N2	-6.47	1.28	1.34
44	1	1459	C	C4-C5	-6.47	1.37	1.43
11	O	104	VAL	CB-CG2	-6.47	1.39	1.52
44	1	187	A	C6-N6	-6.46	1.28	1.33
44	1	632	G	N7-C5	-6.46	1.35	1.39
44	1	940	G	N7-C5	-6.46	1.35	1.39
44	1	353	G	C5-C4	-6.46	1.33	1.38
44	1	1170	A	C6-N6	-6.45	1.28	1.33
44	1	3040	A	N7-C5	-6.45	1.35	1.39
44	1	85	A	N9-C4	-6.45	1.33	1.37
44	1	31	C	C4-N4	-6.44	1.28	1.33
44	1	649	A	C6-N6	-6.44	1.28	1.33
44	1	3141	A	C6-N6	-6.44	1.28	1.33
44	1	3002	C	C4-C5	-6.44	1.37	1.43
44	1	1608	C	C4-C5	-6.43	1.37	1.43
45	2	24	G	N1-C2	-6.43	1.32	1.37
44	1	1393	A	N7-C5	-6.43	1.35	1.39
44	1	3178	A	N9-C4	-6.43	1.33	1.37
44	1	1187	C	N1-C6	-6.43	1.33	1.37
44	1	339	C	C4-C5	-6.43	1.37	1.43
44	1	352	A	C5-C6	-6.43	1.35	1.41
45	2	145	U	C4-C5	-6.43	1.37	1.43
45	2	65	A	C5-C6	-6.42	1.35	1.41
44	1	373	A	N9-C4	-6.42	1.33	1.37
44	1	3134	A	C6-N6	-6.42	1.28	1.33
45	2	43	A	N7-C5	-6.42	1.35	1.39
44	1	1360	C	C4-C5	-6.42	1.37	1.43
44	1	624	G	N7-C5	-6.42	1.35	1.39
44	1	693	A	N7-C5	-6.42	1.35	1.39
44	1	3121	U	N1-C6	-6.42	1.32	1.38
45	2	34	U	C4-C5	-6.42	1.37	1.43
45	2	91	C	C4-C5	-6.42	1.37	1.43
44	1	1145	G	N7-C5	-6.42	1.35	1.39
44	1	2383	C	C4-C5	-6.42	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	573	C	C4-C5	-6.41	1.37	1.43
45	2	25	G	N1-C2	-6.41	1.32	1.37
44	1	323	A	C6-N6	-6.41	1.28	1.33
44	1	1372	C	N3-C4	-6.41	1.29	1.33
44	1	1405	U	C4-C5	-6.41	1.37	1.43
11	O	118	VAL	CB-CG1	-6.40	1.39	1.52
44	1	1440	G	N7-C5	-6.40	1.35	1.39
44	1	1797	A	N9-C4	-6.40	1.34	1.37
44	1	3183	A	N7-C5	-6.40	1.35	1.39
44	1	389	A	N7-C5	-6.39	1.35	1.39
44	1	948	C	N3-C4	-6.39	1.29	1.33
44	1	1312	C	N3-C4	-6.39	1.29	1.33
44	1	343	U	C4-C5	-6.38	1.37	1.43
44	1	1446	A	C5-C6	-6.38	1.35	1.41
44	1	934	G	N7-C5	-6.38	1.35	1.39
45	2	17	A	N9-C4	-6.38	1.34	1.37
44	1	358	G	N9-C4	-6.38	1.32	1.38
44	1	1161	G	C8-N7	-6.38	1.27	1.30
44	1	659	G	N1-C2	-6.38	1.32	1.37
44	1	1369	A	C6-N6	-6.37	1.28	1.33
44	1	1401	A	N7-C5	-6.37	1.35	1.39
44	1	1432	C	C4-N4	-6.37	1.28	1.33
44	1	54	C	N3-C4	-6.37	1.29	1.33
44	1	1364	C	N1-C6	-6.37	1.33	1.37
44	1	62	A	N9-C4	-6.36	1.34	1.37
44	1	135	C	N1-C6	-6.36	1.33	1.37
45	2	101	U	C4-C5	-6.36	1.37	1.43
44	1	317	A	N9-C4	-6.36	1.34	1.37
44	1	702	C	C4-C5	-6.36	1.37	1.43
44	1	813	G	N7-C5	-6.35	1.35	1.39
44	1	1428	A	N9-C4	-6.35	1.34	1.37
44	1	650	C	C4-C5	-6.35	1.37	1.43
44	1	3138	U	C4-C5	-6.35	1.37	1.43
44	1	3140	G	N7-C5	-6.35	1.35	1.39
45	2	71	A	N9-C4	-6.35	1.34	1.37
44	1	1317	A	N7-C5	-6.34	1.35	1.39
44	1	2890	A	C6-N6	-6.34	1.28	1.33
44	1	54	C	N1-C6	-6.34	1.33	1.37
44	1	662	U	C4-C5	-6.34	1.37	1.43
44	1	1602	A	C5-C6	-6.34	1.35	1.41
44	1	289	A	C5-C6	-6.34	1.35	1.41
44	1	1497	C	C4-C5	-6.34	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	103	G	N7-C5	-6.33	1.35	1.39
44	1	1163	A	N7-C5	-6.33	1.35	1.39
44	1	1177	G	N7-C5	-6.33	1.35	1.39
44	1	3085	G	N9-C4	-6.33	1.32	1.38
44	1	969	C	C4-C5	-6.33	1.37	1.43
44	1	1190	A	N7-C5	-6.33	1.35	1.39
44	1	3211	C	N3-C4	-6.33	1.29	1.33
11	O	36	VAL	CB-CG2	-6.33	1.39	1.52
45	2	103	G	C6-N1	-6.33	1.35	1.39
44	1	1195	A	N9-C4	-6.32	1.34	1.37
44	1	1375	G	N9-C8	-6.32	1.33	1.37
44	1	1304	A	N7-C5	-6.32	1.35	1.39
44	1	2936	A	C6-N6	-6.32	1.28	1.33
44	1	1446	A	C5-C4	-6.32	1.34	1.38
44	1	320	G	N9-C4	-6.32	1.32	1.38
44	1	3296	A	C5-C6	-6.32	1.35	1.41
2	C	77	VAL	CB-CG2	-6.31	1.39	1.52
44	1	1433	A	N9-C8	-6.31	1.32	1.37
44	1	668	G	N7-C5	-6.31	1.35	1.39
44	1	1596	C	N1-C6	-6.31	1.33	1.37
44	1	113	C	N3-C4	-6.31	1.29	1.33
44	1	58	G	C8-N7	-6.30	1.27	1.30
44	1	364	G	N7-C5	-6.30	1.35	1.39
44	1	661	G	C2-N2	-6.30	1.28	1.34
44	1	1438	U	C4-C5	-6.30	1.37	1.43
44	1	501	A	C6-N6	-6.29	1.28	1.33
44	1	1170	A	N9-C4	-6.29	1.34	1.37
44	1	1423	C	C4-N4	-6.29	1.28	1.33
44	1	3323	A	N7-C5	-6.29	1.35	1.39
44	1	1381	A	N7-C5	-6.29	1.35	1.39
45	2	39	G	N7-C5	-6.29	1.35	1.39
44	1	342	A	C6-N6	-6.29	1.28	1.33
44	1	53	G	N7-C5	-6.28	1.35	1.39
44	1	1320	C	C4-C5	-6.28	1.38	1.43
44	1	225	C	N3-C4	-6.28	1.29	1.33
44	1	341	G	N1-C2	-6.28	1.32	1.37
44	1	1435	A	C5-C6	-6.28	1.35	1.41
44	1	1306	G	N7-C5	-6.28	1.35	1.39
44	1	2368	A	N7-C5	-6.28	1.35	1.39
44	1	3137	C	C4-N4	-6.28	1.28	1.33
44	1	1185	C	N1-C6	-6.28	1.33	1.37
44	1	1380	G	N7-C5	-6.28	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1412	G	N7-C5	-6.27	1.35	1.39
44	1	30	G	N7-C5	-6.27	1.35	1.39
44	1	3060	C	C4-C5	-6.27	1.38	1.43
44	1	3110	C	C4-C5	-6.27	1.38	1.43
44	1	367	A	C5-C6	-6.27	1.35	1.41
44	1	3046	A	C6-N6	-6.27	1.28	1.33
45	2	108	C	C4-C5	-6.26	1.38	1.43
44	1	1179	A	N9-C8	-6.26	1.32	1.37
44	1	672	A	C5-C6	-6.26	1.35	1.41
44	1	1598	G	N9-C8	-6.26	1.33	1.37
44	1	23	A	C6-N6	-6.25	1.28	1.33
44	1	58	G	N9-C8	-6.25	1.33	1.37
44	1	409	A	C6-N1	-6.25	1.31	1.35
44	1	425	G	N7-C5	-6.25	1.35	1.39
45	2	62	C	C4-C5	-6.25	1.38	1.43
44	1	154	U	C2-N3	-6.25	1.33	1.37
45	2	39	G	C6-N1	-6.25	1.35	1.39
44	1	1161	G	C5-C6	-6.25	1.36	1.42
44	1	322	U	N1-C6	-6.25	1.32	1.38
44	1	681	U	N1-C6	-6.25	1.32	1.38
44	1	1145	G	N1-C2	-6.25	1.32	1.37
44	1	89	A	C6-N6	-6.25	1.28	1.33
44	1	142	C	C4-C5	-6.25	1.38	1.43
44	1	608	A	N9-C4	-6.24	1.34	1.37
44	1	1312	C	C4-C5	-6.24	1.38	1.43
45	2	44	A	C5-C4	-6.24	1.34	1.38
44	1	1382	G	N9-C8	-6.24	1.33	1.37
44	1	141	C	N3-C4	-6.24	1.29	1.33
44	1	1444	G	N9-C8	-6.24	1.33	1.37
44	1	1318	A	N9-C4	-6.23	1.34	1.37
44	1	944	C	C4-N4	-6.23	1.28	1.33
44	1	1160	C	C4-N4	-6.23	1.28	1.33
44	1	920	A	C5-C4	-6.23	1.34	1.38
44	1	35	A	C6-N6	-6.23	1.28	1.33
44	1	61	A	C6-N6	-6.23	1.28	1.33
45	2	120	C	N3-C4	-6.23	1.29	1.33
45	2	22	U	C2-N3	-6.22	1.33	1.37
44	1	655	C	N1-C6	-6.22	1.33	1.37
44	1	17	G	N9-C4	-6.22	1.32	1.38
44	1	20	A	C6-N6	-6.22	1.28	1.33
45	2	21	C	C4-N4	-6.21	1.28	1.33
44	1	3046	A	C5-C6	-6.21	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	788	C	C5-C6	-6.21	1.29	1.34
44	1	945	C	C5-C6	-6.21	1.29	1.34
44	1	84	U	C4-C5	-6.20	1.38	1.43
44	1	122	A	N9-C4	-6.20	1.34	1.37
44	1	700	C	C4-C5	-6.20	1.38	1.43
44	1	1441	G	N9-C4	-6.20	1.32	1.38
44	1	1460	A	C6-N6	-6.20	1.28	1.33
44	1	3134	A	N7-C5	-6.20	1.35	1.39
44	1	1172	G	N1-C2	-6.20	1.32	1.37
44	1	1532	C	C4-C5	-6.20	1.38	1.43
44	1	342	A	C5-C4	-6.20	1.34	1.38
44	1	657	A	C5-C4	-6.20	1.34	1.38
44	1	676	G	N7-C5	-6.20	1.35	1.39
44	1	1420	C	N3-C4	-6.20	1.29	1.33
44	1	348	A	N9-C8	-6.19	1.32	1.37
44	1	943	U	C2-N3	-6.19	1.33	1.37
44	1	1364	C	N3-C4	-6.19	1.29	1.33
11	O	145	VAL	CB-CG1	-6.19	1.39	1.52
44	1	1309	U	C2-N3	-6.19	1.33	1.37
44	1	355	A	N7-C5	-6.18	1.35	1.39
44	1	1313	G	N9-C8	-6.18	1.33	1.37
44	1	16	A	C6-N6	-6.18	1.29	1.33
44	1	2341	A	C6-N6	-6.18	1.29	1.33
32	j	70	VAL	CB-CG2	-6.17	1.39	1.52
44	1	503	C	C4-C5	-6.17	1.38	1.43
44	1	1370	G	N9-C4	-6.17	1.33	1.38
44	1	1400	G	N9-C8	-6.17	1.33	1.37
44	1	1534	A	N9-C4	-6.17	1.34	1.37
44	1	23	A	C5-C6	-6.17	1.35	1.41
44	1	1330	A	N7-C5	-6.17	1.35	1.39
44	1	2361	A	N9-C4	-6.16	1.34	1.37
45	2	27	U	N1-C6	-6.16	1.32	1.38
44	1	1182	A	C6-N6	-6.16	1.29	1.33
44	1	69	C	N1-C6	-6.16	1.33	1.37
44	1	1433	A	N7-C5	-6.16	1.35	1.39
45	2	28	C	N3-C4	-6.16	1.29	1.33
44	1	23	A	N7-C5	-6.16	1.35	1.39
44	1	1367	G	N9-C8	-6.16	1.33	1.37
44	1	52	A	N9-C4	-6.16	1.34	1.37
44	1	1403	C	N3-C4	-6.16	1.29	1.33
44	1	2352	A	C6-N6	-6.16	1.29	1.33
44	1	15	C	C4-C5	-6.16	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1433	A	C5-C6	-6.16	1.35	1.41
44	1	113	C	C5-C6	-6.15	1.29	1.34
44	1	344	A	N9-C8	-6.15	1.32	1.37
44	1	1832	C	C4-C5	-6.15	1.38	1.43
44	1	29	C	N3-C4	-6.15	1.29	1.33
44	1	3003	G	N9-C8	-6.15	1.33	1.37
44	1	63	A	C5-C6	-6.15	1.35	1.41
45	2	61	A	N9-C4	-6.15	1.34	1.37
44	1	2353	G	N9-C8	-6.15	1.33	1.37
44	1	3005	A	C6-N6	-6.15	1.29	1.33
44	1	88	A	C5-C6	-6.15	1.35	1.41
44	1	1395	G	C2-N2	-6.14	1.28	1.34
44	1	1562	C	N1-C6	-6.14	1.33	1.37
44	1	1798	A	C6-N6	-6.14	1.29	1.33
44	1	926	A	N7-C5	-6.14	1.35	1.39
44	1	2367	A	N7-C5	-6.13	1.35	1.39
44	1	1499	C	C4-C5	-6.13	1.38	1.43
44	1	16	A	C8-N7	-6.13	1.27	1.31
44	1	34	A	C6-N6	-6.13	1.29	1.33
44	1	3101	G	N9-C4	-6.13	1.33	1.38
44	1	2355	G	N3-C4	-6.13	1.31	1.35
44	1	3096	C	C4-C5	-6.13	1.38	1.43
44	1	282	G	N9-C8	-6.12	1.33	1.37
44	1	325	A	N7-C5	-6.12	1.35	1.39
44	1	1334	U	C4-C5	-6.12	1.38	1.43
44	1	3311	C	C4-C5	-6.12	1.38	1.43
44	1	330	G	N9-C8	-6.12	1.33	1.37
44	1	347	G	C6-N1	-6.12	1.35	1.39
44	1	3008	A	C5-C4	-6.12	1.34	1.38
44	1	651	G	N7-C5	-6.12	1.35	1.39
44	1	3001	C	C4-C5	-6.12	1.38	1.43
44	1	341	G	N9-C4	-6.12	1.33	1.38
44	1	3299	A	N7-C5	-6.12	1.35	1.39
44	1	1310	G	N3-C4	-6.11	1.31	1.35
44	1	1835	A	C6-N6	-6.11	1.29	1.33
44	1	655	C	N3-C4	-6.11	1.29	1.33
44	1	1510	G	N1-C2	-6.11	1.32	1.37
44	1	357	A	C6-N6	-6.11	1.29	1.33
45	2	33	A	C6-N6	-6.11	1.29	1.33
44	1	589	A	C5-C4	-6.11	1.34	1.38
44	1	1190	A	C5-C6	-6.11	1.35	1.41
44	1	1382	G	N7-C5	-6.11	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	3008	A	N9-C8	-6.11	1.32	1.37
44	1	347	G	C5-C6	-6.10	1.36	1.42
44	1	659	G	N9-C8	-6.10	1.33	1.37
44	1	946	U	C4-C5	-6.10	1.38	1.43
44	1	2911	A	N7-C5	-6.10	1.35	1.39
44	1	26	A	C6-N6	-6.10	1.29	1.33
44	1	366	A	C5-C6	-6.09	1.35	1.41
44	1	3323	A	C5-C6	-6.09	1.35	1.41
44	1	321	C	C5-C6	-6.09	1.29	1.34
44	1	1193	A	N9-C4	-6.09	1.34	1.37
44	1	3181	C	N1-C6	-6.09	1.33	1.37
44	1	1416	C	C4-N4	-6.09	1.28	1.33
45	2	43	A	C6-N6	-6.09	1.29	1.33
44	1	504	A	C6-N6	-6.09	1.29	1.33
44	1	1460	A	N7-C5	-6.09	1.35	1.39
44	1	2888	U	C4-C5	-6.08	1.38	1.43
4	F	203	TRP	CB-CG	-6.08	1.39	1.50
32	j	49	TRP	CB-CG	-6.08	1.39	1.50
44	1	634	C	C4-N4	-6.08	1.28	1.33
44	1	221	A	N9-C8	-6.08	1.32	1.37
44	1	3000	A	N9-C4	-6.08	1.34	1.37
44	1	107	A	C6-N6	-6.08	1.29	1.33
44	1	361	A	N7-C5	-6.08	1.35	1.39
44	1	346	C	N3-C4	-6.07	1.29	1.33
45	2	30	C	N3-C4	-6.07	1.29	1.33
44	1	803	C	N1-C6	-6.07	1.33	1.37
44	1	54	C	C4-N4	-6.06	1.28	1.33
44	1	1443	G	N9-C8	-6.06	1.33	1.37
44	1	583	G	N9-C8	-6.06	1.33	1.37
44	1	702	C	N1-C6	-6.06	1.33	1.37
44	1	5	G	N9-C4	-6.05	1.33	1.38
32	j	26	SER	CA-CB	-6.05	1.43	1.52
44	1	225	C	N1-C6	-6.05	1.33	1.37
44	1	791	A	N7-C5	-6.05	1.35	1.39
44	1	1506	A	N7-C5	-6.05	1.35	1.39
44	1	1749	A	N9-C4	-6.05	1.34	1.37
45	2	117	C	C4-C5	-6.05	1.38	1.43
11	O	118	VAL	CB-CG2	-6.05	1.40	1.52
44	1	1406	A	N9-C4	-6.05	1.34	1.37
44	1	1432	C	C5-C6	-6.04	1.29	1.34
44	1	296	A	N9-C4	-6.04	1.34	1.37
44	1	3305	A	N9-C4	-6.04	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	3007	U	C4-C5	-6.04	1.38	1.43
44	1	1437	C	N1-C6	-6.03	1.33	1.37
44	1	1445	U	N1-C6	-6.03	1.32	1.38
44	1	805	G	N7-C5	-6.03	1.35	1.39
44	1	3113	A	N7-C5	-6.03	1.35	1.39
44	1	1497	C	N3-C4	-6.03	1.29	1.33
44	1	3005	A	N7-C5	-6.03	1.35	1.39
44	1	1159	A	C5-C6	-6.02	1.35	1.41
44	1	320	G	N7-C5	-6.02	1.35	1.39
44	1	1381	A	C5-C6	-6.02	1.35	1.41
44	1	1589	A	N9-C4	-6.02	1.34	1.37
44	1	346	C	C4-N4	-6.02	1.28	1.33
44	1	404	G	N9-C8	-6.02	1.33	1.37
44	1	3210	A	C5-C6	-6.02	1.35	1.41
2	C	94	CYS	CB-SG	-6.02	1.72	1.82
2	C	199	TRP	CB-CG	-6.02	1.39	1.50
9	M	12	TRP	CB-CG	-6.02	1.39	1.50
44	1	611	A	N7-C5	-6.02	1.35	1.39
45	2	134	G	N7-C5	-6.02	1.35	1.39
44	1	347	G	C2-N2	-6.02	1.28	1.34
44	1	113	C	N1-C6	-6.01	1.33	1.37
44	1	506	U	N1-C6	-6.01	1.32	1.38
45	2	10	A	C6-N6	-6.01	1.29	1.33
44	1	3210	A	C6-N6	-6.01	1.29	1.33
2	C	193	LYS	CB-CG	-6.01	1.36	1.52
44	1	6	A	C5-C6	-6.01	1.35	1.41
45	2	98	U	N1-C6	-6.01	1.32	1.38
44	1	356	C	C4-C5	-6.01	1.38	1.43
44	1	1372	C	C5-C6	-6.01	1.29	1.34
44	1	3140	G	N9-C8	-6.01	1.33	1.37
44	1	1406	A	C6-N1	-6.00	1.31	1.35
45	2	57	C	N3-C4	-6.00	1.29	1.33
44	1	325	A	C6-N6	-6.00	1.29	1.33
44	1	801	A	N9-C4	-6.00	1.34	1.37
44	1	26	A	N9-C8	-6.00	1.32	1.37
44	1	116	A	N9-C4	-6.00	1.34	1.37
44	1	21	G	C2-N2	-6.00	1.28	1.34
44	1	697	A	N9-C4	-6.00	1.34	1.37
45	2	139	U	C4-C5	-6.00	1.38	1.43
44	1	659	G	C6-N1	-6.00	1.35	1.39
44	1	200	C	C4-C5	-5.99	1.38	1.43
44	1	1157	G	N9-C4	-5.99	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	814	U	N1-C6	-5.99	1.32	1.38
45	2	35	C	C4-N4	-5.99	1.28	1.33
44	1	942	U	N1-C6	-5.99	1.32	1.38
2	C	39	PHE	CB-CG	-5.99	1.41	1.51
44	1	928	C	N3-C4	-5.99	1.29	1.33
44	1	1474	A	C6-N6	-5.98	1.29	1.33
45	2	106	C	C4-C5	-5.98	1.38	1.43
44	1	321	C	C4-N4	-5.98	1.28	1.33
44	1	336	A	N9-C4	-5.98	1.34	1.37
44	1	2887	A	C6-N6	-5.98	1.29	1.33
44	1	1701	C	N3-C4	-5.98	1.29	1.33
44	1	52	A	N7-C5	-5.97	1.35	1.39
44	1	408	A	N9-C8	-5.97	1.32	1.37
44	1	83	U	C4-C5	-5.97	1.38	1.43
44	1	1617	G	N9-C8	-5.97	1.33	1.37
44	1	786	A	N9-C4	-5.97	1.34	1.37
44	1	1379	G	N9-C8	-5.97	1.33	1.37
10	N	132	VAL	CB-CG1	-5.97	1.40	1.52
44	1	1474	A	C5-C6	-5.97	1.35	1.41
44	1	345	G	C5-C6	-5.97	1.36	1.42
44	1	1363	A	N9-C4	-5.97	1.34	1.37
44	1	289	A	N9-C4	-5.96	1.34	1.37
44	1	3181	C	N3-C4	-5.96	1.29	1.33
44	1	363	G	C8-N7	-5.96	1.27	1.30
44	1	1614	C	C5-C6	-5.96	1.29	1.34
45	2	88	A	N7-C5	-5.96	1.35	1.39
45	2	120	C	C4-N4	-5.96	1.28	1.33
44	1	1428	A	N7-C5	-5.96	1.35	1.39
44	1	354	U	N3-C4	-5.95	1.33	1.38
44	1	1164	G	N7-C5	-5.95	1.35	1.39
44	1	1836	C	C4-N4	-5.95	1.28	1.33
44	1	1526	U	N1-C6	-5.95	1.32	1.38
8	L	69	VAL	CB-CG2	-5.95	1.40	1.52
44	1	22	G	N7-C5	-5.95	1.35	1.39
44	1	358	G	N9-C8	-5.95	1.33	1.37
44	1	951	A	N9-C8	-5.95	1.32	1.37
44	1	1174	G	N7-C5	-5.95	1.35	1.39
1	B	93	VAL	CB-CG1	-5.95	1.40	1.52
44	1	22	G	C5-C4	-5.95	1.34	1.38
44	1	369	A	C5-C4	-5.95	1.34	1.38
44	1	672	A	N9-C8	-5.95	1.32	1.37
44	1	366	A	N9-C4	-5.94	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	2	76	C	C4-C5	-5.94	1.38	1.43
44	1	628	A	N7-C5	-5.94	1.35	1.39
44	1	696	C	N3-C4	-5.94	1.29	1.33
44	1	1315	U	N1-C6	-5.94	1.32	1.38
44	1	1414	G	N7-C5	-5.94	1.35	1.39
44	1	3052	G	N9-C8	-5.94	1.33	1.37
44	1	229	G	N7-C5	-5.94	1.35	1.39
44	1	2352	A	C5-C6	-5.94	1.35	1.41
44	1	2382	G	N7-C5	-5.94	1.35	1.39
45	2	144	G	N9-C4	-5.94	1.33	1.38
44	1	18	G	N7-C5	-5.93	1.35	1.39
44	1	1596	C	C4-C5	-5.93	1.38	1.43
44	1	361	A	C6-N6	-5.93	1.29	1.33
45	2	24	G	C2-N2	-5.93	1.28	1.34
44	1	671	U	C4-C5	-5.93	1.38	1.43
44	1	1166	G	N9-C8	-5.93	1.33	1.37
44	1	2365	C	C4-C5	-5.93	1.38	1.43
44	1	1370	G	N9-C8	-5.93	1.33	1.37
44	1	696	C	C5-C6	-5.93	1.29	1.34
44	1	72	C	N1-C6	-5.93	1.33	1.37
44	1	3375	A	C5-C6	-5.92	1.35	1.41
44	1	1491	A	C6-N6	-5.92	1.29	1.33
4	F	133	TYR	CD2-CE2	-5.92	1.30	1.39
44	1	516	A	N9-C4	-5.92	1.34	1.37
44	1	1148	G	N9-C4	-5.92	1.33	1.38
44	1	1468	A	C6-N6	-5.92	1.29	1.33
44	1	101	G	N9-C8	-5.91	1.33	1.37
44	1	335	G	N7-C5	-5.91	1.35	1.39
44	1	1603	A	C6-N1	-5.91	1.31	1.35
44	1	199	A	C6-N6	-5.91	1.29	1.33
44	1	222	A	N9-C4	-5.91	1.34	1.37
44	1	589	A	N7-C5	-5.91	1.35	1.39
44	1	2934	A	C6-N6	-5.91	1.29	1.33
44	1	372	A	C5-C6	-5.90	1.35	1.41
44	1	946	U	N1-C2	-5.90	1.33	1.38
45	2	62	C	N1-C6	-5.90	1.33	1.37
28	f	16	TYR	CE2-CZ	-5.90	1.30	1.38
44	1	114	A	C6-N6	-5.90	1.29	1.33
44	1	630	A	C8-N7	-5.90	1.27	1.31
44	1	1474	A	N9-C4	-5.90	1.34	1.37
44	1	1531	C	N3-C4	-5.90	1.29	1.33
44	1	15	C	N3-C4	-5.90	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1529	A	C6-N6	-5.90	1.29	1.33
2	C	52	VAL	CB-CG2	-5.89	1.40	1.52
44	1	60	A	C5-C4	-5.89	1.34	1.38
44	1	1404	G	N1-C2	-5.89	1.33	1.37
44	1	1593	A	C6-N6	-5.89	1.29	1.33
44	1	1169	A	N9-C4	-5.89	1.34	1.37
44	1	1613	A	C6-N6	-5.89	1.29	1.33
44	1	1319	G	N7-C5	-5.89	1.35	1.39
44	1	337	G	N9-C8	-5.88	1.33	1.37
44	1	3314	A	C6-N6	-5.88	1.29	1.33
44	1	941	G	N7-C5	-5.88	1.35	1.39
44	1	815	G	C8-N7	-5.88	1.27	1.30
44	1	1414	G	N9-C8	-5.88	1.33	1.37
44	1	2350	C	C4-C5	-5.88	1.38	1.43
44	1	1854	C	C4-C5	-5.88	1.38	1.43
45	2	28	C	C4-N4	-5.88	1.28	1.33
44	1	930	U	C4-C5	-5.87	1.38	1.43
44	1	1148	G	N9-C8	-5.87	1.33	1.37
44	1	6	A	C6-N6	-5.87	1.29	1.33
44	1	17	G	C5-C6	-5.87	1.36	1.42
44	1	1146	C	C5-C6	-5.87	1.29	1.34
44	1	3004	C	N3-C4	-5.87	1.29	1.33
45	2	58	G	C5-C6	-5.87	1.36	1.42
44	1	397	A	N7-C5	-5.87	1.35	1.39
44	1	1444	G	C6-N1	-5.87	1.35	1.39
44	1	2368	A	C6-N6	-5.87	1.29	1.33
44	1	3091	A	N7-C5	-5.87	1.35	1.39
45	2	46	G	N7-C5	-5.87	1.35	1.39
44	1	685	G	N9-C8	-5.87	1.33	1.37
44	1	649	A	C5-C6	-5.87	1.35	1.41
44	1	1469	C	C2-N3	-5.86	1.31	1.35
45	2	15	G	C6-N1	-5.86	1.35	1.39
44	1	428	A	N7-C5	-5.86	1.35	1.39
44	1	1173	U	N1-C6	-5.86	1.32	1.38
44	1	2890	A	N9-C4	-5.86	1.34	1.37
44	1	353	G	C6-N1	-5.86	1.35	1.39
44	1	656	A	N9-C4	-5.86	1.34	1.37
44	1	78	U	C4-C5	-5.85	1.38	1.43
44	1	1416	C	N1-C6	-5.85	1.33	1.37
44	1	680	G	N7-C5	-5.85	1.35	1.39
44	1	1332	A	C6-N1	-5.85	1.31	1.35
44	1	1832	C	N1-C6	-5.85	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	194	TYR	CE1-CZ	-5.85	1.30	1.38
44	1	209	A	N9-C8	-5.85	1.33	1.37
45	2	100	U	C4-C5	-5.85	1.38	1.43
44	1	321	C	N3-C4	-5.85	1.29	1.33
44	1	368	G	N7-C5	-5.85	1.35	1.39
44	1	105	C	C4-C5	-5.84	1.38	1.43
44	1	338	A	N9-C4	-5.84	1.34	1.37
44	1	340	C	N3-C4	-5.84	1.29	1.33
44	1	352	A	C6-N1	-5.84	1.31	1.35
44	1	654	C	N1-C6	-5.84	1.33	1.37
45	2	33	A	N9-C4	-5.84	1.34	1.37
2	C	113	VAL	CB-CG2	-5.84	1.40	1.52
44	1	2357	A	N9-C8	-5.84	1.33	1.37
26	d	35	GLU	CB-CG	-5.84	1.41	1.52
44	1	359	U	N1-C6	-5.84	1.32	1.38
45	2	66	A	N9-C4	-5.84	1.34	1.37
44	1	395	A	C6-N6	-5.83	1.29	1.33
44	1	810	A	C6-N6	-5.83	1.29	1.33
44	1	1343	A	C6-N6	-5.83	1.29	1.33
44	1	1394	A	C6-N6	-5.83	1.29	1.33
44	1	347	G	N1-C2	-5.83	1.33	1.37
44	1	3375	A	C6-N6	-5.83	1.29	1.33
45	2	36	G	C6-N1	-5.83	1.35	1.39
44	1	1385	C	C4-C5	-5.83	1.38	1.43
45	2	96	A	C5-C6	-5.83	1.35	1.41
44	1	271	C	N1-C6	-5.82	1.33	1.37
44	1	1190	A	C6-N6	-5.82	1.29	1.33
44	1	1166	G	N1-C2	-5.82	1.33	1.37
44	1	64	G	C5-C6	-5.82	1.36	1.42
44	1	271	C	C4-C5	-5.82	1.38	1.43
44	1	336	A	C6-N6	-5.82	1.29	1.33
44	1	1532	C	N1-C6	-5.82	1.33	1.37
44	1	3134	A	C5-C6	-5.82	1.35	1.41
44	1	927	C	N3-C4	-5.81	1.29	1.33
44	1	1497	C	N1-C6	-5.81	1.33	1.37
45	2	143	U	C4-C5	-5.81	1.38	1.43
44	1	106	A	C5-C6	-5.81	1.35	1.41
44	1	589	A	C5-C6	-5.81	1.35	1.41
44	1	933	A	N7-C5	-5.81	1.35	1.39
44	1	1409	G	N9-C8	-5.81	1.33	1.37
44	1	1537	A	N9-C4	-5.81	1.34	1.37
44	1	26	A	C5-C6	-5.81	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	214	G	N7-C5	-5.81	1.35	1.39
44	1	3048	A	C6-N6	-5.81	1.29	1.33
44	1	52	A	C5-C4	-5.80	1.34	1.38
44	1	143	G	N9-C8	-5.80	1.33	1.37
45	2	105	A	C8-N7	-5.80	1.27	1.31
44	1	428	A	C5-C4	-5.80	1.34	1.38
44	1	214	G	N9-C8	-5.80	1.33	1.37
44	1	216	G	N7-C5	-5.80	1.35	1.39
44	1	666	A	C6-N6	-5.80	1.29	1.33
45	2	8	C	C4-C5	-5.80	1.38	1.43
44	1	1165	A	N7-C5	-5.79	1.35	1.39
44	1	1212	A	C6-N6	-5.79	1.29	1.33
44	1	504	A	N7-C5	-5.79	1.35	1.39
45	2	27	U	C4-C5	-5.79	1.38	1.43
44	1	403	C	N1-C6	-5.79	1.33	1.37
12	P	143	PRO	CB-CG	-5.79	1.21	1.50
44	1	408	A	N3-C4	-5.79	1.31	1.34
44	1	1168	U	N1-C6	-5.79	1.32	1.38
44	1	1856	C	C4-C5	-5.79	1.38	1.43
11	O	54	TYR	CD1-CE1	-5.78	1.30	1.39
44	1	665	A	N9-C8	-5.78	1.33	1.37
44	1	1183	C	C5-C6	-5.78	1.29	1.34
44	1	1195	A	N9-C8	-5.78	1.33	1.37
44	1	1462	A	C6-N6	-5.78	1.29	1.33
45	2	63	G	C2-N3	-5.78	1.28	1.32
44	1	1441	G	N7-C5	-5.78	1.35	1.39
44	1	3186	A	C6-N6	-5.78	1.29	1.33
45	2	28	C	N1-C6	-5.78	1.33	1.37
44	1	1377	G	C2-N3	-5.77	1.28	1.32
44	1	3027	A	N3-C4	-5.77	1.31	1.34
44	1	3213	A	C5-C6	-5.77	1.35	1.41
44	1	634	C	N1-C6	-5.77	1.33	1.37
44	1	800	G	N7-C5	-5.77	1.35	1.39
45	2	19	C	N1-C6	-5.77	1.33	1.37
45	2	22	U	N3-C4	-5.77	1.33	1.38
44	1	1365	G	C5-C6	-5.76	1.36	1.42
44	1	6	A	N7-C5	-5.76	1.35	1.39
44	1	371	G	N7-C5	-5.76	1.35	1.39
44	1	347	G	C8-N7	-5.76	1.27	1.30
44	1	1469	C	N3-C4	-5.76	1.29	1.33
44	1	355	A	C5-C6	-5.76	1.35	1.41
44	1	1424	C	N1-C6	-5.76	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1372	C	C4-N4	-5.75	1.28	1.33
44	1	1107	C	C4-C5	-5.75	1.38	1.43
45	2	33	A	N9-C8	-5.75	1.33	1.37
44	1	76	G	N7-C5	-5.75	1.35	1.39
44	1	677	A	N7-C5	-5.75	1.35	1.39
44	1	1171	G	C6-N1	-5.75	1.35	1.39
10	N	66	VAL	CB-CG1	-5.74	1.40	1.52
44	1	12	A	C6-N6	-5.74	1.29	1.33
44	1	813	G	N3-C4	-5.74	1.31	1.35
44	1	1598	G	C8-N7	-5.74	1.27	1.30
12	P	88	VAL	CB-CG1	-5.74	1.40	1.52
44	1	580	C	C4-C5	-5.74	1.38	1.43
44	1	695	C	C4-N4	-5.74	1.28	1.33
44	1	1498	A	C5-C6	-5.74	1.35	1.41
44	1	2365	C	C5-C6	-5.74	1.29	1.34
44	1	634	C	C5-C6	-5.73	1.29	1.34
44	1	657	A	C5-C6	-5.73	1.35	1.41
44	1	715	A	C6-N6	-5.73	1.29	1.33
44	1	1177	G	C6-N1	-5.73	1.35	1.39
45	2	107	G	N9-C4	-5.73	1.33	1.38
44	1	1338	C	C4-N4	-5.73	1.28	1.33
44	1	1881	A	N9-C4	-5.73	1.34	1.37
44	1	586	C	C4-N4	-5.73	1.28	1.33
44	1	790	U	C4-C5	-5.73	1.38	1.43
44	1	2892	A	C6-N6	-5.73	1.29	1.33
44	1	3040	A	C5-C6	-5.73	1.35	1.41
44	1	3226	A	N9-C4	-5.73	1.34	1.37
44	1	677	A	C6-N6	-5.73	1.29	1.33
44	1	588	G	N7-C5	-5.72	1.35	1.39
44	1	1193	A	C6-N6	-5.72	1.29	1.33
44	1	1387	G	N1-C2	-5.72	1.33	1.37
44	1	1426	C	N1-C6	-5.72	1.33	1.37
5	G	190	VAL	CB-CG1	-5.72	1.40	1.52
44	1	111	C	C4-C5	-5.72	1.38	1.43
44	1	2889	C	N1-C6	-5.72	1.33	1.37
45	2	58	G	N9-C8	-5.72	1.33	1.37
44	1	651	G	N9-C8	-5.71	1.33	1.37
44	1	942	U	N1-C2	-5.71	1.33	1.38
44	1	3310	A	N9-C4	-5.71	1.34	1.37
44	1	88	A	N9-C4	-5.71	1.34	1.37
44	1	1325	U	C4-C5	-5.71	1.38	1.43
44	1	366	A	C6-N6	-5.71	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1181	U	N3-C4	-5.71	1.33	1.38
45	2	118	C	C4-C5	-5.71	1.38	1.43
12	P	114	VAL	CB-CG2	-5.71	1.40	1.52
44	1	61	A	C5-C6	-5.70	1.35	1.41
44	1	214	G	C5-C6	-5.70	1.36	1.42
44	1	584	G	N9-C4	-5.70	1.33	1.38
44	1	686	G	N7-C5	-5.70	1.35	1.39
44	1	2368	A	C5-C6	-5.70	1.35	1.41
45	2	9	A	N9-C8	-5.70	1.33	1.37
44	1	3206	C	N1-C6	-5.70	1.33	1.37
45	2	30	C	N1-C6	-5.70	1.33	1.37
44	1	1298	C	N3-C4	-5.70	1.29	1.33
44	1	200	C	N3-C4	-5.70	1.29	1.33
44	1	1183	C	N3-C4	-5.69	1.29	1.33
44	1	931	C	C4-N4	-5.69	1.28	1.33
44	1	67	A	N9-C4	-5.69	1.34	1.37
44	1	333	G	N9-C8	-5.69	1.33	1.37
44	1	1337	A	C5-C4	-5.69	1.34	1.38
44	1	3101	G	N9-C8	-5.69	1.33	1.37
44	1	107	A	N9-C4	-5.69	1.34	1.37
44	1	668	G	N1-C2	-5.69	1.33	1.37
44	1	1381	A	N3-C4	-5.69	1.31	1.34
45	2	22	U	C4-C5	-5.69	1.38	1.43
44	1	201	A	N7-C5	-5.69	1.35	1.39
44	1	432	G	N1-C2	-5.69	1.33	1.37
44	1	926	A	C6-N6	-5.69	1.29	1.33
44	1	3086	A	C6-N6	-5.69	1.29	1.33
44	1	1160	C	C5-C6	-5.69	1.29	1.34
44	1	350	C	C4-N4	-5.68	1.28	1.33
44	1	657	A	N3-C4	-5.68	1.31	1.34
44	1	1411	C	C4-C5	-5.68	1.38	1.43
44	1	614	C	C4-C5	-5.68	1.38	1.43
44	1	1385	C	N1-C6	-5.68	1.33	1.37
44	1	1475	A	N9-C4	-5.68	1.34	1.37
44	1	701	G	C6-N1	-5.68	1.35	1.39
44	1	944	C	C5-C6	-5.68	1.29	1.34
45	2	66	A	C5-C6	-5.68	1.35	1.41
44	1	7	C	N1-C6	-5.68	1.33	1.37
44	1	1279	C	N3-C4	-5.68	1.29	1.33
45	2	42	G	N9-C8	-5.68	1.33	1.37
44	1	1159	A	C6-N6	-5.68	1.29	1.33
44	1	1404	G	N9-C8	-5.68	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	55	G	N9-C4	-5.67	1.33	1.38
44	1	375	A	C5-C6	-5.67	1.35	1.41
44	1	1194	G	N1-C2	-5.67	1.33	1.37
45	2	46	G	N1-C2	-5.67	1.33	1.37
12	P	83	TRP	CB-CG	-5.67	1.40	1.50
28	f	80	VAL	CB-CG1	-5.67	1.41	1.52
44	1	1396	C	N3-C4	-5.67	1.29	1.33
44	1	410	U	N1-C2	-5.66	1.33	1.38
44	1	497	C	C4-C5	-5.66	1.38	1.43
44	1	1594	A	C6-N1	-5.66	1.31	1.35
44	1	1167	U	C4-C5	-5.66	1.38	1.43
44	1	670	C	C4-N4	-5.65	1.28	1.33
44	1	806	A	C6-N6	-5.65	1.29	1.33
27	e	53	PRO	CB-CG	-5.65	1.21	1.50
44	1	34	A	N9-C8	-5.65	1.33	1.37
44	1	361	A	N9-C8	-5.65	1.33	1.37
44	1	3244	A	N7-C5	-5.65	1.35	1.39
44	1	673	U	C4-C5	-5.65	1.38	1.43
44	1	1316	C	N1-C6	-5.65	1.33	1.37
44	1	1329	U	N3-C4	-5.65	1.33	1.38
44	1	1431	G	N1-C2	-5.64	1.33	1.37
44	1	59	G	N9-C4	-5.64	1.33	1.38
44	1	224	C	C4-N4	-5.64	1.28	1.33
44	1	1465	A	N9-C4	-5.64	1.34	1.37
44	1	2912	G	C2-N2	-5.64	1.28	1.34
44	1	353	G	N9-C8	-5.64	1.33	1.37
44	1	1422	G	N9-C8	-5.64	1.33	1.37
10	N	132	VAL	CB-CG2	-5.64	1.41	1.52
44	1	700	C	C5-C6	-5.64	1.29	1.34
44	1	1449	A	N7-C5	-5.64	1.35	1.39
44	1	3128	G	N9-C4	-5.64	1.33	1.38
44	1	1176	C	C4-C5	-5.63	1.38	1.43
44	1	1303	A	C6-N6	-5.63	1.29	1.33
44	1	1466	G	N7-C5	-5.63	1.35	1.39
45	2	103	G	C2-N2	-5.63	1.28	1.34
44	1	123	A	C6-N1	-5.63	1.31	1.35
44	1	435	C	N1-C6	-5.63	1.33	1.37
44	1	694	C	C4-C5	-5.63	1.38	1.43
44	1	1370	G	N7-C5	-5.63	1.35	1.39
28	f	66	VAL	CB-CG2	-5.63	1.41	1.52
44	1	1407	A	C5-C6	-5.63	1.35	1.41
44	1	63	A	C5-C4	-5.63	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1407	A	N7-C5	-5.63	1.35	1.39
44	1	3016	A	C6-N6	-5.63	1.29	1.33
44	1	20	A	C5-C6	-5.62	1.35	1.41
44	1	943	U	N1-C6	-5.62	1.32	1.38
44	1	1409	G	N7-C5	-5.62	1.35	1.39
44	1	2936	A	N9-C4	-5.62	1.34	1.37
44	1	1158	A	N9-C8	-5.62	1.33	1.37
44	1	613	G	N7-C5	-5.62	1.35	1.39
44	1	2354	C	N3-C4	-5.62	1.30	1.33
45	2	12	A	N7-C5	-5.62	1.35	1.39
44	1	3296	A	C6-N6	-5.62	1.29	1.33
9	M	20	VAL	CB-CG1	-5.61	1.41	1.52
44	1	1112	A	C6-N6	-5.61	1.29	1.33
45	2	91	C	C5-C6	-5.61	1.29	1.34
44	1	1320	C	N3-C4	-5.61	1.30	1.33
45	2	37	A	C6-N6	-5.61	1.29	1.33
44	1	3298	C	N3-C4	-5.61	1.30	1.33
44	1	1150	A	N9-C4	-5.61	1.34	1.37
44	1	1180	A	N9-C8	-5.60	1.33	1.37
45	2	19	C	N3-C4	-5.60	1.30	1.33
45	2	150	G	N9-C8	-5.60	1.33	1.37
44	1	130	A	C5-C6	-5.60	1.36	1.41
44	1	3370	A	N9-C4	-5.60	1.34	1.37
44	1	363	G	C5-C6	-5.59	1.36	1.42
44	1	944	C	N3-C4	-5.59	1.30	1.33
44	1	325	A	N9-C8	-5.59	1.33	1.37
44	1	56	G	N3-C4	-5.59	1.31	1.35
44	1	1447	G	N9-C8	-5.59	1.33	1.37
44	1	2884	C	N3-C4	-5.59	1.30	1.33
45	2	149	A	C6-N6	-5.59	1.29	1.33
44	1	2892	A	C5-C6	-5.59	1.36	1.41
44	1	3123	A	C6-N6	-5.59	1.29	1.33
44	1	920	A	C5-C6	-5.58	1.36	1.41
44	1	1144	U	C2-N3	-5.58	1.33	1.37
44	1	2356	A	N7-C5	-5.58	1.35	1.39
45	2	77	A	C5-C6	-5.58	1.36	1.41
44	1	209	A	N7-C5	-5.58	1.35	1.39
44	1	638	C	N3-C4	-5.57	1.30	1.33
44	1	1204	A	N7-C5	-5.57	1.35	1.39
44	1	677	A	N9-C4	-5.57	1.34	1.37
8	L	28	GLN	CB-CG	-5.57	1.37	1.52
44	1	147	U	C5-C6	-5.57	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1323	G	N9-C4	-5.57	1.33	1.38
44	1	2381	G	N9-C4	-5.57	1.33	1.38
44	1	1182	A	N9-C4	-5.57	1.34	1.37
44	1	1367	G	N9-C4	-5.57	1.33	1.38
44	1	1603	A	N9-C8	-5.56	1.33	1.37
44	1	1159	A	C8-N7	-5.56	1.27	1.31
44	1	633	C	C5-C6	-5.56	1.29	1.34
44	1	583	G	N7-C5	-5.56	1.35	1.39
44	1	2355	G	N7-C5	-5.56	1.35	1.39
45	2	42	G	N3-C4	-5.56	1.31	1.35
44	1	1378	U	C4-C5	-5.55	1.38	1.43
44	1	1407	A	C6-N1	-5.55	1.31	1.35
44	1	1429	G	C5-C4	-5.55	1.34	1.38
44	1	348	A	C5-C6	-5.55	1.36	1.41
45	2	98	U	C4-C5	-5.55	1.38	1.43
44	1	95	A	N9-C4	-5.55	1.34	1.37
45	2	140	G	C2-N2	-5.55	1.28	1.34
44	1	1799	A	C5-C6	-5.55	1.36	1.41
44	1	213	A	C6-N1	-5.55	1.31	1.35
44	1	404	G	N7-C5	-5.55	1.35	1.39
44	1	75	G	N7-C5	-5.55	1.35	1.39
44	1	408	A	C6-N6	-5.55	1.29	1.33
44	1	81	C	N1-C6	-5.54	1.33	1.37
44	1	226	C	N3-C4	-5.54	1.30	1.33
44	1	104	G	N9-C8	-5.54	1.33	1.37
44	1	1183	C	N1-C6	-5.54	1.33	1.37
44	1	1394	A	N9-C8	-5.54	1.33	1.37
45	2	92	A	N3-C4	-5.54	1.31	1.34
44	1	272	G	N7-C5	-5.54	1.35	1.39
44	1	661	G	N1-C2	-5.54	1.33	1.37
44	1	345	G	C6-N1	-5.54	1.35	1.39
44	1	215	G	N7-C5	-5.54	1.35	1.39
44	1	1528	G	N7-C5	-5.54	1.35	1.39
45	2	25	G	N9-C8	-5.54	1.33	1.37
44	1	3210	A	N7-C5	-5.54	1.35	1.39
45	2	42	G	N1-C2	-5.54	1.33	1.37
44	1	22	G	N1-C2	-5.53	1.33	1.37
44	1	3147	G	N7-C5	-5.53	1.35	1.39
45	2	99	C	N1-C6	-5.53	1.33	1.37
44	1	1448	U	C4-C5	-5.53	1.38	1.43
44	1	33	G	N9-C8	-5.53	1.33	1.37
44	1	1146	C	N3-C4	-5.53	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	3033	A	N9-C4	-5.53	1.34	1.37
10	N	202	TYR	CE2-CZ	-5.53	1.31	1.38
44	1	1161	G	N9-C8	-5.53	1.33	1.37
44	1	1403	C	C5-C6	-5.53	1.29	1.34
44	1	3130	A	N9-C8	-5.53	1.33	1.37
32	j	22	CYS	CB-SG	-5.52	1.72	1.81
44	1	76	G	N1-C2	-5.52	1.33	1.37
44	1	948	C	C5-C6	-5.52	1.29	1.34
44	1	1438	U	N3-C4	-5.52	1.33	1.38
44	1	3086	A	N9-C4	-5.52	1.34	1.37
44	1	51	A	C5-C6	-5.52	1.36	1.41
44	1	372	A	N7-C5	-5.52	1.35	1.39
44	1	389	A	C5-C6	-5.51	1.36	1.41
4	F	240	VAL	CB-CG1	-5.51	1.41	1.52
27	e	28	VAL	CB-CG1	-5.51	1.41	1.52
44	1	341	G	C6-N1	-5.51	1.35	1.39
45	2	94	C	N1-C6	-5.51	1.33	1.37
44	1	56	G	N7-C5	-5.51	1.35	1.39
44	1	1419	A	N7-C5	-5.51	1.35	1.39
44	1	1558	A	N9-C4	-5.50	1.34	1.37
44	1	938	C	N3-C4	-5.50	1.30	1.33
44	1	1181	U	C4-C5	-5.50	1.38	1.43
44	1	1395	G	N1-C2	-5.50	1.33	1.37
12	P	51	VAL	CB-CG2	-5.50	1.41	1.52
44	1	22	G	N9-C4	-5.50	1.33	1.38
44	1	1380	G	N9-C4	-5.50	1.33	1.38
44	1	21	G	N1-C2	-5.50	1.33	1.37
44	1	144	A	C5-C6	-5.50	1.36	1.41
44	1	1461	A	N9-C4	-5.50	1.34	1.37
44	1	1895	A	C6-N6	-5.50	1.29	1.33
44	1	30	G	N9-C8	-5.50	1.34	1.37
44	1	412	G	N9-C8	-5.50	1.34	1.37
44	1	426	G	N9-C4	-5.50	1.33	1.38
44	1	578	A	N9-C8	-5.50	1.33	1.37
44	1	48	A	N9-C8	-5.50	1.33	1.37
44	1	1169	A	N7-C5	-5.49	1.35	1.39
44	1	3046	A	C5-C4	-5.49	1.34	1.38
44	1	3311	C	N3-C4	-5.49	1.30	1.33
44	1	618	C	N1-C6	-5.49	1.33	1.37
44	1	792	G	N9-C8	-5.49	1.34	1.37
44	1	1495	U	N3-C4	-5.49	1.33	1.38
44	1	1505	C	C4-C5	-5.49	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	3144	G	C5-C4	-5.49	1.34	1.38
44	1	27	C	C4-N4	-5.49	1.29	1.33
44	1	791	A	N9-C4	-5.49	1.34	1.37
45	2	34	U	N1-C2	-5.49	1.33	1.38
44	1	430	U	N1-C6	-5.49	1.33	1.38
44	1	695	C	N3-C4	-5.49	1.30	1.33
44	1	122	A	N9-C8	-5.48	1.33	1.37
44	1	141	C	C4-C5	-5.48	1.38	1.43
2	C	109	TRP	CB-CG	-5.48	1.40	1.50
44	1	1558	A	C5-C4	-5.48	1.34	1.38
44	1	104	G	N7-C5	-5.48	1.35	1.39
44	1	670	C	N3-C4	-5.48	1.30	1.33
45	2	65	A	C6-N6	-5.48	1.29	1.33
44	1	127	G	N9-C8	-5.48	1.34	1.37
44	1	339	C	C5-C6	-5.48	1.29	1.34
44	1	197	G	N9-C4	-5.48	1.33	1.38
44	1	102	C	C4-N4	-5.47	1.29	1.33
44	1	107	A	C5-C4	-5.47	1.34	1.38
44	1	144	A	N7-C5	-5.47	1.35	1.39
44	1	1537	A	C6-N6	-5.47	1.29	1.33
44	1	51	A	N3-C4	-5.47	1.31	1.34
44	1	1317	A	N9-C8	-5.47	1.33	1.37
45	2	39	G	N1-C2	-5.47	1.33	1.37
44	1	10	C	N1-C6	-5.47	1.33	1.37
44	1	1180	A	C6-N6	-5.47	1.29	1.33
44	1	1412	G	N9-C8	-5.47	1.34	1.37
44	1	1756	C	C4-C5	-5.47	1.38	1.43
44	1	3136	G	N7-C5	-5.47	1.35	1.39
44	1	1311	G	N7-C5	-5.47	1.35	1.39
44	1	1614	C	C4-N4	-5.47	1.29	1.33
45	2	8	C	N1-C6	-5.47	1.33	1.37
45	2	103	G	N9-C8	-5.47	1.34	1.37
44	1	368	G	C5-C4	-5.46	1.34	1.38
44	1	586	C	N3-C4	-5.46	1.30	1.33
44	1	3048	A	N7-C5	-5.46	1.35	1.39
44	1	62	A	C5-C6	-5.46	1.36	1.41
10	N	146	ALA	CA-C	-5.46	1.38	1.52
44	1	611	A	C5-C6	-5.46	1.36	1.41
44	1	1310	G	C2-N3	-5.46	1.28	1.32
44	1	425	G	C5-C6	-5.46	1.36	1.42
44	1	1428	A	C5-C4	-5.46	1.34	1.38
44	1	2358	A	N9-C4	-5.46	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1171	G	C8-N7	-5.46	1.27	1.30
44	1	32	U	N3-C4	-5.45	1.33	1.38
44	1	1495	U	N1-C6	-5.45	1.33	1.38
44	1	622	A	N7-C5	-5.45	1.35	1.39
44	1	3330	A	N7-C5	-5.45	1.35	1.39
44	1	373	A	C5-C4	-5.45	1.34	1.38
44	1	1456	A	N7-C5	-5.45	1.35	1.39
44	1	1833	G	N1-C2	-5.45	1.33	1.37
44	1	11	A	N9-C4	-5.45	1.34	1.37
44	1	1462	A	N7-C5	-5.45	1.35	1.39
44	1	1490	A	N9-C4	-5.45	1.34	1.37
44	1	332	C	N3-C4	-5.45	1.30	1.33
44	1	585	A	C6-N1	-5.45	1.31	1.35
44	1	1303	A	N7-C5	-5.45	1.35	1.39
45	2	32	C	N1-C6	-5.45	1.33	1.37
44	1	29	C	C4-N4	-5.45	1.29	1.33
44	1	1594	A	C5-C4	-5.45	1.34	1.38
44	1	3112	G	N9-C4	-5.45	1.33	1.38
45	2	38	U	C4-C5	-5.44	1.38	1.43
44	1	369	A	N9-C4	-5.44	1.34	1.37
44	1	1563	C	N3-C4	-5.44	1.30	1.33
44	1	1800	A	N7-C5	-5.44	1.35	1.39
44	1	3103	A	C5-C6	-5.44	1.36	1.41
44	1	1522	U	N1-C2	-5.44	1.33	1.38
44	1	3091	A	C5-C6	-5.44	1.36	1.41
44	1	590	G	N9-C4	-5.44	1.33	1.38
44	1	938	C	C5-C6	-5.44	1.29	1.34
44	1	1586	G	N9-C8	-5.44	1.34	1.37
44	1	3001	C	N1-C6	-5.44	1.33	1.37
44	1	3051	U	C4-C5	-5.44	1.38	1.43
44	1	1328	C	N3-C4	-5.44	1.30	1.33
44	1	397	A	N3-C4	-5.44	1.31	1.34
44	1	674	G	C6-N1	-5.43	1.35	1.39
44	1	687	U	C2-N3	-5.43	1.33	1.37
44	1	59	G	C2-N2	-5.43	1.29	1.34
44	1	1404	G	C2-N3	-5.43	1.28	1.32
45	2	62	C	C5-C6	-5.43	1.30	1.34
44	1	1402	C	N1-C6	-5.43	1.33	1.37
44	1	3052	G	N7-C5	-5.43	1.35	1.39
44	1	3104	U	C4-C5	-5.43	1.38	1.43
44	1	361	A	C5-C4	-5.42	1.34	1.38
44	1	639	G	N3-C4	-5.42	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	2933	A	C6-N6	-5.42	1.29	1.33
44	1	1836	C	N1-C6	-5.42	1.33	1.37
44	1	1112	A	N9-C4	-5.42	1.34	1.37
45	2	22	U	C5-C6	-5.42	1.29	1.34
44	1	375	A	C5-C4	-5.42	1.34	1.38
44	1	1165	A	N9-C8	-5.42	1.33	1.37
44	1	1491	A	C6-N1	-5.42	1.31	1.35
44	1	233	C	C4-C5	-5.42	1.38	1.43
44	1	3322	A	C6-N6	-5.42	1.29	1.33
44	1	32	U	C4-C5	-5.42	1.38	1.43
11	O	145	VAL	CB-CG2	-5.41	1.41	1.52
44	1	328	U	N3-C4	-5.41	1.33	1.38
45	2	55	U	C4-C5	-5.41	1.38	1.43
44	1	1515	A	N7-C5	-5.41	1.36	1.39
44	1	331	G	N9-C8	-5.41	1.34	1.37
44	1	364	G	N9-C8	-5.41	1.34	1.37
44	1	65	A	N7-C5	-5.40	1.36	1.39
44	1	659	G	C5-C6	-5.40	1.36	1.42
44	1	660	A	C6-N1	-5.40	1.31	1.35
44	1	1447	G	C2-N2	-5.40	1.29	1.34
44	1	427	C	C5-C6	-5.40	1.30	1.34
44	1	1537	A	C5-C6	-5.40	1.36	1.41
44	1	127	G	N9-C4	-5.40	1.33	1.38
44	1	946	U	N1-C6	-5.40	1.33	1.38
44	1	3123	A	N7-C5	-5.40	1.36	1.39
45	2	36	G	N9-C8	-5.40	1.34	1.37
44	1	683	U	N1-C2	-5.40	1.33	1.38
44	1	2359	C	C4-C5	-5.40	1.38	1.43
44	1	2368	A	N9-C8	-5.40	1.33	1.37
44	1	3012	A	C6-N6	-5.40	1.29	1.33
44	1	347	G	N9-C8	-5.39	1.34	1.37
44	1	1374	G	N7-C5	-5.39	1.36	1.39
44	1	1440	G	C6-N1	-5.39	1.35	1.39
5	G	125	ALA	C-N	-5.39	1.21	1.34
44	1	323	A	C8-N7	-5.39	1.27	1.31
44	1	1158	A	C8-N7	-5.39	1.27	1.31
44	1	1380	G	N3-C4	-5.39	1.31	1.35
45	2	47	C	C4-C5	-5.39	1.38	1.43
44	1	213	A	N9-C4	-5.39	1.34	1.37
44	1	416	A	C6-N6	-5.39	1.29	1.33
44	1	633	C	N3-C4	-5.39	1.30	1.33
44	1	1143	A	N9-C4	-5.39	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1311	G	N9-C4	-5.39	1.33	1.38
44	1	1407	A	C5-C4	-5.39	1.34	1.38
44	1	2910	A	C5-C4	-5.39	1.34	1.38
44	1	3276	G	N9-C8	-5.39	1.34	1.37
5	G	140	VAL	CB-CG2	-5.39	1.41	1.52
44	1	35	A	N7-C5	-5.39	1.36	1.39
44	1	14	U	C2-N3	-5.38	1.33	1.37
44	1	941	G	N3-C4	-5.38	1.31	1.35
44	1	3139	A	N9-C4	-5.38	1.34	1.37
44	1	3309	G	N1-C2	-5.38	1.33	1.37
44	1	3314	A	C5-C6	-5.38	1.36	1.41
45	2	37	A	C5-C4	-5.38	1.34	1.38
45	2	56	G	N9-C8	-5.38	1.34	1.37
44	1	430	U	C4-C5	-5.38	1.38	1.43
44	1	970	A	N9-C4	-5.38	1.34	1.37
44	1	215	G	N9-C8	-5.38	1.34	1.37
44	1	1172	G	C2-N2	-5.38	1.29	1.34
44	1	683	U	C4-C5	-5.38	1.38	1.43
9	M	94	TRP	CB-CG	-5.38	1.40	1.50
44	1	1419	A	N9-C8	-5.38	1.33	1.37
44	1	1696	A	C6-N6	-5.38	1.29	1.33
44	1	1373	A	C6-N6	-5.38	1.29	1.33
44	1	1489	A	N9-C4	-5.37	1.34	1.37
44	1	665	A	C5-C4	-5.37	1.34	1.38
44	1	683	U	C2-N3	-5.37	1.33	1.37
45	2	103	G	N1-C2	-5.37	1.33	1.37
44	1	668	G	C6-N1	-5.37	1.35	1.39
44	1	268	A	N7-C5	-5.37	1.36	1.39
44	1	1406	A	C5-C4	-5.37	1.34	1.38
44	1	1419	A	C5-C4	-5.37	1.34	1.38
44	1	1496	C	C4-N4	-5.37	1.29	1.33
44	1	28	C	C4-N4	-5.36	1.29	1.33
44	1	1363	A	N9-C8	-5.36	1.33	1.37
44	1	1389	G	N7-C5	-5.36	1.36	1.39
44	1	706	A	C6-N6	-5.36	1.29	1.33
20	X	86	VAL	CB-CG1	-5.36	1.41	1.52
44	1	1366	A	N9-C4	-5.36	1.34	1.37
44	1	1377	G	N7-C5	-5.36	1.36	1.39
44	1	1436	U	N1-C2	-5.36	1.33	1.38
44	1	1506	A	N9-C4	-5.36	1.34	1.37
44	1	696	C	C4-N4	-5.36	1.29	1.33
44	1	1590	G	N7-C5	-5.36	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	76	VAL	CB-CG1	-5.36	1.41	1.52
44	1	1179	A	C6-N1	-5.36	1.31	1.35
44	1	2360	C	N3-C4	-5.36	1.30	1.33
44	1	3213	A	N7-C5	-5.36	1.36	1.39
45	2	24	G	N3-C4	-5.36	1.31	1.35
44	1	1402	C	N3-C4	-5.35	1.30	1.33
44	1	3296	A	N7-C5	-5.35	1.36	1.39
1	B	92	TYR	CD1-CE1	-5.35	1.31	1.39
5	G	139	VAL	CB-CG2	-5.35	1.41	1.52
44	1	235	A	N9-C4	-5.35	1.34	1.37
44	1	312	C	C4-C5	-5.35	1.38	1.43
45	2	43	A	C5-C4	-5.35	1.35	1.38
45	2	68	G	N7-C5	-5.35	1.36	1.39
44	1	406	G	N9-C4	-5.35	1.33	1.38
44	1	637	C	N3-C4	-5.35	1.30	1.33
44	1	661	G	N3-C4	-5.35	1.31	1.35
44	1	1307	G	C8-N7	-5.35	1.27	1.30
44	1	282	G	C6-N1	-5.35	1.35	1.39
44	1	436	A	N9-C4	-5.35	1.34	1.37
44	1	396	A	N9-C8	-5.35	1.33	1.37
44	1	333	G	N7-C5	-5.34	1.36	1.39
44	1	1474	A	N7-C5	-5.34	1.36	1.39
44	1	2368	A	N9-C4	-5.34	1.34	1.37
44	1	74	G	N9-C4	-5.34	1.33	1.38
44	1	1365	G	C6-N1	-5.34	1.35	1.39
44	1	51	A	N9-C8	-5.34	1.33	1.37
44	1	729	C	C4-C5	-5.34	1.38	1.43
44	1	1603	A	C6-N6	-5.34	1.29	1.33
44	1	2910	A	C5-C6	-5.34	1.36	1.41
45	2	105	A	N9-C4	-5.34	1.34	1.37
44	1	1177	G	C8-N7	-5.34	1.27	1.30
44	1	1433	A	C6-N6	-5.34	1.29	1.33
2	C	109	TRP	CE2-CZ2	-5.34	1.30	1.39
4	F	134	VAL	CB-CG1	-5.34	1.41	1.52
44	1	1204	A	C5-C6	-5.34	1.36	1.41
44	1	2353	G	C6-N1	-5.34	1.35	1.39
44	1	3046	A	N7-C5	-5.34	1.36	1.39
45	2	35	C	C5-C6	-5.34	1.30	1.34
44	1	387	A	N7-C5	-5.33	1.36	1.39
44	1	2361	A	N7-C5	-5.33	1.36	1.39
44	1	2912	G	N7-C5	-5.33	1.36	1.39
10	N	64	VAL	CB-CG2	-5.33	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	357	A	C5-C4	-5.33	1.35	1.38
44	1	516	A	C5-C6	-5.33	1.36	1.41
10	N	150	TRP	CB-CG	-5.33	1.40	1.50
44	1	928	C	N1-C6	-5.33	1.33	1.37
44	1	1169	A	C5-C6	-5.33	1.36	1.41
44	1	689	U	C2-N3	-5.33	1.34	1.37
21	Y	80	VAL	CB-CG2	-5.33	1.41	1.52
44	1	3035	A	C5-C6	-5.33	1.36	1.41
44	1	140	C	C4-C5	-5.32	1.38	1.43
44	1	385	A	N9-C4	-5.32	1.34	1.37
44	1	1429	G	N3-C4	-5.32	1.31	1.35
44	1	508	U	C4-C5	-5.32	1.38	1.43
44	1	693	A	C5-C4	-5.32	1.35	1.38
10	N	106	VAL	CB-CG2	-5.32	1.41	1.52
44	1	3005	A	N9-C4	-5.32	1.34	1.37
44	1	1332	A	C5-C4	-5.32	1.35	1.38
44	1	2378	C	N3-C4	-5.32	1.30	1.33
44	1	1152	G	N1-C2	-5.32	1.33	1.37
44	1	29	C	C5-C6	-5.31	1.30	1.34
44	1	335	G	N9-C4	-5.31	1.33	1.38
44	1	1510	G	N9-C8	-5.31	1.34	1.37
12	P	88	VAL	CB-CG2	-5.31	1.41	1.52
44	1	409	A	N9-C4	-5.31	1.34	1.37
44	1	1297	C	N1-C6	-5.31	1.33	1.37
44	1	270	U	C4-C5	-5.31	1.38	1.43
44	1	1336	U	C4-C5	-5.31	1.38	1.43
44	1	1494	U	C4-C5	-5.31	1.38	1.43
44	1	1883	A	N7-C5	-5.31	1.36	1.39
44	1	355	A	N9-C8	-5.31	1.33	1.37
44	1	641	C	C4-C5	-5.31	1.38	1.43
44	1	1464	G	C6-N1	-5.30	1.35	1.39
44	1	1498	A	C6-N6	-5.30	1.29	1.33
44	1	3012	A	N9-C4	-5.30	1.34	1.37
44	1	622	A	C5-C6	-5.30	1.36	1.41
45	2	143	U	N1-C6	-5.30	1.33	1.38
44	1	68	C	C4-C5	-5.30	1.38	1.43
44	1	787	G	N9-C8	-5.30	1.34	1.37
44	1	1834	U	C2-N3	-5.30	1.34	1.37
45	2	133	G	N9-C8	-5.30	1.34	1.37
44	1	36	C	C4-C5	-5.30	1.38	1.43
44	1	366	A	C8-N7	-5.30	1.27	1.31
44	1	1359	C	N3-C4	-5.30	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1160	C	N3-C4	-5.30	1.30	1.33
44	1	1318	A	N3-C4	-5.30	1.31	1.34
44	1	3299	A	C5-C6	-5.30	1.36	1.41
44	1	3140	G	N9-C4	-5.30	1.33	1.38
44	1	209	A	C5-C6	-5.29	1.36	1.41
44	1	1449	A	N9-C4	-5.29	1.34	1.37
44	1	1171	G	N7-C5	-5.29	1.36	1.39
44	1	1306	G	N9-C8	-5.29	1.34	1.37
44	1	2354	C	C4-N4	-5.29	1.29	1.33
44	1	3141	A	N7-C5	-5.29	1.36	1.39
44	1	3172	A	C6-N6	-5.29	1.29	1.33
11	O	109	PRO	N-CA	-5.29	1.38	1.47
27	e	64	LYS	CB-CG	-5.29	1.38	1.52
44	1	364	G	C6-N1	-5.29	1.35	1.39
44	1	425	G	N9-C8	-5.29	1.34	1.37
44	1	428	A	N9-C4	-5.29	1.34	1.37
44	1	48	A	N9-C4	-5.28	1.34	1.37
44	1	123	A	N3-C4	-5.28	1.31	1.34
45	2	146	U	C4-C5	-5.28	1.38	1.43
46	6	42	G	C2-N3	-5.28	1.28	1.32
44	1	1427	U	C4-C5	-5.28	1.38	1.43
44	1	1444	G	C5-C6	-5.28	1.37	1.42
44	1	328	U	C4-C5	-5.28	1.38	1.43
44	1	405	U	N1-C2	-5.28	1.33	1.38
44	1	1168	U	C4-C5	-5.28	1.38	1.43
44	1	227	G	C6-N1	-5.28	1.35	1.39
44	1	1433	A	C5-C4	-5.28	1.35	1.38
44	1	1362	G	N9-C8	-5.28	1.34	1.37
44	1	1374	G	N9-C8	-5.27	1.34	1.37
44	1	1587	A	N9-C4	-5.27	1.34	1.37
44	1	637	C	C5-C6	-5.27	1.30	1.34
44	1	3273	A	C5-C6	-5.27	1.36	1.41
44	1	1378	U	N1-C6	-5.27	1.33	1.38
44	1	1536	G	N9-C4	-5.27	1.33	1.38
44	1	687	U	C4-C5	-5.27	1.38	1.43
12	P	26	PHE	CB-CG	-5.26	1.42	1.51
44	1	209	A	N9-C4	-5.26	1.34	1.37
44	1	422	A	N7-C5	-5.26	1.36	1.39
44	1	1423	C	C5-C6	-5.26	1.30	1.34
45	2	133	G	N7-C5	-5.26	1.36	1.39
44	1	676	G	C5-C6	-5.26	1.37	1.42
44	1	1105	A	N7-C5	-5.26	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1179	A	C5-C4	-5.26	1.35	1.38
44	1	1193	A	C5-C6	-5.26	1.36	1.41
44	1	1161	G	C5-C4	-5.26	1.34	1.38
44	1	3097	C	C5-C6	-5.26	1.30	1.34
44	1	376	G	N7-C5	-5.26	1.36	1.39
44	1	2380	U	C4-C5	-5.26	1.38	1.43
44	1	801	A	C5-C4	-5.26	1.35	1.38
44	1	936	A	C5-C4	-5.26	1.35	1.38
44	1	3180	A	N9-C4	-5.26	1.34	1.37
44	1	432	G	C6-N1	-5.25	1.35	1.39
44	1	2353	G	N3-C4	-5.25	1.31	1.35
45	2	131	A	N9-C4	-5.25	1.34	1.37
44	1	88	A	C6-N6	-5.25	1.29	1.33
44	1	703	G	N1-C2	-5.25	1.33	1.37
44	1	931	C	C5-C6	-5.25	1.30	1.34
44	1	1161	G	C6-N1	-5.25	1.35	1.39
44	1	3004	C	N1-C6	-5.25	1.33	1.37
44	1	1163	A	C5-C4	-5.25	1.35	1.38
44	1	1835	A	N7-C5	-5.25	1.36	1.39
45	2	65	A	N7-C5	-5.25	1.36	1.39
44	1	1407	A	N9-C8	-5.25	1.33	1.37
44	1	399	A	N9-C8	-5.25	1.33	1.37
44	1	622	A	C6-N6	-5.25	1.29	1.33
44	1	3091	A	N9-C8	-5.25	1.33	1.37
44	1	3139	A	C5-C4	-5.25	1.35	1.38
44	1	3310	A	N7-C5	-5.25	1.36	1.39
20	X	86	VAL	CB-CG2	-5.25	1.41	1.52
44	1	1411	C	N1-C6	-5.25	1.34	1.37
44	1	291	C	C4-N4	-5.24	1.29	1.33
44	1	1158	A	N9-C4	-5.24	1.34	1.37
45	2	129	C	N3-C4	-5.24	1.30	1.33
44	1	929	A	N9-C8	-5.24	1.33	1.37
44	1	1835	A	N9-C4	-5.24	1.34	1.37
45	2	66	A	C6-N6	-5.24	1.29	1.33
44	1	1174	G	N9-C8	-5.24	1.34	1.37
44	1	1298	C	N1-C6	-5.24	1.34	1.37
44	1	1410	U	N1-C2	-5.24	1.33	1.38
44	1	50	U	C4-C5	-5.24	1.38	1.43
44	1	1168	U	C2-N3	-5.24	1.34	1.37
44	1	343	U	N1-C6	-5.24	1.33	1.38
44	1	1156	C	N1-C6	-5.24	1.34	1.37
44	1	1163	A	C6-N6	-5.24	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	2	12	A	N3-C4	-5.24	1.31	1.34
45	2	45	C	N3-C4	-5.24	1.30	1.33
44	1	630	A	N9-C4	-5.23	1.34	1.37
44	1	1392	G	N3-C4	-5.23	1.31	1.35
44	1	99	A	N7-C5	-5.23	1.36	1.39
44	1	662	U	N1-C2	-5.23	1.33	1.38
44	1	1308	A	C6-N1	-5.23	1.31	1.35
44	1	1430	U	C4-C5	-5.23	1.38	1.43
44	1	1562	C	N3-C4	-5.23	1.30	1.33
44	1	220	G	N1-C2	-5.23	1.33	1.37
45	2	107	G	N7-C5	-5.23	1.36	1.39
44	1	62	A	N9-C8	-5.22	1.33	1.37
44	1	793	C	C5-C6	-5.22	1.30	1.34
44	1	1343	A	N9-C4	-5.22	1.34	1.37
44	1	1389	G	N9-C8	-5.22	1.34	1.37
44	1	2378	C	C4-C5	-5.22	1.38	1.43
44	1	51	A	C6-N6	-5.22	1.29	1.33
44	1	789	A	N7-C5	-5.22	1.36	1.39
44	1	1112	A	C5-C6	-5.22	1.36	1.41
44	1	1563	C	C4-C5	-5.22	1.38	1.43
44	1	1609	C	N1-C6	-5.22	1.34	1.37
45	2	47	C	N3-C4	-5.22	1.30	1.33
44	1	363	G	N9-C4	-5.22	1.33	1.38
44	1	811	U	N1-C6	-5.22	1.33	1.38
44	1	1339	C	N3-C4	-5.22	1.30	1.33
1	B	158	VAL	CB-CG1	-5.22	1.41	1.52
44	1	10	C	N3-C4	-5.22	1.30	1.33
44	1	125	C	C4-C5	-5.22	1.38	1.43
12	P	139	TYR	CD1-CE1	-5.21	1.31	1.39
44	1	696	C	N1-C6	-5.21	1.34	1.37
44	1	1333	C	C4-N4	-5.21	1.29	1.33
44	1	1410	U	N1-C6	-5.21	1.33	1.38
44	1	1421	G	N7-C5	-5.21	1.36	1.39
44	1	3273	A	N9-C8	-5.21	1.33	1.37
44	1	1375	G	N7-C5	-5.21	1.36	1.39
44	1	154	U	N1-C6	-5.21	1.33	1.38
44	1	397	A	N9-C4	-5.21	1.34	1.37
44	1	1308	A	N9-C4	-5.21	1.34	1.37
44	1	1422	G	C5-C6	-5.21	1.37	1.42
44	1	291	C	N3-C4	-5.21	1.30	1.33
44	1	415	G	N7-C5	-5.21	1.36	1.39
44	1	221	A	N7-C5	-5.21	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	1407	A	N1-C2	-5.21	1.29	1.34
44	1	1169	A	C6-N6	-5.21	1.29	1.33
44	1	1309	U	N1-C6	-5.20	1.33	1.38
44	1	432	G	N9-C8	-5.20	1.34	1.37
44	1	950	G	C6-N1	-5.20	1.35	1.39
44	1	1787	A	N9-C4	-5.20	1.34	1.37
45	2	97	A	C5-C6	-5.20	1.36	1.41
44	1	55	G	N1-C2	-5.20	1.33	1.37
44	1	1453	A	N9-C4	-5.20	1.34	1.37
45	2	26	U	N3-C4	-5.20	1.33	1.38
10	N	121	VAL	CB-CG1	-5.20	1.42	1.52
44	1	1155	C	N1-C6	-5.20	1.34	1.37
44	1	701	G	C8-N7	-5.20	1.27	1.30
44	1	2891	U	N1-C6	-5.20	1.33	1.38
44	1	2906	C	N3-C4	-5.20	1.30	1.33
45	2	16	G	C2-N3	-5.20	1.28	1.32
45	2	18	U	N1-C2	-5.19	1.33	1.38
44	1	787	G	N9-C4	-5.19	1.33	1.38
44	1	814	U	C4-C5	-5.19	1.38	1.43
44	1	1147	G	C8-N7	-5.19	1.27	1.30
44	1	1369	A	N9-C8	-5.19	1.33	1.37
44	1	1434	G	C6-N1	-5.19	1.35	1.39
44	1	33	G	C5-C6	-5.19	1.37	1.42
44	1	3136	G	N9-C8	-5.19	1.34	1.37
44	1	591	G	N9-C8	-5.19	1.34	1.37
4	F	87	VAL	CB-CG2	-5.19	1.42	1.52
44	1	14	U	N1-C6	-5.19	1.33	1.38
44	1	405	U	N3-C4	-5.19	1.33	1.38
44	1	1881	A	N7-C5	-5.19	1.36	1.39
44	1	1310	G	N1-C2	-5.18	1.33	1.37
45	2	98	U	C2-N3	-5.18	1.34	1.37
45	2	140	G	N7-C5	-5.18	1.36	1.39
44	1	411	U	N3-C4	-5.18	1.33	1.38
44	1	1593	A	N9-C4	-5.18	1.34	1.37
44	1	3210	A	N9-C4	-5.18	1.34	1.37
45	2	13	A	C5-C4	-5.18	1.35	1.38
44	1	3187	A	C6-N6	-5.18	1.29	1.33
44	1	1223	A	N7-C5	-5.18	1.36	1.39
44	1	1314	C	N3-C4	-5.18	1.30	1.33
44	1	940	G	N3-C4	-5.18	1.31	1.35
44	1	950	G	C5-C6	-5.18	1.37	1.42
44	1	370	U	C4-C5	-5.17	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	783	A	N9-C4	-5.17	1.34	1.37
44	1	1382	G	N1-C2	-5.17	1.33	1.37
44	1	1615	C	N3-C4	-5.17	1.30	1.33
44	1	20	A	N7-C5	-5.17	1.36	1.39
44	1	1408	G	N9-C4	-5.17	1.33	1.38
44	1	327	A	N9-C8	-5.17	1.33	1.37
32	j	45	ARG	CZ-NH2	-5.17	1.26	1.33
44	1	647	A	N9-C8	-5.17	1.33	1.37
45	2	102	U	C4-C5	-5.17	1.38	1.43
44	1	638	C	N1-C6	-5.17	1.34	1.37
44	1	929	A	C5-C6	-5.17	1.36	1.41
44	1	1404	G	N3-C4	-5.17	1.31	1.35
44	1	1798	A	N7-C5	-5.17	1.36	1.39
45	2	17	A	C6-N6	-5.17	1.29	1.33
44	1	1194	G	N9-C8	-5.17	1.34	1.37
44	1	3129	A	N9-C4	-5.16	1.34	1.37
28	f	81	VAL	CB-CG2	-5.16	1.42	1.52
44	1	657	A	N9-C8	-5.16	1.33	1.37
44	1	1180	A	N9-C4	-5.16	1.34	1.37
44	1	1338	C	C5-C6	-5.16	1.30	1.34
44	1	64	G	C8-N7	-5.16	1.27	1.30
45	2	11	C	N1-C6	-5.16	1.34	1.37
11	O	120	VAL	CB-CG1	-5.16	1.42	1.52
44	1	1435	A	N9-C8	-5.16	1.33	1.37
44	1	1442	U	N1-C6	-5.16	1.33	1.38
44	1	1475	A	C6-N6	-5.16	1.29	1.33
44	1	3372	A	C6-N1	-5.16	1.31	1.35
45	2	104	A	C8-N7	-5.16	1.27	1.31
45	2	106	C	N3-C4	-5.16	1.30	1.33
44	1	81	C	N3-C4	-5.15	1.30	1.33
44	1	429	U	N1-C6	-5.15	1.33	1.38
44	1	433	A	C5-C6	-5.15	1.36	1.41
44	1	639	G	N9-C4	-5.15	1.33	1.38
44	1	658	G	C8-N7	-5.15	1.27	1.30
44	1	3134	A	N9-C4	-5.15	1.34	1.37
44	1	1408	G	C5-C4	-5.15	1.34	1.38
44	1	1504	A	N7-C5	-5.15	1.36	1.39
44	1	2890	A	C5-C6	-5.15	1.36	1.41
2	C	50	TYR	CD1-CE1	-5.15	1.31	1.39
45	2	61	A	N3-C4	-5.15	1.31	1.34
44	1	18	G	C8-N7	-5.15	1.27	1.30
44	1	59	G	N1-C2	-5.15	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	102	C	C5-C6	-5.15	1.30	1.34
44	1	799	G	N7-C5	-5.15	1.36	1.39
44	1	1211	U	N1-C6	-5.15	1.33	1.38
44	1	1377	G	N1-C2	-5.15	1.33	1.37
44	1	22	G	C6-N1	-5.14	1.35	1.39
44	1	366	A	N9-C8	-5.14	1.33	1.37
44	1	406	G	N1-C2	-5.14	1.33	1.37
44	1	700	C	N3-C4	-5.14	1.30	1.33
44	1	1162	U	C5-C6	-5.14	1.29	1.34
44	1	1308	A	C5-C4	-5.14	1.35	1.38
44	1	2365	C	N1-C6	-5.14	1.34	1.37
45	2	14	C	C5-C6	-5.14	1.30	1.34
45	2	89	A	N7-C5	-5.14	1.36	1.39
44	1	496	C	C4-C5	-5.14	1.38	1.43
44	1	634	C	N3-C4	-5.14	1.30	1.33
44	1	1833	G	N9-C8	-5.14	1.34	1.37
45	2	34	U	N1-C6	-5.14	1.33	1.38
45	2	103	G	N3-C4	-5.14	1.31	1.35
44	1	368	G	C5-C6	-5.14	1.37	1.42
44	1	1478	C	C4-C5	-5.14	1.38	1.43
44	1	1200	A	N9-C4	-5.14	1.34	1.37
44	1	1446	A	N3-C4	-5.14	1.31	1.34
44	1	3146	G	N9-C8	-5.14	1.34	1.37
44	1	146	U	C2-N3	-5.13	1.34	1.37
44	1	198	A	C6-N6	-5.13	1.29	1.33
10	N	8	GLU	CB-CG	-5.13	1.42	1.52
44	1	3172	A	N9-C4	-5.13	1.34	1.37
45	2	72	A	N9-C4	-5.13	1.34	1.37
44	1	224	C	N3-C4	-5.13	1.30	1.33
44	1	810	A	N3-C4	-5.13	1.31	1.34
44	1	942	U	N3-C4	-5.13	1.33	1.38
44	1	1313	G	N9-C4	-5.13	1.33	1.38
44	1	416	A	C5-C6	-5.13	1.36	1.41
44	1	1333	C	N1-C6	-5.13	1.34	1.37
44	1	501	A	N7-C5	-5.13	1.36	1.39
44	1	1333	C	C5-C6	-5.13	1.30	1.34
44	1	20	A	C5-C4	-5.12	1.35	1.38
44	1	361	A	N3-C4	-5.12	1.31	1.34
44	1	1832	C	C5-C6	-5.12	1.30	1.34
44	1	1461	A	C5-C6	-5.12	1.36	1.41
12	P	29	THR	CB-CG2	-5.12	1.35	1.52
44	1	1477	A	C6-N6	-5.12	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	2	104	A	N3-C4	-5.12	1.31	1.34
44	1	1613	A	N3-C4	-5.12	1.31	1.34
10	N	119	TYR	CD1-CE1	-5.12	1.31	1.39
44	1	931	C	N3-C4	-5.12	1.30	1.33
44	1	1585	C	C4-C5	-5.12	1.38	1.43
44	1	1599	G	N7-C5	-5.12	1.36	1.39
44	1	1182	A	C5-C6	-5.11	1.36	1.41
44	1	3372	A	C6-N6	-5.11	1.29	1.33
45	2	29	U	C4-C5	-5.11	1.39	1.43
45	2	114	G	N9-C4	-5.11	1.33	1.38
44	1	523	A	N9-C4	-5.11	1.34	1.37
44	1	32	U	C2-N3	-5.11	1.34	1.37
44	1	335	G	C5-C6	-5.11	1.37	1.42
44	1	345	G	C8-N7	-5.11	1.27	1.30
44	1	429	U	C2-N3	-5.11	1.34	1.37
44	1	1534	A	N7-C5	-5.11	1.36	1.39
44	1	3000	A	C6-N6	-5.11	1.29	1.33
44	1	1209	G	N9-C8	-5.11	1.34	1.37
44	1	214	G	C5-C4	-5.11	1.34	1.38
44	1	503	C	C4-N4	-5.11	1.29	1.33
44	1	694	C	N1-C6	-5.11	1.34	1.37
44	1	975	C	N3-C4	-5.11	1.30	1.33
44	1	1279	C	C4-C5	-5.11	1.38	1.43
44	1	2911	A	N9-C4	-5.11	1.34	1.37
44	1	3097	C	N1-C6	-5.11	1.34	1.37
44	1	334	A	C5-C4	-5.10	1.35	1.38
44	1	3077	A	N9-C4	-5.10	1.34	1.37
44	1	1110	U	N1-C2	-5.10	1.33	1.38
44	1	1531	C	C4-C5	-5.10	1.38	1.43
44	1	80	G	N7-C5	-5.10	1.36	1.39
44	1	2345	A	C5-C6	-5.10	1.36	1.41
20	X	114	VAL	CB-CG2	-5.10	1.42	1.52
44	1	47	C	N1-C6	-5.10	1.34	1.37
44	1	583	G	C2-N2	-5.10	1.29	1.34
44	1	1279	C	N1-C6	-5.10	1.34	1.37
44	1	502	U	C4-C5	-5.10	1.39	1.43
44	1	2914	G	N1-C2	-5.10	1.33	1.37
10	N	184	LYS	CA-CB	-5.09	1.42	1.53
44	1	688	G	N9-C8	-5.09	1.34	1.37
44	1	692	A	N7-C5	-5.09	1.36	1.39
44	1	1441	G	C6-N1	-5.09	1.35	1.39
44	1	3186	A	N7-C5	-5.09	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	f	22	VAL	CB-CG2	-5.09	1.42	1.52
44	1	225	C	C5-C6	-5.09	1.30	1.34
5	G	55	TYR	CE2-CZ	-5.09	1.31	1.38
44	1	660	A	C5-C6	-5.09	1.36	1.41
44	1	1610	G	N9-C8	-5.09	1.34	1.37
44	1	1697	A	N9-C4	-5.09	1.34	1.37
44	1	3185	U	C2-N3	-5.09	1.34	1.37
44	1	21	G	N9-C8	-5.08	1.34	1.37
44	1	654	C	N3-C4	-5.08	1.30	1.33
44	1	685	G	N9-C4	-5.08	1.33	1.38
44	1	611	A	C5-C4	-5.08	1.35	1.38
44	1	690	A	N7-C5	-5.08	1.36	1.39
44	1	1610	G	N9-C4	-5.08	1.33	1.38
44	1	1447	G	C2-N3	-5.08	1.28	1.32
44	1	583	G	N1-C2	-5.08	1.33	1.37
44	1	3298	C	C4-C5	-5.08	1.38	1.43
27	e	32	TRP	CG-CD1	-5.08	1.29	1.36
44	1	320	G	C5-C4	-5.08	1.34	1.38
44	1	417	A	C6-N6	-5.08	1.29	1.33
44	1	660	A	C2-N3	-5.08	1.28	1.33
44	1	1319	G	C5-C4	-5.08	1.34	1.38
44	1	358	G	N3-C4	-5.08	1.31	1.35
44	1	13	A	N7-C5	-5.08	1.36	1.39
44	1	114	A	N9-C4	-5.08	1.34	1.37
44	1	3295	A	C6-N6	-5.08	1.29	1.33
12	P	139	TYR	CD2-CE2	-5.07	1.31	1.39
44	1	155	G	N1-C2	-5.07	1.33	1.37
44	1	364	G	N1-C2	-5.07	1.33	1.37
44	1	3002	C	N3-C4	-5.07	1.30	1.33
44	1	1642	A	N9-C4	-5.07	1.34	1.37
45	2	42	G	C6-N1	-5.07	1.35	1.39
15	S	156	VAL	CB-CG2	-5.07	1.42	1.52
44	1	817	A	C6-N6	-5.07	1.29	1.33
44	1	1550	C	C4-C5	-5.07	1.38	1.43
44	1	1330	A	C5-C4	-5.07	1.35	1.38
44	1	801	A	N9-C8	-5.07	1.33	1.37
44	1	354	U	C2-N3	-5.06	1.34	1.37
44	1	1283	C	C4-C5	-5.06	1.38	1.43
44	1	1378	U	N3-C4	-5.06	1.33	1.38
44	1	323	A	N9-C8	-5.06	1.33	1.37
44	1	354	U	C5-C6	-5.06	1.29	1.34
44	1	3248	C	N3-C4	-5.06	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	55	G	N7-C5	-5.06	1.36	1.39
44	1	75	G	C8-N7	-5.06	1.27	1.30
44	1	789	A	C6-N6	-5.06	1.29	1.33
44	1	929	A	N3-C4	-5.06	1.31	1.34
44	1	1317	A	N3-C4	-5.06	1.31	1.34
44	1	1430	U	C2-N3	-5.06	1.34	1.37
45	2	40	A	C5-C6	-5.06	1.36	1.41
44	1	122	A	C6-N6	-5.06	1.29	1.33
44	1	431	U	C4-C5	-5.05	1.39	1.43
44	1	1148	G	N3-C4	-5.05	1.31	1.35
44	1	3089	C	N3-C4	-5.05	1.30	1.33
44	1	3240	C	N3-C4	-5.05	1.30	1.33
44	1	365	A	N9-C8	-5.05	1.33	1.37
44	1	1099	A	N9-C4	-5.05	1.34	1.37
44	1	1181	U	N1-C2	-5.05	1.34	1.38
2	C	100	PHE	CD1-CE1	-5.05	1.29	1.39
44	1	792	G	C8-N7	-5.05	1.27	1.30
44	1	1387	G	N7-C5	-5.05	1.36	1.39
44	1	59	G	N9-C8	-5.05	1.34	1.37
44	1	2906	C	C4-C5	-5.04	1.39	1.43
44	1	360	G	N1-C2	-5.04	1.33	1.37
44	1	1387	G	C8-N7	-5.04	1.27	1.30
44	1	3045	G	N9-C8	-5.04	1.34	1.37
45	2	33	A	N7-C5	-5.04	1.36	1.39
24	b	33	ILE	C-N	-5.04	1.22	1.34
44	1	325	A	C5-C4	-5.04	1.35	1.38
44	1	338	A	C5-C4	-5.04	1.35	1.38
44	1	355	A	C5-C4	-5.04	1.35	1.38
44	1	2878	G	C2-N3	-5.04	1.28	1.32
44	1	3182	G	N9-C4	-5.04	1.33	1.38
1	B	85	VAL	CB-CG1	-5.04	1.42	1.52
44	1	650	C	N1-C6	-5.04	1.34	1.37
44	1	971	G	N7-C5	-5.04	1.36	1.39
44	1	1366	A	C6-N6	-5.04	1.29	1.33
21	Y	8	VAL	CB-CG2	-5.04	1.42	1.52
44	1	1396	C	N1-C6	-5.04	1.34	1.37
45	2	9	A	C6-N6	-5.04	1.29	1.33
44	1	1446	A	N7-C5	-5.03	1.36	1.39
44	1	2887	A	C5-C6	-5.03	1.36	1.41
44	1	875	G	C8-N7	-5.03	1.27	1.30
27	e	95	GLU	CB-CG	-5.03	1.42	1.52
44	1	200	C	C2-N3	-5.03	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	367	A	C5-C4	-5.03	1.35	1.38
44	1	674	G	N9-C8	-5.03	1.34	1.37
11	O	88	VAL	CB-CG2	-5.03	1.42	1.52
44	1	813	G	N9-C8	-5.03	1.34	1.37
44	1	1394	A	N7-C5	-5.03	1.36	1.39
44	1	1406	A	N9-C8	-5.03	1.33	1.37
44	1	334	A	N9-C8	-5.03	1.33	1.37
32	j	66	TYR	CD1-CE1	-5.03	1.31	1.39
44	1	802	C	N3-C4	-5.03	1.30	1.33
44	1	1311	G	N9-C8	-5.03	1.34	1.37
44	1	1424	C	C4-N4	-5.03	1.29	1.33
44	1	3047	U	C4-C5	-5.03	1.39	1.43
44	1	3096	C	N3-C4	-5.03	1.30	1.33
44	1	24	G	N7-C5	-5.02	1.36	1.39
44	1	82	C	N1-C6	-5.02	1.34	1.37
44	1	1837	U	C4-C5	-5.02	1.39	1.43
44	1	3161	C	C4-C5	-5.02	1.39	1.43
45	2	25	G	N3-C4	-5.02	1.31	1.35
44	1	106	A	C5-C4	-5.02	1.35	1.38
44	1	1410	U	C4-C5	-5.02	1.39	1.43
44	1	336	A	C5-C6	-5.02	1.36	1.41
44	1	658	G	C6-N1	-5.02	1.36	1.39
44	1	947	G	C5-C6	-5.02	1.37	1.42
44	1	3113	A	C5-C6	-5.02	1.36	1.41
44	1	426	G	N9-C8	-5.02	1.34	1.37
44	1	1443	G	N9-C4	-5.02	1.33	1.38
13	Q	48	VAL	CB-CG2	-5.01	1.42	1.52
44	1	269	G	N9-C4	-5.01	1.33	1.38
44	1	1339	C	N1-C6	-5.01	1.34	1.37
44	1	1180	A	C5-C6	-5.01	1.36	1.41
44	1	1335	C	C4-N4	-5.01	1.29	1.33
44	1	1806	A	C5-C6	-5.01	1.36	1.41
45	2	97	A	N7-C5	-5.01	1.36	1.39
44	1	583	G	N9-C4	-5.01	1.33	1.38
44	1	678	G	N7-C5	-5.01	1.36	1.39
44	1	1825	G	N9-C4	-5.01	1.33	1.38
44	1	361	A	N9-C4	-5.00	1.34	1.37
44	1	1147	G	C5-C6	-5.00	1.37	1.42
44	1	1326	A	N9-C8	-5.00	1.33	1.37
44	1	3043	C	C4-C5	-5.00	1.39	1.43
44	1	98	G	N9-C8	-5.00	1.34	1.37
44	1	930	U	N3-C4	-5.00	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	1	2351	U	C4-C5	-5.00	1.39	1.43

