



Full wwPDB EM Validation Report ⓘ

Mar 5, 2026 – 05:11 PM UTC

PDB ID : 3J9T / pdb_00003j9t
EMDB ID : EMD-6284
Title : Yeast V-ATPase state 1
Authors : Zhao, J.; Benlekber, S.; Rubinstein, J.L.
Deposited on : 2015-02-23
Resolution : 6.90 Å (reported)
Based on initial models : 4DL0, 4RND, 1U7L, 1HO8

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:

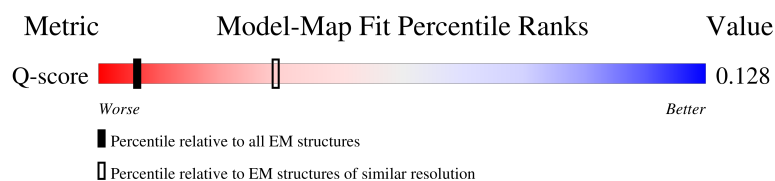
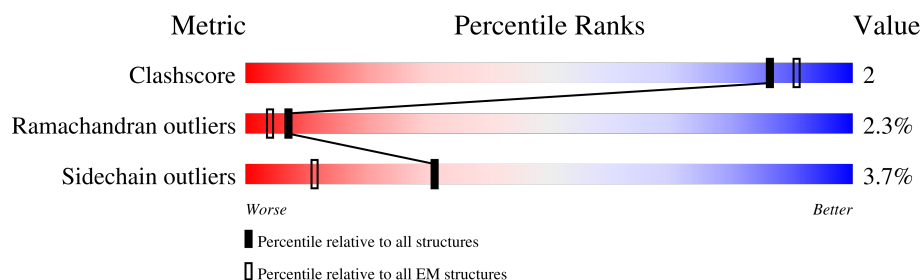
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance

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

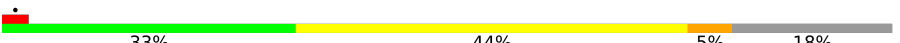
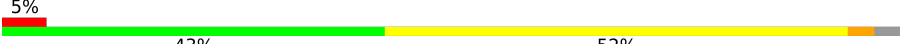
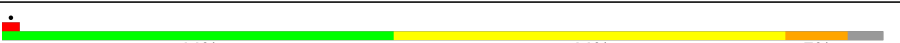
The reported resolution of this entry is 6.90 Å.

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.



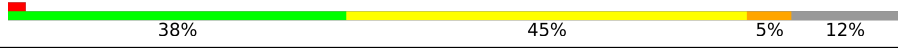
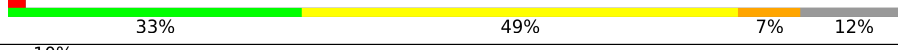
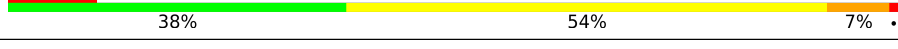
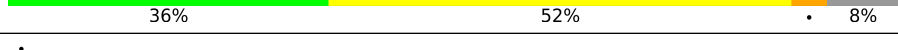
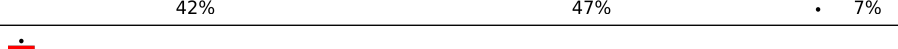
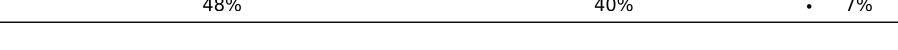
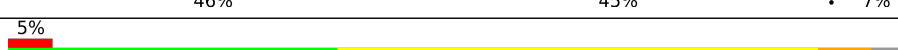
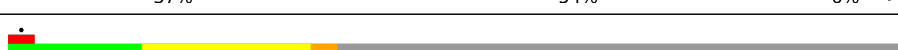
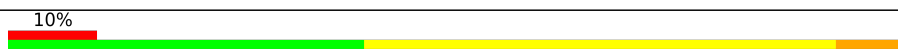
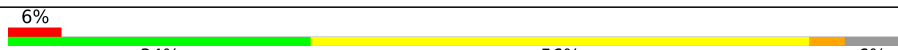
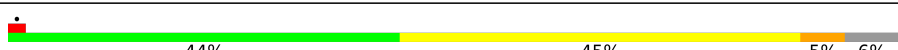
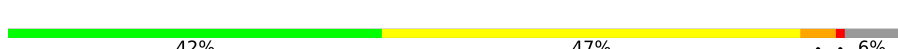
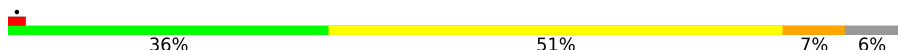
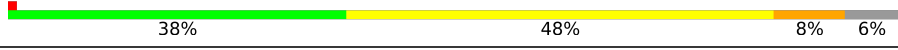
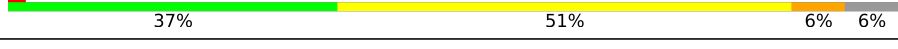
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	479 (6.40 - 7.40)

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

Mol	Chain	Length	Quality of chain
1	M	256	 33% 44% 5% 18%
2	N	118	 5% 43% 52% . .
3	A	616	 41% 48% 7% .
3	C	616	 44% 44% 7% .

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Mol	Chain	Length	Quality of chain
3	E	616	
4	B	517	
4	D	517	
4	F	517	
5	Q	345	
6	H	114	
6	J	114	
6	L	114	
7	G	233	
7	I	233	
7	K	233	
8	P	478	
9	b	840	
10	O	392	
11	R	160	
11	S	160	
11	T	160	
11	U	160	
11	V	160	
11	W	160	
11	X	160	
11	Y	160	
11	Z	160	
11	a	160	

2 Entry composition

There are 11 unique types of molecules in this entry. The entry contains 57659 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 V-type proton ATPase subunit D.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	M	210	Total	C	N	O	S	0	0
			1691	1061	305	321	4		

- Molecule 2 is a protein called V-type proton ATPase subunit F.

Mol	Chain	Residues	Atoms				AltConf	Trace
2	N	115	Total	C	N	O	0	0
			928	589	157	182		

- Molecule 3 is a protein called V-type proton ATPase catalytic subunit A.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	A	593	Total	C	N	O	S	0	0
			4578	2904	760	894	20		
3	C	593	Total	C	N	O	S	0	0
			4578	2904	760	894	20		
3	E	593	Total	C	N	O	S	0	0
			4578	2904	760	894	20		

- Molecule 4 is a protein called V-type proton ATPase subunit B.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	B	457	Total	C	N	O	S	0	0
			3585	2266	612	695	12		
4	D	457	Total	C	N	O	S	0	0
			3585	2266	612	695	12		
4	F	457	Total	C	N	O	S	0	0
			3585	2266	612	695	12		

- Molecule 5 is a protein called V-type proton ATPase subunit d.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	Q	345	Total	C	N	O	S	0	0
			2802	1779	454	555	14		

- Molecule 6 is a protein called V-type proton ATPase subunit G.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	L	105	Total	C	N	O		0	0
			824	517	144	163			
6	H	105	Total	C	N	O		0	0
			824	517	144	163			
6	J	105	Total	C	N	O		0	0
			824	517	144	163			

- Molecule 7 is a protein called V-type proton ATPase subunit E.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	K	217	Total	C	N	O	S	0	0
			1731	1083	296	347	5		
7	G	217	Total	C	N	O	S	0	0
			1731	1083	296	347	5		
7	I	217	Total	C	N	O	S	0	0
			1731	1083	296	347	5		

- Molecule 8 is a protein called V-type proton ATPase subunit H.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	P	461	Total	C	N	O	S	0	0
			3712	2373	623	704	12		

- Molecule 9 is a protein called V-type proton ATPase subunit a, vacuolar isoform.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	b	312	Total	C	N	O	S	0	0
			2540	1614	434	489	3		

- Molecule 10 is a protein called V-type proton ATPase subunit C.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	O	392	Total	C	N	O	S	0	0
			3122	2005	516	596	5		

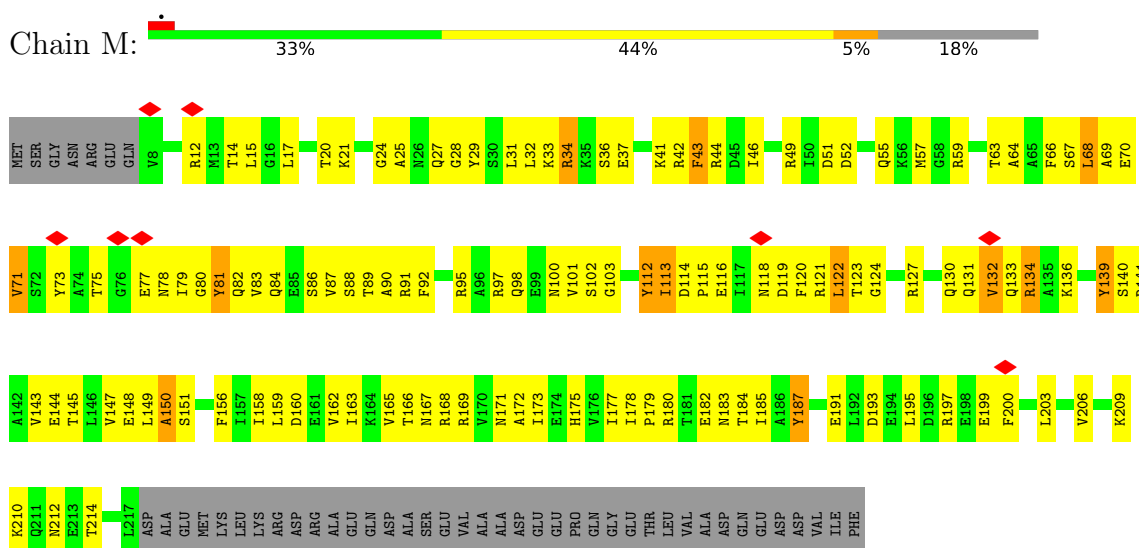
- Molecule 11 is a protein called V-type proton ATPase subunit c.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	Y	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	R	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	U	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	V	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	T	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	W	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	S	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	X	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	Z	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	a	150	Total 1071	C 704	N 173	O 187	S 7	0	0

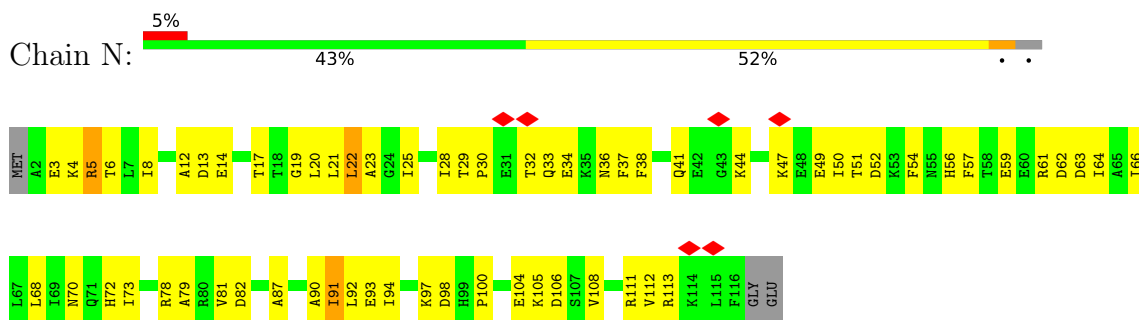
3 Residue-property plots

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.

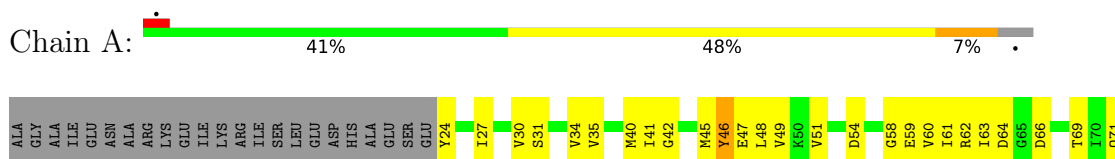
- Molecule 1: V-type proton ATPase subunit D

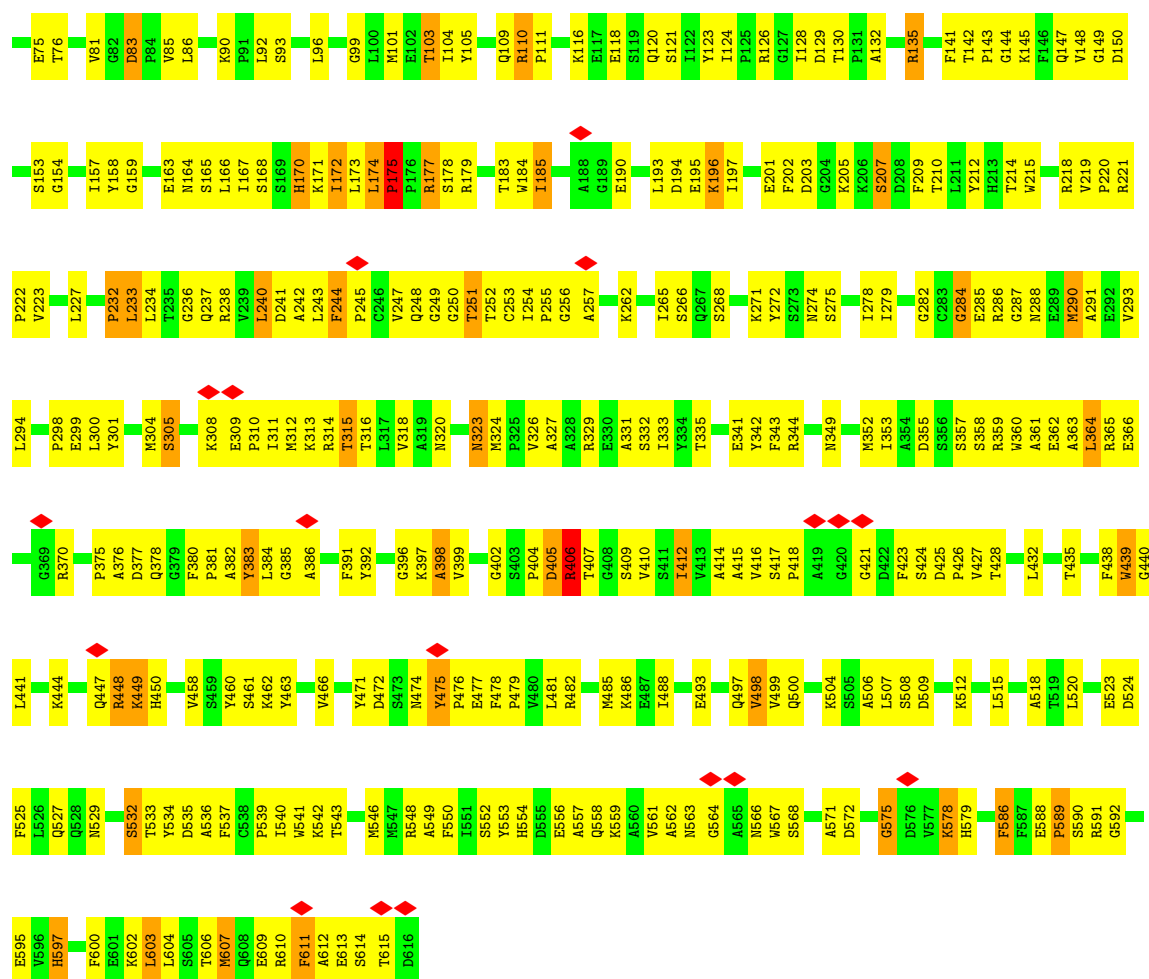


- Molecule 2: V-type proton ATPase subunit F



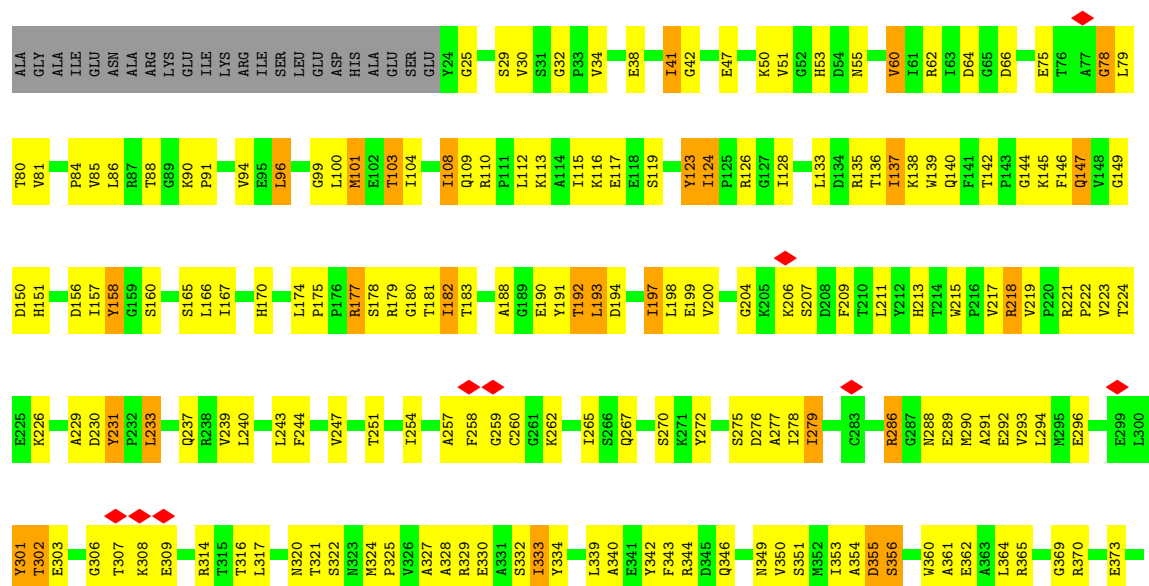
- Molecule 3: V-type proton ATPase catalytic subunit A

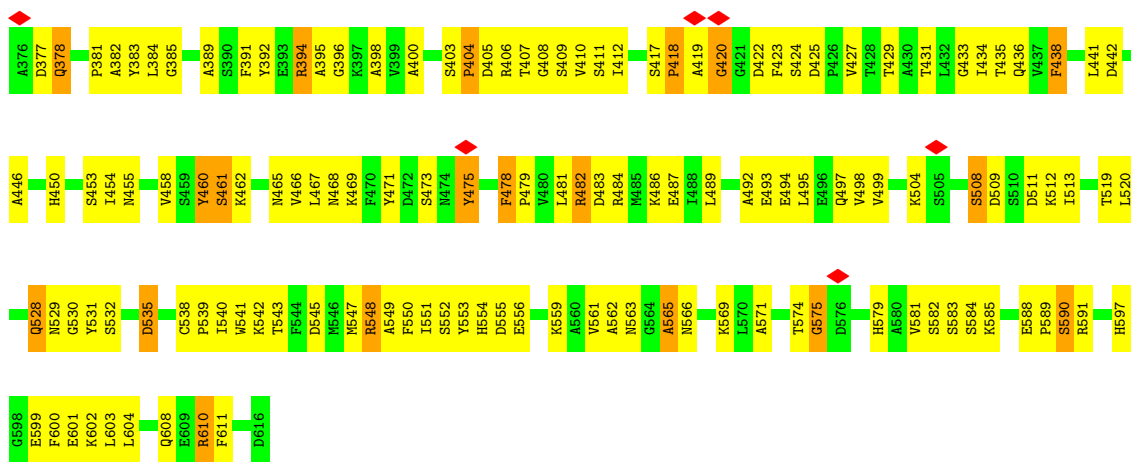




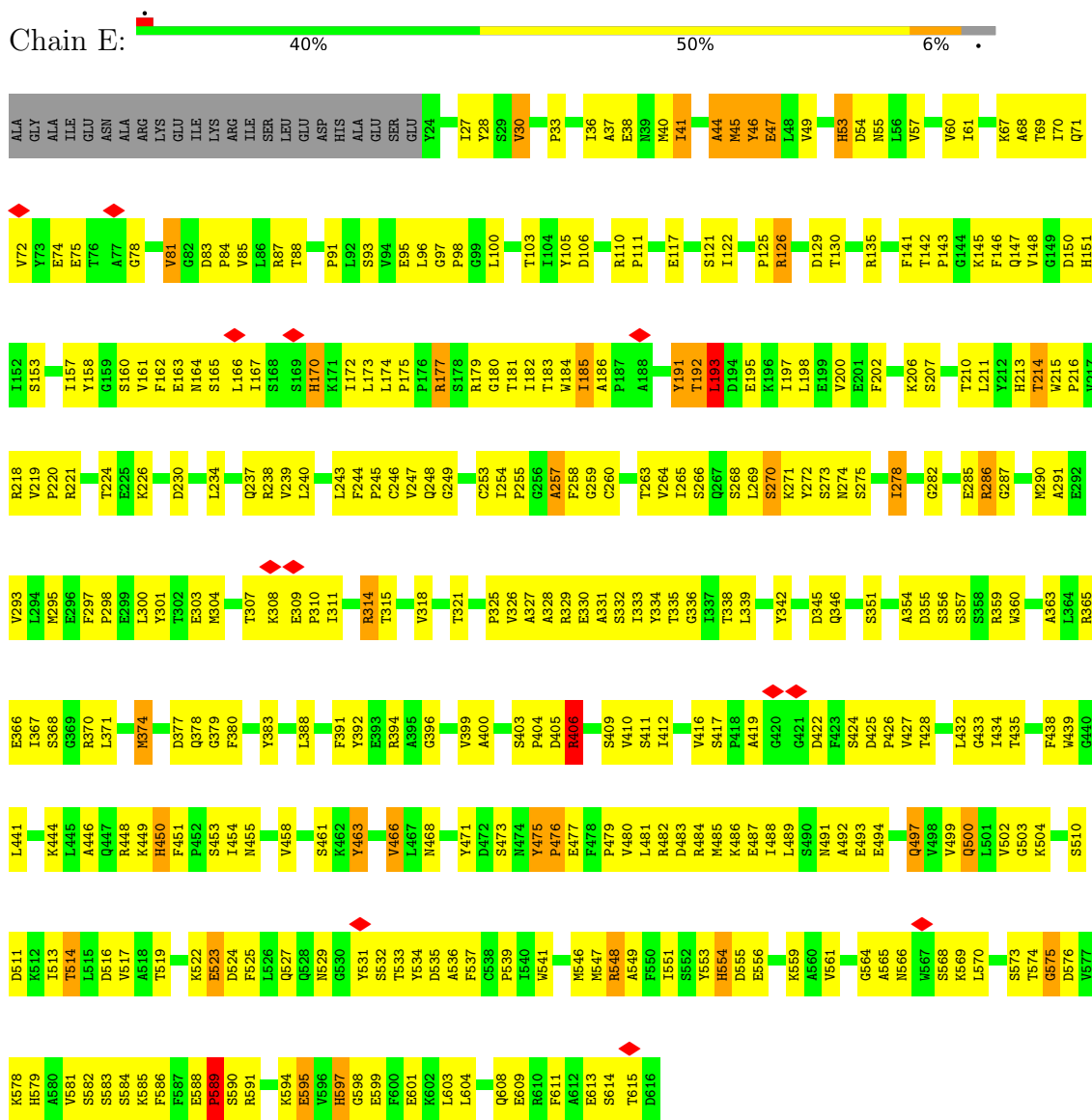
• Molecule 3: V-type proton ATPase catalytic subunit A

Chain C: 44% 44% 7%



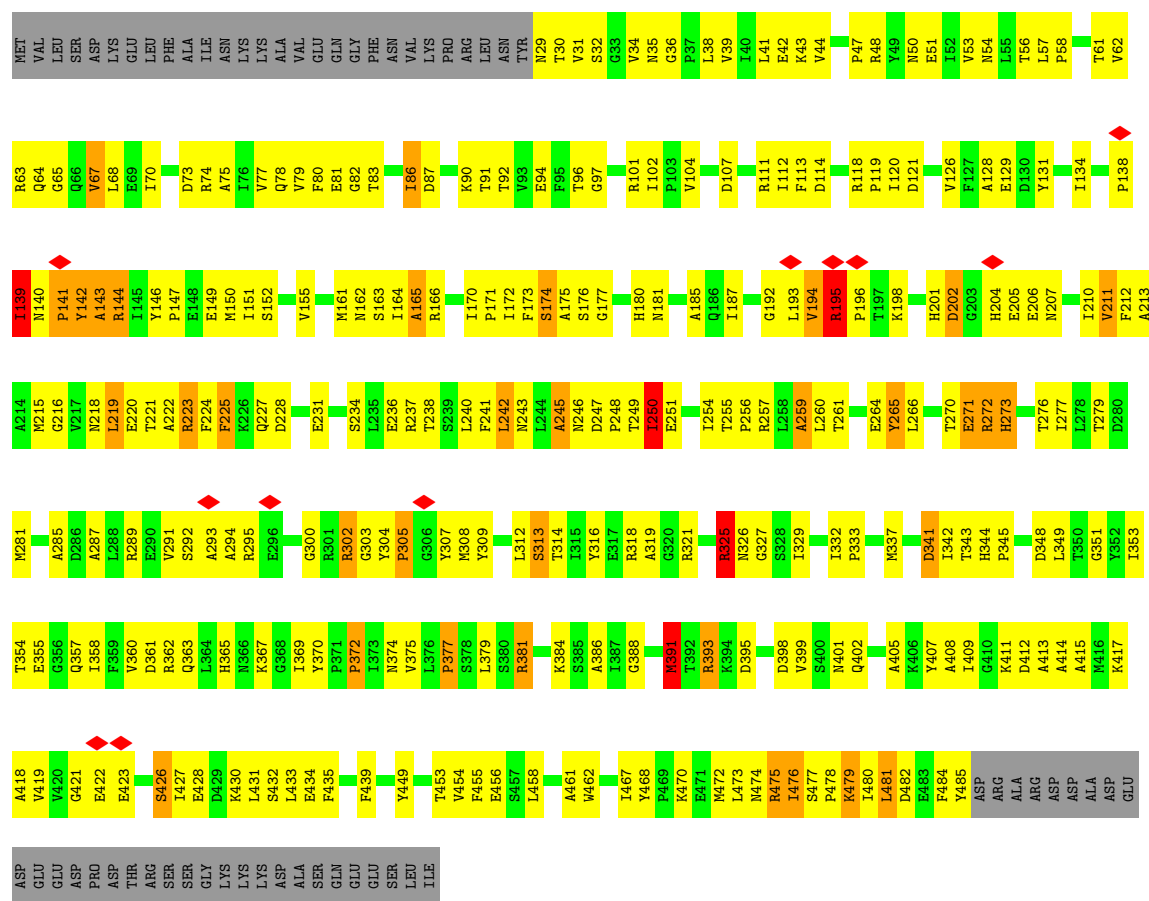


• Molecule 3: V-type proton ATPase catalytic subunit A

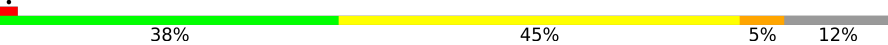


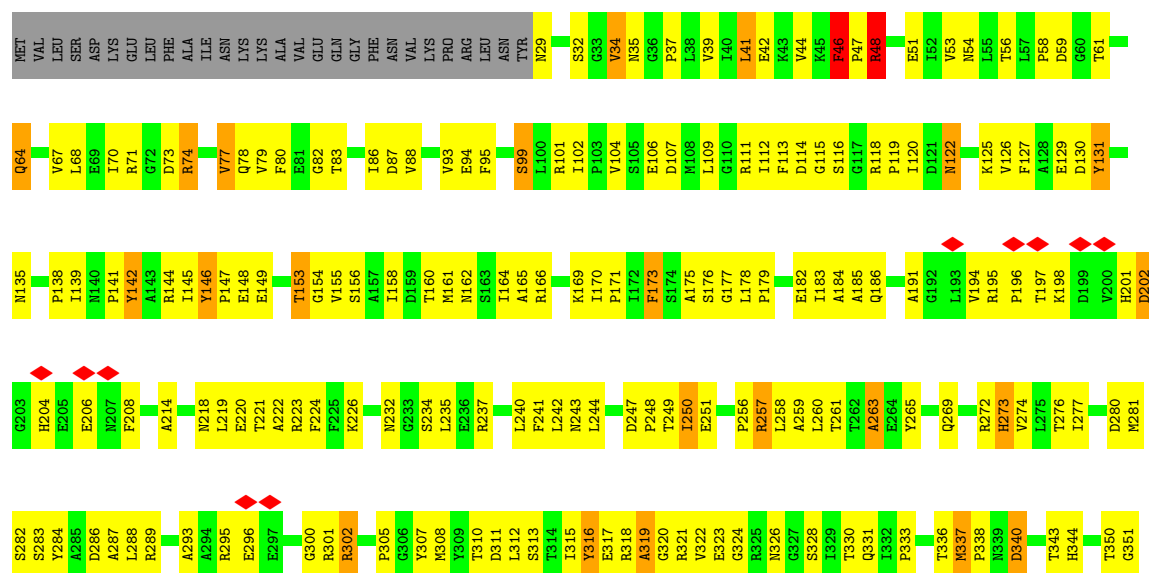
• Molecule 4: V-type proton ATPase subunit B

Chain B: 

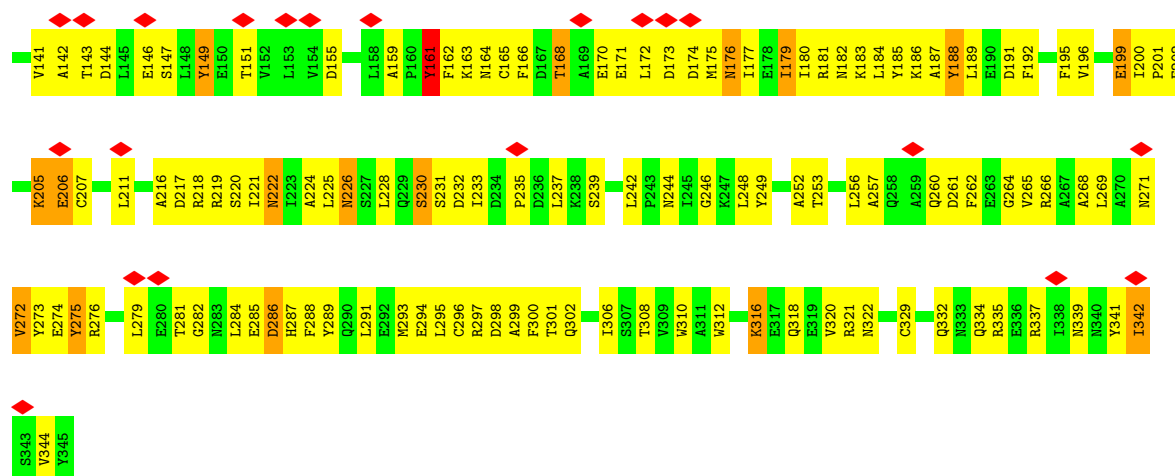


• Molecule 4: V-type proton ATPase subunit B

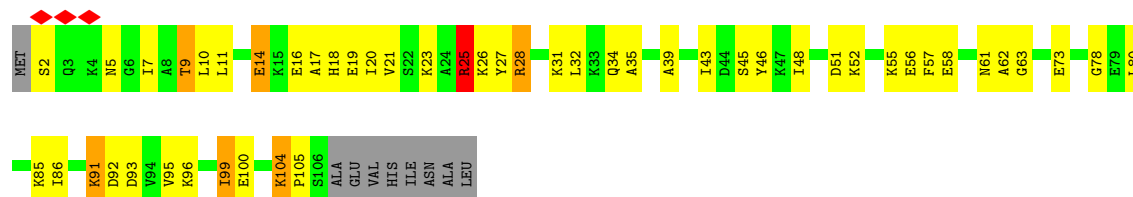
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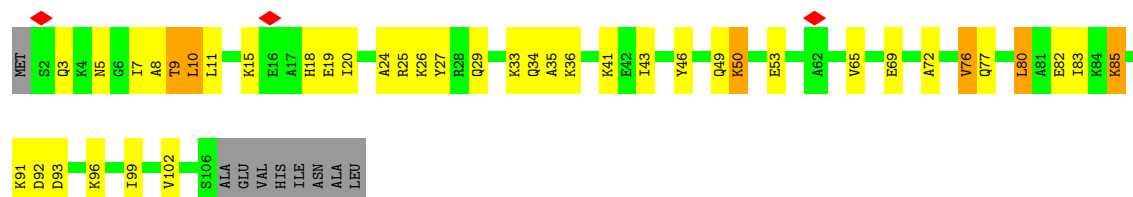




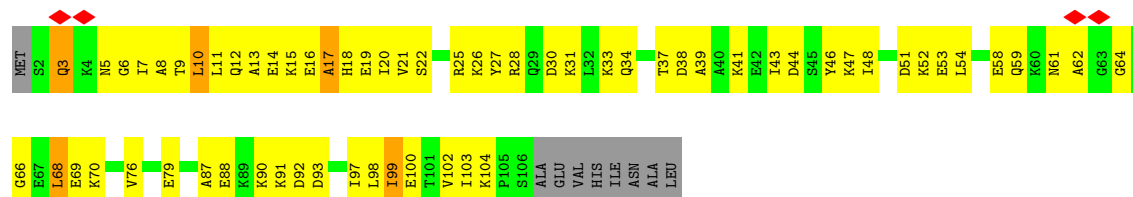
- Molecule 6: V-type proton ATPase subunit G



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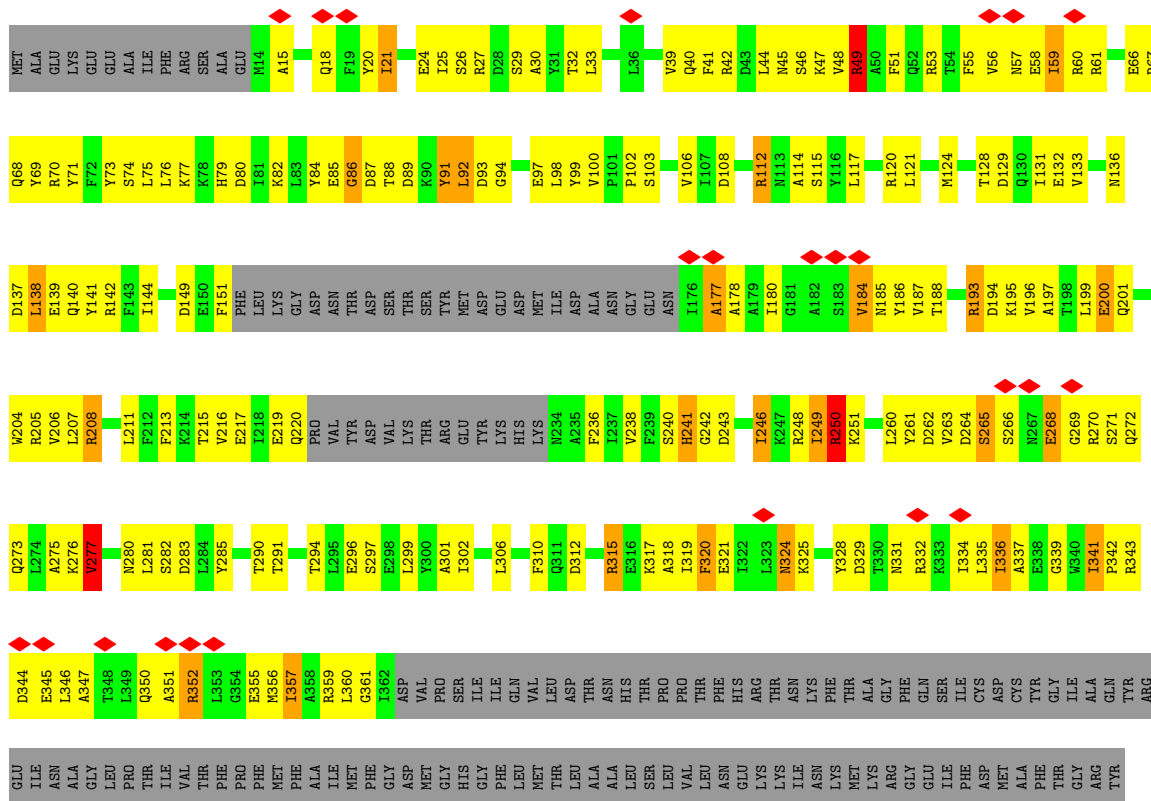


- Molecule 6: V-type proton ATPase subunit G



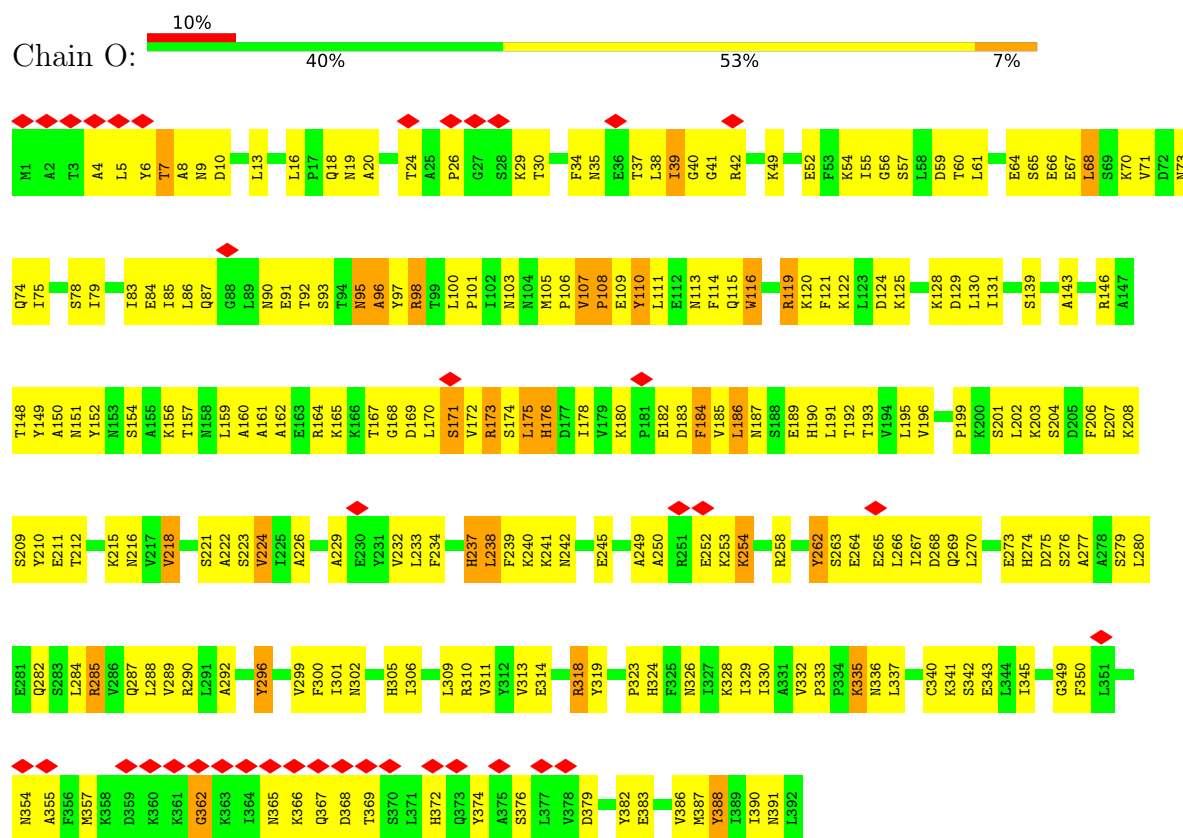
- Molecule 7: V-type proton ATPase subunit E



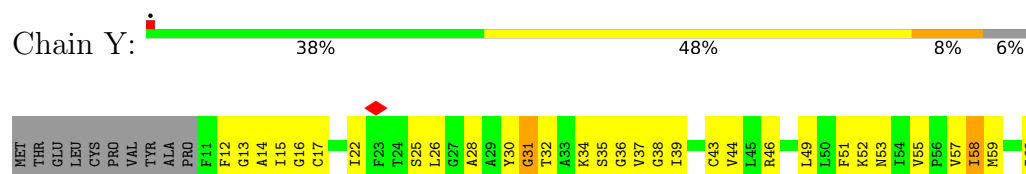


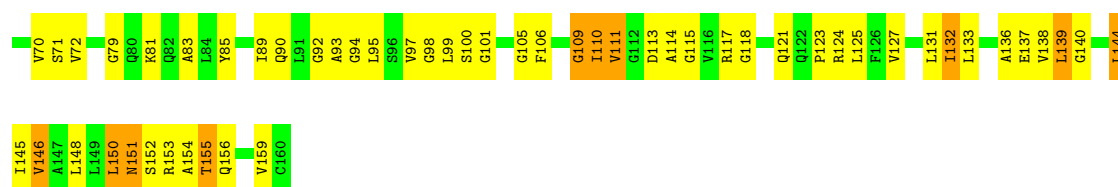
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Met	Val	Asp	Trp	Ser	Asn
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Val	Met	Gly	Leu	Cys	Leu
Ala	Thr	Asp	Leu	Ile	Phe
Ala	Val	Ile	Val	Val	Phe
Ala	Ala	Met	Lys	Tyr	Ser
Ser	Leu	Ile	Pro	Lys	Asn
Ala	Phe	His	Leu	Trp	Ser
Ser	Ala	Gln	His	Ala	Tyr
Ser	Met	Val	Phe	Val	Lys
Ala	Trp	His	Phe	Asp	Met
Ser	Phe	Ile	Thr	Val	Leu
Ser	Ala	Ile	His	Lys	Ser
Ser	Thr	Glu	Lys	Asp	Ile
	Cys	Phe	Lys	Gly	Ile
	Ala	Cys	Lys	Lys	Phe
	Val	Leu	Ser	Pro	Gly
	Val	Asn	His	Ala	Phe
	Leu	Cys	Glu	Pro	Ile
	Leu	Val	Pro	Gly	His
	Met	Ser	Leu	Leu	Met
	Glu	His	Pro	Leu	Thr
	Gly	Thr	Ser	Asn	Tyr
	Thr	Ala	Thr	Met	Lys
	Ser	Ser	Glu	Leu	Ser
	Ala	Tyr	Ala	Ile	Phe
	Met	Arg	Asp	Met	Phe
	Leu	Leu	Ala	Ser	Lys
	His	Leu	Ser	Phe	Trp
	Trp	Ala	Ser	Leu	Ala
	Val	Ala	Glu	Ser	Asn
	Val	His	Gln	Asp	Gly
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	Lys	Ser	Ala	Pro	Ile
	Phe	Val	Met	His	Thr
	Phe	Leu	Asp	Gln	Ser
	Val	Trp	Ala	Ala	Val
	Gly	Thr	Asp	Lys	Gly
	Glu	Met	Asp	Val	Thr
	Leu	Ile	Glu	Gln	Pro
	Pro	Gln	Glu	Val	Gly
	Tyr	Ile	Glu	Phe	Ile
	Glu	Ala	Glu	Leu	Gly
	Pro	Phe	Val	Leu	Leu
	Phe	Gly	Val	Met	Phe
	Ala	Phe	Ser	Gln	Leu
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	Glu	Gly	Ser	Val	Trp
					Ile
					Trp
					His

- Molecule 10: V-type proton ATPase subunit C

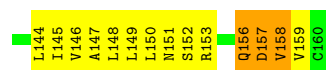


- Molecule 11: V-type proton ATPase subunit c

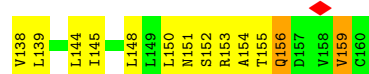




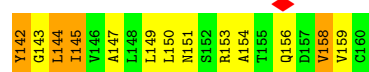
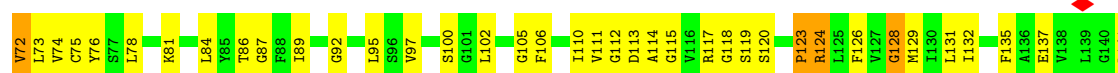
• Molecule 11: V-type proton ATPase subunit c



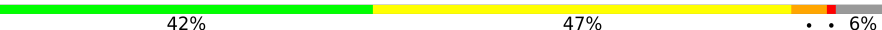
• Molecule 11: V-type proton ATPase subunit c



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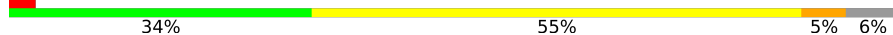


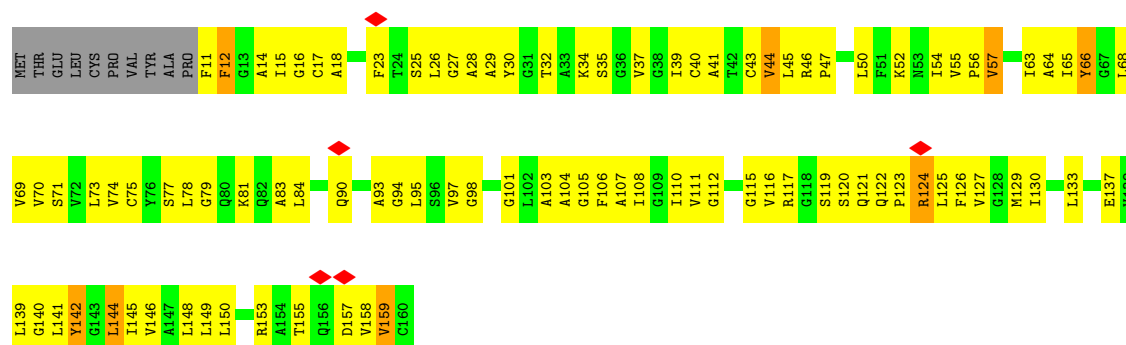
- Molecule 11: V-type proton ATPase subunit c

Chain T: 

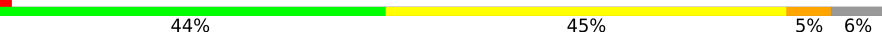


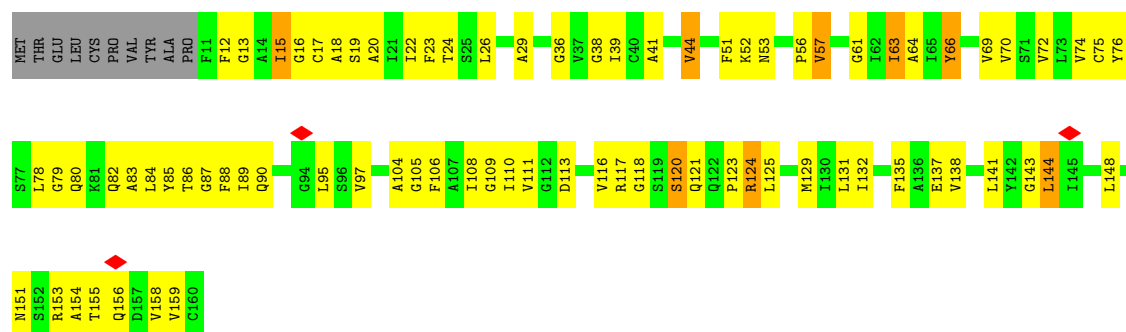
- Molecule 11: V-type proton ATPase subunit c