All (3781) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	630	A	N1-C6-N6	17.03	128.82	118.60
44	1	630	A	C5-C6-N6	-16.99	110.11	123.70
44	1	1363	A	C5-C6-N6	-16.56	110.45	123.70
44	1	630	A	C4-C5-N7	16.19	118.79	110.70
44	1	1159	A	C5-C6-N6	-15.59	111.23	123.70
45	2	14	C	C5-C4-N4	-15.43	109.40	120.20
44	1	945	C	C5-C4-N4	-15.41	109.41	120.20
44	1	1376	C	C6-N1-C2	-15.32	114.17	120.30
44	1	3308	C	C5-C4-N4	-14.73	109.89	120.20
44	1	804	C	C5-C4-N4	-14.68	109.93	120.20
44	1	1363	A	N1-C6-N6	14.49	127.29	118.60
45	2	40	A	N1-C6-N6	-14.40	109.96	118.60
44	1	1496	C	N1-C2-O2	14.23	127.44	118.90
44	1	3004	C	C5-C4-N4	-14.19	110.27	120.20
44	1	630	A	C5-N7-C8	-14.17	96.82	103.90
44	1	352	A	C5-C6-N1	14.04	124.72	117.70
44	1	1337	A	C5-C6-N6	-13.96	112.53	123.70
44	1	428	A	C5-C6-N6	-13.82	112.64	123.70
44	1	1332	A	C4-C5-N7	13.70	117.55	110.70
44	1	1594	A	C5-C6-N1	13.60	124.50	117.70
44	1	1527	C	C6-N1-C2	-13.49	114.90	120.30
44	1	106	A	C5-C6-N1	13.46	124.43	117.70
44	1	630	A	N9-C4-C5	-13.46	100.42	105.80
44	1	633	C	C5-C4-N4	-13.16	110.99	120.20
44	1	16	A	C4-C5-N7	13.11	117.26	110.70
44	1	1496	C	C6-N1-C2	-13.05	115.08	120.30
44	1	16	A	C5-C6-N6	-13.01	113.29	123.70
45	2	10	A	C5-C6-N6	-12.94	113.34	123.70
45	2	21	C	C6-N1-C2	-12.83	115.17	120.30
44	1	589	A	C5-C6-N1	12.81	124.10	117.70
44	1	16	A	N1-C6-N6	12.76	126.26	118.60
44	1	637	C	C6-N1-C2	-12.74	115.20	120.30
44	1	1426	C	C5-C4-N4	-12.64	111.35	120.20
44	1	16	A	C5-N7-C8	-12.61	97.60	103.90
44	1	2354	C	C5-C4-N4	-12.54	111.42	120.20
44	1	344	A	C5-C6-N6	-12.52	113.69	123.70
45	2	44	A	C5-C6-N1	12.40	123.90	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1165	A	C5-C6-N1	12.35	123.87	117.70
44	1	1496	C	C2-N1-C1'	12.32	132.35	118.80
32	j	45	ARG	NE-CZ-NH1	12.27	126.43	120.30
44	1	373	A	C5-C6-N6	-12.22	113.92	123.70
44	1	1332	A	C5-N7-C8	-12.20	97.80	103.90
44	1	357	A	C5-C6-N6	-12.19	113.95	123.70
45	2	14	C	N3-C4-N4	12.15	126.50	118.00
44	1	1437	C	C6-N1-C2	-12.13	115.45	120.30
44	1	793	C	C5-C4-N4	-12.12	111.72	120.20
44	1	975	C	N1-C2-O2	12.12	126.17	118.90
44	1	1163	A	C5-C6-N6	-12.11	114.01	123.70
44	1	630	A	C6-C5-N7	-12.10	123.83	132.30
44	1	1330	A	C5-C6-N6	-12.06	114.05	123.70
44	1	323	A	C4-C5-N7	12.03	116.72	110.70
44	1	213	A	N1-C6-N6	-12.01	111.39	118.60
44	1	1146	C	C6-N1-C2	-11.98	115.51	120.30
44	1	428	A	C5-C6-N1	11.97	123.69	117.70
45	2	94	C	C5-C4-N4	-11.88	111.88	120.20
45	2	44	A	C5-C6-N6	-11.84	114.23	123.70
44	1	1159	A	C5-C6-N1	11.82	123.61	117.70
44	1	3217	C	N1-C2-O2	11.80	125.98	118.90
44	1	634	C	C5-C4-N4	-11.79	111.95	120.20
44	1	1332	A	C6-C5-N7	-11.78	124.06	132.30
44	1	323	A	C5-N7-C8	-11.77	98.02	103.90
45	2	40	A	C5-C6-N1	11.76	123.58	117.70
45	2	19	C	C5-C4-N4	-11.76	111.97	120.20
44	1	325	A	C5-C6-N1	11.76	123.58	117.70
44	1	350	C	C5-C4-N4	-11.74	111.98	120.20
44	1	29	C	C5-C4-N4	-11.71	112.00	120.20
44	1	357	A	C5-C6-N1	11.65	123.53	117.70
44	1	349	A	C5-C6-N6	-11.63	114.40	123.70
44	1	945	C	N1-C2-O2	11.63	125.88	118.90
45	2	21	C	N1-C2-O2	11.61	125.86	118.90
44	1	346	C	C5-C4-N4	-11.60	112.08	120.20
44	1	54	C	C5-C4-N4	-11.47	112.17	120.20
44	1	945	C	N3-C4-N4	11.43	126.00	118.00
44	1	344	A	C4-C5-N7	11.41	116.41	110.70
44	1	1437	C	C5-C4-N4	-11.41	112.21	120.20
44	1	12	A	C5-C6-N6	-11.36	114.61	123.70
44	1	1615	C	C6-N1-C2	-11.34	115.76	120.30
44	1	200	C	N3-C4-C5	11.29	126.42	121.90
44	1	1363	A	C4-C5-N7	11.28	116.34	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1424	C	C5-C4-N4	-11.28	112.31	120.20
44	1	3308	C	N3-C4-N4	11.26	125.88	118.00
8	L	35	ARG	NE-CZ-NH1	11.25	125.92	120.30
44	1	1342	C	C5-C4-N4	-11.24	112.33	120.20
44	1	1407	A	C5-C6-N1	11.19	123.30	117.70
44	1	344	A	C5-C6-N1	11.19	123.29	117.70
44	1	1333	C	C5-C4-N4	-11.15	112.39	120.20
44	1	659	G	C4-C5-N7	11.14	115.26	110.80
44	1	628	A	C5-C6-N6	-11.13	114.79	123.70
44	1	1406	A	C5-C6-N1	11.12	123.26	117.70
44	1	78	U	C6-N1-C2	-11.09	114.34	121.00
44	1	1423	C	C5-C4-N4	-11.08	112.44	120.20
44	1	1330	A	N1-C6-N6	11.07	125.24	118.60
45	2	21	C	C5-C6-N1	11.06	126.53	121.00
44	1	345	G	C5-N7-C8	-11.04	98.78	104.30
44	1	947	G	N7-C8-N9	11.01	118.61	113.10
44	1	1614	C	C5-C4-N4	-11.01	112.50	120.20
44	1	3004	C	N3-C4-N4	10.99	125.69	118.00
44	1	58	G	C4-C5-N7	10.97	115.19	110.80
44	1	933	A	C4-C5-N7	10.94	116.17	110.70
44	1	931	C	N3-C4-C5	10.91	126.26	121.90
44	1	367	A	C5-C6-N6	-10.87	115.01	123.70
44	1	1525	G	C4-C5-N7	10.86	115.15	110.80
45	2	43	A	C5-C6-N6	-10.86	115.01	123.70
44	1	668	G	N3-C2-N2	10.85	127.49	119.90
45	2	40	A	C4-C5-C6	-10.84	111.58	117.00
44	1	1159	A	N1-C6-N6	10.81	125.09	118.60
44	1	349	A	C5-N7-C8	-10.79	98.50	103.90
44	1	1508	C	C5-C4-N4	-10.79	112.64	120.20
44	1	345	G	N7-C8-N9	10.79	118.49	113.10
44	1	1307	G	C8-N9-C4	-10.79	102.09	106.40
44	1	102	C	C5-C4-N4	-10.77	112.66	120.20
44	1	3181	C	N1-C2-O2	10.77	125.36	118.90
45	2	104	A	C5-N7-C8	-10.77	98.52	103.90
44	1	1363	A	C5-N7-C8	-10.75	98.53	103.90
45	2	19	C	C6-N1-C2	-10.74	116.00	120.30
44	1	1332	A	N7-C8-N9	10.70	119.15	113.80
45	2	19	C	N1-C2-O2	10.70	125.32	118.90
44	1	1179	A	C5-C6-N1	10.68	123.04	117.70
45	2	94	C	N3-C4-N4	10.65	125.46	118.00
44	1	657	A	C5-C6-N1	10.65	123.03	117.70
44	1	693	A	C5-C6-N6	-10.64	115.19	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	628	A	C5-C6-N1	10.61	123.00	117.70
44	1	1170	A	C5-C6-N6	-10.59	115.23	123.70
44	1	696	C	C5-C4-N4	-10.57	112.80	120.20
44	1	1603	A	N1-C6-N6	-10.57	112.26	118.60
44	1	142	C	C5-C4-N4	-10.54	112.82	120.20
32	j	21	ARG	NE-CZ-NH1	10.53	125.56	120.30
44	1	345	G	C4-C5-N7	10.53	115.01	110.80
44	1	659	G	N3-C2-N2	10.51	127.26	119.90
44	1	341	G	C4-C5-N7	10.50	115.00	110.80
44	1	1496	C	N3-C2-O2	-10.49	114.55	121.90
44	1	637	C	C5-C6-N1	10.49	126.25	121.00
44	1	1159	A	N3-C4-N9	10.49	135.79	127.40
45	2	96	A	C5-C6-N1	10.49	122.94	117.70
44	1	1372	C	C5-C4-N4	-10.48	112.86	120.20
44	1	1435	A	C5-N7-C8	-10.47	98.67	103.90
44	1	1159	A	C4-C5-N7	10.46	115.93	110.70
44	1	2383	C	C6-N1-C2	-10.45	116.12	120.30
45	2	10	A	N1-C6-N6	10.44	124.86	118.60
44	1	933	A	N9-C4-C5	-10.43	101.63	105.80
44	1	1179	A	C5-N7-C8	-10.43	98.68	103.90
44	1	63	A	C5-C6-N1	10.40	122.90	117.70
44	1	1420	C	N3-C4-C5	10.39	126.06	121.90
44	1	16	A	N9-C4-C5	-10.37	101.65	105.80
44	1	665	A	C5-N7-C8	-10.35	98.72	103.90
44	1	3217	C	N3-C2-O2	-10.34	114.67	121.90
44	1	267	G	N1-C6-O6	-10.32	113.71	119.90
44	1	3019	U	N3-C2-O2	-10.32	114.98	122.20
44	1	2892	A	C5-C6-N6	-10.29	115.47	123.70
44	1	1332	A	C5-C6-N6	-10.28	115.47	123.70
44	1	665	A	C5-C6-N6	-10.28	115.48	123.70
45	2	137	C	C5-C4-N4	-10.28	113.01	120.20
44	1	224	C	C5-C4-N4	-10.27	113.01	120.20
44	1	659	G	N1-C2-N2	-10.26	106.97	116.20
44	1	975	C	N3-C2-O2	-10.20	114.76	121.90
44	1	1337	A	N9-C4-C5	-10.19	101.72	105.80
44	1	1163	A	C5-N7-C8	-10.19	98.81	103.90
44	1	12	A	C4-C5-N7	10.18	115.79	110.70
45	2	28	C	C5-C4-N4	-10.18	113.07	120.20
44	1	1158	A	C5-N7-C8	-10.17	98.82	103.90
44	1	349	A	C4-C5-N7	10.16	115.78	110.70
44	1	60	A	C5-C6-N6	-10.14	115.59	123.70
44	1	804	C	N3-C4-N4	10.13	125.09	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	407	A	C5-N7-C8	-10.13	98.84	103.90
44	1	1337	A	C5-C6-N1	10.12	122.76	117.70
44	1	213	A	C5-C6-N1	10.11	122.76	117.70
44	1	1376	C	C5-C4-N4	-10.11	113.12	120.20
44	1	3004	C	N1-C2-O2	10.11	124.96	118.90
44	1	144	A	C5-C6-N1	10.10	122.75	117.70
45	2	9	A	N7-C8-N9	10.10	118.85	113.80
44	1	3139	A	C5-C6-N6	-10.08	115.64	123.70
45	2	105	A	C5-C6-N6	-10.08	115.64	123.70
44	1	945	C	C6-N1-C2	-10.07	116.27	120.30
44	1	1342	C	N3-C4-N4	10.07	125.05	118.00
44	1	344	A	C5-N7-C8	-10.05	98.87	103.90
44	1	1527	C	N1-C2-O2	10.04	124.93	118.90
44	1	338	A	C5-C6-N1	10.04	122.72	117.70
44	1	659	G	C5-N7-C8	-10.04	99.28	104.30
44	1	1337	A	N1-C6-N6	10.04	124.62	118.60
45	2	103	G	N7-C8-N9	10.04	118.12	113.10
44	1	933	A	C5-C6-N6	-10.02	115.69	123.70
44	1	1420	C	N1-C2-O2	10.01	124.91	118.90
44	1	936	A	C5-C6-N1	10.01	122.70	117.70
44	1	3008	A	C5-C6-N1	10.01	122.70	117.70
44	1	1330	A	C5-N7-C8	-10.01	98.90	103.90
45	2	77	A	C5-C6-N6	-10.01	115.70	123.70
44	1	1296	C	C6-N1-C2	-9.99	116.30	120.30
37	q	250	ASP	CB-CG-OD1	9.99	127.29	118.30
44	1	1337	A	C4-C5-N7	9.98	115.69	110.70
44	1	3137	C	C5-C4-N4	-9.97	113.22	120.20
44	1	428	A	C4-C5-N7	9.97	115.68	110.70
44	1	655	C	N1-C2-O2	9.96	124.88	118.90
45	2	17	A	C8-N9-C4	-9.96	101.81	105.80
44	1	3183	A	C4-C5-N7	9.96	115.68	110.70
44	1	929	A	C5-N7-C8	-9.96	98.92	103.90
44	1	303	G	N3-C2-N2	9.95	126.86	119.90
44	1	433	A	C5-C6-N1	9.95	122.67	117.70
44	1	3103	A	C5-C6-N1	9.95	122.67	117.70
44	1	1381	A	C5-N7-C8	-9.94	98.93	103.90
44	1	504	A	C5-N7-C8	-9.94	98.93	103.90
44	1	815	G	N3-C2-N2	9.93	126.85	119.90
44	1	1308	A	C5-C6-N1	9.93	122.67	117.70
44	1	933	A	C5-N7-C8	-9.93	98.94	103.90
44	1	1460	A	C4-C5-N7	9.93	115.66	110.70
44	1	2836	C	N3-C2-O2	-9.92	114.95	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	504	A	C5-C6-N6	-9.91	115.77	123.70
44	1	321	C	N1-C2-O2	9.90	124.84	118.90
44	1	265	A	N1-C6-N6	-9.90	112.66	118.60
32	j	45	ARG	NE-CZ-NH2	-9.89	115.35	120.30
44	1	82	C	C5-C4-N4	-9.88	113.28	120.20
44	1	1579	C	N3-C2-O2	-9.88	114.98	121.90
44	1	1432	C	N3-C4-C5	9.88	125.85	121.90
44	1	3183	A	C5-N7-C8	-9.88	98.96	103.90
44	1	323	A	N9-C4-C5	-9.87	101.85	105.80
44	1	585	A	C5-N7-C8	-9.87	98.97	103.90
44	1	3299	A	C5-C6-N6	-9.87	115.80	123.70
44	1	1363	A	N9-C4-C5	-9.86	101.86	105.80
44	1	334	A	C5-N7-C8	-9.85	98.97	103.90
45	2	32	C	C5-C4-N4	-9.85	113.31	120.20
45	2	10	A	C4-C5-N7	9.84	115.62	110.70
44	1	3091	A	C5-C6-N6	-9.84	115.83	123.70
44	1	1460	A	C5-C6-N6	-9.83	115.83	123.70
44	1	1328	C	N1-C2-O2	9.83	124.80	118.90
45	2	104	A	N7-C8-N9	9.82	118.71	113.80
44	1	1307	G	N7-C8-N9	9.80	118.00	113.10
44	1	933	A	N1-C6-N6	9.79	124.47	118.60
44	1	373	A	C4-C5-N7	9.77	115.58	110.70
44	1	3035	A	C5-C6-N6	-9.76	115.89	123.70
44	1	1158	A	C5-C6-N6	-9.76	115.89	123.70
44	1	396	A	C5-C6-N1	9.76	122.58	117.70
44	1	665	A	C4-C5-N7	9.73	115.57	110.70
44	1	1283	C	N1-C2-O2	9.73	124.74	118.90
44	1	205	C	N1-C2-O2	9.72	124.73	118.90
44	1	1836	C	N1-C2-O2	9.72	124.73	118.90
44	1	407	A	C4-C5-N7	9.71	115.55	110.70
44	1	60	A	N1-C6-N6	9.70	124.42	118.60
44	1	1416	C	C5-C4-N4	-9.70	113.41	120.20
44	1	1190	A	C5-C6-N6	-9.68	115.95	123.70
44	1	1598	G	N7-C8-N9	9.68	117.94	113.10
44	1	373	A	N9-C4-C5	-9.67	101.93	105.80
44	1	693	A	C5-N7-C8	-9.67	99.06	103.90
44	1	1510	G	N3-C2-N2	9.65	126.65	119.90
44	1	665	A	C5-C6-N1	9.64	122.52	117.70
44	1	1376	C	N3-C2-O2	-9.64	115.15	121.90
44	1	1403	C	C5-C4-N4	-9.63	113.46	120.20
44	1	618	C	N3-C2-O2	-9.62	115.16	121.90
44	1	3103	A	C5-C6-N6	-9.60	116.02	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3379	C	C5-C4-N4	-9.59	113.49	120.20
44	1	1432	C	N1-C2-O2	9.59	124.65	118.90
8	L	39	ARG	NE-CZ-NH1	9.57	125.08	120.30
44	1	323	A	C5-C6-N6	-9.56	116.05	123.70
44	1	656	A	C5-C6-N1	9.56	122.48	117.70
44	1	1158	A	N7-C8-N9	9.56	118.58	113.80
44	1	928	C	C6-N1-C2	-9.55	116.48	120.30
45	2	58	G	C4-C5-N7	9.55	114.62	110.80
44	1	1179	A	C4-C5-N7	9.55	115.47	110.70
45	2	26	U	C6-N1-C2	-9.55	115.27	121.00
44	1	2994	A	C5-C6-N6	-9.55	116.06	123.70
44	1	1306	G	N7-C8-N9	9.54	117.87	113.10
44	1	1881	A	C4-C5-N7	9.52	115.46	110.70
45	2	13	A	C5-C6-N1	9.51	122.45	117.70
44	1	3174	A	C5-C6-N6	-9.50	116.10	123.70
44	1	630	A	N7-C8-N9	9.49	118.55	113.80
44	1	589	A	C5-C6-N6	-9.49	116.11	123.70
44	1	660	A	C5-N7-C8	-9.48	99.16	103.90
44	1	1376	C	N3-C4-N4	9.48	124.64	118.00
44	1	1159	A	O4'-C1'-N9	9.47	115.78	108.20
2	C	95	ARG	NE-CZ-NH2	-9.47	115.56	120.30
45	2	43	A	C5-N7-C8	-9.46	99.17	103.90
45	2	157	U	N1-C2-O2	9.46	129.42	122.80
44	1	693	A	C4-C5-N7	9.45	115.42	110.70
44	1	1422	G	C4-C5-N7	9.43	114.57	110.80
44	1	1190	A	C5-C6-N1	9.43	122.41	117.70
44	1	373	A	C5-C6-N1	9.42	122.41	117.70
44	1	586	C	N1-C2-O2	9.42	124.55	118.90
44	1	369	A	C5-C6-N6	-9.41	116.17	123.70
44	1	1204	A	C5-C6-N6	-9.40	116.18	123.70
44	1	1558	A	C5-C6-N1	9.40	122.40	117.70
11	O	117	ARG	NE-CZ-NH2	-9.39	115.61	120.30
45	2	19	C	N3-C4-N4	9.39	124.57	118.00
44	1	1615	C	N3-C4-N4	9.38	124.57	118.00
44	1	670	C	C5-C4-N4	-9.38	113.63	120.20
44	1	1179	A	C5-C6-N6	-9.38	116.19	123.70
44	1	1701	C	N1-C2-O2	9.38	124.53	118.90
44	1	947	G	C8-N9-C4	-9.37	102.65	106.40
44	1	1527	C	N3-C2-O2	-9.37	115.34	121.90
44	1	342	A	C8-N9-C4	9.36	109.54	105.80
44	1	366	A	C5-C6-N6	-9.35	116.22	123.70
44	1	2367	A	C5-C6-N1	9.35	122.38	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	949	C	C5-C4-N4	-9.35	113.66	120.20
44	1	341	G	C5-N7-C8	-9.33	99.63	104.30
45	2	41	A	N1-C6-N6	-9.33	113.00	118.60
44	1	1190	A	C4-C5-N7	9.33	115.36	110.70
44	1	1561	G	O4'-C1'-N9	9.33	115.66	108.20
44	1	1327	C	C6-N1-C2	-9.31	116.57	120.30
44	1	1326	A	C5-C6-N1	9.31	122.36	117.70
44	1	702	C	C5-C4-N4	-9.31	113.68	120.20
44	1	409	A	C5-N7-C8	-9.30	99.25	103.90
44	1	695	C	C5-C4-N4	-9.30	113.69	120.20
44	1	332	C	C5-C4-N4	-9.29	113.70	120.20
44	1	1496	C	C5-C6-N1	9.29	125.64	121.00
44	1	2983	C	N1-C2-O2	9.28	124.47	118.90
44	1	1159	A	C6-C5-N7	-9.28	125.81	132.30
44	1	1446	A	C5-C6-N1	9.27	122.34	117.70
44	1	11	A	C5-C6-N1	9.27	122.33	117.70
44	1	3354	U	C2-N1-C1'	9.27	128.82	117.70
44	1	1428	A	C4-C5-N7	9.27	115.33	110.70
44	1	1170	A	C5-N7-C8	-9.26	99.27	103.90
44	1	3181	C	N3-C2-O2	-9.25	115.42	121.90
45	2	74	U	C5-C6-N1	9.25	127.32	122.70
44	1	3089	C	C5-C4-N4	-9.24	113.73	120.20
44	1	346	C	O5'-P-OP1	-9.24	97.39	105.70
44	1	1418	A	N9-C4-C5	-9.21	102.11	105.80
44	1	1469	C	N1-C2-O2	9.21	124.42	118.90
44	1	12	A	C5-N7-C8	-9.20	99.30	103.90
44	1	114	A	C5-C6-N6	-9.19	116.35	123.70
44	1	1204	A	N1-C6-N6	9.19	124.11	118.60
45	2	19	C	N3-C2-O2	-9.19	115.47	121.90
44	1	1444	G	N7-C8-N9	9.18	117.69	113.10
44	1	3046	A	C5-C6-N6	-9.18	116.36	123.70
44	1	2892	A	C5-C6-N1	9.18	122.29	117.70
45	2	43	A	C4-C5-N7	9.16	115.28	110.70
28	f	18	ARG	NE-CZ-NH2	-9.16	115.72	120.30
44	1	3323	A	C5-C6-N6	-9.15	116.38	123.70
44	1	3323	A	C4-C5-N7	9.15	115.28	110.70
8	L	39	ARG	NE-CZ-NH2	-9.15	115.73	120.30
44	1	628	A	C4-C5-N7	9.15	115.27	110.70
44	1	1163	A	C4-C5-N7	9.14	115.27	110.70
44	1	58	G	C6-C5-N7	-9.14	124.92	130.40
44	1	222	A	C4-C5-N7	9.13	115.27	110.70
44	1	1608	C	C5-C4-N4	-9.12	113.82	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	633	C	N1-C2-O2	9.12	124.37	118.90
44	1	1161	G	C4-C5-N7	9.11	114.44	110.80
44	1	29	C	N3-C4-N4	9.11	124.38	118.00
44	1	52	A	C5-C6-N6	-9.10	116.42	123.70
44	1	1363	A	C5-C6-N1	9.09	122.25	117.70
44	1	659	G	C6-C5-N7	-9.09	124.95	130.40
44	1	1146	C	C5-C6-N1	9.09	125.54	121.00
44	1	3153	U	N1-C2-O2	9.09	129.16	122.80
44	1	1874	A	C5-C6-N6	-9.07	116.44	123.70
44	1	1175	C	C5-C4-N4	-9.07	113.85	120.20
44	1	920	A	C5-C6-N1	9.06	122.23	117.70
44	1	1163	A	C5-C6-N1	9.06	122.23	117.70
44	1	815	G	N1-C2-N2	-9.06	108.05	116.20
44	1	1419	A	C5-N7-C8	-9.06	99.37	103.90
44	1	1330	A	C4-C5-N7	9.05	115.22	110.70
44	1	2836	C	N1-C2-O2	9.04	124.33	118.90
44	1	504	A	C4-C5-N7	9.04	115.22	110.70
44	1	102	C	N3-C4-C5	9.03	125.51	121.90
44	1	2899	C	N1-C2-O2	9.02	124.31	118.90
44	1	1376	C	C5-C6-N1	9.01	125.51	121.00
45	2	77	A	C4-C5-N7	9.01	115.20	110.70
44	1	107	A	C5-N7-C8	-9.00	99.40	103.90
44	1	1614	C	N1-C2-O2	9.00	124.30	118.90
44	1	289	A	C5-N7-C8	-8.99	99.40	103.90
44	1	3164	C	N1-C2-O2	8.99	124.29	118.90
45	2	17	A	N1-C6-N6	-8.99	113.21	118.60
44	1	703	G	N1-C2-N2	-8.98	108.12	116.20
44	1	806	A	C5-C6-N1	8.98	122.19	117.70
44	1	222	A	C5-N7-C8	-8.98	99.41	103.90
44	1	366	A	C5-N7-C8	-8.97	99.42	103.90
44	1	655	C	C5-C4-N4	-8.95	113.94	120.20
44	1	51	A	C5-N7-C8	-8.95	99.42	103.90
44	1	633	C	N3-C4-C5	8.94	125.48	121.90
44	1	2367	A	C5-C6-N6	-8.93	116.56	123.70
44	1	1333	C	C6-N1-C2	-8.92	116.73	120.30
44	1	2367	A	C5-N7-C8	-8.92	99.44	103.90
44	1	10	C	C6-N1-C2	-8.92	116.73	120.30
44	1	346	C	N3-C4-C5	8.92	125.47	121.90
44	1	1307	G	N3-C4-C5	-8.92	124.14	128.60
44	1	1329	U	C6-N1-C2	-8.91	115.65	121.00
44	1	3005	A	C5-N7-C8	-8.91	99.45	103.90
44	1	375	A	C4-C5-C6	-8.90	112.55	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	O	18	ARG	NE-CZ-NH2	-8.89	115.85	120.30
44	1	928	C	C5-C4-N4	-8.89	113.98	120.20
44	1	342	A	N9-C4-C5	-8.89	102.25	105.80
44	1	638	C	C6-N1-C2	-8.87	116.75	120.30
44	1	113	C	N1-C2-O2	8.87	124.22	118.90
44	1	655	C	C6-N1-C2	-8.87	116.75	120.30
44	1	1328	C	N3-C2-O2	-8.87	115.69	121.90
44	1	1332	A	N9-C4-C5	-8.86	102.26	105.80
44	1	1843	C	C6-N1-C2	-8.86	116.75	120.30
44	1	618	C	N1-C2-O2	8.85	124.21	118.90
44	1	409	A	C5-C6-N1	8.85	122.12	117.70
44	1	1314	C	N1-C2-O2	8.85	124.21	118.90
44	1	3213	A	C5-C6-N6	-8.84	116.62	123.70
44	1	656	A	C5-N7-C8	-8.83	99.48	103.90
44	1	428	A	C5-N7-C8	-8.82	99.49	103.90
44	1	1170	A	C4-C5-N7	8.82	115.11	110.70
44	1	3006	A	C5-C6-N1	8.82	122.11	117.70
44	1	3139	A	C5-N7-C8	-8.82	99.49	103.90
44	1	1187	C	N3-C2-O2	-8.81	115.73	121.90
44	1	815	G	C4-C5-N7	8.81	114.33	110.80
44	1	12	A	N1-C6-N6	8.81	123.88	118.60
44	1	668	G	N1-C2-N2	-8.80	108.28	116.20
44	1	1657	C	C6-N1-C2	-8.80	116.78	120.30
44	1	3273	A	C5-C6-N1	8.80	122.10	117.70
45	2	21	C	C2-N1-C1'	8.79	128.47	118.80
44	1	693	A	C5-C6-N1	8.79	122.09	117.70
44	1	52	A	C5-C6-N1	8.79	122.09	117.70
44	1	1333	C	N3-C4-N4	8.78	124.15	118.00
44	1	367	A	C5-C6-N1	8.78	122.09	117.70
10	N	203	ARG	NE-CZ-NH2	-8.77	115.92	120.30
44	1	1365	G	C4-C5-N7	8.76	114.30	110.80
44	1	789	A	C5-C6-N1	8.76	122.08	117.70
44	1	701	G	C4-C5-N7	8.75	114.30	110.80
44	1	1337	A	C5-N7-C8	-8.74	99.53	103.90
44	1	389	A	C5-C6-N1	8.73	122.07	117.70
45	2	10	A	C5-N7-C8	-8.73	99.53	103.90
45	2	141	C	N3-C4-C5	8.73	125.39	121.90
45	2	44	A	C4-C5-N7	8.73	115.06	110.70
44	1	1159	A	N9-C4-C5	-8.73	102.31	105.80
44	1	1105	A	C5-C6-N6	-8.72	116.72	123.70
44	1	324	A	C5-C6-N1	8.71	122.06	117.70
44	1	1432	C	C5-C4-N4	-8.71	114.11	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	2354	C	N3-C4-N4	8.70	124.09	118.00
44	1	342	A	C5-N7-C8	-8.69	99.55	103.90
44	1	628	A	N9-C4-C5	-8.69	102.32	105.80
44	1	1401	A	C4-C5-N7	8.68	115.04	110.70
44	1	3034	C	N3-C4-C5	8.68	125.37	121.90
44	1	945	C	N3-C2-O2	-8.67	115.83	121.90
44	1	1298	C	C5-C4-N4	-8.67	114.13	120.20
44	1	1643	A	N1-C6-N6	-8.67	113.40	118.60
44	1	1383	G	N7-C8-N9	8.67	117.43	113.10
44	1	1493	G	N3-C2-N2	8.67	125.97	119.90
44	1	660	A	N7-C8-N9	8.66	118.13	113.80
44	1	1462	A	C5-C6-N1	8.66	122.03	117.70
44	1	1428	A	C5-C6-N6	-8.66	116.78	123.70
44	1	1423	C	N1-C2-O2	8.65	124.09	118.90
44	1	30	G	N7-C8-N9	8.65	117.42	113.10
44	1	363	G	C5-N7-C8	-8.65	99.98	104.30
44	1	1158	A	C4-C5-N7	8.64	115.02	110.70
44	1	1327	C	N3-C2-O2	-8.64	115.85	121.90
44	1	1150	A	C4-C5-N7	8.64	115.02	110.70
44	1	1498	A	C5-N7-C8	-8.63	99.58	103.90
44	1	349	A	C5-C6-N1	8.63	122.02	117.70
44	1	3097	C	N1-C2-O2	8.63	124.08	118.90
44	1	289	A	C4-C5-N7	8.62	115.01	110.70
44	1	929	A	N7-C8-N9	8.62	118.11	113.80
44	1	667	C	C5-C4-N4	-8.62	114.17	120.20
44	1	3008	A	C5-N7-C8	-8.62	99.59	103.90
44	1	1614	C	N3-C4-N4	8.60	124.02	118.00
45	2	22	U	N1-C2-O2	8.60	128.82	122.80
44	1	585	A	C4-C5-N7	8.59	115.00	110.70
44	1	3211	C	N1-C2-O2	8.59	124.05	118.90
44	1	48	A	N1-C6-N6	-8.58	113.45	118.60
44	1	801	A	C5-C6-N1	8.58	121.99	117.70
44	1	3008	A	C4-C5-N7	8.58	114.99	110.70
44	1	1183	C	C5-C4-N4	-8.57	114.20	120.20
44	1	659	G	N7-C8-N9	8.56	117.38	113.10
44	1	1613	A	C5-C6-N1	8.56	121.98	117.70
44	1	334	A	C4-C5-N7	8.56	114.98	110.70
44	1	357	A	C4-C5-N7	8.55	114.97	110.70
44	1	2934	A	C5-C6-N1	8.54	121.97	117.70
44	1	1163	A	N1-C6-N6	8.54	123.72	118.60
44	1	1460	A	N9-C4-C5	-8.53	102.39	105.80
44	1	3097	C	C6-N1-C2	-8.53	116.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	43	A	N1-C6-N6	8.53	123.72	118.60
44	1	663	C	C5-C4-N4	-8.52	114.24	120.20
44	1	352	A	C5-C6-N6	-8.52	116.89	123.70
44	1	1428	A	C5-C6-N1	8.51	121.96	117.70
44	1	3186	A	C5-C6-N1	8.51	121.96	117.70
44	1	1858	A	O4'-C1'-N9	8.51	115.01	108.20
44	1	369	A	N9-C4-C5	-8.51	102.40	105.80
44	1	1376	C	N1-C2-O2	8.51	124.00	118.90
2	C	197	ARG	NE-CZ-NH2	-8.50	116.05	120.30
44	1	366	A	C4-C5-N7	8.50	114.95	110.70
44	1	1698	C	C5-C4-N4	-8.50	114.25	120.20
44	1	1107	C	C5-C4-N4	-8.49	114.25	120.20
44	1	1158	A	N1-C6-N6	8.49	123.70	118.60
44	1	498	A	N1-C6-N6	-8.49	113.51	118.60
44	1	3248	C	N1-C2-O2	8.48	123.99	118.90
11	O	101	ARG	NE-CZ-NH1	8.48	124.54	120.30
44	1	30	G	C8-N9-C4	-8.48	103.01	106.40
44	1	3060	C	C5-C4-N4	-8.47	114.27	120.20
45	2	76	C	C5-C4-N4	-8.47	114.27	120.20
44	1	3141	A	C5-C6-N6	-8.47	116.93	123.70
44	1	1150	A	C5-N7-C8	-8.46	99.67	103.90
44	1	1401	A	C5-C6-N6	-8.46	116.93	123.70
44	1	1460	A	C5-N7-C8	-8.46	99.67	103.90
44	1	3138	U	C6-N1-C2	-8.46	115.92	121.00
44	1	114	A	C4-C5-N7	8.46	114.93	110.70
44	1	2910	A	C5-C6-N1	8.46	121.93	117.70
44	1	27	C	C6-N1-C2	-8.45	116.92	120.30
44	1	339	C	C6-N1-C2	-8.45	116.92	120.30
44	1	130	A	C4-C5-N7	8.45	114.92	110.70
44	1	1279	C	C6-N1-C2	-8.44	116.92	120.30
44	1	2354	C	N1-C2-O2	8.44	123.97	118.90
44	1	428	A	N1-C6-N6	8.44	123.66	118.60
44	1	107	A	C5-C6-N1	8.44	121.92	117.70
45	2	157	U	N3-C2-O2	-8.44	116.30	122.20
44	1	409	A	N7-C8-N9	8.43	118.02	113.80
1	B	232	ARG	NE-CZ-NH1	8.43	124.52	120.30
44	1	926	A	C5-C6-N1	8.43	121.91	117.70
44	1	345	G	C6-C5-N7	-8.43	125.34	130.40
44	1	347	G	C4-C5-N7	8.43	114.17	110.80
44	1	1881	A	C5-N7-C8	-8.43	99.69	103.90
44	1	364	G	C2-N3-C4	-8.42	107.69	111.90
44	1	1546	A	N9-C4-C5	-8.42	102.43	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	45	C	C5-C4-N4	-8.42	114.31	120.20
28	f	48	ARG	NE-CZ-NH1	-8.42	116.09	120.30
44	1	1365	G	N9-C4-C5	-8.41	102.03	105.40
44	1	321	C	N3-C4-C5	8.41	125.26	121.90
45	2	42	G	C5-N7-C8	-8.41	100.10	104.30
44	1	672	A	N1-C6-N6	8.40	123.64	118.60
45	2	103	G	C8-N9-C4	-8.40	103.04	106.40
44	1	672	A	C5-C6-N6	-8.40	116.98	123.70
44	1	701	G	C6-C5-N7	-8.40	125.36	130.40
44	1	1335	C	C5-C4-N4	-8.40	114.32	120.20
44	1	36	C	C5-C4-N4	-8.39	114.32	120.20
44	1	3008	A	C5-C6-N6	-8.39	116.99	123.70
44	1	423	A	N1-C6-N6	8.39	123.63	118.60
44	1	323	A	N7-C8-N9	8.38	117.99	113.80
44	1	1420	C	C5-C4-N4	-8.38	114.34	120.20
44	1	1401	A	C5-N7-C8	-8.38	99.71	103.90
44	1	228	U	C5-C6-N1	8.37	126.89	122.70
44	1	3021	A	N1-C6-N6	8.37	123.62	118.60
44	1	1593	A	C5-C6-N1	8.36	121.88	117.70
44	1	931	C	C5-C4-N4	-8.36	114.35	120.20
44	1	1196	C	C2-N1-C1'	8.36	127.99	118.80
44	1	1428	A	C5-N7-C8	-8.35	99.72	103.90
2	C	138	ARG	NE-CZ-NH1	8.34	124.47	120.30
44	1	373	A	N1-C6-N6	8.34	123.60	118.60
44	1	1310	G	C5-N7-C8	-8.34	100.13	104.30
44	1	703	G	N3-C2-N2	8.33	125.73	119.90
44	1	1510	G	N1-C2-N2	-8.33	108.70	116.20
44	1	2365	C	N3-C4-C5	8.32	125.23	121.90
44	1	3005	A	C5-C6-N6	-8.32	117.04	123.70
44	1	291	C	C5-C4-N4	-8.32	114.37	120.20
44	1	1881	A	C5-C6-N6	-8.32	117.04	123.70
44	1	60	A	C4-C5-N7	8.32	114.86	110.70
44	1	3323	A	C5-N7-C8	-8.32	99.74	103.90
44	1	344	A	N9-C4-C5	-8.31	102.47	105.80
44	1	349	A	N1-C6-N6	8.31	123.59	118.60
44	1	1343	A	C5-C6-N1	8.31	121.86	117.70
44	1	363	G	N7-C8-N9	8.31	117.25	113.10
45	2	17	A	N7-C8-N9	8.30	117.95	113.80
45	2	129	C	N1-C2-O2	8.30	123.88	118.90
44	1	130	A	C5-C6-N1	8.30	121.85	117.70
44	1	1187	C	N1-C2-O2	8.30	123.88	118.90
45	2	26	U	C5-C6-N1	8.30	126.85	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	340	C	N1-C2-O2	8.29	123.88	118.90
44	1	144	A	C5-C6-N6	-8.29	117.07	123.70
44	1	407	A	C4-C5-C6	-8.29	112.86	117.00
44	1	944	C	N3-C4-C5	8.29	125.21	121.90
44	1	213	A	C4-C5-C6	-8.28	112.86	117.00
44	1	875	G	N3-C4-N9	8.28	130.97	126.00
44	1	1332	A	N1-C2-N3	-8.28	125.16	129.30
44	1	1283	C	N3-C2-O2	-8.28	116.11	121.90
44	1	407	A	N3-C4-C5	8.27	132.59	126.80
44	1	22	G	N1-C6-O6	-8.27	114.94	119.90
44	1	1508	C	N3-C4-C5	8.27	125.21	121.90
44	1	114	A	N9-C4-C5	-8.25	102.50	105.80
44	1	1836	C	N3-C2-O2	-8.25	116.13	121.90
44	1	3323	A	N1-C6-N6	8.25	123.55	118.60
44	1	3023	U	N3-C2-O2	-8.25	116.43	122.20
44	1	6	A	C4-C5-N7	8.24	114.82	110.70
44	1	18	G	C4-C5-N7	8.24	114.10	110.80
44	1	78	U	C5-C6-N1	8.24	126.82	122.70
44	1	375	A	C5-C6-N1	8.24	121.82	117.70
44	1	16	A	C6-C5-N7	-8.24	126.53	132.30
44	1	1397	C	C6-N1-C2	-8.24	117.00	120.30
44	1	658	G	N7-C8-N9	8.23	117.22	113.10
44	1	1615	C	C5-C4-N4	-8.23	114.44	120.20
44	1	1835	A	C5-C6-N1	8.22	121.81	117.70
44	1	680	G	C5-N7-C8	-8.22	100.19	104.30
44	1	1339	C	N1-C2-O2	8.22	123.83	118.90
44	1	8	C	C6-N1-C2	-8.21	117.02	120.30
44	1	361	A	C5-C6-N1	8.21	121.81	117.70
45	2	57	C	N1-C2-O2	8.20	123.82	118.90
44	1	1525	G	C4-N9-C1'	8.20	137.16	126.50
44	1	1333	C	N3-C2-O2	-8.20	116.16	121.90
44	1	695	C	N3-C4-C5	8.20	125.18	121.90
44	1	1160	C	N3-C4-C5	8.20	125.18	121.90
44	1	1426	C	N3-C4-N4	8.19	123.73	118.00
2	C	220	ARG	NE-CZ-NH2	-8.19	116.21	120.30
44	1	586	C	C5-C4-N4	-8.19	114.47	120.20
44	1	659	G	N9-C4-C5	-8.19	102.12	105.40
44	1	187	A	C5-C6-N1	8.18	121.79	117.70
44	1	2887	A	C5-C6-N1	8.18	121.79	117.70
44	1	28	C	C6-N1-C2	-8.17	117.03	120.30
44	1	1609	C	C5-C4-N4	-8.17	114.48	120.20
44	1	3005	A	C4-C5-N7	8.16	114.78	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3019	U	N1-C2-O2	8.16	128.51	122.80
44	1	350	C	N3-C4-N4	8.16	123.71	118.00
44	1	367	A	C4-C5-N7	8.16	114.78	110.70
44	1	3123	A	C5-C6-N1	8.15	121.77	117.70
44	1	1433	A	C5-C6-N6	-8.14	117.18	123.70
45	2	11	C	C5-C4-N4	-8.14	114.50	120.20
44	1	345	G	N1-C2-N2	-8.14	108.88	116.20
39	s	10	ARG	NE-CZ-NH1	8.13	124.37	120.30
44	1	1842	A	N1-C6-N6	-8.13	113.72	118.60
44	1	389	A	C5-C6-N6	-8.12	117.20	123.70
44	1	1546	A	N1-C6-N6	8.12	123.47	118.60
44	1	363	G	C4-C5-N7	8.12	114.05	110.80
44	1	3172	A	C5-C6-N1	8.11	121.76	117.70
44	1	1579	C	N1-C2-O2	8.11	123.77	118.90
44	1	2383	C	C5-C6-N1	8.11	125.05	121.00
45	2	44	A	C5-N7-C8	-8.10	99.85	103.90
44	1	803	C	C6-N1-C2	-8.09	117.06	120.30
44	1	1598	G	C5-N7-C8	-8.09	100.25	104.30
44	1	656	A	N7-C8-N9	8.09	117.85	113.80
44	1	107	A	C5-C6-N6	-8.09	117.23	123.70
44	1	357	A	N9-C4-C5	-8.09	102.56	105.80
44	1	432	G	N1-C2-N2	-8.09	108.92	116.20
44	1	3040	A	C4-C5-N7	8.09	114.74	110.70
44	1	3048	A	C5-C6-N1	8.09	121.74	117.70
44	1	432	G	N3-C2-N2	8.08	125.56	119.90
44	1	1424	C	C6-N1-C2	-8.08	117.07	120.30
44	1	1891	A	C5-C6-N1	8.08	121.74	117.70
10	N	63	ARG	NE-CZ-NH1	8.08	124.34	120.30
44	1	2362	C	N1-C2-O2	8.08	123.75	118.90
44	1	76	G	N7-C8-N9	8.07	117.14	113.10
44	1	340	C	C5-C4-N4	-8.07	114.55	120.20
44	1	2348	A	N1-C6-N6	8.07	123.44	118.60
45	2	105	A	O4'-C1'-N9	8.07	114.66	108.20
44	1	3299	A	N1-C6-N6	8.07	123.44	118.60
44	1	649	A	C5-C6-N6	-8.06	117.25	123.70
30	h	90	ARG	NE-CZ-NH1	8.06	124.33	120.30
44	1	402	A	N1-C6-N6	8.06	123.44	118.60
44	1	2356	A	C5-N7-C8	-8.06	99.87	103.90
44	1	1161	G	C6-C5-N7	-8.05	125.57	130.40
44	1	323	A	C6-C5-N7	-8.05	126.67	132.30
44	1	2876	C	O4'-C1'-N1	8.05	114.64	108.20
44	1	219	A	N1-C6-N6	-8.03	113.78	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1203	A	N1-C6-N6	8.03	123.42	118.60
44	1	3320	A	C5-C6-N1	8.03	121.71	117.70
44	1	89	A	C5-C6-N1	8.03	121.71	117.70
6	H	124	ARG	NE-CZ-NH1	8.03	124.31	120.30
44	1	428	A	N9-C4-C5	-8.02	102.59	105.80
44	1	3183	A	N9-C4-C5	-8.02	102.59	105.80
44	1	1169	A	C5-N7-C8	-8.01	99.89	103.90
44	1	1330	A	N9-C4-C5	-8.01	102.59	105.80
44	1	1406	A	C4-C5-C6	-8.01	113.00	117.00
45	2	142	C	C5-C4-N4	-8.01	114.60	120.20
44	1	1444	G	C6-C5-N7	-8.00	125.60	130.40
44	1	226	C	N1-C2-O2	8.00	123.70	118.90
45	2	10	A	C5-C6-N1	8.00	121.70	117.70
44	1	969	C	N3-C2-O2	-8.00	116.30	121.90
44	1	501	A	C5-C6-N1	7.99	121.70	117.70
44	1	3213	A	C4-C5-N7	7.99	114.69	110.70
44	1	384	A	N9-C4-C5	-7.99	102.61	105.80
44	1	3174	A	C4-C5-N7	7.99	114.69	110.70
45	2	19	C	C2-N1-C1'	7.99	127.58	118.80
44	1	1422	G	C5-N7-C8	-7.98	100.31	104.30
44	1	815	G	C5-N7-C8	-7.98	100.31	104.30
44	1	1382	G	N7-C8-N9	7.98	117.09	113.10
44	1	788	C	C5-C4-N4	-7.98	114.62	120.20
45	2	45	C	N3-C4-N4	7.98	123.58	118.00
44	1	715	A	C5-C6-N1	7.97	121.69	117.70
44	1	632	G	N7-C8-N9	7.97	117.08	113.10
44	1	1374	G	C4-C5-N7	7.97	113.99	110.80
45	2	74	U	C5-C4-O4	-7.97	121.12	125.90
44	1	1279	C	N1-C2-O2	7.96	123.68	118.90
45	2	9	A	C5-N7-C8	-7.96	99.92	103.90
44	1	1416	C	N3-C4-C5	7.96	125.08	121.90
44	1	1169	A	C4-C5-N7	7.95	114.68	110.70
44	1	1474	A	C4-C5-N7	7.95	114.67	110.70
44	1	1474	A	C5-N7-C8	-7.95	99.93	103.90
44	1	1525	G	C8-N9-C1'	-7.94	116.68	127.00
44	1	815	G	N7-C8-N9	7.94	117.07	113.10
44	1	3035	A	N1-C6-N6	7.94	123.36	118.60
45	2	66	A	C4-C5-N7	7.93	114.67	110.70
44	1	347	G	N7-C8-N9	7.93	117.07	113.10
44	1	3100	U	N1-C2-O2	7.93	128.35	122.80
45	2	65	A	C5-C6-N6	-7.93	117.35	123.70
44	1	2348	A	C5-C6-N6	-7.93	117.36	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	655	C	N3-C2-O2	-7.92	116.36	121.90
44	1	672	A	C5-N7-C8	-7.92	99.94	103.90
44	1	634	C	N3-C4-C5	7.91	125.06	121.90
44	1	1447	G	O4'-C1'-N9	7.91	114.53	108.20
44	1	573	C	C5-C4-N4	-7.91	114.66	120.20
44	1	3322	A	C5-C6-N1	7.91	121.65	117.70
44	1	369	A	C5-C6-N1	7.91	121.65	117.70
44	1	793	C	N3-C4-N4	7.91	123.53	118.00
44	1	3211	C	C5-C4-N4	-7.91	114.67	120.20
44	1	633	C	N3-C4-N4	7.90	123.53	118.00
44	1	951	A	N7-C8-N9	7.90	117.75	113.80
44	1	288	C	C5-C4-N4	-7.90	114.67	120.20
44	1	1459	C	C6-N1-C2	-7.90	117.14	120.30
44	1	3210	A	C4-C5-N7	7.90	114.65	110.70
45	2	77	A	N9-C4-C5	-7.90	102.64	105.80
44	1	1460	A	C5-C6-N1	7.89	121.65	117.70
44	1	1106	G	N7-C8-N9	7.89	117.04	113.10
44	1	1377	G	N3-C4-N9	-7.87	121.28	126.00
44	1	3138	U	C5-C6-N1	7.87	126.64	122.70
44	1	58	G	C5-N7-C8	-7.87	100.37	104.30
44	1	516	A	C5-C6-N6	-7.87	117.41	123.70
44	1	1165	A	C5-C6-N6	-7.87	117.41	123.70
44	1	1283	C	C6-N1-C2	-7.87	117.15	120.30
44	1	1514	G	N3-C2-N2	-7.87	114.39	119.90
28	f	86	ARG	NE-CZ-NH2	-7.85	116.38	120.30
44	1	1326	A	C5-C6-N6	-7.85	117.42	123.70
44	1	1327	C	N1-C2-O2	7.84	123.61	118.90
44	1	1107	C	N3-C4-N4	7.84	123.48	118.00
44	1	1749	A	N1-C6-N6	-7.84	113.90	118.60
45	2	58	G	C5-N7-C8	-7.83	100.38	104.30
44	1	990	U	N3-C2-O2	-7.83	116.72	122.20
44	1	1419	A	C4-C5-N7	7.83	114.61	110.70
44	1	1434	G	C8-N9-C4	-7.83	103.27	106.40
44	1	1613	A	C4-C5-C6	-7.83	113.09	117.00
44	1	1182	A	C5-C6-N6	-7.83	117.44	123.70
44	1	1836	C	C5-C4-N4	-7.82	114.73	120.20
45	2	97	A	C5-N7-C8	-7.82	99.99	103.90
44	1	106	A	N1-C6-N6	-7.82	113.91	118.60
44	1	3100	U	O4'-C1'-N1	7.82	114.45	108.20
44	1	1383	G	C5-N7-C8	-7.81	100.39	104.30
44	1	367	A	C5-N7-C8	-7.81	99.99	103.90
44	1	665	A	N9-C4-C5	-7.81	102.68	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	13	A	C5-N7-C8	-7.81	100.00	103.90
44	1	3046	A	C4-C5-N7	7.80	114.60	110.70
44	1	1380	G	N7-C8-N9	7.80	117.00	113.10
44	1	3139	A	C5-C6-N1	7.80	121.60	117.70
44	1	3043	C	N3-C4-C5	7.79	125.02	121.90
44	1	349	A	N9-C4-C5	-7.79	102.68	105.80
10	N	96	ARG	NE-CZ-NH2	-7.79	116.41	120.30
44	1	410	U	N3-C4-O4	7.79	124.85	119.40
44	1	1298	C	C6-N1-C2	-7.78	117.19	120.30
44	1	1298	C	N3-C4-N4	7.78	123.45	118.00
44	1	646	A	C5-C6-N6	-7.78	117.48	123.70
44	1	1335	C	N3-C4-C5	7.78	125.01	121.90
44	1	3110	C	C5-C4-N4	-7.78	114.76	120.20
44	1	1435	A	N7-C8-N9	7.77	117.69	113.80
45	2	13	A	C4-C5-N7	7.77	114.58	110.70
44	1	60	A	C5-N7-C8	-7.76	100.02	103.90
44	1	1170	A	N1-C6-N6	7.76	123.26	118.60
44	1	2887	A	C5-C6-N6	-7.76	117.49	123.70
45	2	92	A	C5-N7-C8	-7.76	100.02	103.90
44	1	427	C	C5-C4-N4	-7.75	114.77	120.20
44	1	2948	C	C6-N1-C2	-7.75	117.20	120.30
44	1	3100	U	N3-C2-O2	-7.75	116.77	122.20
44	1	1459	C	N3-C2-O2	-7.75	116.47	121.90
44	1	1461	A	C5-C6-N6	-7.75	117.50	123.70
44	1	1160	C	C5-C4-N4	-7.75	114.78	120.20
44	1	1893	A	C5-C6-N6	-7.75	117.50	123.70
44	1	3043	C	N1-C2-O2	7.75	123.55	118.90
44	1	130	A	C5-N7-C8	-7.74	100.03	103.90
44	1	1312	C	N1-C2-O2	7.74	123.54	118.90
44	1	2886	U	C5-C6-N1	7.73	126.57	122.70
44	1	54	C	N3-C4-N4	7.73	123.41	118.00
44	1	204	A	C5-C6-N1	7.73	121.56	117.70
44	1	2836	C	C6-N1-C2	-7.72	117.21	120.30
44	1	656	A	C4-C5-N7	7.71	114.56	110.70
44	1	2913	C	N3-C4-C5	7.71	124.98	121.90
44	1	1403	C	N1-C2-O2	7.71	123.52	118.90
44	1	130	A	C5-C6-N6	-7.70	117.54	123.70
44	1	1307	G	N3-C4-N9	7.70	130.62	126.00
44	1	2892	A	C4-C5-N7	7.70	114.55	110.70
44	1	3046	A	C5-N7-C8	-7.69	100.05	103.90
44	1	806	A	C5-C6-N6	-7.69	117.55	123.70
44	1	3006	A	C5-N7-C8	-7.69	100.05	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3134	A	C4-C5-N7	7.69	114.55	110.70
44	1	1422	G	C6-C5-N7	-7.69	125.79	130.40
44	1	114	A	C5-C6-N1	7.68	121.54	117.70
45	2	40	A	C5-N7-C8	-7.67	100.06	103.90
44	1	2358	A	C5-N7-C8	-7.67	100.06	103.90
44	1	2994	A	N1-C6-N6	7.67	123.20	118.60
44	1	663	C	N3-C4-N4	7.67	123.37	118.00
44	1	27	C	C5-C6-N1	7.67	124.83	121.00
44	1	1498	A	C4-C5-N7	7.67	114.53	110.70
44	1	3145	C	N1-C2-O2	7.67	123.50	118.90
44	1	3019	U	C6-N1-C2	-7.66	116.40	121.00
45	2	45	C	N1-C2-O2	7.66	123.50	118.90
11	O	18	ARG	NE-CZ-NH1	7.66	124.13	120.30
44	1	1226	G	C4-C5-N7	7.66	113.86	110.80
44	1	1525	G	C5-N7-C8	-7.66	100.47	104.30
44	1	2925	C	C2-N1-C1'	7.65	127.22	118.80
44	1	3021	A	C5-C6-N6	-7.65	117.58	123.70
44	1	3139	A	C4-C5-N7	7.65	114.53	110.70
44	1	2376	G	N3-C2-N2	7.65	125.25	119.90
44	1	2910	A	C4-C5-C6	-7.65	113.18	117.00
44	1	2136	C	C6-N1-C2	-7.64	117.24	120.30
44	1	389	A	C4-C5-N7	7.64	114.52	110.70
45	2	66	A	C5-C6-N6	-7.64	117.59	123.70
2	C	182	LEU	CA-CB-CG	7.64	132.87	115.30
44	1	1187	C	N3-C4-N4	-7.64	112.65	118.00
44	1	801	A	C5-C6-N6	-7.63	117.59	123.70
44	1	1333	C	N1-C2-O2	7.63	123.48	118.90
44	1	64	G	C4-C5-N7	7.63	113.85	110.80
44	1	666	A	C5-C6-N1	7.63	121.52	117.70
44	1	1498	A	N7-C8-N9	7.63	117.61	113.80
44	1	613	G	N7-C8-N9	7.63	116.91	113.10
44	1	3141	A	N9-C4-C5	-7.63	102.75	105.80
45	2	120	C	C5-C4-N4	-7.63	114.86	120.20
44	1	701	G	N3-C2-N2	7.62	125.24	119.90
44	1	926	A	C5-C6-N6	-7.62	117.60	123.70
44	1	3089	C	N1-C2-O2	7.62	123.47	118.90
45	2	9	A	C5-C6-N1	7.62	121.51	117.70
44	1	804	C	N3-C4-C5	7.62	124.95	121.90
44	1	1420	C	C5-C6-N1	7.62	124.81	121.00
45	2	137	C	N3-C4-N4	7.62	123.33	118.00
44	1	1423	C	N3-C4-C5	7.62	124.95	121.90
44	1	16	A	N7-C8-N9	7.61	117.61	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	19	C	C5-C6-N1	7.61	124.81	121.00
44	1	3273	A	C4-C5-C6	-7.61	113.20	117.00
44	1	3295	A	C5-C6-N1	7.61	121.50	117.70
44	1	3091	A	C5-C6-N1	7.61	121.50	117.70
44	1	1474	A	C5-C6-N6	-7.60	117.62	123.70
44	1	1443	G	C5-N7-C8	-7.60	100.50	104.30
44	1	1895	A	C5-C6-N1	7.60	121.50	117.70
44	1	1382	G	C5-N7-C8	-7.60	100.50	104.30
45	2	36	G	N7-C8-N9	7.59	116.90	113.10
10	N	38	ARG	NE-CZ-NH1	7.59	124.09	120.30
44	1	58	G	N9-C4-C5	-7.58	102.37	105.40
44	1	347	G	C5-N7-C8	-7.58	100.51	104.30
44	1	323	A	N1-C6-N6	7.58	123.14	118.60
44	1	113	C	N3-C2-O2	-7.57	116.60	121.90
44	1	369	A	C4-C5-N7	7.57	114.48	110.70
44	1	2367	A	C4-C5-N7	7.57	114.48	110.70
44	1	345	G	N3-C2-N2	7.57	125.20	119.90
44	1	2352	A	C5-N7-C8	-7.56	100.12	103.90
44	1	12	A	C5-C6-N1	7.56	121.48	117.70
44	1	815	G	C6-C5-N7	-7.56	125.86	130.40
44	1	503	C	C5-C4-N4	-7.55	114.91	120.20
44	1	882	A	C8-N9-C4	-7.55	102.78	105.80
45	2	113	U	C5-C6-N1	7.55	126.48	122.70
44	1	56	G	C5-N7-C8	-7.55	100.53	104.30
44	1	1190	A	N9-C4-C5	-7.55	102.78	105.80
44	1	1437	C	N3-C4-N4	7.54	123.28	118.00
44	1	3016	A	C5-C6-N1	7.54	121.47	117.70
44	1	928	C	N3-C4-N4	7.54	123.28	118.00
45	2	12	A	C5-N7-C8	-7.54	100.13	103.90
44	1	1456	A	C5-N7-C8	-7.54	100.13	103.90
45	2	21	C	N3-C2-O2	-7.54	116.63	121.90
44	1	1394	A	C5-C6-N1	7.53	121.47	117.70
44	1	107	A	C4-C5-N7	7.53	114.47	110.70
44	1	947	G	C5-N7-C8	-7.53	100.53	104.30
44	1	3097	C	C5-C4-N4	-7.53	114.93	120.20
44	1	2936	A	C5-C6-N1	7.53	121.47	117.70
44	1	3210	A	C5-N7-C8	-7.53	100.14	103.90
44	1	1161	G	C5-N7-C8	-7.53	100.54	104.30
44	1	123	A	N1-C6-N6	-7.53	114.08	118.60
44	1	1418	A	C8-N9-C4	7.53	108.81	105.80
44	1	1426	C	N1-C2-O2	7.53	123.42	118.90
44	1	1881	A	N9-C4-C5	-7.53	102.79	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	2933	A	C5-C6-N1	7.53	121.46	117.70
44	1	1162	U	C5-C4-O4	-7.52	121.39	125.90
44	1	3086	A	C5-C6-N1	7.52	121.46	117.70
44	1	3043	C	C5-C4-N4	-7.52	114.94	120.20
44	1	990	U	C5-C6-N1	7.52	126.46	122.70
44	1	3164	C	N3-C2-O2	-7.51	116.64	121.90
44	1	1290	A	N7-C8-N9	7.50	117.55	113.80
44	1	1161	G	N7-C8-N9	7.50	116.85	113.10
44	1	875	G	C6-C5-N7	-7.50	125.90	130.40
45	2	57	C	N3-C2-O2	-7.50	116.65	121.90
44	1	114	A	C5-N7-C8	-7.49	100.15	103.90
44	1	1112	A	C5-C6-N1	7.49	121.45	117.70
44	1	292	U	C2-N1-C1'	7.49	126.69	117.70
45	2	8	C	N1-C2-O2	7.49	123.39	118.90
44	1	3012	A	C5-C6-N1	7.49	121.44	117.70
46	6	23	U	C2-N1-C1'	7.49	126.68	117.70
44	1	803	C	N3-C4-N4	7.48	123.24	118.00
44	1	1179	A	N9-C4-C5	-7.48	102.81	105.80
44	1	1299	U	C2-N1-C1'	7.48	126.68	117.70
44	1	1615	C	N3-C2-O2	-7.48	116.66	121.90
44	1	228	U	C6-N1-C2	-7.48	116.52	121.00
44	1	365	A	C5-N7-C8	-7.47	100.16	103.90
24	b	370	ASP	CB-CG-OD2	7.47	125.02	118.30
44	1	1527	C	C5-C6-N1	7.47	124.74	121.00
44	1	2366	C	C6-N1-C2	-7.47	117.31	120.30
44	1	3040	A	C5-N7-C8	-7.47	100.17	103.90
44	1	637	C	N1-C2-O2	7.47	123.38	118.90
45	2	105	A	C5-C6-N1	7.47	121.43	117.70
44	1	373	A	C5-N7-C8	-7.46	100.17	103.90
44	1	1194	G	N3-C2-N2	7.46	125.12	119.90
44	1	1426	C	N3-C4-C5	7.46	124.89	121.90
44	1	303	G	N1-C2-N2	-7.46	109.48	116.20
44	1	423	A	C5-C6-N6	-7.46	117.73	123.70
44	1	1446	A	C4-C5-C6	-7.46	113.27	117.00
44	1	3083	G	C4-C5-N7	7.46	113.78	110.80
44	1	340	C	C2-N1-C1'	7.46	127.01	118.80
44	1	952	A	C5-C6-N1	7.46	121.43	117.70
44	1	3299	A	C4-C5-N7	7.46	114.43	110.70
46	6	231	A	N1-C6-N6	-7.46	114.12	118.60
44	1	355	A	C5-N7-C8	-7.45	100.17	103.90
44	1	1332	A	N1-C6-N6	7.44	123.07	118.60
44	1	3248	C	N3-C2-O2	-7.44	116.69	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	f	82	ARG	NE-CZ-NH1	7.44	124.02	120.30
44	1	1194	G	C4-C5-N7	7.43	113.77	110.80
44	1	622	A	C5-C6-N6	-7.43	117.76	123.70
44	1	29	C	N1-C2-O2	7.43	123.36	118.90
44	1	715	A	C5-C6-N6	-7.42	117.76	123.70
44	1	3296	A	C4-C5-N7	7.42	114.41	110.70
44	1	1132	C	C6-N1-C2	-7.42	117.33	120.30
44	1	3134	A	C5-N7-C8	-7.42	100.19	103.90
44	1	1381	A	N3-C4-C5	7.42	131.99	126.80
44	1	226	C	C5-C4-N4	-7.42	115.01	120.20
44	1	1105	A	C4-C5-N7	7.42	114.41	110.70
44	1	2355	G	C5-N7-C8	-7.42	100.59	104.30
14	R	42	ARG	NE-CZ-NH2	-7.41	116.59	120.30
44	1	1382	G	C4-C5-N7	7.41	113.77	110.80
44	1	1444	G	C4-C5-N7	7.41	113.77	110.80
44	1	1427	U	C5-C6-N1	7.41	126.41	122.70
44	1	3103	A	C4-C5-N7	7.41	114.40	110.70
44	1	663	C	N1-C2-O2	7.40	123.34	118.90
44	1	1752	A	C5-C6-N1	7.40	121.40	117.70
44	1	216	G	C4-C5-N7	7.40	113.76	110.80
44	1	1303	A	C5-C6-N1	7.40	121.40	117.70
44	1	215	G	C4-C5-N7	7.39	113.76	110.80
44	1	1493	G	N1-C2-N2	-7.39	109.55	116.20
44	1	1377	G	C2-N3-C4	-7.39	108.20	111.90
44	1	1514	G	N1-C2-N2	7.39	122.85	116.20
44	1	1332	A	C5-C6-N1	7.38	121.39	117.70
44	1	1342	C	N1-C2-O2	7.38	123.33	118.90
44	1	61	A	C4-C5-N7	7.38	114.39	110.70
44	1	1459	C	N1-C2-O2	7.38	123.33	118.90
8	L	101	ARG	NE-CZ-NH1	7.38	123.99	120.30
10	N	159	ARG	NE-CZ-NH1	7.38	123.99	120.30
41	u	32	CYS	CA-CB-SG	7.37	127.26	114.00
44	1	427	C	N1-C2-O2	7.37	123.32	118.90
44	1	1426	C	C6-N1-C2	-7.37	117.35	120.30
44	1	3320	A	C5-C6-N6	-7.37	117.81	123.70
44	1	342	A	C4-C5-C6	-7.36	113.32	117.00
44	1	352	A	C4-C5-C6	-7.36	113.32	117.00
44	1	705	A	N1-C6-N6	7.36	123.02	118.60
44	1	60	A	N9-C4-C5	-7.36	102.86	105.80
44	1	2114	C	C6-N1-C2	-7.36	117.36	120.30
44	1	3323	A	N9-C4-C5	-7.36	102.86	105.80
44	1	342	A	C5-C6-N1	7.35	121.38	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3097	C	N3-C2-O2	-7.35	116.75	121.90
44	1	344	A	N1-C6-N6	7.35	123.01	118.60
44	1	660	A	C8-N9-C4	-7.35	102.86	105.80
44	1	27	C	N1-C2-O2	7.35	123.31	118.90
45	2	37	A	C5-C6-N1	7.35	121.37	117.70
44	1	321	C	C5-C4-N4	-7.34	115.06	120.20
44	1	803	C	C5-C4-N4	-7.34	115.06	120.20
44	1	1159	A	C2-N3-C4	7.34	114.27	110.60
44	1	1420	C	C4-C5-C6	-7.34	113.73	117.40
44	1	1526	U	C2-N1-C1'	7.34	126.51	117.70
44	1	2940	A	C5-C6-N1	7.34	121.37	117.70
44	1	3046	A	C5-C6-N1	7.34	121.37	117.70
44	1	948	C	C5-C4-N4	-7.34	115.06	120.20
45	2	62	C	C5-C4-N4	-7.34	115.06	120.20
44	1	1635	G	N3-C2-N2	7.33	125.03	119.90
44	1	790	U	N3-C4-O4	7.33	124.53	119.40
44	1	3006	A	N7-C8-N9	7.33	117.47	113.80
44	1	3185	U	C5-C6-N1	7.33	126.37	122.70
44	1	347	G	N1-C2-N2	-7.33	109.60	116.20
44	1	1304	A	N7-C8-N9	7.33	117.46	113.80
44	1	800	G	N7-C8-N9	7.33	116.76	113.10
44	1	655	C	N3-C4-N4	7.32	123.13	118.00
44	1	667	C	N3-C4-N4	7.32	123.13	118.00
44	1	225	C	C5-C4-N4	-7.32	115.07	120.20
44	1	1437	C	C5-C6-N1	7.32	124.66	121.00
44	1	1395	G	N1-C2-N2	-7.32	109.61	116.20
44	1	3314	A	C4-C5-N7	7.32	114.36	110.70
44	1	1307	G	N3-C2-N2	7.32	125.02	119.90
44	1	367	A	N9-C4-C5	-7.32	102.87	105.80
44	1	586	C	N3-C2-O2	-7.32	116.78	121.90
44	1	1165	A	C4-C5-N7	7.31	114.36	110.70
44	1	1435	A	C4-C5-C6	-7.31	113.34	117.00
44	1	342	A	C4-C5-N7	7.31	114.35	110.70
44	1	2360	C	C5-C4-N4	-7.31	115.08	120.20
45	2	103	G	C5-N7-C8	-7.31	100.65	104.30
44	1	969	C	N1-C2-O2	7.31	123.28	118.90
44	1	123	A	C4-C5-C6	-7.30	113.35	117.00
45	2	10	A	N7-C8-N9	7.30	117.45	113.80
44	1	12	A	N9-C4-C5	-7.30	102.88	105.80
44	1	1380	G	C5-N7-C8	-7.30	100.65	104.30
44	1	1546	A	C5-C6-N6	-7.30	117.86	123.70
44	1	397	A	C8-N9-C4	-7.30	102.88	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1170	A	N7-C8-N9	7.30	117.45	113.80
44	1	1204	A	C4-C5-N7	7.29	114.35	110.70
44	1	585	A	N7-C8-N9	7.29	117.45	113.80
44	1	1588	A	N1-C6-N6	-7.29	114.22	118.60
44	1	2983	C	N3-C2-O2	-7.29	116.80	121.90
44	1	2986	U	C5-C6-N1	7.29	126.35	122.70
1	B	116	ARG	NE-CZ-NH1	7.29	123.95	120.30
44	1	651	G	C4-C5-N7	7.29	113.72	110.80
15	S	152	LEU	CB-CG-CD1	7.29	123.39	111.00
44	1	2114	C	N3-C2-O2	-7.29	116.80	121.90
44	1	2390	A	C5-C6-N1	7.29	121.34	117.70
44	1	1150	A	C5-C6-N6	-7.29	117.87	123.70
44	1	1475	A	C5-C6-N1	7.28	121.34	117.70
44	1	2985	C	O5'-P-OP2	-7.28	99.14	105.70
44	1	1806	A	C5-C6-N6	-7.28	117.88	123.70
45	2	157	U	C2-N1-C1'	7.28	126.44	117.70
2	C	95	ARG	NE-CZ-NH1	7.28	123.94	120.30
44	1	334	A	C5-C6-N6	-7.28	117.88	123.70
44	1	649	A	C5-C6-N1	7.28	121.34	117.70
44	1	23	A	C5-N7-C8	-7.27	100.26	103.90
44	1	920	A	C4-C5-N7	7.27	114.34	110.70
44	1	1304	A	C5-C6-N1	7.27	121.34	117.70
44	1	376	G	O4'-C1'-N9	7.27	114.02	108.20
44	1	1843	C	N3-C4-N4	7.27	123.09	118.00
44	1	516	A	N9-C4-C5	-7.26	102.89	105.80
44	1	1422	G	N7-C8-N9	7.26	116.73	113.10
45	2	77	A	C5-N7-C8	-7.26	100.27	103.90
44	1	209	A	N9-C4-C5	-7.26	102.90	105.80
44	1	2341	A	C5-C6-N1	7.26	121.33	117.70
44	1	357	A	C6-N1-C2	-7.26	114.25	118.60
44	1	2366	C	C5-C4-N4	-7.25	115.12	120.20
44	1	338	A	C4-C5-C6	-7.25	113.38	117.00
44	1	1279	C	N3-C2-O2	-7.25	116.83	121.90
44	1	1306	G	C5-N7-C8	-7.25	100.68	104.30
44	1	3127	A	N9-C4-C5	-7.25	102.90	105.80
44	1	3286	G	N3-C2-N2	7.25	124.97	119.90
44	1	1477	A	C5-C6-N1	7.25	121.32	117.70
44	1	649	A	C4-C5-N7	7.25	114.32	110.70
44	1	347	G	N3-C2-N2	7.24	124.97	119.90
44	1	1667	A	N7-C8-N9	7.24	117.42	113.80
44	1	1152	G	C8-N9-C1'	-7.24	117.59	127.00
44	1	1428	A	N9-C4-C5	-7.24	102.91	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	969	C	C6-N1-C2	-7.24	117.41	120.30
44	1	1433	A	C5-N7-C8	-7.24	100.28	103.90
44	1	1491	A	C5-C6-N1	7.24	121.32	117.70
44	1	3375	A	C5-C6-N1	7.24	121.32	117.70
44	1	588	G	N7-C8-N9	7.23	116.72	113.10
45	2	36	G	C5-N7-C8	-7.23	100.68	104.30
45	2	66	A	N1-C6-N6	7.23	122.94	118.60
44	1	3008	A	N9-C4-C5	-7.22	102.91	105.80
45	2	66	A	C5-N7-C8	-7.22	100.29	103.90
44	1	341	G	C6-C5-N7	-7.22	126.07	130.40
44	1	366	A	C5-C6-N1	7.22	121.31	117.70
44	1	1290	A	C5-N7-C8	-7.22	100.29	103.90
44	1	1329	U	C5-C6-N1	7.22	126.31	122.70
44	1	64	G	C5-N7-C8	-7.22	100.69	104.30
45	2	104	A	C4-C5-N7	7.22	114.31	110.70
44	1	1440	G	C5-N7-C8	-7.22	100.69	104.30
44	1	1695	U	O4'-C1'-N1	7.22	113.97	108.20
44	1	130	A	N9-C4-C5	-7.22	102.91	105.80
44	1	1603	A	C5-C6-N1	7.22	121.31	117.70
44	1	3127	A	C5-C6-N6	-7.21	117.93	123.70
44	1	1105	A	C5-C6-N1	7.21	121.31	117.70
44	1	792	G	C6-C5-N7	-7.21	126.08	130.40
44	1	1420	C	N3-C2-O2	-7.21	116.85	121.90
44	1	1835	A	C5-N7-C8	-7.21	100.30	103.90
44	1	1169	A	C5-C6-N6	-7.21	117.94	123.70
44	1	326	U	C5-C6-N1	7.20	126.30	122.70
44	1	1146	C	N3-C4-N4	7.20	123.04	118.00
44	1	1307	G	C6-C5-N7	-7.20	126.08	130.40
44	1	66	A	N1-C6-N6	-7.20	114.28	118.60
44	1	1546	A	C4-C5-N7	7.20	114.30	110.70
44	1	3021	A	C4-C5-N7	7.20	114.30	110.70
44	1	3097	C	C5-C6-N1	7.20	124.60	121.00
44	1	1461	A	C4-C5-N7	7.20	114.30	110.70
44	1	1203	A	C5-C6-N6	-7.19	117.95	123.70
44	1	1105	A	C5-N7-C8	-7.19	100.31	103.90
32	j	63	ARG	NE-CZ-NH1	-7.19	116.71	120.30
44	1	384	A	C5-C6-N6	-7.19	117.95	123.70
44	1	613	G	C5-N7-C8	-7.19	100.71	104.30
44	1	1337	A	C8-N9-C4	7.19	108.67	105.80
44	1	1799	A	C5-C6-N1	7.18	121.29	117.70
44	1	2884	C	N1-C2-O2	7.18	123.21	118.90
44	1	23	A	C5-C6-N1	7.18	121.29	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3382	U	C5-C6-N1	7.18	126.29	122.70
4	F	156	ILE	C-N-CA	7.17	139.63	121.70
44	1	55	G	C4-C5-N7	7.17	113.67	110.80
44	1	655	C	C5-C6-N1	7.17	124.59	121.00
1	B	19	ARG	NE-CZ-NH2	-7.17	116.71	120.30
27	e	24	ARG	NE-CZ-NH2	-7.17	116.71	120.30
44	1	205	C	N3-C2-O2	-7.17	116.88	121.90
44	1	1401	A	N1-C6-N6	7.17	122.90	118.60
44	1	3091	A	N9-C4-C5	-7.17	102.93	105.80
44	1	1874	A	N1-C6-N6	7.17	122.90	118.60
44	1	3181	C	C2-N1-C1'	7.17	126.69	118.80
8	L	35	ARG	NE-CZ-NH2	-7.17	116.72	120.30
44	1	1621	A	N7-C8-N9	7.17	117.38	113.80
44	1	519	A	C5-C6-N6	-7.17	117.97	123.70
44	1	1194	G	N7-C8-N9	7.17	116.68	113.10
45	2	46	G	C8-N9-C4	-7.17	103.53	106.40
44	1	1381	A	C4-C5-N7	7.16	114.28	110.70
44	1	6	A	N9-C4-C5	-7.16	102.94	105.80
44	1	1443	G	C4-C5-N7	7.16	113.66	110.80
44	1	3006	A	C4-C5-N7	7.16	114.28	110.70
44	1	1406	A	N1-C6-N6	-7.16	114.31	118.60
44	1	1615	C	N1-C2-O2	7.16	123.20	118.90
44	1	799	G	N3-C2-N2	7.16	124.91	119.90
44	1	1332	A	N3-C4-N9	7.16	133.12	127.40
44	1	504	A	N1-C6-N6	7.15	122.89	118.60
44	1	1404	G	N3-C4-C5	7.15	132.18	128.60
44	1	3295	A	C5-C6-N6	-7.15	117.98	123.70
44	1	497	C	N3-C4-C5	7.15	124.76	121.90
44	1	1190	A	C5-N7-C8	-7.15	100.32	103.90
44	1	1696	A	C5-C6-N1	7.15	121.28	117.70
44	1	3085	G	N3-C4-C5	7.15	132.18	128.60
44	1	355	A	C5-C6-N1	7.15	121.28	117.70
45	2	105	A	N1-C6-N6	7.15	122.89	118.60
44	1	1342	C	C6-N1-C2	-7.15	117.44	120.30
44	1	1800	A	C5-C6-N6	-7.15	117.98	123.70
44	1	76	G	N3-C2-N2	7.14	124.90	119.90
44	1	1469	C	C2-N3-C4	7.14	123.47	119.90
45	2	43	A	C5-C6-N1	7.14	121.27	117.70
44	1	3375	A	C5-C6-N6	-7.14	117.99	123.70
44	1	3196	U	C2-N1-C1'	7.13	126.26	117.70
44	1	348	A	N1-C6-N6	7.13	122.88	118.60
44	1	1314	C	N3-C2-O2	-7.13	116.91	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	6	A	C5-C6-N6	-7.13	118.00	123.70
44	1	1525	G	N9-C4-C5	-7.13	102.55	105.40
44	1	944	C	C5-C4-N4	-7.13	115.21	120.20
44	1	348	A	C5-C6-N6	-7.13	118.00	123.70
44	1	35	A	C5-C6-N1	7.12	121.26	117.70
44	1	641	C	C5-C4-N4	-7.12	115.21	120.20
39	s	27	ARG	NE-CZ-NH1	7.12	123.86	120.30
44	1	1895	A	C5-C6-N6	-7.12	118.00	123.70
44	1	793	C	N3-C4-C5	7.12	124.75	121.90
44	1	3085	G	N3-C4-N9	-7.12	121.73	126.00
44	1	81	C	C5-C4-N4	-7.11	115.22	120.20
44	1	142	C	N3-C4-N4	7.11	122.98	118.00
44	1	636	C	C5-C4-N4	-7.11	115.22	120.20
44	1	1598	G	C6-C5-N7	-7.11	126.13	130.40
44	1	2341	A	C4-C5-N7	7.11	114.25	110.70
44	1	1159	A	N3-C4-C5	-7.11	121.82	126.80
44	1	1896	A	C5-C6-N6	-7.11	118.01	123.70
44	1	1394	A	C5-N7-C8	-7.11	100.35	103.90
44	1	64	G	C4-N9-C1'	7.10	135.74	126.50
45	2	115	C	C5-C4-N4	-7.10	115.23	120.20
44	1	397	A	N7-C8-N9	7.10	117.35	113.80
44	1	2828	G	N3-C2-N2	7.10	124.87	119.90
44	1	3210	A	C5-C6-N1	7.10	121.25	117.70
44	1	1609	C	C5-C6-N1	7.10	124.55	121.00
2	C	195	ARG	NE-CZ-NH1	7.09	123.85	120.30
44	1	5	G	N3-C4-N9	-7.09	121.74	126.00
44	1	1312	C	N3-C2-O2	-7.09	116.93	121.90
44	1	2896	A	C5-C6-N1	7.09	121.25	117.70
44	1	1444	G	C8-N9-C4	-7.09	103.56	106.40
44	1	51	A	C4-C5-N7	7.09	114.24	110.70
44	1	20	A	C5-C6-N1	7.08	121.24	117.70
44	1	634	C	N3-C4-N4	7.08	122.96	118.00
44	1	705	A	C5-C6-N6	-7.08	118.03	123.70
44	1	929	A	C5-C6-N1	7.08	121.24	117.70
44	1	1493	G	C4-N9-C1'	7.08	135.71	126.50
44	1	319	A	C5-C6-N1	7.08	121.24	117.70
44	1	1535	A	C5-C6-N1	7.08	121.24	117.70
44	1	1203	A	N9-C4-C5	-7.08	102.97	105.80
44	1	53	G	C5-N7-C8	-7.08	100.76	104.30
44	1	1435	A	C5-C6-N1	7.07	121.24	117.70
23	a	87	ARG	NE-CZ-NH1	7.07	123.84	120.30
44	1	199	A	C5-C6-N1	7.07	121.24	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	296	A	C5-C6-N1	7.07	121.23	117.70
44	1	1904	C	C6-N1-C2	-7.07	117.47	120.30
44	1	1496	C	C6-N1-C1'	-7.07	112.32	120.80
45	2	9	A	C5-C6-N6	-7.07	118.05	123.70
44	1	47	C	C5-C4-N4	-7.07	115.25	120.20
44	1	1171	G	N3-C2-N2	7.07	124.85	119.90
44	1	1176	C	C6-N1-C2	-7.07	117.47	120.30
44	1	2345	A	C4-C5-N7	7.06	114.23	110.70
44	1	1786	G	C4-C5-N7	7.06	113.62	110.80
44	1	1178	G	O5'-P-OP1	-7.06	99.35	105.70
44	1	3183	A	C5-C6-N6	-7.06	118.05	123.70
44	1	1558	A	C4-C5-C6	-7.06	113.47	117.00
44	1	2993	G	N3-C2-N2	7.06	124.84	119.90
44	1	1165	A	C5-N7-C8	-7.05	100.37	103.90
44	1	2355	G	C5-C6-O6	-7.05	124.37	128.60
44	1	670	C	N3-C4-C5	7.05	124.72	121.90
45	2	74	U	N3-C2-O2	-7.05	117.26	122.20
44	1	2994	A	N9-C4-C5	-7.05	102.98	105.80
44	1	672	A	C4-C5-N7	7.04	114.22	110.70
44	1	729	C	C6-N1-C2	-7.04	117.48	120.30
44	1	1418	A	C4-C5-N7	7.04	114.22	110.70
45	2	33	A	C5-C6-N1	7.04	121.22	117.70
45	2	45	C	C6-N1-C2	-7.04	117.48	120.30
44	1	947	G	C4-N9-C1'	7.04	135.65	126.50
44	1	3104	U	C6-N1-C2	-7.04	116.78	121.00
44	1	1116	G	C4-N9-C1'	7.04	135.65	126.50
44	1	2878	G	C5-C6-O6	7.04	132.82	128.60
44	1	1797	A	C4-C5-C6	-7.04	113.48	117.00
44	1	215	G	C5-N7-C8	-7.03	100.78	104.30
44	1	990	U	C6-N1-C2	-7.03	116.78	121.00
44	1	3163	A	N9-C4-C5	-7.03	102.99	105.80
45	2	110	C	C5-C4-N4	-7.03	115.28	120.20
44	1	573	C	N1-C2-O2	7.03	123.12	118.90
44	1	637	C	N3-C2-O2	-7.03	116.98	121.90
44	1	70	A	C5-C6-N1	7.03	121.21	117.70
44	1	920	A	C5-C6-N6	-7.02	118.08	123.70
44	1	3094	A	C5-C6-N1	7.02	121.21	117.70
44	1	106	A	C4-C5-N7	7.02	114.21	110.70
44	1	1462	A	C4-C5-N7	7.02	114.21	110.70
44	1	2355	G	N3-C2-N2	-7.02	114.99	119.90
46	6	2	C	C6-N1-C2	-7.02	117.49	120.30
44	1	384	A	C4-C5-N7	7.02	114.21	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	365	A	N7-C8-N9	7.01	117.31	113.80
44	1	1496	C	C5-C4-N4	-7.01	115.29	120.20
44	1	1527	C	C2-N1-C1'	7.01	126.52	118.80
6	H	124	ARG	NE-CZ-NH2	-7.01	116.79	120.30
44	1	2892	A	N9-C4-C5	-7.01	103.00	105.80
44	1	64	G	C8-N9-C1'	-7.01	117.89	127.00
44	1	628	A	C5-N7-C8	-7.01	100.39	103.90
44	1	3174	A	C5-C6-N1	7.01	121.20	117.70
44	1	1424	C	N3-C4-N4	7.01	122.91	118.00
10	N	143	ARG	NE-CZ-NH1	7.00	123.80	120.30
27	e	45	ARG	NE-CZ-NH2	-7.00	116.80	120.30
44	1	1456	A	N7-C8-N9	7.00	117.30	113.80
44	1	3174	A	N9-C4-C5	-7.00	103.00	105.80
45	2	46	G	N7-C8-N9	7.00	116.60	113.10
44	1	667	C	C6-N1-C2	-7.00	117.50	120.30
44	1	932	U	N1-C2-O2	7.00	127.70	122.80
44	1	960	U	C2-N1-C1'	7.00	126.09	117.70
44	1	2925	C	N1-C2-O2	7.00	123.10	118.90
44	1	1462	A	C5-C6-N6	-7.00	118.10	123.70
45	2	133	G	C4-C5-N7	7.00	113.60	110.80
44	1	399	A	C5-C6-N1	6.99	121.20	117.70
44	1	435	C	N1-C2-O2	6.99	123.10	118.90
44	1	659	G	C2-N3-C4	-6.99	108.40	111.90
44	1	1339	C	N3-C2-O2	-6.99	117.00	121.90
44	1	794	U	C5-C6-N1	6.99	126.19	122.70
44	1	3057	U	N3-C2-O2	-6.99	117.31	122.20
44	1	1376	C	C2-N1-C1'	6.99	126.49	118.80
44	1	1402	C	C5-C4-N4	-6.99	115.31	120.20
44	1	3214	U	N3-C2-O2	-6.99	117.31	122.20
45	2	40	A	O5'-P-OP1	-6.99	99.41	105.70
45	2	105	A	C4-C5-N7	6.99	114.19	110.70
44	1	367	A	N1-C6-N6	6.99	122.79	118.60
44	1	1836	C	C6-N1-C2	-6.98	117.51	120.30
44	1	1446	A	C5-N7-C8	-6.98	100.41	103.90
44	1	500	C	N1-C2-O2	6.98	123.08	118.90
44	1	1360	C	C5-C4-N4	-6.98	115.32	120.20
44	1	282	G	C4-N9-C1'	6.97	135.57	126.50
44	1	652	G	C8-N9-C1'	-6.97	117.93	127.00
45	2	10	A	N9-C4-C5	-6.97	103.01	105.80
45	2	30	C	N1-C2-O2	6.97	123.08	118.90
44	1	1509	A	C5-N7-C8	-6.96	100.42	103.90
11	O	117	ARG	NE-CZ-NH1	6.96	123.78	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	932	U	N3-C2-O2	-6.96	117.33	122.20
44	1	1175	C	N3-C4-C5	6.96	124.68	121.90
44	1	1358	C	C5-C4-N4	-6.96	115.33	120.20
44	1	289	A	N1-C6-N6	6.96	122.78	118.60
44	1	1799	A	C5-N7-C8	-6.96	100.42	103.90
45	2	149	A	C5-C6-N1	6.96	121.18	117.70
45	2	26	U	N3-C2-O2	-6.95	117.33	122.20
44	1	75	G	C4-C5-N7	6.95	113.58	110.80
45	2	96	A	C4-C5-C6	-6.95	113.52	117.00
44	1	422	A	C8-N9-C4	-6.95	103.02	105.80
44	1	3035	A	C4-C5-N7	6.95	114.17	110.70
44	1	800	G	C8-N9-C4	-6.95	103.62	106.40
44	1	1430	U	C5-C6-N1	6.95	126.17	122.70
44	1	61	A	C5-C6-N1	6.94	121.17	117.70
44	1	1303	A	C4-C5-N7	6.94	114.17	110.70
44	1	632	G	C4-N9-C1'	6.93	135.51	126.50
44	1	1893	A	C4-C5-N7	6.93	114.17	110.70
44	1	3103	A	N9-C4-C5	-6.93	103.03	105.80
44	1	1456	A	C5-C6-N6	-6.93	118.16	123.70
44	1	3182	G	C4-C5-N7	6.93	113.57	110.80
44	1	1329	U	N3-C2-O2	-6.92	117.35	122.20
44	1	159	A	C5-C6-N1	6.92	121.16	117.70
44	1	683	U	C5-C6-N1	6.92	126.16	122.70
44	1	1699	A	N1-C6-N6	-6.92	114.45	118.60
44	1	3314	A	C5-C6-N6	-6.92	118.16	123.70
45	2	132	G	N7-C8-N9	6.92	116.56	113.10
44	1	3213	A	N9-C4-C5	-6.92	103.03	105.80
44	1	3145	C	N3-C2-O2	-6.92	117.06	121.90
45	2	4	C	N1-C2-O2	6.92	123.05	118.90
4	F	232	ARG	NE-CZ-NH1	6.92	123.76	120.30
44	1	2376	G	C4-C5-N7	6.92	113.57	110.80
44	1	315	C	N1-C2-O2	6.92	123.05	118.90
32	j	25	ARG	NE-CZ-NH1	6.91	123.76	120.30
44	1	63	A	C5-N7-C8	-6.91	100.44	103.90
44	1	1396	C	C5-C4-N4	-6.91	115.36	120.20
4	F	88	ARG	NE-CZ-NH1	6.91	123.75	120.30
44	1	500	C	C6-N1-C2	-6.91	117.54	120.30
44	1	701	G	N3-C4-N9	6.91	130.14	126.00
44	1	88	A	C5-C6-N6	-6.90	118.18	123.70
45	2	30	C	C5-C4-N4	-6.90	115.37	120.20
44	1	1108	U	N3-C2-O2	-6.90	117.37	122.20
44	1	1338	C	C5-C4-N4	-6.90	115.37	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1146	C	C5-C4-N4	-6.90	115.37	120.20
44	1	588	G	C5-N7-C8	-6.90	100.85	104.30
44	1	614	C	C5-C4-N4	-6.89	115.38	120.20
44	1	1613	A	C6-N1-C2	-6.89	114.47	118.60
44	1	55	G	C5-N7-C8	-6.89	100.86	104.30
44	1	212	G	C4-N9-C1'	6.89	135.46	126.50
44	1	1280	C	N3-C2-O2	-6.89	117.08	121.90
45	2	65	A	C5-N7-C8	-6.89	100.46	103.90
44	1	52	A	C4-C5-N7	6.89	114.14	110.70
44	1	1336	U	C5-C6-N1	6.89	126.14	122.70
44	1	1837	U	C5-C6-N1	6.89	126.14	122.70
44	1	3085	G	N3-C2-N2	-6.89	115.08	119.90
44	1	3139	A	N1-C6-N6	6.89	122.73	118.60
44	1	585	A	C5-C6-N1	6.88	121.14	117.70
44	1	2348	A	N9-C4-C5	-6.88	103.05	105.80
44	1	497	C	N1-C2-O2	6.88	123.03	118.90
44	1	1135	A	C4-C5-N7	6.88	114.14	110.70
44	1	1364	C	N1-C2-O2	6.88	123.03	118.90
44	1	2899	C	N3-C2-O2	-6.88	117.09	121.90
10	N	31	ARG	NE-CZ-NH1	6.87	123.74	120.30
44	1	28	C	C5-C6-N1	6.87	124.44	121.00
44	1	100	A	N7-C8-N9	6.87	117.23	113.80
44	1	928	C	C2-N1-C1'	6.86	126.35	118.80
45	2	10	A	C6-C5-N7	-6.86	127.50	132.30
44	1	1418	A	N1-C6-N6	6.86	122.72	118.60
44	1	1444	G	C5-N7-C8	-6.86	100.87	104.30
44	1	20	A	C5-N7-C8	-6.86	100.47	103.90
44	1	1152	G	N3-C2-N2	6.86	124.70	119.90
44	1	1419	A	C5-C6-N1	6.85	121.12	117.70
44	1	1529	A	C5-C6-N1	6.85	121.13	117.70
44	1	658	G	C5-N7-C8	-6.85	100.88	104.30
44	1	693	A	N1-C6-N6	6.85	122.71	118.60
44	1	1306	G	C8-N9-C4	-6.85	103.66	106.40
44	1	1608	C	N3-C4-C5	6.85	124.64	121.90
44	1	3048	A	C5-C6-N6	-6.85	118.22	123.70
44	1	282	G	N1-C2-N2	-6.85	110.04	116.20
44	1	242	C	N3-C4-N4	-6.84	113.21	118.00
44	1	1424	C	N3-C4-C5	6.84	124.64	121.90
44	1	3161	C	C6-N1-C2	-6.84	117.56	120.30
44	1	3257	C	N3-C4-C5	6.84	124.64	121.90
45	2	13	A	C5-C6-N6	-6.84	118.22	123.70
44	1	1342	C	C5-C6-N1	6.84	124.42	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	39	G	N3-C2-N2	6.84	124.69	119.90
44	1	3083	G	N9-C4-C5	-6.84	102.67	105.40
44	1	2345	A	C5-N7-C8	-6.84	100.48	103.90
44	1	805	G	C5-N7-C8	-6.83	100.88	104.30
44	1	3048	A	C4-C5-N7	6.83	114.12	110.70
44	1	653	A	N7-C8-N9	6.83	117.22	113.80
44	1	3012	A	C4-C5-C6	-6.83	113.58	117.00
44	1	8	C	C5-C6-N1	6.83	124.42	121.00
44	1	519	A	N9-C4-C5	-6.83	103.07	105.80
44	1	630	A	N1-C2-N3	-6.83	125.89	129.30
44	1	945	C	C2-N1-C1'	6.83	126.31	118.80
44	1	1800	A	C4-C5-N7	6.83	114.11	110.70
45	2	37	A	C4-C5-C6	-6.83	113.59	117.00
44	1	882	A	N7-C8-N9	6.82	117.21	113.80
44	1	516	A	C4-C5-N7	6.82	114.11	110.70
44	1	1106	G	C8-N9-C4	-6.82	103.67	106.40
44	1	2348	A	C4-C5-N7	6.82	114.11	110.70
44	1	3052	G	N7-C8-N9	6.82	116.51	113.10
44	1	3174	A	N1-C6-N6	6.82	122.69	118.60
45	2	89	A	C5-C6-N1	6.82	121.11	117.70
44	1	57	A	C5-N7-C8	-6.82	100.49	103.90
44	1	1603	A	C4-C5-C6	-6.82	113.59	117.00
45	2	148	G	C8-N9-C4	-6.82	103.67	106.40
44	1	430	U	C5-C6-N1	6.81	126.11	122.70
44	1	1657	C	N3-C4-N4	6.81	122.77	118.00
44	1	2360	C	N1-C2-O2	6.81	122.98	118.90
44	1	3296	A	C5-C6-N6	-6.80	118.26	123.70
44	1	3307	A	C5-C6-N1	6.80	121.10	117.70
44	1	224	C	N3-C4-N4	6.80	122.76	118.00
44	1	342	A	C5-C6-N6	-6.80	118.26	123.70
44	1	1411	C	C5-C4-N4	-6.80	115.44	120.20
44	1	1823	A	C5-C6-N1	6.80	121.10	117.70
44	1	3097	C	C2-N1-C1'	6.80	126.28	118.80
45	2	28	C	N3-C4-N4	6.80	122.76	118.00
44	1	58	G	N7-C8-N9	6.80	116.50	113.10
44	1	242	C	N1-C2-O2	6.80	122.98	118.90
44	1	676	G	C4-C5-N7	6.80	113.52	110.80
44	1	1404	G	C2-N3-C4	-6.80	108.50	111.90
44	1	1546	A	C8-N9-C4	6.80	108.52	105.80
44	1	402	A	C5-C6-N6	-6.79	118.27	123.70
44	1	1193	A	C5-C6-N6	-6.79	118.27	123.70
44	1	2370	G	N3-C2-N2	6.79	124.65	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	100	U	C6-N1-C2	-6.79	116.93	121.00
44	1	200	C	N1-C2-O2	6.79	122.97	118.90
44	1	676	G	C5-N7-C8	-6.79	100.91	104.30
44	1	3314	A	N9-C4-C5	-6.79	103.09	105.80
44	1	282	G	N3-C2-N2	6.78	124.65	119.90
44	1	1594	A	N1-C6-N6	-6.78	114.53	118.60
44	1	2378	C	C6-N1-C2	-6.78	117.59	120.30
45	2	4	C	C6-N1-C2	-6.78	117.59	120.30
44	1	226	C	N3-C2-O2	-6.78	117.16	121.90
45	2	89	A	C5-N7-C8	-6.78	100.51	103.90
44	1	3305	A	C5-C6-N1	6.78	121.09	117.70
44	1	216	G	C5-N7-C8	-6.77	100.91	104.30
44	1	3091	A	N1-C6-N6	6.77	122.67	118.60
44	1	1419	A	C4-C5-C6	-6.77	113.61	117.00
45	2	17	A	C5-C6-N1	6.77	121.09	117.70
3	E	31	ARG	NE-CZ-NH1	6.77	123.69	120.30
44	1	696	C	N3-C4-N4	6.77	122.74	118.00
44	1	656	A	C5-C6-N6	-6.77	118.29	123.70
45	2	66	A	N9-C4-C5	-6.76	103.09	105.80
44	1	1510	G	N1-C6-O6	-6.76	115.84	119.90
44	1	2098	C	N3-C2-O2	-6.76	117.17	121.90
44	1	430	U	C6-N1-C2	-6.76	116.94	121.00
44	1	1108	U	N1-C2-O2	6.76	127.53	122.80
44	1	1177	G	C8-N9-C1'	-6.75	118.22	127.00
44	1	1363	A	C6-C5-N7	-6.75	127.57	132.30
44	1	328	U	C5-C6-N1	6.75	126.08	122.70
44	1	630	A	C5-C6-N1	6.75	121.08	117.70
44	1	1444	G	C4-N9-C1'	6.75	135.28	126.50
44	1	1461	A	C5-N7-C8	-6.75	100.52	103.90
44	1	1883	A	C5-C6-N1	6.75	121.08	117.70
44	1	3235	C	C6-N1-C2	-6.75	117.60	120.30
44	1	418	A	C4-C5-N7	6.75	114.07	110.70
44	1	76	G	N1-C2-N2	-6.74	110.13	116.20
44	1	1440	G	N7-C8-N9	6.74	116.47	113.10
44	1	3004	C	C6-N1-C2	-6.74	117.60	120.30
44	1	2899	C	C2-N1-C1'	6.74	126.22	118.80
44	1	928	C	N3-C2-O2	-6.74	117.18	121.90
44	1	1741	A	N1-C6-N6	-6.74	114.56	118.60
44	1	2101	C	C6-N1-C2	-6.74	117.61	120.30
44	1	3296	A	C5-N7-C8	-6.74	100.53	103.90
10	N	105	ARG	NE-CZ-NH1	6.74	123.67	120.30
44	1	630	A	N3-C4-N9	6.74	132.79	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	O	94	ARG	NE-CZ-NH1	6.74	123.67	120.30
44	1	53	G	N7-C8-N9	6.74	116.47	113.10
44	1	1150	A	N7-C8-N9	6.73	117.17	113.80
44	1	1802	C	C5-C4-N4	-6.73	115.49	120.20
44	1	651	G	C5-N7-C8	-6.73	100.93	104.30
45	2	16	G	N3-C4-N9	-6.73	121.96	126.00
44	1	116	A	C4-C5-C6	-6.73	113.64	117.00
44	1	332	C	N1-C2-O2	6.73	122.94	118.90
44	1	1527	C	N3-C4-N4	6.73	122.71	118.00
44	1	396	A	N9-C4-C5	-6.73	103.11	105.80
44	1	336	A	C5-C6-N1	6.72	121.06	117.70
44	1	3091	A	C4-C5-N7	6.72	114.06	110.70
44	1	293	C	N3-C4-C5	6.72	124.59	121.90
44	1	50	U	C6-N1-C2	-6.71	116.97	121.00
44	1	366	A	N9-C4-C5	-6.71	103.11	105.80
45	2	47	C	N1-C2-O2	6.71	122.93	118.90
44	1	3137	C	N3-C4-N4	6.71	122.70	118.00
1	B	21	ARG	NE-CZ-NH1	6.71	123.65	120.30
44	1	63	A	C4-C5-N7	6.71	114.06	110.70
44	1	1171	G	C4-C5-N7	6.71	113.48	110.80
44	1	586	C	C6-N1-C2	-6.71	117.62	120.30
44	1	3004	C	C5-C6-N1	6.71	124.35	121.00
45	2	115	C	N3-C4-N4	6.71	122.69	118.00
45	2	74	U	C6-N1-C2	-6.70	116.98	121.00
45	2	61	A	N1-C6-N6	-6.70	114.58	118.60
44	1	106	A	C4-C5-C6	-6.70	113.65	117.00
45	2	65	A	C4-C5-N7	6.70	114.05	110.70
44	1	951	A	C5-N7-C8	-6.70	100.55	103.90
44	1	1680	G	N3-C2-N2	6.70	124.59	119.90
44	1	1609	C	N3-C4-N4	6.70	122.69	118.00
44	1	1680	G	N1-C2-N2	-6.70	110.17	116.20
44	1	929	A	C4-C5-N7	6.69	114.05	110.70
44	1	794	U	C6-N1-C2	-6.69	116.98	121.00
44	1	1493	G	C8-N9-C1'	-6.69	118.30	127.00
44	1	1525	G	C6-C5-N7	-6.69	126.38	130.40
44	1	396	A	C4-C5-N7	6.69	114.05	110.70
44	1	410	U	C5-C6-N1	6.69	126.04	122.70
44	1	1474	A	C5-C6-N1	6.69	121.04	117.70
44	1	3211	C	N3-C4-N4	6.69	122.68	118.00
44	1	328	U	C6-N1-C2	-6.69	116.99	121.00
44	1	990	U	N1-C2-O2	6.69	127.48	122.80
44	1	920	A	N9-C4-C5	-6.69	103.12	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	P	181	ARG	NE-CZ-NH2	6.68	123.64	120.30
44	1	945	C	N3-C4-C5	6.68	124.57	121.90
44	1	34	A	C5-N7-C8	-6.68	100.56	103.90
44	1	641	C	N3-C4-C5	6.68	124.57	121.90
44	1	657	A	C4-C5-C6	-6.68	113.66	117.00
44	1	657	A	C5-C6-N6	-6.68	118.36	123.70
44	1	721	G	O5'-P-OP2	-6.68	99.69	105.70
44	1	3307	A	C5-N7-C8	-6.68	100.56	103.90
45	2	65	A	N1-C6-N6	6.68	122.61	118.60
44	1	20	A	C5-C6-N6	-6.67	118.36	123.70
44	1	117	U	C2-N1-C1'	6.67	125.71	117.70
44	1	1462	A	C5-N7-C8	-6.67	100.56	103.90
44	1	1189	C	C6-N1-C2	-6.67	117.63	120.30
44	1	1381	A	C2-N3-C4	-6.67	107.27	110.60
44	1	1654	A	C5-C6-N1	6.67	121.03	117.70
44	1	2828	G	C4-C5-N7	6.67	113.47	110.80
46	6	232	A	C5-C6-N1	6.66	121.03	117.70
44	1	3163	A	C4-C5-N7	6.66	114.03	110.70
44	1	3186	A	C5-N7-C8	-6.66	100.57	103.90
44	1	1856	C	N1-C2-O2	6.66	122.89	118.90
44	1	3005	A	C5-C6-N1	6.66	121.03	117.70
45	2	149	A	C5-C6-N6	-6.66	118.38	123.70
44	1	150	A	C5-C6-N1	6.65	121.03	117.70
44	1	397	A	N1-C6-N6	-6.65	114.61	118.60
44	1	1383	G	C8-N9-C4	-6.65	103.74	106.40
45	2	96	A	C4-C5-N7	6.65	114.03	110.70
44	1	1297	C	C5-C4-N4	-6.65	115.55	120.20
44	1	1404	G	C5-N7-C8	-6.65	100.98	104.30
44	1	1800	A	N1-C6-N6	6.65	122.59	118.60
44	1	3139	A	N7-C8-N9	6.65	117.12	113.80
44	1	3213	A	N1-C6-N6	6.65	122.59	118.60
2	C	197	ARG	NE-CZ-NH1	6.64	123.62	120.30
44	1	61	A	C5-N7-C8	-6.64	100.58	103.90
44	1	289	A	C5-C6-N6	-6.64	118.39	123.70
44	1	1255	C	C2-N1-C1'	6.64	126.11	118.80
44	1	923	C	N1-C2-O2	6.64	122.88	118.90
44	1	15	C	C6-N1-C2	-6.64	117.64	120.30
44	1	504	A	C5-C6-N1	6.64	121.02	117.70
44	1	1307	G	C4-N9-C1'	6.63	135.12	126.50
44	1	1602	A	N9-C4-C5	-6.63	103.15	105.80
44	1	407	A	C5-C6-N6	-6.63	118.40	123.70
44	1	1365	G	C8-N9-C1'	-6.63	118.38	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	938	C	N3-C4-C5	6.63	124.55	121.90
44	1	6	A	C5-N7-C8	-6.62	100.59	103.90
38	r	16	LYS	CB-CA-C	-6.62	97.15	110.40
44	1	1182	A	C5-C6-N1	6.62	121.01	117.70
44	1	1495	U	C5-C4-O4	6.62	129.87	125.90
44	1	3126	C	N1-C2-O2	6.62	122.87	118.90
44	1	1194	G	C5-N7-C8	-6.62	100.99	104.30
44	1	1372	C	N3-C4-N4	6.62	122.63	118.00
44	1	2343	C	N3-C2-O2	-6.62	117.27	121.90
44	1	347	G	C6-C5-N7	-6.61	126.43	130.40
44	1	402	A	C5-N7-C8	-6.61	100.59	103.90
44	1	3298	C	N1-C2-O2	6.61	122.87	118.90
44	1	366	A	N7-C8-N9	6.61	117.10	113.80
44	1	715	A	C4-C5-N7	6.61	114.00	110.70
44	1	1185	C	N1-C2-O2	6.61	122.86	118.90
44	1	23	A	C4-C5-N7	6.60	114.00	110.70
2	C	47	ARG	NE-CZ-NH1	6.60	123.60	120.30
44	1	802	C	C6-N1-C2	-6.60	117.66	120.30
44	1	1822	C	C6-N1-C2	-6.60	117.66	120.30
44	1	1863	G	N3-C4-N9	-6.60	122.04	126.00
44	1	3001	C	C5-C4-N4	-6.60	115.58	120.20
44	1	3083	G	C5-C6-O6	-6.60	124.64	128.60
44	1	2368	A	C5-C6-N6	-6.60	118.42	123.70
45	2	58	G	C6-C5-N7	-6.60	126.44	130.40
44	1	1859	A	C5-C6-N6	-6.59	118.42	123.70
44	1	1304	A	C5-N7-C8	-6.59	100.60	103.90
44	1	691	A	C4-C5-C6	-6.59	113.70	117.00
44	1	1749	A	C4-C5-C6	-6.59	113.70	117.00
45	2	16	G	N3-C4-C5	6.59	131.90	128.60
44	1	233	C	C5-C4-N4	-6.59	115.59	120.20
44	1	1203	A	C4-C5-N7	6.59	113.99	110.70
44	1	651	G	N7-C8-N9	6.59	116.39	113.10
44	1	3187	A	C5-C6-N1	6.59	120.99	117.70
44	1	395	A	C5-C6-N1	6.58	120.99	117.70
44	1	289	A	N9-C4-C5	-6.58	103.17	105.80
44	1	1449	A	N9-C4-C5	-6.58	103.17	105.80
44	1	1834	U	C5-C6-N1	6.58	125.99	122.70
44	1	3141	A	N1-C6-N6	6.58	122.55	118.60
30	h	89	ARG	NE-CZ-NH2	-6.58	117.01	120.30
44	1	1456	A	N1-C6-N6	6.58	122.55	118.60
44	1	151	A	C5-C6-N6	-6.58	118.44	123.70
44	1	1846	C	N1-C2-O2	6.57	122.84	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	142	C	N3-C4-N4	6.57	122.60	118.00
40	t	167	ARG	NE-CZ-NH1	6.57	123.58	120.30
44	1	18	G	C5-N7-C8	-6.57	101.02	104.30
44	1	1426	C	N3-C2-O2	-6.57	117.30	121.90
44	1	1437	C	N3-C2-O2	-6.57	117.30	121.90
44	1	1786	G	C6-C5-N7	-6.57	126.46	130.40
45	2	16	G	C5-N7-C8	-6.57	101.02	104.30
44	1	775	A	C4-C5-N7	6.56	113.98	110.70
44	1	1437	C	C2-N1-C1'	6.56	126.02	118.80
44	1	3131	U	N3-C4-O4	6.56	124.00	119.40
44	1	416	A	C4-C5-C6	-6.56	113.72	117.00
44	1	1403	C	N3-C4-N4	6.56	122.59	118.00
44	1	1424	C	C5-C6-N1	6.56	124.28	121.00
45	2	15	G	C2-N3-C4	-6.56	108.62	111.90
44	1	693	A	N9-C4-C5	-6.56	103.18	105.80
44	1	1335	C	N1-C2-O2	6.56	122.83	118.90
44	1	1435	A	C4-C5-N7	6.56	113.98	110.70
44	1	2844	C	C6-N1-C2	-6.56	117.68	120.30
45	2	18	U	C5-C6-N1	6.56	125.98	122.70
45	2	97	A	C4-C5-N7	6.56	113.98	110.70
44	1	418	A	C5-N7-C8	-6.55	100.62	103.90
44	1	1296	C	C5-C6-N1	6.55	124.28	121.00
44	1	1432	C	C6-N1-C2	6.55	122.92	120.30
44	1	2352	A	C5-C6-N1	6.54	120.97	117.70
12	P	82	ARG	NE-CZ-NH1	6.54	123.57	120.30
44	1	589	A	C6-N1-C2	-6.54	114.68	118.60
44	1	648	C	C6-N1-C2	-6.54	117.68	120.30
44	1	76	G	C5-N7-C8	-6.54	101.03	104.30
44	1	518	G	C4-N9-C1'	6.54	135.00	126.50
44	1	198	A	C5-C6-N1	6.53	120.97	117.70
44	1	205	C	N3-C4-C5	6.53	124.51	121.90
44	1	1380	G	C8-N9-C4	-6.53	103.79	106.40
44	1	3161	C	N3-C4-N4	6.53	122.57	118.00
44	1	1145	G	N3-C2-N2	6.53	124.47	119.90
44	1	1226	G	C6-C5-N7	-6.53	126.48	130.40
44	1	1504	A	C5-N7-C8	-6.53	100.63	103.90
44	1	12	A	N7-C8-N9	6.53	117.06	113.80
44	1	701	G	N9-C4-C5	-6.53	102.79	105.40
45	2	61	A	C4-C5-C6	-6.53	113.74	117.00
44	1	17	G	C4-C5-N7	6.53	113.41	110.80
44	1	1460	A	N1-C6-N6	6.53	122.52	118.60
45	2	129	C	N3-C2-O2	-6.52	117.34	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	d	19	ARG	NE-CZ-NH2	-6.52	117.04	120.30
44	1	680	G	C4-C5-N7	6.52	113.41	110.80
44	1	775	A	N9-C4-C5	-6.51	103.19	105.80
44	1	1468	A	C5-C6-N6	-6.51	118.49	123.70
44	1	1372	C	N3-C4-C5	6.51	124.50	121.90
45	2	140	G	N1-C2-N2	-6.51	110.34	116.20
44	1	225	C	N1-C2-O2	6.51	122.81	118.90
44	1	369	A	C5-N7-C8	-6.51	100.65	103.90
44	1	1423	C	N3-C4-N4	6.51	122.56	118.00
44	1	1874	A	C4-C5-N7	6.51	113.95	110.70
45	2	96	A	C5-N7-C8	-6.51	100.65	103.90
44	1	922	U	C2-N1-C1'	6.51	125.51	117.70
44	1	1112	A	C5-C6-N6	-6.51	118.50	123.70
44	1	2358	A	C5-C6-N6	-6.51	118.50	123.70
44	1	3163	A	C5-N7-C8	-6.51	100.65	103.90
44	1	3196	U	N1-C2-O2	6.50	127.35	122.80
44	1	412	G	C4-C5-N7	6.50	113.40	110.80
44	1	1497	C	N3-C2-O2	-6.50	117.35	121.90
44	1	58	G	C4-N9-C1'	6.50	134.95	126.50
44	1	220	G	N1-C2-N2	-6.50	110.35	116.20
44	1	1365	G	C5-N7-C8	-6.50	101.05	104.30
44	1	1504	A	C4-C5-N7	6.50	113.95	110.70
44	1	357	A	N1-C6-N6	6.50	122.50	118.60
44	1	715	A	C5-N7-C8	-6.50	100.65	103.90
44	1	1183	C	N1-C2-O2	6.50	122.80	118.90
44	1	335	G	C4-C5-N7	6.50	113.40	110.80
44	1	1437	C	N3-C4-C5	6.50	124.50	121.90
44	1	1303	A	C5-N7-C8	-6.49	100.65	103.90
44	1	928	C	N1-C2-O2	6.49	122.80	118.90
44	1	1443	G	N7-C8-N9	6.49	116.35	113.10
44	1	498	A	C5-C6-N1	6.49	120.94	117.70
44	1	1423	C	N3-C2-O2	-6.49	117.36	121.90
44	1	1843	C	N3-C4-C5	-6.49	119.30	121.90
44	1	82	C	N3-C4-N4	6.49	122.54	118.00
44	1	971	G	N3-C4-C5	6.49	131.84	128.60
44	1	1159	A	C6-N1-C2	-6.49	114.71	118.60
44	1	1701	C	N3-C2-O2	-6.49	117.36	121.90
44	1	1308	A	C4-C5-C6	-6.48	113.76	117.00
44	1	3121	U	P-O3'-C3'	6.48	127.48	119.70
44	1	2345	A	N9-C4-C5	-6.48	103.21	105.80
44	1	1598	G	C4-C5-N7	6.48	113.39	110.80
45	2	51	G	C8-N9-C1'	-6.48	118.58	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	2114	C	N1-C2-O2	6.48	122.79	118.90
1	B	26	ARG	NE-CZ-NH2	-6.47	117.06	120.30
45	2	91	C	N1-C2-O2	6.47	122.78	118.90
44	1	947	G	C6-C5-N7	-6.47	126.52	130.40
44	1	1422	G	N3-C2-N2	6.47	124.43	119.90
44	1	3362	A	N1-C6-N6	-6.47	114.72	118.60
44	1	426	G	C5-N7-C8	-6.46	101.07	104.30
44	1	1382	G	N3-C2-N2	6.46	124.42	119.90
44	1	1377	G	N3-C4-C5	6.46	131.83	128.60
44	1	1505	C	C6-N1-C2	-6.46	117.72	120.30
44	1	312	C	C5-C4-N4	-6.46	115.68	120.20
44	1	1609	C	N1-C2-O2	6.46	122.78	118.90
27	e	19	ARG	NE-CZ-NH1	6.46	123.53	120.30
44	1	56	G	C4-C5-N7	6.46	113.38	110.80
44	1	1835	A	C4-C5-N7	6.46	113.93	110.70
45	2	57	C	C6-N1-C2	-6.46	117.72	120.30
44	1	792	G	C4-C5-N7	6.46	113.38	110.80
44	1	1590	G	C4-C5-N7	6.46	113.38	110.80
44	1	2362	C	N3-C2-O2	-6.46	117.38	121.90
1	B	58	ARG	NE-CZ-NH1	6.45	123.53	120.30
6	H	91	ARG	NE-CZ-NH2	6.45	123.53	120.30
44	1	303	G	N3-C4-N9	6.45	129.87	126.00
44	1	1363	A	N7-C8-N9	6.45	117.03	113.80
44	1	22	G	C5-C6-N1	6.45	114.73	111.50
44	1	29	C	N3-C2-O2	-6.45	117.38	121.90
44	1	1332	A	C8-N9-C4	-6.45	103.22	105.80
44	1	1602	A	C5-C6-N6	-6.45	118.54	123.70
44	1	1307	G	N1-C2-N2	-6.45	110.40	116.20
44	1	3329	U	C6-N1-C2	-6.45	117.13	121.00
44	1	366	A	N1-C6-N6	6.44	122.47	118.60
44	1	519	A	C4-C5-N7	6.44	113.92	110.70
44	1	1496	C	N3-C4-N4	6.44	122.51	118.00
44	1	1550	C	C6-N1-C2	-6.44	117.72	120.30
44	1	1665	C	C5-C4-N4	-6.44	115.69	120.20
45	2	132	G	C5-N7-C8	-6.44	101.08	104.30
44	1	1537	A	C4-C5-N7	6.43	113.92	110.70
44	1	2361	A	C5-N7-C8	-6.43	100.68	103.90
44	1	3299	A	C5-N7-C8	-6.43	100.68	103.90
44	1	3021	A	N9-C4-C5	-6.43	103.23	105.80
44	1	408	A	C5-N7-C8	-6.43	100.69	103.90
44	1	1667	A	C5-N7-C8	-6.43	100.69	103.90
44	1	340	C	N3-C2-O2	-6.43	117.40	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	387	A	C5-C6-N6	-6.43	118.56	123.70
44	1	508	U	C5-C6-N1	6.43	125.91	122.70
10	N	159	ARG	NE-CZ-NH2	-6.42	117.09	120.30
44	1	3092	C	N1-C2-O2	6.42	122.75	118.90
44	1	810	A	C4-C5-C6	-6.42	113.79	117.00
44	1	2354	C	N3-C4-C5	6.42	124.47	121.90
29	g	60	ARG	NE-CZ-NH1	6.42	123.51	120.30
44	1	355	A	C4-C5-N7	6.42	113.91	110.70
44	1	937	G	C4-N9-C1'	6.42	134.84	126.50
44	1	212	G	C8-N9-C1'	-6.42	118.66	127.00
44	1	1640	G	C4-C5-N7	6.42	113.37	110.80
44	1	1800	A	C5-N7-C8	-6.42	100.69	103.90
44	1	2343	C	N1-C2-O2	6.42	122.75	118.90
44	1	791	A	C5-N7-C8	-6.41	100.69	103.90
44	1	3354	U	N1-C2-O2	6.41	127.29	122.80
45	2	30	C	N3-C2-O2	-6.41	117.41	121.90
44	1	1406	A	C5-N7-C8	-6.41	100.70	103.90
44	1	1491	A	N9-C4-C5	-6.41	103.24	105.80
44	1	652	G	C4-N9-C1'	6.41	134.83	126.50
44	1	1304	A	C5-C6-N6	-6.41	118.58	123.70
44	1	3249	C	C6-N1-C2	-6.41	117.74	120.30
10	N	49	ARG	NE-CZ-NH1	6.40	123.50	120.30
44	1	792	G	N7-C8-N9	6.40	116.30	113.10
41	u	44	ARG	NE-CZ-NH1	-6.40	117.10	120.30
44	1	345	G	C4-N9-C1'	6.40	134.82	126.50
44	1	3053	G	C6-C5-N7	-6.40	126.56	130.40
45	2	39	G	C4-C5-N7	6.40	113.36	110.80
44	1	75	G	C6-C5-N7	-6.40	126.56	130.40
44	1	283	G	C8-N9-C1'	-6.40	118.68	127.00
44	1	1397	C	C5-C4-N4	-6.40	115.72	120.20
44	1	936	A	C4-C5-N7	6.40	113.90	110.70
44	1	945	C	C5-C6-N1	6.40	124.20	121.00
44	1	935	U	C5-C6-N1	6.39	125.90	122.70
45	2	119	C	N3-C4-C5	6.39	124.46	121.90
44	1	1799	A	C4-C5-N7	6.39	113.90	110.70
45	2	77	A	N1-C6-N6	6.39	122.44	118.60
44	1	3375	A	C4-C5-N7	6.39	113.89	110.70
44	1	2353	G	C5-N7-C8	-6.39	101.11	104.30
45	2	117	C	C5-C4-N4	-6.39	115.73	120.20
44	1	1135	A	N9-C4-C5	-6.39	103.25	105.80
28	f	103	TYR	CA-CB-CG	6.39	125.53	113.40
44	1	123	A	C5-C6-N1	6.39	120.89	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	696	C	N3-C4-C5	6.39	124.45	121.90
44	1	48	A	C5-C6-N1	6.38	120.89	117.70
44	1	622	A	C4-C5-N7	6.38	113.89	110.70
44	1	1563	C	N3-C4-C5	6.38	124.45	121.90
35	n	47	ARG	NE-CZ-NH1	6.38	123.49	120.30
44	1	1602	A	C8-N9-C4	6.38	108.35	105.80
45	2	118	C	C5-C4-N4	-6.38	115.73	120.20
44	1	54	C	N1-C2-O2	6.38	122.73	118.90
44	1	595	G	N3-C4-N9	-6.38	122.17	126.00
44	1	1330	A	N7-C8-N9	6.38	116.99	113.80
44	1	3379	C	N3-C4-C5	6.38	124.45	121.90
44	1	289	A	N7-C8-N9	6.38	116.99	113.80
44	1	3140	G	C2-N3-C4	-6.38	108.71	111.90
44	1	52	A	C5-N7-C8	-6.37	100.71	103.90
44	1	1304	A	C4-C5-N7	6.37	113.89	110.70
44	1	1594	A	C6-N1-C2	-6.37	114.78	118.60
27	e	27	ARG	NE-CZ-NH2	-6.37	117.11	120.30
44	1	936	A	C4-C5-C6	-6.37	113.81	117.00
44	1	3011	A	C5-C6-N1	6.37	120.89	117.70
44	1	109	A	C4-C5-C6	-6.37	113.82	117.00
44	1	1158	A	C6-C5-N7	-6.37	127.84	132.30
44	1	962	A	C8-N9-C4	-6.37	103.25	105.80
44	1	611	A	C5-C6-N1	6.37	120.88	117.70
44	1	1468	A	C5-C6-N1	6.37	120.88	117.70
44	1	1625	A	N9-C4-C5	-6.37	103.25	105.80
44	1	335	G	C5-N7-C8	-6.36	101.12	104.30
44	1	666	A	C5-C6-N6	-6.36	118.61	123.70
44	1	936	A	C5-C6-N6	-6.36	118.61	123.70
44	1	1599	G	C4-C5-N7	6.36	113.34	110.80
44	1	3137	C	C6-N1-C2	-6.36	117.76	120.30
44	1	668	G	N7-C8-N9	6.36	116.28	113.10
32	j	73	ARG	NE-CZ-NH1	6.36	123.48	120.30
44	1	950	G	C4-C5-N7	6.36	113.34	110.80
44	1	972	A	C4-C5-C6	-6.36	113.82	117.00
44	1	3002	C	C5-C4-N4	-6.36	115.75	120.20
44	1	341	G	N7-C8-N9	6.36	116.28	113.10
44	1	2836	C	C2-N1-C1'	6.36	125.79	118.80
44	1	527	A	C5-C6-N1	6.35	120.88	117.70
44	1	282	G	N7-C8-N9	6.35	116.28	113.10
44	1	1437	C	N1-C2-O2	6.35	122.71	118.90
44	1	1837	U	C5-C4-O4	-6.35	122.09	125.90
44	1	1896	A	N1-C6-N6	6.35	122.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3244	A	C5-N7-C8	-6.35	100.72	103.90
45	2	35	C	N1-C2-O2	6.35	122.71	118.90
44	1	1802	C	N3-C4-C5	6.35	124.44	121.90
44	1	77	A	C5-N7-C8	-6.34	100.73	103.90
44	1	931	C	N1-C2-O2	6.34	122.71	118.90
44	1	1295	G	N3-C2-N2	6.34	124.34	119.90
44	1	497	C	C5-C4-N4	-6.34	115.76	120.20
45	2	105	A	N9-C4-C5	-6.34	103.26	105.80
44	1	387	A	C5-N7-C8	-6.34	100.73	103.90
44	1	701	G	N7-C8-N9	6.34	116.27	113.10
44	1	1909	A	C4-C5-N7	6.34	113.87	110.70
44	1	1643	A	C5-C6-N1	6.34	120.87	117.70
8	L	49	ARG	NE-CZ-NH2	6.33	123.47	120.30
44	1	279	U	C5-C6-N1	6.33	125.87	122.70
44	1	3131	U	C5-C4-O4	-6.33	122.10	125.90
14	R	42	ARG	NE-CZ-NH1	6.33	123.47	120.30
44	1	673	U	N3-C4-O4	6.33	123.83	119.40
44	1	2358	A	N7-C8-N9	6.33	116.97	113.80
45	2	156	U	C2-N1-C1'	6.33	125.30	117.70
44	1	3354	U	N3-C2-O2	-6.33	117.77	122.20
44	1	1163	A	N7-C8-N9	6.33	116.97	113.80
44	1	820	A	C5-C6-N6	-6.33	118.64	123.70
29	g	31	ARG	NE-CZ-NH1	6.33	123.46	120.30
44	1	3296	A	N9-C4-C5	-6.33	103.27	105.80
44	1	159	A	C5-C6-N6	-6.32	118.64	123.70
44	1	3023	U	N1-C2-O2	6.32	127.23	122.80
44	1	3314	A	C5-C6-N1	6.32	120.86	117.70
44	1	3213	A	C5-N7-C8	-6.32	100.74	103.90
44	1	1295	G	N1-C2-N2	-6.32	110.51	116.20
44	1	12	A	C6-C5-N7	-6.32	127.88	132.30
44	1	315	C	C5-C4-N4	-6.32	115.78	120.20
44	1	820	A	C5-C6-N1	6.32	120.86	117.70
44	1	965	A	C8-N9-C4	6.32	108.33	105.80
10	N	68	ARG	NE-CZ-NH2	-6.31	117.14	120.30
44	1	3214	U	N1-C2-O2	6.31	127.22	122.80
44	1	3372	A	C5-C6-N1	6.31	120.86	117.70
2	C	73	ARG	NE-CZ-NH1	6.31	123.45	120.30
44	1	282	G	C8-N9-C1'	-6.31	118.80	127.00
44	1	292	U	C6-N1-C1'	-6.31	112.37	121.20
44	1	1222	G	O4'-C1'-N9	6.31	113.25	108.20
44	1	1593	A	N1-C6-N6	-6.31	114.82	118.60
44	1	204	A	C5-C6-N6	-6.30	118.66	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	932	U	C5-C6-N1	6.30	125.85	122.70
44	1	3375	A	C5-N7-C8	-6.30	100.75	103.90
45	2	58	G	N9-C4-C5	-6.30	102.88	105.40
44	1	1881	A	N1-C6-N6	6.30	122.38	118.60
44	1	3086	A	C4-C5-C6	-6.30	113.85	117.00
45	2	77	A	C5-C6-N1	6.30	120.85	117.70
44	1	1404	G	N3-C4-N9	-6.30	122.22	126.00
44	1	1594	A	N9-C4-C5	-6.30	103.28	105.80
44	1	907	G	O4'-C1'-N9	6.30	113.24	108.20
44	1	653	A	C5-N7-C8	-6.30	100.75	103.90
44	1	1145	G	C4-C5-N7	6.30	113.32	110.80
44	1	10	C	N3-C4-N4	6.29	122.41	118.00
44	1	88	A	C4-C5-N7	6.29	113.85	110.70
44	1	407	A	C5-C6-N1	6.29	120.85	117.70
44	1	729	C	N1-C2-O2	6.29	122.68	118.90
44	1	1514	G	C2-N3-C4	6.29	115.05	111.90
10	N	172	ARG	NE-CZ-NH1	6.29	123.44	120.30
44	1	361	A	C5-N7-C8	-6.29	100.75	103.90
44	1	572	A	N1-C6-N6	-6.29	114.83	118.60
44	1	1177	G	C4-N9-C1'	6.29	134.68	126.50
44	1	1431	G	C5-N7-C8	-6.29	101.15	104.30
44	1	2914	G	N1-C6-O6	-6.29	116.12	119.90
44	1	3186	A	C4-C5-C6	-6.29	113.85	117.00
44	1	3214	U	C2-N1-C1'	6.29	125.25	117.70
44	1	1171	G	N3-C4-N9	6.29	129.77	126.00
44	1	3127	A	C4-C5-N7	6.29	113.84	110.70
44	1	3335	A	C5-C6-N1	6.29	120.84	117.70
11	O	37	ARG	NE-CZ-NH1	6.29	123.44	120.30
9	M	55	ARG	NE-CZ-NH1	6.29	123.44	120.30
44	1	54	C	N3-C4-C5	6.29	124.41	121.90
44	1	1156	C	C5-C4-N4	-6.29	115.80	120.20
44	1	1194	G	C4-N9-C1'	6.29	134.67	126.50
44	1	1411	C	N3-C4-C5	6.29	124.41	121.90
44	1	1657	C	C5-C4-N4	-6.29	115.80	120.20
44	1	2943	G	N3-C2-N2	6.29	124.30	119.90
44	1	353	G	C5-N7-C8	-6.28	101.16	104.30
44	1	3164	C	N3-C4-N4	-6.28	113.60	118.00
44	1	1854	C	C5-C4-N4	-6.28	115.80	120.20
44	1	2366	C	N1-C2-O2	6.28	122.67	118.90
44	1	1432	C	C6-N1-C1'	-6.28	113.27	120.80
44	1	1695	U	N3-C2-O2	-6.28	117.81	122.20
44	1	805	G	C4-C5-N7	6.28	113.31	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1169	A	C5-C6-N1	6.27	120.84	117.70
44	1	3132	C	N3-C4-N4	6.27	122.39	118.00
44	1	6	A	C5-C6-N1	6.27	120.84	117.70
44	1	283	G	C4-N9-C1'	6.27	134.65	126.50
44	1	331	G	N7-C8-N9	6.27	116.23	113.10
44	1	499	G	C5-N7-C8	-6.27	101.17	104.30
44	1	971	G	C5-N7-C8	-6.27	101.17	104.30
44	1	192	C	N3-C4-C5	6.27	124.41	121.90
44	1	920	A	C4-C5-C6	-6.27	113.87	117.00
44	1	1806	A	N9-C4-C5	-6.27	103.29	105.80
44	1	3244	A	N7-C8-N9	6.27	116.93	113.80
27	e	45	ARG	NE-CZ-NH1	6.27	123.43	120.30
44	1	2341	A	C5-N7-C8	-6.27	100.77	103.90
44	1	1162	U	N3-C4-O4	6.26	123.79	119.40
44	1	33	G	C4-C5-N7	6.26	113.31	110.80
44	1	841	A	C5-N7-C8	-6.26	100.77	103.90
44	1	1294	A	C4-C5-C6	-6.26	113.87	117.00
44	1	1341	U	C5-C4-O4	-6.26	122.14	125.90
2	C	69	ARG	NE-CZ-NH2	6.26	123.43	120.30
44	1	271	C	C5-C4-N4	-6.26	115.82	120.20
44	1	346	C	C6-N1-C1'	-6.26	113.29	120.80
44	1	3004	C	N3-C2-O2	-6.26	117.52	121.90
2	C	69	ARG	NE-CZ-NH1	-6.26	117.17	120.30
44	1	1278	A	N7-C8-N9	6.26	116.93	113.80
44	1	1526	U	C5-C6-N1	6.26	125.83	122.70
45	2	22	U	N3-C2-O2	-6.26	117.82	122.20
45	2	42	G	N7-C8-N9	6.26	116.23	113.10
44	1	932	U	C6-N1-C2	-6.25	117.25	121.00
44	1	1195	A	C4-C5-C6	-6.25	113.87	117.00
44	1	3148	U	C5-C6-N1	6.25	125.83	122.70
44	1	339	C	N3-C4-N4	6.25	122.38	118.00
45	2	9	A	C4-C5-N7	6.25	113.83	110.70
45	2	88	A	C5-N7-C8	-6.25	100.77	103.90
44	1	1524	A	C5-C6-N1	6.25	120.83	117.70
15	S	152	LEU	CA-CB-CG	6.25	129.68	115.30
44	1	30	G	C5-N7-C8	-6.25	101.17	104.30
44	1	677	A	C5-C6-N1	6.25	120.82	117.70
44	1	3354	U	C6-N1-C1'	-6.25	112.46	121.20
44	1	325	A	C2-N3-C4	6.25	113.72	110.60
44	1	1599	G	C6-C5-N7	-6.24	126.65	130.40
45	2	39	G	C5-N7-C8	-6.24	101.18	104.30
45	2	100	U	C5-C6-N1	6.24	125.82	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3165	A	N7-C8-N9	6.24	116.92	113.80
44	1	3320	A	C4-C5-N7	6.24	113.82	110.70
44	1	402	A	C4-C5-N7	6.24	113.82	110.70
44	1	1374	G	N9-C4-C5	-6.24	102.90	105.40
10	N	164	LEU	CA-CB-CG	6.24	129.65	115.30
44	1	973	A	C5-C6-N1	6.24	120.82	117.70
44	1	10	C	C5-C4-N4	-6.23	115.84	120.20
44	1	622	A	N1-C6-N6	6.23	122.34	118.60
44	1	1328	C	C5-C4-N4	-6.23	115.84	120.20
45	2	103	G	C4-N9-C1'	6.23	134.60	126.50
44	1	1414	G	C4-C5-N7	6.23	113.29	110.80
44	1	2353	G	N7-C8-N9	6.22	116.21	113.10
44	1	3000	A	C5-N7-C8	-6.22	100.79	103.90
23	a	117	ARG	NE-CZ-NH2	-6.22	117.19	120.30
44	1	1537	A	N9-C4-C5	-6.22	103.31	105.80
44	1	3181	C	C6-N1-C1'	-6.22	113.33	120.80
44	1	1364	C	N3-C2-O2	-6.22	117.55	121.90
44	1	3001	C	N1-C2-O2	6.22	122.63	118.90
2	C	188	ARG	NE-CZ-NH1	6.22	123.41	120.30
44	1	580	C	C5-C4-N4	-6.22	115.85	120.20
44	1	934	G	C5-N7-C8	-6.22	101.19	104.30
44	1	63	A	C5-C6-N6	-6.22	118.73	123.70
44	1	1196	C	N1-C2-O2	6.22	122.63	118.90
44	1	2366	C	N3-C4-N4	6.21	122.35	118.00
44	1	375	A	OP1-P-O3'	6.21	118.86	105.20
44	1	2341	A	C5-C6-N6	-6.21	118.73	123.70
44	1	658	G	C4-N9-C1'	6.21	134.57	126.50
44	1	3087	A	C5-C6-N6	-6.21	118.73	123.70
12	P	131	ARG	NE-CZ-NH1	6.21	123.40	120.30
44	1	678	G	C4-C5-N7	6.21	113.28	110.80
44	1	1204	A	N9-C4-C5	-6.21	103.32	105.80
4	F	107	ARG	NE-CZ-NH2	-6.21	117.20	120.30
44	1	325	A	N7-C8-N9	6.21	116.90	113.80
44	1	407	A	N9-C4-C5	-6.21	103.32	105.80
44	1	65	A	C4-C5-C6	-6.20	113.90	117.00
44	1	64	G	C6-C5-N7	-6.20	126.68	130.40
44	1	323	A	C5-C6-N1	6.20	120.80	117.70
44	1	2994	A	C4-C5-N7	6.20	113.80	110.70
21	Y	27	ARG	NE-CZ-NH2	-6.20	117.20	120.30
44	1	1846	C	N3-C2-O2	-6.20	117.56	121.90
44	1	658	G	C4-C5-N7	6.20	113.28	110.80
44	1	3049	A	C5-N7-C8	-6.20	100.80	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	E	48	ARG	NE-CZ-NH2	-6.19	117.20	120.30
44	1	841	A	C4-C5-N7	6.19	113.80	110.70
44	1	702	C	N3-C4-N4	6.19	122.33	118.00
44	1	1170	A	C5-C6-N1	6.19	120.80	117.70
45	2	133	G	C5-N7-C8	-6.19	101.20	104.30
1	B	232	ARG	NE-CZ-NH2	-6.19	117.21	120.30
34	l	8	ARG	NE-CZ-NH1	6.19	123.39	120.30
44	1	624	G	C6-C5-N7	-6.19	126.69	130.40