Chain W: 

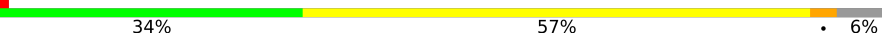


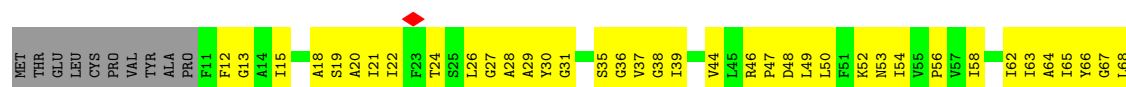
- Molecule 11: V-type proton ATPase subunit c

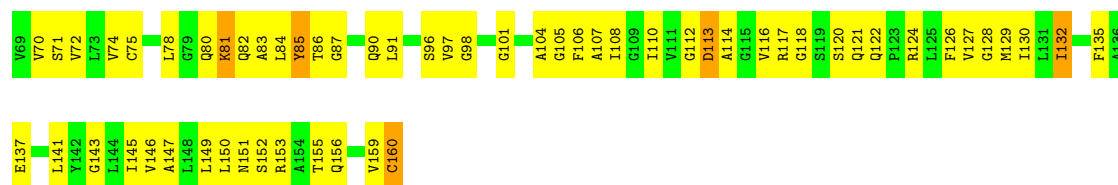
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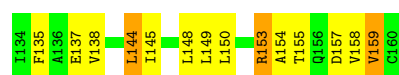
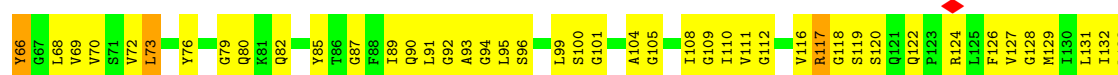
- Molecule 11: V-type proton ATPase subunit c

Chain X: 

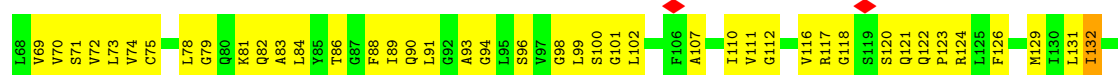
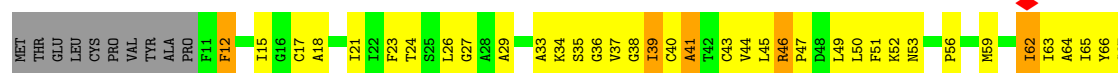




- Molecule 11: V-type proton ATPase subunit c



- Molecule 11: V-type proton ATPase subunit c



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	50503	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Each particle	Depositor
Microscope	FEI TECNAI F20	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	7000	Depositor
Magnification	34483	Depositor
Image detector	GATAN K2 (4k x 4k)	Depositor
Maximum map value	0.156	Depositor
Minimum map value	-0.048	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.010	Depositor
Recommended contour level	0.03	Depositor
Map size ($\text{\AA}$)	371.2, 371.2, 371.2	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.45, 1.45, 1.45	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	M	2.30	62/1710 (3.6%)	2.55	138/2295 (6.0%)
2	N	2.24	33/944 (3.5%)	2.41	67/1277 (5.2%)
3	A	2.29	184/4677 (3.9%)	2.52	341/6339 (5.4%)
3	C	2.26	167/4677 (3.6%)	2.42	308/6339 (4.9%)
3	E	2.33	191/4677 (4.1%)	2.50	332/6339 (5.2%)
4	B	2.29	142/3654 (3.9%)	2.50	274/4953 (5.5%)
4	D	2.26	139/3654 (3.8%)	2.50	256/4953 (5.2%)
4	F	2.30	151/3654 (4.1%)	2.50	249/4953 (5.0%)
5	Q	2.29	114/2861 (4.0%)	2.53	208/3880 (5.4%)
6	H	2.12	16/828 (1.9%)	2.41	38/1098 (3.5%)
6	J	2.17	28/828 (3.4%)	2.52	70/1098 (6.4%)
6	L	2.18	28/828 (3.4%)	2.44	57/1098 (5.2%)
7	G	2.31	69/1743 (4.0%)	2.48	111/2338 (4.7%)
7	I	2.22	63/1743 (3.6%)	2.42	108/2338 (4.6%)
7	K	2.24	63/1743 (3.6%)	2.46	120/2338 (5.1%)
8	P	2.27	137/3766 (3.6%)	2.64	338/5087 (6.6%)
9	b	2.27	99/2578 (3.8%)	2.54	184/3479 (5.3%)
10	O	2.28	129/3185 (4.1%)	2.51	244/4314 (5.7%)
11	R	2.25	41/1086 (3.8%)	2.85	121/1472 (8.2%)
11	S	2.20	33/1086 (3.0%)	2.70	92/1472 (6.2%)
11	T	2.22	45/1086 (4.1%)	2.60	85/1472 (5.8%)
11	U	2.23	36/1086 (3.3%)	2.80	116/1472 (7.9%)
11	V	2.35	49/1086 (4.5%)	2.66	103/1472 (7.0%)
11	W	2.30	48/1086 (4.4%)	2.83	130/1472 (8.8%)
11	X	2.30	41/1086 (3.8%)	2.77	112/1472 (7.6%)
11	Y	2.22	39/1086 (3.6%)	2.75	120/1472 (8.2%)
11	Z	2.28	48/1086 (4.4%)	2.64	100/1472 (6.8%)
11	a	2.27	36/1086 (3.3%)	2.69	106/1472 (7.2%)
All	All	2.27	2231/58610 (3.8%)	2.55	4528/79236 (5.7%)

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	M	0	7
2	N	0	2
3	A	0	11
3	C	0	14
3	E	0	12
4	B	0	13
4	D	0	13
4	F	0	11
5	Q	0	14
6	L	0	2
7	G	0	4
7	I	0	3
7	K	0	5
8	P	0	9
9	b	0	14
10	O	0	12
11	S	0	1
11	T	0	4
11	U	0	2
11	V	0	2
11	W	0	4
11	X	0	1
11	Z	0	2
11	a	0	2
All	All	0	164