44	1	1612	A	C5-N7-C8	-6.19	100.81	103.90
44	1	3097	C	N3-C4-N4	6.19	122.33	118.00
44	1	26	A	C5-N7-C8	-6.18	100.81	103.90
44	1	686	G	N7-C8-N9	6.18	116.19	113.10
44	1	611	A	C5-N7-C8	-6.18	100.81	103.90
44	1	3153	U	C2-N1-C1'	6.18	125.12	117.70
44	1	904	A	N9-C4-C5	-6.18	103.33	105.80
44	1	58	G	N3-C2-N2	6.18	124.22	119.90
44	1	667	C	N1-C2-O2	6.18	122.61	118.90
44	1	1797	A	N1-C6-N6	-6.18	114.89	118.60
44	1	2390	A	C5-C6-N6	-6.18	118.76	123.70
45	2	141	C	N1-C2-O2	6.18	122.61	118.90
29	g	4	ARG	NE-CZ-NH2	-6.18	117.21	120.30
44	1	1105	A	N7-C8-N9	6.18	116.89	113.80
44	1	1299	U	N3-C2-O2	-6.18	117.88	122.20
44	1	1749	A	C5-C6-N1	6.18	120.79	117.70
44	1	3144	G	C4-C5-N7	6.18	113.27	110.80
44	1	1311	G	C5-N7-C8	-6.17	101.21	104.30
14	R	38	ARG	NE-CZ-NH1	6.17	123.39	120.30
14	R	62	ARG	NE-CZ-NH2	6.17	123.39	120.30
44	1	1152	G	C4-N9-C1'	6.17	134.52	126.50
44	1	3141	A	C4-C5-N7	6.17	113.79	110.70
44	1	107	A	N7-C8-N9	6.17	116.89	113.80
14	R	71	ARG	NE-CZ-NH1	6.17	123.38	120.30
44	1	1419	A	N9-C4-C5	-6.17	103.33	105.80
44	1	3112	G	C2-N3-C4	-6.17	108.82	111.90
44	1	1612	A	C4-C5-N7	6.17	113.78	110.70
45	2	51	G	C4-N9-C1'	6.17	134.51	126.50
44	1	3150	A	C5-C6-N1	6.16	120.78	117.70
44	1	1163	A	C6-N1-C2	-6.16	114.90	118.60
44	1	1392	G	C5-N7-C8	-6.16	101.22	104.30
44	1	3310	A	C5-N7-C8	-6.16	100.82	103.90
44	1	2881	C	N3-C2-O2	-6.16	117.59	121.90
41	u	44	ARG	NE-CZ-NH2	6.15	123.38	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1381	A	C4-C5-C6	-6.15	113.92	117.00
44	1	1655	G	C2-N3-C4	-6.15	108.82	111.90
1	B	339	ARG	NE-CZ-NH2	-6.15	117.22	120.30
16	T	139	ARG	NE-CZ-NH2	6.15	123.38	120.30
44	1	45	A	C5-C6-N1	6.15	120.78	117.70
44	1	417	A	C5-C6-N1	6.15	120.78	117.70
44	1	969	C	C5-C4-N4	-6.15	115.89	120.20
44	1	3057	U	N1-C2-O2	6.15	127.11	122.80
44	1	34	A	C4-C5-C6	-6.15	113.92	117.00
44	1	589	A	O4'-C1'-N9	-6.15	103.28	108.20
44	1	1798	A	C5-C6-N1	6.15	120.77	117.70
42	y	237	ARG	NE-CZ-NH1	6.15	123.37	120.30
44	1	1226	G	C4-N9-C1'	6.15	134.49	126.50
44	1	1602	A	C4-C5-N7	6.15	113.77	110.70
44	1	1524	A	C4-C5-C6	-6.14	113.93	117.00
44	1	3309	G	N3-C2-N2	6.14	124.20	119.90
46	6	47	A	C5-C6-N1	6.14	120.77	117.70
44	1	1116	G	O4'-C1'-N9	-6.14	103.29	108.20
45	2	130	C	N1-C2-O2	6.14	122.59	118.90
44	1	1176	C	N3-C2-O2	-6.14	117.60	121.90
44	1	2358	A	C4-C5-N7	6.14	113.77	110.70
45	2	74	U	N1-C2-O2	6.14	127.09	122.80
44	1	3172	A	N9-C4-C5	-6.13	103.35	105.80
44	1	2881	C	C6-N1-C2	-6.13	117.85	120.30
44	1	2890	A	C5-C6-N1	6.13	120.76	117.70
44	1	3029	A	N1-C6-N6	6.13	122.28	118.60
45	2	76	C	N3-C4-N4	6.13	122.29	118.00
44	1	496	C	C5-C4-N4	-6.13	115.91	120.20
44	1	75	G	N9-C4-C5	-6.12	102.95	105.40
44	1	516	A	C8-N9-C4	6.12	108.25	105.80
44	1	3031	G	N9-C4-C5	-6.12	102.95	105.40
44	1	3060	C	N3-C4-C5	6.12	124.35	121.90
44	1	2943	G	N1-C2-N2	-6.12	110.69	116.20
44	1	649	A	N9-C4-C5	-6.12	103.35	105.80
44	1	3046	A	N1-C6-N6	6.12	122.27	118.60
44	1	3147	G	C4-C5-N7	6.12	113.25	110.80
44	1	3314	A	C5-N7-C8	-6.12	100.84	103.90
44	1	2946	A	C5-C6-N6	-6.12	118.81	123.70
44	1	3213	A	C5-C6-N1	6.12	120.76	117.70
44	1	786	A	N9-C4-C5	-6.12	103.35	105.80
44	1	33	G	C2-N3-C4	-6.11	108.84	111.90
44	1	1833	G	N3-C2-N2	6.11	124.18	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	701	G	C5-N7-C8	-6.11	101.24	104.30
44	1	346	C	N3-C4-N4	6.11	122.28	118.00
44	1	658	G	C6-C5-N7	-6.11	126.73	130.40
44	1	324	A	N1-C6-N6	-6.11	114.94	118.60
44	1	972	A	N3-C4-N9	-6.11	122.51	127.40
44	1	1212	A	C5-C6-N1	6.11	120.75	117.70
44	1	1587	A	C5-N7-C8	-6.11	100.85	103.90
44	1	3040	A	N9-C4-C5	-6.10	103.36	105.80
44	1	332	C	N3-C4-N4	6.10	122.27	118.00
44	1	3311	C	C6-N1-C2	-6.10	117.86	120.30
44	1	64	G	N7-C8-N9	6.10	116.15	113.10
44	1	1804	A	C5-C6-N1	6.10	120.75	117.70
44	1	2340	U	C5-C6-N1	6.10	125.75	122.70
44	1	62	A	OP2-P-O3'	6.10	118.61	105.20
44	1	1412	G	C5-N7-C8	-6.10	101.25	104.30
44	1	88	A	N9-C4-C5	-6.09	103.36	105.80
9	M	128	ARG	NE-CZ-NH1	6.09	123.34	120.30
44	1	1643	A	C4-C5-C6	-6.09	113.96	117.00
27	e	44	ARG	NE-CZ-NH1	6.09	123.34	120.30
44	1	58	G	C8-N9-C1'	-6.09	119.09	127.00
44	1	106	A	N9-C4-C5	-6.09	103.36	105.80
44	1	663	C	N3-C2-O2	-6.09	117.64	121.90
44	1	1182	A	C4-C5-N7	6.08	113.74	110.70
44	1	291	C	N3-C4-C5	6.08	124.33	121.90
44	1	1280	C	N1-C2-O2	6.08	122.55	118.90
44	1	1451	C	N3-C4-C5	6.08	124.33	121.90
44	1	504	A	N9-C4-C5	-6.08	103.37	105.80
44	1	657	A	C6-N1-C2	-6.08	114.95	118.60
44	1	661	G	O4'-C1'-N9	6.08	113.06	108.20
44	1	1806	A	C4-C5-N7	6.08	113.74	110.70
44	1	2831	G	N7-C8-N9	6.08	116.14	113.10
44	1	3223	A	C4-C5-C6	-6.08	113.96	117.00
44	1	2886	U	O4'-C1'-N1	6.08	113.06	108.20
44	1	3131	U	C6-N1-C2	-6.08	117.35	121.00
44	1	341	G	N9-C4-C5	-6.07	102.97	105.40
44	1	646	A	C5-C6-N1	6.07	120.74	117.70
44	1	671	U	C5-C6-N1	6.07	125.74	122.70
44	1	961	C	N1-C2-O2	6.07	122.54	118.90
44	1	1145	G	N1-C2-N2	-6.07	110.73	116.20
44	1	3181	C	N3-C4-C5	6.07	124.33	121.90
44	1	3269	U	P-O3'-C3'	6.07	126.99	119.70
10	N	68	ARG	NE-CZ-NH1	6.07	123.34	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	e	24	ARG	NE-CZ-NH1	6.07	123.34	120.30
44	1	1165	A	C4-C5-C6	-6.07	113.96	117.00
44	1	1379	G	C5-N7-C8	-6.07	101.26	104.30
44	1	3112	G	N3-C4-C5	6.07	131.63	128.60
44	1	125	C	C6-N1-C2	-6.07	117.87	120.30
44	1	303	G	C4-C5-N7	6.07	113.23	110.80
44	1	409	A	C4-C5-N7	6.07	113.73	110.70
44	1	400	G	O4'-C1'-N9	6.07	113.05	108.20
44	1	505	G	C4-C5-N7	6.06	113.23	110.80
44	1	3101	G	C5-N7-C8	-6.06	101.27	104.30
44	1	1169	A	N9-C4-C5	-6.06	103.38	105.80
44	1	1172	G	N1-C6-O6	-6.06	116.26	119.90
44	1	1317	A	C5-N7-C8	-6.06	100.87	103.90
45	2	39	G	N1-C2-N2	-6.06	110.74	116.20
44	1	320	G	C5-N7-C8	-6.06	101.27	104.30
44	1	1152	G	N1-C2-N2	-6.06	110.75	116.20
44	1	1615	C	C5-C6-N1	6.06	124.03	121.00
44	1	3040	A	N7-C8-N9	6.06	116.83	113.80
46	6	31	G	N3-C4-N9	-6.06	122.36	126.00
11	O	128	ARG	NE-CZ-NH1	6.06	123.33	120.30
44	1	341	G	C5-C6-O6	-6.06	124.97	128.60
44	1	1373	A	C5-C6-N1	6.06	120.73	117.70
44	1	1527	C	C5-C4-N4	-6.06	115.96	120.20
45	2	41	A	C5-C6-N1	6.06	120.73	117.70
44	1	128	G	C6-C5-N7	-6.05	126.77	130.40
44	1	334	A	C5-C6-N1	6.05	120.73	117.70
44	1	813	G	C8-N9-C4	-6.05	103.98	106.40
44	1	497	C	N3-C2-O2	-6.05	117.66	121.90
44	1	368	G	C5-N7-C8	-6.05	101.28	104.30
44	1	1409	G	C4-C5-N7	6.05	113.22	110.80
44	1	3186	A	C4-C5-N7	6.05	113.73	110.70
12	P	30	ARG	NE-CZ-NH1	6.05	123.32	120.30
44	1	319	A	C4-C5-C6	-6.05	113.98	117.00
44	1	3089	C	N3-C4-N4	6.04	122.23	118.00
44	1	9	U	C5-C4-O4	-6.04	122.27	125.90
44	1	1524	A	C5-N7-C8	-6.04	100.88	103.90
44	1	1446	A	C4-C5-N7	6.04	113.72	110.70
44	1	2366	C	N3-C2-O2	-6.04	117.67	121.90
45	2	31	G	N3-C4-N9	-6.04	122.38	126.00
44	1	435	C	C5-C4-N4	-6.04	115.97	120.20
44	1	800	G	C4-N9-C1'	6.04	134.35	126.50
13	Q	59	ARG	NE-CZ-NH1	6.04	123.32	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	Q	66	ARG	NE-CZ-NH1	6.04	123.32	120.30
44	1	1239	C	C6-N1-C2	-6.04	117.89	120.30
44	1	1374	G	C6-C5-N7	-6.04	126.78	130.40
44	1	1515	A	C5-C6-N1	6.04	120.72	117.70
45	2	20	U	C5-C4-O4	-6.04	122.28	125.90
44	1	103	G	N7-C8-N9	6.03	116.12	113.10
44	1	341	G	C4-N9-C1'	6.03	134.34	126.50
44	1	391	A	C5-C6-N1	6.03	120.72	117.70
44	1	817	A	C5-C6-N1	6.03	120.72	117.70
44	1	1339	C	C6-N1-C2	-6.03	117.89	120.30
44	1	2831	G	C8-N9-C4	-6.03	103.99	106.40
44	1	145	G	N7-C8-N9	6.03	116.11	113.10
44	1	209	A	C4-C5-N7	6.03	113.72	110.70
44	1	406	G	O4'-C1'-N9	6.03	113.02	108.20
44	1	689	U	N1-C2-O2	6.03	127.02	122.80
44	1	376	G	N7-C8-N9	6.03	116.11	113.10
44	1	1612	A	N1-C6-N6	6.03	122.22	118.60
44	1	144	A	C6-N1-C2	-6.03	114.98	118.60
44	1	408	A	N1-C6-N6	-6.03	114.98	118.60
44	1	621	A	C4-C5-N7	6.03	113.71	110.70
44	1	1621	A	C5-N7-C8	-6.03	100.89	103.90
44	1	1625	A	C4-C5-N7	6.03	113.71	110.70
44	1	267	G	C5-C6-N1	6.03	114.51	111.50
44	1	1394	A	C4-C5-C6	-6.03	113.99	117.00
44	1	3005	A	N7-C8-N9	6.03	116.81	113.80
44	1	3035	A	C5-C6-N1	6.03	120.71	117.70
44	1	3330	A	C4-C5-N7	6.03	113.71	110.70
44	1	66	A	N7-C8-N9	6.02	116.81	113.80
44	1	2378	C	N3-C2-O2	-6.02	117.68	121.90
44	1	3006	A	C5-C6-N6	-6.02	118.88	123.70
44	1	1901	A	C5-C6-N1	6.02	120.71	117.70
44	1	422	A	N7-C8-N9	6.02	116.81	113.80
44	1	1393	A	C5-N7-C8	-6.02	100.89	103.90
44	1	1279	C	O4'-C1'-N1	6.02	113.01	108.20
44	1	2892	A	N1-C6-N6	6.02	122.21	118.60
44	1	3053	G	C4-C5-N7	6.02	113.21	110.80
44	1	1196	C	C6-N1-C2	-6.02	117.89	120.30
44	1	347	G	C4-N9-C1'	6.01	134.32	126.50
44	1	659	G	C4-N9-C1'	6.01	134.32	126.50
45	2	102	U	C5-C6-N1	6.01	125.71	122.70
45	2	149	A	N9-C4-C5	-6.01	103.39	105.80
44	1	387	A	C5-C6-N1	6.01	120.71	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3219	G	N3-C2-N2	6.01	124.11	119.90
44	1	621	A	C5-N7-C8	-6.01	100.89	103.90
44	1	907	G	C4-C5-N7	6.01	113.20	110.80
44	1	3395	G	C6-C5-N7	-6.01	126.79	130.40
23	a	139	ARG	NE-CZ-NH1	6.01	123.30	120.30
44	1	5	G	N3-C4-C5	6.01	131.60	128.60
44	1	224	C	C6-N1-C2	-6.01	117.90	120.30
44	1	573	C	C6-N1-C2	-6.01	117.90	120.30
44	1	2912	G	N1-C2-N2	-6.01	110.79	116.20
45	2	91	C	C5-C4-N4	-6.01	115.99	120.20
44	1	372	A	C5-N7-C8	-6.01	100.90	103.90
44	1	387	A	C4-C5-N7	6.01	113.70	110.70
44	1	614	C	N1-C2-O2	6.01	122.50	118.90
44	1	1614	C	N3-C2-O2	-6.01	117.69	121.90
44	1	1893	A	N1-C6-N6	6.01	122.20	118.60
13	Q	16	ARG	NE-CZ-NH1	6.01	123.30	120.30
44	1	222	A	C5-C6-N6	-6.01	118.89	123.70
44	1	3153	U	N3-C2-O2	-6.01	118.00	122.20
45	2	88	A	C4-C5-N7	6.01	113.70	110.70
44	1	53	G	C4-C5-N7	6.00	113.20	110.80
44	1	371	G	C5-N7-C8	-6.00	101.30	104.30
44	1	1838	G	N9-C4-C5	-6.00	103.00	105.40
45	2	42	G	C2-N3-C4	-6.00	108.90	111.90
44	1	736	A	C5-C6-N6	-6.00	118.90	123.70
44	1	1878	G	C4-N9-C1'	6.00	134.30	126.50
11	O	85	ARG	NE-CZ-NH1	6.00	123.30	120.30
44	1	375	A	C5-N7-C8	-6.00	100.90	103.90
44	1	1949	G	C5-C6-O6	6.00	132.20	128.60
44	1	3288	G	N3-C2-N2	6.00	124.10	119.90
44	1	100	A	C5-N7-C8	-6.00	100.90	103.90
44	1	1551	C	N1-C2-O2	6.00	122.50	118.90
45	2	41	A	N7-C8-N9	6.00	116.80	113.80
44	1	653	A	C5-C6-N6	-6.00	118.90	123.70
20	X	115	ARG	NE-CZ-NH1	6.00	123.30	120.30
44	1	303	G	N9-C4-C5	-6.00	103.00	105.40
44	1	1542	G	C4-C5-N7	5.99	113.20	110.80
44	1	336	A	C5-N7-C8	-5.99	100.90	103.90
44	1	253	A	N1-C2-N3	-5.99	126.31	129.30
44	1	1308	A	C5-N7-C8	-5.99	100.91	103.90
44	1	1379	G	C4-C5-N7	5.99	113.20	110.80
44	1	1450	G	C5-N7-C8	-5.99	101.31	104.30
44	1	3299	A	C5-C6-N1	5.99	120.69	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1170	A	C6-C5-N7	-5.99	128.11	132.30
35	n	34	ARG	NE-CZ-NH2	5.99	123.29	120.30
44	1	101	G	C4-N9-C1'	5.99	134.28	126.50
44	1	333	G	C4-C5-N7	5.99	113.19	110.80
44	1	1195	A	C8-N9-C4	5.99	108.19	105.80
44	1	3293	U	C5-C6-N1	5.99	125.69	122.70
44	1	949	C	N3-C4-N4	5.98	122.19	118.00
44	1	1909	A	C5-C6-N6	-5.98	118.92	123.70
44	1	227	G	C4-N9-C1'	5.98	134.27	126.50
44	1	2341	A	N9-C4-C5	-5.98	103.41	105.80
44	1	31	C	N3-C4-C5	5.98	124.29	121.90
44	1	344	A	C6-C5-N7	-5.98	128.12	132.30
44	1	1385	C	N1-C2-O2	5.98	122.49	118.90
44	1	1499	C	C5-C4-N4	-5.98	116.02	120.20
44	1	3034	C	C5-C4-N4	-5.98	116.02	120.20
45	2	32	C	N3-C4-N4	5.98	122.18	118.00
44	1	1446	A	C5-C6-N6	-5.98	118.92	123.70
44	1	276	U	N3-C4-O4	5.97	123.58	119.40
10	N	50	ARG	NE-CZ-NH1	5.97	123.29	120.30
44	1	1596	C	C5-C4-N4	-5.97	116.02	120.20
44	1	671	U	C6-N1-C2	-5.97	117.42	121.00
44	1	1332	A	C4-N9-C1'	5.97	137.05	126.30
44	1	371	G	C4-C5-N7	5.97	113.19	110.80
44	1	933	A	N1-C2-N3	-5.96	126.32	129.30
44	1	1185	C	N3-C2-O2	-5.96	117.72	121.90
44	1	350	C	N3-C4-C5	5.96	124.28	121.90
44	1	1116	G	C8-N9-C1'	-5.96	119.25	127.00
44	1	3104	U	C5-C6-N1	5.96	125.68	122.70
45	2	44	A	C6-N1-C2	-5.96	115.02	118.60
1	B	58	ARG	NE-CZ-NH2	-5.96	117.32	120.30
44	1	1362	G	C4-C5-N7	5.96	113.18	110.80
44	1	23	A	C4-C5-C6	-5.96	114.02	117.00
44	1	1428	A	C4-C5-C6	-5.96	114.02	117.00
44	1	1655	G	O5'-P-OP1	-5.96	100.34	105.70
44	1	3395	G	N3-C2-N2	5.96	124.07	119.90
44	1	346	C	C2-N1-C1'	5.96	125.35	118.80
44	1	729	C	C5-C4-N4	-5.96	116.03	120.20
44	1	1120	A	C5-N7-C8	-5.95	100.92	103.90
44	1	1593	A	C4-C5-C6	-5.95	114.02	117.00
44	1	3096	C	C5-C4-N4	-5.95	116.03	120.20
44	1	3150	A	C4-C5-C6	-5.95	114.02	117.00
44	1	659	G	C8-N9-C1'	-5.95	119.26	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1193	A	C4-C5-N7	5.95	113.68	110.70
44	1	3163	A	N1-C2-N3	-5.95	126.32	129.30
44	1	3177	G	C4-C5-N7	5.95	113.18	110.80
44	1	3241	G	N1-C2-N2	-5.95	110.84	116.20
46	6	31	G	N3-C4-C5	5.95	131.58	128.60
13	Q	16	ARG	NE-CZ-NH2	-5.95	117.32	120.30
44	1	369	A	N1-C6-N6	5.95	122.17	118.60
44	1	969	C	N3-C4-N4	5.95	122.17	118.00
44	1	1574	C	N1-C2-O2	5.95	122.47	118.90
44	1	1836	C	N3-C4-N4	5.95	122.17	118.00
44	1	1389	G	C4-C5-N7	5.95	113.18	110.80
44	1	1460	A	C6-C5-N7	-5.95	128.13	132.30
44	1	1833	G	N3-C4-N9	5.95	129.57	126.00
44	1	3164	C	C6-N1-C2	-5.95	117.92	120.30
21	Y	27	ARG	NE-CZ-NH1	5.95	123.27	120.30
44	1	972	A	C5-N7-C8	-5.95	100.93	103.90
9	M	124	ARG	NE-CZ-NH2	-5.95	117.33	120.30
44	1	58	G	N3-C4-N9	5.95	129.57	126.00
44	1	944	C	N1-C2-O2	5.95	122.47	118.90
44	1	1193	A	C5-C6-N1	5.95	120.67	117.70
44	1	1461	A	N1-C6-N6	5.95	122.17	118.60
27	e	43	ARG	NE-CZ-NH1	5.94	123.27	120.30
44	1	145	G	C5-N7-C8	-5.94	101.33	104.30
44	1	501	A	C5-C6-N6	-5.94	118.94	123.70
44	1	926	A	C4-C5-N7	5.94	113.67	110.70
44	1	3087	A	C4-C5-N7	5.94	113.67	110.70
2	C	198	ARG	NE-CZ-NH2	-5.94	117.33	120.30
34	l	8	ARG	NE-CZ-NH2	-5.94	117.33	120.30
44	1	609	G	N3-C2-N2	5.94	124.06	119.90
44	1	1383	G	C4-C5-N7	5.94	113.17	110.80
45	2	17	A	C5-N7-C8	-5.94	100.93	103.90
35	n	23	ARG	NE-CZ-NH1	5.93	123.27	120.30
44	1	1477	A	C4-C5-N7	5.93	113.67	110.70
44	1	3052	G	C5-N7-C8	-5.93	101.33	104.30
45	2	45	C	N3-C2-O2	-5.93	117.75	121.90
44	1	1504	A	C5-C6-N6	-5.93	118.96	123.70
44	1	1587	A	C4-C5-N7	5.93	113.67	110.70
44	1	2910	A	C5-N7-C8	-5.93	100.94	103.90
44	1	13	A	C5-N7-C8	-5.93	100.94	103.90
44	1	1433	A	C5-C6-N1	5.93	120.66	117.70
44	1	694	C	C5-C4-N4	-5.93	116.05	120.20
44	1	976	U	C5-C4-O4	5.93	129.46	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1299	U	C5-C6-N1	5.93	125.66	122.70
44	1	1441	G	C5-N7-C8	-5.93	101.34	104.30
44	1	3182	G	C5-N7-C8	-5.93	101.34	104.30
44	1	1502	C	N3-C4-C5	5.92	124.27	121.90
44	1	8	C	N1-C2-O2	5.92	122.45	118.90
44	1	934	G	N7-C8-N9	5.92	116.06	113.10
44	1	3077	A	N9-C4-C5	-5.92	103.43	105.80
44	1	118	U	C6-N1-C2	-5.92	117.45	121.00
44	1	3134	A	C5-C6-N6	-5.92	118.96	123.70
44	1	1407	A	C4-C5-C6	-5.92	114.04	117.00
44	1	2934	A	N1-C6-N6	-5.92	115.05	118.60
45	2	42	G	N1-C2-N2	-5.92	110.87	116.20
8	L	67	ARG	NE-CZ-NH1	5.92	123.26	120.30
44	1	1382	G	O5'-P-OP2	-5.92	100.37	105.70
44	1	1508	C	N3-C4-N4	5.92	122.14	118.00
44	1	1909	A	C5-N7-C8	-5.92	100.94	103.90
44	1	3150	A	C5-N7-C8	-5.92	100.94	103.90
44	1	76	G	C8-N9-C4	-5.92	104.03	106.40
44	1	221	A	O4'-C1'-N9	5.92	112.93	108.20
44	1	658	G	C8-N9-C4	-5.92	104.03	106.40
44	1	1428	A	N1-C2-N3	-5.92	126.34	129.30
44	1	1336	U	N3-C4-O4	5.92	123.54	119.40
44	1	3391	A	C4-C5-N7	5.92	113.66	110.70
44	1	1433	A	N1-C6-N6	5.91	122.15	118.60
44	1	585	A	N1-C2-N3	-5.91	126.34	129.30
44	1	1366	A	C5-C6-N6	-5.91	118.97	123.70
45	2	11	C	N3-C4-C5	5.91	124.27	121.90
44	1	498	A	C8-N9-C4	-5.91	103.44	105.80
44	1	666	A	N9-C4-C5	-5.91	103.44	105.80
44	1	831	G	N7-C8-N9	5.91	116.06	113.10
44	1	1205	A	C4-C5-N7	5.91	113.66	110.70
44	1	1656	A	C5-C6-N1	5.91	120.66	117.70
44	1	1874	A	C5-C6-N1	5.91	120.66	117.70
44	1	3372	A	C4-C5-N7	5.91	113.66	110.70
45	2	18	U	C6-N1-C2	-5.91	117.45	121.00
44	1	412	G	C5-N7-C8	-5.91	101.35	104.30
44	1	1159	A	C5-N7-C8	-5.91	100.95	103.90
44	1	1369	A	C5-C6-N1	5.91	120.66	117.70
45	2	141	C	C5-C4-N4	-5.91	116.06	120.20
44	1	810	A	C5-N7-C8	-5.91	100.95	103.90
44	1	1615	C	C2-N1-C1'	5.91	125.30	118.80
45	2	145	U	N3-C4-O4	5.91	123.53	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	u	111	ARG	NE-CZ-NH2	5.91	123.25	120.30
44	1	428	A	C6-N1-C2	-5.91	115.06	118.60
44	1	1304	A	C8-N9-C4	-5.91	103.44	105.80
44	1	1450	G	C4-C5-N7	5.91	113.16	110.80
44	1	1559	A	N1-C6-N6	-5.91	115.06	118.60
44	1	499	G	C4-C5-N7	5.90	113.16	110.80
44	1	915	A	C2-N3-C4	5.90	113.55	110.60
44	1	1330	A	C5-C6-N1	5.90	120.65	117.70
44	1	3077	A	C4-C5-N7	5.90	113.65	110.70
44	1	3095	U	N3-C4-O4	5.90	123.53	119.40
44	1	663	C	C6-N1-C2	-5.90	117.94	120.30
15	S	12	ARG	NE-CZ-NH1	5.90	123.25	120.30
29	g	74	ARG	NE-CZ-NH2	-5.90	117.35	120.30
44	1	816	A	N7-C8-N9	5.90	116.75	113.80
44	1	2892	A	C5-N7-C8	-5.90	100.95	103.90
45	2	150	G	N9-C4-C5	-5.90	103.04	105.40
44	1	29	C	C6-N1-C2	-5.90	117.94	120.30
44	1	1333	C	C2-N1-C1'	5.90	125.29	118.80
44	1	2101	C	O4'-C1'-N1	5.90	112.92	108.20
44	1	3087	A	N9-C4-C5	-5.90	103.44	105.80
44	1	931	C	C4-C5-C6	-5.90	114.45	117.40
44	1	1810	A	C5-C6-N1	5.90	120.65	117.70
44	1	80	G	C5-N7-C8	-5.89	101.35	104.30
44	1	628	A	N1-C6-N6	5.89	122.14	118.60
44	1	3381	U	N1-C2-O2	5.89	126.93	122.80
45	2	42	G	N3-C4-C5	5.89	131.55	128.60
24	b	43	ARG	NE-CZ-NH2	5.89	123.25	120.30
44	1	3021	A	C5-N7-C8	-5.89	100.95	103.90
44	1	1374	G	C5-N7-C8	-5.89	101.36	104.30
44	1	3033	A	C5-C6-N1	5.89	120.64	117.70
44	1	226	C	C2-N1-C1'	5.89	125.28	118.80
44	1	3103	A	C5-N7-C8	-5.89	100.96	103.90
44	1	311	C	C6-N1-C2	-5.89	117.94	120.30
44	1	622	A	N9-C4-C5	-5.89	103.44	105.80
44	1	952	A	C5-C6-N6	-5.89	118.99	123.70
44	1	932	U	C2-N3-C4	5.88	130.53	127.00
44	1	934	G	C4-C5-N7	5.88	113.15	110.80
2	C	202	ARG	NE-CZ-NH2	-5.88	117.36	120.30
44	1	2946	A	N9-C4-C5	-5.88	103.45	105.80
45	2	105	A	C6-C5-N7	-5.88	128.18	132.30
44	1	373	A	C8-N9-C4	5.88	108.15	105.80
44	1	634	C	N1-C2-O2	5.88	122.42	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	2361	A	C4-C5-N7	5.88	113.64	110.70
44	1	3053	G	N3-C4-N9	5.88	129.53	126.00
44	1	1108	U	C2-N1-C1'	5.88	124.75	117.70
44	1	3296	A	C5-C6-N1	5.88	120.64	117.70
45	2	44	A	C4-C5-C6	-5.88	114.06	117.00
44	1	1223	A	C5-C6-N6	-5.87	119.00	123.70
44	1	150	A	C4-C5-C6	-5.87	114.06	117.00
44	1	238	A	N9-C4-C5	-5.87	103.45	105.80
44	1	1190	A	C2-N3-C4	5.87	113.54	110.60
44	1	1294	A	C5-C6-N1	5.87	120.64	117.70
44	1	588	G	C4-C5-N7	5.87	113.15	110.80
44	1	1537	A	C5-C6-N6	-5.87	119.00	123.70
44	1	348	A	C5-N7-C8	-5.87	100.97	103.90
45	2	148	G	N7-C8-N9	5.87	116.03	113.10
46	6	53	A	C5-N7-C8	-5.87	100.97	103.90
11	O	128	ARG	NE-CZ-NH2	-5.87	117.37	120.30
44	1	1298	C	N1-C2-O2	5.87	122.42	118.90
44	1	349	A	C4-C5-C6	-5.86	114.07	117.00
44	1	690	A	N7-C8-N9	5.86	116.73	113.80
44	1	396	A	C8-N9-C4	5.86	108.14	105.80
44	1	1365	G	N3-C2-N2	5.86	124.00	119.90
44	1	1581	C	N1-C2-O2	5.86	122.42	118.90
44	1	3286	G	N1-C2-N2	-5.86	110.92	116.20
44	1	266	A	C8-N9-C4	5.86	108.14	105.80
44	1	312	C	N1-C2-O2	5.86	122.42	118.90
44	1	3211	C	N3-C2-O2	-5.86	117.80	121.90
44	1	201	A	C5-C6-N6	-5.85	119.02	123.70
44	1	1227	C	C6-N1-C2	-5.85	117.96	120.30
44	1	327	A	C5-N7-C8	-5.85	100.97	103.90
44	1	389	A	C5-N7-C8	-5.85	100.97	103.90
44	1	802	C	C5-C6-N1	5.85	123.92	121.00
44	1	875	G	C4-N9-C1'	5.85	134.10	126.50
44	1	1310	G	C4-C5-N7	5.85	113.14	110.80
44	1	1422	G	N9-C4-C5	-5.85	103.06	105.40
44	1	3367	C	N1-C2-O2	5.85	122.41	118.90
45	2	114	G	N3-C4-C5	5.85	131.52	128.60
44	1	1362	G	N9-C4-C5	-5.85	103.06	105.40
44	1	78	U	C2-N1-C1'	5.84	124.71	117.70
44	1	1528	G	C5-N7-C8	-5.84	101.38	104.30
44	1	672	A	N9-C4-C5	-5.84	103.46	105.80
44	1	2348	A	C5-N7-C8	-5.84	100.98	103.90
44	1	88	A	C5-N7-C8	-5.84	100.98	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	114	A	N1-C6-N6	5.84	122.11	118.60
44	1	350	C	C6-N1-C2	-5.84	117.96	120.30
44	1	2833	A	N9-C4-C5	-5.84	103.46	105.80
45	2	113	U	C6-N1-C2	-5.84	117.50	121.00
44	1	415	G	N7-C8-N9	5.84	116.02	113.10
44	1	101	G	C8-N9-C1'	-5.84	119.41	127.00
44	1	613	G	C4-C5-N7	5.84	113.14	110.80
44	1	3089	C	N3-C2-O2	-5.84	117.81	121.90
44	1	106	A	C5-N7-C8	-5.84	100.98	103.90
44	1	347	G	C8-N9-C4	-5.84	104.07	106.40
44	1	396	A	C5-C6-N6	-5.84	119.03	123.70
44	1	1182	A	N9-C4-C5	-5.84	103.47	105.80
45	2	102	U	C6-N1-C2	-5.84	117.50	121.00
45	2	106	C	C5-C4-N4	-5.84	116.11	120.20
44	1	1876	U	C5-C4-O4	-5.83	122.40	125.90
44	1	324	A	C4-C5-C6	-5.83	114.08	117.00
44	1	377	A	C4-C5-C6	-5.83	114.08	117.00
44	1	1385	C	C5-C4-N4	-5.83	116.12	120.20
45	2	92	A	N7-C8-N9	5.83	116.72	113.80
44	1	928	C	C5-C6-N1	5.83	123.92	121.00
44	1	345	G	N9-C4-C5	-5.83	103.07	105.40
44	1	1310	G	N3-C4-C5	5.83	131.51	128.60
44	1	1166	G	C4-C5-N7	5.83	113.13	110.80
44	1	247	C	N1-C2-O2	5.82	122.39	118.90
44	1	1162	U	C5-C6-N1	5.82	125.61	122.70
45	2	17	A	N9-C4-C5	5.82	108.13	105.80
45	2	36	G	C4-C5-N7	5.82	113.13	110.80
44	1	224	C	N3-C4-C5	5.82	124.23	121.90
44	1	341	G	C8-N9-C1'	-5.82	119.44	127.00
44	1	705	A	N9-C4-C5	-5.82	103.47	105.80
44	1	1564	U	C5-C4-O4	-5.82	122.41	125.90
44	1	3039	C	C6-N1-C2	-5.82	117.97	120.30
44	1	3210	A	N9-C4-C5	-5.82	103.47	105.80
44	1	611	A	C4-C5-C6	-5.82	114.09	117.00
44	1	3103	A	C6-N1-C2	-5.82	115.11	118.60
45	2	9	A	C8-N9-C4	-5.82	103.47	105.80
44	1	209	A	C5-N7-C8	-5.81	100.99	103.90
44	1	850	U	C5-C6-N1	5.81	125.61	122.70
44	1	1499	C	N1-C2-O2	5.81	122.39	118.90
44	1	267	G	O4'-C1'-N9	-5.81	103.55	108.20
44	1	950	G	C5-N7-C8	-5.81	101.39	104.30
44	1	1882	G	C4-C5-N7	5.81	113.12	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3308	C	N3-C4-C5	5.81	124.22	121.90
3	E	26	ARG	NE-CZ-NH1	5.81	123.20	120.30
44	1	1832	C	C5-C4-N4	-5.81	116.13	120.20
35	n	92	ARG	NE-CZ-NH2	5.81	123.20	120.30
38	r	163	ARG	NE-CZ-NH1	5.81	123.20	120.30
44	1	2130	G	C8-N9-C1'	5.81	134.55	127.00
44	1	651	G	C4-N9-C1'	5.81	134.05	126.50
44	1	2130	G	C4-N9-C1'	-5.81	118.95	126.50
44	1	157	A	N1-C6-N6	-5.80	115.12	118.60
45	2	58	G	N3-C2-N2	5.80	123.96	119.90
45	2	101	U	N3-C4-O4	5.80	123.46	119.40
21	Y	115	ARG	NE-CZ-NH1	5.80	123.20	120.30
44	1	418	A	C5-C6-N1	5.80	120.60	117.70
44	1	1158	A	N9-C4-C5	-5.80	103.48	105.80
44	1	2994	A	C5-C6-N1	5.80	120.60	117.70
44	1	3379	C	N3-C4-N4	5.80	122.06	118.00
45	2	132	G	C8-N9-C4	-5.80	104.08	106.40
46	6	50	U	C5-C6-N1	5.80	125.60	122.70
44	1	516	A	C5-C6-N1	5.80	120.60	117.70
44	1	1397	C	N3-C2-O2	-5.80	117.84	121.90
44	1	1506	A	C5-N7-C8	-5.80	101.00	103.90
44	1	1516	C	N1-C2-O2	5.80	122.38	118.90
44	1	1833	G	N9-C4-C5	-5.80	103.08	105.40
44	1	214	G	C4-C5-N7	5.80	113.12	110.80
44	1	357	A	C5-N7-C8	-5.80	101.00	103.90
44	1	1187	C	C2-N1-C1'	5.80	125.18	118.80
44	1	3167	A	C5-N7-C8	-5.80	101.00	103.90
44	1	500	C	C5-C4-N4	-5.79	116.14	120.20
44	1	736	A	N9-C4-C5	-5.79	103.48	105.80
44	1	1204	A	C5-N7-C8	-5.79	101.00	103.90
44	1	1418	A	C5-N7-C8	-5.79	101.00	103.90
45	2	26	U	N1-C2-O2	5.79	126.85	122.80
44	1	2911	A	N1-C6-N6	-5.79	115.13	118.60
44	1	3273	A	C8-N9-C4	5.79	108.11	105.80
45	2	62	C	N3-C4-N4	5.79	122.05	118.00
44	1	1796	G	N1-C6-O6	-5.79	116.43	119.90
44	1	3016	A	N9-C4-C5	-5.79	103.48	105.80
44	1	586	C	N3-C4-C5	5.78	124.21	121.90
44	1	3165	A	C5-N7-C8	-5.78	101.01	103.90
44	1	961	C	N3-C2-O2	-5.78	117.85	121.90
44	1	1155	C	C6-N1-C2	-5.78	117.99	120.30
44	1	3016	A	C4-C5-N7	5.78	113.59	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	74	U	N3-C4-O4	5.78	123.44	119.40
12	P	90	PHE	CB-CG-CD1	5.78	124.84	120.80
15	S	28	ARG	NE-CZ-NH2	5.78	123.19	120.30
44	1	929	A	C5-C6-N6	-5.78	119.08	123.70
44	1	201	A	C5-C6-N1	5.77	120.59	117.70
44	1	736	A	N1-C6-N6	5.77	122.06	118.60
45	2	9	A	C4-N9-C1'	5.77	136.69	126.30
44	1	345	G	C2-N3-C4	-5.77	109.01	111.90
44	1	588	G	C8-N9-C4	-5.77	104.09	106.40
44	1	1633	C	N1-C2-O2	5.77	122.36	118.90
44	1	60	A	C6-C5-N7	-5.77	128.26	132.30
21	Y	20	PHE	CB-CG-CD2	5.77	124.84	120.80
34	l	46	ARG	NE-CZ-NH1	5.77	123.18	120.30
44	1	510	G	N1-C2-N2	-5.77	111.01	116.20
44	1	1410	U	C5-C6-N1	5.77	125.58	122.70
44	1	701	G	C4-N9-C1'	5.77	134.00	126.50
44	1	1159	A	N7-C8-N9	5.77	116.68	113.80
44	1	3131	U	C5-C6-N1	5.77	125.58	122.70
44	1	364	G	N1-C2-N3	5.76	127.36	123.90
44	1	389	A	N9-C4-C5	-5.76	103.49	105.80
44	1	20	A	C4-C5-C6	-5.76	114.12	117.00
44	1	920	A	C5-N7-C8	-5.76	101.02	103.90
45	2	103	G	N1-C2-N2	-5.76	111.02	116.20
44	1	1638	A	C5-C6-N1	5.76	120.58	117.70
44	1	1587	A	C5-C6-N1	5.76	120.58	117.70
44	1	3321	C	N3-C4-C5	5.76	124.20	121.90
44	1	792	G	C4-N9-C1'	5.75	133.98	126.50
44	1	1172	G	C5-C6-O6	5.75	132.05	128.60
44	1	220	G	N3-C2-N2	5.75	123.93	119.90
44	1	1354	G	N3-C2-N2	-5.75	115.87	119.90
45	2	42	G	C4-C5-N7	5.75	113.10	110.80
45	2	149	A	C4-C5-N7	5.75	113.58	110.70
44	1	926	A	C4-N9-C1'	5.75	136.65	126.30
44	1	1190	A	N3-C4-N9	5.75	132.00	127.40
44	1	1392	G	N7-C8-N9	5.75	115.98	113.10
44	1	3218	A	C4-C5-N7	5.75	113.58	110.70
44	1	803	C	N3-C2-O2	-5.75	117.88	121.90
1	B	100	ARG	NE-CZ-NH1	5.75	123.17	120.30
44	1	288	C	N3-C4-N4	5.75	122.02	118.00
44	1	1290	A	C4-C5-N7	5.75	113.57	110.70
44	1	2827	U	C5-C6-N1	5.75	125.58	122.70
45	2	126	A	C5-C6-N1	5.75	120.57	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1329	U	P-O3'-C3'	5.75	126.59	119.70
44	1	3060	C	N1-C2-O2	5.75	122.35	118.90
45	2	11	C	N1-C2-O2	5.75	122.35	118.90
44	1	1385	C	N3-C2-O2	-5.75	117.88	121.90
44	1	1829	G	C8-N9-C4	5.74	108.70	106.40
46	6	5	C	N3-C2-O2	-5.74	117.88	121.90
44	1	1294	A	N1-C6-N6	-5.74	115.16	118.60
44	1	1472	U	C5-C4-O4	-5.74	122.46	125.90
44	1	1173	U	C5-C6-N1	5.74	125.57	122.70
44	1	1320	C	N1-C2-O2	5.74	122.34	118.90
44	1	1393	A	N7-C8-N9	5.74	116.67	113.80
44	1	1607	U	C6-N1-C2	-5.74	117.56	121.00
44	1	368	G	N3-C4-C5	5.73	131.47	128.60
44	1	415	G	C5-N7-C8	-5.73	101.43	104.30
44	1	1309	U	OP1-P-O3'	5.73	117.81	105.20
44	1	3007	U	C5-C6-N1	5.73	125.57	122.70
44	1	1506	A	N9-C4-C5	-5.73	103.51	105.80
44	1	1589	A	C5-N7-C8	-5.73	101.03	103.90
44	1	1833	G	C8-N9-C1'	-5.73	119.55	127.00
44	1	2382	G	C5-N7-C8	-5.73	101.43	104.30
44	1	2890	A	C5-N7-C8	-5.73	101.03	103.90
44	1	17	G	C5-N7-C8	-5.73	101.44	104.30
44	1	585	A	C4-C5-C6	-5.73	114.14	117.00
44	1	659	G	OP2-P-O3'	5.73	117.81	105.20
44	1	2876	C	C6-N1-C2	-5.73	118.01	120.30
44	1	1391	C	N3-C4-C5	5.73	124.19	121.90
45	2	35	C	C5-C6-N1	5.73	123.86	121.00
45	2	106	C	N1-C2-O2	5.73	122.34	118.90
44	1	495	G	N3-C2-N2	5.72	123.91	119.90
44	1	803	C	N1-C2-O2	5.72	122.33	118.90
44	1	1561	G	N1-C2-N2	-5.72	111.05	116.20
45	2	47	C	N3-C2-O2	-5.72	117.89	121.90
44	1	24	G	C2-N3-C4	-5.72	109.04	111.90
44	1	1377	G	N1-C2-N3	5.72	127.33	123.90
44	1	1607	U	C5-C6-N1	5.72	125.56	122.70
45	2	20	U	N3-C4-O4	5.72	123.41	119.40
44	1	56	G	N3-C4-C5	5.72	131.46	128.60
44	1	3330	A	C5-N7-C8	-5.72	101.04	103.90
45	2	59	A	N9-C4-C5	-5.72	103.51	105.80
44	1	78	U	N1-C2-N3	5.72	118.33	114.90
44	1	1179	A	N7-C8-N9	5.72	116.66	113.80
44	1	1278	A	C8-N9-C4	-5.72	103.51	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	89	A	N7-C8-N9	5.72	116.66	113.80
4	F	47	ARG	NE-CZ-NH2	-5.72	117.44	120.30
44	1	33	G	C5-N7-C8	-5.71	101.44	104.30
44	1	1161	G	C4-N9-C1'	5.71	133.93	126.50
44	1	1528	G	N7-C8-N9	5.71	115.96	113.10
44	1	1886	A	N1-C6-N6	-5.71	115.17	118.60
44	1	753	C	C6-N1-C2	-5.71	118.02	120.30
44	1	2948	C	N3-C2-O2	-5.71	117.90	121.90
45	2	1	A	N1-C6-N6	-5.71	115.17	118.60
44	1	729	C	C5-C6-N1	5.71	123.85	121.00
44	1	340	C	N3-C4-C5	5.71	124.18	121.90
44	1	2356	A	C4-C5-N7	5.71	113.55	110.70
44	1	3330	A	N7-C8-N9	5.71	116.65	113.80
44	1	433	A	C4-C5-N7	5.71	113.55	110.70
44	1	638	C	N3-C4-N4	5.70	121.99	118.00
44	1	1589	A	C4-C5-C6	-5.70	114.15	117.00
44	1	2352	A	C5-C6-N6	-5.70	119.14	123.70
1	B	100	ARG	NE-CZ-NH2	-5.70	117.45	120.30
29	g	16	ARG	NE-CZ-NH1	5.70	123.15	120.30
44	1	1537	A	C5-C6-N1	5.70	120.55	117.70
44	1	3033	A	C8-N9-C4	5.70	108.08	105.80
44	1	125	C	C5-C4-N4	-5.70	116.21	120.20
44	1	1395	G	N1-C2-N3	5.70	127.32	123.90
44	1	1837	U	N3-C4-O4	5.70	123.39	119.40
44	1	935	U	N1-C2-O2	5.70	126.79	122.80
44	1	1180	A	C5-N7-C8	-5.70	101.05	103.90
44	1	1473	G	N7-C8-N9	5.70	115.95	113.10
44	1	1553	U	N1-C2-O2	5.70	126.79	122.80
44	1	3187	A	N7-C8-N9	5.69	116.65	113.80
20	X	33	ARG	NE-CZ-NH1	5.69	123.15	120.30
44	1	384	A	C5-C6-N1	5.69	120.55	117.70
44	1	1593	A	N9-C4-C5	-5.69	103.52	105.80
44	1	3108	G	N7-C8-N9	5.69	115.95	113.10
44	1	3004	C	C2-N1-C1'	5.69	125.06	118.80
44	1	222	A	C5-C6-N1	5.69	120.55	117.70
38	r	16	LYS	CA-CB-CG	5.69	125.91	113.40
44	1	349	A	O5'-P-OP2	-5.69	100.58	105.70
44	1	1154	A	C5-C6-N1	5.69	120.54	117.70
44	1	638	C	C5-C6-N1	5.68	123.84	121.00
44	1	812	G	N7-C8-N9	5.68	115.94	113.10
44	1	1757	A	C4-C5-C6	-5.68	114.16	117.00
44	1	3139	A	N9-C4-C5	-5.68	103.53	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	120	C	N3-C4-C5	5.68	124.17	121.90
28	f	65	ARG	NE-CZ-NH2	-5.68	117.46	120.30
44	1	113	C	C6-N1-C2	-5.68	118.03	120.30
44	1	1319	G	C5-N7-C8	-5.68	101.46	104.30
44	1	365	A	C4-C5-N7	5.68	113.54	110.70
44	1	374	A	C5-C6-N1	5.68	120.54	117.70
44	1	792	G	C5-N7-C8	-5.68	101.46	104.30
44	1	1381	A	N7-C8-N9	5.68	116.64	113.80
44	1	1498	A	N9-C4-C5	-5.68	103.53	105.80
44	1	682	U	C5-C6-N1	5.68	125.54	122.70
44	1	1787	A	C5-N7-C8	-5.68	101.06	103.90
45	2	28	C	C6-N1-C2	-5.68	118.03	120.30
45	2	142	C	C5-C6-N1	5.68	123.84	121.00
44	1	644	G	C8-N9-C1'	-5.67	119.62	127.00
44	1	671	U	N3-C4-O4	5.67	123.37	119.40
44	1	1149	G	O4'-C1'-N9	5.67	112.74	108.20
44	1	1165	A	N9-C4-C5	-5.67	103.53	105.80
44	1	1419	A	C5-C6-N6	-5.67	119.16	123.70
44	1	1699	A	C5-C6-N1	5.67	120.54	117.70
6	H	62	ARG	NE-CZ-NH1	5.67	123.14	120.30
44	1	363	G	C6-C5-N7	-5.67	127.00	130.40
32	j	49	TRP	CA-CB-CG	5.67	124.47	113.70
44	1	364	G	N3-C4-C5	5.67	131.43	128.60
44	1	561	C	N1-C2-O2	5.67	122.30	118.90
44	1	621	A	C5-C6-N6	-5.67	119.17	123.70
44	1	1360	C	N1-C2-O2	5.67	122.30	118.90
44	1	1839	A	C8-N9-C4	-5.67	103.53	105.80
44	1	3062	G	N3-C4-C5	5.67	131.43	128.60
44	1	3327	G	C4-C5-N7	5.67	113.07	110.80
45	2	70	G	C4-C5-N7	5.67	113.07	110.80
44	1	2849	C	C6-N1-C2	-5.67	118.03	120.30
44	1	3026	G	N3-C4-N9	-5.67	122.60	126.00
44	1	3094	A	C4-C5-C6	-5.67	114.17	117.00
45	2	35	C	N3-C4-C5	5.67	124.17	121.90
45	2	37	A	C5-N7-C8	-5.67	101.07	103.90
44	1	151	A	N1-C6-N6	5.66	122.00	118.60
44	1	325	A	C5-N7-C8	-5.66	101.07	103.90
44	1	1141	C	C5-C4-N4	-5.66	116.24	120.20
44	1	1881	A	C5-C6-N1	5.66	120.53	117.70
45	2	39	G	N7-C8-N9	5.66	115.93	113.10
44	1	233	C	N3-C4-C5	5.66	124.17	121.90
44	1	3243	A	C4-C5-C6	-5.66	114.17	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3295	A	C5-N7-C8	-5.66	101.07	103.90
46	6	23	U	N1-C2-O2	5.66	126.76	122.80
44	1	355	A	C4-C5-C6	-5.66	114.17	117.00
44	1	1833	G	C5-C6-N1	5.66	114.33	111.50
44	1	3095	U	C5-C4-O4	-5.66	122.50	125.90
44	1	107	A	N9-C4-C5	-5.66	103.54	105.80
44	1	1534	A	C5-N7-C8	-5.65	101.07	103.90
44	1	631	U	C5-C6-N1	5.65	125.53	122.70
44	1	2881	C	N1-C2-O2	5.65	122.29	118.90
44	1	3113	A	C5-N7-C8	-5.65	101.07	103.90
44	1	11	A	C5-C6-N6	-5.65	119.18	123.70
44	1	1800	A	N9-C4-C5	-5.65	103.54	105.80
44	1	3187	A	C5-N7-C8	-5.65	101.08	103.90
3	E	48	ARG	NE-CZ-NH1	5.65	123.12	120.30
44	1	3307	A	C4-C5-N7	5.65	113.52	110.70
45	2	130	C	N3-C2-O2	-5.65	117.95	121.90
44	1	1431	G	C4-C5-N7	5.65	113.06	110.80
44	1	2393	G	C5-C6-O6	-5.65	125.21	128.60
44	1	693	A	C4-C5-C6	-5.64	114.18	117.00
26	d	88	PRO	N-CA-C	5.64	126.77	112.10
44	1	1299	U	N1-C2-O2	5.64	126.75	122.80
44	1	1786	G	N7-C8-N9	5.64	115.92	113.10
44	1	1747	G	C4-C5-N7	5.64	113.06	110.80
44	1	3273	A	C5-C6-N6	-5.64	119.19	123.70
44	1	36	C	N3-C4-N4	5.64	121.95	118.00
44	1	1828	A	C5-C6-N1	5.64	120.52	117.70
45	2	87	G	N7-C8-N9	5.63	115.92	113.10
44	1	775	A	N1-C6-N6	5.63	121.98	118.60
44	1	990	U	C2-N1-C1'	5.63	124.46	117.70
44	1	385	A	C4-C5-N7	5.63	113.52	110.70
44	1	352	A	C6-N1-C2	-5.63	115.22	118.60
44	1	356	C	N3-C2-O2	-5.63	117.96	121.90
44	1	1619	A	C4-C5-C6	-5.63	114.19	117.00
44	1	495	G	N1-C2-N2	-5.63	111.14	116.20
44	1	622	A	C5-N7-C8	-5.63	101.09	103.90
44	1	665	A	N1-C6-N6	5.63	121.98	118.60
44	1	1863	G	N3-C4-C5	5.63	131.41	128.60
44	1	1896	A	C4-C5-N7	5.63	113.51	110.70
44	1	2884	C	N3-C2-O2	-5.63	117.96	121.90
44	1	1374	G	N3-C2-N2	5.62	123.84	119.90
45	2	142	C	C6-N1-C2	-5.62	118.05	120.30
12	P	18	ARG	NE-CZ-NH1	5.62	123.11	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	632	G	C5-N7-C8	-5.62	101.49	104.30
44	1	3034	C	C2-N3-C4	-5.62	117.09	119.90
44	1	77	A	C4-C5-N7	5.62	113.51	110.70
44	1	397	A	C5-N7-C8	-5.62	101.09	103.90
44	1	1329	U	C5-C4-O4	5.62	129.27	125.90
44	1	1506	A	C4-C5-N7	5.62	113.51	110.70
44	1	1663	C	N3-C4-C5	5.62	124.15	121.90
44	1	3335	A	C5-C6-N6	-5.62	119.20	123.70
8	L	15	ARG	NE-CZ-NH1	5.62	123.11	120.30
44	1	1502	C	C5-C4-N4	-5.62	116.27	120.20
44	1	3053	G	N9-C4-C5	-5.62	103.15	105.40
44	1	3138	U	N3-C4-O4	5.62	123.33	119.40
45	2	32	C	N3-C4-C5	5.62	124.15	121.90
44	1	810	A	C5-C6-N1	5.62	120.51	117.70
44	1	333	G	C5-N7-C8	-5.62	101.49	104.30
44	1	1196	C	C6-N1-C1'	-5.62	114.06	120.80
44	1	1460	A	N7-C8-N9	5.62	116.61	113.80
44	1	65	A	C5-C6-N1	5.61	120.51	117.70
44	1	638	C	N1-C2-O2	5.61	122.27	118.90
44	1	668	G	C4-N9-C1'	5.61	133.80	126.50
44	1	1823	A	N9-C4-C5	-5.61	103.56	105.80
45	2	138	A	C5-C6-N1	5.61	120.51	117.70
44	1	522	A	C5-C6-N6	-5.61	119.21	123.70
44	1	1663	C	C5-C4-N4	-5.61	116.27	120.20
8	L	21	ARG	NE-CZ-NH2	-5.61	117.50	120.30
44	1	1525	G	N3-C4-N9	5.61	129.37	126.00
44	1	62	A	C5-N7-C8	-5.61	101.10	103.90
44	1	1119	C	C5-C4-N4	-5.61	116.27	120.20
44	1	3012	A	C8-N9-C4	5.61	108.04	105.80
44	1	1193	A	C5-N7-C8	-5.61	101.10	103.90
44	1	3140	G	C5-N7-C8	-5.61	101.50	104.30
44	1	1147	G	N7-C8-N9	5.60	115.90	113.10
44	1	3379	C	C6-N1-C2	-5.60	118.06	120.30
21	Y	12	ARG	NE-CZ-NH2	-5.60	117.50	120.30
44	1	632	G	C8-N9-C4	-5.60	104.16	106.40
44	1	3172	A	C5-C6-N6	-5.60	119.22	123.70
44	1	806	A	C4-C5-N7	5.60	113.50	110.70
44	1	1372	C	N1-C2-O2	5.60	122.26	118.90
44	1	1575	A	C5-C6-N1	5.60	120.50	117.70
45	2	76	C	N1-C2-O2	5.60	122.26	118.90
45	2	131	A	C5-N7-C8	-5.60	101.10	103.90
44	1	209	A	C5-C6-N6	-5.59	119.22	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1303	A	C5-C6-N6	-5.59	119.22	123.70
10	N	99	ARG	NE-CZ-NH2	-5.59	117.50	120.30
44	1	1498	A	C5-C6-N6	-5.59	119.22	123.70
46	6	13	U	N1-C2-O2	5.59	126.72	122.80
8	L	100	ARG	NE-CZ-NH1	5.59	123.09	120.30
44	1	815	G	N9-C4-C5	-5.59	103.16	105.40
44	1	1318	A	N1-C6-N6	-5.59	115.25	118.60
44	1	1585	C	C5-C4-N4	-5.59	116.29	120.20
44	1	142	C	N3-C4-C5	5.59	124.14	121.90
44	1	198	A	N1-C6-N6	-5.59	115.25	118.60
44	1	947	G	C4-C5-N7	5.59	113.04	110.80
10	N	12	ARG	NE-CZ-NH2	-5.59	117.51	120.30
42	y	100	ARG	NE-CZ-NH2	5.59	123.09	120.30
44	1	26	A	C5-C6-N1	5.59	120.49	117.70
44	1	1208	U	N1-C2-O2	5.59	126.71	122.80
44	1	1231	A	C8-N9-C4	5.59	108.03	105.80
44	1	1589	A	C5-C6-N1	5.59	120.49	117.70
44	1	3279	A	C4-C5-N7	5.59	113.49	110.70
44	1	396	A	C5-N7-C8	-5.58	101.11	103.90
44	1	1135	A	C5-C6-N6	-5.58	119.23	123.70
44	1	1337	A	C6-N1-C2	-5.58	115.25	118.60
44	1	2946	A	C5-C6-N1	5.58	120.49	117.70
44	1	282	G	P-O3'-C3'	5.58	126.40	119.70
44	1	1300	G	N1-C2-N2	-5.58	111.17	116.20
45	2	105	A	C5-N7-C8	-5.58	101.11	103.90
32	j	55	ARG	NE-CZ-NH1	5.58	123.09	120.30
3	E	77	ARG	NE-CZ-NH2	-5.58	117.51	120.30
35	n	18	ARG	NE-CZ-NH2	5.58	123.09	120.30
44	1	77	A	C5-C6-N6	-5.58	119.24	123.70
44	1	412	G	C6-C5-N7	-5.58	127.05	130.40
44	1	2380	U	C5-C4-O4	-5.58	122.55	125.90
44	1	3294	A	C5-C6-N1	5.58	120.49	117.70
44	1	3196	U	N3-C2-O2	-5.58	118.30	122.20
44	1	2890	A	C5-C6-N6	-5.57	119.24	123.70
45	2	13	A	N7-C8-N9	5.57	116.59	113.80
44	1	232	G	N3-C4-N9	-5.57	122.66	126.00
44	1	529	A	C4-C5-N7	5.57	113.49	110.70
44	1	1382	G	N1-C2-N2	-5.57	111.19	116.20
24	b	159	ARG	NE-CZ-NH1	5.57	123.08	120.30
44	1	729	C	N3-C4-N4	5.57	121.90	118.00
44	1	1537	A	C5-N7-C8	-5.57	101.11	103.90
44	1	1895	A	C4-C5-N7	5.57	113.49	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3172	A	C4-C5-C6	-5.57	114.22	117.00
44	1	360	G	N1-C2-N2	-5.57	111.19	116.20
44	1	1546	A	C5-N7-C8	-5.57	101.11	103.90
44	1	289	A	C6-C5-N7	-5.57	128.40	132.30
45	2	81	U	N3-C2-O2	-5.57	118.30	122.20
44	1	276	U	C5-C4-O4	-5.57	122.56	125.90
44	1	348	A	N7-C8-N9	5.57	116.58	113.80
44	1	657	A	C5-N7-C8	-5.57	101.12	103.90
44	1	3113	A	C5-C6-N1	5.57	120.48	117.70
44	1	3190	C	C5-C4-N4	-5.57	116.31	120.20
44	1	347	G	C5-C6-O6	-5.56	125.26	128.60
44	1	1440	G	C4-C5-N7	5.56	113.03	110.80
44	1	1874	A	C5-N7-C8	-5.56	101.12	103.90
44	1	3141	A	C5-C6-N1	5.56	120.48	117.70
10	N	65	ARG	NE-CZ-NH1	5.56	123.08	120.30
44	1	875	G	N9-C4-C5	-5.56	103.18	105.40
44	1	1194	G	C6-C5-N7	-5.56	127.06	130.40
45	2	8	C	C5-C4-N4	-5.56	116.31	120.20
15	S	113	ARG	NE-CZ-NH1	5.56	123.08	120.30
44	1	690	A	C4-C5-N7	5.56	113.48	110.70
44	1	803	C	C5-C6-N1	5.56	123.78	121.00
44	1	1169	A	OP2-P-O3'	5.56	117.43	105.20
46	6	5	C	C6-N1-C1'	5.56	127.47	120.80
44	1	1798	A	C4-C5-N7	5.56	113.48	110.70
26	d	87	ASN	C-N-CD	-5.55	108.38	120.60
44	1	690	A	C5-N7-C8	-5.55	101.12	103.90
44	1	789	A	C5-N7-C8	-5.55	101.12	103.90
44	1	818	C	N3-C4-C5	5.55	124.12	121.90
44	1	976	U	C6-N1-C2	-5.55	117.67	121.00
44	1	3166	C	C6-N1-C2	-5.55	118.08	120.30
45	2	139	U	N3-C4-O4	5.55	123.29	119.40
44	1	85	A	C4-C5-C6	-5.55	114.22	117.00
44	1	614	C	N3-C4-C5	5.55	124.12	121.90
44	1	2926	A	N1-C6-N6	-5.55	115.27	118.60
44	1	3193	C	C6-N1-C2	-5.55	118.08	120.30
2	C	119	ARG	NE-CZ-NH1	5.55	123.08	120.30
13	Q	39	ARG	NE-CZ-NH1	5.55	123.07	120.30
44	1	1594	A	C4-C5-C6	-5.55	114.23	117.00
44	1	3157	U	N3-C2-O2	-5.55	118.31	122.20
44	1	398	A	O4'-C1'-N9	5.55	112.64	108.20
44	1	784	A	C5-C6-N1	5.55	120.47	117.70
44	1	2358	A	C5-C6-N1	5.55	120.47	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	110	C	N3-C4-N4	5.55	121.88	118.00
45	2	146	U	C5-C4-O4	-5.55	122.57	125.90
12	P	23	ARG	NE-CZ-NH2	-5.54	117.53	120.30
44	1	17	G	N9-C4-C5	-5.54	103.18	105.40
44	1	267	G	C5-N7-C8	-5.54	101.53	104.30
37	q	421	ARG	NE-CZ-NH2	5.54	123.07	120.30
44	1	106	A	C6-N1-C2	-5.54	115.27	118.60
44	1	315	C	N3-C2-O2	-5.54	118.02	121.90
44	1	2350	C	N3-C4-C5	5.54	124.12	121.90
44	1	3033	A	C4-C5-C6	-5.54	114.23	117.00
44	1	3073	A	C5-C6-N1	5.54	120.47	117.70
44	1	3183	A	N7-C8-N9	5.54	116.57	113.80
44	1	50	U	C5-C6-N1	5.54	125.47	122.70
44	1	790	U	C5-C4-O4	-5.54	122.58	125.90
44	1	1246	G	N3-C2-N2	-5.54	116.02	119.90
44	1	1842	A	C4-C5-C6	-5.54	114.23	117.00
45	2	88	A	N7-C8-N9	5.54	116.57	113.80
9	M	55	ARG	NE-CZ-NH2	-5.54	117.53	120.30
13	Q	39	ARG	NE-CZ-NH2	-5.54	117.53	120.30
44	1	1110	U	N1-C2-O2	-5.54	118.93	122.80
44	1	1377	G	C5-N7-C8	-5.54	101.53	104.30
44	1	1477	A	C5-N7-C8	-5.54	101.13	103.90
44	1	1698	C	N3-C4-N4	5.54	121.88	118.00
44	1	3242	G	N3-C2-N2	5.54	123.78	119.90
45	2	28	C	N1-C2-O2	5.54	122.22	118.90
44	1	624	G	C4-N9-C1’	5.53	133.69	126.50
44	1	1532	C	C5-C4-N4	-5.53	116.33	120.20
44	1	3129	A	C5-N7-C8	-5.53	101.13	103.90
44	1	2378	C	N1-C2-O2	5.53	122.22	118.90
8	L	42	ARG	NE-CZ-NH1	-5.53	117.53	120.30
44	1	431	U	C5-C4-O4	-5.53	122.58	125.90
44	1	705	A	O4’-C1’-N9	-5.53	103.78	108.20
44	1	1185	C	C2-N1-C1’	5.53	124.88	118.80
44	1	3147	G	C4-N9-C1’	5.53	133.69	126.50
46	6	45	U	C6-N1-C2	-5.53	117.68	121.00
29	g	74	ARG	NE-CZ-NH1	5.53	123.06	120.30
44	1	325	A	C6-N1-C2	-5.53	115.28	118.60
44	1	944	C	C2-N3-C4	-5.53	117.14	119.90
44	1	1409	G	C5-N7-C8	-5.53	101.54	104.30
44	1	2930	A	C5-C6-N1	5.53	120.46	117.70
44	1	3008	A	N1-C2-N3	-5.53	126.54	129.30
44	1	650	C	N3-C4-N4	5.52	121.87	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1269	U	C2-N1-C1'	5.52	124.33	117.70
44	1	3079	U	C5-C4-O4	-5.52	122.59	125.90
44	1	598	A	C5-N7-C8	-5.52	101.14	103.90
44	1	1255	C	N3-C2-O2	-5.52	118.03	121.90
44	1	1171	G	N9-C4-C5	-5.52	103.19	105.40
44	1	2991	A	C8-N9-C4	-5.52	103.59	105.80
45	2	50	C	N3-C4-C5	5.52	124.11	121.90
16	T	136	ARG	NE-CZ-NH1	5.52	123.06	120.30
44	1	1157	G	C5-N7-C8	-5.52	101.54	104.30
44	1	375	A	N3-C4-C5	5.52	130.66	126.80
3	E	51	ARG	NE-CZ-NH1	5.51	123.06	120.30
44	1	1194	G	N3-C4-N9	5.51	129.31	126.00
44	1	3305	A	C4-C5-C6	-5.51	114.24	117.00
45	2	8	C	N3-C2-O2	-5.51	118.04	121.90
44	1	1282	G	N7-C8-N9	5.51	115.86	113.10
44	1	1315	U	C5-C6-N1	5.51	125.45	122.70
44	1	1389	G	C5-N7-C8	-5.51	101.55	104.30
44	1	1699	A	C4-C5-C6	-5.51	114.25	117.00
44	1	2370	G	N1-C2-N2	-5.51	111.24	116.20
44	1	3298	C	C6-N1-C2	-5.51	118.10	120.30
9	M	124	ARG	NE-CZ-NH1	5.51	123.06	120.30
44	1	1750	A	C4-C5-C6	-5.51	114.25	117.00
44	1	2910	A	C4-C5-N7	5.51	113.45	110.70
44	1	3295	A	C4-C5-N7	5.51	113.45	110.70
44	1	407	A	C2-N3-C4	-5.51	107.85	110.60
44	1	410	U	C5-C4-O4	-5.51	122.59	125.90
45	2	92	A	C4-C5-N7	5.51	113.45	110.70
44	1	88	A	C4-C5-C6	-5.51	114.25	117.00
44	1	233	C	N1-C2-O2	5.51	122.20	118.90
44	1	813	G	N7-C8-N9	5.51	115.85	113.10