All (2231) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	P	78	ILE	CA-CB	-15.14	1.46	1.54
3	E	175	PRO	CA-C	13.05	1.59	1.51
5	Q	200	ILE	CA-CB	-12.99	1.45	1.53
7	G	182	ASP	CA-C	-12.59	1.38	1.52
3	A	554	HIS	ND1-CE1	11.64	1.44	1.32
11	T	16	GLY	C-N	10.81	1.47	1.33
3	A	124	ILE	N-CA	-10.70	1.38	1.46
7	I	114	ARG	N-CA	-10.63	1.33	1.46
11	W	25	SER	CA-C	-10.59	1.39	1.52
10	O	391	ASN	CA-C	-10.46	1.40	1.52
4	B	94	GLU	CA-C	-10.44	1.39	1.52
10	O	238	LEU	N-CA	-10.22	1.34	1.46
3	C	461	SER	CA-C	-10.13	1.40	1.52
3	C	110	ARG	CD-NE	10.12	1.60	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	215	MET	C-N	10.04	1.43	1.33
5	Q	291	LEU	CA-C	-9.98	1.40	1.52
11	X	80	GLN	CA-C	-9.98	1.41	1.52
4	D	322	VAL	CA-C	-9.83	1.44	1.52
9	b	248	ARG	NE-CZ	9.80	1.43	1.33
3	A	254	ILE	CA-C	9.80	1.60	1.52
9	b	41	PHE	CA-C	-9.72	1.40	1.52
10	O	372	HIS	CA-C	-9.69	1.40	1.53
11	X	13	GLY	CA-C	-9.59	1.41	1.52
3	E	67	LYS	CA-C	-9.56	1.41	1.52
4	B	484	PHE	CA-C	-9.53	1.41	1.52
9	b	290	THR	CA-C	-9.53	1.40	1.52
3	A	254	ILE	N-CA	9.51	1.53	1.45
5	Q	65	THR	CA-C	-9.51	1.40	1.52
3	E	110	ARG	CD-NE	9.50	1.59	1.46
3	E	145	LYS	N-CA	-9.47	1.34	1.46
7	G	143	GLU	N-CA	-9.44	1.35	1.46
3	A	164	ASN	CA-C	-9.40	1.41	1.52
4	B	333	PRO	CA-C	9.38	1.64	1.52
8	P	455	ASN	CA-CB	9.19	1.68	1.53
11	W	39	ILE	CA-C	-9.07	1.41	1.52
1	M	32	LEU	CA-C	-9.04	1.40	1.52
1	M	178	ILE	C-O	-9.00	1.17	1.24
4	F	212	PHE	CA-C	-8.99	1.41	1.52
4	F	283	SER	CA-C	-8.99	1.40	1.52
7	K	184	VAL	CA-C	-8.97	1.41	1.52
10	O	59	ASP	CA-C	-8.96	1.41	1.52
6	J	37	THR	CA-C	-8.96	1.41	1.52
5	Q	63	LEU	CA-C	-8.92	1.42	1.52
11	R	56	PRO	CA-CB	-8.86	1.40	1.53
11	X	12	PHE	C-N	8.86	1.44	1.33
3	E	41	ILE	N-CA	-8.85	1.36	1.46
9	b	121	LEU	CA-C	-8.83	1.41	1.52
3	E	537	PHE	CA-C	-8.83	1.42	1.52
11	Z	69	VAL	C-N	8.82	1.45	1.33
4	B	30	THR	CA-C	-8.81	1.42	1.52
3	A	610	ARG	N-CA	-8.80	1.35	1.46
11	S	121	GLN	N-CA	-8.80	1.34	1.46
3	C	167	ILE	N-CA	-8.76	1.35	1.46
9	b	334	ILE	CA-CB	-8.75	1.45	1.54
4	B	433	LEU	N-CA	-8.71	1.35	1.46
7	K	125	ILE	CA-C	-8.70	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	588	GLU	CA-C	8.69	1.61	1.52
7	I	206	ARG	NE-CZ	8.64	1.42	1.33
4	D	201	HIS	CB-CG	-8.64	1.38	1.50
1	M	184	THR	C-N	8.63	1.44	1.34
4	F	232	ASN	C-N	8.63	1.43	1.33
3	E	49	VAL	CA-C	-8.56	1.42	1.52
11	R	152	SER	C-N	8.54	1.45	1.33
11	a	118	GLY	CA-C	-8.53	1.43	1.52
10	O	9	ASN	CA-C	-8.53	1.42	1.52
4	D	74	ARG	CD-NE	8.52	1.58	1.46
6	J	12	GLN	N-CA	8.52	1.56	1.46
4	B	204	HIS	ND1-CE1	8.51	1.41	1.32
3	E	301	TYR	CA-C	-8.51	1.42	1.52
4	B	318	ARG	CA-C	-8.49	1.42	1.53
4	D	53	VAL	CA-C	-8.45	1.42	1.52
4	F	56	THR	CA-C	-8.40	1.42	1.52
9	b	120	ARG	CA-C	-8.39	1.41	1.52
9	b	27	ARG	CD-NE	8.38	1.57	1.46
4	D	113	PHE	CA-C	-8.37	1.42	1.52
7	I	25	ARG	NE-CZ	8.37	1.42	1.33
11	V	44	VAL	C-N	8.37	1.45	1.33
4	F	322	VAL	CA-C	-8.36	1.42	1.52
3	E	268	SER	CA-CB	8.36	1.66	1.53
3	E	160	SER	CA-C	-8.34	1.42	1.52
4	B	307	TYR	CA-CB	8.34	1.64	1.53
9	b	100	VAL	CA-CB	-8.34	1.48	1.54
5	Q	329	CYS	CA-C	-8.31	1.42	1.52
7	G	160	TYR	C-N	8.30	1.44	1.33
3	E	211	LEU	CA-C	-8.28	1.42	1.52
3	A	427	VAL	C-N	8.23	1.45	1.33
3	E	81	VAL	CA-C	-8.23	1.43	1.52
4	F	465	LEU	N-CA	-8.22	1.35	1.46
11	X	38	GLY	CA-C	-8.21	1.42	1.52
11	V	113	ASP	CA-CB	8.20	1.66	1.53
4	D	319	ALA	C-N	8.19	1.39	1.33
11	Y	34	LYS	C-N	8.19	1.44	1.33
4	D	61	THR	N-CA	-8.11	1.35	1.46
8	P	355	SER	N-CA	-8.11	1.36	1.46
11	a	124	ARG	CD-NE	8.10	1.57	1.46
3	A	247	VAL	N-CA	-8.08	1.36	1.46
3	A	450	HIS	ND1-CE1	8.06	1.40	1.32
3	E	46	TYR	CA-CB	8.06	1.65	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	393	ARG	CA-C	-8.06	1.42	1.52
3	C	499	VAL	CA-CB	-8.03	1.45	1.54
4	F	223	ARG	CA-C	-8.02	1.42	1.52
3	C	434	ILE	C-N	8.01	1.44	1.33
3	A	171	LYS	CA-C	-8.00	1.42	1.52
11	S	87	GLY	CA-C	-7.99	1.40	1.51
5	Q	105	ASP	CA-CB	7.99	1.65	1.53
3	A	45	MET	CA-C	-7.96	1.42	1.53
11	V	89	ILE	CA-CB	-7.96	1.44	1.54
8	P	440	VAL	N-CA	-7.95	1.37	1.46
8	P	343	LYS	N-CA	7.94	1.55	1.46
4	B	349	LEU	CA-C	-7.94	1.42	1.52
11	U	122	GLN	C-N	7.94	1.41	1.33
11	Z	12	PHE	N-CA	-7.93	1.35	1.46
7	I	92	ARG	CA-C	7.93	1.63	1.52
11	R	67	GLY	CA-C	-7.90	1.43	1.52
3	C	495	LEU	C-N	7.90	1.44	1.33
11	V	118	GLY	C-N	7.89	1.43	1.33
11	S	113	ASP	CA-C	-7.89	1.43	1.52
8	P	155	LEU	CA-C	-7.88	1.43	1.52
3	A	27	ILE	N-CA	-7.88	1.37	1.46
7	G	163	LYS	CA-CB	7.88	1.66	1.54
4	B	426	SER	CA-C	-7.86	1.42	1.53
4	F	180	HIS	ND1-CE1	7.86	1.40	1.32
10	O	169	ASP	CA-C	-7.86	1.43	1.52
4	B	104	VAL	C-N	7.84	1.43	1.33
8	P	379	PHE	N-CA	7.84	1.55	1.46
11	R	122	GLN	CA-CB	7.84	1.62	1.53
4	F	273	HIS	ND1-CE1	7.83	1.40	1.32
8	P	301	ARG	CD-NE	7.82	1.57	1.46
3	E	167	ILE	C-N	7.81	1.44	1.33
9	b	39	VAL	CA-C	-7.81	1.43	1.52
4	F	484	PHE	CA-C	-7.81	1.43	1.52
11	a	35	SER	C-N	7.81	1.43	1.33
9	b	332	ARG	NE-CZ	7.80	1.41	1.33
3	A	272	TYR	N-CA	-7.79	1.36	1.46
3	A	592	GLY	CA-C	-7.79	1.40	1.51
4	D	367	LYS	CA-C	-7.79	1.42	1.52
7	K	198	GLU	CA-C	-7.79	1.43	1.52
3	E	304	MET	N-CA	-7.79	1.40	1.47
10	O	66	GLU	CA-C	-7.79	1.43	1.52
5	Q	83	ILE	CA-C	-7.79	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	J	100	GLU	CA-C	-7.79	1.42	1.52
4	F	227	GLN	CA-CB	7.78	1.65	1.53
1	M	121	ARG	NE-CZ	7.76	1.41	1.33
11	S	82	GLN	CA-C	-7.76	1.43	1.52
11	U	74	VAL	C-N	7.75	1.43	1.33
4	B	369	ILE	CA-CB	7.74	1.62	1.54
11	Y	14	ALA	CA-CB	7.74	1.65	1.53
11	W	155	THR	CA-CB	7.73	1.65	1.53
5	Q	239	SER	CA-C	-7.73	1.42	1.52
9	b	89	ASP	CA-C	-7.73	1.42	1.52
3	E	215	TRP	CA-C	-7.72	1.43	1.52
9	b	106	VAL	CA-C	-7.72	1.42	1.52
11	W	130	ILE	C-N	7.71	1.43	1.33
5	Q	217	ASP	CA-CB	7.71	1.65	1.53
10	O	184	PHE	CA-C	-7.69	1.44	1.52
4	D	311	ASP	CA-C	-7.68	1.42	1.52
6	J	12	GLN	CA-C	-7.67	1.42	1.52
3	E	475	TYR	CA-CB	7.67	1.65	1.53
10	O	208	LYS	N-CA	-7.67	1.37	1.46
11	T	81	LYS	CA-C	-7.67	1.42	1.52
4	F	128	ALA	CA-C	-7.66	1.42	1.52
2	N	105	LYS	C-N	7.66	1.44	1.33
10	O	266	LEU	C-N	7.64	1.43	1.33
3	A	359	ARG	CZ-NH1	7.63	1.43	1.32
3	A	179	ARG	CZ-NH1	7.63	1.43	1.32
4	B	405	ALA	N-CA	-7.63	1.37	1.46
11	S	105	GLY	CA-C	-7.62	1.43	1.52
4	D	272	ARG	NE-CZ	7.61	1.41	1.33
3	C	157	ILE	C-O	-7.59	1.15	1.24
4	D	41	LEU	CA-CB	7.59	1.65	1.53
4	B	32	SER	CA-C	-7.59	1.43	1.52
7	G	95	SER	C-N	7.58	1.43	1.33
3	A	416	VAL	CA-C	-7.57	1.43	1.52
3	C	599	GLU	CA-CB	7.57	1.65	1.53
1	M	162	VAL	CA-C	-7.57	1.43	1.52
3	A	418	PRO	CA-C	-7.56	1.43	1.52
3	E	314	ARG	CD-NE	7.56	1.56	1.46
3	A	64	ASP	CA-C	-7.56	1.43	1.52
3	C	29	SER	N-CA	-7.55	1.36	1.46
8	P	329	LYS	N-CA	-7.54	1.36	1.45
4	B	480	ILE	CA-C	-7.53	1.43	1.52
3	A	602	LYS	CA-C	-7.51	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	325	ARG	CD-NE	7.51	1.56	1.46
1	M	34	ARG	NE-CZ	7.51	1.41	1.33
11	T	130	ILE	CA-CB	-7.51	1.46	1.54
3	C	175	PRO	CA-C	7.50	1.59	1.52
9	b	193	ARG	CD-NE	7.50	1.56	1.46
9	b	271	SER	N-CA	-7.50	1.37	1.46
11	S	117	ARG	CD-NE	7.50	1.56	1.46
11	Z	80	GLN	CA-C	-7.50	1.43	1.52
8	P	83	LEU	CA-C	-7.49	1.43	1.52
4	F	475	ARG	CA-C	-7.48	1.42	1.52
2	N	82	ASP	N-CA	-7.48	1.37	1.46
11	V	114	ALA	N-CA	-7.48	1.36	1.46
11	V	150	LEU	N-CA	-7.48	1.37	1.46
4	F	362	ARG	NE-CZ	7.46	1.41	1.33
11	a	122	GLN	CA-C	-7.46	1.44	1.53
7	G	136	LYS	C-N	7.45	1.45	1.33
3	E	173	LEU	CA-C	-7.44	1.44	1.52
4	B	202	ASP	CA-C	-7.44	1.42	1.52
3	A	515	LEU	CA-C	-7.43	1.43	1.52
9	b	248	ARG	CD-NE	7.43	1.56	1.46
8	P	183	CYS	CA-CB	7.43	1.64	1.53
7	G	215	LEU	N-CA	-7.43	1.39	1.46
4	F	273	HIS	CG-CD2	7.42	1.44	1.35
3	C	206	LYS	CA-C	-7.42	1.43	1.52
7	K	122	GLN	CA-CB	7.42	1.64	1.53
3	A	251	THR	CA-C	7.41	1.61	1.52
4	D	422	GLU	CA-CB	7.41	1.63	1.53
4	D	77	VAL	CA-C	-7.41	1.43	1.52
2	N	111	ARG	NE-CZ	7.41	1.41	1.33
1	M	25	ALA	N-CA	-7.38	1.37	1.46
11	Z	49	LEU	C-N	7.38	1.44	1.33
1	M	28	GLY	C-N	7.37	1.43	1.33
10	O	196	VAL	CA-C	-7.37	1.43	1.52
4	F	211	VAL	CA-CB	-7.37	1.44	1.54
3	A	414	ALA	N-CA	-7.37	1.37	1.46
3	C	497	GLN	C-N	7.37	1.43	1.33
11	U	44	VAL	N-CA	-7.36	1.36	1.46
3	E	529	ASN	C-N	7.36	1.44	1.33
3	C	350	VAL	CA-C	-7.36	1.44	1.52
3	A	123	TYR	C-N	7.36	1.40	1.33
8	P	319	LEU	CA-C	-7.35	1.43	1.52
3	A	241	ASP	CA-C	7.35	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	D	73	ASP	C-N	7.35	1.42	1.33
9	b	30	ALA	C-N	7.35	1.43	1.33
11	U	14	ALA	C-N	7.34	1.42	1.33
4	F	363	GLN	CA-C	-7.33	1.43	1.52
7	K	109	GLY	CA-C	-7.33	1.43	1.52
10	O	68	LEU	CA-C	-7.32	1.43	1.52
10	O	249	ALA	CA-C	-7.31	1.43	1.52
4	B	374	ASN	CA-CB	7.31	1.64	1.53
4	F	393	ARG	CA-C	-7.31	1.43	1.53
4	B	354	THR	C-N	7.30	1.43	1.33
3	E	97	GLY	N-CA	7.30	1.54	1.44
3	E	68	ALA	CA-C	-7.29	1.44	1.52
3	C	482	ARG	CD-NE	7.29	1.56	1.46
8	P	309	ILE	N-CA	-7.29	1.37	1.46
4	F	31	VAL	CA-C	-7.28	1.44	1.52
11	V	54	ILE	C-N	7.28	1.41	1.33
7	G	113	ASN	N-CA	-7.28	1.37	1.46
11	X	83	ALA	CA-C	-7.28	1.43	1.52
11	Z	65	ILE	CA-CB	-7.28	1.44	1.54
11	W	153	ARG	CD-NE	7.27	1.56	1.46
3	C	272	TYR	C-N	7.26	1.43	1.33
4	D	224	PHE	C-N	7.26	1.43	1.33
3	C	233	LEU	CA-C	-7.26	1.43	1.52
1	M	147	VAL	CA-CB	-7.25	1.45	1.54
11	W	44	VAL	N-CA	-7.25	1.37	1.46
2	N	78	ARG	NE-CZ	7.24	1.41	1.33
11	Y	121	GLN	C-N	-7.23	1.28	1.33
4	B	207	ASN	N-CA	-7.22	1.36	1.45
4	F	153	THR	CA-C	-7.22	1.42	1.52
4	B	134	ILE	CA-CB	-7.22	1.46	1.54
11	U	159	VAL	CA-C	-7.22	1.43	1.52
8	P	340	SER	CA-C	-7.22	1.43	1.52
1	M	51	ASP	N-CA	-7.21	1.37	1.46
3	C	240	LEU	C-N	7.21	1.43	1.33
7	G	41	GLN	CA-CB	7.21	1.64	1.53
10	O	4	ALA	N-CA	-7.21	1.40	1.47
4	F	295	ARG	NE-CZ	7.20	1.41	1.33
3	E	547	MET	CA-C	-7.19	1.43	1.52
11	W	95	LEU	CA-CB	7.19	1.64	1.53
4	F	142	TYR	CA-C	-7.19	1.43	1.52
7	K	152	MET	N-CA	7.19	1.53	1.47
10	O	388	TYR	CA-C	-7.19	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	U	131	LEU	CA-C	-7.19	1.43	1.52
7	G	127	GLU	C-N	7.18	1.44	1.33
4	F	133	ASP	CA-C	-7.18	1.43	1.52
3	A	31	SER	CA-C	-7.18	1.44	1.52
3	A	314	ARG	NE-CZ	7.17	1.41	1.33
7	K	170	GLU	C-N	7.16	1.42	1.33
11	T	22	ILE	CA-CB	7.16	1.63	1.54
3	E	363	ALA	N-CA	-7.16	1.37	1.46
10	O	178	ILE	CA-C	7.16	1.62	1.53
2	N	64	ILE	N-CA	-7.16	1.37	1.46
1	M	42	ARG	CZ-NH2	7.15	1.42	1.33
3	A	254	ILE	CA-CB	-7.15	1.49	1.54
3	C	504	LYS	N-CA	-7.15	1.37	1.46
3	C	579	HIS	N-CA	-7.15	1.37	1.46
8	P	269	SER	CA-C	7.14	1.62	1.52
9	b	41	PHE	CA-CB	7.13	1.62	1.53
3	C	585	LYS	N-CA	-7.13	1.37	1.46
5	Q	84	ARG	N-CA	-7.13	1.37	1.46
10	O	329	ILE	CA-CB	-7.13	1.45	1.54
11	W	124	ARG	CD-NE	7.13	1.56	1.46
10	O	279	SER	C-N	7.12	1.43	1.33
3	A	493	GLU	CA-C	-7.12	1.43	1.52
4	D	258	LEU	CA-CB	7.12	1.64	1.53
8	P	181	ASP	CA-C	-7.11	1.43	1.52
4	D	302	ARG	NE-CZ	7.11	1.40	1.33
6	J	88	GLU	N-CA	-7.11	1.37	1.46
3	C	128	ILE	CA-C	-7.10	1.44	1.52
11	V	92	GLY	CA-C	-7.10	1.43	1.52
4	B	39	VAL	CA-C	-7.10	1.43	1.52
3	E	307	THR	N-CA	-7.10	1.37	1.46
6	H	99	ILE	CA-C	-7.10	1.44	1.52
8	P	18	SER	CA-C	-7.09	1.43	1.52
3	C	450	HIS	N-CA	-7.08	1.41	1.47
7	I	166	ARG	CD-NE	7.08	1.56	1.46
4	D	240	LEU	CA-C	-7.07	1.44	1.52
11	X	62	ILE	CA-C	-7.07	1.43	1.52
11	a	46	ARG	CD-NE	7.07	1.56	1.46
4	F	88	VAL	N-CA	-7.07	1.37	1.46
4	B	348	ASP	CA-C	-7.07	1.44	1.52
4	B	377	PRO	C-N	7.07	1.42	1.33
3	C	200	VAL	CA-CB	-7.06	1.45	1.54
8	P	349	GLU	CA-C	-7.06	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	a	47	PRO	C-O	-7.05	1.16	1.23
4	F	137	SER	CA-CB	7.05	1.62	1.53
5	Q	221	ILE	N-CA	-7.05	1.37	1.46
4	D	221	THR	CA-C	-7.05	1.43	1.52
3	C	355	ASP	N-CA	-7.05	1.38	1.46
10	O	241	LYS	CA-C	-7.04	1.43	1.52
11	T	66	TYR	C-N	7.04	1.42	1.33
3	C	377	ASP	CA-CB	7.04	1.62	1.53
4	B	102	ILE	N-CA	-7.04	1.40	1.46
8	P	332	ASP	CA-CB	7.04	1.65	1.53
5	Q	337	ARG	CD-NE	7.03	1.56	1.46
3	A	62	ARG	CA-C	-7.03	1.44	1.52
7	I	134	GLU	CA-CB	7.03	1.63	1.54
3	A	439	TRP	CA-C	-7.02	1.44	1.52
3	E	286	ARG	CD-NE	7.02	1.56	1.46
7	K	155	ASP	CA-C	-7.01	1.43	1.52
7	I	153	LYS	C-N	7.01	1.42	1.33
4	F	185	ALA	C-N	7.01	1.43	1.33
7	G	78	SER	C-N	7.01	1.43	1.34
10	O	365	ASN	C-N	7.00	1.42	1.33
11	X	98	GLY	N-CA	-7.00	1.37	1.45
11	V	126	PHE	C-N	7.00	1.42	1.33
4	D	320	GLY	CA-C	-7.00	1.44	1.52
7	G	126	VAL	C-N	7.00	1.43	1.33
3	E	439	TRP	N-CA	-7.00	1.38	1.46
4	F	449	TYR	CA-C	-7.00	1.44	1.52
4	B	405	ALA	C-N	6.99	1.43	1.33
5	Q	155	ASP	CA-CB	6.99	1.63	1.53
11	W	144	LEU	N-CA	6.98	1.54	1.46
3	E	325	PRO	N-CA	-6.98	1.38	1.47
4	D	458	LEU	N-CA	6.98	1.54	1.46
8	P	322	VAL	C-N	6.97	1.43	1.33
11	T	43	CYS	CA-C	-6.97	1.43	1.52
4	F	366	ASN	CA-CB	6.97	1.64	1.53
4	F	171	PRO	N-CA	-6.96	1.40	1.46
4	F	348	ASP	CA-CB	6.96	1.64	1.53
11	S	124	ARG	CD-NE	6.96	1.55	1.46
4	F	395	ASP	CA-CB	6.95	1.65	1.53
11	T	112	GLY	CA-C	6.95	1.59	1.51
7	K	175	SER	CA-C	-6.94	1.43	1.52
4	D	257	ARG	NE-CZ	6.94	1.40	1.33
11	V	69	VAL	C-N	6.94	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	K	195	ASP	CA-CB	6.94	1.63	1.53
1	M	180	ARG	CZ-NH2	6.94	1.42	1.33
3	E	45	MET	N-CA	-6.93	1.37	1.46
3	A	359	ARG	CD-NE	6.93	1.55	1.46
3	C	254	ILE	CA-CB	-6.93	1.49	1.54
6	H	53	GLU	CA-C	-6.93	1.43	1.52
9	b	329	ASP	C-N	6.93	1.42	1.33
3	A	244	PHE	CA-CB	6.93	1.60	1.53
4	D	401	ASN	CA-CB	6.93	1.64	1.53
4	F	289	ARG	NE-CZ	6.92	1.40	1.33
4	B	171	PRO	N-CA	-6.92	1.40	1.46
3	E	516	ASP	C-N	6.92	1.42	1.33
10	O	149	TYR	N-CA	-6.92	1.37	1.46
4	D	315	ILE	CA-C	-6.91	1.43	1.52
4	F	198	LYS	N-CA	-6.90	1.37	1.46
11	V	50	LEU	N-CA	-6.90	1.38	1.46
7	K	89	LEU	N-CA	-6.89	1.38	1.46
11	S	138	VAL	CA-CB	6.89	1.63	1.54
4	B	264	GLU	C-N	6.89	1.42	1.33
11	X	24	THR	C-N	6.88	1.42	1.33
11	Y	124	ARG	NE-CZ	6.88	1.40	1.33
3	A	546	MET	C-N	6.88	1.43	1.34
3	A	165	SER	C-N	6.87	1.43	1.33
3	E	282	GLY	CA-C	-6.87	1.46	1.51
7	G	99	ILE	CA-CB	-6.87	1.46	1.54
7	G	158	ARG	CD-NE	6.87	1.55	1.46
7	G	158	ARG	NE-CZ	6.87	1.40	1.33
3	E	179	ARG	CD-NE	6.86	1.55	1.46
5	Q	118	ARG	CD-NE	6.86	1.55	1.46
10	O	386	VAL	N-CA	-6.86	1.39	1.46
11	V	117	ARG	NE-CZ	6.86	1.40	1.33
3	A	609	GLU	C-N	6.86	1.43	1.33
11	V	44	VAL	CA-C	-6.86	1.43	1.53
3	E	221	ARG	C-N	6.85	1.42	1.33
6	H	50	LYS	CA-C	-6.84	1.43	1.52
4	D	183	ILE	CA-CB	6.84	1.63	1.54
10	O	252	GLU	CA-C	-6.84	1.43	1.52
11	X	156	GLN	C-N	6.83	1.43	1.33
4	D	471	GLU	CA-C	-6.83	1.43	1.52
10	O	8	ALA	CA-C	-6.83	1.43	1.52
4	F	396	HIS	ND1-CE1	6.83	1.39	1.32
1	M	79	ILE	C-O	-6.82	1.16	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	b	321	GLU	N-CA	-6.82	1.38	1.46
11	R	29	ALA	N-CA	-6.82	1.38	1.46
3	C	436	GLN	CA-C	-6.82	1.43	1.52
11	a	27	GLY	N-CA	6.82	1.54	1.45
11	U	83	ALA	CA-C	-6.82	1.43	1.53
7	I	210	LEU	N-CA	-6.81	1.38	1.46
4	B	206	GLU	C-N	6.81	1.42	1.33
4	D	402	GLN	CA-CB	-6.81	1.42	1.53
4	F	230	GLU	CA-C	-6.81	1.44	1.52
6	L	35	ALA	N-CA	-6.81	1.38	1.46
8	P	419	ILE	CA-C	6.81	1.61	1.52
2	N	50	ILE	C-N	6.80	1.43	1.33
3	C	579	HIS	CA-C	-6.80	1.44	1.52
8	P	281	THR	N-CA	-6.80	1.37	1.45
11	V	72	VAL	C-N	6.80	1.42	1.33
1	M	175	HIS	ND1-CE1	6.80	1.39	1.32
4	F	424	ALA	C-N	6.79	1.42	1.33
3	A	248	GLN	N-CA	-6.79	1.37	1.46
3	E	574	THR	CA-C	-6.79	1.44	1.52
5	Q	35	GLN	C-O	-6.79	1.16	1.24
11	Y	145	ILE	C-O	-6.79	1.16	1.24
3	A	399	VAL	CA-C	-6.79	1.44	1.52
11	U	159	VAL	N-CA	-6.79	1.37	1.46
3	C	409	SER	CA-C	-6.78	1.44	1.52
4	D	377	PRO	N-CA	-6.78	1.39	1.47
11	X	117	ARG	CZ-NH2	6.78	1.42	1.33
7	K	198	GLU	C-O	-6.78	1.15	1.23
11	T	96	SER	N-CA	-6.78	1.38	1.46
3	A	428	THR	CA-C	-6.77	1.44	1.52
3	E	345	ASP	N-CA	6.77	1.55	1.46
10	O	388	TYR	C-N	6.77	1.42	1.33
8	P	97	GLN	CA-C	-6.77	1.44	1.52
3	E	301	TYR	C-N	6.77	1.42	1.33
8	P	325	LEU	C-N	6.77	1.42	1.33
5	Q	36	CYS	CA-CB	6.77	1.64	1.53
3	C	62	ARG	NE-CZ	6.76	1.40	1.33
10	O	265	GLU	CA-CB	6.76	1.64	1.53
8	P	245	HIS	CB-CG	-6.76	1.40	1.50
11	W	55	VAL	CA-CB	-6.76	1.45	1.54
11	S	72	VAL	CA-CB	6.75	1.61	1.54
4	F	144	ARG	CD-NE	6.75	1.55	1.46
3	E	450	HIS	ND1-CE1	6.75	1.39	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	M	49	ARG	NE-CZ	6.75	1.40	1.33
4	F	169	LYS	CA-CB	6.75	1.63	1.53
10	O	349	GLY	CA-C	-6.75	1.43	1.52
4	D	478	PRO	C-N	6.74	1.42	1.33
11	a	74	VAL	C-N	6.74	1.42	1.33
11	Z	112	GLY	C-N	6.74	1.42	1.33
3	A	105	TYR	CA-C	-6.73	1.44	1.52
4	B	131	TYR	CA-CB	6.73	1.62	1.53
1	M	14	THR	C-N	6.73	1.42	1.33
4	D	32	SER	C-N	6.73	1.42	1.33
8	P	250	ILE	CA-CB	-6.73	1.46	1.54
11	W	122	GLN	C-N	6.73	1.39	1.33
8	P	374	HIS	ND1-CE1	6.72	1.39	1.32
4	F	70	ILE	CA-C	-6.72	1.44	1.52
11	W	110	ILE	CA-C	6.71	1.61	1.52
4	D	318	ARG	CD-NE	6.71	1.55	1.46
11	V	137	GLU	C-N	6.71	1.42	1.33
3	C	110	ARG	CA-C	-6.71	1.47	1.52
9	b	70	ARG	CD-NE	6.71	1.55	1.46
11	X	152	SER	CA-CB	6.71	1.63	1.53
3	E	38	GLU	N-CA	-6.71	1.37	1.45
3	C	183	THR	CA-C	-6.70	1.44	1.52
6	L	58	GLU	C-O	-6.70	1.15	1.24
8	P	37	SER	CA-C	-6.70	1.44	1.52
3	A	486	LYS	CA-C	-6.70	1.44	1.52
2	N	6	THR	C-N	6.70	1.43	1.33
4	B	426	SER	CA-CB	6.70	1.64	1.53
3	E	363	ALA	CA-CB	6.69	1.64	1.53
8	P	209	LYS	CA-C	-6.69	1.44	1.52
6	H	27	TYR	CA-C	-6.69	1.44	1.52
11	W	16	GLY	CA-C	-6.69	1.44	1.52
6	H	96	LYS	N-CA	-6.68	1.38	1.46
5	Q	64	THR	CA-C	-6.68	1.44	1.53
11	a	124	ARG	NE-CZ	6.68	1.40	1.33
6	L	25	ARG	NE-CZ	6.68	1.40	1.33
3	A	219	VAL	CA-C	-6.67	1.47	1.52
10	O	125	LYS	CA-CB	6.67	1.64	1.53
1	M	156	PHE	C-N	6.67	1.42	1.33
6	L	78	GLY	C-N	6.67	1.43	1.33
4	D	153	THR	CA-C	6.67	1.61	1.52
3	E	585	LYS	CA-C	-6.67	1.43	1.52
8	P	5	LYS	CA-C	-6.67	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	215	TRP	NE1-CE2	-6.66	1.30	1.37
8	P	458	ASP	N-CA	-6.66	1.37	1.46
11	V	81	LYS	CA-C	-6.66	1.44	1.52
3	E	141	PHE	CA-C	-6.66	1.44	1.52
10	O	125	LYS	CA-C	6.65	1.61	1.52
11	X	121	GLN	C-N	6.65	1.42	1.33
4	B	393	ARG	C-N	6.65	1.42	1.34
7	I	51	VAL	CA-C	-6.65	1.44	1.52
3	C	307	THR	C-N	6.65	1.41	1.33
4	F	384	LYS	CA-C	-6.64	1.44	1.52
8	P	1	MET	C-N	6.64	1.41	1.32
4	B	281	MET	C-N	6.64	1.42	1.33
4	F	220	GLU	N-CA	-6.64	1.38	1.46
4	B	79	VAL	CA-C	-6.64	1.44	1.52
11	Y	131	LEU	CA-CB	6.64	1.63	1.53
11	X	44	VAL	CA-C	-6.63	1.46	1.53
7	K	144	ARG	CD-NE	6.63	1.55	1.46
5	Q	73	SER	C-N	6.63	1.42	1.33
11	R	27	GLY	CA-C	-6.63	1.44	1.51
11	V	41	ALA	CA-C	-6.63	1.44	1.52
11	Z	91	LEU	N-CA	-6.63	1.38	1.46
4	B	309	TYR	CA-C	-6.63	1.44	1.52
4	F	314	THR	CA-CB	6.63	1.63	1.53
2	N	105	LYS	N-CA	-6.62	1.38	1.46
4	B	231	GLU	C-N	6.62	1.43	1.33
9	b	132	GLU	C-N	6.62	1.42	1.33
8	P	73	ASN	C-N	6.61	1.43	1.33
3	E	27	ILE	CA-C	-6.61	1.45	1.52
11	Y	150	LEU	CA-C	-6.61	1.44	1.52
5	Q	342	ILE	CA-C	6.61	1.60	1.52
5	Q	211	LEU	CA-C	-6.60	1.43	1.52
3	E	336	GLY	C-N	6.60	1.41	1.33
11	R	118	GLY	N-CA	-6.60	1.37	1.45
9	b	42	ARG	NE-CZ	6.60	1.40	1.33
3	E	218	ARG	CZ-NH2	6.60	1.42	1.33
9	b	55	PHE	N-CA	-6.59	1.38	1.46
11	T	124	ARG	CD-NE	6.59	1.55	1.46
9	b	100	VAL	C-O	6.58	1.30	1.23
3	A	242	ALA	CA-C	-6.58	1.44	1.52
5	Q	180	ILE	CA-C	-6.58	1.44	1.52
11	a	91	LEU	N-CA	-6.58	1.38	1.46
4	B	90	LYS	N-CA	-6.58	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	a	98	GLY	CA-C	6.58	1.59	1.52
9	b	331	ASN	C-N	6.58	1.43	1.33
9	b	180	ILE	C-N	6.58	1.42	1.33
10	O	324	HIS	CB-CG	6.58	1.59	1.50
11	X	124	ARG	CD-NE	6.57	1.55	1.46
3	C	370	ARG	CA-C	-6.57	1.44	1.52
3	E	461	SER	CA-CB	6.57	1.65	1.53
4	F	156	SER	N-CA	-6.57	1.38	1.46
4	F	270	THR	CA-C	-6.57	1.44	1.52
10	O	160	ALA	C-N	6.57	1.42	1.33
11	T	34	LYS	N-CA	-6.57	1.38	1.46
1	M	59	ARG	N-CA	6.56	1.54	1.46
11	U	117	ARG	CD-NE	6.56	1.55	1.46
4	B	355	GLU	CA-C	-6.56	1.46	1.53
6	L	43	ILE	CA-CB	-6.56	1.45	1.54
3	A	126	ARG	NE-CZ	6.56	1.40	1.33
3	C	328	ALA	N-CA	-6.56	1.38	1.46
3	C	475	TYR	CA-CB	6.55	1.63	1.53
3	A	193	LEU	C-N	6.54	1.42	1.33
4	B	329	ILE	C-O	-6.54	1.17	1.24
3	C	138	LYS	C-N	6.54	1.42	1.33
4	D	317	GLU	CA-C	6.54	1.61	1.52
5	Q	168	THR	CA-CB	-6.54	1.42	1.53
5	Q	306	ILE	C-N	6.54	1.42	1.33
5	Q	334	GLN	N-CA	-6.53	1.37	1.45
11	R	107	ALA	C-O	-6.53	1.16	1.24
1	M	100	ASN	CA-CB	6.53	1.62	1.53
7	I	85	ARG	NE-CZ	6.52	1.40	1.33
5	Q	42	LEU	C-N	6.52	1.42	1.33
3	A	540	ILE	CA-CB	-6.52	1.46	1.54
3	C	325	PRO	CA-CB	6.52	1.62	1.53
11	T	103	ALA	C-N	6.52	1.42	1.33
8	P	220	ARG	NE-CZ	6.52	1.40	1.33
4	D	479	LYS	N-CA	-6.51	1.38	1.46
8	P	317	ASN	CA-C	-6.51	1.45	1.53
5	Q	119	ASP	CA-CB	6.51	1.63	1.53
4	F	310	THR	CA-C	-6.50	1.44	1.52
10	O	95	ASN	CA-CB	6.50	1.64	1.53
11	V	74	VAL	N-CA	6.50	1.54	1.46
5	Q	295	LEU	N-CA	-6.50	1.38	1.46
11	V	14	ALA	C-N	6.50	1.41	1.33
11	W	55	VAL	N-CA	-6.50	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	195	ARG	C-N	6.49	1.41	1.34
8	P	23	ARG	CZ-NH2	6.49	1.41	1.33
2	N	72	HIS	ND1-CE1	6.49	1.39	1.32
10	O	16	LEU	CA-CB	6.49	1.62	1.53
6	L	32	LEU	N-CA	-6.48	1.38	1.46
8	P	352	GLU	N-CA	-6.48	1.37	1.46
10	O	39	ILE	CA-C	-6.48	1.44	1.52
6	H	25	ARG	CD-NE	6.48	1.55	1.46
7	K	52	ARG	CZ-NH2	6.48	1.41	1.33
9	b	91	TYR	C-N	6.48	1.43	1.33
11	R	22	ILE	CA-C	-6.48	1.44	1.52
9	b	67	ARG	C-N	6.48	1.42	1.33
7	I	8	LEU	N-CA	6.48	1.58	1.46
11	V	110	ILE	C-N	6.47	1.42	1.34
7	G	48	THR	N-CA	6.47	1.54	1.46
11	Y	28	ALA	CA-C	-6.47	1.44	1.52
3	E	226	LYS	CA-CB	6.47	1.62	1.53
11	Z	153	ARG	NE-CZ	6.47	1.40	1.33
3	E	36	ILE	CA-C	-6.47	1.45	1.52
3	E	110	ARG	CZ-NH2	6.47	1.41	1.33
4	F	291	VAL	CA-CB	-6.46	1.45	1.54
3	C	78	GLY	C-N	6.46	1.42	1.33
4	D	321	ARG	N-CA	-6.46	1.37	1.46
4	F	272	ARG	CZ-NH1	6.46	1.41	1.32
5	Q	171	GLU	CA-C	-6.46	1.45	1.53
8	P	289	LEU	N-CA	-6.46	1.38	1.46
11	U	31	GLY	N-CA	-6.46	1.38	1.45
11	a	124	ARG	CZ-NH1	6.46	1.41	1.32
8	P	460	ARG	NE-CZ	6.46	1.40	1.33
3	C	233	LEU	CA-CB	6.46	1.62	1.53
4	B	307	TYR	N-CA	-6.45	1.38	1.46
7	K	102	GLU	C-N	6.45	1.42	1.33
11	Y	30	TYR	C-N	6.45	1.41	1.33
11	R	92	GLY	C-N	6.45	1.42	1.33
11	S	41	ALA	CA-C	-6.45	1.44	1.52
4	B	218	ASN	N-CA	-6.45	1.38	1.45
7	G	116	GLU	CA-C	6.45	1.61	1.52
3	A	366	GLU	C-N	6.45	1.42	1.33
3	A	518	ALA	CA-CB	6.45	1.63	1.53
7	I	68	LYS	N-CA	-6.44	1.38	1.46
7	I	65	LYS	C-N	6.44	1.42	1.33
1	M	97	ARG	CD-NE	6.43	1.55	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	Z	93	ALA	N-CA	-6.43	1.38	1.46
7	K	92	ARG	CD-NE	6.43	1.55	1.46
11	Y	65	ILE	C-N	6.43	1.42	1.33
7	K	158	ARG	NE-CZ	6.43	1.40	1.33
11	R	110	ILE	CA-CB	-6.43	1.47	1.54
3	E	72	VAL	CA-CB	-6.43	1.46	1.54
1	M	98	GLN	CA-C	-6.42	1.45	1.52
5	Q	308	THR	CA-C	-6.42	1.44	1.52
11	a	81	LYS	CA-CB	6.42	1.64	1.53
3	A	157	ILE	CA-C	-6.42	1.45	1.52
4	D	56	THR	CA-C	-6.42	1.45	1.52
11	T	93	ALA	CA-C	-6.42	1.44	1.52
3	E	170	HIS	ND1-CE1	6.42	1.39	1.32
10	O	74	GLN	CA-C	-6.42	1.44	1.52
3	E	441	LEU	CA-C	-6.42	1.44	1.52
3	A	90	LYS	N-CA	-6.41	1.39	1.46
3	E	184	TRP	CA-C	-6.41	1.44	1.52
11	Z	64	ALA	CA-C	6.41	1.61	1.52
1	M	119	ASP	C-N	6.41	1.42	1.33
3	C	251	THR	CA-C	-6.41	1.44	1.52
11	V	105	GLY	C-N	6.41	1.42	1.33
11	a	79	GLY	CA-C	-6.41	1.44	1.52
8	P	139	VAL	CA-CB	-6.40	1.46	1.54
10	O	129	ASP	CA-C	-6.40	1.44	1.52
3	C	384	LEU	CA-CB	6.40	1.63	1.53
3	C	509	ASP	CA-C	-6.40	1.44	1.52
4	B	220	GLU	C-O	-6.40	1.16	1.24
4	B	120	ILE	CA-CB	-6.39	1.47	1.54
9	b	211	LEU	CA-C	-6.39	1.44	1.52
5	Q	321	ARG	CZ-NH1	6.38	1.41	1.32
1	M	12	ARG	CZ-NH1	6.38	1.41	1.32
4	D	106	GLU	N-CA	6.38	1.53	1.46
4	D	130	ASP	CA-C	-6.38	1.44	1.52
4	F	294	ALA	C-N	6.38	1.42	1.33
4	B	428	GLU	CA-C	-6.38	1.44	1.52
5	Q	228	LEU	CA-CB	6.38	1.61	1.53
11	S	19	SER	N-CA	-6.38	1.38	1.46
4	D	166	ARG	CD-NE	6.38	1.55	1.46
6	L	14	GLU	C-N	6.38	1.42	1.33
4	B	165	ALA	N-CA	-6.37	1.38	1.45
3	C	365	ARG	CD-NE	6.37	1.55	1.46
3	C	303	GLU	CA-CB	6.37	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	357	SER	CA-C	-6.37	1.43	1.52
11	T	123	PRO	CA-C	-6.37	1.43	1.52
4	B	256	PRO	N-CA	-6.37	1.39	1.47
10	O	157	THR	N-CA	-6.37	1.38	1.46
1	M	68	LEU	C-N	6.37	1.42	1.33
5	Q	329	CYS	CA-CB	6.37	1.63	1.53
11	a	45	LEU	CA-C	6.36	1.60	1.52
8	P	314	LEU	N-CA	6.35	1.53	1.46
8	P	455	ASN	N-CA	-6.35	1.38	1.46
7	I	121	LEU	CA-CB	6.35	1.63	1.53
11	R	156	GLN	C-N	6.35	1.42	1.33
11	V	76	TYR	CA-CB	6.35	1.63	1.53
4	B	38	LEU	N-CA	-6.35	1.38	1.46
9	b	241	HIS	CE1-NE2	6.35	1.38	1.32
3	A	69	THR	CA-C	-6.35	1.45	1.52
6	L	17	ALA	C-O	-6.35	1.16	1.24
3	A	499	VAL	C-O	6.34	1.31	1.24
4	D	450	GLU	CA-CB	6.34	1.63	1.53
9	b	346	LEU	CA-C	-6.34	1.44	1.52
10	O	5	LEU	C-N	6.34	1.42	1.33
11	T	158	VAL	C-N	6.34	1.42	1.33
3	A	396	GLY	CA-C	-6.34	1.45	1.51
3	A	571	ALA	N-CA	-6.34	1.38	1.46
5	Q	48	SER	CA-C	-6.34	1.44	1.52
7	K	222	LEU	CA-C	-6.34	1.43	1.52
11	S	12	PHE	C-N	6.34	1.41	1.33
8	P	428	THR	CA-C	-6.33	1.44	1.52
11	X	153	ARG	CZ-NH2	6.33	1.41	1.33
4	F	450	GLU	CA-C	-6.33	1.45	1.52
3	E	410	VAL	CA-CB	-6.32	1.46	1.54
5	Q	276	ARG	NE-CZ	6.32	1.40	1.33
10	O	305	HIS	C-N	6.32	1.41	1.33
4	F	208	PHE	N-CA	-6.32	1.38	1.46
3	A	158	TYR	C-N	6.32	1.39	1.33
4	D	196	PRO	CA-CB	6.32	1.62	1.53
11	X	46	ARG	NE-CZ	6.32	1.40	1.33
1	M	173	ILE	C-N	6.31	1.42	1.33
3	C	149	GLY	CA-C	6.31	1.59	1.51
3	E	581	VAL	C-O	-6.31	1.16	1.24
4	D	178	LEU	N-CA	-6.31	1.40	1.45
7	G	78	SER	CA-C	-6.30	1.44	1.52
3	E	180	GLY	C-N	6.30	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	G	83	LYS	CA-C	-6.30	1.44	1.52
1	M	197	ARG	CZ-NH1	6.30	1.41	1.32
4	B	476	ILE	CA-C	-6.29	1.44	1.52
4	D	195	ARG	CD-NE	6.29	1.55	1.46
11	W	28	ALA	N-CA	-6.29	1.38	1.46
11	a	132	ILE	N-CA	-6.29	1.39	1.46
9	b	97	GLU	C-N	6.29	1.42	1.33
3	C	391	PHE	CA-C	-6.29	1.44	1.52
7	G	114	ARG	NE-CZ	6.29	1.40	1.33
3	A	130	THR	N-CA	-6.28	1.40	1.45
3	E	485	MET	C-N	6.28	1.42	1.33
9	b	319	ILE	CA-CB	6.28	1.61	1.54
7	I	112	ASN	CA-C	-6.28	1.43	1.52
11	V	89	ILE	C-N	6.28	1.42	1.33
3	C	199	GLU	C-N	6.28	1.42	1.33
11	Z	23	PHE	N-CA	-6.28	1.38	1.46
3	E	147	GLN	N-CA	-6.28	1.38	1.45
4	F	132	LEU	N-CA	6.27	1.53	1.46
4	F	350	THR	C-O	-6.27	1.16	1.24
9	b	59	ILE	CA-C	-6.27	1.44	1.52
7	G	25	ARG	NE-CZ	6.27	1.40	1.33
7	G	86	LEU	CA-CB	6.27	1.63	1.53
4	D	119	PRO	C-N	6.27	1.39	1.33
7	K	101	GLU	C-N	6.27	1.42	1.33
3	C	204	GLY	C-N	6.27	1.42	1.33
9	b	32	THR	C-N	6.27	1.41	1.33
10	O	387	MET	CA-C	-6.26	1.45	1.52
8	P	369	CYS	CA-C	-6.26	1.44	1.52
3	E	329	ARG	C-O	-6.26	1.16	1.24
7	G	12	GLN	CA-C	-6.26	1.44	1.52
8	P	375	VAL	CA-C	-6.26	1.44	1.52
9	b	58	GLU	CA-C	-6.26	1.44	1.52
3	A	103	THR	C-N	6.25	1.41	1.33
4	B	266	LEU	CA-C	-6.25	1.44	1.52
3	C	140	GLN	CA-CB	6.25	1.61	1.53
3	E	111	PRO	CA-C	-6.25	1.45	1.52
11	W	144	LEU	CA-C	6.25	1.61	1.52
1	M	159	LEU	CA-CB	6.25	1.63	1.53
4	D	83	THR	C-O	-6.25	1.17	1.24
3	C	545	ASP	CA-C	-6.25	1.44	1.52
4	D	406	LYS	CA-C	-6.25	1.44	1.52
11	a	122	GLN	CA-CB	6.25	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	458	VAL	N-CA	-6.24	1.38	1.46
4	D	186	GLN	C-N	6.24	1.41	1.33
4	D	289	ARG	CZ-NH2	6.24	1.41	1.33
4	D	393	ARG	CZ-NH1	6.24	1.41	1.32
5	Q	249	TYR	CZ-OH	6.24	1.51	1.38
11	a	144	LEU	C-N	6.24	1.41	1.33
3	A	579	HIS	ND1-CE1	6.23	1.38	1.32
3	A	218	ARG	C-N	6.23	1.38	1.32
6	L	23	LYS	N-CA	-6.23	1.38	1.46
3	E	433	GLY	N-CA	-6.23	1.38	1.45
7	G	146	VAL	C-O	-6.23	1.16	1.24
3	E	554	HIS	ND1-CE1	6.23	1.38	1.32
4	F	167	GLY	CA-C	-6.22	1.43	1.51
9	b	243	ASP	CA-CB	6.22	1.61	1.53
11	W	70	VAL	N-CA	-6.22	1.39	1.46
4	D	144	ARG	CA-CB	6.22	1.61	1.53
11	Y	110	ILE	N-CA	-6.22	1.39	1.46
3	A	170	HIS	CA-CB	6.21	1.60	1.53
4	F	404	TYR	N-CA	-6.21	1.38	1.46
4	B	419	VAL	CA-CB	-6.21	1.47	1.54
3	C	86	LEU	CA-C	-6.21	1.45	1.52
9	b	42	ARG	CD-NE	6.20	1.54	1.46
9	b	26	SER	C-N	6.20	1.42	1.33
4	B	51	GLU	C-N	6.20	1.41	1.33
4	D	260	LEU	N-CA	-6.20	1.38	1.46
11	T	30	TYR	CA-CB	6.20	1.63	1.53
11	S	84	LEU	C-N	6.20	1.41	1.33
3	C	591	ARG	N-CA	-6.20	1.38	1.45
8	P	249	LEU	CA-CB	6.20	1.62	1.53
9	b	345	GLU	N-CA	-6.19	1.37	1.45
3	C	150	ASP	C-N	6.19	1.42	1.33
3	E	210	THR	CA-CB	6.19	1.62	1.53
11	U	43	CYS	CA-C	-6.19	1.44	1.52
10	O	276	SER	CA-C	-6.19	1.44	1.52
11	W	101	GLY	C-N	6.19	1.41	1.33
10	O	191	LEU	CA-C	-6.18	1.45	1.52
10	O	258	ARG	CZ-NH1	6.18	1.41	1.32
4	F	297	GLU	C-N	6.18	1.40	1.33
7	G	37	LEU	CA-CB	6.18	1.63	1.53
3	C	115	ILE	C-N	6.18	1.42	1.33
5	Q	67	LEU	CA-C	-6.18	1.44	1.52
2	N	93	GLU	C-N	6.17	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	129	ASP	C-N	-6.17	1.26	1.33
5	Q	297	ARG	NE-CZ	6.17	1.39	1.33
3	A	314	ARG	CD-NE	6.17	1.54	1.46
7	K	219	ARG	CZ-NH2	6.17	1.41	1.33
8	P	54	LYS	C-N	6.17	1.42	1.33
10	O	119	ARG	NE-CZ	6.17	1.39	1.33
4	B	312	LEU	CA-C	-6.17	1.44	1.52
9	b	128	THR	C-O	-6.16	1.17	1.24
11	V	149	LEU	C-O	-6.16	1.17	1.24
11	T	81	LYS	N-CA	-6.16	1.38	1.46
4	F	321	ARG	CZ-NH2	6.16	1.41	1.33
3	C	454	ILE	CA-CB	-6.16	1.47	1.54
7	I	216	PRO	C-N	6.16	1.41	1.33
4	F	229	PHE	C-N	6.16	1.42	1.33
11	X	160	CYS	CB-SG	6.15	2.01	1.81
7	I	178	TYR	CA-C	-6.15	1.45	1.52
3	A	104	ILE	N-CA	-6.14	1.39	1.46
7	G	206	ARG	CZ-NH2	6.14	1.41	1.33
4	B	332	ILE	N-CA	-6.14	1.39	1.46
4	F	460	GLN	C-N	6.14	1.42	1.33
9	b	352	ARG	CD-NE	6.14	1.54	1.46
4	B	255	THR	C-O	-6.14	1.18	1.24
3	C	288	ASN	CA-C	-6.13	1.44	1.52
3	C	394	ARG	C-N	6.13	1.41	1.33
3	E	396	GLY	CA-C	-6.13	1.43	1.51
4	F	337	MET	C-N	6.13	1.38	1.33
5	Q	288	PHE	CA-C	-6.13	1.44	1.52
10	O	195	LEU	CA-C	-6.13	1.45	1.52
7	G	211	SER	CA-CB	6.13	1.63	1.53
4	D	237	ARG	NE-CZ	6.13	1.39	1.33
8	P	364	ASP	CA-C	-6.13	1.45	1.52
7	I	202	THR	C-N	6.13	1.42	1.33
4	F	480	ILE	C-N	6.13	1.42	1.33
3	C	355	ASP	C-N	6.13	1.42	1.33
4	F	98	GLU	C-N	6.13	1.41	1.33
7	I	190	VAL	CA-C	-6.13	1.45	1.52
3	E	106	ASP	CA-CB	6.12	1.62	1.53
9	b	131	ILE	C-N	6.12	1.42	1.33
11	Y	118	GLY	C-N	6.12	1.41	1.33
11	X	71	SER	N-CA	-6.12	1.39	1.46
4	F	398	ASP	CA-C	-6.12	1.45	1.52
11	a	110	ILE	N-CA	-6.11	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	344	ARG	CZ-NH1	6.11	1.41	1.32
9	b	317	LYS	CA-C	-6.11	1.44	1.52
3	A	218	ARG	NE-CZ	6.11	1.39	1.33
3	A	527	GLN	N-CA	-6.11	1.38	1.46
4	D	343	THR	C-N	6.11	1.42	1.33
2	N	21	LEU	C-O	-6.10	1.17	1.24
4	D	457	SER	CA-C	-6.10	1.45	1.52
3	E	234	LEU	CA-C	-6.10	1.45	1.52
10	O	289	VAL	C-N	6.10	1.41	1.33
11	Z	126	PHE	CA-C	-6.10	1.44	1.52
11	S	120	SER	C-N	6.10	1.42	1.33
3	C	314	ARG	CZ-NH2	6.10	1.41	1.33
3	C	349	ASN	CA-C	-6.10	1.45	1.52
11	X	18	ALA	CA-C	-6.10	1.45	1.52
4	D	395	ASP	C-N	6.10	1.41	1.33
4	F	272	ARG	CA-C	-6.09	1.45	1.52
11	Y	98	GLY	CA-C	-6.09	1.45	1.52
5	Q	296	CYS	CA-C	-6.09	1.45	1.52
7	I	222	LEU	CA-C	-6.09	1.44	1.52
4	D	478	PRO	CA-CB	6.09	1.62	1.53
3	E	33	PRO	N-CD	-6.09	1.39	1.47
7	I	11	ASN	N-CA	-6.09	1.39	1.46
3	A	524	ASP	N-CA	-6.09	1.38	1.46
7	G	95	SER	CA-C	6.09	1.60	1.52
3	A	241	ASP	N-CA	-6.09	1.39	1.46
3	E	166	LEU	CA-CB	6.09	1.63	1.53
4	F	83	THR	C-N	6.09	1.41	1.33
10	O	6	TYR	CA-C	-6.09	1.44	1.52
11	Z	109	GLY	C-N	6.09	1.41	1.33
3	C	417	SER	N-CA	-6.08	1.40	1.46
8	P	285	LYS	CA-C	-6.08	1.45	1.52
8	P	370	TRP	CA-C	-6.08	1.45	1.52
3	C	597	HIS	C-O	-6.08	1.16	1.24
4	F	55	LEU	C-O	-6.08	1.16	1.24
11	R	15	ILE	C-N	6.08	1.41	1.33
3	E	91	PRO	N-CA	-6.07	1.39	1.47
3	E	359	ARG	NE-CZ	6.07	1.39	1.33
3	A	110	ARG	CD-NE	6.07	1.54	1.46
4	D	160	THR	CA-C	6.07	1.60	1.52
3	C	126	ARG	CA-C	-6.07	1.44	1.52
2	N	92	LEU	CA-C	-6.06	1.45	1.52
11	W	127	VAL	C-N	6.06	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	Z	150	LEU	N-CA	6.06	1.53	1.46
9	b	140	GLN	CA-C	-6.06	1.45	1.52
11	Y	139	LEU	CA-CB	6.06	1.62	1.53
11	Z	50	LEU	C-N	6.06	1.41	1.33
11	a	34	LYS	CA-CB	6.06	1.62	1.53
4	B	250	ILE	CA-C	-6.05	1.45	1.52
3	E	609	GLU	N-CA	-6.05	1.39	1.46
4	F	252	ARG	NE-CZ	6.05	1.39	1.33
11	X	122	GLN	C-N	-6.05	1.28	1.34
5	Q	151	THR	C-N	6.05	1.41	1.33
11	U	136	ALA	CA-C	6.05	1.61	1.52
4	F	302	ARG	CD-NE	6.04	1.54	1.46
8	P	89	ASN	CA-C	6.04	1.60	1.52
11	Y	39	ILE	CA-C	-6.04	1.45	1.52
3	A	278	ILE	CA-C	-6.04	1.45	1.52
4	B	285	ALA	CA-C	-6.04	1.45	1.52
3	A	564	GLY	CA-C	-6.04	1.43	1.51
10	O	26	PRO	CA-C	-6.04	1.45	1.52
3	C	314	ARG	CD-NE	6.04	1.54	1.46
10	O	193	THR	CA-C	-6.04	1.45	1.52
7	I	108	SER	N-CA	-6.04	1.39	1.46
8	P	175	GLN	N-CA	6.03	1.53	1.46
4	F	170	ILE	N-CA	-6.03	1.41	1.45
7	G	44	GLU	CA-C	-6.03	1.45	1.52
8	P	19	ILE	CA-CB	-6.03	1.47	1.54
7	I	117	TYR	N-CA	-6.03	1.38	1.46
11	R	101	GLY	CA-C	-6.03	1.45	1.52
3	A	575	GLY	CA-C	-6.03	1.43	1.51
4	D	149	GLU	CA-C	-6.03	1.45	1.52
4	F	426	SER	C-N	6.03	1.41	1.33
10	O	285	ARG	C-N	6.03	1.41	1.33
11	R	84	LEU	CA-C	-6.03	1.45	1.52
3	E	446	ALA	N-CA	-6.02	1.38	1.46
5	Q	116	HIS	CA-C	-6.02	1.44	1.52
4	B	255	THR	CA-CB	-6.02	1.45	1.53
11	T	65	ILE	N-CA	-6.02	1.39	1.46
4	F	163	SER	C-N	6.02	1.39	1.33
4	B	70	ILE	N-CA	-6.02	1.39	1.46
4	D	475	ARG	CZ-NH2	6.02	1.41	1.33
3	C	320	ASN	CA-C	-6.02	1.45	1.52
3	C	511	ASP	CA-C	-6.01	1.44	1.52
4	F	195	ARG	NE-CZ	6.01	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	O	237	HIS	ND1-CE1	6.01	1.38	1.32
7	G	204	GLU	CA-C	-6.01	1.45	1.52
7	I	199	ILE	N-CA	-6.01	1.38	1.46
11	T	127	VAL	C-N	6.01	1.41	1.33
10	O	29	LYS	N-CA	-6.00	1.38	1.46
3	C	597	HIS	ND1-CE1	6.00	1.38	1.32
4	F	257	ARG	C-N	6.00	1.41	1.33
4	D	301	ARG	NE-CZ	6.00	1.39	1.33
10	O	78	SER	CA-C	-6.00	1.44	1.52
11	V	84	LEU	N-CA	6.00	1.53	1.46
3	A	541	TRP	N-CA	-5.99	1.39	1.46
5	Q	75	LYS	C-N	5.99	1.42	1.34
3	E	493	GLU	C-N	5.99	1.41	1.33
11	V	75	CYS	C-O	5.99	1.31	1.24
11	Z	22	ILE	CA-C	-5.98	1.45	1.52
1	M	80	GLY	CA-C	-5.98	1.44	1.52
5	Q	181	ARG	CD-NE	5.98	1.54	1.46
5	Q	260	GLN	N-CA	-5.97	1.38	1.46
10	O	97	TYR	CA-C	-5.97	1.45	1.53
9	b	219	GLU	CA-C	5.97	1.57	1.53
3	A	472	ASP	C-N	5.97	1.41	1.33
4	B	35	ASN	CA-C	-5.97	1.45	1.53
4	D	273	HIS	ND1-CE1	5.96	1.38	1.32
4	F	164	ILE	CA-CB	5.96	1.60	1.53
1	M	91	ARG	CZ-NH2	5.96	1.41	1.33
10	O	362	GLY	CA-C	-5.96	1.43	1.51
5	Q	181	ARG	NE-CZ	5.96	1.39	1.33
4	B	254	ILE	CA-C	-5.96	1.44	1.52
7	K	78	SER	C-N	5.96	1.42	1.34
7	I	223	TYR	N-CA	-5.96	1.37	1.46
11	T	106	PHE	CA-C	-5.96	1.45	1.52
10	O	333	PRO	CA-C	5.95	1.57	1.52
11	W	157	ASP	CA-CB	5.95	1.63	1.53
4	F	274	VAL	N-CA	-5.95	1.39	1.46
8	P	444	THR	CA-C	-5.95	1.45	1.52
11	W	150	LEU	C-N	5.95	1.41	1.33
3	E	342	TYR	CA-C	-5.95	1.45	1.52
3	A	202	PHE	C-N	5.94	1.42	1.33
7	K	65	LYS	CA-CB	5.94	1.62	1.53
4	B	222	ALA	C-O	5.93	1.30	1.24
11	a	29	ALA	C-N	5.93	1.41	1.33
4	B	375	VAL	CA-C	-5.93	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	Q	271	ASN	CA-CB	5.93	1.63	1.53
10	O	287	GLN	C-O	-5.93	1.17	1.24
4	D	272	ARG	CA-C	-5.93	1.45	1.52
6	L	100	GLU	C-N	5.93	1.41	1.33
11	W	148	LEU	CA-CB	5.93	1.62	1.53
3	C	482	ARG	NE-CZ	5.93	1.39	1.33
3	E	419	ALA	N-CA	-5.93	1.41	1.46
8	P	361	ALA	N-CA	-5.93	1.39	1.46
6	J	47	LYS	CA-C	-5.92	1.45	1.52
11	R	63	ILE	CA-CB	-5.92	1.47	1.54
11	U	44	VAL	CA-C	-5.92	1.43	1.52
4	D	208	PHE	CA-C	-5.92	1.45	1.52
3	C	158	TYR	C-N	5.92	1.39	1.33
5	Q	298	ASP	C-N	5.92	1.42	1.34
7	G	106	LYS	C-N	5.92	1.42	1.34
11	X	114	ALA	CA-C	-5.92	1.44	1.52
1	M	169	ARG	CZ-NH2	5.92	1.41	1.33
3	E	559	LYS	CA-C	-5.92	1.45	1.52
11	Y	46	ARG	CA-C	-5.92	1.45	1.52
3	C	513	ILE	C-N	5.92	1.41	1.33
4	D	474	ASN	N-CA	-5.92	1.38	1.46
9	b	108	ASP	N-CA	5.92	1.53	1.46
3	A	326	VAL	N-CA	-5.92	1.38	1.46
11	V	145	ILE	N-CA	-5.92	1.40	1.46
4	B	272	ARG	NE-CZ	5.91	1.39	1.33
9	b	238	VAL	CA-C	-5.91	1.45	1.52
3	A	550	PHE	C-N	5.91	1.41	1.33
8	P	13	PHE	CA-C	-5.91	1.45	1.52
10	O	85	ILE	CA-C	5.91	1.60	1.52
11	a	143	GLY	CA-C	5.91	1.58	1.52
4	D	214	ALA	N-CA	-5.91	1.39	1.46
4	F	375	VAL	CA-CB	-5.90	1.48	1.54
9	b	142	ARG	C-N	5.90	1.41	1.33
10	O	19	ASN	CA-CB	5.90	1.63	1.53
11	W	146	VAL	N-CA	5.90	1.53	1.46
4	D	161	MET	C-N	5.90	1.42	1.33
3	E	502	VAL	CA-CB	5.90	1.62	1.54
9	b	117	LEU	C-N	5.90	1.41	1.33
10	O	318	ARG	CZ-NH2	5.90	1.41	1.33
4	F	353	ILE	CA-CB	-5.90	1.46	1.54
3	E	374	MET	CA-C	-5.89	1.46	1.53
10	O	232	VAL	CA-CB	-5.89	1.46	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	O	328	LYS	N-CA	-5.89	1.38	1.45
8	P	17	ARG	C-N	5.89	1.42	1.33
8	P	283	LYS	CA-CB	5.89	1.62	1.53
11	T	62	ILE	CA-CB	5.89	1.61	1.54
11	S	143	GLY	N-CA	-5.89	1.38	1.45
11	X	78	LEU	N-CA	-5.89	1.39	1.46
4	B	302	ARG	CZ-NH1	5.89	1.41	1.32
11	V	144	LEU	CA-C	-5.89	1.45	1.52
11	S	109	GLY	C-N	5.89	1.41	1.33
11	Z	122	GLN	CA-CB	5.88	1.61	1.53
8	P	110	GLY	CA-C	-5.88	1.43	1.51
10	O	223	SER	C-N	5.88	1.40	1.33
3	A	293	VAL	C-N	5.88	1.41	1.33
3	A	435	THR	CA-C	-5.88	1.45	1.52
3	E	81	VAL	N-CA	-5.88	1.39	1.46
11	T	57	VAL	CA-C	5.88	1.59	1.52
11	Z	157	ASP	C-N	5.88	1.41	1.33
6	J	6	GLY	N-CA	5.88	1.53	1.45
11	W	84	LEU	CA-C	5.87	1.60	1.52
7	K	51	VAL	CA-C	5.87	1.60	1.52
6	J	92	ASP	C-O	-5.87	1.16	1.24
3	A	360	TRP	CA-CB	5.87	1.62	1.53
4	B	325	ARG	CZ-NH1	5.87	1.41	1.32
4	D	435	PHE	C-N	5.87	1.41	1.33
11	S	44	VAL	CA-C	-5.87	1.45	1.52
1	M	55	GLN	C-O	-5.87	1.17	1.24
11	Y	37	VAL	C-N	5.87	1.41	1.33
4	B	81	GLU	CA-C	-5.86	1.45	1.52
9	b	67	ARG	CD-NE	5.86	1.54	1.46
7	G	177	ASP	C-N	5.86	1.41	1.33
4	F	63	ARG	CD-NE	5.86	1.54	1.46
4	F	422	GLU	CA-CB	5.86	1.61	1.53
8	P	188	ARG	CA-CB	5.86	1.62	1.53
7	I	60	GLY	C-N	5.86	1.42	1.33
11	S	129	MET	CA-C	-5.85	1.45	1.52
11	X	56	PRO	C-N	5.85	1.41	1.33
11	Z	72	VAL	CA-CB	-5.85	1.47	1.54
4	B	144	ARG	CZ-NH2	5.85	1.41	1.33
5	Q	13	ILE	CA-CB	-5.85	1.46	1.54
3	E	237	GLN	CA-C	-5.85	1.45	1.52
3	E	345	ASP	C-N	5.85	1.42	1.33
4	D	477	SER	C-N	5.85	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	O	71	VAL	C-N	5.85	1.41	1.33
1	M	69	ALA	C-O	-5.85	1.17	1.24
1	M	36	SER	CA-CB	5.84	1.62	1.53
7	I	28	ALA	CA-C	-5.84	1.45	1.52
11	Z	133	LEU	C-N	5.84	1.40	1.34
4	D	67	VAL	C-O	5.84	1.29	1.24
7	I	114	ARG	CZ-NH2	5.84	1.41	1.33
7	I	126	VAL	C-N	5.84	1.41	1.33
4	B	54	ASN	CA-C	-5.84	1.45	1.52
4	B	170	ILE	CA-CB	-5.84	1.47	1.54
3	E	69	THR	CA-C	-5.84	1.45	1.52
4	F	454	VAL	CA-CB	5.84	1.61	1.54
3	A	167	ILE	CA-CB	-5.84	1.46	1.55
11	Z	145	ILE	CA-C	5.84	1.60	1.52
3	E	135	ARG	N-CA	-5.84	1.39	1.46
4	F	449	TYR	C-N	5.83	1.41	1.33
3	A	397	LYS	CA-C	-5.83	1.45	1.52
4	B	196	PRO	N-CD	-5.83	1.39	1.47
5	Q	266	ARG	NE-CZ	5.83	1.39	1.33
1	M	103	GLY	N-CA	5.83	1.53	1.45
3	A	222	PRO	CA-CB	-5.83	1.46	1.53
11	Z	40	CYS	N-CA	5.83	1.53	1.46
4	F	189	ARG	C-N	5.83	1.42	1.33
11	U	95	LEU	CA-C	-5.83	1.45	1.52
10	O	107	VAL	CA-CB	-5.83	1.51	1.54
4	B	219	LEU	C-N	5.83	1.41	1.33
7	G	47	LYS	C-N	5.83	1.41	1.33
6	L	18	HIS	ND1-CE1	5.82	1.38	1.32
10	O	122	LYS	CA-C	-5.82	1.45	1.52
4	F	341	ASP	C-N	5.82	1.40	1.33
4	B	87	ASP	C-N	5.82	1.40	1.34
7	G	72	SER	C-N	5.82	1.41	1.33
7	K	82	ASN	N-CA	5.82	1.53	1.46
4	D	248	PRO	N-CD	-5.82	1.39	1.47
4	F	273	HIS	CD2-NE2	5.82	1.44	1.37
7	K	115	ASP	CA-C	-5.82	1.44	1.52
2	N	106	ASP	CA-CB	5.82	1.62	1.53
3	C	219	VAL	C-N	5.82	1.40	1.33
7	K	129	LEU	CA-C	-5.82	1.44	1.52
11	T	48	ASP	N-CA	5.82	1.53	1.45
4	F	48	ARG	NE-CZ	5.81	1.39	1.33
11	X	29	ALA	CA-C	-5.81	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	210	ILE	N-CA	-5.81	1.39	1.46
3	A	614	SER	CA-C	-5.81	1.45	1.52
2	N	5	ARG	NE-CZ	5.81	1.39	1.33
11	T	60	ALA	C-N	5.81	1.40	1.33
6	L	91	LYS	N-CA	5.80	1.53	1.46
4	B	48	ARG	C-N	-5.80	1.25	1.33
1	M	141	ARG	NE-CZ	5.80	1.39	1.33
4	B	129	GLU	N-CA	-5.80	1.39	1.46
4	F	381	ARG	CZ-NH1	5.80	1.40	1.32
8	P	415	GLN	CA-C	-5.80	1.45	1.52
1	M	132	VAL	CA-CB	5.80	1.62	1.54
3	C	231	TYR	N-CA	-5.79	1.39	1.46
11	X	150	LEU	C-N	5.79	1.40	1.33
8	P	147	VAL	N-CA	-5.79	1.39	1.46
11	V	56	PRO	N-CD	-5.79	1.39	1.47
3	A	591	ARG	CZ-NH2	5.79	1.41	1.33
4	F	289	ARG	CA-CB	5.79	1.62	1.53
4	F	477	SER	CA-C	5.79	1.60	1.52
1	M	158	ILE	CA-CB	-5.79	1.47	1.54
3	A	304	MET	C-N	5.79	1.41	1.33
4	B	74	ARG	CA-C	-5.79	1.45	1.52
3	C	554	HIS	ND1-CE1	5.79	1.38	1.32
11	T	128	GLY	CA-C	-5.79	1.44	1.51
11	Z	96	SER	CA-C	-5.78	1.45	1.52
11	a	46	ARG	CZ-NH2	5.78	1.41	1.33
10	O	65	SER	C-O	-5.78	1.17	1.24
3	E	482	ARG	CD-NE	5.78	1.54	1.46
11	Y	154	ALA	C-N	5.78	1.41	1.33
5	Q	287	HIS	CA-C	-5.78	1.45	1.52
1	M	187	TYR	CA-C	-5.78	1.45	1.52
5	Q	299	ALA	C-N	5.78	1.41	1.34
8	P	288	ARG	CZ-NH2	5.78	1.41	1.33
11	W	90	GLN	N-CA	-5.77	1.39	1.46
3	A	92	LEU	C-N	5.77	1.41	1.33
4	F	391	MET	N-CA	-5.77	1.38	1.46
7	G	145	ASP	C-N	5.77	1.41	1.33
3	E	307	THR	CA-C	5.77	1.59	1.52
4	D	78	GLN	N-CA	5.77	1.53	1.46
1	M	91	ARG	NE-CZ	5.77	1.39	1.33
3	C	119	SER	C-N	5.77	1.42	1.33
4	D	111	ARG	CA-C	-5.77	1.45	1.52
11	X	68	LEU	CA-CB	5.77	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	482	ARG	NE-CZ	5.76	1.39	1.33
4	D	119	PRO	N-CA	-5.76	1.40	1.46
8	P	143	GLY	CA-C	-5.76	1.45	1.52
3	C	85	VAL	CA-C	-5.76	1.45	1.52
4	F	282	SER	CA-C	-5.76	1.45	1.52
10	O	42	ARG	CD-NE	5.76	1.54	1.46
7	K	115	ASP	CA-CB	5.76	1.62	1.53
11	Z	117	ARG	NE-CZ	5.76	1.39	1.33
3	A	170	HIS	CA-C	-5.76	1.45	1.53
4	F	475	ARG	CD-NE	5.76	1.54	1.46
4	F	482	ASP	C-N	5.76	1.41	1.33
11	W	117	ARG	C-N	5.76	1.41	1.33
11	Z	149	LEU	C-N	5.76	1.41	1.33
3	A	412	ILE	CA-CB	-5.76	1.47	1.54
8	P	414	LYS	C-N	5.76	1.41	1.33
9	b	98	LEU	CA-C	-5.76	1.45	1.52
11	U	46	ARG	NE-CZ	5.76	1.39	1.33
4	B	144	ARG	CA-C	5.76	1.60	1.52
3	E	70	ILE	CA-CB	-5.76	1.46	1.54
3	E	117	GLU	N-CA	-5.76	1.39	1.46
4	B	216	GLY	C-O	-5.75	1.17	1.24
11	U	97	VAL	CA-CB	5.75	1.61	1.54
4	D	380	SER	N-CA	-5.75	1.39	1.46
7	G	17	LEU	CB-CG	5.75	1.65	1.53
11	Y	67	GLY	C-N	5.75	1.41	1.33
3	C	512	LYS	CA-C	-5.75	1.45	1.52
4	D	407	TYR	CA-CB	5.75	1.62	1.53
3	C	417	SER	CA-CB	5.75	1.62	1.54
4	D	48	ARG	NE-CZ	5.75	1.39	1.33
5	Q	101	GLY	C-O	-5.75	1.17	1.23
7	K	42	GLU	N-CA	-5.75	1.39	1.46
7	K	128	ALA	N-CA	-5.75	1.39	1.46
8	P	39	ILE	N-CA	-5.75	1.39	1.46
11	S	16	GLY	CA-C	-5.75	1.45	1.52
3	A	167	ILE	C-N	5.75	1.43	1.33
7	G	52	ARG	C-O	-5.74	1.17	1.24
7	I	114	ARG	NE-CZ	5.74	1.39	1.33
3	A	177	ARG	CZ-NH2	5.74	1.41	1.33
4	F	463	SER	C-N	5.74	1.41	1.33
8	P	442	ASP	C-N	5.74	1.41	1.33
11	W	142	TYR	CA-C	-5.74	1.45	1.52
11	Z	153	ARG	CZ-NH2	5.74	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	309	TYR	N-CA	-5.74	1.39	1.46
4	B	270	THR	CA-CB	-5.74	1.44	1.53
4	D	70	ILE	C-O	-5.74	1.18	1.24
11	W	120	SER	CA-CB	5.74	1.62	1.53
3	A	604	LEU	CA-CB	5.73	1.62	1.53
3	C	471	TYR	CZ-OH	5.73	1.50	1.38
10	O	103	ASN	N-CA	5.73	1.55	1.46
4	B	367	LYS	C-N	5.73	1.41	1.33
3	C	179	ARG	NE-CZ	5.73	1.39	1.33
3	C	532	SER	CA-C	-5.73	1.45	1.52
4	F	219	LEU	N-CA	-5.73	1.39	1.46
10	O	229	ALA	C-O	5.73	1.30	1.24
7	I	158	ARG	NE-CZ	5.73	1.39	1.33
11	V	115	GLY	C-N	5.73	1.41	1.33
5	Q	96	ASP	CA-C	-5.73	1.45	1.52
9	b	329	ASP	CA-CB	5.73	1.62	1.53
11	Y	114	ALA	CA-C	-5.73	1.45	1.52
3	A	178	SER	N-CA	-5.72	1.39	1.46
11	T	149	LEU	CA-C	-5.72	1.45	1.52
4	F	102	ILE	N-CA	-5.72	1.40	1.46
11	R	70	VAL	CA-CB	-5.72	1.48	1.54
11	R	111	VAL	C-N	5.72	1.41	1.33
1	M	180	ARG	C-N	5.72	1.41	1.33
4	D	139	ILE	CA-CB	5.72	1.62	1.54
4	F	365	HIS	ND1-CE1	5.72	1.38	1.32
8	P	171	ILE	CA-C	5.72	1.61	1.52
7	I	67	LYS	CA-C	5.72	1.60	1.52
8	P	373	PRO	N-CA	-5.72	1.40	1.47
4	D	318	ARG	CZ-NH2	5.71	1.40	1.33
3	E	411	SER	N-CA	-5.71	1.39	1.46
7	G	200	ASN	N-CA	-5.71	1.39	1.46
11	a	155	THR	CA-C	-5.71	1.45	1.52
4	B	434	GLU	C-N	5.71	1.41	1.33
7	K	46	GLU	CA-CB	5.71	1.62	1.53
7	K	61	ASN	CA-CB	5.71	1.63	1.53
8	P	82	HIS	ND1-CE1	5.71	1.38	1.32
11	R	79	GLY	CA-C	-5.71	1.43	1.51
3	C	99	GLY	CA-C	-5.70	1.43	1.51
2	N	73	ILE	N-CA	-5.70	1.39	1.46
4	F	471	GLU	CA-C	-5.70	1.45	1.52
6	L	9	THR	N-CA	-5.70	1.39	1.46
11	R	93	ALA	CA-CB	5.70	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	T	26	LEU	C-N	5.70	1.41	1.33
2	N	32	THR	N-CA	-5.70	1.38	1.46
3	C	487	GLU	C-N	5.70	1.41	1.33
5	Q	164	ASN	N-CA	-5.70	1.39	1.46
9	b	280	ASN	CA-C	5.70	1.60	1.52
4	B	379	LEU	N-CA	5.70	1.53	1.45
11	X	145	ILE	N-CA	5.70	1.53	1.46
11	X	149	LEU	C-N	5.70	1.41	1.33
4	F	101	ARG	CZ-NH1	5.70	1.40	1.32
8	P	174	LEU	C-O	5.70	1.30	1.24
4	F	219	LEU	C-N	5.69	1.41	1.33
8	P	34	GLU	CA-C	-5.69	1.45	1.52
3	A	591	ARG	NE-CZ	5.69	1.39	1.33
11	V	111	VAL	CA-CB	-5.69	1.47	1.54
3	C	462	LYS	C-N	5.68	1.41	1.33
3	E	315	THR	C-N	5.68	1.42	1.33
5	Q	45	GLN	CA-C	-5.68	1.45	1.52
11	R	85	TYR	N-CA	-5.68	1.39	1.46
11	S	75	CYS	N-CA	5.68	1.52	1.46
3	A	329	ARG	CZ-NH2	5.68	1.40	1.33
7	I	98	GLY	C-N	5.68	1.41	1.33
11	W	137	GLU	C-N	5.68	1.40	1.33
1	M	37	GLU	CA-C	-5.68	1.45	1.52
11	X	15	ILE	N-CA	-5.68	1.39	1.46
4	B	48	ARG	NE-CZ	5.68	1.39	1.33
7	I	162	GLU	C-O	-5.68	1.16	1.24
7	I	51	VAL	C-O	-5.68	1.17	1.24
7	G	82	ASN	CA-CB	5.68	1.62	1.53
11	Z	70	VAL	N-CA	-5.68	1.40	1.46
11	V	29	ALA	C-N	5.67	1.41	1.33
5	Q	165	CYS	CA-CB	5.67	1.62	1.53
8	P	79	PRO	N-CA	-5.67	1.40	1.47
11	S	97	VAL	CA-C	-5.67	1.43	1.52
1	M	173	ILE	CA-C	-5.67	1.45	1.52
3	C	519	THR	C-O	-5.67	1.17	1.24
8	P	412	ASN	CA-CB	5.67	1.63	1.53
4	D	412	ASP	CA-CB	-5.67	1.44	1.53
3	E	318	VAL	CA-C	-5.67	1.46	1.52
3	E	221	ARG	CZ-NH1	5.67	1.40	1.32
11	R	102	LEU	CA-CB	5.67	1.62	1.53
8	P	306	LYS	CA-CB	5.67	1.62	1.53
3	A	607	MET	CA-C	-5.66	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	381	ARG	NE-CZ	5.66	1.39	1.33
4	D	344	HIS	CE1-NE2	-5.66	1.26	1.32
6	J	30	ASP	N-CA	-5.66	1.39	1.46
3	E	247	VAL	CA-C	-5.66	1.45	1.52
11	U	117	ARG	CZ-NH2	5.66	1.40	1.33
11	S	66	TYR	N-CA	-5.66	1.39	1.46
2	N	54	PHE	C-N	5.66	1.41	1.33
4	B	143	ALA	CA-C	-5.66	1.45	1.53
6	H	85	LYS	CA-CB	5.66	1.62	1.53
11	Z	28	ALA	N-CA	-5.66	1.39	1.46
3	A	318	VAL	N-CA	-5.66	1.39	1.46
4	D	106	GLU	CA-CB	5.66	1.62	1.53
9	b	74	SER	CA-C	-5.66	1.45	1.52
3	A	274	ASN	C-N	5.66	1.40	1.33
3	A	448	ARG	NE-CZ	5.66	1.39	1.33
3	C	237	GLN	CA-C	-5.66	1.46	1.52
3	E	172	ILE	CA-CB	5.65	1.61	1.54
11	a	117	ARG	NE-CZ	5.65	1.39	1.33
4	D	104	VAL	CA-C	-5.65	1.46	1.52
8	P	336	ARG	CD-NE	5.65	1.54	1.46
11	W	37	VAL	C-N	5.65	1.40	1.33
4	D	396	HIS	CA-C	-5.65	1.45	1.52
4	D	99	SER	C-N	5.65	1.41	1.33
7	K	219	ARG	CA-C	-5.65	1.45	1.52
1	M	70	GLU	C-N	5.64	1.41	1.33
4	B	351	GLY	CA-C	-5.64	1.45	1.52
8	P	334	GLU	CA-CB	5.64	1.62	1.53
3	E	186	ALA	CA-CB	5.64	1.61	1.53
9	b	296	GLU	CA-C	-5.64	1.45	1.52
4	D	184	ALA	C-O	-5.64	1.17	1.24
4	F	274	VAL	CA-C	-5.64	1.46	1.52
4	D	466	ARG	NE-CZ	5.64	1.39	1.33
3	E	263	THR	C-N	5.64	1.41	1.33
4	B	309	TYR	CA-CB	5.63	1.62	1.53
3	E	254	ILE	CA-C	-5.63	1.48	1.52
4	D	444	ILE	C-N	5.63	1.41	1.33
4	F	89	LYS	CA-C	-5.63	1.44	1.52
9	b	246	ILE	N-CA	-5.63	1.40	1.46
11	Y	31	GLY	CA-C	-5.63	1.46	1.52
11	X	54	ILE	N-CA	-5.63	1.40	1.46
5	Q	268	ALA	N-CA	-5.63	1.39	1.46
6	L	31	LYS	CA-C	5.63	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	460	TYR	CA-C	-5.63	1.45	1.52
3	E	453	SER	CA-C	-5.63	1.46	1.52
6	J	3	GLN	C-N	5.63	1.41	1.33
4	D	184	ALA	CA-CB	-5.62	1.44	1.53
3	A	410	VAL	CA-C	-5.62	1.46	1.52
4	B	32	SER	C-N	5.62	1.39	1.33
6	H	82	GLU	CA-C	-5.62	1.44	1.52
3	E	265	ILE	CB-CG1	5.62	1.64	1.53
4	F	311	ASP	N-CA	-5.62	1.39	1.46
6	J	3	GLN	CA-C	-5.62	1.45	1.52
3	C	160	SER	C-N	5.62	1.41	1.33
3	C	177	ARG	CD-NE	5.62	1.54	1.46
6	J	28	ARG	CD-NE	5.61	1.54	1.46
11	T	85	TYR	CA-C	-5.61	1.45	1.52
5	Q	162	PHE	CA-CB	5.61	1.62	1.53
10	O	64	GLU	C-N	5.61	1.41	1.33
10	O	237	HIS	N-CA	-5.61	1.39	1.46
11	S	155	THR	CA-CB	5.61	1.59	1.52
9	b	112	ARG	CD-NE	5.61	1.54	1.46
11	Z	92	GLY	CA-C	-5.61	1.45	1.52
5	Q	222	ASN	CA-C	-5.61	1.45	1.52
11	W	30	TYR	CA-C	-5.61	1.45	1.52
9	b	265	SER	N-CA	-5.61	1.39	1.46
10	O	107	VAL	CA-C	5.61	1.57	1.52
4	B	113	PHE	CA-C	-5.61	1.45	1.52
5	Q	235	PRO	C-N	5.61	1.41	1.33
4	B	56	THR	CA-C	5.60	1.59	1.52
3	A	559	LYS	N-CA	-5.60	1.39	1.46
3	C	408	GLY	C-N	5.60	1.40	1.33
10	O	376	SER	CA-C	-5.60	1.45	1.52
4	F	359	PHE	N-CA	-5.60	1.39	1.46
5	Q	200	ILE	N-CA	-5.60	1.40	1.46
4	F	100	LEU	CA-C	-5.60	1.45	1.52
3	C	492	ALA	C-N	5.60	1.41	1.33
3	E	486	LYS	CA-C	-5.60	1.45	1.52
3	E	487	GLU	N-CA	-5.60	1.39	1.46
8	P	321	THR	CA-C	-5.60	1.45	1.52
2	N	23	ALA	N-CA	-5.59	1.39	1.46
4	F	397	GLY	CA-C	-5.59	1.45	1.52
5	Q	218	ARG	CZ-NH1	5.59	1.40	1.32
10	O	277	ALA	C-N	5.59	1.41	1.33
11	X	105	GLY	CA-C	-5.59	1.45	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	531	TYR	CZ-OH	5.59	1.49	1.38
10	O	96	ALA	N-CA	-5.59	1.39	1.46
11	T	103	ALA	N-CA	-5.59	1.39	1.46
6	L	43	ILE	CA-C	-5.59	1.45	1.52
7	I	19	LYS	C-N	5.59	1.41	1.33
5	Q	88	SER	CA-C	-5.59	1.45	1.52
7	I	144	ARG	CD-NE	5.59	1.54	1.46
3	E	28	TYR	CA-C	-5.59	1.45	1.52
7	K	193	ALA	CA-CB	5.59	1.62	1.53
9	b	262	ASP	C-N	5.59	1.40	1.33
10	O	224	VAL	CA-CB	-5.59	1.47	1.53
10	O	273	GLU	C-N	5.59	1.41	1.33
11	U	111	VAL	C-O	-5.59	1.17	1.24
7	K	92	ARG	NE-CZ	5.58	1.39	1.33
7	K	163	LYS	N-CA	-5.58	1.39	1.46
7	G	82	ASN	C-N	5.58	1.41	1.33
11	Y	63	ILE	CA-CB	-5.58	1.47	1.54
3	A	40	MET	CG-SD	5.58	1.94	1.80
4	B	370	TYR	CA-CB	5.58	1.62	1.53
4	B	384	LYS	C-O	5.58	1.30	1.24
3	C	571	ALA	CA-C	-5.58	1.45	1.52
3	E	611	PHE	CA-C	-5.58	1.45	1.52
6	L	80	LEU	C-N	5.58	1.41	1.33
7	I	189	VAL	CA-C	-5.58	1.45	1.52
11	Y	26	LEU	C-N	5.58	1.41	1.33
4	B	434	GLU	CA-CB	5.58	1.62	1.53
10	O	84	GLU	CA-C	-5.58	1.45	1.52
4	B	51	GLU	CA-C	-5.58	1.45	1.52
4	B	134	ILE	CA-C	-5.58	1.45	1.52
7	G	144	ARG	CZ-NH2	5.58	1.40	1.33
8	P	355	SER	C-N	5.58	1.41	1.33
4	B	237	ARG	NE-CZ	5.58	1.39	1.33
4	B	241	PHE	C-N	5.58	1.41	1.33
3	C	276	ASP	CA-CB	5.58	1.62	1.53
3	C	427	VAL	N-CA	-5.58	1.40	1.46
11	U	114	ALA	C-N	5.58	1.41	1.34
3	C	178	SER	CA-C	-5.57	1.45	1.52
3	E	240	LEU	C-N	5.57	1.41	1.33
3	A	278	ILE	CA-CB	-5.57	1.47	1.54
3	C	188	ALA	C-N	5.57	1.38	1.32
10	O	268	ASP	C-N	5.57	1.41	1.33
6	H	20	ILE	CA-C	-5.57	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	V	100	SER	C-O	-5.57	1.17	1.24
4	B	194	VAL	C-N	5.57	1.41	1.33
8	P	241	GLN	C-N	5.57	1.41	1.33
8	P	94	LYS	N-CA	5.57	1.53	1.46
11	Y	53	ASN	N-CA	5.57	1.53	1.46
3	A	314	ARG	N-CA	-5.57	1.38	1.46
10	O	226	ALA	N-CA	-5.57	1.38	1.45
3	C	181	THR	CA-C	-5.56	1.45	1.52
11	Y	115	GLY	CA-C	5.56	1.59	1.51
11	V	17	CYS	N-CA	5.56	1.53	1.46
7	G	155	ASP	CA-C	-5.56	1.45	1.52
2	N	33	GLN	C-N	5.56	1.40	1.33
6	L	62	ALA	C-N	5.56	1.41	1.33
10	O	40	GLY	C-N	5.56	1.41	1.33
7	G	44	GLU	C-O	-5.56	1.17	1.24
7	I	72	SER	CA-CB	5.56	1.62	1.53
4	F	402	GLN	N-CA	-5.56	1.39	1.46
8	P	346	LEU	CA-C	5.56	1.59	1.52
11	U	124	ARG	C-N	5.56	1.40	1.33
4	B	251	GLU	N-CA	-5.55	1.39	1.46
3	C	50	LYS	C-N	5.55	1.40	1.33
8	P	240	ILE	CA-CB	5.55	1.61	1.54
3	A	606	THR	CA-C	-5.55	1.45	1.52
8	P	396	ARG	NE-CZ	5.55	1.39	1.33
2	N	30	PRO	C-N	5.55	1.41	1.33
3	C	112	LEU	CA-C	-5.55	1.45	1.52
4	F	403	LEU	C-N	5.55	1.41	1.33
11	R	63	ILE	C-N	5.55	1.41	1.33
11	R	133	LEU	CA-C	-5.55	1.45	1.52
3	E	332	SER	CA-CB	5.54	1.62	1.53
4	F	318	ARG	NE-CZ	5.54	1.39	1.33
9	b	27	ARG	CZ-NH1	5.54	1.40	1.32
5	Q	126	ARG	C-O	-5.54	1.17	1.23
7	K	166	ARG	CZ-NH1	5.54	1.40	1.32
10	O	240	LYS	CA-C	-5.54	1.45	1.52
1	M	127	ARG	CZ-NH1	5.54	1.40	1.32
7	K	201	ASN	CA-CB	5.54	1.60	1.53
3	C	396	GLY	C-N	5.54	1.41	1.33
4	D	277	ILE	CA-CB	-5.54	1.47	1.54
3	E	253	CYS	C-O	5.54	1.31	1.24
3	E	525	PHE	CA-C	-5.54	1.46	1.52
11	T	53	ASN	CA-C	-5.54	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	Z	131	LEU	N-CA	5.54	1.53	1.46
10	O	343	GLU	CA-CB	5.54	1.61	1.53
3	C	126	ARG	NE-CZ	5.54	1.39	1.33
8	P	76	THR	N-CA	-5.54	1.38	1.46
9	b	21	ILE	CA-C	-5.54	1.47	1.52
4	D	194	VAL	C-N	5.53	1.40	1.33
7	K	18	ASN	C-O	-5.53	1.17	1.24
7	I	121	LEU	CA-C	-5.53	1.45	1.52
3	A	542	LYS	C-N	5.53	1.41	1.33
3	A	553	TYR	N-CA	-5.53	1.39	1.46
3	C	41	ILE	CA-CB	-5.53	1.47	1.54
3	A	362	GLU	N-CA	-5.53	1.39	1.46
3	E	539	PRO	N-CA	-5.53	1.40	1.47
3	E	165	SER	CA-CB	5.53	1.61	1.53
5	Q	242	LEU	N-CA	-5.53	1.40	1.46
9	b	112	ARG	N-CA	-5.53	1.39	1.46
7	G	50	ILE	N-CA	-5.53	1.40	1.46
11	V	97	VAL	CA-C	-5.53	1.45	1.52
11	T	34	LYS	C-O	5.53	1.30	1.24
3	C	270	SER	N-CA	-5.52	1.39	1.46
4	F	37	PRO	CA-C	-5.52	1.45	1.52
7	K	33	LYS	CA-C	5.52	1.59	1.52
11	V	120	SER	C-N	5.52	1.42	1.33
5	Q	13	ILE	C-N	5.52	1.41	1.33
3	A	135	ARG	CD-NE	5.52	1.53	1.46
3	A	167	ILE	N-CA	-5.52	1.40	1.46
10	O	299	VAL	C-O	-5.52	1.17	1.24
7	I	93	GLU	N-CA	-5.52	1.39	1.46
11	Z	58	ILE	CA-C	-5.52	1.44	1.52
4	F	466	ARG	CZ-NH1	5.52	1.40	1.32
9	b	335	LEU	CA-C	-5.52	1.46	1.52
3	C	213	HIS	CB-CG	-5.51	1.42	1.50
3	A	120	GLN	C-N	5.51	1.40	1.33
4	D	468	TYR	N-CA	-5.51	1.37	1.45
5	Q	35	GLN	N-CA	-5.51	1.39	1.46
7	G	89	LEU	C-N	5.51	1.42	1.33
3	E	253	CYS	C-N	5.51	1.39	1.33
8	P	324	SER	CA-C	-5.51	1.45	1.52
9	b	39	VAL	C-O	-5.51	1.17	1.23
2	N	81	VAL	C-N	5.51	1.41	1.33
3	E	533	THR	CA-C	-5.51	1.45	1.52
4	F	278	LEU	CA-C	-5.51	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	Q	287	HIS	CA-CB	5.51	1.62	1.53
7	G	52	ARG	CZ-NH2	5.51	1.40	1.33
3	A	610	ARG	CD-NE	5.50	1.53	1.46
3	C	179	ARG	CZ-NH2	5.50	1.40	1.33
4	F	404	TYR	CA-CB	5.50	1.61	1.53
3	A	93	SER	CA-C	5.50	1.59	1.52
5	Q	321	ARG	C-N	5.50	1.41	1.33
8	P	462	LYS	CA-CB	5.50	1.62	1.53
4	B	421	GLY	N-CA	-5.50	1.39	1.45
3	C	412	ILE	C-N	5.50	1.40	1.33
7	K	114	ARG	CZ-NH1	5.50	1.40	1.32
11	T	153	ARG	CD-NE	5.50	1.53	1.46
4	B	295	ARG	NE-CZ	5.50	1.39	1.33
3	A	220	PRO	N-CA	5.49	1.53	1.47
3	C	381	PRO	CA-C	-5.49	1.44	1.52
3	C	384	LEU	C-N	5.49	1.41	1.33
5	Q	237	LEU	CA-C	-5.49	1.47	1.53
10	O	332	VAL	C-N	-5.49	1.26	1.33
3	E	359	ARG	CD-NE	5.49	1.53	1.46
4	F	340	ASP	C-N	5.49	1.40	1.33
8	P	392	TYR	CG-CD2	5.49	1.50	1.39
7	I	60	GLY	N-CA	-5.49	1.39	1.45
1	M	160	ASP	N-CA	-5.49	1.39	1.46
3	C	458	VAL	C-N	5.49	1.41	1.33
11	V	46	ARG	C-O	-5.49	1.20	1.25
11	S	154	ALA	C-N	5.49	1.41	1.33
11	Z	153	ARG	CD-NE	5.49	1.53	1.46
3	E	328	ALA	CA-C	-5.49	1.45	1.52
3	A	232	PRO	N-CA	-5.49	1.40	1.47
3	C	467	LEU	CA-CB	5.49	1.61	1.53
4	D	376	LEU	C-N	5.49	1.38	1.33
11	T	124	ARG	NE-CZ	5.49	1.39	1.33
4	B	321	ARG	NE-CZ	5.48	1.39	1.33
7	G	120	ILE	N-CA	-5.48	1.39	1.46
11	Y	92	GLY	CA-C	-5.48	1.45	1.52
4	D	363	GLN	CA-C	-5.48	1.45	1.52
11	W	149	LEU	N-CA	-5.48	1.39	1.46
7	I	169	LEU	CA-C	5.48	1.59	1.52
3	C	361	ALA	CA-C	-5.47	1.45	1.52
10	O	54	LYS	CA-CB	5.47	1.60	1.53
3	E	47	GLU	CA-CB	5.47	1.62	1.53