44	1	1203	A	C5-N7-C8	-5.51	101.15	103.90
14	R	9	ARG	NE-CZ-NH2	-5.50	117.55	120.30
15	S	13	ARG	NE-CZ-NH1	5.50	123.05	120.30
44	1	26	A	C4-C5-N7	5.50	113.45	110.70
44	1	812	G	C5-N7-C8	-5.50	101.55	104.30
44	1	1179	A	C4-C5-C6	-5.50	114.25	117.00
44	1	1190	A	N1-C2-N3	-5.50	126.55	129.30
44	1	64	G	N1-C6-O6	5.50	123.20	119.90
44	1	1000	C	N1-C2-O2	5.50	122.20	118.90
44	1	1165	A	C6-N1-C2	-5.50	115.30	118.60
44	1	1474	A	N9-C4-C5	-5.50	103.60	105.80
44	1	1493	G	C6-C5-N7	-5.50	127.10	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	909	G	N1-C6-O6	-5.50	116.60	119.90
44	1	3040	A	C5-C6-N6	-5.50	119.30	123.70
45	2	104	A	C5-C6-N1	5.50	120.45	117.70
4	F	100	ARG	NE-CZ-NH2	5.50	123.05	120.30
44	1	48	A	C4-C5-C6	-5.50	114.25	117.00
44	1	638	C	C5-C4-N4	-5.50	116.35	120.20
44	1	875	G	N3-C4-C5	-5.50	125.85	128.60
44	1	1326	A	N9-C4-C5	-5.50	103.60	105.80
44	1	1667	A	C8-N9-C4	-5.50	103.60	105.80
26	d	28	ARG	NE-CZ-NH1	5.50	123.05	120.30
44	1	1443	G	C6-C5-N7	-5.49	127.10	130.40
44	1	3124	G	N3-C2-N2	5.49	123.75	119.90
44	1	633	C	N3-C2-O2	-5.49	118.06	121.90
44	1	652	G	N9-C4-C5	-5.49	103.20	105.40
40	t	297	ARG	NE-CZ-NH1	5.49	123.05	120.30
44	1	1466	G	C6-C5-N7	-5.49	127.11	130.40
45	2	12	A	C4-C5-C6	-5.49	114.25	117.00
13	Q	69	ARG	NE-CZ-NH2	-5.49	117.56	120.30
18	V	128	ARG	NE-CZ-NH1	5.49	123.04	120.30
45	2	105	A	N3-C4-N9	5.49	131.79	127.40
44	1	1105	A	N1-C6-N6	5.49	121.89	118.60
44	1	596	C	C5-C4-N4	-5.48	116.36	120.20
44	1	820	A	N9-C4-C5	-5.48	103.61	105.80
44	1	1459	C	C5-C4-N4	-5.48	116.36	120.20
11	O	172	ARG	NE-CZ-NH2	-5.48	117.56	120.30
20	X	125	ARG	NE-CZ-NH2	5.48	123.04	120.30
44	1	88	A	C5-C6-N1	5.48	120.44	117.70
44	1	638	C	N3-C2-O2	-5.48	118.06	121.90
44	1	946	U	N3-C4-O4	5.48	123.24	119.40
44	1	3005	A	N1-C6-N6	5.48	121.89	118.60
44	1	3019	U	C5-C4-O4	5.48	129.19	125.90
44	1	3113	A	C5-C6-N6	-5.48	119.32	123.70
45	2	37	A	N9-C4-C5	-5.48	103.61	105.80
44	1	80	G	C4-C5-N7	5.48	112.99	110.80
11	O	160	ARG	NE-CZ-NH1	5.47	123.04	120.30
27	e	125	ARG	NE-CZ-NH2	-5.47	117.56	120.30
44	1	225	C	N3-C4-N4	5.47	121.83	118.00
44	1	3092	C	N3-C2-O2	-5.47	118.07	121.90
44	1	1803	C	C5-C4-N4	-5.47	116.37	120.20
44	1	2993	G	N3-C4-N9	5.47	129.28	126.00
44	1	3242	G	N7-C8-N9	5.47	115.84	113.10
46	6	231	A	C5-C6-N1	5.47	120.44	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1192	C	C5-C4-N4	-5.47	116.37	120.20
44	1	1654	A	OP1-P-O3'	5.47	117.24	105.20
3	E	46	ARG	NE-CZ-NH1	5.47	123.03	120.30
44	1	361	A	N7-C8-N9	5.47	116.53	113.80
44	1	1280	C	C6-N1-C2	-5.47	118.11	120.30
44	1	3149	G	C4-C5-N7	5.47	112.99	110.80
46	6	49	C	N1-C2-O2	5.47	122.18	118.90
44	1	13	A	C4-C5-N7	5.47	113.43	110.70
44	1	102	C	N3-C4-N4	5.47	121.83	118.00
44	1	1635	G	N1-C2-N2	-5.47	111.28	116.20
44	1	2887	A	N9-C4-C5	-5.46	103.61	105.80
44	1	661	G	C5-N7-C8	-5.46	101.57	104.30
44	1	661	G	N3-C4-C5	5.46	131.33	128.60
44	1	3113	A	C4-C5-N7	5.46	113.43	110.70
44	1	3218	A	C5-N7-C8	-5.46	101.17	103.90
44	1	503	C	N3-C4-C5	5.46	124.08	121.90
44	1	1544	G	N3-C4-N9	-5.46	122.72	126.00
44	1	1594	A	C4-C5-N7	5.46	113.43	110.70
44	1	29	C	C2-N1-C1'	5.46	124.80	118.80
44	1	1466	G	C4-N9-C1'	5.46	133.59	126.50
44	1	1612	A	C5-C6-N6	-5.46	119.33	123.70
44	1	1833	G	C4-C5-N7	5.46	112.98	110.80
45	2	33	A	C5-N7-C8	-5.46	101.17	103.90
45	2	44	A	N9-C4-C5	-5.46	103.62	105.80
27	e	27	ARG	NE-CZ-NH1	5.46	123.03	120.30
44	1	657	A	OP2-P-O3'	5.46	117.20	105.20
44	1	790	U	C5-C6-N1	5.46	125.43	122.70
44	1	1417	G	C4-C5-N7	5.46	112.98	110.80
44	1	327	A	N1-C6-N6	-5.45	115.33	118.60
44	1	1434	G	N7-C8-N9	5.45	115.83	113.10
44	1	1787	A	C4-C5-N7	5.45	113.43	110.70
44	1	3039	C	C5-C4-N4	-5.45	116.38	120.20
44	1	187	A	C4-C5-C6	-5.45	114.27	117.00
44	1	1373	A	C4-C5-C6	-5.45	114.27	117.00
44	1	318	A	C5-N7-C8	-5.45	101.17	103.90
44	1	651	G	C6-C5-N7	-5.45	127.13	130.40
44	1	1449	A	C4-C5-N7	5.45	113.42	110.70
44	1	688	G	N3-C2-N2	-5.45	116.09	119.90
44	1	1311	G	C4-C5-N7	5.45	112.98	110.80
44	1	1797	A	C5-C6-N1	5.45	120.42	117.70
44	1	66	A	C8-N9-C4	-5.44	103.62	105.80
44	1	3323	A	C6-C5-N7	-5.44	128.49	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	6	2	C	N3-C2-O2	-5.44	118.09	121.90
44	1	415	G	C4-C5-N7	5.44	112.98	110.80
44	1	965	A	N9-C4-C5	-5.44	103.62	105.80
44	1	3019	U	C5-C6-N1	5.44	125.42	122.70
45	2	46	G	C4-N9-C1'	5.44	133.57	126.50
44	1	1199	C	C6-N1-C2	-5.44	118.12	120.30
44	1	1419	A	N3-C4-C5	5.44	130.61	126.80
44	1	226	C	N3-C4-C5	5.44	124.08	121.90
44	1	1209	G	C8-N9-C4	5.44	108.58	106.40
44	1	1590	G	C6-C5-N7	-5.44	127.14	130.40
44	1	3123	A	C5-C6-N6	-5.44	119.35	123.70
44	1	686	G	C5-N7-C8	-5.44	101.58	104.30
44	1	3137	C	N3-C4-C5	5.44	124.07	121.90
45	2	145	U	C5-C4-O4	-5.44	122.64	125.90
44	1	1320	C	C6-N1-C2	-5.43	118.13	120.30
44	1	3184	A	N7-C8-N9	5.43	116.52	113.80
44	1	529	A	C5-N7-C8	-5.43	101.18	103.90
44	1	680	G	N7-C8-N9	5.43	115.82	113.10
44	1	831	G	C8-N9-C4	-5.43	104.23	106.40
44	1	938	C	C5-C4-N4	-5.43	116.40	120.20
44	1	1829	G	N9-C4-C5	-5.43	103.23	105.40
45	2	45	C	C5-C6-N1	5.43	123.72	121.00
24	b	130	ARG	NE-CZ-NH1	5.43	123.02	120.30
35	n	424	ARG	NE-CZ-NH1	5.43	123.02	120.30
44	1	108	A	C5-N7-C8	-5.43	101.19	103.90
44	1	1528	G	C4-C5-N7	5.43	112.97	110.80
3	E	26	ARG	NE-CZ-NH2	-5.43	117.58	120.30
44	1	720	A	C5-C6-N6	-5.43	119.36	123.70
44	1	1433	A	C4-C5-N7	5.43	113.42	110.70
44	1	3279	A	N9-C4-C5	-5.43	103.63	105.80
44	1	1343	A	C5-N7-C8	-5.43	101.19	103.90
44	1	1786	G	C5-N7-C8	-5.43	101.59	104.30
44	1	1133	A	C4-C5-N7	5.42	113.41	110.70
44	1	1193	A	N9-C4-C5	-5.42	103.63	105.80
44	1	1195	A	N9-C4-C5	-5.42	103.63	105.80
44	1	2376	G	N1-C2-N2	-5.42	111.32	116.20
44	1	3046	A	C4-C5-C6	-5.42	114.29	117.00
44	1	3303	G	C5-N7-C8	-5.42	101.59	104.30
44	1	1145	G	C4-N9-C1'	5.42	133.55	126.50
44	1	3279	A	C5-C6-N6	-5.42	119.36	123.70
11	O	172	ARG	NE-CZ-NH1	5.42	123.01	120.30
6	H	173	ARG	NE-CZ-NH2	5.42	123.01	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	g	80	ARG	NE-CZ-NH1	5.42	123.01	120.30
44	1	1532	C	N1-C2-O2	5.42	122.15	118.90
44	1	2900	A	C4-C5-N7	5.42	113.41	110.70
44	1	3240	C	N1-C2-O2	5.42	122.15	118.90
46	6	53	A	C4-C5-N7	5.42	113.41	110.70
4	F	41	ARG	NE-CZ-NH1	5.41	123.01	120.30
44	1	2322	C	C6-N1-C2	-5.41	118.14	120.30
44	1	216	G	N7-C8-N9	5.41	115.81	113.10
20	X	42	ARG	NE-CZ-NH1	5.41	123.00	120.30
44	1	589	A	C4-C5-N7	5.41	113.41	110.70
44	1	1158	A	C5-C6-N1	5.41	120.41	117.70
44	1	3126	C	N3-C2-O2	-5.41	118.11	121.90
44	1	3136	G	N1-C2-N2	-5.41	111.33	116.20
44	1	841	A	N9-C4-C5	-5.41	103.64	105.80
1	B	117	ARG	NE-CZ-NH1	5.41	123.00	120.30
44	1	1143	A	C5-C6-N1	5.41	120.40	117.70
44	1	1161	G	C8-N9-C4	-5.41	104.24	106.40
44	1	268	A	C5-N7-C8	-5.40	101.20	103.90
44	1	501	A	C4-C5-N7	5.40	113.40	110.70
44	1	1395	G	C2-N3-C4	-5.40	109.20	111.90
44	1	2356	A	N7-C8-N9	5.40	116.50	113.80
44	1	2925	C	C6-N1-C1'	-5.40	114.32	120.80
44	1	3091	A	C5-N7-C8	-5.40	101.20	103.90
24	b	27	ARG	NE-CZ-NH2	5.40	123.00	120.30
44	1	1190	A	C6-C5-N7	-5.40	128.52	132.30
44	1	1473	G	C5-N7-C8	-5.40	101.60	104.30
45	2	4	C	N3-C2-O2	-5.40	118.12	121.90
45	2	9	A	C6-C5-N7	-5.40	128.52	132.30
44	1	3125	U	N3-C2-O2	-5.40	118.42	122.20
44	1	495	G	C4-N9-C1'	5.40	133.52	126.50
44	1	1379	G	N7-C8-N9	5.40	115.80	113.10
44	1	1412	G	N7-C8-N9	5.40	115.80	113.10
44	1	2368	A	C5-N7-C8	-5.40	101.20	103.90
44	1	2900	A	N9-C4-C5	-5.40	103.64	105.80
44	1	3273	A	C5-N7-C8	-5.40	101.20	103.90
44	1	3310	A	N7-C8-N9	5.40	116.50	113.80
44	1	152	U	C6-N1-C2	-5.40	117.76	121.00
44	1	344	A	N7-C8-N9	5.40	116.50	113.80
44	1	1328	C	N3-C4-C5	5.40	124.06	121.90
44	1	433	A	N9-C4-C5	-5.39	103.64	105.80
44	1	666	A	C4-C5-N7	5.39	113.40	110.70
44	1	677	A	C5-N7-C8	-5.39	101.20	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1417	G	C5-N7-C8	-5.39	101.60	104.30
44	1	2381	G	C5-N7-C8	-5.39	101.60	104.30
44	1	3019	U	C2-N1-C1'	5.39	124.17	117.70
44	1	3323	A	N7-C8-N9	5.39	116.50	113.80
45	2	41	A	C5-N7-C8	-5.39	101.20	103.90
44	1	214	G	C5-C6-O6	-5.39	125.36	128.60
44	1	3035	A	N9-C4-C5	-5.39	103.64	105.80
45	2	72	A	C4-C5-C6	-5.39	114.30	117.00
10	N	108	ARG	NE-CZ-NH1	5.39	123.00	120.30
44	1	8	C	N3-C4-N4	5.39	121.77	118.00
44	1	1370	G	C5-N7-C8	-5.39	101.61	104.30
44	1	1883	A	N7-C8-N9	5.39	116.49	113.80
44	1	3096	C	N1-C2-O2	5.39	122.13	118.90
44	1	346	C	C2-N3-C4	-5.39	117.21	119.90
44	1	573	C	N3-C2-O2	-5.39	118.13	121.90
1	B	244	ARG	NE-CZ-NH1	5.39	122.99	120.30
44	1	1306	G	C4-C5-N7	5.39	112.95	110.80
44	1	1428	A	O4'-C1'-N9	5.39	112.51	108.20
44	1	3159	C	N3-C2-O2	-5.39	118.13	121.90
44	1	3273	A	N9-C4-C5	-5.39	103.65	105.80
46	6	13	U	N3-C2-O2	-5.39	118.43	122.20
44	1	144	A	C4-C5-N7	5.38	113.39	110.70
44	1	1125	U	C5-C6-N1	5.38	125.39	122.70
44	1	1475	A	C4-C5-N7	5.38	113.39	110.70
44	1	1099	A	C4-C5-C6	-5.38	114.31	117.00
44	1	334	A	N9-C4-C5	-5.38	103.65	105.80
44	1	706	A	C5-C6-N1	5.38	120.39	117.70
44	1	1183	C	N3-C4-C5	5.38	124.05	121.90
44	1	2317	A	P-O3'-C3'	5.38	126.16	119.70
44	1	3033	A	N9-C4-C5	-5.38	103.65	105.80
44	1	499	G	N7-C8-N9	5.38	115.79	113.10
44	1	1054	A	C2-N3-C4	5.38	113.29	110.60
44	1	1466	G	N7-C8-N9	5.38	115.79	113.10
44	1	2352	A	C4-C5-N7	5.38	113.39	110.70
45	2	91	C	N3-C4-C5	5.38	124.05	121.90
44	1	598	A	N9-C4-C5	-5.38	103.65	105.80
44	1	1182	A	C5-N7-C8	-5.38	101.21	103.90
44	1	1316	C	N1-C2-O2	5.38	122.13	118.90
44	1	1632	A	N1-C6-N6	-5.38	115.37	118.60
44	1	3293	U	C6-N1-C2	-5.38	117.78	121.00
44	1	1798	A	C5-N7-C8	-5.37	101.21	103.90
44	1	2350	C	C5-C4-N4	-5.37	116.44	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	2946	A	C4-C5-N7	5.37	113.39	110.70
15	S	12	ARG	NE-CZ-NH2	-5.37	117.61	120.30
44	1	373	A	C4-C5-C6	-5.37	114.31	117.00
44	1	590	G	N3-C4-C5	5.37	131.28	128.60
44	1	1640	G	C5-N7-C8	-5.37	101.61	104.30
44	1	1803	C	N1-C2-O2	5.37	122.12	118.90
44	1	3059	G	C5-N7-C8	-5.37	101.61	104.30
44	1	3391	A	N9-C4-C5	-5.37	103.65	105.80
2	C	98	ARG	NE-CZ-NH1	5.37	122.98	120.30
44	1	331	G	C5-N7-C8	-5.37	101.61	104.30
44	1	1414	G	C5-N7-C8	-5.37	101.61	104.30
44	1	2828	G	N9-C4-C5	-5.37	103.25	105.40
44	1	403	C	N3-C2-O2	-5.37	118.14	121.90
44	1	1604	G	C4-N9-C1'	5.37	133.48	126.50
44	1	2878	G	N1-C6-O6	-5.37	116.68	119.90
44	1	3153	U	C6-N1-C1'	-5.37	113.69	121.20
44	1	3110	C	N3-C4-N4	5.37	121.76	118.00
44	1	3372	A	C5-N7-C8	-5.37	101.22	103.90
44	1	344	A	C6-N1-C2	-5.37	115.38	118.60
44	1	1336	U	C5-C4-O4	-5.37	122.68	125.90
44	1	1631	C	N1-C2-O2	5.37	122.12	118.90
44	1	1800	A	N7-C8-N9	5.37	116.48	113.80
44	1	1882	G	C5-N7-C8	-5.37	101.62	104.30
8	L	115	ARG	NE-CZ-NH1	5.36	122.98	120.30
44	1	421	G	C4-N9-C1'	5.36	133.47	126.50
44	1	736	A	C4-C5-N7	5.36	113.38	110.70
44	1	1585	C	C6-N1-C2	-5.36	118.16	120.30
45	2	14	C	N3-C4-C5	5.36	124.05	121.90
45	2	71	A	C8-N9-C4	5.36	107.94	105.80
45	2	107	G	C5-N7-C8	-5.36	101.62	104.30
44	1	372	A	C4-C5-N7	5.36	113.38	110.70
44	1	3371	G	N7-C8-N9	5.36	115.78	113.10
45	2	37	A	C4-C5-N7	5.36	113.38	110.70
31	i	41	ARG	NE-CZ-NH2	-5.36	117.62	120.30
44	1	63	A	C6-N1-C2	-5.36	115.39	118.60
44	1	1472	U	N3-C4-O4	5.36	123.15	119.40
44	1	1574	C	N3-C2-O2	-5.36	118.15	121.90
44	1	3017	A	C5-C6-N1	5.36	120.38	117.70
10	N	109	ARG	NE-CZ-NH1	5.35	122.98	120.30
44	1	690	A	C5-C6-N6	-5.35	119.42	123.70
44	1	2898	G	N3-C2-N2	5.35	123.65	119.90
44	1	3112	G	C5-N7-C8	-5.35	101.62	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	Z	15	ARG	NE-CZ-NH1	5.35	122.97	120.30
44	1	1237	G	N3-C4-N9	-5.35	122.79	126.00
44	1	1550	C	N1-C2-O2	5.35	122.11	118.90
44	1	3077	A	C5-N7-C8	-5.35	101.22	103.90
45	2	68	G	C5-N7-C8	-5.35	101.63	104.30
44	1	515	C	C6-N1-C2	-5.35	118.16	120.30
44	1	656	A	C6-N1-C2	-5.35	115.39	118.60
44	1	680	G	N9-C4-C5	-5.35	103.26	105.40
45	2	50	C	N1-C2-O2	5.35	122.11	118.90
44	1	2345	A	C5-C6-N6	-5.34	119.42	123.70
44	1	402	A	N7-C8-N9	5.34	116.47	113.80
44	1	570	A	C4-C5-C6	-5.34	114.33	117.00
44	1	775	A	C5-N7-C8	-5.34	101.23	103.90
37	q	261	ARG	NE-CZ-NH1	5.34	122.97	120.30
44	1	887	G	N7-C8-N9	5.34	115.77	113.10
44	1	1475	A	C5-C6-N6	-5.34	119.43	123.70
44	1	2898	G	C4-C5-N7	5.34	112.94	110.80
44	1	332	C	N3-C2-O2	-5.34	118.16	121.90
44	1	1097	G	OP2-P-O3'	5.34	116.94	105.20
44	1	1171	G	C5-N7-C8	-5.34	101.63	104.30
44	1	2325	G	N3-C4-N9	-5.34	122.80	126.00
44	1	2394	G	N3-C2-N2	5.34	123.64	119.90
44	1	3035	A	C5-N7-C8	-5.34	101.23	103.90
2	C	195	ARG	NE-CZ-NH2	-5.34	117.63	120.30
44	1	1310	G	N3-C4-N9	-5.34	122.80	126.00
44	1	1373	A	C5-N7-C8	-5.33	101.23	103.90
44	1	3130	A	C8-N9-C1'	-5.33	118.10	127.70
35	n	18	ARG	NE-CZ-NH1	-5.33	117.63	120.30
44	1	34	A	N1-C6-N6	-5.33	115.40	118.60
44	1	799	G	N1-C2-N2	-5.33	111.40	116.20
44	1	2993	G	C4-N9-C1'	5.33	133.43	126.50
44	1	363	G	N3-C2-N2	5.33	123.63	119.90
44	1	1183	C	N3-C4-N4	5.33	121.73	118.00
44	1	2376	G	C6-C5-N7	-5.33	127.20	130.40
44	1	1269	U	N3-C2-O2	-5.33	118.47	122.20
44	1	1363	A	C6-N1-C2	-5.33	115.40	118.60
44	1	3127	A	C5-C6-N1	5.33	120.36	117.70
44	1	1874	A	N9-C4-C5	-5.33	103.67	105.80
44	1	227	G	C8-N9-C1'	-5.33	120.08	127.00
44	1	1452	A	O4'-C1'-N9	5.33	112.46	108.20
45	2	134	G	C4-N9-C1'	5.33	133.42	126.50
46	6	231	A	C2-N3-C4	5.32	113.26	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	15	C	N1-C2-O2	5.32	122.09	118.90
44	1	332	C	C6-N1-C2	-5.32	118.17	120.30
44	1	349	A	N7-C8-N9	5.32	116.46	113.80
44	1	1317	A	C5-C6-N1	5.32	120.36	117.70
44	1	3031	G	N3-C2-N2	5.32	123.62	119.90
44	1	1145	G	C5-N7-C8	-5.32	101.64	104.30
44	1	1310	G	N7-C8-N9	5.32	115.76	113.10
44	1	1447	G	C2-N3-C4	-5.32	109.24	111.90
44	1	1806	A	C5-C6-N1	5.32	120.36	117.70
44	1	527	A	C4-C5-N7	5.32	113.36	110.70
44	1	1233	G	N3-C2-N2	5.32	123.62	119.90
10	N	201	ARG	NE-CZ-NH1	5.32	122.96	120.30
44	1	346	C	N1-C2-O2	5.32	122.09	118.90
44	1	982	C	C6-N1-C2	-5.32	118.17	120.30
44	1	1277	C	O4'-C1'-N1	5.32	112.45	108.20
44	1	1418	A	C5-C6-N6	-5.32	119.45	123.70
44	1	1453	A	N3-C4-C5	5.32	130.52	126.80
44	1	2146	C	N1-C2-O2	5.32	122.09	118.90
44	1	1475	A	C5-N7-C8	-5.31	101.24	103.90
44	1	944	C	O4'-C1'-N1	5.31	112.45	108.20
44	1	1097	G	P-O3'-C3'	5.31	126.07	119.70
44	1	3391	A	C5-C6-N1	5.31	120.36	117.70
44	1	1274	A	C5-C6-N1	5.31	120.36	117.70
44	1	2844	C	N1-C2-O2	5.31	122.09	118.90
1	B	300	ARG	NE-CZ-NH2	-5.31	117.64	120.30
44	1	865	U	C6-N1-C2	-5.31	117.81	121.00
44	1	3026	G	N3-C4-C5	5.31	131.25	128.60
44	1	519	A	C5-C6-N1	5.31	120.35	117.70
44	1	646	A	N1-C6-N6	5.31	121.78	118.60
44	1	656	A	C6-C5-N7	-5.31	128.58	132.30
44	1	789	A	C6-N1-C2	-5.31	115.42	118.60
44	1	1883	A	C8-N9-C4	-5.31	103.68	105.80
44	1	268	A	C4-C5-N7	5.31	113.35	110.70
44	1	1598	G	C8-N9-C4	-5.30	104.28	106.40
45	2	131	A	C4-C5-N7	5.30	113.35	110.70
44	1	2367	A	C4-C5-C6	-5.30	114.35	117.00
45	2	5	U	C5-C6-N1	5.30	125.35	122.70
44	1	143	G	N3-C4-N9	-5.30	122.82	126.00
44	1	1106	G	C5-N7-C8	-5.30	101.65	104.30
44	1	1597	C	C6-N1-C2	-5.30	118.18	120.30
44	1	3049	A	C4-C5-N7	5.30	113.35	110.70
10	N	147	ARG	NE-CZ-NH1	5.30	122.95	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	34	A	C5-C6-N1	5.30	120.35	117.70
44	1	103	G	C5-N7-C8	-5.30	101.65	104.30
44	1	1120	A	C4-C5-N7	5.30	113.35	110.70
45	2	41	A	C4-C5-C6	-5.30	114.35	117.00
44	1	720	A	C4-C5-N7	5.30	113.35	110.70
44	1	650	C	C6-N1-C2	-5.30	118.18	120.30
44	1	806	A	C4-C5-C6	-5.30	114.35	117.00
44	1	1150	A	N1-C6-N6	5.30	121.78	118.60
44	1	3382	U	C6-N1-C2	-5.30	117.82	121.00
45	2	62	C	N1-C2-O2	5.30	122.08	118.90
44	1	1139	G	C4-C5-N7	5.29	112.92	110.80
44	1	1064	A	P-O3'-C3'	5.29	126.05	119.70
45	2	157	U	C6-N1-C1'	-5.29	113.79	121.20
9	M	13	ARG	NE-CZ-NH1	5.29	122.94	120.30
44	1	1374	G	C5-C6-O6	-5.29	125.43	128.60
44	1	578	A	C5-C6-N1	5.29	120.34	117.70
44	1	650	C	C5-C4-N4	-5.29	116.50	120.20
44	1	1261	G	C4-N9-C1'	5.29	133.38	126.50
44	1	1285	G	N3-C2-N2	5.29	123.60	119.90
10	N	150	TRP	CA-CB-CG	5.29	123.75	113.70
44	1	660	A	C4-C5-N7	5.29	113.34	110.70
44	1	806	A	N1-C2-N3	-5.29	126.66	129.30
44	1	1282	G	C5-N7-C8	-5.29	101.66	104.30
44	1	3002	C	N3-C4-C5	5.29	124.01	121.90
44	1	187	A	C5-N7-C8	-5.28	101.26	103.90
44	1	1655	G	C5-N7-C8	-5.28	101.66	104.30
44	1	2902	A	N9-C4-C5	-5.28	103.69	105.80
44	1	3134	A	C5-C6-N1	5.28	120.34	117.70
45	2	28	C	N3-C4-C5	5.28	124.01	121.90
45	2	9	A	N3-C4-N9	5.28	131.62	127.40
45	2	17	A	C4-C5-C6	-5.28	114.36	117.00
21	Y	12	ARG	NE-CZ-NH1	5.28	122.94	120.30
44	1	936	A	C5-N7-C8	-5.28	101.26	103.90
44	1	1135	A	C5-N7-C8	-5.28	101.26	103.90
44	1	3031	G	C8-N9-C4	5.28	108.51	106.40
44	1	3138	U	N3-C2-O2	-5.28	118.50	122.20
44	1	3144	G	C5-N7-C8	-5.28	101.66	104.30
44	1	3366	G	C4-C5-N7	5.28	112.91	110.80
45	2	40	A	N7-C8-N9	5.28	116.44	113.80
44	1	1452	A	N1-C6-N6	-5.28	115.44	118.60
44	1	1863	G	N3-C2-N2	-5.28	116.21	119.90
45	2	73	U	P-O3'-C3'	5.28	126.03	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	2	136	G	C5-N7-C8	-5.28	101.66	104.30
44	1	1466	G	C4-C5-N7	5.27	112.91	110.80
41	u	33	ARG	NE-CZ-NH2	5.27	122.94	120.30
44	1	1194	G	C8-N9-C1'	-5.27	120.14	127.00
45	2	58	G	C5-C6-O6	-5.27	125.44	128.60
44	1	267	G	C5-C6-O6	5.27	131.76	128.60
44	1	3070	A	C5-C6-N6	-5.27	119.48	123.70
44	1	338	A	N1-C6-N6	-5.27	115.44	118.60
44	1	1523	U	C5-C6-N1	5.27	125.33	122.70
44	1	3024	A	N1-C6-N6	-5.27	115.44	118.60
44	1	3032	A	N9-C4-C5	-5.27	103.69	105.80
45	2	144	G	N3-C4-C5	5.27	131.24	128.60
44	1	288	C	C6-N1-C2	-5.27	118.19	120.30
44	1	661	G	C2-N3-C4	-5.27	109.27	111.90
44	1	703	G	C5-N7-C8	-5.27	101.67	104.30
44	1	1667	A	C4-C5-N7	5.27	113.33	110.70
44	1	1843	C	C4-C5-C6	5.27	120.03	117.40
44	1	1878	G	C2-N3-C4	5.27	114.53	111.90
35	n	96	ARG	NE-CZ-NH1	-5.27	117.67	120.30
44	1	598	A	C4-C5-N7	5.27	113.33	110.70
44	1	283	G	N3-C4-N9	5.26	129.16	126.00
44	1	937	G	C8-N9-C1'	-5.26	120.16	127.00
44	1	1605	A	C5-N7-C8	-5.26	101.27	103.90
44	1	3009	G	N7-C8-N9	5.26	115.73	113.10
44	1	3226	A	C4-C5-C6	-5.26	114.37	117.00
35	n	9	ARG	NE-CZ-NH1	5.26	122.93	120.30
44	1	1401	A	N9-C4-C5	-5.26	103.69	105.80
44	1	1493	G	C4-C5-N7	5.26	112.91	110.80
45	2	75	G	C4-C5-N7	5.26	112.91	110.80
44	1	99	A	N7-C8-N9	5.26	116.43	113.80
44	1	367	A	C4-C5-C6	-5.26	114.37	117.00
44	1	812	G	C8-N9-C4	-5.26	104.30	106.40
44	1	1140	G	C4-N9-C1'	5.26	133.34	126.50
44	1	1439	U	C5-C4-O4	-5.26	122.74	125.90
44	1	2368	A	C5-C6-N1	5.26	120.33	117.70
44	1	3016	A	C5-C6-N6	-5.26	119.49	123.70
45	2	89	A	C4-C5-N7	5.26	113.33	110.70
45	2	104	A	C5-C6-N6	-5.26	119.49	123.70
44	1	89	A	C5-C6-N6	-5.26	119.49	123.70
44	1	321	C	N3-C2-O2	-5.26	118.22	121.90
45	2	28	C	N3-C2-O2	-5.26	118.22	121.90
45	2	126	A	C4-C5-C6	-5.26	114.37	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	P	135	ARG	NE-CZ-NH2	-5.25	117.67	120.30
44	1	52	A	C4-C5-C6	-5.25	114.37	117.00
44	1	1321	G	C8-N9-C1'	-5.25	120.17	127.00
44	1	1369	A	C4-C5-C6	-5.25	114.37	117.00
44	1	701	G	C8-N9-C1'	-5.25	120.17	127.00
44	1	3183	A	N1-C6-N6	5.25	121.75	118.60
2	C	246	ARG	NE-CZ-NH1	5.25	122.93	120.30
44	1	786	A	C4-C5-N7	5.25	113.33	110.70
45	2	95	G	C5-N7-C8	-5.25	101.67	104.30
44	1	117	U	N3-C2-O2	-5.25	118.53	122.20
44	1	578	A	C4-C5-C6	-5.25	114.38	117.00
44	1	408	A	C4-C5-C6	-5.25	114.38	117.00
44	1	2828	G	N1-C6-O6	-5.25	116.75	119.90
13	Q	92	ARG	NE-CZ-NH1	-5.25	117.68	120.30
44	1	904	A	C4-C5-N7	5.25	113.32	110.70
44	1	1374	G	N3-C4-N9	5.25	129.15	126.00
44	1	3055	U	C5-C6-N1	5.25	125.32	122.70
44	1	1456	A	C4-C5-N7	5.25	113.32	110.70
2	C	138	ARG	NE-CZ-NH2	-5.24	117.68	120.30
44	1	325	A	N1-C6-N6	-5.24	115.45	118.60
44	1	342	A	N3-C4-C5	5.24	130.47	126.80
44	1	632	G	C8-N9-C1'	-5.24	120.18	127.00
44	1	2983	C	C2-N1-C1'	5.24	124.57	118.80
44	1	3031	G	N1-C2-N2	-5.24	111.48	116.20
24	b	396	ARG	NE-CZ-NH1	5.24	122.92	120.30
44	1	3009	G	C5-N7-C8	-5.24	101.68	104.30
44	1	282	G	N3-C4-N9	5.24	129.15	126.00
12	P	69	ARG	NE-CZ-NH1	5.24	122.92	120.30
21	Y	20	PHE	CB-CG-CD1	-5.24	117.13	120.80
44	1	609	G	N1-C2-N2	-5.24	111.48	116.20
44	1	1893	A	C5-N7-C8	-5.24	101.28	103.90
44	1	3302	U	C5-C4-O4	-5.24	122.76	125.90
45	2	97	A	C5-C6-N1	5.24	120.32	117.70
44	1	775	A	C5-C6-N6	-5.24	119.51	123.70
45	2	44	A	N1-C6-N6	5.24	121.74	118.60
44	1	345	G	C8-N9-C1'	-5.24	120.19	127.00
44	1	802	C	C5-C4-N4	-5.24	116.54	120.20
44	1	1461	A	C5-C6-N1	5.24	120.32	117.70
44	1	1383	G	C6-C5-N7	-5.23	127.26	130.40
44	1	1799	A	C4-C5-C6	-5.23	114.38	117.00
29	g	60	ARG	NE-CZ-NH2	-5.23	117.68	120.30
32	j	72	ARG	NE-CZ-NH1	5.23	122.92	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	288	C	N1-C2-O2	5.23	122.04	118.90
44	1	875	G	C4-C5-N7	5.23	112.89	110.80
44	1	1124	U	C2-N1-C1'	5.23	123.98	117.70
44	1	14	U	N1-C2-O2	5.23	126.46	122.80
44	1	660	A	C4-C5-C6	-5.23	114.39	117.00
44	1	1140	G	C8-N9-C4	-5.23	104.31	106.40
44	1	1317	A	O4'-C1'-N9	5.23	112.38	108.20
44	1	2909	U	C5-C4-O4	-5.23	122.76	125.90
46	6	22	G	N3-C4-C5	5.23	131.21	128.60
44	1	27	C	N3-C2-O2	-5.22	118.24	121.90
44	1	369	A	N1-C2-N3	-5.22	126.69	129.30
44	1	3184	A	C5-N7-C8	-5.22	101.29	103.90
4	F	33	ARG	NE-CZ-NH1	5.22	122.91	120.30
44	1	128	G	N3-C4-N9	5.22	129.13	126.00
44	1	583	G	N7-C8-N9	5.22	115.71	113.10
44	1	1326	A	C4-C5-N7	5.22	113.31	110.70
44	1	57	A	N7-C8-N9	5.22	116.41	113.80
44	1	706	A	C4-C5-N7	5.22	113.31	110.70
44	1	3241	G	C4-C5-N7	5.22	112.89	110.80
44	1	3291	G	N3-C2-N2	5.22	123.55	119.90
35	n	109	ARG	NE-CZ-NH2	5.22	122.91	120.30
44	1	720	A	N9-C4-C5	-5.22	103.71	105.80
44	1	941	G	C5-N7-C8	-5.22	101.69	104.30
44	1	1171	G	C4-N9-C1'	5.22	133.28	126.50
44	1	1180	A	C5-C6-N1	5.22	120.31	117.70
44	1	1299	U	C6-N1-C2	-5.22	117.87	121.00
44	1	273	A	C5-N7-C8	-5.21	101.29	103.90
44	1	427	C	N3-C4-N4	5.21	121.65	118.00
44	1	1172	G	N3-C4-N9	-5.21	122.87	126.00
44	1	1337	A	C4-C5-C6	-5.21	114.39	117.00
44	1	1387	G	C4-N9-C1'	5.21	133.28	126.50
44	1	1402	C	N3-C4-C5	5.21	123.99	121.90
44	1	3219	G	N1-C2-N2	-5.21	111.51	116.20
44	1	1606	U	N3-C2-O2	-5.21	118.55	122.20
44	1	1833	G	C4-N9-C1'	5.21	133.28	126.50
45	2	155	A	C5-N7-C8	-5.21	101.29	103.90
44	1	33	G	N9-C4-C5	-5.21	103.31	105.40
44	1	332	C	N3-C4-C5	5.21	123.98	121.90
44	1	816	A	C8-N9-C4	-5.21	103.72	105.80
44	1	1327	C	C5-C6-N1	5.21	123.61	121.00
44	1	1000	C	N3-C2-O2	-5.21	118.25	121.90
44	1	1444	G	C8-N9-C1'	-5.21	120.23	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3148	U	C6-N1-C2	-5.21	117.87	121.00
44	1	200	C	C5-C4-N4	-5.21	116.55	120.20
44	1	522	A	C4-C5-N7	5.21	113.30	110.70
44	1	1323	G	N3-C4-C5	5.21	131.20	128.60
44	1	662	U	C6-N1-C2	-5.21	117.88	121.00
44	1	806	A	N9-C4-C5	-5.21	103.72	105.80
44	1	1287	A	C4-C5-C6	-5.21	114.40	117.00
44	1	3150	A	C4-C5-N7	5.21	113.30	110.70
34	l	41	ARG	NE-CZ-NH1	5.21	122.90	120.30
41	u	56	ARG	NE-CZ-NH2	5.21	122.90	120.30
44	1	76	G	C4-C5-N7	5.21	112.88	110.80
44	1	529	A	N9-C4-C5	-5.21	103.72	105.80
44	1	1382	G	C4-N9-C1'	5.21	133.27	126.50
35	n	130	ARG	NE-CZ-NH1	5.20	122.90	120.30
44	1	1896	A	C5-N7-C8	-5.20	101.30	103.90
44	1	2380	U	N3-C4-O4	5.20	123.04	119.40
44	1	3166	C	C5-C6-N1	5.20	123.60	121.00
8	L	55	ARG	NE-CZ-NH1	5.20	122.90	120.30
15	S	115	ARG	NE-CZ-NH1	5.20	122.90	120.30
44	1	3101	G	N3-C4-C5	5.20	131.20	128.60
44	1	20	A	C4-C5-N7	5.20	113.30	110.70
44	1	159	A	C4-C5-N7	5.20	113.30	110.70
44	1	1366	A	C5-C6-N1	5.20	120.30	117.70
44	1	1536	G	N3-C4-N9	-5.20	122.88	126.00
44	1	1567	U	P-O3'-C3'	5.20	125.94	119.70
44	1	2925	C	N3-C2-O2	-5.20	118.26	121.90
44	1	138	U	C5-C4-O4	-5.20	122.78	125.90
44	1	1493	G	N3-C4-N9	5.20	129.12	126.00
44	1	1493	G	N9-C4-C5	-5.20	103.32	105.40
44	1	1454	A	C4-C5-C6	-5.20	114.40	117.00
44	1	3141	A	C8-N9-C4	5.20	107.88	105.80
44	1	3213	A	C6-C5-N7	-5.20	128.66	132.30
5	G	204	ARG	NE-CZ-NH1	5.19	122.90	120.30
44	1	595	G	N3-C4-C5	5.19	131.20	128.60
44	1	64	G	C5-C6-O6	-5.19	125.48	128.60
44	1	788	C	N3-C4-N4	5.19	121.63	118.00
44	1	1133	A	C5-N7-C8	-5.19	101.30	103.90
44	1	1196	C	N3-C4-N4	5.19	121.63	118.00
44	1	1389	G	N1-C2-N2	-5.19	111.53	116.20
44	1	1319	G	N3-C4-C5	5.19	131.19	128.60
44	1	3059	G	C4-C5-N7	5.19	112.88	110.80
44	1	199	A	C4-C5-C6	-5.19	114.41	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1099	A	C4-C5-N7	5.19	113.30	110.70
45	2	43	A	C4-C5-C6	-5.19	114.41	117.00
28	f	43	PHE	CB-CG-CD2	-5.19	117.17	120.80
44	1	64	G	N9-C4-C5	-5.19	103.33	105.40
44	1	1525	G	N7-C8-N9	5.19	115.69	113.10
44	1	18	G	N7-C8-N9	5.19	115.69	113.10
44	1	416	A	N3-C4-C5	5.19	130.43	126.80
44	1	562	C	C5-C4-N4	-5.19	116.57	120.20
44	1	8	C	C5-C4-N4	-5.18	116.57	120.20
44	1	798	G	C5-N7-C8	-5.18	101.71	104.30
44	1	1348	U	N3-C2-O2	-5.18	118.57	122.20
44	1	1497	C	N1-C2-O2	5.18	122.01	118.90
44	1	3048	A	C5-N7-C8	-5.18	101.31	103.90
45	2	4	C	C5-C4-N4	-5.18	116.57	120.20
45	2	114	G	N3-C4-N9	-5.18	122.89	126.00
44	1	1602	A	C4-C5-C6	-5.18	114.41	117.00
44	1	151	A	N9-C4-C5	-5.18	103.73	105.80
44	1	1825	G	N3-C4-C5	5.18	131.19	128.60
44	1	151	A	C4-C5-N7	5.18	113.29	110.70
44	1	670	C	N3-C4-N4	5.18	121.62	118.00
44	1	851	C	C6-N1-C2	-5.18	118.23	120.30
44	1	3372	A	N9-C4-C5	-5.18	103.73	105.80
45	2	16	G	C2-N3-C4	-5.18	109.31	111.90
44	1	1298	C	N3-C2-O2	-5.18	118.28	121.90
44	1	2390	A	C4-C5-N7	5.18	113.29	110.70
28	f	60	ARG	NE-CZ-NH2	5.18	122.89	120.30
44	1	636	C	N3-C4-N4	5.18	121.62	118.00
44	1	935	U	N3-C2-O2	-5.18	118.58	122.20
44	1	3121	U	N3-C4-O4	5.18	123.02	119.40
44	1	3172	A	C4-C5-N7	5.18	113.29	110.70
1	B	118	PHE	CB-CG-CD2	-5.17	117.18	120.80
32	j	11	ARG	NE-CZ-NH1	5.17	122.89	120.30
44	1	127	G	C5-N7-C8	-5.17	101.71	104.30
44	1	1212	A	N9-C4-C5	-5.17	103.73	105.80
44	1	3182	G	C5-C6-O6	-5.17	125.50	128.60
44	1	720	A	P-O3'-C3'	5.17	125.91	119.70
44	1	1173	U	C5-C4-O4	-5.17	122.80	125.90
10	N	31	ARG	NE-CZ-NH2	-5.17	117.71	120.30
44	1	148	G	C4-N9-C1'	5.17	133.22	126.50
44	1	2936	A	C4-C5-C6	-5.17	114.42	117.00
44	1	655	C	C2-N1-C1'	5.17	124.49	118.80
44	1	1303	A	N7-C8-N9	5.17	116.39	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1561	G	N7-C8-N9	5.17	115.69	113.10
44	1	1470	U	N3-C4-O4	5.17	123.02	119.40
44	1	1373	A	C5-C6-N6	-5.17	119.57	123.70
44	1	2993	G	N1-C2-N2	-5.17	111.55	116.20
44	1	583	G	C5-N7-C8	-5.17	101.72	104.30
44	1	1545	A	C5-N7-C8	-5.17	101.32	103.90
2	C	98	ARG	NE-CZ-NH2	-5.16	117.72	120.30
44	1	290	G	N1-C2-N2	-5.16	111.55	116.20
44	1	3378	C	N3-C2-O2	-5.16	118.29	121.90
44	1	222	A	N7-C8-N9	5.16	116.38	113.80
44	1	815	G	C2-N3-C4	-5.16	109.32	111.90
44	1	2984	C	OP2-P-O3'	5.16	116.56	105.20
44	1	3304	U	N3-C2-O2	-5.16	118.59	122.20
44	1	3307	A	N7-C8-N9	5.16	116.38	113.80
44	1	64	G	N3-C2-N2	5.16	123.51	119.90
44	1	108	A	C4-C5-N7	5.16	113.28	110.70
44	1	360	G	N3-C2-N2	5.16	123.51	119.90
44	1	148	G	C8-N9-C1'	-5.16	120.29	127.00
44	1	3322	A	C4-C5-N7	5.16	113.28	110.70
44	1	1407	A	C5-C6-N6	-5.16	119.57	123.70
44	1	668	G	C8-N9-C4	-5.16	104.34	106.40
44	1	1838	G	C4-C5-N7	5.15	112.86	110.80
44	1	1832	C	N1-C2-O2	5.15	121.99	118.90
44	1	3147	G	C6-C5-N7	-5.15	127.31	130.40
45	2	42	G	N3-C2-N2	5.15	123.51	119.90
45	2	140	G	C2-N3-C4	-5.15	109.32	111.90
22	Z	48	ARG	NE-CZ-NH1	5.15	122.88	120.30
44	1	75	G	N1-C6-O6	5.15	122.99	119.90
44	1	422	A	C4-C5-N7	5.15	113.28	110.70
44	1	551	A	O4'-C1'-N9	5.15	112.32	108.20
44	1	1806	A	C5-N7-C8	-5.15	101.33	103.90
44	1	1893	A	N9-C4-C5	-5.15	103.74	105.80
44	1	3391	A	C5-N7-C8	-5.15	101.33	103.90
46	6	39	U	N3-C2-O2	-5.15	118.59	122.20
44	1	703	G	C4-C5-N7	5.15	112.86	110.80
44	1	1207	G	C8-N9-C4	-5.15	104.34	106.40
44	1	1407	A	C5-N7-C8	-5.15	101.33	103.90
44	1	3123	A	C5-N7-C8	-5.15	101.33	103.90
44	1	85	A	C5-N7-C8	-5.15	101.33	103.90
44	1	1343	A	C4-C5-C6	-5.15	114.43	117.00
44	1	1883	A	C5-N7-C8	-5.15	101.33	103.90
44	1	3005	A	C4-C5-C6	-5.15	114.43	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	G	57	ARG	NE-CZ-NH1	5.14	122.87	120.30
44	1	665	A	C6-N1-C2	-5.14	115.51	118.60
44	1	1834	U	C6-N1-C2	-5.14	117.91	121.00
44	1	2382	G	C4-C5-N7	5.14	112.86	110.80
44	1	51	A	N7-C8-N9	5.14	116.37	113.80
44	1	214	G	C5-N7-C8	-5.14	101.73	104.30
45	2	150	G	C8-N9-C4	5.14	108.46	106.40
44	1	1558	A	C5-C6-N6	-5.14	119.59	123.70
6	H	168	ARG	NE-CZ-NH2	5.14	122.87	120.30
44	1	1538	G	N9-C4-C5	-5.14	103.34	105.40
44	1	667	C	C5-C6-N1	5.14	123.57	121.00
44	1	1326	A	C5-N7-C8	-5.14	101.33	103.90
44	1	3006	A	C6-N1-C2	-5.14	115.52	118.60
44	1	3161	C	C5-C4-N4	-5.14	116.61	120.20
18	V	87	ARG	NE-CZ-NH1	5.13	122.87	120.30
28	f	67	MET	CG-SD-CE	-5.13	91.98	100.20
44	1	31	C	C5-C4-N4	-5.13	116.61	120.20
44	1	500	C	N3-C4-N4	5.13	121.59	118.00
44	1	1756	C	C5-C4-N4	-5.13	116.61	120.20
44	1	3204	C	N3-C2-O2	-5.13	118.31	121.90
44	1	705	A	C4-C5-N7	5.13	113.27	110.70
44	1	296	A	C4-C5-C6	-5.13	114.43	117.00
44	1	972	A	C8-N9-C4	-5.13	103.75	105.80
44	1	3004	C	N3-C4-C5	5.13	123.95	121.90
44	1	438	A	C8-N9-C4	-5.13	103.75	105.80
44	1	953	G	N3-C2-N2	-5.13	116.31	119.90
44	1	21	G	N1-C6-O6	-5.13	116.82	119.90
44	1	691	A	C5-N7-C8	-5.13	101.34	103.90
44	1	3293	U	N3-C2-O2	-5.13	118.61	122.20
44	1	412	G	N7-C8-N9	5.13	115.66	113.10
44	1	3150	A	C5-C6-N6	-5.13	119.60	123.70
44	1	3212	C	N3-C4-C5	5.13	123.95	121.90
45	2	58	G	N7-C8-N9	5.13	115.66	113.10
44	1	1112	A	C4-C5-C6	-5.12	114.44	117.00
44	1	1145	G	N7-C8-N9	5.12	115.66	113.10
44	1	1478	C	C5-C4-N4	-5.12	116.61	120.20
44	1	1792	C	N3-C2-O2	-5.12	118.31	121.90
44	1	522	A	N9-C4-C5	-5.12	103.75	105.80
44	1	1587	A	C4-C5-C6	-5.12	114.44	117.00
44	1	3087	A	C5-C6-N1	5.12	120.26	117.70
44	1	352	A	C5-N7-C8	-5.12	101.34	103.90
44	1	1403	C	N3-C4-C5	5.12	123.95	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	F	110	ARG	NE-CZ-NH2	5.12	122.86	120.30
35	n	121	ARG	NE-CZ-NH1	5.12	122.86	120.30
44	1	500	C	N3-C2-O2	-5.12	118.32	121.90
44	1	1366	A	N9-C4-C5	-5.12	103.75	105.80
44	1	1382	G	C6-C5-N7	-5.12	127.33	130.40
28	f	65	ARG	NE-CZ-NH1	5.12	122.86	120.30
44	1	1397	C	N3-C4-C5	5.12	123.95	121.90
44	1	519	A	N1-C6-N6	5.12	121.67	118.60
6	H	31	ARG	NE-CZ-NH1	5.11	122.86	120.30
44	1	75	G	C5-C6-O6	-5.11	125.53	128.60
44	1	253	A	N9-C4-C5	-5.11	103.75	105.80
44	1	399	A	C4-C5-C6	-5.11	114.44	117.00
44	1	1196	C	C5-C6-N1	5.11	123.56	121.00
44	1	1279	C	C5-C6-N1	5.11	123.56	121.00
44	1	1292	C	N3-C4-C5	5.11	123.95	121.90
44	1	1489	A	C5-C6-N1	5.11	120.26	117.70
44	1	3006	A	N3-C4-N9	5.11	131.49	127.40
44	1	3212	C	C5-C4-N4	-5.11	116.62	120.20
44	1	6	A	N1-C2-N3	-5.11	126.74	129.30
44	1	656	A	N9-C4-C5	-5.11	103.75	105.80
44	1	1154	A	C4-C5-C6	-5.11	114.44	117.00
44	1	1756	C	C6-N1-C2	-5.11	118.25	120.30
44	1	3369	G	C2-N3-C4	5.11	114.46	111.90
45	2	118	C	N3-C4-N4	5.11	121.58	118.00
44	1	361	A	C4-C5-C6	-5.11	114.44	117.00
44	1	810	A	C4-C5-N7	5.11	113.25	110.70
45	2	156	U	C5-C6-N1	5.11	125.26	122.70
44	1	3177	G	N9-C4-C5	-5.11	103.36	105.40
44	1	24	G	N7-C8-N9	5.11	115.65	113.10
44	1	651	G	C8-N9-C1'	-5.11	120.36	127.00
44	1	1396	C	C6-N1-C2	-5.11	118.26	120.30
44	1	3075	G	C8-N9-C4	-5.11	104.36	106.40
44	1	3172	A	C8-N9-C4	5.11	107.84	105.80
44	1	314	U	C6-N1-C2	-5.11	117.94	121.00
44	1	423	A	C4-C5-N7	5.11	113.25	110.70
44	1	430	U	N3-C4-C5	-5.11	111.54	114.60
44	1	504	A	C4-C5-C6	-5.11	114.45	117.00
44	1	675	C	N3-C4-C5	5.11	123.94	121.90
44	1	1223	A	N1-C6-N6	5.11	121.66	118.60
44	1	1893	A	C5-C6-N1	5.11	120.25	117.70
44	1	215	G	N3-C4-C5	5.10	131.15	128.60
44	1	1171	G	C8-N9-C1'	-5.10	120.36	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	3300	U	C6-N1-C2	-5.10	117.94	121.00
44	1	3307	A	C5-C6-N6	-5.10	119.62	123.70
45	2	131	A	C5-C6-N1	5.10	120.25	117.70
44	1	339	C	N3-C2-O2	-5.10	118.33	121.90
44	1	2844	C	N3-C2-O2	-5.10	118.33	121.90
44	1	3243	A	O4'-C1'-N9	-5.10	104.12	108.20
44	1	3291	G	N1-C2-N2	-5.10	111.61	116.20
44	1	1397	C	N1-C2-O2	5.10	121.96	118.90
44	1	1532	C	N3-C4-N4	5.10	121.57	118.00
44	1	1704	A	C5-C6-N6	-5.10	119.62	123.70
44	1	3051	U	N3-C4-O4	5.10	122.97	119.40
45	2	26	U	C2-N1-C1'	5.10	123.82	117.70
6	H	166	ARG	NE-CZ-NH2	5.10	122.85	120.30
44	1	86	G	C8-N9-C1'	5.10	133.63	127.00
44	1	886	C	C6-N1-C2	-5.10	118.26	120.30
44	1	1394	A	N7-C8-N9	5.10	116.35	113.80
44	1	1582	C	N3-C4-N4	-5.10	114.43	118.00
44	1	683	U	O5'-P-OP2	-5.10	101.11	105.70
44	1	3196	U	C6-N1-C1'	-5.10	114.06	121.20
44	1	518	G	C8-N9-C1'	-5.09	120.38	127.00
44	1	648	C	N3-C2-O2	-5.09	118.33	121.90
44	1	1147	G	C4-N9-C1'	5.09	133.12	126.50
44	1	3241	G	C5-N7-C8	-5.09	101.75	104.30
14	R	98	ARG	NE-CZ-NH1	5.09	122.85	120.30
15	S	167	ARG	NE-CZ-NH1	5.09	122.85	120.30
44	1	235	A	C5-C6-N1	5.09	120.25	117.70
44	1	949	C	N3-C4-C5	5.09	123.94	121.90
44	1	1170	A	P-O3'-C3'	5.09	125.81	119.70
44	1	3276	G	N1-C2-N2	-5.09	111.62	116.20
44	1	1513	G	N7-C8-N9	5.09	115.64	113.10
44	1	3164	C	C5-C4-N4	5.09	123.76	120.20
44	1	3298	C	N3-C2-O2	-5.09	118.34	121.90
10	N	162	ARG	NE-CZ-NH1	5.09	122.84	120.30
44	1	350	C	O4'-C1'-N1	-5.09	104.13	108.20
44	1	385	A	C5-N7-C8	-5.09	101.36	103.90
44	1	644	G	C4-N9-C1'	5.09	133.11	126.50
44	1	875	G	N3-C2-N2	5.09	123.46	119.90
44	1	1274	A	N1-C6-N6	-5.09	115.55	118.60
44	1	1469	C	N3-C4-N4	-5.09	114.44	118.00
44	1	1680	G	N1-C6-O6	-5.09	116.85	119.90
44	1	1326	A	C6-N1-C2	-5.08	115.55	118.60
44	1	340	C	C6-N1-C1'	-5.08	114.70	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	678	G	C5-N7-C8	-5.08	101.76	104.30
44	1	3240	C	N3-C2-O2	-5.08	118.34	121.90
44	1	352	A	C4-C5-N7	5.08	113.24	110.70
44	1	396	A	O4'-C1'-N9	-5.08	104.14	108.20
44	1	3134	A	N9-C4-C5	-5.08	103.77	105.80
4	F	157	ASN	C-N-CA	5.08	134.40	121.70
44	1	212	G	O4'-C1'-N9	5.08	112.26	108.20
44	1	970	A	N1-C6-N6	-5.08	115.55	118.60
44	1	972	A	N7-C8-N9	5.08	116.34	113.80
44	1	3259	U	C6-N1-C2	-5.08	117.95	121.00
45	2	37	A	O5'-P-OP2	-5.08	101.13	105.70
44	1	115	A	P-O3'-C3'	5.08	125.79	119.70
44	1	1155	C	C5-C4-N4	-5.08	116.65	120.20
44	1	3049	A	C5-C6-N6	-5.08	119.64	123.70
44	1	3128	G	C5-N7-C8	-5.08	101.76	104.30
10	N	203	ARG	NE-CZ-NH1	5.08	122.84	120.30
44	1	1451	C	OP1-P-O3'	5.08	116.37	105.20
2	C	3	ARG	NE-CZ-NH1	-5.07	117.76	120.30
44	1	42	C	N3-C4-C5	5.07	123.93	121.90
44	1	521	A	C5-N7-C8	-5.07	101.36	103.90
44	1	2914	G	N3-C2-N2	5.07	123.45	119.90
44	1	3218	A	C5-C6-N6	-5.07	119.64	123.70
44	1	3330	A	C5-C6-N6	-5.07	119.64	123.70
44	1	3391	A	C5-C6-N6	-5.07	119.64	123.70
45	2	94	C	C6-N1-C2	-5.07	118.27	120.30
44	1	3167	A	C4-C5-N7	5.07	113.24	110.70
28	f	43	PHE	CB-CG-CD1	5.07	124.35	120.80
44	1	1206	G	C4-C5-N7	5.07	112.83	110.80
44	1	1542	G	C5-N7-C8	-5.07	101.77	104.30
44	1	1799	A	N9-C4-C5	-5.07	103.77	105.80
28	f	90	PRO	CA-N-CD	-5.07	104.40	111.50
44	1	3127	A	N1-C6-N6	5.07	121.64	118.60
45	2	134	G	C6-C5-N7	-5.07	127.36	130.40
44	1	334	A	N7-C8-N9	5.07	116.33	113.80
44	1	1226	G	C8-N9-C1'	-5.07	120.41	127.00
44	1	1406	A	C4-C5-N7	5.07	113.23	110.70
10	N	12	ARG	NE-CZ-NH1	5.07	122.83	120.30
44	1	1306	G	N3-C2-N2	5.07	123.45	119.90
44	1	1487	G	N3-C4-N9	-5.07	122.96	126.00
44	1	1647	A	C5-N7-C8	-5.07	101.37	103.90
45	2	140	G	N3-C2-N2	5.07	123.45	119.90
5	G	185	ARG	NE-CZ-NH1	5.06	122.83	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1608	C	N3-C4-N4	5.06	121.55	118.00
44	1	754	G	N3-C2-N2	5.06	123.44	119.90
44	1	2367	A	N7-C8-N9	5.06	116.33	113.80
46	6	17	G	C5-C6-O6	5.06	131.64	128.60
46	6	53	A	N1-C6-N6	5.06	121.64	118.60
44	1	10	C	C2-N1-C1'	5.06	124.36	118.80
44	1	330	G	N7-C8-N9	5.06	115.63	113.10
44	1	1152	G	N9-C4-C5	-5.06	103.38	105.40
44	1	1594	A	N3-C4-N9	5.06	131.45	127.40
44	1	1148	G	N3-C4-C5	5.06	131.13	128.60
44	1	1598	G	N1-C6-O6	5.06	122.94	119.90
44	1	2342	U	N3-C4-O4	5.06	122.94	119.40
45	2	136	G	N7-C8-N9	5.06	115.63	113.10
44	1	3273	A	C4-C5-N7	5.06	113.23	110.70
40	t	148	ARG	NE-CZ-NH2	5.05	122.83	120.30
44	1	422	A	C5-N7-C8	-5.05	101.37	103.90
44	1	1285	G	N7-C8-N9	5.05	115.63	113.10
44	1	1822	C	C5-C4-N4	-5.05	116.66	120.20
44	1	3126	C	C2-N1-C1'	5.05	124.36	118.80
44	1	3366	G	C5-N7-C8	-5.05	101.77	104.30
45	2	85	G	N3-C2-N2	-5.05	116.36	119.90
39	s	6	ARG	NE-CZ-NH1	-5.05	117.77	120.30
44	1	1354	G	C8-N9-C4	-5.05	104.38	106.40
3	E	31	ARG	NE-CZ-NH2	-5.05	117.77	120.30
44	1	313	A	C5-C6-N1	5.05	120.23	117.70
44	1	338	A	C5-N7-C8	-5.05	101.37	103.90
44	1	900	G	C8-N9-C4	-5.05	104.38	106.40
44	1	1365	G	C4-N9-C1'	5.05	133.07	126.50
44	1	1936	A	N7-C8-N9	5.05	116.33	113.80
44	1	267	G	C4-C5-C6	-5.05	115.77	118.80
44	1	1396	C	N3-C4-N4	5.05	121.53	118.00
44	1	1812	G	N1-C2-N2	-5.05	111.66	116.20
44	1	3308	C	C2-N3-C4	-5.05	117.38	119.90
44	1	1190	A	C4-N9-C1'	5.05	135.39	126.30
44	1	1901	A	C4-N9-C1'	5.05	135.39	126.30
45	2	21	C	C2-N3-C4	5.05	122.42	119.90
44	1	1114	U	N1-C2-O2	5.05	126.33	122.80
44	1	1704	A	N1-C6-N6	5.04	121.63	118.60
10	N	162	ARG	NE-CZ-NH2	-5.04	117.78	120.30
44	1	253	A	C4-C5-N7	5.04	113.22	110.70
44	1	909	G	C6-C5-N7	5.04	133.43	130.40
44	1	926	A	C6-N1-C2	-5.04	115.57	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1365	G	N3-C4-N9	5.04	129.03	126.00
44	1	1447	G	N3-C4-C5	5.04	131.12	128.60
45	2	96	A	C5-C6-N6	-5.04	119.67	123.70
45	2	134	G	N7-C8-N9	5.04	115.62	113.10
44	1	890	C	C6-N1-C2	-5.04	118.28	120.30
44	1	1330	A	O5'-P-OP1	-5.04	101.16	105.70
44	1	1568	U	P-O3'-C3'	5.04	125.75	119.70
44	1	1604	G	C8-N9-C1'	-5.04	120.44	127.00
44	1	2903	A	C4-C5-N7	5.04	113.22	110.70
45	2	32	C	N1-C2-O2	5.04	121.92	118.90
44	1	112	U	C3'-C2'-C1'	5.04	105.53	101.50
44	1	1464	G	C2-N3-C4	-5.04	109.38	111.90
10	N	197	LEU	CA-CB-CG	5.04	126.89	115.30
44	1	384	A	C8-N9-C4	5.04	107.81	105.80
44	1	836	A	C4-C5-N7	5.04	113.22	110.70
44	1	1608	C	N1-C2-O2	5.04	121.92	118.90
44	1	2337	C	N1-C2-O2	5.04	121.92	118.90
44	1	265	A	C5-C6-N1	5.04	120.22	117.70
45	2	63	G	N3-C4-N9	-5.04	122.98	126.00
45	2	76	C	C6-N1-C2	-5.04	118.28	120.30
44	1	348	A	C4-C5-N7	5.04	113.22	110.70
44	1	35	A	C5-N7-C8	-5.03	101.38	103.90
44	1	1812	G	N3-C2-N2	5.03	123.42	119.90
44	1	3101	G	N7-C8-N9	5.03	115.62	113.10
44	1	3147	G	C8-N9-C1'	-5.03	120.46	127.00
44	1	65	A	C5-N7-C8	-5.03	101.38	103.90
44	1	86	G	C4-C5-C6	-5.03	115.78	118.80
44	1	135	C	C5-C4-N4	5.03	123.72	120.20
44	1	1389	G	N3-C2-N2	5.03	123.42	119.90
44	1	1619	A	N1-C2-N3	-5.03	126.78	129.30
44	1	3166	C	N1-C2-O2	5.03	121.92	118.90
44	1	340	C	C6-N1-C2	-5.03	118.29	120.30
44	1	396	A	C4-C5-C6	-5.03	114.48	117.00
44	1	968	G	N7-C8-N9	5.03	115.61	113.10
44	1	1468	A	C4-C5-N7	5.03	113.22	110.70
46	6	53	A	C5-C6-N6	-5.03	119.68	123.70
44	1	801	A	C5-N7-C8	-5.03	101.39	103.90
44	1	376	G	C5-N7-C8	-5.03	101.79	104.30
44	1	608	A	C5-N7-C8	-5.03	101.39	103.90
45	2	31	G	N3-C4-C5	5.03	131.11	128.60
45	2	36	G	C8-N9-C4	-5.03	104.39	106.40
44	1	678	G	C6-C5-N7	-5.03	127.38	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	1190	A	N1-C6-N6	5.03	121.61	118.60
44	1	2906	C	N1-C2-O2	5.02	121.91	118.90
44	1	59	G	N1-C2-N2	-5.02	111.68	116.20
44	1	651	G	N9-C4-C5	-5.02	103.39	105.40
44	1	1829	G	C4-C5-N7	5.02	112.81	110.80
44	1	3091	A	C6-N1-C2	-5.02	115.59	118.60
44	1	3395	G	N3-C4-N9	5.02	129.01	126.00
44	1	24	G	C5-N7-C8	-5.02	101.79	104.30
44	1	18	G	C6-C5-N7	-5.02	127.39	130.40
44	1	505	G	C6-C5-N7	-5.02	127.39	130.40
44	1	1397	C	C2-N1-C1'	5.02	124.32	118.80
44	1	1856	C	C5-C4-N4	-5.02	116.69	120.20
44	1	2377	G	N3-C2-N2	-5.02	116.39	119.90
44	1	2876	C	N3-C2-O2	-5.02	118.39	121.90
44	1	1124	U	N1-C2-O2	5.02	126.31	122.80
44	1	2887	A	C4-C5-N7	5.02	113.21	110.70
44	1	3044	G	C5-N7-C8	-5.02	101.79	104.30
45	2	97	A	C4-C5-C6	-5.02	114.49	117.00
44	1	950	G	C2-N3-C4	-5.02	109.39	111.90
45	2	71	A	C4-C5-C6	-5.02	114.49	117.00
44	1	3136	G	N3-C2-N2	5.01	123.41	119.90
44	1	926	A	C5-N7-C8	-5.01	101.39	103.90
44	1	953	G	C5-N7-C8	-5.01	101.79	104.30
44	1	103	G	C8-N9-C4	-5.01	104.40	106.40
44	1	2821	C	N1-C2-O2	5.01	121.91	118.90
44	1	3243	A	C5-N7-C8	-5.01	101.39	103.90
45	2	149	A	C5-N7-C8	-5.01	101.39	103.90
46	6	23	U	N3-C2-O2	-5.01	118.69	122.20
31	i	68	ARG	NE-CZ-NH1	5.01	122.81	120.30
44	1	85	A	C5-C6-N1	5.01	120.20	117.70
44	1	803	C	C2-N1-C1'	5.01	124.31	118.80
44	1	1226	G	N7-C8-N9	5.01	115.60	113.10
44	1	3320	A	N9-C4-C5	-5.01	103.80	105.80
45	2	36	G	C4-N9-C1'	5.01	133.01	126.50
44	1	140	C	C5-C4-N4	-5.01	116.69	120.20
44	1	573	C	N3-C4-N4	5.01	121.50	118.00
44	1	1550	C	N3-C2-O2	-5.00	118.40	121.90
37	q	252	ARG	NE-CZ-NH2	5.00	122.80	120.30
44	1	1806	A	N1-C6-N6	5.00	121.60	118.60
44	1	2367	A	C6-N1-C2	-5.00	115.60	118.60
44	1	3122	A	N1-C6-N6	-5.00	115.60	118.60
44	1	3140	G	C4-C5-N7	5.00	112.80	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1	111	C	O4'-C1'-N1	5.00	112.20	108.20
44	1	841	A	N7-C8-N9	5.00	116.30	113.80
44	1	926	A	C8-N9-C1'	-5.00	118.70	127.70
44	1	1285	G	N1-C2-N2	-5.00	111.70	116.20
44	1	1510	G	C5-C6-O6	5.00	131.60	128.60
44	1	2917	G	C4-C5-N7	5.00	112.80	110.80