4	F	462	TRP	C-N	5.47	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	Q	188	TYR	N-CA	-5.47	1.39	1.46
5	Q	219	ARG	CA-C	-5.47	1.45	1.52
7	K	85	ARG	CZ-NH1	5.47	1.40	1.32
4	B	421	GLY	C-O	5.47	1.28	1.23
4	D	82	GLY	CA-C	-5.47	1.44	1.51
8	P	216	LYS	N-CA	-5.47	1.39	1.46
3	A	488	ILE	C-N	5.46	1.41	1.34
3	E	246	CYS	C-N	5.46	1.41	1.33
8	P	290	CYS	C-N	5.46	1.40	1.33
7	I	24	ILE	CA-CB	-5.46	1.48	1.54
4	D	171	PRO	N-CD	-5.46	1.40	1.47
2	N	104	GLU	N-CA	-5.46	1.39	1.46
4	F	417	LYS	CA-CB	5.46	1.61	1.53
7	K	192	ASN	C-N	5.46	1.41	1.33
7	G	64	SER	N-CA	-5.46	1.39	1.46
2	N	19	GLY	N-CA	-5.46	1.39	1.45
3	C	378	GLN	CA-C	-5.46	1.45	1.52
5	Q	146	GLU	C-N	5.46	1.42	1.33
10	O	190	HIS	ND1-CE1	5.46	1.38	1.32
10	O	292	ALA	C-O	-5.46	1.17	1.24
7	G	18	ASN	N-CA	-5.46	1.39	1.46
3	A	425	ASP	CA-CB	5.46	1.61	1.53
3	C	170	HIS	CB-CG	5.46	1.57	1.50
8	P	452	GLU	CA-CB	-5.46	1.44	1.53
7	G	217	ALA	C-N	5.46	1.40	1.33
11	T	14	ALA	N-CA	-5.46	1.39	1.46
3	E	309	GLU	CA-C	-5.46	1.46	1.52
7	K	174	ILE	CA-C	-5.45	1.46	1.52
8	P	338	ASP	CA-C	-5.45	1.45	1.52
11	Z	90	GLN	CA-C	5.45	1.59	1.52
3	A	252	THR	N-CA	-5.45	1.39	1.46
2	N	56	HIS	N-CA	-5.45	1.39	1.46
3	C	317	LEU	N-CA	-5.45	1.39	1.46
3	C	412	ILE	CA-C	-5.45	1.45	1.52
7	K	188	VAL	CA-C	-5.45	1.46	1.52
7	G	164	ALA	N-CA	-5.45	1.40	1.46
11	W	105	GLY	N-CA	-5.45	1.38	1.45
3	A	62	ARG	CZ-NH1	5.45	1.40	1.32
3	C	218	ARG	CD-NE	5.45	1.53	1.46
4	F	353	ILE	CA-C	-5.45	1.45	1.52
11	U	58	ILE	N-CA	-5.45	1.40	1.46
11	V	149	LEU	CA-CB	5.45	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	P	27	TRP	N-CA	5.44	1.52	1.46
7	K	166	ARG	NE-CZ	5.44	1.39	1.33
9	b	61	ARG	NE-CZ	5.44	1.39	1.33
11	T	44	VAL	N-CA	-5.44	1.39	1.46
4	B	155	VAL	C-N	5.44	1.41	1.33
6	L	7	ILE	CA-C	-5.44	1.45	1.52
4	B	398	ASP	CA-C	-5.44	1.45	1.52
3	E	111	PRO	N-CA	-5.44	1.40	1.47
10	O	311	VAL	N-CA	-5.44	1.39	1.46
2	N	72	HIS	CE1-NE2	-5.44	1.27	1.32
11	a	43	CYS	CA-CB	5.44	1.62	1.53
3	A	83	ASP	C-N	5.44	1.40	1.33
8	P	32	ARG	CZ-NH1	5.44	1.40	1.32
3	E	318	VAL	C-N	5.43	1.41	1.33
9	b	328	TYR	N-CA	-5.43	1.39	1.46
7	I	121	LEU	C-O	5.43	1.30	1.24
11	U	30	TYR	C-N	5.43	1.40	1.33
3	C	340	ALA	N-CA	5.43	1.52	1.46
5	Q	163	LYS	CA-CB	5.43	1.61	1.53
6	L	18	HIS	CG-ND1	5.43	1.44	1.38
8	P	200	ARG	CD-NE	5.43	1.53	1.46
8	P	211	MET	CA-CB	5.43	1.61	1.53
11	T	124	ARG	CZ-NH2	5.43	1.40	1.33
11	W	40	CYS	C-O	-5.43	1.17	1.24
5	Q	184	LEU	C-N	5.43	1.41	1.33
3	A	316	THR	C-N	5.43	1.40	1.33
11	T	126	PHE	CA-CB	5.43	1.62	1.53
11	Z	26	LEU	C-N	5.43	1.40	1.33
3	E	291	ALA	N-CA	-5.42	1.39	1.46
3	E	511	ASP	C-N	5.42	1.41	1.33
9	b	281	LEU	C-N	5.42	1.42	1.33
8	P	173	ILE	CA-CB	5.42	1.61	1.54
1	M	134	ARG	CA-CB	5.42	1.61	1.53
4	B	143	ALA	C-N	5.42	1.39	1.33
3	C	51	VAL	N-CA	-5.42	1.39	1.46
5	Q	134	ASP	CA-C	-5.42	1.45	1.52
7	G	50	ILE	CA-CB	-5.42	1.48	1.54
11	Z	144	LEU	C-N	5.42	1.41	1.33
3	A	378	GLN	CA-C	-5.42	1.45	1.53
3	C	604	LEU	C-N	5.42	1.41	1.33
7	K	22	ALA	C-N	5.42	1.41	1.33
4	B	176	SER	N-CA	-5.42	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	R	117	ARG	NE-CZ	5.42	1.39	1.33
3	C	548	ARG	C-N	5.41	1.41	1.33
4	D	111	ARG	CZ-NH2	5.41	1.40	1.33
3	E	455	ASN	CA-C	-5.41	1.46	1.52
3	E	597	HIS	ND1-CE1	5.41	1.38	1.32
11	U	34	LYS	N-CA	-5.41	1.39	1.46
4	B	101	ARG	CD-NE	5.41	1.53	1.46
3	C	91	PRO	CA-C	-5.41	1.46	1.52
4	D	393	ARG	CA-CB	-5.41	1.44	1.53
7	K	26	LYS	C-N	5.41	1.41	1.33
7	K	64	SER	C-N	5.41	1.41	1.33
11	X	101	GLY	N-CA	-5.41	1.39	1.45
4	B	87	ASP	CA-C	-5.41	1.45	1.53
4	F	348	ASP	N-CA	-5.41	1.39	1.46
5	Q	144	ASP	CA-C	-5.41	1.45	1.52
7	G	13	VAL	C-N	5.41	1.41	1.34
3	C	478	PHE	CA-CB	5.41	1.61	1.53
3	E	238	ARG	CD-NE	5.41	1.53	1.46
3	E	532	SER	CA-C	-5.41	1.45	1.52
4	F	119	PRO	N-CD	-5.41	1.40	1.47
3	C	190	GLU	C-N	5.40	1.40	1.33
3	C	325	PRO	CA-C	-5.40	1.46	1.52
3	E	126	ARG	CZ-NH2	5.40	1.40	1.33
8	P	276	LYS	C-N	5.40	1.41	1.33
11	X	108	ILE	CA-C	5.40	1.59	1.52
11	X	137	GLU	CA-CB	5.40	1.63	1.53
4	B	248	PRO	C-N	-5.40	1.26	1.33
3	E	539	PRO	CA-C	5.40	1.58	1.52
6	L	20	ILE	N-CA	5.40	1.52	1.46
8	P	17	ARG	CD-NE	5.40	1.53	1.46
11	Z	137	GLU	C-N	5.40	1.40	1.33
8	P	464	GLU	C-N	5.40	1.41	1.33
10	O	313	VAL	CA-CB	-5.40	1.47	1.54
2	N	79	ALA	C-N	5.40	1.41	1.34
3	E	177	ARG	NE-CZ	5.40	1.39	1.33
5	Q	246	GLY	C-N	5.40	1.41	1.33
8	P	75	LYS	C-N	5.40	1.42	1.33
8	P	313	LEU	N-CA	-5.40	1.40	1.46
11	a	52	LYS	CA-C	-5.40	1.45	1.52
4	F	343	THR	C-N	5.39	1.40	1.33
8	P	148	SER	CA-C	-5.39	1.45	1.52
10	O	185	VAL	CA-C	-5.39	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	G	125	ILE	CA-C	-5.39	1.45	1.52
7	I	133	LEU	CA-C	-5.39	1.46	1.53
4	F	388	GLY	C-N	5.39	1.41	1.33
11	U	88	PHE	C-N	5.39	1.40	1.33
11	R	147	ALA	C-N	5.39	1.40	1.33
3	A	331	ALA	C-N	5.39	1.40	1.33
7	K	63	LYS	C-N	5.39	1.41	1.33
7	K	151	SER	CA-CB	5.39	1.61	1.53
6	J	38	ASP	CA-C	-5.39	1.45	1.52
9	b	196	VAL	C-N	5.38	1.41	1.34
6	J	79	GLU	CA-CB	-5.38	1.44	1.53
11	Y	117	ARG	CZ-NH2	5.38	1.40	1.33
11	a	39	ILE	CA-CB	-5.38	1.47	1.54
3	E	514	THR	CA-C	-5.38	1.45	1.52
11	a	132	ILE	CA-CB	5.38	1.60	1.54
4	B	360	VAL	N-CA	-5.38	1.40	1.46
8	P	310	LYS	C-N	5.38	1.40	1.33
10	O	13	LEU	C-N	5.38	1.41	1.33
4	B	271	GLU	CA-C	-5.38	1.45	1.52
4	F	451	ASP	CA-C	-5.38	1.46	1.52
3	C	177	ARG	C-N	5.38	1.40	1.33
6	L	31	LYS	C-N	5.38	1.41	1.33
4	B	363	GLN	CA-CB	5.38	1.61	1.53
3	E	342	TYR	N-CA	-5.38	1.40	1.46
6	J	44	ASP	N-CA	-5.38	1.39	1.46
3	E	293	VAL	CA-C	5.37	1.60	1.52
7	G	68	LYS	CA-C	-5.37	1.46	1.52
11	V	46	ARG	NE-CZ	5.37	1.39	1.33
3	E	87	ARG	CA-C	-5.37	1.45	1.52
7	G	170	GLU	CA-C	-5.37	1.47	1.53
11	Y	117	ARG	CD-NE	5.37	1.53	1.46
4	F	249	THR	C-N	5.37	1.40	1.33
5	Q	332	GLN	C-N	5.37	1.40	1.33
11	V	25	SER	N-CA	-5.37	1.39	1.46
11	T	55	VAL	C-N	5.37	1.41	1.33
11	Z	19	SER	C-N	5.37	1.40	1.33
5	Q	177	ILE	CA-C	-5.37	1.46	1.52
8	P	261	ASN	CA-CB	5.37	1.61	1.53
7	G	36	GLN	CD-NE2	5.37	1.44	1.33
11	U	34	LYS	C-N	5.37	1.40	1.33
4	D	350	THR	CA-C	-5.37	1.45	1.52
4	F	478	PRO	N-CA	-5.37	1.40	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	Q	126	ARG	N-CA	-5.37	1.39	1.46
7	K	166	ARG	CA-C	-5.37	1.46	1.52
9	b	199	LEU	N-CA	5.37	1.52	1.46
10	O	314	GLU	C-N	5.37	1.41	1.33
11	W	129	MET	C-N	5.37	1.40	1.33
11	Z	22	ILE	C-N	5.36	1.41	1.33
11	T	44	VAL	C-O	5.36	1.31	1.24
3	A	405	ASP	CA-CB	5.36	1.62	1.53
4	B	313	SER	CA-C	-5.36	1.45	1.52
4	F	383	MET	CA-C	5.36	1.59	1.52
9	b	352	ARG	NE-CZ	5.36	1.39	1.33
3	C	469	LYS	C-N	5.36	1.40	1.33
4	F	189	ARG	NE-CZ	5.36	1.39	1.33
7	K	166	ARG	CD-NE	5.36	1.53	1.46
9	b	285	TYR	N-CA	-5.36	1.39	1.46
11	V	23	PHE	CA-C	-5.36	1.45	1.52
11	Z	79	GLY	CA-C	-5.36	1.46	1.52
11	R	26	LEU	CA-C	-5.36	1.45	1.52
11	R	139	LEU	CA-CB	5.36	1.61	1.53
11	S	56	PRO	CA-C	-5.36	1.45	1.52
3	A	482	ARG	CA-C	-5.35	1.45	1.52
3	A	566	ASN	CA-C	-5.35	1.46	1.52
5	Q	7	ASN	C-O	5.35	1.29	1.23
11	Z	124	ARG	NE-CZ	5.35	1.39	1.33
3	A	41	ILE	C-N	5.35	1.41	1.33
3	A	121	SER	N-CA	-5.35	1.39	1.46
4	D	101	ARG	NE-CZ	5.35	1.39	1.33
8	P	204	TRP	N-CA	-5.35	1.39	1.46
8	P	367	LEU	C-N	5.35	1.40	1.33
9	b	41	PHE	C-N	5.35	1.41	1.33
11	Z	30	TYR	N-CA	-5.35	1.40	1.46
11	a	90	GLN	C-N	5.35	1.40	1.33
3	A	315	THR	CA-C	-5.34	1.46	1.52
3	A	361	ALA	N-CA	-5.34	1.39	1.46
10	O	300	PHE	CA-C	5.34	1.59	1.52
7	G	190	VAL	N-CA	-5.34	1.39	1.46
7	K	213	GLU	CA-CB	5.34	1.61	1.53
8	P	165	LEU	CA-CB	5.34	1.61	1.53
11	Z	108	ILE	N-CA	-5.34	1.40	1.46
3	C	55	ASN	CA-C	-5.34	1.46	1.53
3	E	129	ASP	CA-C	-5.34	1.45	1.52
3	E	291	ALA	C-N	5.34	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	356	SER	C-N	5.34	1.41	1.33
6	J	33	LYS	N-CA	-5.34	1.39	1.46
3	E	394	ARG	CZ-NH2	5.34	1.40	1.33
3	E	541	TRP	N-CA	-5.34	1.39	1.46
6	J	18	HIS	CA-C	-5.34	1.45	1.52
4	B	174	SER	CA-C	-5.34	1.45	1.52
3	E	239	VAL	CA-CB	-5.33	1.47	1.54
4	F	331	GLN	CA-C	-5.33	1.46	1.52
9	b	193	ARG	CA-CB	5.33	1.62	1.53
7	G	200	ASN	C-N	5.33	1.41	1.33
11	R	113	ASP	CA-C	-5.33	1.45	1.52
4	B	461	ALA	CA-CB	5.33	1.61	1.53
3	C	555	ASP	N-CA	-5.33	1.39	1.46
3	E	406	ARG	CZ-NH2	5.33	1.40	1.33
9	b	44	LEU	CA-C	5.33	1.58	1.53
7	G	92	ARG	NE-CZ	5.33	1.39	1.33
6	J	38	ASP	CA-CB	5.33	1.62	1.53
11	W	46	ARG	NE-CZ	5.33	1.39	1.33
4	B	150	MET	C-N	5.33	1.40	1.33
3	C	329	ARG	CD-NE	5.33	1.53	1.46
4	D	426	SER	C-N	5.33	1.40	1.33
3	E	548	ARG	CA-CB	5.33	1.61	1.53
8	P	475	TYR	C-N	5.33	1.41	1.33
10	O	211	GLU	N-CA	-5.33	1.40	1.46
3	A	370	ARG	CD-NE	5.33	1.53	1.46
4	D	39	VAL	CA-C	-5.33	1.46	1.52
3	E	105	TYR	CA-C	-5.33	1.46	1.52
6	J	64	GLY	C-N	5.33	1.40	1.33
3	E	219	VAL	C-N	5.32	1.40	1.33
9	b	219	GLU	N-CA	-5.32	1.42	1.46
11	Y	99	LEU	CA-C	5.32	1.60	1.52
11	V	16	GLY	CA-C	-5.32	1.46	1.52
3	C	370	ARG	C-N	5.32	1.41	1.34
11	X	143	GLY	C-N	5.32	1.40	1.33
10	O	211	GLU	C-N	5.32	1.41	1.33
11	a	73	LEU	CA-C	-5.32	1.46	1.52
3	C	369	GLY	C-N	5.32	1.41	1.33
3	E	432	LEU	CA-C	-5.32	1.45	1.52
11	U	151	ASN	CA-CB	5.32	1.61	1.53
5	Q	266	ARG	N-CA	-5.31	1.40	1.46
3	A	142	THR	CA-C	5.31	1.60	1.52
3	A	479	PRO	CA-CB	5.31	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	41	ILE	CA-C	-5.31	1.46	1.52
3	E	157	ILE	CA-C	-5.31	1.46	1.52
7	G	67	LYS	C-N	5.31	1.40	1.33
11	Y	26	LEU	CA-C	-5.31	1.45	1.52
7	I	124	LEU	CA-C	-5.31	1.46	1.52
5	Q	28	ASN	CA-C	-5.31	1.46	1.52
11	T	46	ARG	CD-NE	5.31	1.53	1.46
11	W	43	CYS	C-N	5.31	1.41	1.34
11	a	33	ALA	CA-C	-5.31	1.46	1.52
5	Q	46	LEU	C-N	5.31	1.41	1.34
3	A	294	LEU	N-CA	-5.30	1.40	1.46
3	C	551	ILE	N-CA	-5.30	1.40	1.46
8	P	229	ARG	CD-NE	5.30	1.53	1.46
10	O	176	HIS	CE1-NE2	-5.30	1.27	1.32
7	I	143	GLU	CA-CB	5.30	1.61	1.53
7	I	177	ASP	CA-CB	-5.30	1.44	1.53
11	T	52	LYS	C-N	5.30	1.40	1.33
11	a	142	TYR	C-O	-5.30	1.18	1.24
4	D	146	TYR	CA-C	-5.30	1.47	1.53
5	Q	63	LEU	CA-CB	5.30	1.60	1.53
8	P	212	PRO	N-CA	5.30	1.54	1.47
10	O	146	ARG	NE-CZ	5.30	1.38	1.33
10	O	173	ARG	CD-NE	5.30	1.53	1.46
6	J	103	ILE	CA-CB	-5.30	1.48	1.54
10	O	182	GLU	CA-CB	5.30	1.61	1.54
4	F	312	LEU	CA-C	5.30	1.59	1.52
5	Q	256	LEU	C-N	5.30	1.41	1.34
5	Q	269	LEU	C-N	5.30	1.40	1.33
7	I	92	ARG	CZ-NH2	5.30	1.40	1.33
11	Y	144	LEU	C-N	5.30	1.40	1.33
11	V	147	ALA	N-CA	-5.29	1.39	1.46
1	M	97	ARG	C-N	5.29	1.40	1.33
3	A	250	GLY	CA-C	-5.29	1.42	1.52
3	C	481	LEU	CA-C	-5.29	1.45	1.52
8	P	198	GLU	CA-C	-5.29	1.45	1.52
7	I	168	PRO	CA-C	-5.29	1.44	1.52
7	I	180	ASN	N-CA	5.29	1.51	1.45
4	D	323	GLU	N-CA	-5.29	1.39	1.46
3	E	198	LEU	C-N	5.29	1.40	1.33
4	D	440	GLU	CA-C	-5.29	1.46	1.52
4	F	268	TYR	CA-CB	5.29	1.61	1.53
11	T	32	THR	CA-C	5.29	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	439	TRP	N-CA	-5.29	1.39	1.46
3	E	371	LEU	N-CA	-5.29	1.40	1.46
5	Q	29	GLN	CA-C	-5.29	1.46	1.52
11	U	59	MET	N-CA	-5.29	1.40	1.46
3	E	260	CYS	CA-CB	5.28	1.61	1.53
11	Y	95	LEU	N-CA	-5.28	1.39	1.46
3	A	313	LYS	CA-C	5.28	1.59	1.52
1	M	67	SER	CA-CB	5.28	1.61	1.53
3	C	60	VAL	CA-C	-5.28	1.46	1.52
11	R	85	TYR	CA-CB	5.28	1.61	1.53
4	B	318	ARG	NE-CZ	5.28	1.38	1.33
4	B	402	GLN	CA-C	-5.28	1.46	1.52
3	C	545	ASP	CA-CB	5.28	1.61	1.53
3	E	409	SER	CA-C	-5.28	1.46	1.52
11	Z	99	LEU	CA-CB	5.28	1.61	1.53
3	A	591	ARG	N-CA	-5.28	1.39	1.46
4	B	305	PRO	C-N	5.28	1.42	1.33
3	E	91	PRO	C-N	5.28	1.41	1.33
5	Q	36	CYS	CA-C	-5.28	1.46	1.53
5	Q	220	SER	C-N	5.28	1.40	1.33
7	K	147	ASP	CA-CB	5.28	1.62	1.53
8	P	429	HIS	C-N	5.28	1.40	1.33
10	O	161	ALA	N-CA	-5.28	1.40	1.46
6	H	5	ASN	N-CA	5.28	1.52	1.46
11	R	74	VAL	C-O	-5.28	1.18	1.24
10	O	98	ARG	CD-NE	5.27	1.53	1.46
11	S	76	TYR	CA-CB	5.27	1.61	1.53
3	E	428	THR	CA-C	-5.27	1.46	1.52
5	Q	179	ILE	CA-C	-5.27	1.46	1.52
8	P	5	LYS	CA-CB	5.27	1.62	1.53
4	D	261	THR	C-N	5.27	1.41	1.34
4	B	194	VAL	CA-CB	-5.27	1.47	1.54
3	E	46	TYR	N-CA	-5.27	1.40	1.46
3	E	274	ASN	CG-ND2	5.27	1.44	1.33
7	G	48	THR	CA-C	-5.27	1.46	1.52
1	M	179	PRO	N-CD	-5.27	1.40	1.47
3	A	406	ARG	NE-CZ	5.27	1.38	1.33
3	A	615	THR	CA-C	5.27	1.59	1.52
4	B	38	LEU	C-N	5.27	1.40	1.33
3	E	301	TYR	CA-CB	5.27	1.62	1.53
3	C	293	VAL	CA-C	-5.26	1.46	1.52
10	O	183	ASP	C-N	5.26	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	O	209	SER	CA-C	-5.26	1.45	1.52
5	Q	216	ALA	C-O	-5.26	1.17	1.24
9	b	205	ARG	NE-CZ	5.26	1.38	1.33
3	A	111	PRO	N-CA	-5.26	1.40	1.47
3	E	255	PRO	C-N	5.26	1.40	1.33
3	C	286	ARG	CZ-NH1	5.26	1.40	1.32
7	K	173	VAL	C-O	-5.26	1.18	1.24
11	R	47	PRO	N-CD	-5.26	1.40	1.47
5	Q	320	VAL	CA-CB	5.26	1.61	1.54
6	L	85	LYS	C-N	5.26	1.39	1.34
4	B	97	GLY	CA-C	-5.26	1.44	1.51
4	D	280	ASP	CA-CB	5.26	1.64	1.53
4	D	282	SER	N-CA	-5.26	1.40	1.46
3	E	517	VAL	C-O	-5.26	1.18	1.24
11	R	122	GLN	N-CA	5.26	1.52	1.46
4	D	147	PRO	CA-CB	5.25	1.61	1.53
3	A	421	GLY	CA-C	-5.25	1.44	1.51
4	F	268	TYR	CA-C	-5.25	1.46	1.52
5	Q	149	TYR	N-CA	-5.25	1.40	1.46
4	B	139	ILE	CA-CB	-5.25	1.47	1.54
4	D	165	ALA	N-CA	-5.25	1.39	1.45
3	E	87	ARG	CA-CB	5.25	1.61	1.53
4	B	34	VAL	N-CA	-5.24	1.40	1.46
3	C	113	LYS	CA-CB	5.24	1.61	1.53
7	I	20	MET	CA-C	-5.24	1.46	1.52
7	G	54	GLU	C-N	5.24	1.41	1.34
9	b	29	SER	C-N	5.24	1.40	1.33
10	O	110	TYR	CA-C	-5.24	1.46	1.52
3	A	143	PRO	N-CD	-5.24	1.40	1.47
10	O	174	SER	C-O	-5.24	1.18	1.24
3	C	484	ARG	CA-C	-5.24	1.45	1.52
7	I	84	MET	CA-C	-5.24	1.46	1.52
3	C	126	ARG	CZ-NH1	5.23	1.40	1.32
3	A	183	THR	C-N	5.23	1.40	1.33
3	A	233	LEU	CA-C	-5.23	1.46	1.52
9	b	99	TYR	C-N	5.23	1.39	1.33
9	b	275	ALA	C-O	-5.23	1.17	1.24
11	U	46	ARG	CZ-NH2	5.23	1.40	1.33
11	Z	46	ARG	CA-C	-5.23	1.46	1.52
6	L	39	ALA	C-N	5.22	1.41	1.34
8	P	461	VAL	N-CA	-5.22	1.40	1.46
11	S	64	ALA	N-CA	-5.22	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	D	165	ALA	CA-C	-5.22	1.46	1.52
3	E	351	SER	CA-CB	5.22	1.61	1.53
4	F	456	GLU	CA-C	-5.22	1.46	1.52
11	R	102	LEU	CA-C	5.22	1.59	1.52
9	b	337	ALA	CA-CB	-5.22	1.45	1.53
7	I	219	ARG	CZ-NH2	5.22	1.40	1.33
11	Y	85	TYR	CA-CB	5.22	1.61	1.53
11	R	81	LYS	CA-C	-5.22	1.46	1.52
9	b	240	SER	C-N	5.22	1.40	1.33
1	M	41	LYS	CA-C	5.22	1.59	1.52
1	M	95	ARG	CD-NE	5.22	1.53	1.46
3	E	493	GLU	C-O	-5.22	1.18	1.24
10	O	290	ARG	N-CA	-5.22	1.40	1.46
11	V	67	GLY	N-CA	5.22	1.52	1.45
1	M	144	GLU	CA-C	-5.21	1.45	1.52
10	O	285	ARG	NE-CZ	5.21	1.38	1.33
3	A	300	LEU	N-CA	-5.21	1.39	1.45
5	Q	30	TYR	N-CA	-5.21	1.40	1.46
6	J	9	THR	C-O	-5.21	1.18	1.24
5	Q	147	SER	N-CA	-5.21	1.39	1.46
11	W	125	LEU	C-N	5.21	1.40	1.33
5	Q	179	ILE	C-N	5.21	1.40	1.33
3	A	409	SER	CA-CB	5.21	1.62	1.53
3	E	524	ASP	C-N	5.21	1.40	1.33
9	b	186	TYR	C-N	5.21	1.39	1.33
11	U	112	GLY	C-N	5.21	1.40	1.33
3	A	507	LEU	CA-CB	5.21	1.62	1.53
4	B	64	GLN	N-CA	-5.21	1.39	1.45
4	F	275	LEU	C-N	5.21	1.40	1.33
11	V	45	LEU	C-O	-5.21	1.18	1.24
11	W	57	VAL	CA-CB	5.21	1.60	1.54
5	Q	88	SER	CA-CB	5.21	1.63	1.53
3	E	422	ASP	CA-C	-5.20	1.46	1.52
11	V	26	LEU	CA-CB	5.20	1.61	1.53
3	C	25	GLY	C-N	5.20	1.40	1.33
3	E	300	LEU	CA-C	-5.20	1.45	1.53
4	F	336	THR	C-O	-5.20	1.17	1.24
11	X	106	PHE	CA-CB	5.20	1.61	1.53
3	A	438	PHE	N-CA	-5.20	1.39	1.46
10	O	83	ILE	CA-C	-5.20	1.46	1.52
11	R	117	ARG	CA-CB	5.20	1.61	1.53
11	T	21	ILE	C-N	5.20	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	P	330	TYR	C-N	5.20	1.40	1.33
8	P	446	GLY	CA-C	-5.20	1.45	1.52
2	N	72	HIS	CB-CG	5.20	1.57	1.50
3	A	384	LEU	CA-C	-5.20	1.46	1.52
4	B	43	LYS	CA-C	-5.20	1.45	1.52
3	A	450	HIS	CA-C	-5.19	1.46	1.52
4	F	149	GLU	N-CA	-5.19	1.39	1.45
8	P	200	ARG	CA-C	-5.19	1.45	1.52
2	N	90	ALA	CA-C	-5.19	1.46	1.52
3	C	277	ALA	CA-C	-5.19	1.46	1.52
4	D	289	ARG	NE-CZ	5.19	1.38	1.33
7	G	58	ILE	C-N	5.19	1.40	1.33
1	M	143	VAL	N-CA	-5.19	1.40	1.46
9	b	343	ARG	CZ-NH2	5.19	1.40	1.33
3	C	530	GLY	CA-C	5.19	1.58	1.51
3	E	122	ILE	C-N	5.19	1.40	1.33
4	B	74	ARG	C-N	5.19	1.40	1.33
3	E	579	HIS	CE1-NE2	-5.19	1.27	1.32
7	G	222	LEU	CA-C	-5.19	1.45	1.52
3	C	492	ALA	N-CA	-5.18	1.40	1.46
3	E	406	ARG	CD-NE	5.18	1.53	1.46
3	E	566	ASN	CA-C	-5.18	1.46	1.52
3	E	148	VAL	C-O	-5.18	1.18	1.24
3	E	578	LYS	N-CA	5.18	1.52	1.46
5	Q	133	PHE	C-N	-5.18	1.26	1.33
3	E	295	MET	CA-CB	5.18	1.61	1.53
3	C	351	SER	CA-C	-5.18	1.46	1.52
4	B	365	HIS	CA-CB	5.18	1.61	1.53
4	F	399	VAL	C-N	5.18	1.40	1.33
3	C	180	GLY	CA-C	-5.17	1.45	1.52
3	A	184	TRP	C-N	5.17	1.39	1.33
8	P	121	PRO	C-N	5.17	1.40	1.33
2	N	73	ILE	C-N	5.17	1.41	1.33
3	A	110	ARG	CA-C	-5.17	1.46	1.52
3	C	545	ASP	C-N	-5.17	1.27	1.33
3	E	525	PHE	CA-CB	5.17	1.61	1.53
8	P	246	SER	N-CA	-5.17	1.40	1.46
11	Y	148	LEU	C-N	5.17	1.40	1.33
11	R	133	LEU	CA-CB	5.17	1.61	1.53
11	V	110	ILE	CA-C	5.17	1.58	1.52
1	M	43	PHE	N-CA	-5.17	1.40	1.46
2	N	92	LEU	C-N	5.17	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	366	GLU	CA-C	-5.17	1.46	1.52
6	H	41	LYS	CA-CB	5.17	1.62	1.53
11	U	155	THR	CB-OG1	-5.17	1.35	1.43
4	D	120	ILE	CA-C	-5.17	1.46	1.52
6	J	68	LEU	N-CA	5.17	1.52	1.46
7	I	170	GLU	C-O	-5.17	1.17	1.24
3	A	562	ALA	C-N	5.17	1.41	1.33
4	D	35	ASN	CA-CB	5.17	1.61	1.53
10	O	262	TYR	C-N	5.17	1.40	1.33
11	S	80	GLN	CA-CB	-5.17	1.46	1.54
4	D	244	LEU	CA-CB	5.16	1.61	1.53
4	D	71	ARG	NE-CZ	5.16	1.38	1.33
1	M	169	ARG	CZ-NH1	5.16	1.40	1.32
3	A	86	LEU	CB-CG	5.16	1.63	1.53
3	A	376	ALA	C-N	5.16	1.40	1.33
3	E	295	MET	CA-C	-5.16	1.46	1.52
10	O	125	LYS	N-CA	-5.16	1.40	1.45
6	H	76	VAL	CA-C	-5.16	1.46	1.52
7	I	213	GLU	N-CA	-5.16	1.39	1.46
4	F	278	LEU	N-CA	-5.16	1.40	1.46
7	I	124	LEU	CA-CB	5.16	1.61	1.53
11	S	39	ILE	CA-CB	5.16	1.60	1.54
3	A	613	GLU	C-N	5.16	1.40	1.33
3	E	244	PHE	C-N	5.16	1.39	1.33
4	F	150	MET	CA-C	-5.16	1.46	1.52
10	O	57	SER	CA-C	-5.16	1.46	1.53
3	C	197	ILE	N-CA	-5.16	1.40	1.46
4	F	87	ASP	C-N	5.16	1.40	1.33
4	D	232	ASN	CA-C	-5.15	1.46	1.52
4	F	51	GLU	CA-C	-5.15	1.46	1.52
5	Q	84	ARG	CD-NE	5.15	1.53	1.46
8	P	10	SER	CA-C	-5.15	1.46	1.52
3	A	537	PHE	N-CA	-5.15	1.39	1.46
11	U	153	ARG	CA-CB	5.15	1.61	1.53
3	C	327	ALA	N-CA	-5.15	1.40	1.46
10	O	18	GLN	N-CA	-5.15	1.39	1.46
6	J	17	ALA	CA-C	-5.15	1.46	1.52
10	O	71	VAL	CA-C	-5.15	1.46	1.52
7	I	132	LEU	C-N	5.15	1.41	1.33
2	N	97	LYS	CA-CB	5.14	1.60	1.53
3	E	438	PHE	CA-C	-5.14	1.46	1.52
8	P	272	LEU	CA-C	-5.14	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	b	21	ILE	N-CA	-5.14	1.40	1.46
6	H	35	ALA	C-N	5.14	1.41	1.34
7	G	24	ILE	CA-C	-5.14	1.46	1.52
11	Z	155	THR	N-CA	-5.14	1.39	1.46
3	A	586	PHE	C-N	5.14	1.40	1.33
11	S	38	GLY	CA-C	5.14	1.57	1.52
10	O	207	GLU	CA-CB	5.14	1.61	1.53
11	R	37	VAL	CA-C	5.14	1.59	1.52
3	C	237	GLN	N-CA	-5.14	1.40	1.46
3	E	61	ILE	CA-C	-5.14	1.46	1.52
5	Q	337	ARG	CA-C	-5.14	1.45	1.52
9	b	268	GLU	CA-CB	5.14	1.62	1.53
3	E	191	TYR	CZ-OH	5.13	1.48	1.38
5	Q	294	GLU	C-N	5.13	1.40	1.33
6	L	96	LYS	C-N	5.13	1.40	1.33
11	W	79	GLY	C-N	5.13	1.41	1.33
7	I	88	VAL	CA-C	-5.13	1.46	1.52
11	a	142	TYR	N-CA	5.13	1.52	1.46
3	A	363	ALA	N-CA	-5.13	1.40	1.46
3	E	546	MET	N-CA	-5.13	1.40	1.46
3	A	415	ALA	CA-C	-5.13	1.46	1.52
4	D	107	ASP	C-N	5.13	1.41	1.33
11	R	83	ALA	C-N	5.13	1.40	1.33
11	W	12	PHE	C-N	5.13	1.40	1.33
11	X	85	TYR	CA-CB	5.13	1.61	1.53
4	D	194	VAL	CA-C	-5.13	1.46	1.52
8	P	223	ASP	CA-C	5.13	1.59	1.52
10	O	273	GLU	CA-C	-5.13	1.46	1.52
11	R	158	VAL	CA-C	-5.13	1.46	1.52
1	M	27	GLN	N-CA	-5.12	1.40	1.46
5	Q	5	TYR	CA-C	-5.12	1.46	1.52
4	D	42	GLU	CA-CB	5.12	1.61	1.53
8	P	356	PHE	C-N	5.12	1.40	1.33
11	Y	93	ALA	C-N	5.12	1.40	1.33
3	C	541	TRP	CA-C	-5.12	1.46	1.52
7	K	122	GLN	C-N	5.12	1.41	1.34
10	O	277	ALA	CA-C	5.12	1.59	1.52
9	b	69	TYR	CA-CB	5.12	1.61	1.53
10	O	184	PHE	N-CA	-5.12	1.40	1.46
11	V	124	ARG	NE-CZ	5.12	1.38	1.33
4	B	53	VAL	CA-C	-5.12	1.46	1.52
3	E	489	LEU	C-N	5.12	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	F	182	GLU	CA-C	-5.12	1.46	1.52
4	F	151	ILE	C-N	5.11	1.41	1.33
9	b	124	MET	SD-CE	5.11	1.92	1.79
9	b	266	SER	C-N	5.11	1.40	1.33
10	O	61	LEU	C-N	5.11	1.40	1.33
3	C	589	PRO	C-N	5.11	1.40	1.33
4	F	450	GLU	N-CA	-5.11	1.39	1.46
9	b	15	ALA	C-N	5.11	1.40	1.33
11	T	72	VAL	CA-C	-5.11	1.46	1.52
11	a	62	ILE	C-N	5.11	1.40	1.33
7	I	191	SER	CA-C	-5.11	1.46	1.52
4	B	57	LEU	CA-C	-5.11	1.45	1.52
4	D	361	ASP	CA-C	-5.11	1.46	1.52
7	G	105	GLU	C-N	5.11	1.40	1.33
3	C	211	LEU	CA-C	-5.11	1.45	1.52
4	D	48	ARG	CZ-NH1	5.11	1.39	1.32
4	F	155	VAL	CA-CB	-5.11	1.48	1.54
8	P	333	GLU	C-N	-5.11	1.27	1.34
5	Q	218	ARG	CD-NE	5.10	1.53	1.46
8	P	437	SER	C-N	5.10	1.40	1.33
11	W	69	VAL	N-CA	5.10	1.52	1.46
3	A	243	LEU	CA-C	-5.10	1.46	1.52
3	E	463	TYR	C-N	5.10	1.40	1.33
3	A	196	LYS	C-N	5.10	1.40	1.33
3	A	185	ILE	CA-C	-5.10	1.46	1.52
3	A	590	SER	N-CA	-5.10	1.39	1.46
4	F	96	THR	CA-CB	5.10	1.61	1.53
6	L	86	ILE	CA-C	5.10	1.60	1.52
6	J	92	ASP	CA-C	-5.10	1.45	1.52
10	O	64	GLU	N-CA	5.10	1.52	1.46
11	Z	128	GLY	C-N	5.10	1.40	1.33
4	B	391	MET	C-N	5.09	1.39	1.33
4	D	338	PRO	C-N	5.09	1.41	1.33
3	E	193	LEU	CA-CB	5.09	1.62	1.53
3	E	488	ILE	C-N	5.09	1.40	1.33
4	F	79	VAL	C-N	5.09	1.41	1.33
1	M	171	ASN	C-N	5.09	1.40	1.33
3	A	533	THR	N-CA	-5.09	1.39	1.46
6	L	35	ALA	CA-C	-5.09	1.46	1.52
9	b	360	LEU	CA-C	5.09	1.59	1.52
6	J	53	GLU	CA-C	5.09	1.59	1.52
4	D	142	TYR	CA-C	-5.09	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	355	ASP	N-CA	-5.09	1.40	1.46
4	F	339	ASN	CA-C	-5.09	1.47	1.52
4	F	375	VAL	CA-C	-5.09	1.46	1.52
11	W	17	CYS	N-CA	-5.09	1.40	1.46
11	W	54	ILE	C-N	5.09	1.39	1.33
10	O	204	SER	C-N	5.09	1.40	1.33
1	M	123	THR	CA-C	-5.09	1.46	1.52
4	F	386	ALA	CA-C	-5.09	1.46	1.52
7	K	30	GLU	CA-CB	5.09	1.61	1.53
11	S	26	LEU	CA-CB	5.09	1.61	1.53
3	A	556	GLU	N-CA	-5.08	1.40	1.46
3	C	429	THR	C-N	5.08	1.40	1.33
4	D	248	PRO	N-CA	-5.08	1.40	1.47
11	Z	118	GLY	CA-C	-5.08	1.46	1.52
4	B	175	ALA	CA-C	-5.08	1.46	1.52
5	Q	132	TRP	CZ2-CH2	5.08	1.47	1.37
8	P	473	ILE	C-N	5.08	1.40	1.33
10	O	20	ALA	CA-C	5.08	1.59	1.52
4	D	442	THR	C-N	5.08	1.40	1.33
4	F	118	ARG	CA-CB	5.08	1.60	1.53
6	H	53	GLU	C-N	5.08	1.41	1.33
3	C	404	PRO	CA-CB	-5.08	1.46	1.53
7	G	169	LEU	C-N	5.08	1.40	1.33
2	N	68	LEU	C-N	5.08	1.39	1.33
3	C	575	GLY	CA-C	-5.08	1.44	1.51
4	F	293	ALA	CA-C	5.08	1.58	1.52
7	K	34	GLU	C-N	5.08	1.40	1.33
9	b	208	ARG	NE-CZ	5.08	1.38	1.33
9	b	356	MET	C-N	5.08	1.40	1.33
11	W	98	GLY	N-CA	-5.08	1.39	1.45
3	A	141	PHE	CA-CB	5.08	1.60	1.53
3	C	194	ASP	CA-C	-5.08	1.46	1.52
4	D	112	ILE	CA-CB	-5.08	1.48	1.54
10	O	91	GLU	C-N	5.08	1.40	1.33
4	B	187	ILE	N-CA	-5.07	1.40	1.46
3	C	329	ARG	N-CA	-5.07	1.39	1.46
11	X	81	LYS	CA-CB	5.07	1.60	1.53
6	J	58	GLU	CA-C	-5.07	1.45	1.52
3	E	551	ILE	C-N	5.07	1.40	1.33
6	L	105	PRO	CA-CB	-5.07	1.47	1.53
7	K	24	ILE	CA-C	5.07	1.59	1.52
11	W	125	LEU	CA-CB	5.07	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	M	31	LEU	CA-C	-5.07	1.46	1.52
4	D	223	ARG	CZ-NH1	5.07	1.39	1.32
3	E	365	ARG	N-CA	-5.07	1.40	1.46
9	b	201	GLN	CA-C	5.07	1.59	1.52
1	M	102	SER	N-CA	-5.07	1.40	1.46
4	B	433	LEU	CA-C	-5.07	1.46	1.52
6	L	104	LYS	CA-CB	5.07	1.60	1.54
3	A	447	GLN	CD-NE2	5.06	1.43	1.33
3	E	239	VAL	N-CA	-5.06	1.40	1.46
5	Q	107	VAL	C-O	-5.06	1.18	1.24
8	P	407	ARG	NE-CZ	5.06	1.38	1.33
4	F	301	ARG	CD-NE	5.06	1.53	1.46
8	P	270	ASP	CA-CB	5.06	1.61	1.53
10	O	332	VAL	CA-C	-5.06	1.47	1.52
6	H	80	LEU	C-N	5.06	1.41	1.33
3	E	37	ALA	CA-C	-5.06	1.46	1.52
11	Y	105	GLY	CA-C	-5.06	1.46	1.52
11	S	17	CYS	CA-C	-5.06	1.46	1.52
11	W	111	VAL	C-N	5.06	1.40	1.33
4	B	388	GLY	CA-C	-5.05	1.44	1.51
3	E	329	ARG	CD-NE	5.05	1.53	1.46
5	Q	322	ASN	C-N	5.05	1.40	1.33
8	P	410	ASP	C-N	5.05	1.40	1.33
11	S	29	ALA	C-N	5.05	1.40	1.33
7	K	152	MET	C-O	-5.05	1.20	1.23
4	D	191	ALA	N-CA	-5.05	1.39	1.46
6	J	88	GLU	C-N	5.05	1.40	1.33
11	Z	153	ARG	CZ-NH1	5.05	1.39	1.32
3	A	525	PHE	CA-C	-5.05	1.47	1.53
3	E	503	GLY	N-CA	5.05	1.50	1.45
8	P	442	ASP	CA-CB	-5.05	1.45	1.53
11	V	73	LEU	CA-C	-5.05	1.46	1.52
8	P	233	THR	CA-C	-5.05	1.46	1.52
7	G	154	ASP	CA-CB	5.05	1.61	1.53
3	C	30	VAL	C-N	5.05	1.40	1.33
11	X	78	LEU	CA-CB	5.05	1.60	1.53
3	A	48	LEU	N-CA	-5.04	1.39	1.46
10	O	210	TYR	CZ-OH	5.04	1.48	1.38
3	C	100	LEU	N-CA	5.04	1.52	1.46
8	P	456	HIS	C-N	5.04	1.40	1.33
10	O	52	GLU	C-N	5.04	1.40	1.33
6	H	91	LYS	CA-CB	5.04	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	R	53	ASN	N-CA	-5.04	1.40	1.46
5	Q	14	GLU	CA-C	-5.04	1.46	1.52
1	M	88	SER	CA-C	-5.04	1.46	1.52
3	A	444	LYS	CA-C	-5.04	1.46	1.52
3	C	278	ILE	C-N	5.04	1.39	1.33
4	D	460	GLN	CA-CB	5.04	1.61	1.53
3	E	342	TYR	CZ-OH	5.04	1.48	1.38
4	F	289	ARG	C-N	5.04	1.41	1.34
5	Q	337	ARG	C-N	5.04	1.40	1.33
9	b	57	ASN	CA-C	-5.04	1.46	1.52
11	U	69	VAL	N-CA	-5.04	1.40	1.46
3	A	332	SER	N-CA	-5.04	1.40	1.46
4	D	29	ASN	CA-C	-5.04	1.42	1.52
4	D	88	VAL	C-N	5.04	1.41	1.33
9	b	141	TYR	CA-C	-5.04	1.46	1.52
11	Y	22	ILE	C-N	5.04	1.40	1.33
11	U	119	SER	CA-CB	5.04	1.61	1.53
3	A	238	ARG	CD-NE	5.03	1.53	1.46
4	B	221	THR	N-CA	-5.03	1.40	1.46
4	D	34	VAL	N-CA	-5.03	1.40	1.46
3	E	46	TYR	CZ-OH	5.03	1.48	1.38
5	Q	189	LEU	C-N	5.03	1.40	1.34
8	P	382	ASP	CA-C	-5.03	1.46	1.52
6	J	53	GLU	CA-CB	5.03	1.62	1.53
3	C	483	ASP	CA-CB	5.03	1.61	1.53
9	b	60	ARG	NE-CZ	5.03	1.38	1.33
3	A	90	LYS	CA-CB	5.03	1.61	1.54
1	M	46	ILE	N-CA	-5.03	1.40	1.46
7	K	97	ASP	C-N	5.03	1.40	1.33
11	U	92	GLY	N-CA	-5.03	1.39	1.45
4	D	336	THR	C-N	5.03	1.41	1.33
8	P	4	THR	C-N	5.03	1.40	1.33
8	P	162	GLU	CA-C	5.03	1.59	1.52
10	O	186	LEU	N-CA	-5.03	1.39	1.46
11	X	28	ALA	C-O	-5.03	1.18	1.24
11	a	27	GLY	CA-C	-5.03	1.46	1.51
5	Q	187	ALA	C-N	5.02	1.40	1.33
8	P	471	ALA	N-CA	-5.02	1.40	1.46
11	X	120	SER	CA-C	-5.02	1.46	1.52
4	D	71	ARG	CZ-NH2	5.02	1.40	1.33
11	U	46	ARG	CD-NE	5.02	1.53	1.46
11	U	126	PHE	N-CA	5.02	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	561	VAL	C-N	5.02	1.40	1.34
3	E	338	THR	N-CA	-5.02	1.40	1.46
3	E	383	TYR	CA-CB	5.02	1.62	1.53
7	I	23	PHE	C-N	5.02	1.40	1.33
4	D	375	VAL	N-CA	-5.02	1.40	1.46
11	W	157	ASP	CA-C	-5.02	1.46	1.52
4	D	321	ARG	CZ-NH1	5.02	1.39	1.32
3	E	497	GLN	C-N	5.02	1.40	1.33
4	F	78	GLN	CA-C	-5.01	1.46	1.52
9	b	361	GLY	C-N	5.01	1.40	1.33
3	C	531	TYR	N-CA	-5.01	1.38	1.45
3	C	385	GLY	N-CA	-5.01	1.39	1.45
4	D	77	VAL	CA-CB	-5.01	1.47	1.55
11	T	49	LEU	N-CA	-5.01	1.40	1.46
3	A	126	ARG	CA-C	-5.01	1.46	1.52
3	A	332	SER	CA-C	-5.01	1.46	1.52
11	Y	156	GLN	CA-C	-5.01	1.45	1.53
4	B	303	GLY	CA-C	-5.01	1.44	1.51
4	D	249	THR	N-CA	-5.01	1.40	1.46
2	N	3	GLU	N-CA	5.01	1.52	1.46
10	O	336	ASN	CA-C	-5.01	1.46	1.52
11	Y	110	ILE	C-N	5.01	1.40	1.33
3	A	309	GLU	CA-C	-5.00	1.46	1.52
7	I	24	ILE	CA-C	5.00	1.58	1.52
5	Q	28	ASN	C-O	-5.00	1.18	1.24
5	Q	285	GLU	C-N	5.00	1.40	1.33
7	K	153	LYS	C-O	-5.00	1.18	1.24
11	T	74	VAL	CA-C	5.00	1.58	1.52
3	A	324	MET	CA-CB	5.00	1.61	1.53
3	A	474	ASN	CA-C	-5.00	1.46	1.52
3	C	610	ARG	CZ-NH1	5.00	1.39	1.32
7	K	199	ILE	CA-C	-5.00	1.46	1.52
9	b	315	ARG	N-CA	-5.00	1.40	1.46

All (4528) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	O	151	ASN	CA-CB-CG	-13.13	99.47	112.60
4	F	123	GLY	CA-C-N	12.74	132.88	119.76
4	F	123	GLY	C-N-CA	12.74	132.88	119.76
4	B	114	ASP	CA-CB-CG	12.31	124.91	112.60
9	b	33	LEU	CA-C-N	12.24	133.82	119.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	b	33	LEU	C-N-CA	12.24	133.82	119.99
11	T	11	PHE	CA-CB-CG	12.12	125.92	113.80
3	C	209	PHE	CA-CB-CG	-11.96	101.84	113.80
5	Q	306	ILE	CA-C-N	11.44	135.31	120.44
5	Q	306	ILE	C-N-CA	11.44	135.31	120.44
11	R	117	ARG	CA-C-N	11.42	132.39	119.94
11	R	117	ARG	C-N-CA	11.42	132.39	119.94
3	A	535	ASP	N-CA-C	-11.41	99.89	114.04
4	F	104	VAL	N-CA-C	-11.38	92.08	108.36
4	B	477	SER	CA-C-N	11.38	131.17	119.56
4	B	477	SER	C-N-CA	11.38	131.17	119.56
3	E	403	SER	CA-C-N	11.35	131.04	119.24
3	E	403	SER	C-N-CA	11.35	131.04	119.24
11	W	35	SER	O-C-N	11.31	133.72	122.07
11	R	75	CYS	CA-C-N	11.13	135.20	120.28
11	R	75	CYS	C-N-CA	11.13	135.20	120.28
6	H	8	ALA	N-CA-C	11.05	123.33	111.28
4	F	212	PHE	CA-CB-CG	-10.91	102.89	113.80
3	E	259	GLY	CA-C-N	10.79	135.11	120.54
3	E	259	GLY	C-N-CA	10.79	135.11	120.54
5	Q	128	HIS	O-C-N	-10.78	114.23	121.88
11	a	70	VAL	N-CA-CB	10.77	122.46	110.51
4	F	113	PHE	CA-CB-CG	-10.49	103.31	113.80
4	F	269	GLN	N-CA-C	10.47	122.78	111.36
11	a	15	ILE	CA-C-N	10.46	131.55	119.94
11	a	15	ILE	C-N-CA	10.46	131.55	119.94
4	F	246	ASN	OD1-CG-ND2	10.46	133.06	122.60
3	E	311	ILE	CA-C-N	10.38	135.23	120.28
3	E	311	ILE	C-N-CA	10.38	135.23	120.28
3	A	541	TRP	N-CA-C	10.35	122.56	111.28
7	G	51	VAL	N-CA-C	10.30	120.31	110.42
5	Q	182	ASN	CA-CB-CG	-10.24	102.36	112.60
11	U	117	ARG	CA-C-N	10.23	131.10	119.94
11	U	117	ARG	C-N-CA	10.23	131.10	119.94
4	B	401	ASN	CA-CB-CG	-10.21	102.39	112.60
3	C	213	HIS	CB-CG-CD2	-10.20	117.95	131.20
11	Y	137	GLU	CA-C-N	10.18	134.41	120.46
11	Y	137	GLU	C-N-CA	10.18	134.41	120.46
11	R	131	LEU	CA-C-N	10.18	133.38	120.56
11	R	131	LEU	C-N-CA	10.18	133.38	120.56
11	S	53	ASN	CA-CB-CG	-10.15	102.45	112.60
11	Y	132	ILE	N-CA-CB	10.14	122.42	110.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	175	ALA	N-CA-C	-10.12	93.68	109.07
8	P	245	HIS	CE1-NE2-CD2	-10.09	98.91	109.00
7	G	145	ASP	CA-C-N	10.09	134.28	120.46
7	G	145	ASP	C-N-CA	10.09	134.28	120.46
3	A	66	ASP	CA-CB-CG	-10.09	102.51	112.60
6	H	29	GLN	N-CA-C	10.02	122.20	111.28
11	a	100	SER	CA-C-N	10.02	131.06	119.94
11	a	100	SER	C-N-CA	10.02	131.06	119.94
8	P	446	GLY	CA-C-N	9.93	133.99	120.38
8	P	446	GLY	C-N-CA	9.93	133.99	120.38
7	G	56	ASN	CA-CB-CG	-9.93	102.67	112.60
7	G	115	ASP	CA-CB-CG	-9.89	102.70	112.60
4	F	361	ASP	CA-C-N	9.87	134.31	120.29
4	F	361	ASP	C-N-CA	9.87	134.31	120.29
10	O	84	GLU	N-CA-C	9.87	122.04	111.28
11	X	46	ARG	CA-C-O	-9.85	110.89	120.64
3	E	175	PRO	CA-C-O	-9.79	113.85	120.90
11	S	97	VAL	CA-C-N	9.79	130.80	119.94
11	S	97	VAL	C-N-CA	9.79	130.80	119.94
11	X	67	GLY	CA-C-N	9.78	133.39	120.28
11	X	67	GLY	C-N-CA	9.78	133.39	120.28
3	C	327	ALA	CA-C-N	9.77	133.13	120.44
3	C	327	ALA	C-N-CA	9.77	133.13	120.44
11	T	63	ILE	CA-C-N	9.75	134.62	120.38
11	T	63	ILE	C-N-CA	9.75	134.62	120.38
3	A	567	TRP	CA-C-N	9.70	133.28	120.28
3	A	567	TRP	C-N-CA	9.70	133.28	120.28
10	O	215	LYS	CA-C-O	-9.70	110.37	121.81
11	W	55	VAL	CA-C-N	9.68	129.31	119.24
11	W	55	VAL	C-N-CA	9.68	129.31	119.24
4	D	178	LEU	O-C-N	-9.68	115.52	121.71
8	P	158	VAL	CA-C-N	9.68	133.25	120.28
8	P	158	VAL	C-N-CA	9.68	133.25	120.28
9	b	93	ASP	CA-C-N	9.68	130.68	119.94
9	b	93	ASP	C-N-CA	9.68	130.68	119.94
10	O	109	GLU	CA-C-N	9.63	133.19	120.28
10	O	109	GLU	C-N-CA	9.63	133.19	120.28
5	Q	271	ASN	CA-CB-CG	-9.63	102.97	112.60
8	P	339	ILE	N-CA-CB	9.62	121.81	110.55
5	Q	4	VAL	N-CA-C	-9.60	103.36	111.91
5	Q	37	ASP	N-CA-C	-9.56	100.01	114.16
3	A	240	LEU	O-C-N	9.55	131.91	122.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	b	103	SER	CA-C-N	9.51	133.43	121.06
9	b	103	SER	C-N-CA	9.51	133.43	121.06
8	P	117	PHE	CA-C-N	9.48	132.77	120.44
8	P	117	PHE	C-N-CA	9.48	132.77	120.44
11	X	63	ILE	CA-C-N	9.48	134.22	120.38
11	X	63	ILE	C-N-CA	9.48	134.22	120.38
3	C	146	PHE	CA-CB-CG	-9.47	104.33	113.80
7	K	50	ILE	CA-C-N	9.45	133.40	120.46
7	K	50	ILE	C-N-CA	9.45	133.40	120.46
11	X	106	PHE	CA-C-N	9.39	132.65	120.44
11	X	106	PHE	C-N-CA	9.39	132.65	120.44
11	W	106	PHE	CA-C-N	9.38	132.85	120.28
11	W	106	PHE	C-N-CA	9.38	132.85	120.28
3	C	408	GLY	N-CA-C	-9.38	96.98	110.96
3	A	535	ASP	CA-C-N	9.36	133.58	120.29
3	A	535	ASP	C-N-CA	9.36	133.58	120.29
8	P	147	VAL	CA-C-N	9.36	133.17	120.54
8	P	147	VAL	C-N-CA	9.36	133.17	120.54
8	P	10	SER	CA-C-N	9.32	133.53	120.29
8	P	10	SER	C-N-CA	9.32	133.53	120.29
11	W	124	ARG	NE-CZ-NH1	-9.31	112.19	121.50
9	b	114	ALA	N-CA-C	-9.30	102.06	113.41
3	E	75	GLU	N-CA-CB	9.29	123.56	110.17
10	O	116	TRP	N-CA-CB	9.27	126.16	110.49
4	F	175	ALA	CA-C-O	-9.24	111.57	121.45
11	S	15	ILE	CA-C-N	9.23	130.19	119.94
11	S	15	ILE	C-N-CA	9.23	130.19	119.94
3	A	386	ALA	CA-C-O	-9.21	110.65	120.42
4	D	286	ASP	CA-CB-CG	-9.21	103.39	112.60
9	b	336	ILE	N-CA-C	-9.21	94.72	108.17
11	R	26	LEU	CA-C-N	9.21	130.39	119.99
11	R	26	LEU	C-N-CA	9.21	130.39	119.99
8	P	401	LEU	CA-C-N	9.18	132.58	120.28
8	P	401	LEU	C-N-CA	9.18	132.58	120.28
7	G	209	LEU	CA-C-N	9.16	133.47	120.28
7	G	209	LEU	C-N-CA	9.16	133.47	120.28
10	O	237	HIS	ND1-CE1-NE2	9.15	117.56	108.40
9	b	310	PHE	CA-CB-CG	9.15	122.95	113.80
7	I	71	LEU	N-CA-C	-9.10	99.81	112.45
3	E	153	SER	N-CA-C	-9.06	94.44	108.76
3	C	309	GLU	CA-C-N	9.02	131.12	119.84
3	C	309	GLU	C-N-CA	9.02	131.12	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	H	33	LYS	CA-C-N	9.01	132.35	120.28
6	H	33	LYS	C-N-CA	9.01	132.35	120.28
9	b	45	ASN	N-CA-C	-9.01	95.10	108.34
5	Q	7	ASN	O-C-N	9.00	134.34	123.36
11	U	112	GLY	CA-C-N	9.00	132.14	120.44
11	U	112	GLY	C-N-CA	9.00	132.14	120.44
3	A	355	ASP	N-CA-C	-8.99	92.24	107.80
11	a	51	PHE	N-CA-C	8.97	121.06	111.28
11	a	79	GLY	N-CA-C	-8.97	98.73	111.20
4	B	243	ASN	OD1-CG-ND2	-8.96	113.64	122.60
6	L	57	PHE	CA-CB-CG	-8.96	104.84	113.80
4	B	337	MET	O-C-N	-8.96	112.85	121.18
11	X	15	ILE	CA-C-N	8.95	129.88	119.94
11	X	15	ILE	C-N-CA	8.95	129.88	119.94
2	N	82	ASP	N-CA-CB	8.94	123.26	110.12
10	O	218	VAL	CA-C-N	8.94	128.70	119.76
10	O	218	VAL	C-N-CA	8.94	128.70	119.76
4	F	427	ILE	CA-C-N	8.94	132.25	120.28
4	F	427	ILE	C-N-CA	8.94	132.25	120.28
11	X	146	VAL	N-CA-C	8.93	119.72	110.62
3	E	609	GLU	CA-C-N	8.92	132.24	120.28
3	E	609	GLU	C-N-CA	8.92	132.24	120.28
10	O	105	MET	CA-C-N	8.92	130.99	119.84
10	O	105	MET	C-N-CA	8.92	130.99	119.84
11	U	50	LEU	N-CA-C	8.91	121.89	111.02
3	A	399	VAL	CA-C-N	8.91	133.37	120.71
3	A	399	VAL	C-N-CA	8.91	133.37	120.71
11	Y	35	SER	CA-C-N	8.90	130.05	119.99
11	Y	35	SER	C-N-CA	8.90	130.05	119.99
6	J	8	ALA	CA-C-N	8.90	132.93	120.29
6	J	8	ALA	C-N-CA	8.90	132.93	120.29
4	F	430	LYS	N-CA-CB	8.87	123.16	110.12
11	S	24	THR	CA-C-O	-8.85	111.04	120.42
9	b	40	GLN	OE1-CD-NE2	8.85	131.45	122.60
11	W	12	PHE	N-CA-C	-8.84	102.51	113.38
11	R	153	ARG	CA-C-N	8.84	132.49	120.38
11	R	153	ARG	C-N-CA	8.84	132.49	120.38
4	B	120	ILE	N-CA-C	-8.83	104.72	113.20
8	P	183	CYS	CA-C-N	8.82	132.30	120.65
8	P	183	CYS	C-N-CA	8.82	132.30	120.65
8	P	409	GLY	N-CA-C	-8.81	102.42	115.72
10	O	239	PHE	CA-CB-CG	-8.80	105.00	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	166	LEU	N-CA-C	-8.79	100.68	111.40
11	R	139	LEU	CA-C-N	8.79	129.52	119.94
11	R	139	LEU	C-N-CA	8.79	129.52	119.94
3	A	497	GLN	OE1-CD-NE2	-8.78	113.82	122.60
11	R	66	TYR	CA-C-N	8.75	129.65	119.94
11	R	66	TYR	C-N-CA	8.75	129.65	119.94
11	U	18	ALA	N-CA-C	8.75	120.50	110.97
11	a	62	ILE	CA-C-O	8.73	129.20	119.42
3	C	417	SER	N-CA-C	-8.73	100.30	108.07
11	Z	62	ILE	CA-C-N	8.73	131.73	120.56
11	Z	62	ILE	C-N-CA	8.73	131.73	120.56
11	a	47	PRO	N-CA-C	-8.73	104.53	114.92
9	b	144	ILE	N-CA-C	8.72	118.79	110.42
3	A	194	ASP	CA-CB-CG	-8.72	103.88	112.60
11	R	94	GLY	N-CA-C	8.71	123.18	112.64
3	C	213	HIS	CB-CG-ND1	8.67	135.70	122.70
11	U	85	TYR	CA-C-N	8.66	132.59	120.29
11	U	85	TYR	C-N-CA	8.66	132.59	120.29
7	I	88	VAL	N-CA-C	-8.66	102.39	110.53
4	B	395	ASP	CA-C-N	8.65	131.87	120.28
4	B	395	ASP	C-N-CA	8.65	131.87	120.28
6	J	104	LYS	N-CA-C	-8.63	96.89	110.10
9	b	213	PHE	N-CA-C	-8.61	94.21	108.76
3	A	402	GLY	N-CA-C	-8.61	101.73	111.63
4	B	34	VAL	N-CA-C	-8.56	95.67	108.17
11	X	106	PHE	N-CA-C	-8.56	101.90	111.14
10	O	86	LEU	N-CA-C	8.54	120.59	111.28
11	V	70	VAL	N-CA-CB	8.52	119.97	110.51
6	H	5	ASN	CA-C-N	8.52	129.37	120.00
6	H	5	ASN	C-N-CA	8.52	129.37	120.00
9	b	261	TYR	CA-C-N	8.51	131.51	120.44
9	b	261	TYR	C-N-CA	8.51	131.51	120.44
8	P	156	HIS	ND1-CE1-NE2	8.51	116.91	108.40
2	N	81	VAL	N-CA-CB	8.50	123.33	110.58
5	Q	28	ASN	CA-CB-CG	8.50	121.10	112.60
4	D	273	HIS	ND1-CE1-NE2	8.49	116.89	108.40
4	B	343	THR	N-CA-C	-8.48	101.94	112.88
4	F	305	PRO	CA-C-N	8.47	131.01	120.34
4	F	305	PRO	C-N-CA	8.47	131.01	120.34
5	Q	54	PHE	CA-CB-CG	-8.46	105.33	113.80
11	X	112	GLY	CA-C-N	8.47	131.97	120.54
11	X	112	GLY	C-N-CA	8.47	131.97	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	53	HIS	N-CA-C	-8.46	102.96	113.28
4	D	94	GLU	N-CA-C	-8.43	95.75	108.99
3	E	130	THR	O-C-N	-8.43	115.95	121.85
3	A	244	PHE	CA-C-O	-8.41	112.90	121.06
4	B	361	ASP	CA-C-N	8.41	133.10	120.31
4	B	361	ASP	C-N-CA	8.41	133.10	120.31
11	U	118	GLY	CA-C-N	8.41	131.89	120.54
11	U	118	GLY	C-N-CA	8.41	131.89	120.54
11	U	139	LEU	CA-C-N	8.39	129.30	119.98
11	U	139	LEU	C-N-CA	8.39	129.30	119.98
11	Y	118	GLY	CA-C-N	8.39	132.45	120.79
11	Y	118	GLY	C-N-CA	8.39	132.45	120.79
4	D	259	ALA	O-C-N	8.39	131.01	122.12
7	K	110	ILE	O-C-N	8.39	130.00	121.87
3	A	399	VAL	N-CA-CB	8.38	121.05	110.99
3	E	549	ALA	CA-C-N	8.38	131.83	120.44
3	E	549	ALA	C-N-CA	8.38	131.83	120.44
4	B	212	PHE	CA-CB-CG	-8.37	105.43	113.80
3	C	543	THR	CA-C-N	8.37	131.32	120.44
3	C	543	THR	C-N-CA	8.37	131.32	120.44
4	F	477	SER	CA-C-N	8.36	128.47	119.28
4	F	477	SER	C-N-CA	8.36	128.47	119.28
8	P	211	MET	O-C-N	-8.36	112.86	120.71
8	P	358	GLU	CA-C-N	8.35	131.29	120.44
8	P	358	GLU	C-N-CA	8.35	131.29	120.44
5	Q	268	ALA	CA-C-O	8.34	129.56	119.97
3	E	598	GLY	CA-C-N	8.33	131.45	120.28
3	E	598	GLY	C-N-CA	8.33	131.45	120.28
4	F	146	TYR	CA-C-N	8.33	128.28	120.03
4	F	146	TYR	C-N-CA	8.33	128.28	120.03
4	D	263	ALA	CA-C-N	8.31	131.42	120.28
4	D	263	ALA	C-N-CA	8.31	131.42	120.28
3	E	614	SER	N-CA-CB	8.31	122.12	110.07
8	P	270	ASP	CA-CB-CG	-8.30	104.30	112.60
4	D	54	ASN	CA-C-N	8.28	134.14	122.72
4	D	54	ASN	C-N-CA	8.28	134.14	122.72
3	C	433	GLY	O-C-N	8.27	130.13	122.19
4	F	478	PRO	N-CA-CB	8.27	112.32	103.39
8	P	245	HIS	ND1-CE1-NE2	8.27	116.67	108.40
11	U	150	LEU	CA-C-N	8.25	131.68	120.54
11	U	150	LEU	C-N-CA	8.25	131.68	120.54
11	S	12	PHE	N-CA-C	-8.25	103.36	113.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	175	PRO	N-CA-CB	8.24	107.81	103.19
6	H	92	ASP	CA-CB-CG	-8.23	104.37	112.60
9	b	86	GLY	N-CA-C	-8.22	104.01	114.37
4	B	90	LYS	N-CA-C	-8.22	103.35	112.72
4	F	218	ASN	CA-C-N	8.21	131.11	120.44
4	F	218	ASN	C-N-CA	8.21	131.11	120.44
3	A	150	ASP	CA-CB-CG	-8.21	104.39	112.60
4	F	346	ILE	CA-C-O	-8.19	108.97	119.95
4	F	415	ALA	N-CA-C	-8.20	102.35	111.28
9	b	59	ILE	CA-C-N	8.19	131.26	120.28
9	b	59	ILE	C-N-CA	8.19	131.26	120.28
11	a	64	ALA	N-CA-C	8.19	120.21	111.28
3	C	174	LEU	CA-C-N	8.19	128.81	120.38
3	C	174	LEU	C-N-CA	8.19	128.81	120.38
6	L	5	ASN	CA-C-N	8.18	129.00	120.00
6	L	5	ASN	C-N-CA	8.18	129.00	120.00
11	S	52	LYS	CA-C-N	8.17	131.23	120.28
11	S	52	LYS	C-N-CA	8.17	131.23	120.28
5	Q	172	LEU	N-CA-C	-8.17	102.34	112.88
3	A	142	THR	CA-C-N	8.16	130.04	119.84
3	A	142	THR	C-N-CA	8.16	130.04	119.84
11	Y	63	ILE	CA-C-N	8.16	132.29	120.38
11	Y	63	ILE	C-N-CA	8.16	132.29	120.38
11	V	153	ARG	N-CA-CB	8.15	122.20	110.13
11	S	95	LEU	CA-C-N	8.15	131.04	120.44
11	S	95	LEU	C-N-CA	8.15	131.04	120.44
3	A	611	PHE	CA-C-O	-8.15	111.78	120.42
11	W	18	ALA	N-CA-CB	8.14	122.20	109.82
7	I	118	LYS	CA-C-N	8.14	127.82	119.19
7	I	118	LYS	C-N-CA	8.14	127.82	119.19
4	B	50	ASN	CA-CB-CG	8.13	120.73	112.60
3	E	367	ILE	CA-C-N	8.13	131.18	120.28
3	E	367	ILE	C-N-CA	8.13	131.18	120.28
11	X	52	LYS	CA-C-N	8.13	131.52	120.54
11	X	52	LYS	C-N-CA	8.13	131.52	120.54
4	B	121	ASP	CA-C-O	8.13	129.31	119.97
11	S	125	LEU	CA-C-N	8.12	131.82	120.29
11	S	125	LEU	C-N-CA	8.12	131.82	120.29
3	C	486	LYS	CA-C-N	8.12	131.16	120.28
3	C	486	LYS	C-N-CA	8.12	131.16	120.28
9	b	51	PHE	CA-CB-CG	8.12	121.92	113.80
7	G	25	ARG	N-CA-C	8.12	120.13	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	R	133	LEU	N-CA-C	8.12	119.75	111.07
3	C	182	ILE	CA-CB-CG2	-8.11	96.71	110.50
9	b	266	SER	N-CA-C	-8.11	102.95	113.17
11	W	17	CYS	N-CA-C	-8.11	102.40	111.07
3	E	57	VAL	CA-C-O	-8.10	111.80	121.04
8	P	245	HIS	CA-CB-CG	-8.10	105.70	113.80
3	A	265	ILE	CA-C-O	-8.10	112.27	120.85
1	M	165	VAL	CA-C-O	-8.09	112.27	120.85
8	P	156	HIS	CE1-NE2-CD2	-8.08	100.92	109.00
11	W	104	ALA	CA-C-N	8.07	130.48	120.22
11	W	104	ALA	C-N-CA	8.07	130.48	120.22
11	X	49	LEU	CA-C-N	8.07	131.44	120.54
11	X	49	LEU	C-N-CA	8.07	131.44	120.54
11	U	18	ALA	N-CA-CB	-8.07	98.13	109.91
4	F	225	PHE	CA-CB-CG	-8.06	105.74	113.80
11	X	91	LEU	CA-C-N	8.06	130.22	120.14
11	X	91	LEU	C-N-CA	8.06	130.22	120.14
11	S	63	ILE	CA-C-N	8.06	131.08	120.28
11	S	63	ILE	C-N-CA	8.06	131.08	120.28
6	J	100	GLU	N-CA-C	8.05	120.06	111.28
11	W	26	LEU	CA-C-N	8.05	128.88	119.94
11	W	26	LEU	C-N-CA	8.05	128.88	119.94
11	Z	35	SER	CA-C-N	8.05	129.09	119.99
11	Z	35	SER	C-N-CA	8.05	129.09	119.99
2	N	63	ASP	CA-CB-CG	8.03	120.63	112.60
3	A	370	ARG	CA-C-N	8.03	131.70	120.29
3	A	370	ARG	C-N-CA	8.03	131.70	120.29
4	D	383	MET	CB-CA-C	-8.03	98.21	110.90
8	P	13	PHE	CA-C-N	8.02	131.03	120.28
8	P	13	PHE	C-N-CA	8.02	131.03	120.28
10	O	354	ASN	CA-CB-CG	-8.02	104.58	112.60
11	Y	94	GLY	CA-C-N	8.02	132.85	120.82
11	Y	94	GLY	C-N-CA	8.02	132.85	120.82
11	a	101	GLY	CA-C-N	8.01	131.35	120.54
11	a	101	GLY	C-N-CA	8.01	131.35	120.54
8	P	271	PHE	CA-C-N	8.00	131.80	120.28
8	P	271	PHE	C-N-CA	8.00	131.80	120.28
4	D	273	HIS	CE1-NE2-CD2	-8.00	101.00	109.00
3	A	539	PRO	CA-C-N	8.00	131.78	120.42
3	A	539	PRO	C-N-CA	8.00	131.78	120.42
5	Q	84	ARG	N-CA-C	8.00	120.00	111.28
6	L	16	GLU	N-CA-C	8.00	120.00	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	563	ASN	N-CA-C	-7.99	103.25	113.16
11	W	142	TYR	CA-C-N	7.98	128.64	119.94
11	W	142	TYR	C-N-CA	7.98	128.64	119.94
11	R	73	LEU	CA-C-O	-7.98	112.36	120.90
11	Z	73	LEU	CA-C-N	7.97	130.61	120.56
11	Z	73	LEU	C-N-CA	7.97	130.61	120.56
11	Y	123	PRO	N-CA-C	-7.97	103.48	114.80
11	a	129	MET	CA-C-N	7.97	130.88	120.60
11	a	129	MET	C-N-CA	7.97	130.88	120.60
11	a	90	GLN	CA-C-N	7.97	131.87	120.79
11	a	90	GLN	C-N-CA	7.97	131.87	120.79
4	D	265	TYR	CA-C-O	-7.96	112.50	120.70
4	F	279	THR	O-C-N	-7.96	113.56	123.27
11	V	158	VAL	N-CA-CB	7.95	124.35	111.23
7	I	82	ASN	N-CA-C	-7.95	103.19	113.12
5	Q	300	PHE	CA-CB-CG	-7.95	105.85	113.80
11	Z	39	ILE	CA-C-O	-7.94	112.75	121.17
4	F	418	ALA	CA-C-N	7.94	130.40	120.72
4	F	418	ALA	C-N-CA	7.94	130.40	120.72
7	G	110	ILE	N-CA-C	-7.93	103.07	110.53
11	W	39	ILE	CA-C-N	7.93	130.91	120.28
11	W	39	ILE	C-N-CA	7.93	130.91	120.28
5	Q	322	ASN	N-CA-CB	7.93	121.78	110.12
7	K	209	LEU	CA-C-N	7.93	130.90	120.28
7	K	209	LEU	C-N-CA	7.93	130.90	120.28
4	D	224	PHE	CA-CB-CG	-7.92	105.88	113.80
2	N	38	PHE	CA-C-N	7.92	132.28	120.95
2	N	38	PHE	C-N-CA	7.92	132.28	120.95
4	D	195	ARG	CA-C-N	7.92	127.58	119.19
4	D	195	ARG	C-N-CA	7.92	127.58	119.19
10	O	56	GLY	O-C-N	7.92	129.62	122.81
11	Y	28	ALA	CA-C-N	7.92	131.23	120.54
11	Y	28	ALA	C-N-CA	7.92	131.23	120.54
6	H	72	ALA	N-CA-C	-7.91	103.42	113.23
3	E	184	TRP	CA-C-N	7.91	133.40	123.12
3	E	184	TRP	C-N-CA	7.91	133.40	123.12
3	C	167	ILE	CA-C-O	7.90	129.04	120.43
3	E	54	ASP	N-CA-C	-7.90	101.97	111.69
4	F	64	GLN	OE1-CD-NE2	-7.90	114.70	122.60
3	E	297	PHE	CA-C-N	7.89	127.53	119.56
3	E	297	PHE	C-N-CA	7.89	127.53	119.56
11	W	123	PRO	N-CA-C	-7.89	103.45	114.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	245	ALA	N-CA-C	7.89	122.94	113.16
3	E	578	LYS	CA-C-N	7.89	131.49	120.29
3	E	578	LYS	C-N-CA	7.89	131.49	120.29
3	A	254	ILE	CA-C-O	-7.88	115.84	119.94
11	U	28	ALA	N-CA-C	-7.87	102.78	111.36
3	C	556	GLU	N-CA-C	-7.87	102.70	111.28
10	O	4	ALA	CA-C-N	7.86	133.83	121.56
10	O	4	ALA	C-N-CA	7.86	133.83	121.56
5	Q	339	ASN	CA-CB-CG	-7.86	104.74	112.60
10	O	240	LYS	CA-C-O	-7.86	112.22	120.55
5	Q	284	LEU	CA-C-N	7.86	130.81	120.28
5	Q	284	LEU	C-N-CA	7.86	130.81	120.28
9	b	347	ALA	N-CA-C	7.85	119.47	111.07
11	W	93	ALA	CA-C-N	7.85	128.86	119.99
11	W	93	ALA	C-N-CA	7.85	128.86	119.99
3	C	423	PHE	N-CA-C	-7.85	102.54	114.16
7	K	201	ASN	OD1-CG-ND2	7.84	130.44	122.60
4	D	142	TYR	CA-C-N	7.84	132.59	120.75
4	D	142	TYR	C-N-CA	7.84	132.59	120.75
8	P	449	ASP	CA-C-O	-7.84	112.24	120.55
4	D	177	GLY	N-CA-C	-7.83	103.17	116.01
3	A	500	GLN	CA-C-O	-7.82	112.79	121.00
9	b	193	ARG	CA-C-N	7.82	132.20	120.31
9	b	193	ARG	C-N-CA	7.82	132.20	120.31
6	L	93	ASP	CA-CB-CG	-7.82	104.78	112.60
9	b	49	ARG	CA-C-N	7.82	131.09	120.38
9	b	49	ARG	C-N-CA	7.82	131.09	120.38
11	U	91	LEU	CA-C-N	7.82	129.91	120.14
11	U	91	LEU	C-N-CA	7.82	129.91	120.14
8	P	168	ASN	CA-CB-CG	-7.80	104.80	112.60
4	D	410	GLY	CA-C-N	7.80	131.37	120.29
4	D	410	GLY	C-N-CA	7.80	131.37	120.29
3	E	247	VAL	O-C-N	-7.80	114.65	123.00
10	O	164	ARG	CA-C-N	7.80	130.73	120.28
10	O	164	ARG	C-N-CA	7.80	130.73	120.28
5	Q	119	ASP	CA-CB-CG	-7.79	104.81	112.60
5	Q	206	GLU	CA-C-N	7.79	130.56	120.44
5	Q	206	GLU	C-N-CA	7.79	130.56	120.44
10	O	341	LYS	CA-C-N	7.78	130.56	120.44
10	O	341	LYS	C-N-CA	7.78	130.56	120.44
11	R	104	ALA	CA-C-N	7.78	128.75	120.03
11	R	104	ALA	C-N-CA	7.78	128.75	120.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	a	23	PHE	CA-CB-CG	-7.78	106.02	113.80
5	Q	141	VAL	CA-C-O	-7.77	112.07	120.47
8	P	112	ASP	CA-C-N	7.77	131.03	120.54
8	P	112	ASP	C-N-CA	7.77	131.03	120.54
11	Z	37	VAL	N-CA-CB	7.77	120.18	110.47
3	A	610	ARG	CA-C-N	7.76	131.32	120.29
3	A	610	ARG	C-N-CA	7.76	131.32	120.29
8	P	27	TRP	CA-C-N	7.76	131.02	120.38
8	P	27	TRP	C-N-CA	7.76	131.02	120.38
11	a	111	VAL	O-C-N	7.76	129.70	121.94
11	R	122	GLN	O-C-N	7.76	128.38	121.17
11	X	153	ARG	CA-C-N	7.76	131.01	120.38
11	X	153	ARG	C-N-CA	7.76	131.01	120.38
4	F	482	ASP	N-CA-CB	7.75	121.63	110.16
11	S	23	PHE	CA-C-O	7.75	128.96	120.82
3	C	364	LEU	CA-C-O	-7.74	112.21	120.42
3	C	547	MET	CA-C-N	7.74	130.66	120.28
3	C	547	MET	C-N-CA	7.74	130.66	120.28
10	O	264	GLU	O-C-N	7.74	130.33	122.12
5	Q	11	GLY	CA-C-O	-7.74	112.78	120.75
6	J	26	LYS	CA-C-N	7.74	130.50	120.44
6	J	26	LYS	C-N-CA	7.74	130.50	120.44
11	W	115	GLY	O-C-N	-7.74	113.93	122.68
3	C	569	LYS	N-CA-C	-7.74	102.93	111.36
11	R	28	ALA	CA-C-N	7.73	130.98	120.54
11	R	28	ALA	C-N-CA	7.73	130.98	120.54
11	T	43	CYS	O-C-N	-7.73	113.17	122.22
7	I	12	GLN	N-CA-CB	7.73	121.22	110.01
11	T	83	ALA	CA-C-N	7.73	130.63	120.28
11	T	83	ALA	C-N-CA	7.73	130.63	120.28
4	D	197	THR	N-CA-C	-7.72	102.94	111.36
3	C	324	MET	CA-C-N	7.72	127.78	119.90
3	C	324	MET	C-N-CA	7.72	127.78	119.90
11	R	122	GLN	OE1-CD-NE2	7.72	130.32	122.60
11	U	40	CYS	N-CA-CB	7.71	121.46	110.12
4	F	311	ASP	CA-C-N	7.71	130.46	120.44
4	F	311	ASP	C-N-CA	7.71	130.46	120.44
7	K	70	MET	N-CA-C	-7.71	103.33	112.89
11	Z	154	ALA	CA-C-N	7.71	131.81	120.87
11	Z	154	ALA	C-N-CA	7.71	131.81	120.87
2	N	13	ASP	N-CA-CB	7.70	121.36	110.04
9	b	296	GLU	CA-C-N	7.70	130.45	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	b	296	GLU	C-N-CA	7.70	130.45	120.44
1	M	86	SER	CA-C-N	-7.70	112.75	122.37
1	M	86	SER	C-N-CA	-7.70	112.75	122.37
4	D	162	ASN	CA-C-N	7.70	132.06	121.05
4	D	162	ASN	C-N-CA	7.70	132.06	121.05
4	F	193	LEU	N-CA-C	-7.69	102.96	113.18
2	N	25	ILE	N-CA-CB	7.69	123.91	111.23
10	O	161	ALA	N-CA-C	-7.69	102.84	111.14
11	W	119	SER	CA-C-N	7.67	130.90	120.54
11	W	119	SER	C-N-CA	7.67	130.90	120.54
9	b	87	ASP	CA-CB-CG	-7.67	104.93	112.60
11	Z	18	ALA	N-CA-C	7.67	120.38	111.02
3	A	349	ASN	OD1-CG-ND2	7.67	130.27	122.60
7	I	49	ASN	OD1-CG-ND2	-7.67	114.93	122.60
8	P	313	LEU	CA-C-N	7.67	131.06	120.63
8	P	313	LEU	C-N-CA	7.67	131.06	120.63
5	Q	3	GLY	CA-C-N	7.66	131.76	122.26
5	Q	3	GLY	C-N-CA	7.66	131.76	122.26
11	X	117	ARG	CA-C-N	7.66	128.29	119.94
11	X	117	ARG	C-N-CA	7.66	128.29	119.94
11	Z	48	ASP	N-CA-C	-7.66	103.91	113.18
11	Z	111	VAL	N-CA-CB	7.66	119.01	110.51
11	V	95	LEU	O-C-N	7.66	130.24	122.12
11	W	37	VAL	CA-C-N	7.65	128.43	119.94
11	W	37	VAL	C-N-CA	7.65	128.43	119.94
3	C	365	ARG	CA-C-N	7.64	130.38	120.44
3	C	365	ARG	C-N-CA	7.64	130.38	120.44
11	U	33	ALA	CA-C-O	-7.64	112.67	121.07
3	A	316	THR	N-CA-C	-7.64	95.85	108.76
3	A	383	TYR	CA-C-N	7.64	130.85	120.54
3	A	383	TYR	C-N-CA	7.64	130.85	120.54
11	V	41	ALA	CA-C-N	7.64	130.51	120.28
11	V	41	ALA	C-N-CA	7.64	130.51	120.28
9	b	273	GLN	CA-C-O	7.63	128.64	120.55
6	L	20	ILE	CA-C-O	-7.63	113.08	121.17
3	E	339	LEU	CA-C-N	7.62	130.50	120.28
3	E	339	LEU	C-N-CA	7.62	130.50	120.28
6	J	8	ALA	N-CA-C	7.62	119.59	111.28
11	Z	90	GLN	CA-C-N	7.61	131.37	120.79
11	Z	90	GLN	C-N-CA	7.61	131.37	120.79
3	A	406	ARG	NE-CZ-NH1	7.61	129.11	121.50
4	F	180	HIS	CE1-NE2-CD2	-7.61	101.39	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	O	115	GLN	OE1-CD-NE2	7.61	130.21	122.60
7	I	107	LEU	N-CA-C	7.61	119.57	111.28
11	S	138	VAL	CA-C-N	7.60	130.47	120.28
11	S	138	VAL	C-N-CA	7.60	130.47	120.28
11	V	78	LEU	N-CA-C	7.60	119.64	111.36
3	A	597	HIS	CE1-NE2-CD2	-7.60	101.40	109.00
2	N	28	ILE	N-CA-C	-7.59	96.13	107.37
3	A	271	LYS	N-CA-CB	-7.59	99.06	110.07
7	G	138	ILE	N-CA-CB	7.59	120.10	110.99
2	N	44	LYS	N-CA-C	-7.59	102.22	113.61
3	A	533	THR	N-CA-C	-7.59	104.43	112.93
4	D	106	GLU	N-CA-C	-7.58	103.10	112.88
1	M	44	ARG	CB-CA-C	-7.58	98.21	110.79
10	O	372	HIS	CE1-NE2-CD2	-7.58	101.42	109.00
3	A	597	HIS	CA-C-N	7.57	129.83	120.22
3	A	597	HIS	C-N-CA	7.57	129.83	120.22
3	E	559	LYS	CA-C-O	-7.57	112.53	120.55
4	B	291	VAL	N-CA-CB	7.57	120.62	110.26
11	Z	51	PHE	CA-CB-CG	-7.57	106.23	113.80
9	b	66	GLU	N-CA-CB	7.56	121.23	110.12
3	E	548	ARG	CA-C-O	7.56	128.56	120.55
4	F	145	ILE	N-CA-C	-7.55	97.27	108.45
11	X	132	ILE	N-CA-C	7.55	117.67	110.42
3	C	552	SER	CA-C-O	7.55	128.55	120.55
11	U	154	ALA	N-CA-C	7.55	119.14	111.07
9	b	282	SER	N-CA-C	-7.54	103.88	113.23
11	Y	64	ALA	CA-C-O	-7.54	111.75	120.20
9	b	92	LEU	N-CA-C	-7.54	102.20	111.40
6	J	93	ASP	CA-CB-CG	-7.54	105.06	112.60
7	K	101	GLU	CA-C-N	7.54	130.38	120.28
7	K	101	GLU	C-N-CA	7.54	130.38	120.28
7	K	75	ILE	N-CA-C	-7.53	103.11	110.72
11	T	12	PHE	CA-C-O	7.53	127.73	119.15
3	E	215	TRP	CA-C-N	7.53	127.29	119.76
3	E	215	TRP	C-N-CA	7.53	127.29	119.76
11	Y	97	VAL	CB-CA-C	-7.53	99.89	112.16
3	C	405	ASP	CA-CB-CG	-7.53	105.07	112.60
7	K	134	GLU	CA-C-O	-7.53	114.38	121.08
6	J	30	ASP	CA-C-N	7.52	131.11	120.28
6	J	30	ASP	C-N-CA	7.52	131.11	120.28
3	E	535	ASP	N-CA-C	-7.52	102.64	112.41
11	R	61	GLY	N-CA-C	7.51	123.25	114.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	419	ALA	N-CA-C	-7.51	100.90	112.99
11	X	127	VAL	CA-C-N	7.51	128.26	120.00
11	X	127	VAL	C-N-CA	7.51	128.26	120.00
10	O	184	PHE	CB-CA-C	-7.50	101.34	110.94
8	P	376	ASP	CA-CB-CG	7.50	120.10	112.60
4	B	62	VAL	N-CA-C	-7.49	97.67	108.53
1	M	101	VAL	N-CA-C	-7.49	95.37	107.28
3	A	579	HIS	CA-CB-CG	7.49	121.29	113.80
3	A	333	ILE	CA-CB-CG1	7.49	123.12	110.40
6	H	8	ALA	CA-C-N	7.48	130.92	120.29
6	H	8	ALA	C-N-CA	7.48	130.92	120.29
1	M	91	ARG	NE-CZ-NH1	7.48	128.98	121.50
3	A	252	THR	N-CA-C	-7.48	95.97	108.75
4	D	444	ILE	CA-C-N	7.47	131.36	120.82
4	D	444	ILE	C-N-CA	7.47	131.36	120.82
4	D	248	PRO	CA-C-N	7.47	130.15	120.44
4	D	248	PRO	C-N-CA	7.47	130.15	120.44
3	E	85	VAL	N-CA-C	-7.47	97.36	108.12
11	V	31	GLY	CA-C-N	7.47	130.90	120.29
11	V	31	GLY	C-N-CA	7.47	130.90	120.29
8	P	256	ASN	CA-CB-CG	-7.47	105.13	112.60
3	A	299	GLU	O-C-N	7.47	131.45	122.27
5	Q	34	THR	CA-C-N	7.47	130.61	120.38
5	Q	34	THR	C-N-CA	7.47	130.61	120.38
8	P	335	LEU	CA-C-N	7.46	130.27	120.28
8	P	335	LEU	C-N-CA	7.46	130.27	120.28
10	O	9	ASN	CA-C-O	-7.46	113.65	121.55
11	Y	13	GLY	CA-C-N	7.46	130.59	120.38
11	Y	13	GLY	C-N-CA	7.46	130.59	120.38
3	E	206	LYS	CA-C-O	7.45	128.45	120.55
3	E	579	HIS	CA-C-N	7.45	130.26	120.28
3	E	579	HIS	C-N-CA	7.45	130.26	120.28
3	A	590	SER	CA-C-N	7.45	133.34	120.68
3	A	590	SER	C-N-CA	7.45	133.34	120.68
4	B	475	ARG	CA-C-N	7.45	133.34	122.99
4	B	475	ARG	C-N-CA	7.45	133.34	122.99
3	E	174	LEU	CA-C-N	7.45	125.10	119.66
3	E	174	LEU	C-N-CA	7.45	125.10	119.66
11	T	122	GLN	CA-C-N	7.45	126.98	119.24
11	T	122	GLN	C-N-CA	7.45	126.98	119.24
7	K	173	VAL	CA-C-N	7.45	131.81	122.43
7	K	173	VAL	C-N-CA	7.45	131.81	122.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	P	411	VAL	CB-CA-C	7.44	121.96	110.50
4	B	129	GLU	N-CA-C	-7.44	106.14	114.62
3	A	71	GLN	N-CA-C	-7.44	97.11	109.24
4	F	218	ASN	OD1-CG-ND2	-7.44	115.16	122.60
7	G	201	ASN	CA-CB-CG	-7.44	105.16	112.60
2	N	97	LYS	CA-C-N	7.44	133.21	122.35
2	N	97	LYS	C-N-CA	7.44	133.21	122.35
11	S	22	ILE	N-CA-C	-7.42	103.98	110.74
4	D	276	THR	CA-C-O	7.42	128.47	120.38
11	R	130	ILE	CA-C-O	-7.42	113.23	120.95
3	C	55	ASN	CA-CB-CG	-7.42	105.18	112.60
11	X	91	LEU	N-CA-C	7.42	120.01	111.11
4	D	283	SER	CA-C-N	7.42	130.22	120.28
4	D	283	SER	C-N-CA	7.42	130.22	120.28
11	U	32	THR	O-C-N	7.42	129.71	122.07
1	M	78	ASN	CA-C-N	7.41	130.62	120.46
1	M	78	ASN	C-N-CA	7.41	130.62	120.46
10	O	176	HIS	ND1-CE1-NE2	7.41	115.81	108.40
8	P	243	GLN	CA-C-N	7.41	130.52	120.44
8	P	243	GLN	C-N-CA	7.41	130.52	120.44
3	A	101	MET	CA-C-N	7.41	132.66	122.07
3	A	101	MET	C-N-CA	7.41	132.66	122.07
11	Y	138	VAL	N-CA-CB	7.41	120.61	110.54
9	b	56	VAL	CA-C-N	7.40	130.06	120.44
9	b	56	VAL	C-N-CA	7.40	130.06	120.44
10	O	245	GLU	CA-C-N	7.40	130.06	120.44
10	O	245	GLU	C-N-CA	7.40	130.06	120.44
3	E	286	ARG	NE-CZ-NH2	7.40	125.86	119.20
7	K	130	LEU	N-CA-CB	-7.40	98.34	110.40
11	Y	70	VAL	CA-C-N	7.40	131.07	120.79
11	Y	70	VAL	C-N-CA	7.40	131.07	120.79
3	E	287	GLY	N-CA-C	-7.39	104.64	114.25
3	C	354	ALA	N-CA-C	-7.39	96.27	108.76
8	P	387	PHE	CA-CB-CG	7.38	121.18	113.80
7	G	12	GLN	N-CA-C	7.38	119.33	111.28
11	V	151	ASN	CA-C-N	7.38	130.17	120.28
11	V	151	ASN	C-N-CA	7.38	130.17	120.28
4	F	142	TYR	CA-C-N	7.38	135.63	121.54
4	F	142	TYR	C-N-CA	7.38	135.63	121.54
10	O	330	ILE	N-CA-C	-7.38	97.78	108.11
10	O	19	ASN	N-CA-C	-7.37	103.42	113.30
5	Q	266	ARG	NE-CZ-NH2	-7.37	112.57	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	458	VAL	N-CA-C	-7.37	105.17	112.17
3	A	64	ASP	CA-CB-CG	-7.36	105.24	112.60
6	J	48	ILE	N-CA-C	7.36	122.35	112.04
6	L	7	ILE	CA-C-N	7.36	130.14	120.28
6	L	7	ILE	C-N-CA	7.36	130.14	120.28
7	G	59	ASP	CA-CB-CG	-7.36	105.24	112.60
7	I	16	GLU	CB-CG-CD	-7.36	100.09	112.60
8	P	168	ASN	CA-C-O	-7.36	112.68	120.55
3	C	468	ASN	CA-CB-CG	7.35	119.95	112.60
8	P	432	GLU	CA-C-O	7.35	128.21	120.42
11	U	50	LEU	CA-C-N	7.35	130.12	120.28
11	U	50	LEU	C-N-CA	7.35	130.12	120.28
7	K	110	ILE	CA-C-O	-7.34	113.31	120.95
7	I	176	ASN	CA-C-O	7.34	127.94	119.35
4	D	273	HIS	CG-CD2-NE2	7.34	114.54	107.20
11	U	72	VAL	O-C-N	-7.34	114.75	121.87
3	A	365	ARG	NE-CZ-NH2	7.34	125.80	119.20
11	S	83	ALA	CA-C-N	7.34	130.11	120.28
11	S	83	ALA	C-N-CA	7.34	130.11	120.28
10	O	165	LYS	N-CA-CB	7.33	120.90	110.12
3	C	424	SER	CA-C-N	7.33	131.82	120.60
3	C	424	SER	C-N-CA	7.33	131.82	120.60
3	C	563	ASN	CA-CB-CG	-7.33	105.27	112.60
4	F	342	ILE	N-CA-C	-7.33	105.40	112.29
11	a	122	GLN	CA-C-N	7.33	129.00	119.84
11	a	122	GLN	C-N-CA	7.33	129.00	119.84
3	C	479	PRO	CA-C-N	7.32	130.49	120.46
3	C	479	PRO	C-N-CA	7.32	130.49	120.46
1	M	199	GLU	CA-C-N	7.32	130.09	120.28
1	M	199	GLU	C-N-CA	7.32	130.09	120.28
10	O	206	PHE	CA-CB-CG	-7.32	106.48	113.80
1	M	81	TYR	CA-C-N	7.31	130.08	120.28
1	M	81	TYR	C-N-CA	7.31	130.08	120.28
10	O	335	LYS	N-CA-CB	7.31	122.85	110.49
2	N	32	THR	N-CA-C	-7.31	104.34	113.55
11	V	68	LEU	CA-C-O	-7.31	112.80	120.55
7	I	145	ASP	CA-CB-CG	-7.31	105.29	112.60
5	Q	106	ASN	CA-C-N	7.31	130.47	120.46
5	Q	106	ASN	C-N-CA	7.31	130.47	120.46
3	C	450	HIS	CA-CB-CG	7.31	121.11	113.80
11	V	64	ALA	N-CA-CB	7.31	121.02	110.06
11	X	30	TYR	N-CA-C	-7.31	103.25	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	N	54	PHE	CA-CB-CG	-7.30	106.50	113.80
9	b	115	SER	N-CA-C	-7.30	103.02	110.97
3	C	535	ASP	CA-CB-CG	7.29	119.89	112.60
8	P	443	LYS	CA-C-N	7.29	130.65	120.29
8	P	443	LYS	C-N-CA	7.29	130.65	120.29
5	Q	320	VAL	N-CA-C	-7.29	103.18	110.62
8	P	196	ILE	CA-C-N	7.29	127.63	119.32
8	P	196	ILE	C-N-CA	7.29	127.63	119.32
9	b	355	GLU	CA-C-O	7.29	128.50	120.63
11	S	118	GLY	CA-C-N	7.29	130.38	120.54
11	S	118	GLY	C-N-CA	7.29	130.38	120.54
11	a	149	LEU	CA-C-O	-7.28	113.11	120.90
10	O	38	LEU	CA-C-N	7.28	135.08	121.97
10	O	38	LEU	C-N-CA	7.28	135.08	121.97
9	b	318	ALA	CA-C-N	7.28	129.73	120.56
9	b	318	ALA	C-N-CA	7.28	129.73	120.56
3	C	41	ILE	CA-C-N	7.27	133.88	120.87
3	C	41	ILE	C-N-CA	7.27	133.88	120.87
6	L	39	ALA	N-CA-C	-7.27	104.56	113.50
8	P	425	ASN	N-CA-C	-7.26	103.30	111.14
11	T	13	GLY	CA-C-N	7.26	130.01	120.28
11	T	13	GLY	C-N-CA	7.26	130.01	120.28
3	A	597	HIS	ND1-CE1-NE2	7.25	115.65	108.40
10	O	242	ASN	CA-C-N	7.25	130.40	120.46
10	O	242	ASN	C-N-CA	7.25	130.40	120.46
1	M	36	SER	CA-C-N	7.25	129.87	120.44
1	M	36	SER	C-N-CA	7.25	129.87	120.44
3	E	161	VAL	CA-C-N	7.25	131.79	121.42
3	E	161	VAL	C-N-CA	7.25	131.79	121.42
11	Z	66	TYR	CA-C-N	7.25	128.18	119.99
11	Z	66	TYR	C-N-CA	7.25	128.18	119.99
3	A	201	GLU	N-CA-CB	7.25	121.92	110.55
3	C	137	ILE	N-CA-C	7.25	118.36	109.30
10	O	24	THR	N-CA-C	-7.25	102.38	112.45
11	R	69	VAL	CA-C-N	7.24	129.94	120.60
11	R	69	VAL	C-N-CA	7.24	129.94	120.60
4	B	246	ASN	N-CA-C	-7.24	104.25	113.23
4	D	111	ARG	NE-CZ-NH1	7.24	128.74	121.50
3	C	147	GLN	N-CA-C	-7.24	98.86	108.34
4	B	155	VAL	CA-CB-CG2	-7.24	98.10	110.40
7	K	184	VAL	N-CA-C	-7.24	97.98	108.11
11	T	82	GLN	OE1-CD-NE2	7.24	129.84	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	Z	36	GLY	N-CA-C	7.24	121.39	112.64
3	E	499	VAL	CB-CA-C	-7.23	102.71	111.97
7	K	67	LYS	CA-C-N	7.23	129.84	120.44
7	K	67	LYS	C-N-CA	7.23	129.84	120.44
7	G	109	GLY	CA-C-N	7.23	129.82	120.56
7	G	109	GLY	C-N-CA	7.23	129.82	120.56
11	Y	32	THR	CA-C-N	7.23	130.84	120.79
11	Y	32	THR	C-N-CA	7.23	130.84	120.79
3	E	326	VAL	CA-C-N	7.23	129.97	120.28
3	E	326	VAL	C-N-CA	7.23	129.97	120.28
7	K	92	ARG	CA-C-O	-7.23	112.89	120.55
5	Q	191	ASP	CA-C-N	7.23	129.84	120.44
5	Q	191	ASP	C-N-CA	7.23	129.84	120.44
7	I	62	PHE	CA-C-N	7.23	129.96	120.28
7	I	62	PHE	C-N-CA	7.23	129.96	120.28
11	Y	38	GLY	O-C-N	-7.21	115.19	122.19
4	B	36	GLY	CA-C-N	7.21	127.21	119.28
4	B	36	GLY	C-N-CA	7.21	127.21	119.28
4	D	204	HIS	O-C-N	-7.21	115.18	123.33
7	G	212	GLU	N-CA-CB	7.21	120.87	110.06
4	F	376	LEU	O-C-N	-7.21	113.94	120.71
4	F	477	SER	CA-C-O	-7.21	112.81	120.88
5	Q	310	TRP	CA-C-N	7.21	129.94	120.28
5	Q	310	TRP	C-N-CA	7.21	129.94	120.28
7	K	74	GLN	CA-C-N	7.21	130.65	120.42
7	K	74	GLN	C-N-CA	7.21	130.65	120.42
4	B	107	ASP	N-CA-C	-7.19	103.66	113.30
3	E	122	ILE	N-CA-C	-7.19	104.19	110.74
11	X	19	SER	CA-C-O	-7.19	112.87	120.92
6	J	34	GLN	OE1-CD-NE2	7.19	129.79	122.60
8	P	384	ILE	N-CA-CB	-7.18	102.14	110.55
4	B	61	THR	O-C-N	-7.18	114.94	123.27
4	B	234	SER	CA-C-N	7.17	130.23	120.54
4	B	234	SER	C-N-CA	7.17	130.23	120.54
4	B	107	ASP	CA-C-N	7.17	130.47	120.29
4	B	107	ASP	C-N-CA	7.17	130.47	120.29
3	A	159	GLY	N-CA-C	-7.17	100.69	110.80
4	B	414	ALA	N-CA-CB	7.17	120.66	110.12
4	D	320	GLY	O-C-N	-7.17	117.34	123.43
7	I	9	THR	CA-C-N	7.17	127.49	119.32
7	I	9	THR	C-N-CA	7.17	127.49	119.32
4	B	462	TRP	CA-C-O	-7.16	111.73	119.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	156	PHE	CA-C-N	7.16	130.59	120.42
1	M	156	PHE	C-N-CA	7.16	130.59	120.42
4	B	265	TYR	CA-C-N	7.16	129.88	120.28
4	B	265	TYR	C-N-CA	7.16	129.88	120.28
8	P	290	CYS	CA-C-N	7.16	129.58	120.56
8	P	290	CYS	C-N-CA	7.16	129.58	120.56
7	K	202	THR	N-CA-C	-7.16	99.93	110.52
7	K	218	ILE	N-CA-C	7.16	117.95	110.72
11	V	123	PRO	N-CA-CB	-7.16	95.73	103.25
9	b	114	ALA	CA-C-N	7.16	130.09	120.65
9	b	114	ALA	C-N-CA	7.16	130.09	120.65
11	Y	111	VAL	CA-C-N	7.16	128.08	119.99
11	Y	111	VAL	C-N-CA	7.16	128.08	119.99
7	G	25	ARG	CA-C-N	7.15	129.87	120.28
7	G	25	ARG	C-N-CA	7.15	129.87	120.28
1	M	90	ALA	CA-C-O	7.15	128.26	120.32
4	B	31	VAL	O-C-N	7.15	130.88	122.66
4	F	192	GLY	N-CA-C	-7.15	104.74	115.32
4	F	254	ILE	CA-C-N	7.15	129.84	120.26
4	F	254	ILE	C-N-CA	7.15	129.84	120.26
5	Q	89	GLY	CA-C-N	7.15	131.17	120.31
5	Q	89	GLY	C-N-CA	7.15	131.17	120.31
11	V	135	PHE	CA-CB-CG	-7.15	106.65	113.80
3	E	146	PHE	CA-CB-CG	-7.14	106.66	113.80
11	U	150	LEU	N-CA-C	7.14	119.73	111.02
8	P	419	ILE	O-C-N	7.14	128.79	121.87
7	G	122	GLN	CA-C-N	7.14	130.56	120.28
7	G	122	GLN	C-N-CA	7.14	130.56	120.28
9	b	357	ILE	N-CA-C	-7.14	98.20	108.48
3	E	449	LYS	N-CA-CB	7.14	122.55	110.49
4	B	63	ARG	N-CA-C	-7.13	97.33	109.24
11	U	31	GLY	O-C-N	7.13	129.19	122.13
6	J	33	LYS	CA-C-N	7.13	129.83	120.28
6	J	33	LYS	C-N-CA	7.13	129.83	120.28
4	B	140	ASN	N-CA-CB	7.12	123.05	110.37
3	E	330	GLU	N-CA-CB	7.12	120.70	110.16
11	a	136	ALA	N-CA-C	-7.12	104.06	112.89
4	F	173	PHE	CA-CB-CG	7.12	120.92	113.80
6	H	24	ALA	O-C-N	-7.12	113.51	122.27
11	X	35	SER	CA-C-N	7.12	128.03	119.99
11	X	35	SER	C-N-CA	7.12	128.03	119.99
11	X	66	TYR	CA-C-N	7.11	128.03	119.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	X	66	TYR	C-N-CA	7.11	128.03	119.99
4	F	239	SER	N-CA-C	-7.11	97.81	109.40
11	W	66	TYR	CA-C-N	7.11	128.02	119.99
11	W	66	TYR	C-N-CA	7.11	128.02	119.99
11	W	83	ALA	CA-C-N	7.10	130.38	120.29
11	W	83	ALA	C-N-CA	7.10	130.38	120.29
1	M	130	GLN	O-C-N	7.10	129.65	122.12
7	K	49	ASN	OD1-CG-ND2	7.10	129.70	122.60
10	O	162	ALA	N-CA-C	7.10	119.02	111.28
7	I	76	THR	N-CA-CB	7.10	120.67	110.16
11	U	100	SER	CA-C-N	7.10	127.86	119.98
11	U	100	SER	C-N-CA	7.10	127.86	119.98
8	P	363	LEU	CA-C-N	7.10	129.67	120.44
8	P	363	LEU	C-N-CA	7.10	129.67	120.44
4	F	202	ASP	CA-CB-CG	-7.10	105.50	112.60
3	A	589	PRO	N-CA-C	-7.09	104.62	114.98
6	H	3	GLN	N-CA-C	7.09	118.80	111.14
11	V	112	GLY	N-CA-C	7.09	121.22	112.64
7	G	9	THR	CA-C-N	7.09	127.08	119.28
7	G	9	THR	C-N-CA	7.09	127.08	119.28
11	Y	151	ASN	CA-CB-CG	-7.09	105.51	112.60
3	A	554	HIS	CE1-NE2-CD2	-7.09	101.91	109.00
8	P	52	VAL	N-CA-C	7.09	117.88	110.72
11	T	153	ARG	CA-C-O	-7.08	112.97	120.55
3	E	584	SER	CA-C-N	7.08	130.47	120.28
3	E	584	SER	C-N-CA	7.08	130.47	120.28
4	D	287	ALA	CA-C-N	7.08	129.76	120.28
4	D	287	ALA	C-N-CA	7.08	129.76	120.28
3	E	426	PRO	O-C-N	7.07	130.37	122.24
9	b	70	ARG	CB-CA-C	-7.07	99.05	110.79
7	G	29	GLU	CA-C-N	7.07	129.63	120.44
7	G	29	GLU	C-N-CA	7.07	129.63	120.44
4	D	442	THR	N-CA-C	-7.07	103.53	112.93
4	F	227	GLN	N-CA-C	-7.07	103.51	111.07
11	T	120	SER	N-CA-C	7.07	118.63	111.07
3	C	288	ASN	CA-C-O	-7.07	112.39	120.24
5	Q	344	VAL	CA-C-N	7.07	134.42	121.70
5	Q	344	VAL	C-N-CA	7.07	134.42	121.70
4	B	118	ARG	CA-C-N	7.07	128.67	119.84
4	B	118	ARG	C-N-CA	7.07	128.67	119.84
7	K	141	ALA	CA-C-O	-7.07	113.87	121.36
3	A	364	LEU	CA-C-N	7.06	129.75	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	364	LEU	C-N-CA	7.06	129.75	120.28
3	A	391	PHE	CA-CB-CG	7.06	120.86	113.80
8	P	176	ASN	OD1-CG-ND2	-7.06	115.54	122.60
11	Y	109	GLY	CA-C-N	7.06	129.33	120.72
11	Y	109	GLY	C-N-CA	7.06	129.33	120.72
5	Q	281	THR	CA-C-N	7.06	127.81	119.98
5	Q	281	THR	C-N-CA	7.06	127.81	119.98
4	D	330	THR	N-CA-C	-7.05	97.90	109.40
8	P	284	GLU	N-CA-C	-7.05	104.65	113.18
4	D	396	HIS	ND1-CE1-NE2	7.05	115.45	108.40
3	E	554	HIS	CA-CB-CG	-7.05	106.75	113.80
4	B	206	GLU	N-CA-C	-7.05	99.22	110.14
4	B	485	TYR	CB-CG-CD1	7.05	131.37	120.80
3	E	257	ALA	CA-C-N	7.04	132.14	122.07
3	E	257	ALA	C-N-CA	7.04	132.14	122.07
8	P	78	ILE	CB-CA-C	7.04	120.39	113.70
9	b	194	ASP	N-CA-C	-7.04	103.65	111.82
11	X	129	MET	CA-C-N	7.04	129.69	120.60
11	X	129	MET	C-N-CA	7.04	129.69	120.60
3	E	97	GLY	CA-C-N	7.04	127.59	119.99
3	E	97	GLY	C-N-CA	7.04	127.59	119.99
5	Q	83	ILE	N-CA-CB	7.04	120.11	110.54
7	K	15	ASP	CB-CA-C	-7.04	99.11	110.79
7	G	178	TYR	N-CA-CB	7.04	121.60	110.55
11	V	52	LYS	CA-C-N	7.04	130.04	120.54
11	V	52	LYS	C-N-CA	7.04	130.04	120.54
8	P	128	PHE	N-CA-C	7.04	119.98	111.82
6	J	16	GLU	O-C-N	7.04	130.17	122.15
8	P	427	ILE	N-CA-CB	7.04	120.11	110.54
4	F	159	ASP	N-CA-C	7.03	118.95	111.28
3	A	509	ASP	CA-C-N	7.03	130.28	120.29
3	A	509	ASP	C-N-CA	7.03	130.28	120.29
11	R	68	LEU	N-CA-C	7.03	118.94	111.28
11	R	17	CYS	CA-C-N	7.03	130.56	120.79
11	R	17	CYS	C-N-CA	7.03	130.56	120.79
7	G	120	ILE	CA-C-N	7.03	129.69	120.28
7	G	120	ILE	C-N-CA	7.03	129.69	120.28
5	Q	71	TYR	CA-C-N	7.02	130.26	120.29
5	Q	71	TYR	C-N-CA	7.02	130.26	120.29
8	P	372	PRO	N-CA-CB	7.02	109.89	103.08
8	P	438	ILE	CA-C-O	-7.02	113.65	120.95
8	P	133	LYS	N-CA-C	-7.02	97.12	109.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	380	SER	N-CA-C	-7.02	96.90	108.76
11	V	151	ASN	CB-CG-ND2	7.01	126.92	116.40
4	B	143	ALA	N-CA-C	7.00	119.61	110.43
8	P	219	GLN	CA-C-N	7.00	129.67	120.28
8	P	219	GLN	C-N-CA	7.00	129.67	120.28
4	B	147	PRO	N-CA-C	7.00	122.67	111.26
8	P	143	GLY	CA-C-N	7.00	129.54	120.44
8	P	143	GLY	C-N-CA	7.00	129.54	120.44
6	H	36	LYS	CA-C-N	7.00	129.96	120.44
6	H	36	LYS	C-N-CA	7.00	129.96	120.44
4	F	85	GLY	CA-C-O	7.00	127.72	119.19
6	L	2	SER	CA-C-N	7.00	129.54	120.44
6	L	2	SER	C-N-CA	7.00	129.54	120.44
4	D	179	PRO	CA-C-N	6.99	129.65	120.28
4	D	179	PRO	C-N-CA	6.99	129.65	120.28
9	b	219	GLU	CA-C-O	6.99	122.00	117.94
3	E	30	VAL	N-CA-CB	6.99	121.05	112.10
3	C	275	SER	N-CA-C	-6.99	98.73	109.14
3	E	613	GLU	CA-C-N	6.99	129.94	120.44
3	E	613	GLU	C-N-CA	6.99	129.94	120.44
11	Z	95	LEU	CA-C-N	6.99	129.97	120.54
11	Z	95	LEU	C-N-CA	6.99	129.97	120.54
6	J	7	ILE	N-CA-C	-6.99	103.67	110.72
11	U	104	ALA	CA-C-N	6.99	127.73	119.98
11	U	104	ALA	C-N-CA	6.99	127.73	119.98
3	E	582	SER	O-C-N	6.98	129.52	122.12
3	A	532	SER	N-CA-C	-6.98	99.11	108.74
4	D	93	VAL	N-CA-C	-6.98	97.44	108.95
4	D	293	ALA	N-CA-C	-6.97	103.95	113.30
8	P	235	SER	N-CA-C	-6.97	102.89	112.03
11	R	151	ASN	CA-CB-CG	6.97	119.57	112.60
4	F	444	ILE	N-CA-C	-6.97	104.19	111.58
3	E	329	ARG	NE-CZ-NH1	6.97	128.47	121.50
3	E	182	ILE	N-CA-CB	6.97	118.94	111.00
5	Q	138	THR	CA-C-N	6.96	130.18	120.29
5	Q	138	THR	C-N-CA	6.96	130.18	120.29
7	I	62	PHE	N-CA-C	-6.96	103.62	111.14
4	B	342	ILE	N-CA-C	-6.96	105.94	112.83