There are no chirality outliers.

All (86) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	170	PRO	Peptide
1	B	221	THR	Peptide
1	B	241	LYS	Peptide
1	B	340	LYS	Peptide
1	B	35	ASP	Peptide
1	B	353	GLU	Peptide
1	B	37	ARG	Peptide
2	C	182	LEU	Peptide
2	C	269	SER	Peptide
2	C	3	ARG	Peptide
2	C	318	LEU	Peptide
2	C	338	LYS	Peptide
2	C	4	PRO	Peptide
4	F	158	LYS	Peptide
4	F	215	GLY	Peptide
5	G	120	LYS	Peptide
5	G	226	TYR	Peptide
5	G	76	ALA	Peptide
5	G	79	GLN	Peptide
5	G	83	ASP	Peptide
6	H	20	ILE	Peptide
6	H	21	LYS	Peptide
6	H	49	ASN	Peptide
7	K	164	TYR	Peptide
8	L	12	ASN	Peptide
8	L	130	GLY	Peptide
8	L	166	ALA	Mainchain
8	L	27	ASP	Peptide
8	L	46	ILE	Peptide
9	M	12	TRP	Peptide
10	N	93	LYS	Peptide

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Mol	Chain	Res	Type	Group
12	P	144	SER	Peptide
14	R	54	ALA	Peptide
15	S	13	ARG	Peptide
15	S	22	PRO	Peptide
18	V	89	ASP	Peptide
19	W	127	PRO	Peptide
19	W	177	ALA	Peptide
20	X	65	GLN	Peptide
23	a	77	LYS	Peptide
23	a	97	GLU	Peptide
24	b	227	ARG	Peptide
24	b	368	ALA	Peptide
24	b	399	ALA	Peptide
26	d	87	ASN	Peptide
27	e	121	ASN	Peptide
28	f	66	VAL	Peptide
28	f	89	LEU	Peptide
29	g	6	THR	Peptide
29	g	82	ALA	Mainchain
30	h	119	LYS	Peptide
30	h	83	LYS	Peptide
30	h	91	ALA	Peptide
31	i	49	GLY	Peptide
31	i	78	GLY	Peptide
33	k	32	ASN	Peptide
33	k	33	LYS	Peptide
35	n	1	MET	Peptide
35	n	123	PRO	Peptide
35	n	240	SER	Peptide
35	n	3	ILE	Peptide
35	n	374	ASP	Peptide
35	n	375	ILE	Peptide
35	n	455	PRO	Peptide
35	n	53	ASN	Peptide
35	n	54	LYS	Peptide
35	n	55	GLY	Peptide
35	n	73	HIS	Peptide
36	o	139	PHE	Peptide
36	o	140	VAL	Peptide
36	o	158	MET	Peptide
36	o	171	ALA	Peptide
36	o	176	LEU	Peptide