7	K	33	LYS	N-CA-CB	6.96	120.46	110.16
7	K	153	LYS	CA-C-N	6.96	129.49	120.44
7	K	153	LYS	C-N-CA	6.96	129.49	120.44
11	S	74	VAL	CA-C-O	-6.96	114.03	121.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	249	THR	N-CA-C	6.95	118.51	111.07
2	N	94	ILE	CA-C-O	-6.95	110.64	119.95
11	R	37	VAL	N-CA-CB	6.95	119.15	110.47
4	B	223	ARG	CA-C-N	6.95	129.59	120.28
4	B	223	ARG	C-N-CA	6.95	129.59	120.28
3	A	535	ASP	CA-CB-CG	-6.95	105.66	112.60
9	b	355	GLU	O-C-N	-6.95	114.76	122.12
7	G	181	LYS	N-CA-C	-6.95	104.32	114.39
11	Y	106	PHE	CA-C-N	6.95	129.47	120.44
11	Y	106	PHE	C-N-CA	6.95	129.47	120.44
11	R	138	VAL	CA-C-N	6.95	129.59	120.28
11	R	138	VAL	C-N-CA	6.95	129.59	120.28
3	E	53	HIS	N-CA-C	-6.93	104.82	113.28
11	X	135	PHE	CA-CB-CG	-6.93	106.87	113.80
11	X	118	GLY	CA-C-N	6.93	132.21	121.19
11	X	118	GLY	C-N-CA	6.93	132.21	121.19
11	W	69	VAL	CA-C-N	6.93	129.85	120.77
11	W	69	VAL	C-N-CA	6.93	129.85	120.77
3	C	395	ALA	O-C-N	-6.93	114.95	122.85
7	G	126	VAL	N-CA-C	6.93	117.68	110.62
3	C	145	LYS	N-CA-C	-6.92	102.96	112.03
1	M	197	ARG	N-CA-CB	6.92	120.40	110.16
3	C	346	GLN	OE1-CD-NE2	6.92	129.52	122.60
3	E	125	PRO	CA-C-O	-6.92	113.47	122.19
4	F	424	ALA	N-CA-CB	6.92	122.18	110.49
8	P	81	ILE	CA-C-N	6.92	129.44	120.44
8	P	81	ILE	C-N-CA	6.92	129.44	120.44
4	B	398	ASP	CA-C-O	-6.91	113.09	120.42
8	P	432	GLU	CA-C-N	6.91	130.10	120.29
8	P	432	GLU	C-N-CA	6.91	130.10	120.29
2	N	20	LEU	CA-C-N	6.91	129.54	120.28
2	N	20	LEU	C-N-CA	6.91	129.54	120.28
10	O	323	PRO	O-C-N	6.91	132.15	122.55
3	C	554	HIS	CA-C-O	-6.90	113.57	120.82
3	A	362	GLU	CA-C-N	6.90	129.53	120.28
3	A	362	GLU	C-N-CA	6.90	129.53	120.28
4	D	218	ASN	CA-C-N	6.90	129.53	120.28
4	D	218	ASN	C-N-CA	6.90	129.53	120.28
5	Q	226	ASN	CA-CB-CG	-6.90	105.70	112.60
3	A	287	GLY	N-CA-C	-6.90	105.72	113.79
4	D	232	ASN	CA-CB-CG	6.90	119.50	112.60
10	O	289	VAL	N-CA-CB	6.90	120.93	110.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	R	77	SER	CB-CA-C	-6.89	96.89	110.27
4	B	246	ASN	CA-CB-CG	6.89	119.49	112.60
3	E	69	THR	CA-C-O	6.89	127.73	120.36
4	B	43	LYS	CA-C-N	6.89	134.37	121.97
4	B	43	LYS	C-N-CA	6.89	134.37	121.97
11	a	24	THR	O-C-N	-6.89	113.80	122.27
1	M	178	ILE	O-C-N	-6.89	116.01	120.42
7	K	119	PRO	CA-C-N	6.89	129.38	120.56
7	K	119	PRO	C-N-CA	6.89	129.38	120.56
4	B	308	MET	CA-C-N	6.88	129.83	120.54
4	B	308	MET	C-N-CA	6.88	129.83	120.54
5	Q	126	ARG	O-C-N	6.88	130.36	122.99
3	A	588	GLU	CA-C-N	6.88	129.37	121.04
3	A	588	GLU	C-N-CA	6.88	129.37	121.04
11	Z	112	GLY	CA-C-N	6.88	130.36	120.79
11	Z	112	GLY	C-N-CA	6.88	130.36	120.79
4	B	150	MET	CG-SD-CE	-6.88	85.76	100.90
10	O	287	GLN	CA-C-N	6.88	129.38	120.44
10	O	287	GLN	C-N-CA	6.88	129.38	120.44
3	C	538	CYS	CA-C-N	6.88	127.28	119.92
3	C	538	CYS	C-N-CA	6.88	127.28	119.92
11	X	22	ILE	N-CA-C	-6.88	105.05	111.45
4	B	341	ASP	N-CA-C	-6.88	97.69	108.90
10	O	157	THR	CA-C-N	6.88	130.06	120.29
10	O	157	THR	C-N-CA	6.88	130.06	120.29
4	F	211	VAL	N-CA-C	-6.88	97.59	107.77
3	E	451	PHE	O-C-N	-6.87	115.33	121.31
3	A	567	TRP	CE2-CD2-CE3	6.87	125.67	118.80
11	S	19	SER	N-CA-C	6.87	118.42	111.07
9	b	329	ASP	CA-C-N	6.87	129.71	120.65
9	b	329	ASP	C-N-CA	6.87	129.71	120.65
11	V	50	LEU	CA-C-N	6.87	129.78	120.38
11	V	50	LEU	C-N-CA	6.87	129.78	120.38
7	K	9	THR	CA-C-O	-6.86	113.22	120.70
11	U	132	ILE	CA-C-O	-6.86	113.81	120.95
11	X	31	GLY	CA-C-N	6.86	129.36	120.44
11	X	31	GLY	C-N-CA	6.86	129.36	120.44
3	A	578	LYS	O-C-N	-6.86	114.33	122.15
9	b	39	VAL	CA-C-N	6.86	132.10	122.36
9	b	39	VAL	C-N-CA	6.86	132.10	122.36
3	C	174	LEU	O-C-N	-6.86	114.15	121.42
4	F	469	PRO	CA-C-N	6.86	129.47	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	469	PRO	C-N-CA	6.86	129.47	120.28
3	E	614	SER	O-C-N	6.85	129.49	122.09
7	I	24	ILE	CA-C-O	-6.85	113.90	121.17
4	D	111	ARG	NE-CZ-NH2	-6.85	113.03	119.20
11	R	96	SER	O-C-N	6.85	129.13	122.07
4	F	195	ARG	NE-CZ-NH2	6.85	125.36	119.20
7	G	153	LYS	O-C-N	6.85	129.13	122.07
11	T	49	LEU	CA-C-N	6.85	129.79	120.54
11	T	49	LEU	C-N-CA	6.85	129.79	120.54
11	T	72	VAL	N-CA-C	6.85	117.00	110.42
3	A	506	ALA	N-CA-C	-6.84	101.97	112.99
11	W	15	ILE	CA-C-N	6.84	127.53	119.94
11	W	15	ILE	C-N-CA	6.84	127.53	119.94
4	F	284	TYR	O-C-N	6.84	129.95	122.15
8	P	383	ASN	N-CA-C	6.84	121.46	113.18
11	W	130	ILE	CA-C-O	-6.84	114.16	121.27
9	b	277	VAL	CA-C-N	6.84	130.70	120.31
9	b	277	VAL	C-N-CA	6.84	130.70	120.31
10	O	337	LEU	CA-C-N	6.84	129.44	120.28
10	O	337	LEU	C-N-CA	6.84	129.44	120.28
11	V	39	ILE	CA-C-N	6.84	129.44	120.28
11	V	39	ILE	C-N-CA	6.84	129.44	120.28
11	W	56	PRO	O-C-N	6.84	129.56	122.18
6	J	41	LYS	CA-C-N	6.83	133.10	121.14
6	J	41	LYS	C-N-CA	6.83	133.10	121.14
9	b	241	HIS	CA-C-N	6.83	127.89	120.44
9	b	241	HIS	C-N-CA	6.83	127.89	120.44
8	P	259	PHE	CA-C-N	6.83	129.99	120.29
8	P	259	PHE	C-N-CA	6.83	129.99	120.29
11	T	156	GLN	OE1-CD-NE2	6.83	129.43	122.60
8	P	262	GLU	CB-CG-CD	-6.83	100.99	112.60
11	X	66	TYR	N-CA-C	-6.83	103.92	111.36
4	F	133	ASP	CA-CB-CG	6.83	119.43	112.60
10	O	10	ASP	N-CA-C	-6.83	99.10	109.95
11	R	72	VAL	CA-C-N	6.83	129.76	120.54
11	R	72	VAL	C-N-CA	6.83	129.76	120.54
11	W	145	ILE	CA-C-N	6.83	129.41	120.60
11	W	145	ILE	C-N-CA	6.83	129.41	120.60
4	B	289	ARG	CA-C-N	6.82	129.72	120.44
4	B	289	ARG	C-N-CA	6.82	129.72	120.44
6	J	20	ILE	CA-C-N	6.82	129.80	120.46
6	J	20	ILE	C-N-CA	6.82	129.80	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	27	GLN	N-CA-C	-6.82	103.93	111.36
11	a	112	GLY	CA-C-N	6.82	130.26	120.79
11	a	112	GLY	C-N-CA	6.82	130.26	120.79
9	b	195	LYS	N-CA-CB	6.81	120.25	110.16
11	W	117	ARG	CA-C-N	6.81	127.50	119.94
11	W	117	ARG	C-N-CA	6.81	127.50	119.94
3	A	559	LYS	CA-C-O	6.81	127.97	120.82
3	C	101	MET	CA-C-N	6.81	132.54	122.74
3	C	101	MET	C-N-CA	6.81	132.54	122.74
9	b	79	HIS	ND1-CE1-NE2	6.81	115.21	108.40
11	R	33	ALA	N-CA-C	6.81	119.33	111.02
11	X	147	ALA	CA-C-N	6.81	130.25	120.79
11	X	147	ALA	C-N-CA	6.81	130.25	120.79
8	P	451	MET	N-CA-C	-6.80	103.86	111.28
4	F	430	LYS	CA-C-N	6.80	129.95	120.29
4	F	430	LYS	C-N-CA	6.80	129.95	120.29
7	G	203	LEU	O-C-N	6.80	129.33	122.12
11	T	34	LYS	CA-C-O	-6.80	113.68	120.82
9	b	357	ILE	CA-C-N	6.80	131.68	122.84
9	b	357	ILE	C-N-CA	6.80	131.68	122.84
3	E	400	ALA	CA-C-N	6.79	130.40	120.82
3	E	400	ALA	C-N-CA	6.79	130.40	120.82
11	U	139	LEU	O-C-N	6.79	129.32	122.12
11	T	65	ILE	CB-CA-C	-6.79	103.14	112.24
4	F	202	ASP	CA-C-N	6.79	128.90	120.34
4	F	202	ASP	C-N-CA	6.79	128.90	120.34
4	F	285	ALA	CA-C-N	6.79	129.38	120.28
4	F	285	ALA	C-N-CA	6.79	129.38	120.28
11	U	54	ILE	CB-CA-C	-6.79	102.14	112.05
3	C	292	GLU	CA-C-O	-6.79	113.69	120.82
5	Q	266	ARG	CA-C-N	6.79	129.93	120.29
5	Q	266	ARG	C-N-CA	6.79	129.93	120.29
3	A	432	LEU	CA-C-N	6.79	127.51	119.98
3	A	432	LEU	C-N-CA	6.79	127.51	119.98
11	U	84	LEU	N-CA-C	6.79	118.33	111.07
6	L	73	GLU	N-CA-C	-6.78	103.12	111.40
9	b	347	ALA	CA-C-N	6.78	132.04	120.72
9	b	347	ALA	C-N-CA	6.78	132.04	120.72
7	G	135	PRO	N-CA-C	-6.78	106.00	114.68
11	U	54	ILE	CA-CB-CG2	6.78	122.02	110.50
11	Z	122	GLN	CA-C-N	6.78	128.31	119.84
11	Z	122	GLN	C-N-CA	6.78	128.31	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	356	GLY	CA-C-O	-6.78	114.92	122.24
7	I	11	ASN	CA-C-N	6.78	129.25	120.44
7	I	11	ASN	C-N-CA	6.78	129.25	120.44
11	a	83	ALA	CA-C-N	6.78	129.36	120.28
11	a	83	ALA	C-N-CA	6.78	129.36	120.28
4	F	29	ASN	CA-CB-CG	6.77	119.37	112.60
3	E	257	ALA	N-CA-CB	6.77	121.94	110.49
4	D	204	HIS	CA-CB-CG	6.77	120.57	113.80
11	S	78	LEU	N-CA-CB	6.77	119.94	109.85
10	O	366	LYS	CA-C-O	6.77	128.47	121.23
3	E	333	ILE	CA-CB-CG1	6.77	121.90	110.40
11	W	46	ARG	NE-CZ-NH2	-6.76	113.11	119.20
4	F	101	ARG	CA-C-N	6.76	129.26	123.04
4	F	101	ARG	C-N-CA	6.76	129.26	123.04
3	C	542	LYS	CA-C-N	6.76	129.23	120.44
3	C	542	LYS	C-N-CA	6.76	129.23	120.44
8	P	232	ALA	CA-C-N	6.76	130.35	120.82
8	P	232	ALA	C-N-CA	6.76	130.35	120.82
3	E	60	VAL	CA-C-N	6.76	130.40	120.74
3	E	60	VAL	C-N-CA	6.76	130.40	120.74
6	J	16	GLU	CA-C-N	6.75	129.33	120.28
6	J	16	GLU	C-N-CA	6.75	129.33	120.28
3	E	103	THR	N-CA-C	-6.75	97.20	108.75
10	O	116	TRP	N-CA-C	-6.75	96.42	110.80
10	O	326	ASN	OD1-CG-ND2	6.75	129.35	122.60
11	Y	35	SER	O-C-N	-6.75	115.11	122.07
4	B	111	ARG	CA-C-N	6.75	131.56	123.19
4	B	111	ARG	C-N-CA	6.75	131.56	123.19
4	D	170	ILE	CA-C-N	6.75	127.30	120.14
4	D	170	ILE	C-N-CA	6.75	127.30	120.14
4	D	34	VAL	N-CA-C	-6.75	98.32	108.17
8	P	237	HIS	ND1-CE1-NE2	6.74	115.14	108.40
10	O	183	ASP	N-CA-C	-6.74	104.67	113.17
11	Y	140	GLY	O-C-N	-6.74	115.72	122.19
3	C	530	GLY	N-CA-C	-6.74	105.92	115.43
4	B	435	PHE	CA-C-O	-6.74	113.41	120.55
4	F	273	HIS	ND1-CE1-NE2	6.74	115.14	108.40
3	A	63	ILE	N-CA-C	-6.74	98.34	108.17
3	A	327	ALA	N-CA-C	6.73	118.62	111.28
3	E	162	PHE	CA-CB-CG	-6.73	107.07	113.80
3	C	88	THR	CA-CB-OG1	6.72	119.69	109.60
11	W	90	GLN	OE1-CD-NE2	6.72	129.32	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	X	50	LEU	N-CA-CB	6.72	119.96	109.94
3	A	209	PHE	CA-CB-CG	-6.72	107.08	113.80
5	Q	226	ASN	CB-CA-C	-6.72	100.33	110.88
3	E	374	MET	CA-C-O	-6.72	113.38	120.70
2	N	91	ILE	N-CA-C	-6.71	98.06	107.80
3	C	151	HIS	CE1-NE2-CD2	-6.71	102.29	109.00
7	I	215	LEU	CA-C-N	6.71	126.30	119.19
7	I	215	LEU	C-N-CA	6.71	126.30	119.19
4	B	102	ILE	N-CA-CB	6.71	119.48	111.23
8	P	233	THR	CA-C-O	6.71	128.57	120.92
1	M	90	ALA	O-C-N	-6.71	115.46	123.31
11	a	75	CYS	N-CA-C	6.71	119.16	111.11
4	B	75	ALA	N-CA-C	-6.70	99.12	109.24
8	P	34	GLU	N-CA-CB	6.70	121.82	110.49
3	C	296	GLU	CB-CG-CD	-6.70	101.21	112.60
11	Z	110	ILE	CA-C-N	6.70	129.25	120.60
11	Z	110	ILE	C-N-CA	6.70	129.25	120.60
4	B	370	TYR	CB-CA-C	-6.70	100.94	109.65
3	E	480	VAL	O-C-N	6.70	128.73	121.83
11	U	138	VAL	CA-C-N	6.70	129.26	120.28
11	U	138	VAL	C-N-CA	6.70	129.26	120.28
8	P	299	SER	CA-C-N	6.70	130.16	120.38
8	P	299	SER	C-N-CA	6.70	130.16	120.38
11	Z	85	TYR	CA-C-N	6.70	129.80	120.29
11	Z	85	TYR	C-N-CA	6.70	129.80	120.29
4	B	180	HIS	CA-CB-CG	6.70	120.50	113.80
4	B	417	LYS	CA-C-N	6.69	129.25	120.28
4	B	417	LYS	C-N-CA	6.69	129.25	120.28
5	Q	161	TYR	O-C-N	6.69	130.05	122.22
11	a	26	LEU	CA-C-N	6.69	127.55	119.99
11	a	26	LEU	C-N-CA	6.69	127.55	119.99
6	H	43	ILE	CA-C-O	-6.69	113.76	120.85
5	Q	107	VAL	CA-C-N	6.69	129.24	120.28
5	Q	107	VAL	C-N-CA	6.69	129.24	120.28
11	V	71	SER	N-CA-C	6.69	118.26	110.97
3	E	374	MET	CA-C-N	6.69	128.20	119.84
3	E	374	MET	C-N-CA	6.69	128.20	119.84
10	O	7	THR	CA-C-N	6.69	130.31	120.95
10	O	7	THR	C-N-CA	6.69	130.31	120.95
10	O	224	VAL	CB-CA-C	6.68	119.74	111.25
10	O	306	ILE	N-CA-C	6.68	117.47	110.72
11	S	51	PHE	CA-CB-CG	-6.68	107.12	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	a	102	LEU	N-CA-CB	6.68	119.90	109.94
1	M	70	GLU	CA-C-N	6.68	128.98	120.56
1	M	70	GLU	C-N-CA	6.68	128.98	120.56
11	T	25	SER	CA-C-O	-6.68	113.34	120.42
7	I	177	ASP	N-CA-C	-6.68	98.84	109.59
9	b	180	ILE	CA-C-N	6.67	129.74	121.06
9	b	180	ILE	C-N-CA	6.67	129.74	121.06
11	R	149	LEU	N-CA-CB	6.67	119.69	110.01
11	R	71	SER	N-CA-C	6.67	118.21	111.07
9	b	79	HIS	CE1-NE2-CD2	-6.67	102.33	109.00
1	M	193	ASP	N-CA-CB	6.67	119.92	110.12
3	C	450	HIS	CA-C-N	6.67	129.96	120.49
3	C	450	HIS	C-N-CA	6.67	129.96	120.49
4	D	70	ILE	CA-CB-CG1	6.67	121.73	110.40
7	K	32	ALA	CA-C-O	6.67	127.49	120.42
11	Y	140	GLY	CA-C-N	6.67	130.06	120.79
11	Y	140	GLY	C-N-CA	6.67	130.06	120.79
8	P	412	ASN	N-CA-CB	6.67	121.75	110.49
11	U	98	GLY	O-C-N	6.66	128.59	122.19
3	C	291	ALA	CA-C-N	6.66	129.09	120.44
3	C	291	ALA	C-N-CA	6.66	129.09	120.44
5	Q	149	TYR	CA-C-N	6.66	129.20	120.28
5	Q	149	TYR	C-N-CA	6.66	129.20	120.28
3	A	195	GLU	CB-CG-CD	-6.65	101.29	112.60
4	D	396	HIS	CE1-NE2-CD2	-6.65	102.35	109.00
9	b	285	TYR	CA-C-O	-6.65	113.50	120.55
1	M	21	LYS	CA-C-N	6.65	129.09	120.44
1	M	21	LYS	C-N-CA	6.65	129.09	120.44
3	A	175	PRO	CA-C-O	-6.65	110.91	120.56
4	D	320	GLY	N-CA-C	-6.65	104.80	111.85
3	C	489	LEU	O-C-N	6.65	129.73	122.15
4	F	135	ASN	CA-CB-CG	6.65	119.25	112.60
11	a	121	GLN	OE1-CD-NE2	6.65	129.25	122.60
4	D	322	VAL	N-CA-CB	6.65	119.65	112.07
5	Q	200	ILE	N-CA-C	6.65	122.25	112.61
7	I	198	GLU	N-CA-C	-6.64	98.14	109.24
11	S	144	LEU	O-C-N	-6.64	115.18	122.09
4	B	259	ALA	CA-C-N	6.64	129.18	120.28
4	B	259	ALA	C-N-CA	6.64	129.18	120.28
3	E	569	LYS	CA-C-N	6.64	129.18	120.28
3	E	569	LYS	C-N-CA	6.64	129.18	120.28
11	Y	31	GLY	N-CA-C	6.63	120.20	112.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	54	ASN	CA-CB-CG	-6.63	105.97	112.60
4	D	125	LYS	N-CA-CB	6.63	119.53	110.38
4	D	185	ALA	O-C-N	6.63	129.15	122.12
11	S	88	PHE	N-CA-C	6.63	119.51	111.82
3	C	483	ASP	CA-CB-CG	6.63	119.23	112.60
3	A	103	THR	CA-C-N	6.62	131.82	123.14
3	A	103	THR	C-N-CA	6.62	131.82	123.14
3	A	382	ALA	CA-C-O	6.62	127.02	119.27
4	F	454	VAL	N-CA-C	6.62	117.38	110.62
10	O	70	LYS	CA-C-O	-6.62	113.87	120.82
11	T	78	LEU	CA-C-O	-6.62	114.34	121.56
11	T	29	ALA	O-C-N	6.62	128.97	122.09
4	D	365	HIS	CE1-NE2-CD2	-6.62	102.38	109.00
4	F	34	VAL	N-CA-C	-6.62	99.21	108.27
6	L	45	SER	CA-C-O	6.62	126.42	119.14
11	V	106	PHE	CA-C-N	6.62	129.04	120.44
11	V	106	PHE	C-N-CA	6.62	129.04	120.44
11	Z	27	GLY	CA-C-N	6.62	129.69	120.29
11	Z	27	GLY	C-N-CA	6.62	129.69	120.29
8	P	118	GLN	OE1-CD-NE2	6.61	129.21	122.60
8	P	445	GLY	N-CA-C	-6.61	105.78	115.63
11	Z	159	VAL	N-CA-CB	6.61	122.14	111.23
4	F	416	MET	CA-C-N	6.61	129.14	120.28
4	F	416	MET	C-N-CA	6.61	129.14	120.28
3	A	343	PHE	O-C-N	-6.61	114.14	122.27
7	K	13	VAL	N-CA-C	6.61	119.35	111.09
6	J	18	HIS	CB-CG-CD2	-6.61	122.61	131.20
4	F	55	LEU	CA-C-O	-6.61	113.23	120.43
4	D	251	GLU	CA-C-N	6.60	129.13	120.28
4	D	251	GLU	C-N-CA	6.60	129.13	120.28
3	E	183	THR	N-CA-C	-6.60	103.57	111.69
11	a	37	VAL	CA-C-N	6.60	127.26	120.00
11	a	37	VAL	C-N-CA	6.60	127.26	120.00
11	W	112	GLY	CA-C-N	6.60	129.02	120.44
11	W	112	GLY	C-N-CA	6.60	129.02	120.44
1	M	172	ALA	CB-CA-C	-6.60	100.52	110.88
6	H	82	GLU	N-CA-C	-6.60	104.71	112.89
2	N	61	ARG	NE-CZ-NH2	6.60	125.14	119.20
4	D	399	VAL	N-CA-CB	6.60	120.47	110.58
11	X	151	ASN	CA-CB-CG	-6.60	106.00	112.60
9	b	30	ALA	CA-C-N	6.59	129.41	120.44
9	b	30	ALA	C-N-CA	6.59	129.41	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	N	61	ARG	NH1-CZ-NH2	-6.59	110.73	119.30
11	R	41	ALA	CA-C-N	6.59	129.77	120.28
11	R	41	ALA	C-N-CA	6.59	129.77	120.28
4	D	54	ASN	N-CA-C	-6.59	98.16	108.90
4	F	446	GLN	N-CA-C	-6.59	97.48	108.75
3	E	309	GLU	N-CA-CB	6.59	122.09	110.37
11	Y	17	CYS	N-CA-C	-6.59	104.02	111.07
8	P	272	LEU	CA-C-N	6.58	129.76	120.28
8	P	272	LEU	C-N-CA	6.58	129.76	120.28
6	J	66	GLY	N-CA-C	-6.58	105.69	114.25
11	R	133	LEU	CB-CA-C	-6.58	100.55	110.88
3	C	306	GLY	N-CA-C	-6.58	100.76	112.54
4	F	219	LEU	N-CA-C	-6.58	104.03	111.07
7	K	134	GLU	O-C-N	6.58	125.88	121.14
9	b	312	ASP	CA-C-N	6.58	131.08	120.55
9	b	312	ASP	C-N-CA	6.58	131.08	120.55
7	G	83	LYS	CA-C-N	6.58	129.38	120.44
7	G	83	LYS	C-N-CA	6.58	129.38	120.44
4	F	255	THR	CA-C-O	-6.57	112.29	118.73
6	H	82	GLU	N-CA-CB	6.57	121.12	110.40
9	b	356	MET	N-CA-C	-6.57	102.41	112.99
5	Q	264	GLY	O-C-N	6.57	129.20	122.24
9	b	285	TYR	CB-CA-C	-6.57	99.89	110.79
6	J	7	ILE	N-CA-CB	6.57	120.43	110.58
1	M	133	GLN	CA-C-N	6.57	129.08	120.28
1	M	133	GLN	C-N-CA	6.57	129.08	120.28
3	E	399	VAL	CA-C-N	6.57	130.03	120.71
3	E	399	VAL	C-N-CA	6.57	130.03	120.71
11	R	65	ILE	O-C-N	6.57	129.22	121.80
11	S	106	PHE	CA-C-N	6.57	128.98	120.44
11	S	106	PHE	C-N-CA	6.57	128.98	120.44
6	L	61	ASN	N-CA-CB	6.57	119.94	110.88
4	D	259	ALA	N-CA-C	6.56	118.43	111.28
1	M	206	VAL	CA-C-N	6.56	129.07	120.28
1	M	206	VAL	C-N-CA	6.56	129.07	120.28
3	E	586	PHE	CA-C-N	6.56	130.02	120.71
3	E	586	PHE	C-N-CA	6.56	130.02	120.71
4	F	332	ILE	CA-C-N	6.56	127.09	120.14
4	F	332	ILE	C-N-CA	6.56	127.09	120.14
11	W	63	ILE	CA-C-N	6.56	129.07	120.28
11	W	63	ILE	C-N-CA	6.56	129.07	120.28
7	K	70	MET	N-CA-CB	6.56	121.09	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	N	82	ASP	CA-C-O	-6.55	113.60	120.55
11	R	84	LEU	O-C-N	6.55	129.07	122.12
3	A	588	GLU	CA-C-O	-6.55	113.28	120.69
11	a	158	VAL	CB-CA-C	6.55	122.04	111.29
3	A	312	MET	O-C-N	6.55	129.06	122.12
7	K	79	THR	CA-C-N	6.55	129.72	120.42
7	K	79	THR	C-N-CA	6.55	129.72	120.42
7	G	138	ILE	N-CA-C	-6.55	98.99	108.36
3	A	150	ASP	CB-CA-C	-6.55	97.41	109.46
3	E	290	MET	CA-C-N	6.55	129.59	120.29
3	E	290	MET	C-N-CA	6.55	129.59	120.29
11	R	157	ASP	N-CA-CB	6.55	121.56	110.49
11	Z	14	ALA	CA-C-O	6.55	127.49	120.55
3	E	117	GLU	N-CA-C	6.55	118.21	111.14
7	I	158	ARG	CA-C-N	6.55	129.71	120.28
7	I	158	ARG	C-N-CA	6.55	129.71	120.28
11	S	123	PRO	N-CA-C	6.54	122.17	113.40
9	b	53	ARG	NE-CZ-NH2	6.54	125.09	119.20
8	P	454	LEU	CA-C-N	6.54	131.80	120.68
8	P	454	LEU	C-N-CA	6.54	131.80	120.68
4	D	344	HIS	CA-C-N	6.54	126.04	119.24
4	D	344	HIS	C-N-CA	6.54	126.04	119.24
5	Q	2	GLU	CA-C-O	6.54	128.58	120.54
10	O	250	ALA	N-CA-C	6.54	118.41	111.28
11	Z	39	ILE	O-C-N	6.54	128.31	121.91
3	C	231	TYR	CA-C-O	-6.53	113.48	119.62
8	P	100	ILE	CA-C-N	6.53	128.93	120.44
8	P	100	ILE	C-N-CA	6.53	128.93	120.44
9	b	51	PHE	N-CA-C	6.53	118.40	111.28
11	T	148	LEU	N-CA-C	6.53	118.95	111.11
4	D	463	SER	O-C-N	6.53	129.04	122.12
11	R	118	GLY	N-CA-C	-6.53	104.59	112.49
3	A	232	PRO	CB-CA-C	6.53	122.34	111.56
4	B	238	THR	CA-C-O	-6.53	113.82	121.46
3	E	604	LEU	CA-C-N	6.53	129.56	120.29
3	E	604	LEU	C-N-CA	6.53	129.56	120.29
4	F	198	LYS	CA-C-N	6.53	129.03	120.28
4	F	198	LYS	C-N-CA	6.53	129.03	120.28
11	Y	44	VAL	N-CA-CB	6.53	122.59	110.77
3	A	129	ASP	CA-CB-CG	6.53	119.13	112.60
6	L	99	ILE	CA-C-N	6.53	129.03	120.28
6	L	99	ILE	C-N-CA	6.53	129.03	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	344	HIS	CA-C-N	6.53	126.29	119.05
4	F	344	HIS	C-N-CA	6.53	126.29	119.05
10	O	42	ARG	CA-C-N	6.53	131.18	121.72
10	O	42	ARG	C-N-CA	6.53	131.18	121.72
4	B	78	GLN	OE1-CD-NE2	6.52	129.12	122.60
6	J	69	GLU	CA-C-O	-6.52	111.97	119.60
11	R	35	SER	CA-C-N	6.52	127.36	119.99
11	R	35	SER	C-N-CA	6.52	127.36	119.99
4	D	289	ARG	CA-C-N	6.52	129.67	120.28
4	D	289	ARG	C-N-CA	6.52	129.67	120.28
4	F	324	GLY	N-CA-C	-6.52	105.51	114.64
8	P	5	LYS	CA-C-N	6.52	129.41	120.35
8	P	5	LYS	C-N-CA	6.52	129.41	120.35
3	E	351	SER	N-CA-C	-6.52	97.79	108.41
9	b	80	ASP	CA-CB-CG	-6.52	106.08	112.60
3	A	533	THR	CA-C-N	6.51	132.45	122.29
3	A	533	THR	C-N-CA	6.51	132.45	122.29
3	A	168	SER	CA-C-O	6.51	127.87	120.84
8	P	316	GLY	CA-C-N	6.51	131.39	122.34
8	P	316	GLY	C-N-CA	6.51	131.39	122.34
3	C	574	THR	N-CA-C	-6.51	104.27	111.36
4	B	173	PHE	N-CA-C	-6.51	97.91	108.52
10	O	70	LYS	O-C-N	6.51	128.77	122.07
11	V	75	CYS	N-CA-CB	6.51	120.38	109.78
3	C	222	PRO	N-CA-CB	6.50	110.08	103.25
3	E	210	THR	CA-C-N	6.50	128.99	120.28
3	E	210	THR	C-N-CA	6.50	128.99	120.28
4	F	180	HIS	ND1-CE1-NE2	6.50	114.90	108.40
10	O	203	LYS	CA-C-O	-6.50	114.00	120.82
10	O	288	LEU	CA-C-O	-6.50	114.00	120.82
11	a	64	ALA	CA-C-N	6.50	130.96	120.30
11	a	64	ALA	C-N-CA	6.50	130.96	120.30
3	A	54	ASP	CA-CB-CG	-6.49	106.11	112.60
2	N	82	ASP	O-C-N	6.49	129.00	122.12
8	P	16	ILE	CA-C-O	-6.49	113.97	120.85
11	U	80	GLN	OE1-CD-NE2	6.49	129.09	122.60
4	F	245	ALA	N-CA-C	6.49	119.35	111.82
5	Q	239	SER	N-CA-C	-6.49	105.10	114.12
11	R	35	SER	CA-C-O	6.49	127.84	120.90
3	E	174	LEU	CA-C-O	-6.48	113.25	120.25
3	C	190	GLU	CB-CG-CD	-6.48	101.58	112.60
3	E	360	TRP	CE2-CD2-CE3	6.48	125.28	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	K	125	ILE	CA-C-N	6.48	128.73	120.56
7	K	125	ILE	C-N-CA	6.48	128.73	120.56
3	A	177	ARG	N-CA-CB	6.48	121.44	110.49
8	P	120	ASP	CA-CB-CG	-6.48	106.12	112.60
3	A	384	LEU	N-CA-C	6.48	118.88	111.11
11	R	52	LYS	CA-C-N	6.47	129.28	120.54
11	R	52	LYS	C-N-CA	6.47	129.28	120.54
10	O	8	ALA	CA-C-N	6.47	130.53	120.75
10	O	8	ALA	C-N-CA	6.47	130.53	120.75
10	O	96	ALA	N-CA-CB	6.47	121.43	110.49
10	O	345	ILE	CA-C-O	-6.47	114.31	121.17
6	H	65	VAL	N-CA-C	-6.47	106.37	113.43
1	M	55	GLN	CA-C-N	6.47	128.85	120.44
1	M	55	GLN	C-N-CA	6.47	128.85	120.44
3	E	561	VAL	CA-C-O	-6.47	113.48	120.47
4	D	376	LEU	CA-C-O	-6.47	112.58	118.79
3	E	537	PHE	CA-CB-CG	6.47	120.27	113.80
3	A	205	LYS	CA-C-N	6.47	128.95	120.28
3	A	205	LYS	C-N-CA	6.47	128.95	120.28
8	P	468	ALA	CB-CA-C	-6.47	100.05	110.79
9	b	91	TYR	N-CA-C	-6.47	102.97	113.19
11	Y	51	PHE	CA-C-N	6.47	129.24	120.44
11	Y	51	PHE	C-N-CA	6.47	129.24	120.44
11	U	73	LEU	N-CA-CB	6.47	119.65	109.82
4	D	107	ASP	N-CA-C	-6.46	104.54	112.88
8	P	140	LEU	CA-C-N	6.46	129.31	120.46
8	P	140	LEU	C-N-CA	6.46	129.31	120.46
4	D	249	THR	CA-C-O	6.46	127.61	120.82
11	V	87	GLY	CA-C-N	6.46	129.59	120.28
11	V	87	GLY	C-N-CA	6.46	129.59	120.28
4	B	165	ALA	N-CA-C	-6.46	100.13	110.14
3	C	79	LEU	CA-C-O	-6.46	113.00	120.49
8	P	427	ILE	CA-C-N	6.46	128.83	120.44
8	P	427	ILE	C-N-CA	6.46	128.83	120.44
11	S	64	ALA	O-C-N	-6.45	115.28	122.12
11	U	106	PHE	CA-C-N	6.45	129.17	120.65
11	U	106	PHE	C-N-CA	6.45	129.17	120.65
11	X	12	PHE	N-CA-C	-6.45	105.56	113.50
3	C	438	PHE	CA-CB-CG	6.45	120.25	113.80
4	F	107	ASP	N-CA-C	-6.45	105.28	112.57
7	K	16	GLU	CA-C-N	6.45	129.21	120.44
7	K	16	GLU	C-N-CA	6.45	129.21	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	G	71	LEU	N-CA-C	-6.45	104.45	112.90
6	J	26	LYS	CA-C-O	-6.45	113.71	120.55
6	J	39	ALA	CA-C-O	-6.45	112.05	119.60
4	F	311	ASP	CA-CB-CG	6.45	119.05	112.60
7	G	155	ASP	CA-CB-CG	6.45	119.05	112.60
11	X	155	THR	N-CA-CB	6.45	119.86	109.28
3	C	55	ASN	OD1-CG-ND2	6.45	129.04	122.60
4	D	305	PRO	N-CD-CG	6.45	112.87	103.20
3	E	513	ILE	CA-C-N	6.45	128.92	120.28
3	E	513	ILE	C-N-CA	6.45	128.92	120.28
4	F	340	ASP	N-CA-C	6.45	120.44	111.74
4	D	178	LEU	CB-CA-C	-6.44	98.30	109.32
3	A	274	ASN	CA-C-O	6.44	126.78	119.18
4	F	168	GLN	N-CA-C	-6.44	100.98	110.52
4	F	291	VAL	O-C-N	-6.44	114.52	122.57
11	a	93	ALA	CA-C-O	6.44	127.33	120.70
4	B	412	ASP	N-CA-C	-6.44	104.34	111.36
4	D	300	GLY	CA-C-N	6.43	129.89	120.82
4	D	300	GLY	C-N-CA	6.43	129.89	120.82
4	D	456	GLU	CA-C-O	6.43	127.37	120.55
3	E	234	LEU	N-CA-C	-6.43	98.05	108.41
8	P	418	ILE	CA-C-O	-6.43	113.91	121.05
11	V	151	ASN	N-CA-CB	6.43	119.33	110.01
11	W	139	LEU	CA-C-N	6.43	127.08	119.94
11	W	139	LEU	C-N-CA	6.43	127.08	119.94
11	U	41	ALA	CA-C-N	6.43	129.54	120.28
11	U	41	ALA	C-N-CA	6.43	129.54	120.28
8	P	76	THR	CA-C-N	6.42	128.79	120.44
8	P	76	THR	C-N-CA	6.42	128.79	120.44
9	b	196	VAL	CA-C-N	6.42	129.53	120.28
9	b	196	VAL	C-N-CA	6.42	129.53	120.28
2	N	91	ILE	CA-CB-CG2	-6.42	99.58	110.50
11	T	26	LEU	CA-C-N	6.42	127.25	119.99
11	T	26	LEU	C-N-CA	6.42	127.25	119.99
3	E	346	GLN	N-CA-C	-6.42	104.93	112.89
3	C	545	ASP	CA-C-N	6.42	128.79	120.44
3	C	545	ASP	C-N-CA	6.42	128.79	120.44
4	B	294	ALA	N-CA-C	-6.42	104.66	114.16
7	G	108	SER	CA-C-N	6.42	127.06	120.00
7	G	108	SER	C-N-CA	6.42	127.06	120.00
4	B	237	ARG	N-CA-C	-6.42	105.28	113.23
8	P	255	PHE	CB-CG-CD1	6.42	131.61	120.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	I	189	VAL	N-CA-CB	6.41	119.98	111.90
11	X	26	LEU	CA-C-N	6.41	127.06	119.94
11	X	26	LEU	C-N-CA	6.41	127.06	119.94
3	E	150	ASP	CA-C-O	6.41	128.36	121.05
11	Z	37	VAL	CB-CA-C	-6.41	103.64	112.04
11	T	154	ALA	N-CA-C	6.41	118.80	111.11
4	F	468	TYR	CA-C-O	-6.40	113.33	120.25
11	Y	12	PHE	N-CA-C	-6.40	105.50	113.38
3	C	465	ASN	O-C-N	-6.40	115.48	122.07
4	D	235	LEU	CA-C-N	6.40	129.50	120.28
4	D	235	LEU	C-N-CA	6.40	129.50	120.28
4	F	186	GLN	OE1-CD-NE2	-6.40	116.20	122.60
4	B	470	LYS	N-CA-C	-6.40	104.96	112.89
11	U	13	GLY	CA-C-O	-6.40	113.88	120.66
3	E	360	TRP	CA-C-O	-6.39	113.64	120.42
9	b	42	ARG	CA-C-N	6.39	129.95	120.87
9	b	42	ARG	C-N-CA	6.39	129.95	120.87
3	A	255	PRO	CA-C-N	6.39	129.70	122.67
3	A	255	PRO	C-N-CA	6.39	129.70	122.67
4	F	142	TYR	N-CA-CB	6.39	119.37	109.97
4	F	185	ALA	CA-C-O	-6.39	113.77	120.55
5	Q	24	LEU	CA-C-N	6.39	131.42	121.26
5	Q	24	LEU	C-N-CA	6.39	131.42	121.26
11	R	90	GLN	CA-C-N	6.39	129.67	120.79
11	R	90	GLN	C-N-CA	6.39	129.67	120.79
3	A	333	ILE	O-C-N	6.39	128.41	121.83
4	F	77	VAL	O-C-N	-6.39	116.32	123.03
7	I	216	PRO	N-CA-CB	6.38	110.29	103.52
10	O	55	ILE	N-CA-C	-6.38	99.20	108.71
3	A	447	GLN	CB-CA-C	-6.38	98.42	110.67
4	D	149	GLU	N-CA-C	-6.38	100.76	110.14
7	K	190	VAL	O-C-N	6.38	129.69	122.93
8	P	82	HIS	CE1-NE2-CD2	-6.38	102.62	109.00
4	B	421	GLY	N-CA-C	-6.38	103.53	111.70
3	E	185	ILE	N-CA-CB	6.38	119.50	111.46
9	b	55	PHE	CA-C-N	6.38	129.52	120.53
9	b	55	PHE	C-N-CA	6.38	129.52	120.53
1	M	75	THR	CA-C-O	6.38	127.30	119.97
3	E	427	VAL	CB-CA-C	-6.38	103.81	111.97
11	V	89	ILE	CA-C-N	6.38	128.82	120.28
11	V	89	ILE	C-N-CA	6.38	128.82	120.28
4	D	462	TRP	CA-C-N	6.38	128.82	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	462	TRP	C-N-CA	6.38	128.82	120.28
10	O	95	ASN	N-CA-CB	6.38	121.26	110.49
10	O	34	PHE	CA-C-O	-6.37	114.13	120.82
11	Y	49	LEU	CA-C-N	6.37	130.38	120.82
11	Y	49	LEU	C-N-CA	6.37	130.38	120.82
3	A	606	THR	CA-C-N	6.37	128.81	120.28
3	A	606	THR	C-N-CA	6.37	128.81	120.28
4	B	146	TYR	CA-C-N	6.37	126.75	119.93
4	B	146	TYR	C-N-CA	6.37	126.75	119.93
3	C	140	GLN	OE1-CD-NE2	6.37	128.97	122.60
10	O	264	GLU	CA-C-N	6.37	129.33	120.29
10	O	264	GLU	C-N-CA	6.37	129.33	120.29
7	G	192	ASN	CA-C-O	-6.37	114.61	121.94
3	C	64	ASP	CA-CB-CG	6.37	118.97	112.60
8	P	250	ILE	N-CA-CB	6.37	118.00	110.55
10	O	55	ILE	CA-CB-CG1	6.37	121.22	110.40
11	S	80	GLN	N-CA-C	-6.37	105.44	113.72
2	N	37	PHE	CA-C-O	6.36	128.11	120.99
7	G	36	GLN	CB-CG-CD	-6.36	101.79	112.60
7	I	9	THR	CA-C-O	-6.36	112.73	120.05
11	R	81	LYS	CB-CA-C	-6.36	100.85	110.90
11	W	35	SER	CA-C-N	6.36	127.18	119.99
11	W	35	SER	C-N-CA	6.36	127.18	119.99
10	O	229	ALA	CA-C-N	6.36	129.97	120.31
10	O	229	ALA	C-N-CA	6.36	129.97	120.31
3	A	571	ALA	N-CA-C	6.36	118.21	111.28
11	a	151	ASN	CA-CB-CG	-6.36	106.25	112.60
4	B	173	PHE	CA-CB-CG	6.35	120.15	113.80
8	P	330	TYR	N-CA-C	-6.35	99.81	109.85
10	O	340	CYS	CA-C-N	6.35	128.79	120.28
10	O	340	CYS	C-N-CA	6.35	128.79	120.28
11	U	101	GLY	CA-C-N	6.35	128.70	120.44
11	U	101	GLY	C-N-CA	6.35	128.70	120.44
5	Q	129	PRO	O-C-N	6.35	130.17	122.23
5	Q	337	ARG	N-CA-C	-6.35	97.27	110.80
9	b	185	ASN	CA-C-O	6.35	127.30	120.38
11	Z	60	ALA	N-CA-C	6.35	118.73	111.11
11	a	67	GLY	O-C-N	6.35	128.27	122.18
10	O	116	TRP	CE2-CD2-CE3	6.35	125.15	118.80
4	B	193	LEU	CA-C-N	6.34	129.43	120.42
4	B	193	LEU	C-N-CA	6.34	129.43	120.42
3	A	81	VAL	CB-CA-C	-6.34	101.17	110.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	431	LEU	CA-C-N	6.34	129.30	120.29
4	B	431	LEU	C-N-CA	6.34	129.30	120.29
7	K	57	ASN	CA-CB-CG	6.34	118.94	112.60
7	I	59	ASP	CA-C-N	6.34	126.98	119.94
7	I	59	ASP	C-N-CA	6.34	126.98	119.94
11	R	132	ILE	N-CA-CB	6.34	117.97	110.55
4	D	436	LEU	CA-C-O	-6.34	114.17	120.82
4	D	340	ASP	CA-CB-CG	-6.33	106.27	112.60
11	Y	52	LYS	N-CA-CB	6.33	119.25	110.07
3	A	34	VAL	CA-C-N	-6.33	114.32	123.06
3	A	34	VAL	C-N-CA	-6.33	114.32	123.06
11	a	120	SER	CB-CA-C	-6.33	100.68	110.81
3	C	279	ILE	O-C-N	-6.33	116.49	123.20
11	R	31	GLY	O-C-N	6.33	128.40	122.13
9	b	124	MET	CA-C-N	6.33	129.04	120.44
9	b	124	MET	C-N-CA	6.33	129.04	120.44
11	R	88	PHE	N-CA-C	6.33	118.99	111.71
7	I	51	VAL	CA-C-O	-6.33	114.46	121.17
11	R	16	GLY	CA-C-N	6.33	129.00	120.65
11	R	16	GLY	C-N-CA	6.33	129.00	120.65
11	V	69	VAL	N-CA-CB	6.33	117.95	110.55
11	U	116	VAL	CA-C-O	-6.32	113.42	120.25
7	I	199	ILE	N-CA-CB	6.32	119.63	111.67
11	Y	117	ARG	CA-C-N	6.32	126.83	119.94
11	Y	117	ARG	C-N-CA	6.32	126.83	119.94
11	R	21	ILE	CA-CB-CG2	-6.32	99.76	110.50
11	a	84	LEU	CA-C-N	6.32	129.91	120.31
11	a	84	LEU	C-N-CA	6.32	129.91	120.31
11	V	26	LEU	CA-C-N	6.31	127.12	119.99
11	V	26	LEU	C-N-CA	6.31	127.12	119.99
3	A	266	SER	CA-C-N	6.31	129.25	120.29
3	A	266	SER	C-N-CA	6.31	129.25	120.29
11	T	67	GLY	CA-C-N	6.31	128.73	120.28
11	T	67	GLY	C-N-CA	6.31	128.73	120.28
4	B	192	GLY	CA-C-O	-6.31	112.02	119.02
10	O	73	ASN	OD1-CG-ND2	6.31	128.91	122.60
11	S	89	ILE	CA-C-N	6.31	128.73	120.28
11	S	89	ILE	C-N-CA	6.31	128.73	120.28
7	G	150	GLU	N-CA-C	6.30	118.15	111.28
11	S	131	LEU	CA-C-N	6.30	128.50	120.56
11	S	131	LEU	C-N-CA	6.30	128.50	120.56
3	A	343	PHE	CA-C-N	6.30	128.73	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	343	PHE	C-N-CA	6.30	128.73	120.28
4	F	428	GLU	CA-C-N	6.30	129.24	120.29
4	F	428	GLU	C-N-CA	6.30	129.24	120.29
3	C	554	HIS	CE1-NE2-CD2	-6.30	102.70	109.00
4	B	432	SER	CA-C-N	6.30	128.72	120.28
4	B	432	SER	C-N-CA	6.30	128.72	120.28
4	D	145	ILE	N-CA-CB	6.30	120.72	111.52
4	D	315	ILE	CA-C-O	6.30	127.53	120.85
8	P	52	VAL	CA-C-N	6.30	133.56	121.54
8	P	52	VAL	C-N-CA	6.30	133.56	121.54
3	A	271	LYS	N-CA-C	6.29	117.94	111.14
3	E	523	GLU	CA-C-O	6.29	127.18	120.70
5	Q	202	GLU	CA-C-O	-6.29	111.53	120.16
11	V	12	PHE	N-CA-C	-6.29	105.60	113.28
7	K	105	GLU	N-CA-C	-6.29	103.95	111.69
7	G	184	VAL	CA-C-O	-6.29	113.78	120.39
11	W	141	LEU	CB-CA-C	-6.29	101.00	110.88
4	B	241	PHE	CB-CA-C	-6.29	98.20	109.71
9	b	301	ALA	CA-C-O	-6.29	112.73	119.97
11	V	135	PHE	CA-C-O	6.29	127.20	119.97
3	C	520	LEU	CA-C-O	6.29	127.22	120.55
3	A	265	ILE	O-C-N	6.29	128.31	121.83
3	C	493	GLU	CA-C-O	-6.29	114.22	120.82
3	E	130	THR	CA-CB-OG1	6.28	119.03	109.60
8	P	77	LEU	CA-C-N	6.28	126.46	120.43
8	P	77	LEU	C-N-CA	6.28	126.46	120.43
6	H	11	LEU	N-CA-CB	6.28	119.46	110.16
11	T	80	GLN	N-CA-C	-6.28	105.55	113.72
11	Y	127	VAL	O-C-N	-6.28	115.53	121.87
4	F	286	ASP	N-CA-C	-6.28	104.44	111.28
7	I	205	GLU	CA-C-N	6.28	128.60	120.44
7	I	205	GLU	C-N-CA	6.28	128.60	120.44
7	G	178	TYR	N-CA-C	-6.27	98.29	108.52
10	O	206	PHE	CA-C-O	-6.27	113.77	120.42
11	Z	47	PRO	N-CA-C	-6.27	106.65	114.68
3	A	148	VAL	N-CA-CB	6.27	118.53	110.13
4	F	45	LYS	N-CA-C	-6.27	105.27	113.17
5	Q	125	GLN	CA-C-N	6.27	132.51	122.10
5	Q	125	GLN	C-N-CA	6.27	132.51	122.10
9	b	94	GLY	CA-C-N	6.27	129.84	120.31
9	b	94	GLY	C-N-CA	6.27	129.84	120.31
11	U	145	ILE	CA-C-N	6.27	129.05	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	U	145	ILE	C-N-CA	6.27	129.05	120.46
3	A	385	GLY	O-C-N	6.27	128.21	122.19
10	O	270	LEU	N-CA-CB	6.27	119.33	110.12
11	T	142	TYR	CA-C-N	6.27	126.77	119.94
11	T	142	TYR	C-N-CA	6.27	126.77	119.94
4	B	213	ALA	CA-C-N	6.26	131.82	122.99
4	B	213	ALA	C-N-CA	6.26	131.82	122.99
3	E	298	PRO	N-CA-C	-6.26	106.03	113.86
4	D	417	LYS	N-CA-C	-6.26	104.45	111.28
11	R	103	ALA	CA-C-N	6.26	128.58	120.44
11	R	103	ALA	C-N-CA	6.26	128.58	120.44
11	V	115	GLY	CA-C-O	-6.26	112.06	119.45
3	A	227	LEU	CA-C-N	6.26	129.65	120.82
3	A	227	LEU	C-N-CA	6.26	129.65	120.82
3	E	368	SER	CA-C-N	6.26	126.88	120.00
3	E	368	SER	C-N-CA	6.26	126.88	120.00
10	O	336	ASN	OD1-CG-ND2	6.26	128.86	122.60
4	B	165	ALA	CB-CA-C	-6.26	98.45	109.71
8	P	361	ALA	CA-C-N	6.26	129.18	120.29
8	P	361	ALA	C-N-CA	6.26	129.18	120.29
11	Y	59	MET	CA-C-N	6.26	129.17	120.29
11	Y	59	MET	C-N-CA	6.26	129.17	120.29
11	X	58	ILE	CA-C-N	6.26	128.66	120.28
11	X	58	ILE	C-N-CA	6.26	128.66	120.28
4	B	92	THR	CA-CB-OG1	6.25	118.98	109.60
4	F	304	TYR	CA-C-N	6.25	127.66	119.84
4	F	304	TYR	C-N-CA	6.25	127.66	119.84
11	a	38	GLY	CA-C-N	6.25	129.03	120.46
11	a	38	GLY	C-N-CA	6.25	129.03	120.46
8	P	364	ASP	O-C-N	-6.25	115.63	122.07
7	I	24	ILE	CA-C-N	6.25	128.66	120.28
7	I	24	ILE	C-N-CA	6.25	128.66	120.28
4	B	65	GLY	O-C-N	-6.25	116.67	123.29
8	P	184	TYR	N-CA-C	-6.25	104.16	110.97
4	B	422	GLU	N-CA-C	-6.25	104.72	112.90
7	K	113	ASN	N-CA-CB	6.25	120.68	110.37
4	F	223	ARG	NE-CZ-NH2	6.24	124.82	119.20
9	b	217	GLU	CA-C-N	6.24	131.07	121.71
9	b	217	GLU	C-N-CA	6.24	131.07	121.71
10	O	390	ILE	O-C-N	6.24	130.00	123.26
11	U	12	PHE	CA-C-N	6.24	126.87	120.00
11	U	12	PHE	C-N-CA	6.24	126.87	120.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	161	MET	CB-CA-C	-6.24	96.95	109.99
4	F	124	PRO	CA-C-N	6.24	129.57	120.71
4	F	124	PRO	C-N-CA	6.24	129.57	120.71
10	O	110	TYR	O-C-N	-6.24	115.51	122.12
11	T	18	ALA	CA-C-N	6.24	129.47	120.79
11	T	18	ALA	C-N-CA	6.24	129.47	120.79
11	W	29	ALA	O-C-N	-6.24	115.50	122.12
4	B	218	ASN	CA-C-O	-6.24	113.92	121.28
11	T	143	GLY	N-CA-C	6.24	120.04	112.49
1	M	15	LEU	CA-C-N	6.24	127.04	119.99
1	M	15	LEU	C-N-CA	6.24	127.04	119.99
3	A	177	ARG	NE-CZ-NH1	6.24	127.73	121.50
3	E	248	GLN	OE1-CD-NE2	-6.24	116.36	122.60
5	Q	8	ILE	O-C-N	6.24	128.38	121.90
8	P	138	THR	CA-C-N	6.24	129.27	120.42
8	P	138	THR	C-N-CA	6.24	129.27	120.42
10	O	34	PHE	CB-CG-CD2	-6.24	110.10	120.70
4	B	261	THR	CA-CB-OG1	-6.23	100.25	109.60
1	M	100	ASN	CA-C-O	6.23	127.72	120.49
4	D	42	GLU	N-CA-C	-6.23	99.03	109.07
3	E	494	GLU	CA-C-N	6.23	128.63	120.28
3	E	494	GLU	C-N-CA	6.23	128.63	120.28
4	F	224	PHE	N-CA-C	-6.23	104.49	111.28
11	U	22	ILE	CA-C-N	6.23	128.63	120.28
11	U	22	ILE	C-N-CA	6.23	128.63	120.28
11	W	25	SER	CA-C-N	6.23	128.62	120.28
11	W	25	SER	C-N-CA	6.23	128.62	120.28
4	F	149	GLU	N-CA-CB	6.23	120.11	110.46
7	I	134	GLU	CA-C-O	-6.23	114.65	120.94
3	C	412	ILE	CB-CA-C	6.22	119.51	110.98
4	F	420	VAL	N-CA-C	6.22	117.78	111.00
7	G	27	GLU	N-CA-CB	6.22	119.37	110.16
11	U	72	VAL	CA-C-N	6.22	129.44	120.79
11	U	72	VAL	C-N-CA	6.22	129.44	120.79
11	U	88	PHE	CB-CG-CD2	-6.22	110.12	120.70
4	B	409	ILE	CA-C-N	6.22	126.89	119.98
4	B	409	ILE	C-N-CA	6.22	126.89	119.98
3	C	549	ALA	CA-C-N	6.22	128.53	120.44
3	C	549	ALA	C-N-CA	6.22	128.53	120.44
3	A	240	LEU	CA-C-O	-6.22	114.29	120.82
7	G	40	ASP	CA-CB-CG	-6.22	106.38	112.60
11	R	37	VAL	CA-C-N	6.22	126.72	119.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	R	37	VAL	C-N-CA	6.22	126.72	119.94
11	W	108	ILE	O-C-N	-6.22	115.59	121.87
5	Q	92	ARG	CA-C-N	6.22	128.61	120.28
5	Q	92	ARG	C-N-CA	6.22	128.61	120.28
11	Y	155	THR	CA-C-N	6.21	132.81	123.24
11	Y	155	THR	C-N-CA	6.21	132.81	123.24
4	B	162	ASN	CB-CG-OD1	6.21	133.22	120.80
4	F	271	GLU	CA-C-O	-6.21	114.33	121.54
11	V	117	ARG	CA-C-N	6.21	126.83	120.00
11	V	117	ARG	C-N-CA	6.21	126.83	120.00
11	Z	55	VAL	CA-C-N	6.21	127.60	119.84
11	Z	55	VAL	C-N-CA	6.21	127.60	119.84
4	D	323	GLU	CA-C-O	6.21	127.69	120.49
10	O	170	LEU	CB-CA-C	-6.21	99.85	110.22
11	V	62	ILE	N-CA-C	-6.21	103.91	113.16
11	T	69	VAL	N-CA-C	6.21	116.38	110.42
6	H	102	VAL	CA-C-O	6.21	127.43	120.85
3	A	237	GLN	CA-C-N	6.20	128.59	120.28
3	A	237	GLN	C-N-CA	6.20	128.59	120.28
8	P	323	GLN	CA-C-O	-6.20	113.98	120.55
10	O	290	ARG	CA-C-N	6.20	128.59	120.28
10	O	290	ARG	C-N-CA	6.20	128.59	120.28
5	Q	287	HIS	CA-C-N	6.20	128.58	120.28
5	Q	287	HIS	C-N-CA	6.20	128.58	120.28
3	A	166	LEU	CA-C-N	6.20	130.62	122.51
3	A	166	LEU	C-N-CA	6.20	130.62	122.51
4	F	142	TYR	CA-CB-CG	-6.20	102.75	113.90
5	Q	128	HIS	CB-CA-C	-6.20	98.69	108.91
11	Y	57	VAL	N-CA-CB	6.20	118.97	110.54
11	R	137	GLU	CA-C-N	6.20	128.95	120.46
11	R	137	GLU	C-N-CA	6.20	128.95	120.46
8	P	379	PHE	CA-CB-CG	6.19	119.99	113.80
1	M	209	LYS	CA-C-N	6.19	129.08	120.29
1	M	209	LYS	C-N-CA	6.19	129.08	120.29
3	A	244	PHE	CA-C-N	6.19	127.58	119.84
3	A	244	PHE	C-N-CA	6.19	127.58	119.84
3	A	333	ILE	CB-CA-C	-6.19	103.67	112.22
5	Q	288	PHE	CA-CB-CG	6.19	119.99	113.80
11	U	86	THR	N-CA-CB	6.19	119.33	110.16
11	Y	138	VAL	CA-C-N	6.19	128.58	120.28
11	Y	138	VAL	C-N-CA	6.19	128.58	120.28
4	B	355	GLU	CB-CA-C	-6.19	103.15	111.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	396	HIS	ND1-CE1-NE2	6.19	114.59	108.40
5	Q	30	TYR	O-C-N	6.19	129.20	122.15
11	V	132	ILE	N-CA-CB	6.19	117.79	110.55
3	A	190	GLU	O-C-N	-6.18	115.98	123.16
5	Q	39	LEU	N-CA-C	6.18	118.02	111.28
8	P	340	SER	N-CA-C	6.18	118.02	111.28
7	I	167	ALA	CA-C-N	6.18	127.57	119.84
7	I	167	ALA	C-N-CA	6.18	127.57	119.84
11	Y	139	LEU	N-CA-CB	6.18	119.21	110.12
1	M	173	ILE	CA-C-O	-6.18	114.30	120.85
11	S	90	GLN	CG-CD-NE2	6.18	125.67	116.40
3	E	335	THR	CA-C-N	6.18	126.80	120.00
3	E	335	THR	C-N-CA	6.18	126.80	120.00
6	L	55	LYS	CA-C-N	6.18	129.06	120.29
6	L	55	LYS	C-N-CA	6.18	129.06	120.29
4	F	324	GLY	CA-C-N	6.18	133.34	121.54
4	F	324	GLY	C-N-CA	6.18	133.34	121.54
7	I	45	ILE	CA-C-N	6.18	129.06	120.29
7	I	45	ILE	C-N-CA	6.18	129.06	120.29
11	X	20	ALA	N-CA-C	6.18	118.56	111.02
4	B	245	ALA	CB-CA-C	-6.18	98.89	110.01
5	Q	127	CYS	N-CA-C	-6.18	98.66	108.73
3	C	377	ASP	CA-CB-CG	-6.17	106.43	112.60
5	Q	316	LYS	N-CA-C	6.17	118.01	111.28
10	O	264	GLU	N-CA-C	6.17	118.01	111.28
7	I	87	LYS	N-CA-C	6.17	118.01	111.28
11	X	104	ALA	CA-C-N	6.17	127.91	120.13
11	X	104	ALA	C-N-CA	6.17	127.91	120.13
8	P	378	GLY	CA-C-N	6.17	128.46	120.44
8	P	378	GLY	C-N-CA	6.17	128.46	120.44
4	F	50	ASN	CB-CG-ND2	-6.17	107.15	116.40
11	Y	89	ILE	CB-CA-C	-6.17	103.98	112.24
8	P	105	SER	CA-C-N	6.17	130.06	120.75
8	P	105	SER	C-N-CA	6.17	130.06	120.75
3	C	124	ILE	CA-CB-CG1	6.16	120.88	110.40
3	C	356	SER	CA-C-N	6.16	131.01	120.72
3	C	356	SER	C-N-CA	6.16	131.01	120.72
3	C	540	ILE	CA-C-O	6.16	127.38	120.85
8	P	181	ASP	N-CA-C	6.16	117.66	111.07
11	Z	100	SER	CA-C-N	6.16	126.95	119.99
11	Z	100	SER	C-N-CA	6.16	126.95	119.99
1	M	163	ILE	N-CA-C	6.16	116.90	110.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	450	HIS	CA-CB-CG	6.16	119.96	113.80
3	A	360	TRP	CE2-CD2-CE3	6.15	124.95	118.80
4	D	272	ARG	NE-CZ-NH2	-6.15	113.66	119.20
3	C	142	THR	N-CA-C	-6.15	100.85	110.14
3	C	316	THR	N-CA-C	-6.15	98.88	108.90
3	A	279	ILE	CA-C-O	-6.15	113.95	120.53
3	A	24	TYR	CA-C-N	6.15	130.15	121.30
3	A	24	TYR	C-N-CA	6.15	130.15	121.30
4	B	312	LEU	N-CA-C	6.15	117.98	111.28
4	D	296	GLU	CA-C-N	6.15	129.49	120.82
4	D	296	GLU	C-N-CA	6.15	129.49	120.82
3	C	566	ASN	CA-C-N	6.15	128.52	120.28
3	C	566	ASN	C-N-CA	6.15	128.52	120.28
4	D	106	GLU	CA-C-N	6.14	132.19	122.60
4	D	106	GLU	C-N-CA	6.14	132.19	122.60
4	D	344	HIS	CB-CG-ND1	6.14	131.92	122.70
7	K	55	THR	O-C-N	-6.14	114.71	122.27
10	O	277	ALA	CB-CA-C	-6.14	100.40	110.85
11	T	156	GLN	N-CA-C	6.14	118.95	110.35
4	D	156	SER	CA-C-N	6.14	129.65	120.31
4	D	156	SER	C-N-CA	6.14	129.65	120.31
4	F	124	PRO	N-CD-CG	6.14	112.42	103.20
6	J	43	ILE	N-CA-CB	6.14	119.36	110.52
4	B	314	THR	CA-C-N	6.14	129.14	120.42
4	B	314	THR	C-N-CA	6.14	129.14	120.42
7	I	181	LYS	CA-C-N	6.14	132.81	121.52
7	I	181	LYS	C-N-CA	6.14	132.81	121.52
5	Q	298	ASP	CA-C-N	6.14	129.12	120.28
5	Q	298	ASP	C-N-CA	6.14	129.12	120.28
8	P	204	TRP	CA-C-N	6.14	128.50	120.28
8	P	204	TRP	C-N-CA	6.14	128.50	120.28
8	P	433	LEU	O-C-N	-6.13	115.16	122.15
9	b	139	GLU	CA-C-N	6.13	128.50	120.28
9	b	139	GLU	C-N-CA	6.13	128.50	120.28
10	O	372	HIS	ND1-CE1-NE2	6.13	114.53	108.40
7	G	149	ILE	CB-CA-C	-6.13	103.76	112.22
4	F	404	TYR	CA-C-O	-6.13	114.05	120.55
8	P	52	VAL	O-C-N	6.13	128.15	121.83
4	D	288	LEU	CB-CA-C	-6.13	100.62	110.79
3	E	38	GLU	CA-C-O	6.13	129.06	121.89
4	D	176	SER	CA-C-N	6.13	131.09	122.63
4	D	176	SER	C-N-CA	6.13	131.09	122.63