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Mol	Chain	Res	Type	Group
37	q	225	LYS	Peptide
38	r	45	TRP	Mainchain
39	s	2	ARG	Peptide
40	t	150	PRO	Peptide
40	t	170	GLU	Peptide
40	t	220	ASN	Peptide
40	t	260	SER	Peptide
40	t	280	PHE	Peptide
41	u	61	LYS	Peptide
41	u	79	VAL	Peptide
47	w	126	LEU	Peptide
47	w	56	ALA	Peptide
42	y	7	PHE	Peptide

5.2 Too-close contacts (i)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

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	
1	B	384/387 (99%)	363 (94%)	21 (6%)	0	100	100
2	C	359/362 (99%)	338 (94%)	20 (6%)	1 (0%)	41	75
3	E	152/176 (86%)	150 (99%)	2 (1%)	0	100	100
4	F	220/244 (90%)	206 (94%)	14 (6%)	0	100	100
5	G	190/256 (74%)	183 (96%)	7 (4%)	0	100	100
6	H	189/191 (99%)	182 (96%)	6 (3%)	1 (0%)	29	67
7	K	252/376 (67%)	242 (96%)	10 (4%)	0	100	100
8	L	185/199 (93%)	176 (95%)	8 (4%)	1 (0%)	29	67

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	M	135/138 (98%)	133 (98%)	2 (2%)	0	100	100
10	N	176/204 (86%)	167 (95%)	9 (5%)	0	100	100
11	O	195/199 (98%)	191 (98%)	4 (2%)	0	100	100
12	P	172/184 (94%)	167 (97%)	5 (3%)	0	100	100
13	Q	132/186 (71%)	132 (100%)	0	0	100	100
14	R	154/189 (82%)	152 (99%)	2 (1%)	0	100	100
15	S	169/172 (98%)	165 (98%)	4 (2%)	0	100	100
16	T	54/160 (34%)	53 (98%)	1 (2%)	0	100	100
17	U	104/121 (86%)	103 (99%)	1 (1%)	0	100	100
18	V	134/137 (98%)	133 (99%)	1 (1%)	0	100	100
19	W	232/236 (98%)	229 (99%)	3 (1%)	0	100	100
20	X	139/142 (98%)	136 (98%)	3 (2%)	0	100	100
21	Y	124/127 (98%)	122 (98%)	2 (2%)	0	100	100
22	Z	133/136 (98%)	132 (99%)	1 (1%)	0	100	100
23	a	91/149 (61%)	87 (96%)	4 (4%)	0	100	100
24	b	468/647 (72%)	451 (96%)	17 (4%)	0	100	100
25	c	95/105 (90%)	95 (100%)	0	0	100	100
26	d	105/113 (93%)	103 (98%)	2 (2%)	0	100	100
27	e	125/130 (96%)	123 (98%)	2 (2%)	0	100	100
28	f	104/107 (97%)	102 (98%)	2 (2%)	0	100	100
29	g	110/121 (91%)	107 (97%)	3 (3%)	0	100	100
30	h	117/120 (98%)	110 (94%)	7 (6%)	0	100	100
31	i	97/100 (97%)	94 (97%)	3 (3%)	0	100	100
32	j	85/88 (97%)	82 (96%)	3 (4%)	0	100	100
33	k	75/78 (96%)	74 (99%)	1 (1%)	0	100	100
34	l	48/51 (94%)	47 (98%)	1 (2%)	0	100	100
35	n	365/605 (60%)	339 (93%)	26 (7%)	0	100	100
36	o	131/220 (60%)	123 (94%)	8 (6%)	0	100	100
37	q	83/455 (18%)	80 (96%)	3 (4%)	0	100	100
38	r	211/261 (81%)	200 (95%)	11 (5%)	0	100	100
39	s	34/520 (6%)	31 (91%)	3 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	t	283/322 (88%)	267 (94%)	16 (6%)	0	100	100
41	u	121/199 (61%)	115 (95%)	6 (5%)	0	100	100
42	y	242/245 (99%)	240 (99%)	2 (1%)	0	100	100
43	z	53/106 (50%)	52 (98%)	1 (2%)	0	100	100
47	w	350/841 (42%)	347 (99%)	3 (1%)	0	100	100
All	All	7377/10105 (73%)	7124 (97%)	250 (3%)	3 (0%)	100	100

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	C	339	LEU
8	L	63	VAL
6	H	50	ASN

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	B	322/323 (100%)	316 (98%)	6 (2%)	57	75
2	C	288/289 (100%)	286 (99%)	2 (1%)	84	90
3	E	134/153 (88%)	133 (99%)	1 (1%)	84	90
4	F	186/205 (91%)	186 (100%)	0	100	100
5	G	159/208 (76%)	156 (98%)	3 (2%)	57	75
6	H	171/171 (100%)	171 (100%)	0	100	100
7	K	236/346 (68%)	235 (100%)	1 (0%)	91	94
8	L	149/159 (94%)	148 (99%)	1 (1%)	84	90
9	M	108/109 (99%)	107 (99%)	1 (1%)	78	87
10	N	156/176 (89%)	151 (97%)	5 (3%)	39	63
11	O	160/162 (99%)	159 (99%)	1 (1%)	86	91
12	P	142/146 (97%)	141 (99%)	1 (1%)	84	90

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
13	Q	110/151 (73%)	110 (100%)	0	100	100
14	R	129/154 (84%)	128 (99%)	1 (1%)	81	89
15	S	155/156 (99%)	155 (100%)	0	100	100
16	T	45/137 (33%)	45 (100%)	0	100	100
17	U	93/107 (87%)	93 (100%)	0	100	100
18	V	104/105 (99%)	103 (99%)	1 (1%)	76	86
19	W	211/213 (99%)	211 (100%)	0	100	100
20	X	117/118 (99%)	117 (100%)	0	100	100
21	Y	109/110 (99%)	108 (99%)	1 (1%)	78	87
22	Z	115/116 (99%)	114 (99%)	1 (1%)	78	87
23	a	76/119 (64%)	75 (99%)	1 (1%)	69	82
24	b	424/573 (74%)	423 (100%)	1 (0%)	93	96
25	c	81/88 (92%)	81 (100%)	0	100	100
26	d	94/97 (97%)	92 (98%)	2 (2%)	53	73
27	e	109/111 (98%)	107 (98%)	2 (2%)	59	77
28	f	90/91 (99%)	89 (99%)	1 (1%)	73	84
29	g	95/103 (92%)	94 (99%)	1 (1%)	73	84
30	h	104/105 (99%)	104 (100%)	0	100	100
31	i	81/82 (99%)	81 (100%)	0	100	100
32	j	70/71 (99%)	69 (99%)	1 (1%)	67	81
33	k	68/69 (99%)	68 (100%)	0	100	100
34	l	45/46 (98%)	44 (98%)	1 (2%)	52	71
35	n	334/548 (61%)	333 (100%)	1 (0%)	92	95
36	o	118/199 (59%)	116 (98%)	2 (2%)	60	78
37	q	80/420 (19%)	80 (100%)	0	100	100
38	r	191/229 (83%)	191 (100%)	0	100	100
39	s	32/445 (7%)	32 (100%)	0	100	100
40	t	256/287 (89%)	253 (99%)	3 (1%)	71	83
41	u	108/180 (60%)	107 (99%)	1 (1%)	78	87
42	y	210/211 (100%)	210 (100%)	0	100	100
43	z	48/95 (50%)	48 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
47	w	319/745 (43%)	311 (98%)	8 (2%)	47 69
All	All	6432/8728 (74%)	6381 (99%)	51 (1%)	82 89

All (51) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	46	PHE
1	B	63	PRO
1	B	236	LYS
1	B	255	TRP
1	B	332	ARG
1	B	385	LYS
2	C	145	ILE
2	C	283	THR
3	E	79	VAL
5	G	120	LYS
5	G	158	ASP
5	G	180	VAL
7	K	39	LYS
8	L	104	ARG
9	M	102	LYS
10	N	43	THR
10	N	49	ARG
10	N	132	VAL
10	N	164	LEU
10	N	183	THR
11	O	143	THR
12	P	120	ASN
14	R	71	ARG
18	V	23	MET
21	Y	125	LYS
22	Z	14	VAL
23	a	130	VAL
24	b	367	GLN
26	d	16	LEU
26	d	23	VAL
27	e	14	THR
27	e	63	THR
28	f	72	THR
29	g	99	LYS
32	j	75	LYS
34	l	41	ARG

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Mol	Chain	Res	Type
35	n	17	THR
36	o	213	LYS
36	o	219	LYS
40	t	22	LYS
40	t	141	LEU
40	t	198	LYS
41	u	9	CYS
47	w	28	ARG
47	w	48	LYS
47	w	207	ARG
47	w	294	LYS
47	w	690	ARG
47	w	803	LYS
47	w	810	LYS
47	w	816	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (29) such sidechains are listed below:

Mol	Chain	Res	Type
2	C	59	GLN
5	G	123	GLN
6	H	5	GLN
7	K	84	ASN
8	L	37	ASN
10	N	57	GLN
11	O	50	ASN
13	Q	73	GLN
15	S	157	GLN
17	U	87	ASN
18	V	24	ASN
19	W	74	GLN
24	b	70	ASN
24	b	217	GLN
24	b	454	GLN
27	e	104	ASN
27	e	121	ASN
30	h	59	ASN
33	k	40	GLN
35	n	160	GLN
35	n	437	ASN
36	o	163	GLN
38	r	13	GLN

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Mol	Chain	Res	Type
38	r	183	ASN
41	u	110	ASN
42	y	9	ASN
42	y	75	GLN
42	y	82	GLN
47	w	276	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
44	1	2523/3396 (74%)	688 (27%)	34 (1%)
45	2	157/158 (99%)	46 (29%)	3 (1%)
46	6	63/232 (27%)	29 (46%)	0
All	All	2743/3786 (72%)	763 (27%)	37 (1%)

All (763) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
44	1	2	U
44	1	3	U
44	1	7	C
44	1	13	A
44	1	14	U
44	1	15	C
44	1	18	G
44	1	22	G
44	1	26	A
44	1	40	A
44	1	43	A
44	1	44	U
44	1	49	A
44	1	57	A
44	1	59	G
44	1	60	A
44	1	65	A
44	1	66	A
44	1	73	C
44	1	74	G
44	1	77	A
44	1	85	A
44	1	92	G

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Mol	Chain	Res	Type
44	1	96	G
44	1	108	A
44	1	110	G
44	1	111	C
44	1	116	A
44	1	117	U
44	1	121	A
44	1	122	A
44	1	124	U
44	1	133	U
44	1	136	G
44	1	142	C
44	1	145	G
44	1	149	U
44	1	156	G
44	1	157	A
44	1	161	G
44	1	165	A
44	1	166	C
44	1	169	U
44	1	170	G
44	1	172	G
44	1	173	G
44	1	187	A
44	1	189	G
44	1	190	U
44	1	191	U
44	1	200	C
44	1	201	A
44	1	206	G
44	1	210	U
44	1	211	A
44	1	213	A
44	1	218	G
44	1	219	A
44	1	220	G
44	1	221	A
44	1	224	C
44	1	234	G
44	1	237	G
44	1	240	U
44	1	241	G

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Mol	Chain	Res	Type
44	1	243	G
44	1	248	U
44	1	250	U
44	1	251	G
44	1	252	U
44	1	253	A
44	1	268	A
44	1	269	G
44	1	270	U
44	1	283	G
44	1	284	A
44	1	285	A
44	1	286	U
44	1	295	A
44	1	304	G
44	1	307	A
44	1	311	C
44	1	317	A
44	1	323	A
44	1	329	U
44	1	334	A
44	1	337	G
44	1	338	A
44	1	339	C
44	1	341	G
44	1	343	U
44	1	346	C
44	1	347	G
44	1	349	A
44	1	350	C
44	1	351	A
44	1	359	U
44	1	370	U
44	1	373	A
44	1	375	A
44	1	376	G
44	1	390	G
44	1	397	A
44	1	399	A
44	1	401	U
44	1	402	A
44	1	403	C

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Mol	Chain	Res	Type
44	1	404	G
44	1	420	G
44	1	421	G
44	1	422	A
44	1	439	C
44	1	440	A
44	1	495	G
44	1	498	A
44	1	503	C
44	1	515	C
44	1	520	U
44	1	521	A
44	1	523	A
44	1	525	C
44	1	535	G
44	1	542	G
44	1	544	C
44	1	545	U
44	1	546	C
44	1	547	G
44	1	552	G
44	1	555	U
44	1	557	A
44	1	559	A
44	1	560	G
44	1	578	A
44	1	579	G
44	1	591	G
44	1	592	A
44	1	597	G
44	1	604	G
44	1	609	G
44	1	610	G
44	1	611	A
44	1	619	A
44	1	620	U
44	1	636	C
44	1	637	C
44	1	638	C
44	1	641	C
44	1	642	U
44	1	643	U

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Mol	Chain	Res	Type
44	1	644	G
44	1	645	A
44	1	646	A
44	1	647	A
44	1	650	C
44	1	660	A
44	1	661	G
44	1	677	A
44	1	678	G
44	1	681	U
44	1	683	U
44	1	689	U
44	1	691	A
44	1	692	A
44	1	701	G
44	1	705	A
44	1	706	A
44	1	708	G
44	1	709	A
44	1	712	G
44	1	716	A
44	1	719	U
44	1	721	G
44	1	735	A
44	1	742	G
44	1	750	G
44	1	762	U
44	1	765	C
44	1	767	U
44	1	774	G
44	1	776	U
44	1	780	A
44	1	781	G
44	1	784	A
44	1	785	G
44	1	786	A
44	1	794	U
44	1	801	A
44	1	817	A
44	1	818	C
44	1	830	A
44	1	832	G

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Mol	Chain	Res	Type
44	1	837	A
44	1	849	C
44	1	861	C
44	1	865	U
44	1	866	A
44	1	870	G
44	1	873	C
44	1	874	U
44	1	875	G
44	1	879	U
44	1	880	G
44	1	887	G
44	1	888	A
44	1	892	U
44	1	894	G
44	1	907	G
44	1	908	G
44	1	914	A
44	1	916	G
44	1	917	A
44	1	922	U
44	1	924	G
44	1	925	A
44	1	926	A
44	1	932	U
44	1	933	A
44	1	934	G
44	1	938	C
44	1	944	C
44	1	954	U
44	1	960	U
44	1	962	A
44	1	976	U
44	1	977	C
44	1	979	U
44	1	980	A
44	1	981	U
44	1	982	C
44	1	984	G
44	1	986	U
44	1	993	G
44	1	994	G

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Mol	Chain	Res	Type
44	1	995	U
44	1	998	A
44	1	1000	C
44	1	1052	U
44	1	1053	A
44	1	1054	A
44	1	1056	U
44	1	1057	A
44	1	1061	A
44	1	1063	G
44	1	1064	A
44	1	1065	A
44	1	1093	A
44	1	1094	U
44	1	1095	U
44	1	1096	U
44	1	1097	G
44	1	1098	A
44	1	1103	A
44	1	1104	G
44	1	1105	A
44	1	1116	G
44	1	1117	G
44	1	1118	C
44	1	1127	G
44	1	1129	A
44	1	1132	C
44	1	1135	A
44	1	1140	G
44	1	1143	A
44	1	1144	U
44	1	1145	G
44	1	1153	A
44	1	1159	A
44	1	1160	C
44	1	1170	A
44	1	1171	G
44	1	1172	G
44	1	1174	G
44	1	1177	G
44	1	1178	G
44	1	1180	A

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Mol	Chain	Res	Type
44	1	1181	U
44	1	1182	A
44	1	1187	C
44	1	1192	C
44	1	1193	A
44	1	1197	A
44	1	1198	C
44	1	1199	C
44	1	1200	A
44	1	1201	C
44	1	1204	A
44	1	1206	G
44	1	1209	G
44	1	1213	G
44	1	1222	G
44	1	1226	G
44	1	1227	C
44	1	1233	G
44	1	1234	G
44	1	1237	G
44	1	1238	C
44	1	1239	C
44	1	1240	A
44	1	1244	A
44	1	1245	A
44	1	1246	G
44	1	1248	C
44	1	1249	G
44	1	1254	C
44	1	1258	U
44	1	1262	G
44	1	1263	A
44	1	1264	G
44	1	1265	U
44	1	1266	G
44	1	1267	U
44	1	1269	U
44	1	1271	A
44	1	1272	C
44	1	1278	A
44	1	1279	C
44	1	1286	A

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Mol	Chain	Res	Type
44	1	1287	A
44	1	1303	A
44	1	1304	A
44	1	1307	G
44	1	1308	A
44	1	1309	U
44	1	1314	C
44	1	1316	C
44	1	1317	A
44	1	1318	A
44	1	1325	U
44	1	1330	A
44	1	1331	U
44	1	1345	G
44	1	1348	U
44	1	1349	G
44	1	1350	A
44	1	1351	U
44	1	1352	A
44	1	1354	G
44	1	1356	U
44	1	1357	G
44	1	1365	G
44	1	1380	G
44	1	1386	A
44	1	1391	C
44	1	1392	G
44	1	1399	A
44	1	1400	G
44	1	1419	A
44	1	1425	U
44	1	1430	U
44	1	1432	C
44	1	1434	G
44	1	1435	A
44	1	1437	C
44	1	1443	G
44	1	1446	A
44	1	1450	G
44	1	1452	A
44	1	1453	A
44	1	1457	U

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Mol	Chain	Res	Type
44	1	1467	A
44	1	1470	U
44	1	1477	A
44	1	1482	A
44	1	1483	G
44	1	1487	G
44	1	1503	A
44	1	1507	G
44	1	1508	C
44	1	1511	U
44	1	1523	U
44	1	1524	A
44	1	1527	C
44	1	1530	U
44	1	1531	C
44	1	1542	G
44	1	1549	U
44	1	1556	C
44	1	1557	A
44	1	1560	G
44	1	1562	C
44	1	1566	A
44	1	1567	U
44	1	1568	U
44	1	1569	U
44	1	1570	U
44	1	1571	A
44	1	1574	C
44	1	1580	A
44	1	1583	A
44	1	1588	A
44	1	1589	A
44	1	1590	G
44	1	1593	A
44	1	1602	A
44	1	1605	A
44	1	1620	U
44	1	1629	U
44	1	1631	C
44	1	1639	C
44	1	1642	A
44	1	1643	A

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Mol	Chain	Res	Type
44	1	1644	C
44	1	1645	U
44	1	1647	A
44	1	1683	A
44	1	1713	G
44	1	1715	A
44	1	1716	U
44	1	1717	U
44	1	1724	U
44	1	1725	C
44	1	1741	A
44	1	1743	G
44	1	1749	A
44	1	1750	A
44	1	1751	G
44	1	1756	C
44	1	1760	A
44	1	1762	C
44	1	1763	U
44	1	1765	U
44	1	1766	G
44	1	1770	G
44	1	1773	C
44	1	1775	G
44	1	1780	G
44	1	1792	C
44	1	1793	C
44	1	1797	A
44	1	1810	A
44	1	1812	G
44	1	1813	A
44	1	1814	A
44	1	1815	U
44	1	1816	A
44	1	1819	U
44	1	1820	U
44	1	1821	U
44	1	1839	A
44	1	1840	U
44	1	1841	A
44	1	1842	A
44	1	1846	C

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Mol	Chain	Res	Type
44	1	1847	A
44	1	1848	G
44	1	1849	C
44	1	1850	A
44	1	1851	G
44	1	1863	G
44	1	1866	C
44	1	1878	G
44	1	1879	A
44	1	1886	A
44	1	1892	G
44	1	1893	A
44	1	1906	G
44	1	1913	A
44	1	1921	A
44	1	1922	A
44	1	1924	U
44	1	1926	C
44	1	1928	G
44	1	1929	G
44	1	1935	G
44	1	1948	G
44	1	1953	G
44	1	2094	C
44	1	2101	C
44	1	2111	G
44	1	2112	U
44	1	2113	A
44	1	2114	C
44	1	2116	G
44	1	2117	A
44	1	2118	C
44	1	2119	A
44	1	2121	G
44	1	2122	G
44	1	2126	A
44	1	2130	G
44	1	2131	A
44	1	2132	C
44	1	2145	A
44	1	2149	A
44	1	2188	A

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Mol	Chain	Res	Type
44	1	2315	G
44	1	2316	G
44	1	2317	A
44	1	2318	U
44	1	2319	U
44	1	2335	G
44	1	2336	U
44	1	2339	C
44	1	2340	U
44	1	2347	U
44	1	2352	A
44	1	2363	A
44	1	2364	G
44	1	2365	C
44	1	2371	G
44	1	2378	C
44	1	2388	U
44	1	2393	G
44	1	2394	G
44	1	2397	A
44	1	2821	C
44	1	2822	U
44	1	2824	G
44	1	2826	U
44	1	2830	G
44	1	2834	G
44	1	2838	A
44	1	2839	G
44	1	2842	U
44	1	2843	U
44	1	2845	A
44	1	2846	U
44	1	2847	A
44	1	2848	G
44	1	2850	G
44	1	2857	C
44	1	2858	U
44	1	2859	U
44	1	2861	U
44	1	2863	G
44	1	2864	A
44	1	2866	U

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Mol	Chain	Res	Type
44	1	2867	C
44	1	2868	U
44	1	2870	C
44	1	2872	A
44	1	2873	U
44	1	2876	C
44	1	2877	G
44	1	2878	G
44	1	2879	C
44	1	2881	C
44	1	2887	A
44	1	2889	C
44	1	2894	C
44	1	2897	A
44	1	2898	G
44	1	2899	C
44	1	2901	G
44	1	2911	A
44	1	2918	G
44	1	2920	U
44	1	2921	U
44	1	2922	G
44	1	2923	U
44	1	2924	U
44	1	2926	A
44	1	2927	C
44	1	2928	C
44	1	2930	A
44	1	2935	U
44	1	2936	A
44	1	2944	U
44	1	2946	A
44	1	2947	G
44	1	2950	G
44	1	2952	G
44	1	2953	U
44	1	2982	A
44	1	2983	C
44	1	2996	U
44	1	2997	G
44	1	3011	A
44	1	3012	A

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Mol	Chain	Res	Type
44	1	3017	A
44	1	3019	U
44	1	3021	A
44	1	3022	G
44	1	3023	U
44	1	3027	A
44	1	3032	A
44	1	3034	C
44	1	3049	A
44	1	3058	U
44	1	3059	G
44	1	3061	G
44	1	3078	U
44	1	3080	G
44	1	3086	A
44	1	3092	C
44	1	3093	C
44	1	3099	C
44	1	3104	U
44	1	3115	C
44	1	3116	G
44	1	3117	C
44	1	3118	C
44	1	3121	U
44	1	3122	A
44	1	3129	A
44	1	3130	A
44	1	3131	U
44	1	3142	A
44	1	3143	C
44	1	3150	A
44	1	3152	U
44	1	3153	U
44	1	3154	C
44	1	3155	U
44	1	3156	U
44	1	3164	C
44	1	3165	A
44	1	3168	A
44	1	3170	A
44	1	3172	A
44	1	3173	G

Continued on next page...

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Mol	Chain	Res	Type
44	1	3174	A
44	1	3175	U
44	1	3176	G
44	1	3179	U
44	1	3180	A
44	1	3181	C
44	1	3187	A
44	1	3188	G
44	1	3196	U
44	1	3198	U
44	1	3207	U
44	1	3208	G
44	1	3209	A
44	1	3212	C
44	1	3216	G
44	1	3217	C
44	1	3218	A
44	1	3219	G
44	1	3222	U
44	1	3235	C
44	1	3243	A
44	1	3245	A
44	1	3246	G
44	1	3247	G
44	1	3253	G
44	1	3259	U
44	1	3260	G
44	1	3263	G
44	1	3269	U
44	1	3270	U
44	1	3272	C
44	1	3273	A
44	1	3274	A
44	1	3276	G
44	1	3278	C
44	1	3281	U
44	1	3286	G
44	1	3289	G
44	1	3293	U
44	1	3294	A
44	1	3295	A
44	1	3304	U

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Mol	Chain	Res	Type
44	1	3305	A
44	1	3306	U
44	1	3308	C
44	1	3309	G
44	1	3313	U
44	1	3316	A
44	1	3319	U
44	1	3320	A
44	1	3324	C
44	1	3329	U
44	1	3330	A
44	1	3334	U
44	1	3341	U
44	1	3342	A
44	1	3345	G
44	1	3347	A
44	1	3348	G
44	1	3349	C
44	1	3350	C
44	1	3351	U
44	1	3352	U
44	1	3353	G
44	1	3354	U
44	1	3355	U
44	1	3356	G
44	1	3357	U
44	1	3359	A
44	1	3369	G
44	1	3375	A
44	1	3378	C
44	1	3382	U
44	1	3386	G
44	1	3389	U
44	1	3390	G
44	1	3396	U
45	2	2	A
45	2	23	U
45	2	34	U
45	2	35	C
45	2	37	A
45	2	38	U
45	2	39	G

Continued on next page...

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Mol	Chain	Res	Type
45	2	40	A
45	2	46	G
45	2	48	A
45	2	49	G
45	2	51	G
45	2	59	A
45	2	61	A
45	2	62	C
45	2	63	G
45	2	70	G
45	2	73	U
45	2	74	U
45	2	78	G
45	2	79	A
45	2	80	A
45	2	81	U
45	2	82	U
45	2	83	C
45	2	84	C
45	2	86	U
45	2	87	G
45	2	90	U
45	2	91	C
45	2	94	C
45	2	95	G
45	2	97	A
45	2	100	U
45	2	104	A
45	2	105	A
45	2	106	C
45	2	111	A
45	2	113	U
45	2	116	G
45	2	125	U
45	2	126	A
45	2	127	U
45	2	136	G
45	2	138	A
45	2	151	C
46	6	4	U
46	6	5	C
46	6	7	C

Continued on next page...

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Mol	Chain	Res	Type
46	6	9	A
46	6	15	C
46	6	16	U
46	6	23	U
46	6	24	A
46	6	25	G
46	6	26	U
46	6	29	G
46	6	34	A
46	6	40	U
46	6	41	G
46	6	42	G
46	6	43	A
46	6	47	A
46	6	49	C
46	6	52	G
46	6	53	A
46	6	54	A
46	6	56	U
46	6	57	U
46	6	58	G
46	6	59	C
46	6	66	U
46	6	230	A
46	6	231	A
46	6	232	A

All (37) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
44	1	13	A
44	1	42	C
44	1	121	A
44	1	148	G
44	1	160	G
44	1	282	G
44	1	338	A
44	1	637	C
44	1	645	A
44	1	649	A
44	1	705	A
44	1	720	A

Continued on next page...

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Mol	Chain	Res	Type
44	1	761	A
44	1	916	G
44	1	1064	A
44	1	1097	G
44	1	1200	A
44	1	1205	A
44	1	1307	G
44	1	1329	U
44	1	1355	A
44	1	1567	U
44	1	1568	U
44	1	1605	A
44	1	1641	U
44	1	1838	G
44	1	2110	G
44	1	2187	G
44	1	2317	A
44	1	2920	U
44	1	3269	U
44	1	3341	U
44	1	3350	C
44	1	3375	A
45	2	39	G
45	2	73	U
45	2	79	A

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
28	f	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	f	102:LEU	C	103:TYR	N	1.16

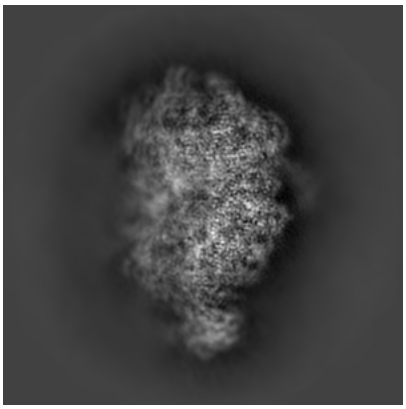
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-10841. These allow visual inspection of the internal detail of the map and identification of artifacts.

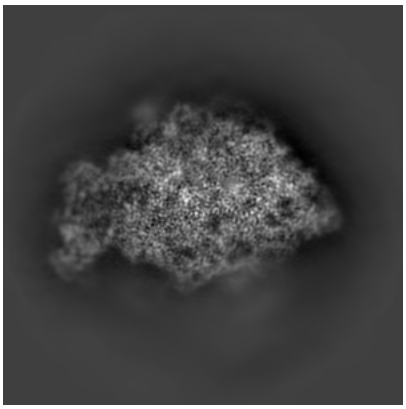
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

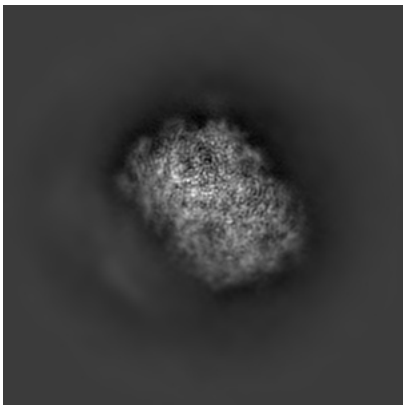
6.1.1 Primary map



X

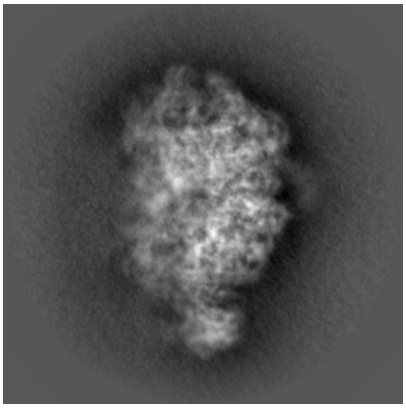


Y

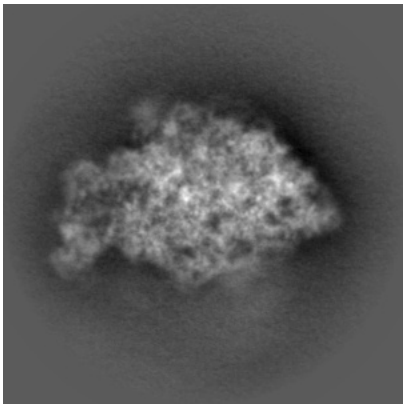


Z

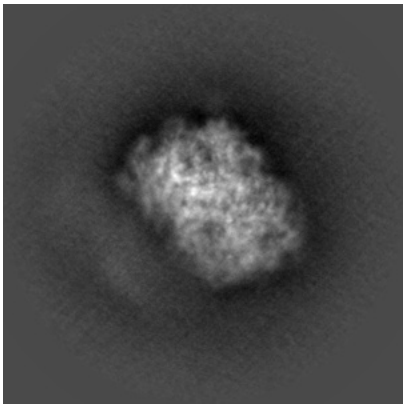
6.1.2 Raw map



X



Y

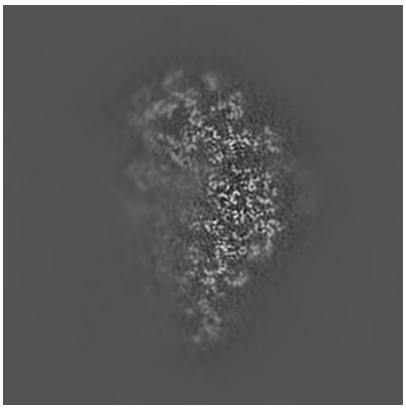


Z

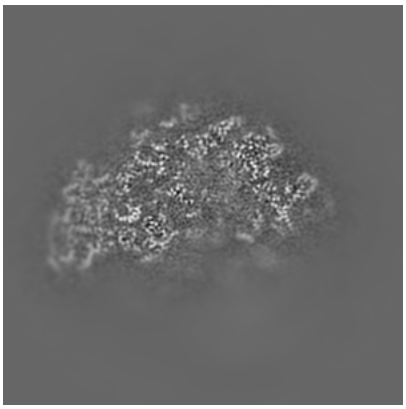
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

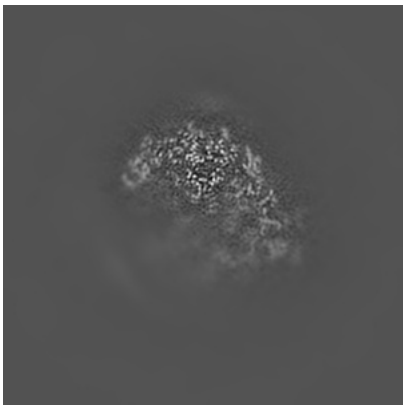
6.2.1 Primary map



X Index: 192

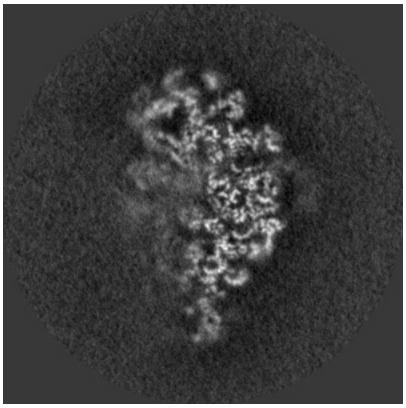


Y Index: 192

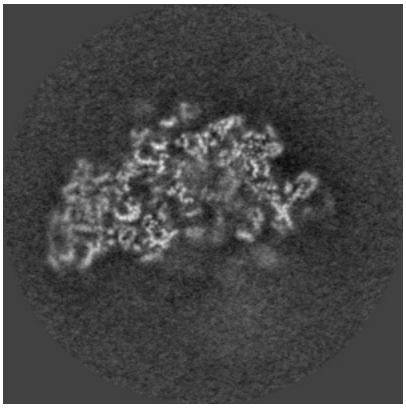


Z Index: 192

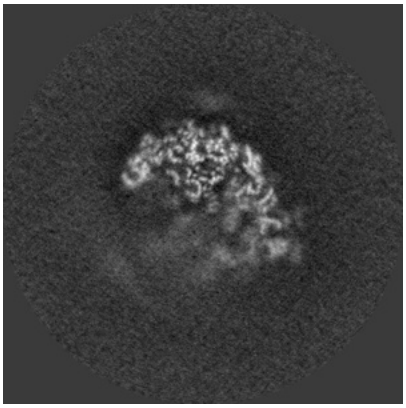
6.2.2 Raw map



X Index: 192



Y Index: 192

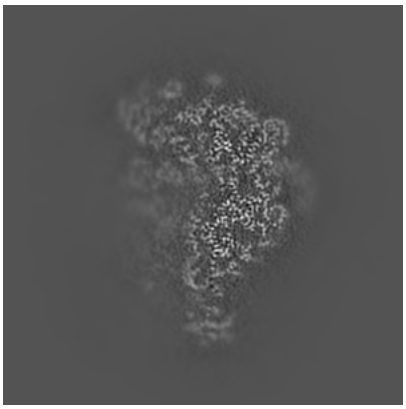


Z Index: 192

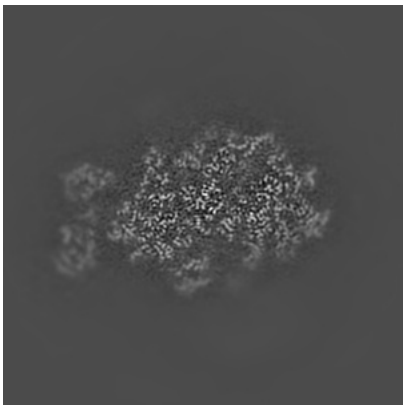
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

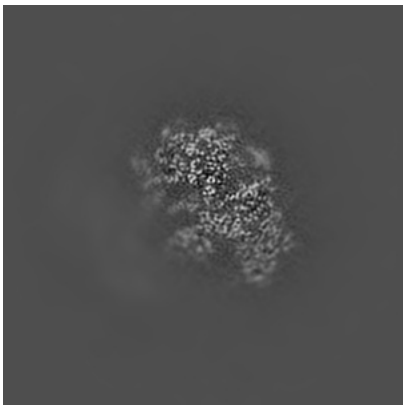
6.3.1 Primary map



X Index: 201

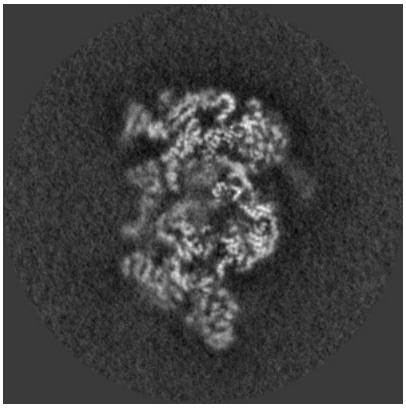


Y Index: 216

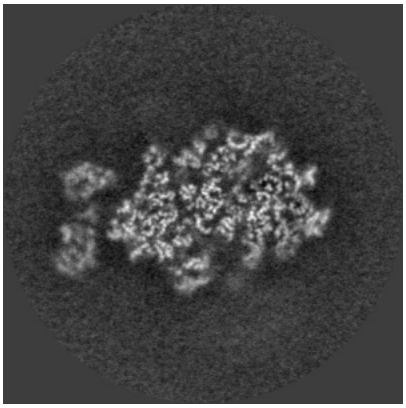


Z Index: 245

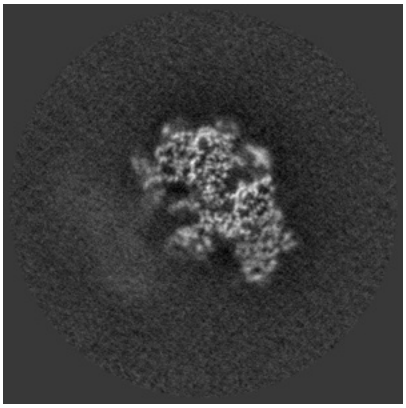
6.3.2 Raw map



X Index: 217



Y Index: 216



Z Index: 244

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

6.4 Orthogonal surface views (i)

6.4.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.055. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 Raw map

X Y Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

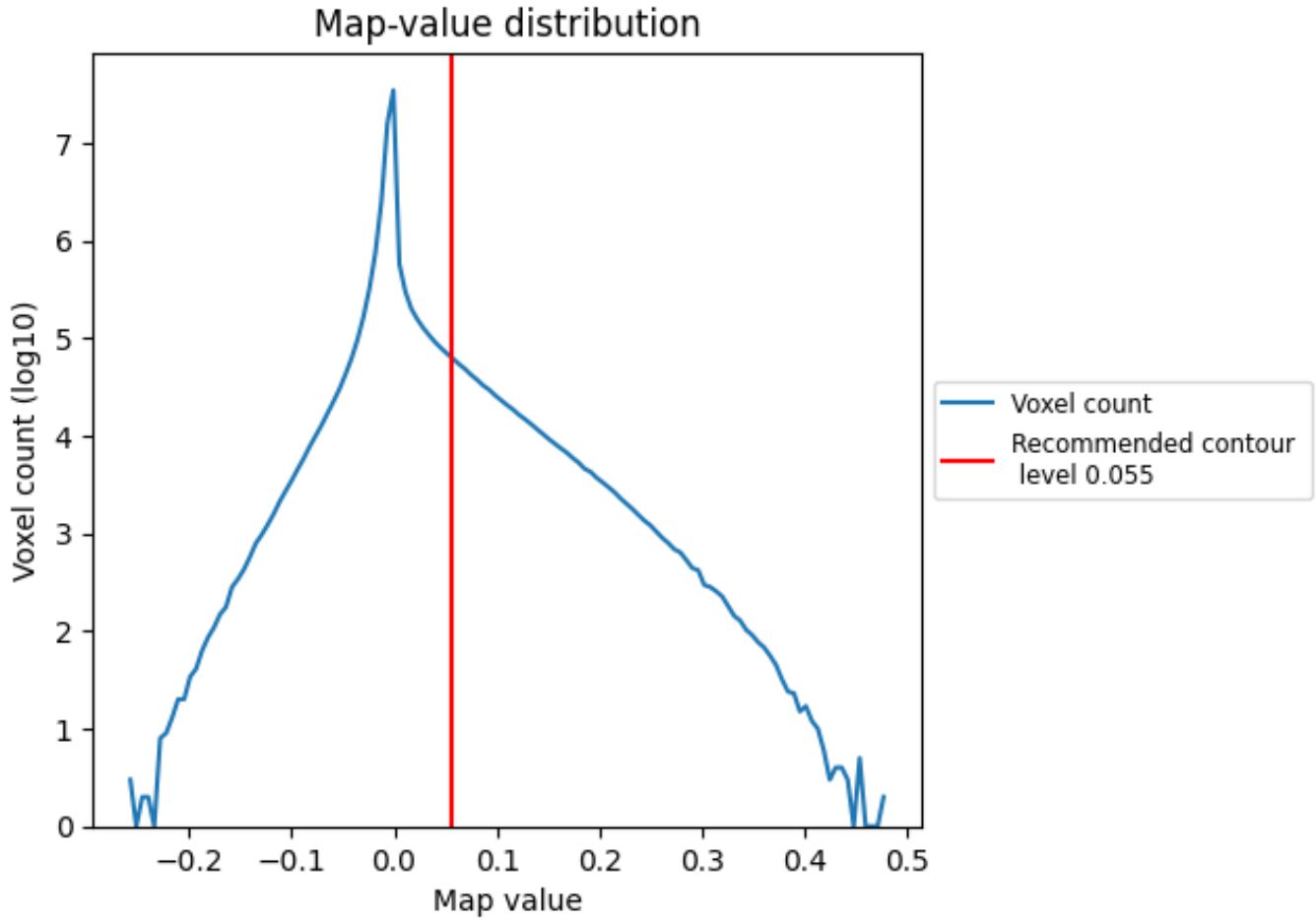
6.5 Mask visualisation (i)

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

7 Map analysis

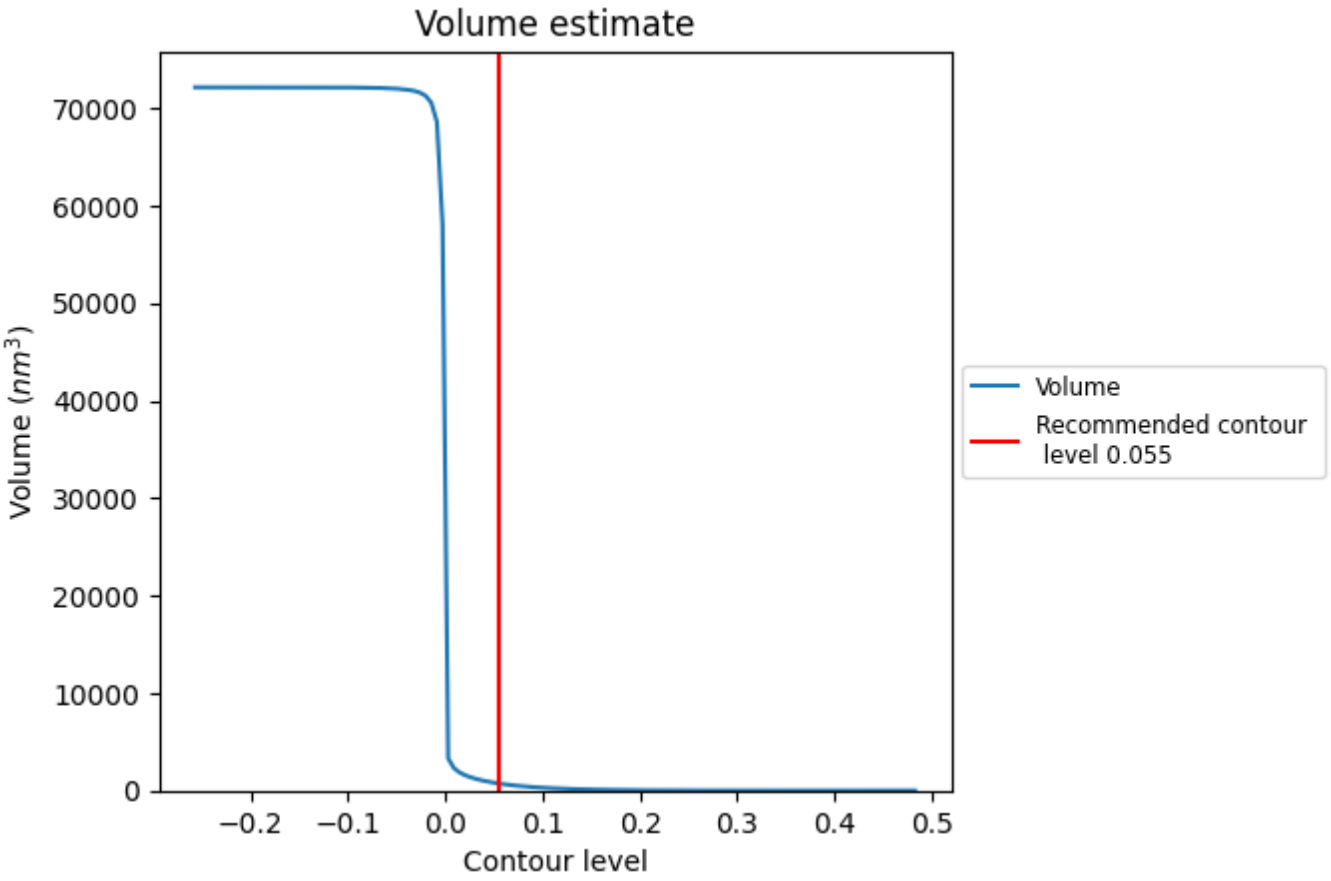
This section contains the results of statistical analysis of the map.

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.

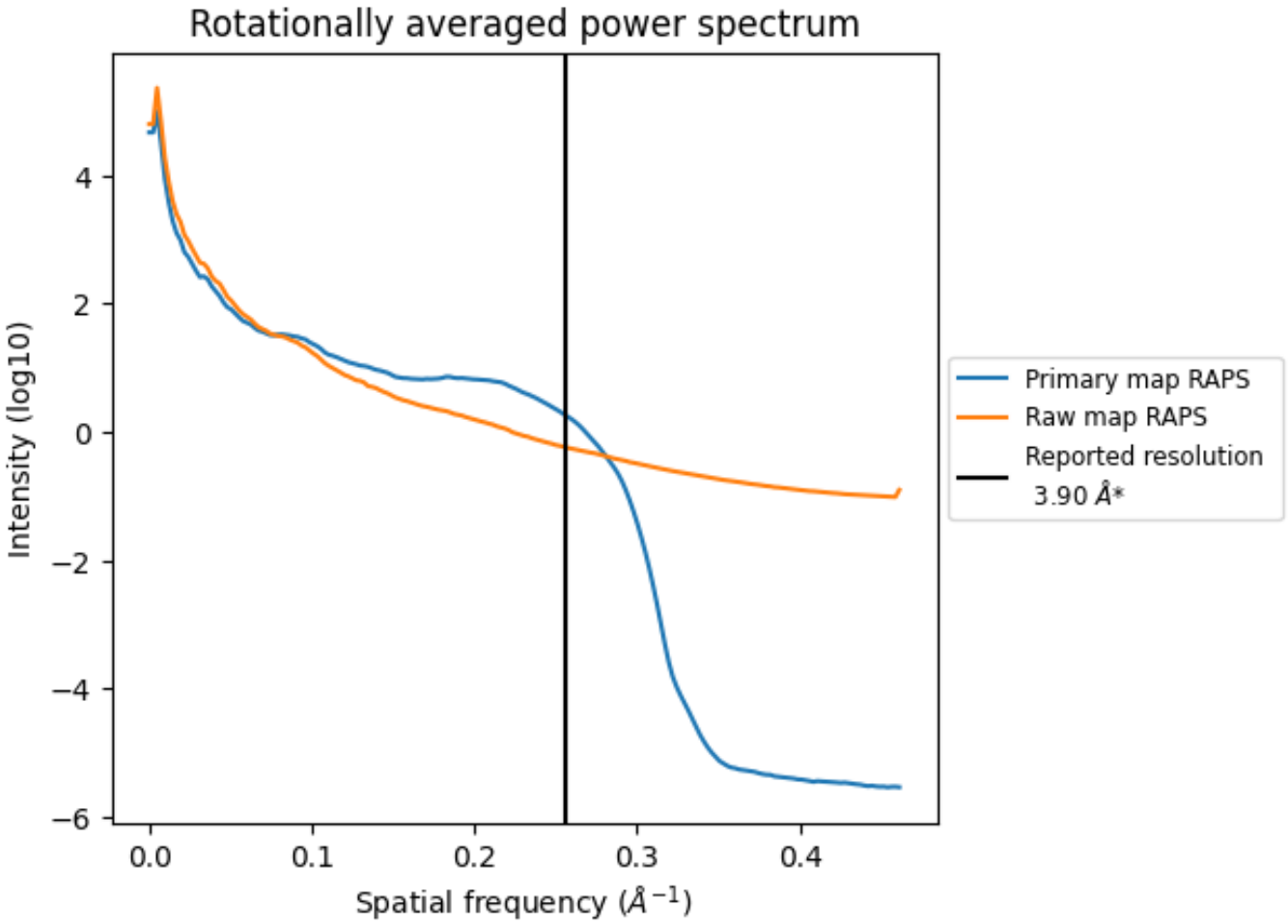
7.2 Volume estimate



The volume at the recommended contour level is 727 nm^3; this corresponds to an approximate mass of 656 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)

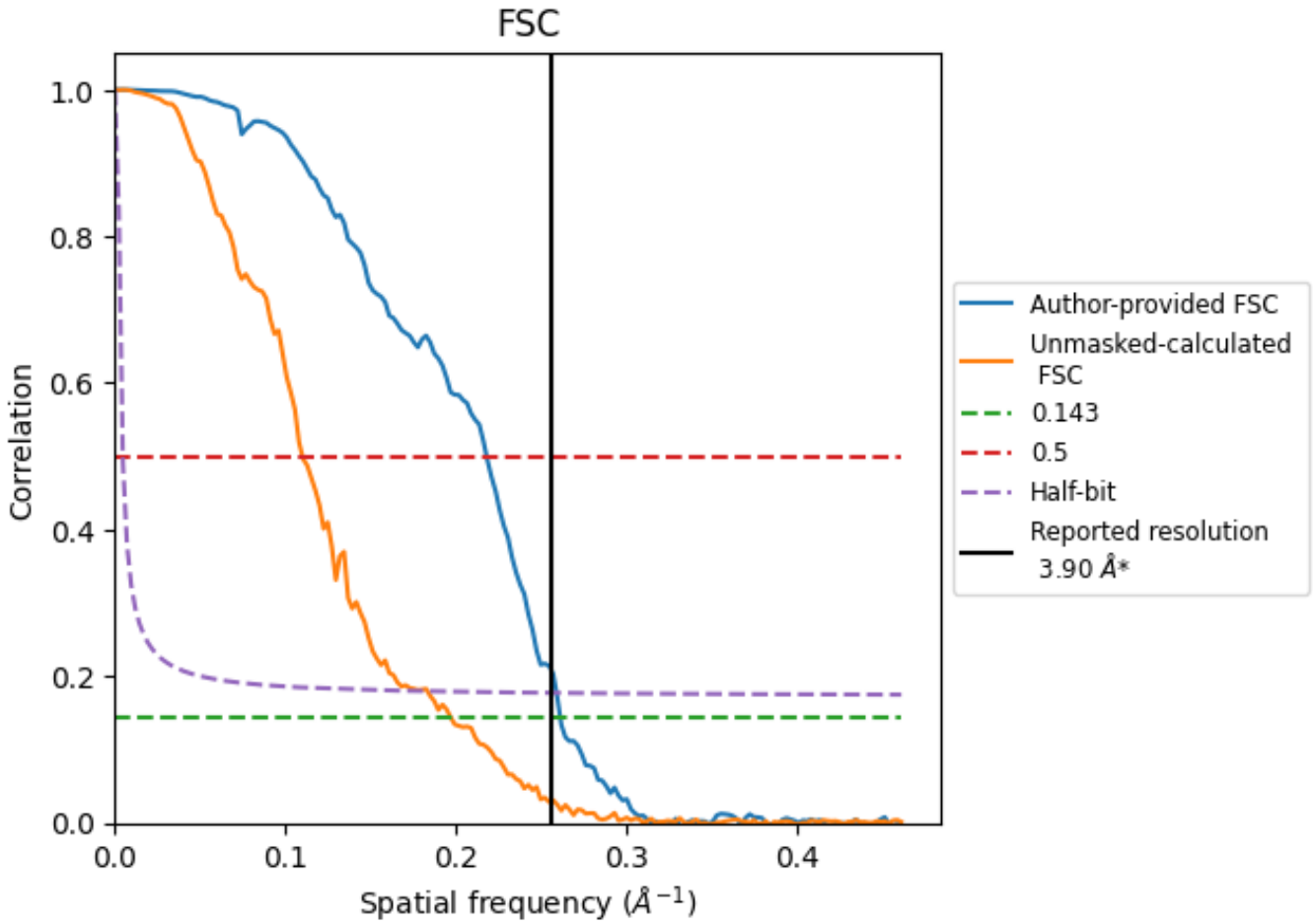


*Reported resolution corresponds to spatial frequency of 0.256 Å^{-1}

8 Fourier-Shell correlation

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.256 Å^{-1}

8.2 Resolution estimates (i)

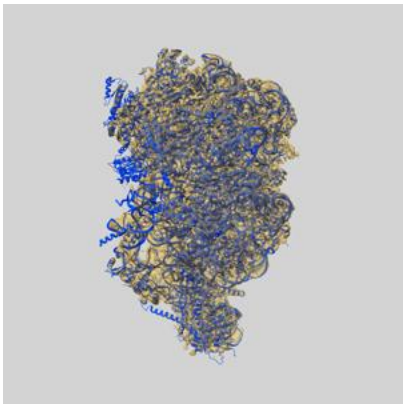
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.90	-	-
Author-provided FSC curve	3.83	4.59	3.86
Unmasked-calculated*	5.07	9.08	5.45

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 5.07 differs from the reported value 3.9 by more than 10 %

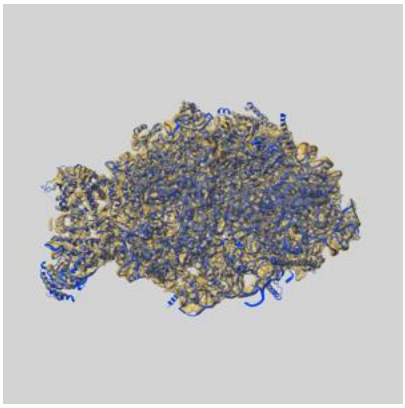
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-10841 and PDB model 6YLX. Per-residue inclusion information can be found in section 3 on page 12.

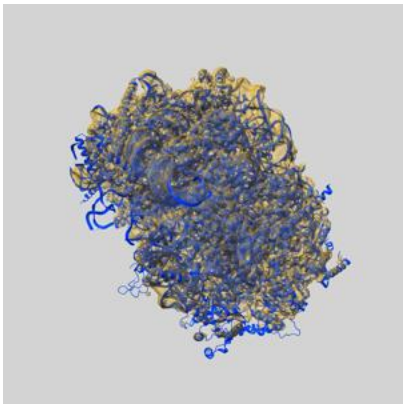
9.1 Map-model overlay



X



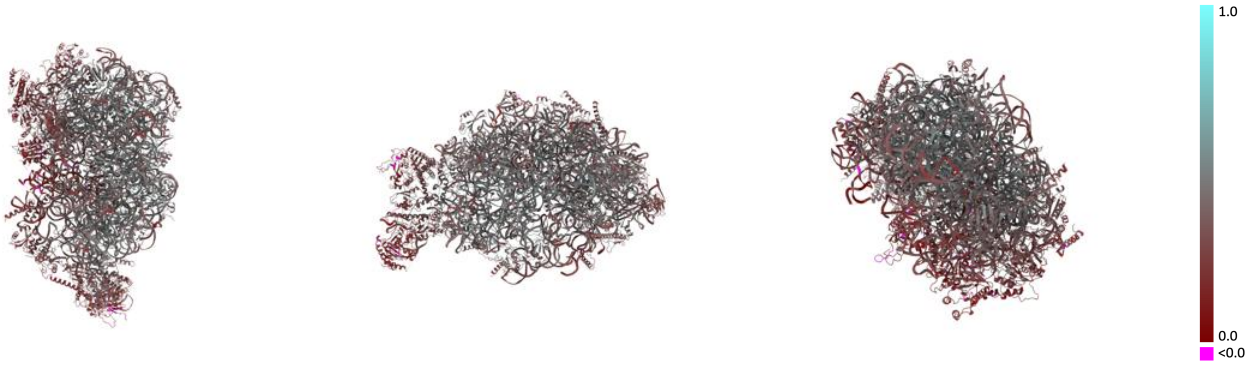
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.055 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.

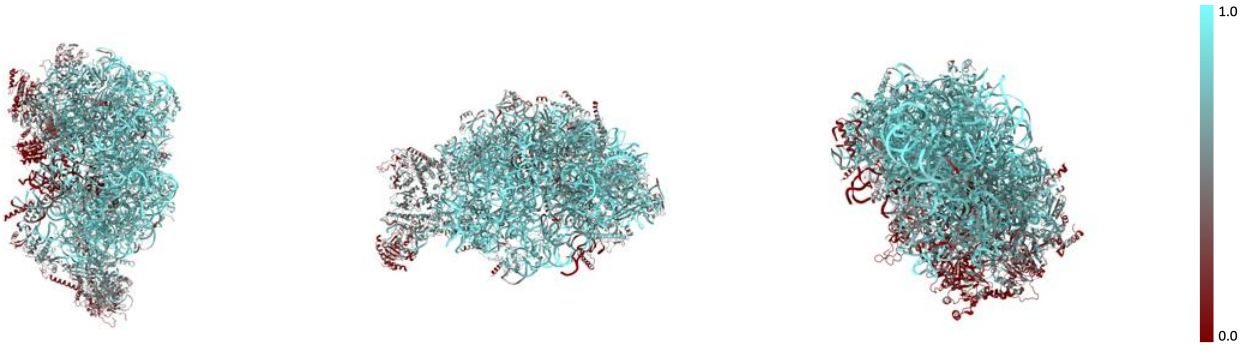
9.2 Q-score mapped to coordinate model (i)



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.

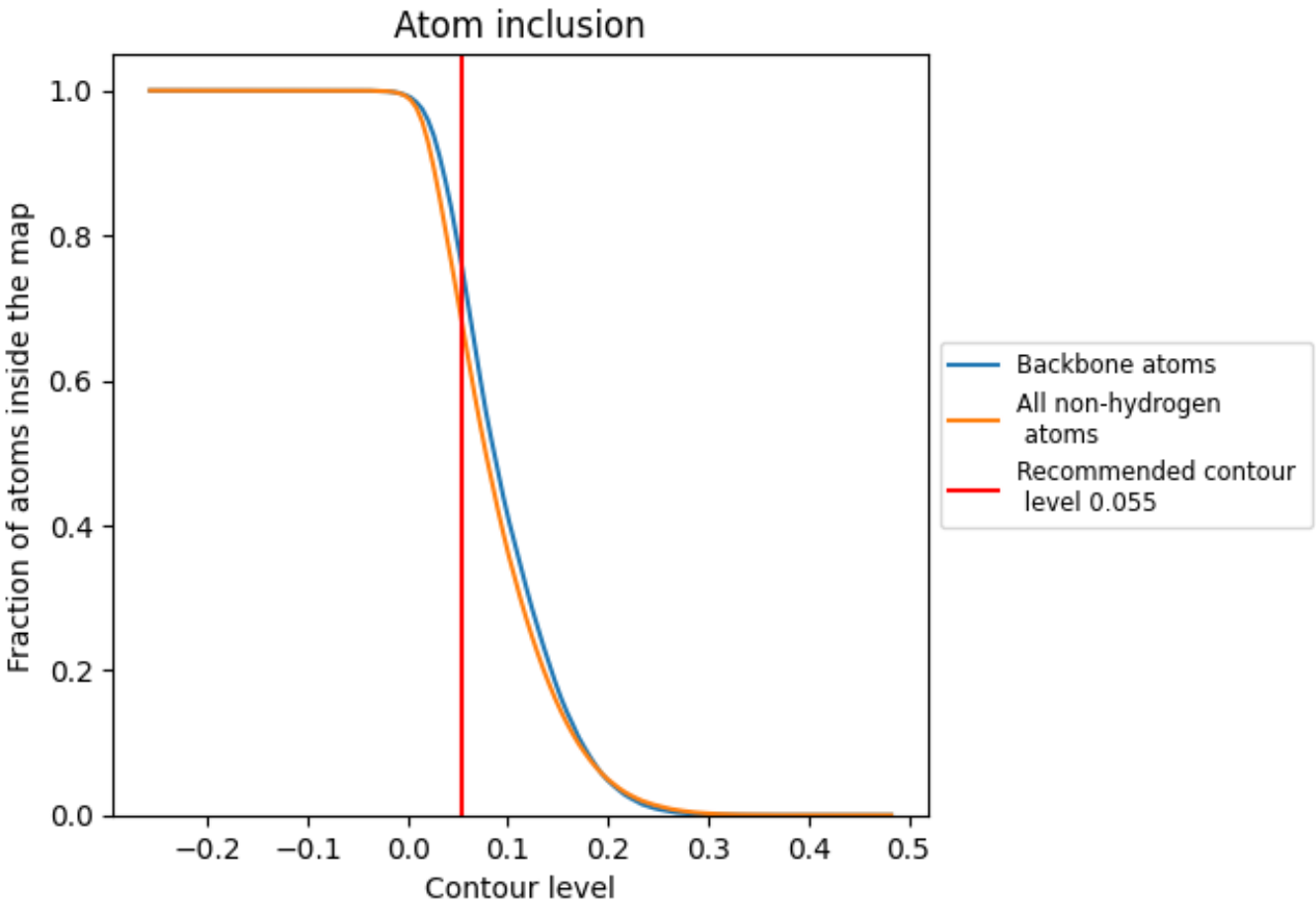
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.055).

9.4 Atom inclusion (i)



At the recommended contour level, 75% of all backbone atoms, 67% 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 (0.055) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6732	0.3840
1	0.7889	0.3960
2	0.8917	0.4560
6	0.6832	0.3070
B	0.6806	0.4290
C	0.7748	0.4690
E	0.7246	0.4280
F	0.7773	0.4300
G	0.6424	0.3890
H	0.6866	0.4150
K	0.2694	0.2150
L	0.6909	0.4310
M	0.7607	0.4410
N	0.8020	0.4900
O	0.8058	0.4790
P	0.7617	0.4590
Q	0.7507	0.4440
R	0.4546	0.3430
S	0.7066	0.4280
T	0.1876	0.3110
U	0.4614	0.3320
V	0.5393	0.3800
W	0.4072	0.2770
X	0.7078	0.4430
Y	0.7805	0.4720
Z	0.5033	0.3200
a	0.6194	0.3960
b	0.3232	0.2730
c	0.3406	0.2580
d	0.7037	0.4430
e	0.8008	0.4980
f	0.8392	0.5110
g	0.5810	0.3980
h	0.7413	0.4570
i	0.5933	0.3700

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Chain	Atom inclusion	Q-score
j	0.7496	0.4660
k	0.5409	0.3910
l	0.2795	0.3650
n	0.5325	0.3380
o	0.3760	0.2480
q	0.1926	0.2420
r	0.2483	0.2720
s	0.4775	0.4100
t	0.4623	0.3010
u	0.5326	0.3480
w	0.1113	0.2630
y	0.4430	0.2890
z	0.4562	0.3770