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	195	ARG	O-C-N	-6.13	114.63	120.70
5	Q	274	GLU	N-CA-C	6.13	118.04	111.36
11	V	51	PHE	CA-CB-CG	-6.13	107.67	113.80
3	A	406	ARG	NE-CZ-NH2	-6.12	113.69	119.20
4	B	434	GLU	N-CA-C	-6.12	104.69	111.36
11	U	128	GLY	CA-C-N	6.12	128.77	120.44
11	U	128	GLY	C-N-CA	6.12	128.77	120.44
5	Q	233	ILE	N-CA-C	-6.12	99.05	107.99
3	C	475	TYR	O-C-N	-6.12	114.28	121.32
5	Q	272	VAL	CA-C-N	6.12	130.17	121.42
5	Q	272	VAL	C-N-CA	6.12	130.17	121.42
11	S	29	ALA	CA-C-N	6.12	128.40	120.44
11	S	29	ALA	C-N-CA	6.12	128.40	120.44
11	Z	105	GLY	O-C-N	6.12	128.07	122.19
4	D	250	ILE	CA-C-N	6.12	129.61	120.31
4	D	250	ILE	C-N-CA	6.12	129.61	120.31
8	P	426	ASP	CA-CB-CG	6.12	118.72	112.60
4	F	187	ILE	CA-C-N	6.12	128.76	120.44
4	F	187	ILE	C-N-CA	6.12	128.76	120.44
4	F	406	LYS	O-C-N	6.12	129.12	122.15
7	K	167	ALA	CA-C-N	6.12	127.49	119.84
7	K	167	ALA	C-N-CA	6.12	127.49	119.84
11	W	64	ALA	CB-CA-C	-6.12	100.64	110.79
4	B	225	PHE	O-C-N	6.12	128.60	122.12
11	S	74	VAL	CA-C-N	6.12	130.91	121.19
11	S	74	VAL	C-N-CA	6.12	130.91	121.19
3	A	90	LYS	N-CA-C	-6.11	102.72	108.22
4	B	277	ILE	CA-CB-CG1	6.11	120.79	110.40
6	H	46	TYR	N-CA-C	-6.11	104.89	112.90
4	B	393	ARG	N-CA-C	-6.11	100.12	109.41
3	E	129	ASP	N-CA-C	-6.11	99.11	108.76
3	E	335	THR	N-CA-C	-6.11	104.70	111.36
11	Z	118	GLY	CA-C-O	-6.11	114.06	120.90
1	M	169	ARG	CA-C-N	6.11	128.83	120.46
1	M	169	ARG	C-N-CA	6.11	128.83	120.46
3	A	407	THR	N-CA-C	-6.11	99.44	109.40
4	B	177	GLY	O-C-N	6.11	129.93	122.84
5	Q	192	PHE	N-CA-CB	6.11	118.86	110.01
7	I	153	LYS	CA-C-N	6.11	128.38	120.44
7	I	153	LYS	C-N-CA	6.11	128.38	120.44
4	B	172	ILE	N-CA-C	-6.11	98.95	107.80
3	C	431	THR	N-CA-CB	6.11	119.20	110.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	214	THR	CA-CB-CG2	6.11	120.88	110.50
11	X	71	SER	CA-C-N	6.11	128.25	120.56
11	X	71	SER	C-N-CA	6.11	128.25	120.56
3	A	508	SER	CA-C-N	6.10	128.46	120.28
3	A	508	SER	C-N-CA	6.10	128.46	120.28
4	B	48	ARG	CA-C-N	6.10	129.50	120.95
4	B	48	ARG	C-N-CA	6.10	129.50	120.95
4	B	265	TYR	N-CA-C	6.10	117.60	111.07
1	M	87	VAL	CB-CA-C	6.10	118.34	110.96
4	D	416	MET	CA-C-N	6.10	128.46	120.28
4	D	416	MET	C-N-CA	6.10	128.46	120.28
11	V	62	ILE	CA-C-N	6.10	128.25	120.56
11	V	62	ILE	C-N-CA	6.10	128.25	120.56
3	C	213	HIS	CE1-NE2-CD2	-6.10	102.90	109.00
4	D	283	SER	N-CA-C	-6.10	104.71	111.36
8	P	301	ARG	CA-C-N	6.10	129.28	120.98
8	P	301	ARG	C-N-CA	6.10	129.28	120.98
3	E	553	TYR	CA-C-N	6.10	128.45	120.28
3	E	553	TYR	C-N-CA	6.10	128.45	120.28
4	F	289	ARG	CA-C-N	6.09	129.57	120.31
4	F	289	ARG	C-N-CA	6.09	129.57	120.31
7	G	39	ALA	CA-C-N	6.09	128.94	120.29
7	G	39	ALA	C-N-CA	6.09	128.94	120.29
7	I	86	LEU	CB-CA-C	-6.09	100.55	110.79
3	E	468	ASN	CA-CB-CG	6.09	118.69	112.60
4	F	223	ARG	NE-CZ-NH1	-6.09	115.41	121.50
3	A	312	MET	CA-C-O	-6.09	114.09	120.55
4	B	119	PRO	N-CD-CG	6.09	112.34	103.20
9	b	271	SER	N-CA-C	-6.09	98.48	108.41
10	O	128	LYS	CA-C-O	6.09	127.01	120.55
6	J	22	SER	CA-C-N	6.09	128.94	120.29
6	J	22	SER	C-N-CA	6.09	128.94	120.29
3	A	386	ALA	O-C-N	6.09	129.09	122.15
8	P	82	HIS	CA-C-N	6.09	128.44	120.28
8	P	82	HIS	C-N-CA	6.09	128.44	120.28
11	R	65	ILE	CA-C-N	6.09	128.35	120.44
11	R	65	ILE	C-N-CA	6.09	128.35	120.44
4	D	101	ARG	CA-C-N	-6.09	117.44	123.04
4	D	101	ARG	C-N-CA	-6.09	117.44	123.04
4	D	176	SER	N-CA-C	-6.09	100.37	110.17
4	D	232	ASN	OD1-CG-ND2	6.09	128.69	122.60
8	P	273	ASP	N-CA-CB	6.09	119.59	110.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	W	75	CYS	N-CA-CB	6.09	120.07	109.72
7	I	152	MET	CA-C-O	-6.08	115.54	121.02
4	F	191	ALA	N-CA-CB	6.08	118.99	109.69
6	L	104	LYS	O-C-N	-6.08	116.15	121.32
11	Y	16	GLY	CA-C-N	6.08	128.34	120.44
11	Y	16	GLY	C-N-CA	6.08	128.34	120.44
11	W	54	ILE	N-CA-C	6.08	119.56	111.17
3	A	540	ILE	CA-C-N	6.08	128.42	120.28
3	A	540	ILE	C-N-CA	6.08	128.42	120.28
4	B	249	THR	CA-C-N	6.08	128.78	120.46
4	B	249	THR	C-N-CA	6.08	128.78	120.46
11	Y	36	GLY	CA-C-N	6.08	129.10	120.53
11	Y	36	GLY	C-N-CA	6.08	129.10	120.53
11	V	128	GLY	N-CA-C	-6.08	104.75	113.86
11	Z	22	ILE	CA-C-O	-6.08	113.73	120.96
10	O	190	HIS	ND1-CE1-NE2	6.07	114.47	108.40
11	V	17	CYS	CA-C-N	6.07	128.67	120.65
11	V	17	CYS	C-N-CA	6.07	128.67	120.65
2	N	64	ILE	N-CA-CB	6.07	117.92	111.00
1	M	177	ILE	CA-C-N	6.07	125.19	120.33
1	M	177	ILE	C-N-CA	6.07	125.19	120.33
3	C	51	VAL	N-CA-C	-6.07	99.67	108.17
4	F	229	PHE	CA-CB-CG	-6.07	107.73	113.80
5	Q	175	MET	N-CA-C	-6.07	100.10	109.14
11	U	23	PHE	N-CA-CB	6.07	119.04	110.12
11	U	37	VAL	CA-C-N	6.07	126.56	119.94
11	U	37	VAL	C-N-CA	6.07	126.56	119.94
3	E	321	THR	CA-C-N	6.07	128.91	120.29
3	E	321	THR	C-N-CA	6.07	128.91	120.29
8	P	236	ASN	N-CA-CB	6.07	118.75	110.38
8	P	253	LEU	N-CA-C	-6.07	104.78	111.82
11	R	95	LEU	N-CA-C	6.07	121.38	111.37
11	V	69	VAL	CB-CA-C	-6.07	104.20	111.97
3	A	327	ALA	CB-CA-C	-6.06	100.72	110.79
11	S	69	VAL	CA-C-N	6.06	128.20	120.56
11	S	69	VAL	C-N-CA	6.06	128.20	120.56
3	E	504	LYS	N-CA-C	-6.06	105.53	113.17
10	O	386	VAL	CB-CA-C	-6.06	104.74	111.35
3	A	165	SER	CB-CA-C	-6.06	100.48	110.72
10	O	254	LYS	N-CA-CB	6.06	120.73	110.49
11	U	69	VAL	N-CA-CB	6.06	117.64	110.55
11	T	59	MET	N-CA-C	6.06	117.88	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	T	126	PHE	CA-CB-CG	6.06	119.86	113.80
11	S	57	VAL	CB-CA-C	-6.06	104.11	112.04
11	Y	14	ALA	CA-C-N	6.06	130.71	120.29
11	Y	14	ALA	C-N-CA	6.06	130.71	120.29
11	Z	52	LYS	O-C-N	6.06	129.05	122.15
8	P	177	ILE	CA-C-N	6.05	129.51	120.31
8	P	177	ILE	C-N-CA	6.05	129.51	120.31
10	O	229	ALA	CB-CA-C	-6.05	101.57	110.95
5	Q	219	ARG	N-CA-CB	6.05	118.78	110.01
6	L	43	ILE	CA-C-O	-6.05	114.23	120.71
8	P	410	ASP	CB-CA-C	6.05	122.46	110.42
3	C	170	HIS	N-CA-CB	6.05	119.36	110.35
7	G	210	LEU	CA-C-N	6.05	128.99	120.28
7	G	210	LEU	C-N-CA	6.05	128.99	120.28
11	T	42	THR	CA-C-N	6.05	128.99	120.28
11	T	42	THR	C-N-CA	6.05	128.99	120.28
9	b	61	ARG	N-CA-C	6.05	117.87	111.28
4	D	162	ASN	CA-CB-CG	-6.05	106.55	112.60
3	E	130	THR	CA-C-N	6.05	127.40	119.84
3	E	130	THR	C-N-CA	6.05	127.40	119.84
11	V	131	LEU	O-C-N	6.05	128.53	122.12
3	E	565	ALA	O-C-N	-6.04	116.95	123.42
8	P	44	ALA	CA-C-N	6.04	128.30	120.44
8	P	44	ALA	C-N-CA	6.04	128.30	120.44
3	C	303	GLU	N-CA-C	-6.04	105.22	112.59
7	K	9	THR	CA-C-N	6.04	126.48	119.47
7	K	9	THR	C-N-CA	6.04	126.48	119.47
8	P	450	ILE	CA-C-N	6.04	128.38	120.28
8	P	450	ILE	C-N-CA	6.04	128.38	120.28
10	O	195	LEU	O-C-N	6.04	130.88	123.21
11	S	66	TYR	CA-C-N	6.04	126.80	120.03
11	S	66	TYR	C-N-CA	6.04	126.80	120.03
3	C	562	ALA	N-CA-C	6.04	117.87	111.28
11	a	99	LEU	CA-C-O	-6.04	112.66	119.79
4	B	344	HIS	CA-CB-CG	6.04	119.84	113.80
7	G	105	GLU	CB-CA-C	-6.04	99.65	110.70
11	W	94	GLY	CA-C-O	6.04	127.27	121.05
11	X	37	VAL	CB-CA-C	-6.04	103.99	112.14
4	B	131	TYR	CA-C-O	6.04	126.96	120.32
3	C	108	ILE	N-CA-C	-6.04	104.17	113.16
2	N	113	ARG	NH1-CZ-NH2	-6.03	111.46	119.30
3	A	597	HIS	CG-CD2-NE2	6.03	113.23	107.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	429	ASP	CA-C-N	6.03	128.36	120.28
4	D	429	ASP	C-N-CA	6.03	128.36	120.28
8	P	3	ALA	CA-C-O	6.03	129.13	120.51
3	E	356	SER	CA-C-N	6.03	130.79	120.72
3	E	356	SER	C-N-CA	6.03	130.79	120.72
10	O	282	GLN	CA-C-O	-6.03	114.49	120.82
10	O	107	VAL	O-C-N	-6.03	116.56	120.42
11	U	39	ILE	CA-C-N	6.03	128.36	120.28
11	U	39	ILE	C-N-CA	6.03	128.36	120.28
1	M	12	ARG	NE-CZ-NH1	-6.03	115.47	121.50
5	Q	61	GLU	N-CA-C	-6.03	104.07	112.45
10	O	176	HIS	CE1-NE2-CD2	-6.03	102.97	109.00
10	O	324	HIS	CB-CA-C	-6.03	100.43	110.19
7	I	52	ARG	CA-C-N	6.03	128.27	120.44
7	I	52	ARG	C-N-CA	6.03	128.27	120.44
11	Z	40	CYS	O-C-N	-6.03	115.73	122.12
9	b	270	ARG	N-CA-C	-6.02	101.86	110.59
3	A	141	PHE	N-CA-C	-6.02	99.42	109.24
6	L	51	ASP	CA-C-N	6.02	128.27	120.44
6	L	51	ASP	C-N-CA	6.02	128.27	120.44
8	P	310	LYS	CA-C-O	-6.02	114.50	120.82
11	V	147	ALA	CA-C-O	-6.02	114.13	120.63
11	W	56	PRO	CA-C-O	-6.02	110.54	120.05
3	A	612	ALA	CA-C-N	6.02	128.34	120.28
3	A	612	ALA	C-N-CA	6.02	128.34	120.28
3	C	450	HIS	CE1-NE2-CD2	-6.02	102.98	109.00
4	D	101	ARG	NE-CZ-NH1	-6.02	115.48	121.50
8	P	277	LEU	N-CA-C	-6.02	104.72	111.28
11	R	82	GLN	CG-CD-NE2	6.02	125.42	116.40
3	C	55	ASN	N-CA-CB	6.01	121.05	111.91
3	C	509	ASP	CA-C-N	6.01	128.34	120.28
3	C	509	ASP	C-N-CA	6.01	128.34	120.28
5	Q	230	SER	N-CA-CB	6.01	120.66	110.49
4	B	224	PHE	CA-CB-CG	6.01	119.81	113.80
7	G	87	LYS	CA-C-N	6.01	128.14	120.56
7	G	87	LYS	C-N-CA	6.01	128.14	120.56
7	I	144	ARG	N-CA-C	-6.01	105.71	113.16
8	P	357	ASP	N-CA-C	6.01	117.83	111.28
11	U	42	THR	O-C-N	-6.01	115.19	122.22
4	B	210	ILE	N-CA-C	-6.00	99.83	108.48
5	Q	97	TYR	CB-CA-C	-6.00	100.82	110.79
11	V	71	SER	O-C-N	6.00	128.28	122.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	175	PRO	N-CA-C	6.00	118.03	110.70
3	E	439	TRP	CA-C-N	6.00	133.18	121.41
3	E	439	TRP	C-N-CA	6.00	133.18	121.41
4	F	75	ALA	CA-C-O	-6.00	114.10	121.06
5	Q	26	SER	N-CA-CB	6.00	119.54	110.42
8	P	97	GLN	N-CA-C	6.00	117.82	111.28
11	U	104	ALA	N-CA-CB	6.00	118.72	110.01
11	a	75	CYS	O-C-N	6.00	128.33	122.09
3	C	221	ARG	CA-C-N	6.00	127.34	119.84
3	C	221	ARG	C-N-CA	6.00	127.34	119.84
8	P	138	THR	N-CA-C	-6.00	104.65	111.07
10	O	238	LEU	CA-C-N	6.00	129.39	120.87
10	O	238	LEU	C-N-CA	6.00	129.39	120.87
10	O	367	GLN	N-CA-C	-6.00	103.71	113.19
6	J	39	ALA	O-C-N	6.00	130.88	122.36
11	U	88	PHE	CA-CB-CG	-6.00	107.80	113.80
11	W	14	ALA	CA-C-O	6.00	126.88	120.10
11	W	71	SER	CA-C-O	6.00	127.12	120.82
10	O	90	ASN	N-CA-C	-6.00	104.58	113.40
11	R	11	PHE	CA-CB-CG	-6.00	107.80	113.80
11	V	56	PRO	N-CA-C	6.00	122.05	113.47
10	O	390	ILE	CA-C-O	-6.00	114.09	120.39
7	G	72	SER	CA-C-N	6.00	128.81	120.29
7	G	72	SER	C-N-CA	6.00	128.81	120.29
11	S	148	LEU	CA-C-N	6.00	128.24	120.44
11	S	148	LEU	C-N-CA	6.00	128.24	120.44
4	F	403	LEU	O-C-N	6.00	128.25	122.07
3	C	540	ILE	N-CA-CB	5.99	119.57	110.58
3	E	476	PRO	N-CA-C	5.99	120.64	111.11
11	W	25	SER	CA-C-O	-5.99	114.53	120.82
3	A	397	LYS	N-CA-C	-5.99	99.89	109.96
11	T	42	THR	N-CA-C	5.99	117.81	111.28
4	F	346	ILE	N-CA-CB	5.99	119.59	111.21
11	R	19	SER	N-CA-C	5.99	118.30	111.11
3	E	163	GLU	N-CA-C	-5.99	107.21	114.75
5	Q	105	ASP	CA-CB-CG	-5.99	106.61	112.60
8	P	237	HIS	CE1-NE2-CD2	-5.99	103.02	109.00
3	C	554	HIS	N-CA-C	5.98	117.47	111.07
9	b	219	GLU	N-CA-C	-5.98	103.88	108.78
8	P	73	ASN	OD1-CG-ND2	5.98	128.58	122.60
10	O	269	GLN	CA-C-O	-5.98	113.61	120.24
11	Y	105	GLY	CA-C-N	5.98	128.57	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	Y	105	GLY	C-N-CA	5.98	128.57	120.44
11	W	27	GLY	CA-C-N	5.98	128.78	120.29
11	W	27	GLY	C-N-CA	5.98	128.78	120.29
3	C	411	SER	CA-C-O	5.98	126.94	120.43
3	E	74	GLU	N-CA-CB	5.98	118.91	110.36
7	G	140	LYS	N-CA-C	-5.98	99.50	109.24
11	Y	110	ILE	N-CA-CB	5.98	117.40	110.65
11	V	44	VAL	CA-CB-CG1	-5.98	100.24	110.40
11	U	53	ASN	CA-CB-CG	-5.97	106.62	112.60
11	S	52	LYS	N-CA-C	5.97	117.46	111.07
11	V	113	ASP	N-CA-C	5.97	118.28	111.11
10	O	305	HIS	ND1-CE1-NE2	5.97	114.37	108.40
5	Q	220	SER	N-CA-C	5.97	117.87	111.36
8	P	75	LYS	CA-C-O	5.97	126.75	119.11
10	O	208	LYS	CA-C-O	-5.97	114.55	120.70
11	S	18	ALA	CA-C-O	-5.97	114.51	120.90
4	B	152	SER	CA-C-N	5.97	132.25	121.92
4	B	152	SER	C-N-CA	5.97	132.25	121.92
4	B	205	GLU	CA-C-O	5.97	125.98	119.24
4	B	413	ALA	N-CA-C	5.97	118.57	111.71
11	W	97	VAL	N-CA-C	5.97	116.75	110.72
4	F	403	LEU	CA-C-O	-5.96	114.56	120.82
3	A	170	HIS	CB-CG-CD2	-5.96	123.45	131.20
4	B	170	ILE	O-C-N	5.96	126.67	121.12
3	C	431	THR	CA-CB-OG1	5.96	118.55	109.60
5	Q	20	TYR	CA-C-N	5.96	128.87	120.28
5	Q	20	TYR	C-N-CA	5.96	128.87	120.28
10	O	275	ASP	O-C-N	-5.96	115.35	122.15
8	P	161	VAL	O-C-N	5.96	128.10	121.90
10	O	186	LEU	N-CA-C	-5.96	98.10	110.80
7	G	87	LYS	CA-C-O	-5.96	114.23	120.55
3	E	483	ASP	N-CA-CB	5.96	118.98	110.16
4	F	247	ASP	CA-C-N	5.96	127.29	119.84
4	F	247	ASP	C-N-CA	5.96	127.29	119.84
6	J	54	LEU	N-CA-C	-5.96	104.17	112.45
11	R	18	ALA	N-CA-C	5.96	118.29	111.02
3	E	446	ALA	CA-C-N	5.96	129.36	120.31
3	E	446	ALA	C-N-CA	5.96	129.36	120.31
7	K	22	ALA	CA-C-N	5.96	128.26	120.28
7	K	22	ALA	C-N-CA	5.96	128.26	120.28
8	P	93	LYS	CB-CA-C	-5.96	99.61	110.63
8	P	345	ILE	N-CA-CB	5.96	117.52	110.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	257	ALA	CB-CA-C	-5.96	98.57	110.42
4	D	155	VAL	N-CA-CB	5.95	118.96	111.46
3	A	284	GLY	N-CA-C	-5.95	99.08	113.18
3	C	325	PRO	CA-C-N	5.95	130.06	120.30
3	C	325	PRO	C-N-CA	5.95	130.06	120.30
3	C	475	TYR	N-CA-CB	5.95	120.96	110.37
4	B	247	ASP	CA-C-N	5.95	127.28	119.84
4	B	247	ASP	C-N-CA	5.95	127.28	119.84
3	E	182	ILE	CA-CB-CG2	-5.95	100.39	110.50
7	G	41	GLN	OE1-CD-NE2	-5.95	116.65	122.60
2	N	14	GLU	CA-C-N	5.95	128.25	120.28
2	N	14	GLU	C-N-CA	5.95	128.25	120.28
4	B	147	PRO	CA-C-O	-5.95	114.84	121.32
4	F	238	THR	CA-C-O	-5.95	114.50	121.46
4	D	426	SER	N-CA-C	-5.94	100.10	108.96
11	R	67	GLY	CA-C-N	5.94	128.24	120.28
11	R	67	GLY	C-N-CA	5.94	128.24	120.28
3	A	170	HIS	CE1-NE2-CD2	-5.94	103.06	109.00
7	I	110	ILE	CA-C-N	5.94	129.34	120.31
7	I	110	ILE	C-N-CA	5.94	129.34	120.31
11	X	105	GLY	N-CA-C	5.94	121.17	113.27
10	O	187	ASN	CB-CA-C	-5.94	101.38	109.28
11	R	148	LEU	N-CA-CB	5.94	118.79	109.94
11	X	141	LEU	CA-C-N	5.94	128.56	120.54
11	X	141	LEU	C-N-CA	5.94	128.56	120.54
3	A	424	SER	N-CA-C	-5.93	105.90	113.02
4	B	201	HIS	CE1-NE2-CD2	-5.93	103.07	109.00
9	b	68	GLN	OE1-CD-NE2	5.93	128.53	122.60
6	J	62	ALA	N-CA-C	-5.93	106.01	113.72
11	Y	110	ILE	CA-C-N	5.93	128.04	120.56
11	Y	110	ILE	C-N-CA	5.93	128.04	120.56
11	V	13	GLY	CA-C-N	5.93	128.72	120.29
11	V	13	GLY	C-N-CA	5.93	128.72	120.29
5	Q	199	GLU	N-CA-C	5.93	118.70	111.82
8	P	456	HIS	ND1-CE1-NE2	5.93	114.33	108.40
7	I	105	GLU	CA-C-N	5.93	128.51	120.44
7	I	105	GLU	C-N-CA	5.93	128.51	120.44
11	S	120	SER	N-CA-C	5.93	118.23	111.11
3	C	322	SER	N-CA-C	-5.93	105.88	113.23
9	b	261	TYR	N-CA-C	-5.93	100.48	109.85
1	M	89	THR	N-CA-CB	5.93	121.11	111.21
3	E	608	GLN	N-CA-CB	5.93	118.84	110.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	404	TYR	CB-CG-CD2	-5.93	111.90	120.80
9	b	100	VAL	CA-C-O	5.93	123.02	119.94
10	O	357	MET	N-CA-C	-5.93	99.34	109.24
4	B	362	ARG	CA-C-N	5.93	128.22	120.28
4	B	362	ARG	C-N-CA	5.93	128.22	120.28
5	Q	128	HIS	CA-C-N	5.93	125.31	118.85
5	Q	128	HIS	C-N-CA	5.93	125.31	118.85
10	O	85	ILE	N-CA-C	-5.93	104.73	110.42
4	B	79	VAL	CA-C-N	5.92	128.14	120.44
4	B	79	VAL	C-N-CA	5.92	128.14	120.44
11	T	101	GLY	CA-C-N	5.92	128.54	120.54
11	T	101	GLY	C-N-CA	5.92	128.54	120.54
7	K	181	LYS	CA-C-O	5.92	125.90	119.15
6	J	5	ASN	N-CA-C	-5.92	104.22	112.45
4	D	320	GLY	CA-C-O	5.92	127.12	122.33
1	M	143	VAL	CA-CB-CG1	5.92	120.46	110.40
3	C	165	SER	CA-C-O	5.92	125.30	118.97
3	C	346	GLN	CG-CD-NE2	-5.92	107.52	116.40
4	D	202	ASP	CA-C-N	5.92	133.01	121.41
4	D	202	ASP	C-N-CA	5.92	133.01	121.41
8	P	109	TYR	CA-CB-CG	-5.92	103.25	113.90
9	b	339	GLY	N-CA-C	-5.92	100.73	110.56
10	O	93	SER	CA-C-N	5.92	128.49	120.44
10	O	93	SER	C-N-CA	5.92	128.49	120.44
3	A	382	ALA	N-CA-C	-5.92	105.89	113.23
3	E	491	ASN	CA-C-N	5.92	128.21	120.28
3	E	491	ASN	C-N-CA	5.92	128.21	120.28
4	F	448	ALA	CB-CA-C	-5.92	102.12	111.17
11	W	126	PHE	O-C-N	-5.92	115.85	122.12
11	S	154	ALA	CB-CA-C	-5.92	101.35	110.81
3	E	484	ARG	CA-C-N	5.91	128.52	120.54
3	E	484	ARG	C-N-CA	5.91	128.52	120.54
6	L	27	TYR	CA-C-N	5.91	128.12	120.44
6	L	27	TYR	C-N-CA	5.91	128.12	120.44
4	B	449	TYR	CA-CB-CG	-5.91	103.27	113.90
4	F	166	ARG	NE-CZ-NH1	-5.91	115.59	121.50
11	W	65	ILE	CA-C-N	5.91	128.68	120.29
11	W	65	ILE	C-N-CA	5.91	128.68	120.29
1	M	69	ALA	CA-C-N	5.91	128.12	120.44
1	M	69	ALA	C-N-CA	5.91	128.12	120.44
4	F	396	HIS	CE1-NE2-CD2	-5.91	103.09	109.00
5	Q	10	ASN	CB-CA-C	-5.91	99.33	110.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	Z	89	ILE	CA-C-N	5.91	128.47	120.44
11	Z	89	ILE	C-N-CA	5.91	128.47	120.44
3	A	249	GLY	N-CA-C	-5.90	107.11	115.43
3	A	274	ASN	CB-CG-ND2	-5.90	107.55	116.40
9	b	138	LEU	O-C-N	5.90	129.53	122.27
10	O	139	SER	N-CA-C	5.90	117.71	111.28
4	F	35	ASN	CA-C-O	5.90	126.59	120.40
4	B	187	ILE	N-CA-C	-5.90	104.99	110.53
4	D	118	ARG	NE-CZ-NH2	-5.90	113.89	119.20
4	F	221	THR	CB-CA-C	-5.90	100.82	110.85
11	V	28	ALA	O-C-N	5.90	128.87	122.15
1	M	118	ASN	CA-C-N	5.90	129.24	120.87
1	M	118	ASN	C-N-CA	5.90	129.24	120.87
3	E	536	ALA	O-C-N	5.90	130.43	122.59
4	B	369	ILE	O-C-N	-5.89	116.38	122.63
11	S	23	PHE	O-C-N	-5.89	116.00	122.07
4	F	322	VAL	N-CA-CB	5.89	121.64	111.39
9	b	32	THR	CA-C-N	5.89	128.10	120.44
9	b	32	THR	C-N-CA	5.89	128.10	120.44
3	A	219	VAL	CB-CA-C	5.89	116.77	110.53
11	Y	39	ILE	CA-C-N	5.89	128.17	120.28
11	Y	39	ILE	C-N-CA	5.89	128.17	120.28
3	E	561	VAL	CA-C-N	5.89	128.17	120.28
3	E	561	VAL	C-N-CA	5.89	128.17	120.28
4	B	210	ILE	CB-CA-C	5.89	119.39	110.62
7	G	56	ASN	CB-CA-C	-5.89	99.37	110.67
3	A	128	ILE	CB-CA-C	-5.88	101.86	110.81
8	P	257	PRO	CA-C-N	5.88	128.78	120.42
8	P	257	PRO	C-N-CA	5.88	128.78	120.42
11	V	37	VAL	CA-C-N	5.88	126.35	119.94
11	V	37	VAL	C-N-CA	5.88	126.35	119.94
5	Q	282	GLY	CA-C-O	-5.88	114.69	120.75
4	B	31	VAL	CA-C-O	-5.88	113.83	120.95
3	C	590	SER	CA-C-N	5.88	131.74	122.21
3	C	590	SER	C-N-CA	5.88	131.74	122.21
3	C	194	ASP	N-CA-C	-5.88	106.08	113.72
11	a	36	GLY	CA-C-N	5.88	128.82	120.53
11	a	36	GLY	C-N-CA	5.88	128.82	120.53
11	a	145	ILE	CA-C-N	5.88	128.19	120.60
11	a	145	ILE	C-N-CA	5.88	128.19	120.60
2	N	64	ILE	O-C-N	-5.88	115.77	122.94
4	B	65	GLY	N-CA-C	-5.88	99.56	110.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	450	HIS	CA-C-N	5.88	131.52	121.35
3	E	450	HIS	C-N-CA	5.88	131.52	121.35
4	F	375	VAL	CA-C-N	5.88	127.44	120.09
4	F	375	VAL	C-N-CA	5.88	127.44	120.09
11	Y	113	ASP	CA-C-N	5.88	128.16	120.28
11	Y	113	ASP	C-N-CA	5.88	128.16	120.28
2	N	98	ASP	CB-CA-C	5.88	119.62	111.63
7	K	124	LEU	CA-C-N	5.88	128.08	120.56
7	K	124	LEU	C-N-CA	5.88	128.08	120.56
4	D	48	ARG	NE-CZ-NH2	5.88	124.49	119.20
3	C	254	ILE	CA-C-O	-5.87	116.89	119.94
4	F	144	ARG	N-CA-C	-5.87	103.81	113.50
4	B	439	PHE	N-CA-C	-5.87	104.79	111.07
1	M	114	ASP	CA-C-O	-5.87	114.94	119.46
2	N	52	ASP	N-CA-C	-5.87	104.80	111.14
1	M	77	GLU	N-CA-C	-5.87	99.81	108.79
10	O	263	SER	N-CA-CB	5.87	118.69	109.83
11	S	110	ILE	N-CA-C	-5.87	104.91	110.42
7	K	68	LYS	N-CA-CB	5.86	118.51	110.01
7	K	76	THR	CA-C-N	5.86	128.41	120.38
7	K	76	THR	C-N-CA	5.86	128.41	120.38
11	U	13	GLY	O-C-N	5.86	127.88	122.19
11	W	140	GLY	N-CA-C	-5.86	105.70	112.50
11	Y	72	VAL	CA-C-N	5.86	130.51	121.19
11	Y	72	VAL	C-N-CA	5.86	130.51	121.19
4	F	156	SER	CA-C-N	5.86	128.13	120.28
4	F	156	SER	C-N-CA	5.86	128.13	120.28
10	O	19	ASN	CA-C-N	-5.86	113.04	121.42
10	O	19	ASN	C-N-CA	-5.86	113.04	121.42
4	D	155	VAL	CB-CA-C	-5.86	102.41	110.96
7	G	213	GLU	N-CA-C	-5.86	106.47	113.97
11	Y	83	ALA	CA-C-O	-5.86	115.04	121.89
1	M	172	ALA	N-CA-CB	5.86	118.50	110.01
3	C	582	SER	N-CA-CB	5.86	118.73	110.12
1	M	191	GLU	CA-C-N	5.85	128.05	120.44
1	M	191	GLU	C-N-CA	5.85	128.05	120.44
4	D	250	ILE	N-CA-CB	5.85	118.50	110.54
2	N	29	THR	N-CA-C	5.85	117.97	109.84
8	P	265	GLN	CG-CD-NE2	5.85	125.18	116.40
10	O	210	TYR	O-C-N	5.85	128.32	122.12
11	X	39	ILE	CA-C-O	-5.85	114.97	121.17
1	M	150	ALA	CA-C-N	5.85	128.12	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	150	ALA	C-N-CA	5.85	128.12	120.28
3	A	412	ILE	N-CA-CB	5.85	119.21	111.25
3	E	334	TYR	CA-C-N	5.85	128.60	120.29
3	E	334	TYR	C-N-CA	5.85	128.60	120.29
7	G	71	LEU	CA-C-N	5.85	128.71	120.28
7	G	71	LEU	C-N-CA	5.85	128.71	120.28
3	A	614	SER	CA-C-N	5.85	128.04	120.44
3	A	614	SER	C-N-CA	5.85	128.04	120.44
4	D	129	GLU	N-CA-C	-5.85	107.95	114.62
9	b	180	ILE	CB-CA-C	5.85	120.24	112.46
11	X	156	GLN	N-CA-C	-5.85	105.03	113.21
3	E	192	THR	CA-C-O	-5.84	115.05	121.89
3	A	309	GLU	CA-C-N	5.84	127.14	119.84
3	A	309	GLU	C-N-CA	5.84	127.14	119.84
10	O	284	LEU	O-C-N	5.84	128.31	122.12
11	W	81	LYS	N-CA-C	-5.84	107.39	114.75
10	O	199	PRO	CA-C-O	-5.84	114.55	121.67
3	A	512	LYS	CA-C-N	5.84	128.46	120.46
3	A	512	LYS	C-N-CA	5.84	128.46	120.46
3	C	182	ILE	N-CA-CB	5.84	117.66	111.00
6	L	78	GLY	N-CA-C	-5.84	107.42	114.66
9	b	53	ARG	CD-NE-CZ	-5.84	116.23	124.40
10	O	184	PHE	N-CA-CB	5.84	118.89	110.37
11	X	81	LYS	O-C-N	5.84	129.27	122.67
4	F	320	GLY	CA-C-N	5.84	129.16	120.87
4	F	320	GLY	C-N-CA	5.84	129.16	120.87
3	A	184	TRP	CD2-CE2-CZ2	-5.83	116.56	122.40
10	O	237	HIS	CE1-NE2-CD2	-5.83	103.17	109.00
11	Y	144	LEU	CA-C-N	5.83	132.47	121.97
11	Y	144	LEU	C-N-CA	5.83	132.47	121.97
3	C	407	THR	N-CA-C	-5.83	100.20	109.59
5	Q	166	PHE	O-C-N	5.83	128.30	122.12
3	A	600	PHE	CA-C-O	-5.83	114.24	120.42
4	D	462	TRP	CH2-CZ2-CE2	5.83	125.08	117.50
4	F	80	PHE	N-CA-C	-5.83	104.88	112.23
5	Q	265	VAL	CA-C-N	5.83	128.10	120.28
5	Q	265	VAL	C-N-CA	5.83	128.10	120.28
6	J	25	ARG	CA-C-N	5.83	128.09	120.28
6	J	25	ARG	C-N-CA	5.83	128.09	120.28
3	E	111	PRO	CA-C-O	-5.83	115.15	121.27
3	E	215	TRP	CA-C-O	-5.83	112.17	120.16
7	K	58	ILE	CA-C-N	5.83	128.68	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	K	58	ILE	C-N-CA	5.83	128.68	120.28
7	G	130	LEU	N-CA-CB	-5.83	100.71	110.39
11	R	44	VAL	CA-C-O	-5.83	113.99	120.46
3	E	363	ALA	CA-C-N	5.83	128.09	120.28
3	E	363	ALA	C-N-CA	5.83	128.09	120.28
9	b	66	GLU	CA-CB-CG	-5.83	102.44	114.10
11	V	27	GLY	N-CA-C	5.83	119.69	112.64
11	T	74	VAL	CA-C-N	5.83	128.41	120.54
11	T	74	VAL	C-N-CA	5.83	128.41	120.54
11	a	17	CYS	CA-C-N	5.83	128.34	120.65
11	a	17	CYS	C-N-CA	5.83	128.34	120.65
11	V	63	ILE	N-CA-CB	5.83	117.37	110.55
1	M	185	ILE	CA-C-N	5.83	128.36	120.44
1	M	185	ILE	C-N-CA	5.83	128.36	120.44
4	D	293	ALA	CA-C-O	5.83	126.25	119.32
7	K	102	GLU	CA-C-N	5.83	128.09	120.28
7	K	102	GLU	C-N-CA	5.83	128.09	120.28
11	W	111	VAL	CA-C-N	5.83	126.57	119.99
11	W	111	VAL	C-N-CA	5.83	126.57	119.99
1	M	140	SER	O-C-N	5.82	128.29	122.12
4	F	49	TYR	CA-C-N	5.82	130.64	122.08
4	F	49	TYR	C-N-CA	5.82	130.64	122.08
5	Q	11	GLY	CA-C-N	5.82	128.36	120.44
5	Q	11	GLY	C-N-CA	5.82	128.36	120.44
7	G	82	ASN	N-CA-C	-5.82	104.36	112.45
3	A	118	GLU	CA-CB-CG	5.82	125.74	114.10
4	F	357	GLN	OE1-CD-NE2	5.82	128.42	122.60
11	Y	43	CYS	O-C-N	5.82	129.43	122.27
3	E	129	ASP	CA-CB-CG	-5.82	106.78	112.60
11	Y	153	ARG	CA-C-O	-5.82	114.32	120.55
5	Q	105	ASP	CA-C-N	5.81	128.35	120.44
5	Q	105	ASP	C-N-CA	5.81	128.35	120.44
3	A	282	GLY	N-CA-C	-5.81	99.40	113.18
4	D	201	HIS	CA-CB-CG	5.81	119.61	113.80
8	P	425	ASN	CA-C-N	5.81	127.99	120.44
8	P	425	ASN	C-N-CA	5.81	127.99	120.44
4	D	169	LYS	N-CA-C	-5.81	98.94	108.41
3	E	494	GLU	O-C-N	-5.81	116.09	122.07
8	P	305	HIS	CA-CB-CG	5.80	119.60	113.80
4	D	396	HIS	CA-C-N	5.80	126.38	120.00
4	D	396	HIS	C-N-CA	5.80	126.38	120.00
4	B	415	ALA	CA-C-O	-5.80	114.27	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	579	HIS	CA-CB-CG	-5.80	108.00	113.80
1	M	92	PHE	CB-CG-CD1	5.80	130.56	120.70
4	B	307	TYR	CD1-CG-CD2	5.80	126.80	118.10
10	O	333	PRO	CA-C-N	5.80	127.09	119.84
10	O	333	PRO	C-N-CA	5.80	127.09	119.84
3	A	406	ARG	N-CA-C	-5.80	100.50	109.14
3	A	179	ARG	CB-CG-CD	5.80	124.63	111.30
7	K	152	MET	CA-C-N	5.80	128.05	120.28
7	K	152	MET	C-N-CA	5.80	128.05	120.28
10	O	37	THR	CA-C-N	5.80	129.34	121.05
10	O	37	THR	C-N-CA	5.80	129.34	121.05
8	P	80	LEU	N-CA-CB	5.79	118.74	110.16
10	O	130	LEU	CA-C-N	5.79	128.65	120.42
10	O	130	LEU	C-N-CA	5.79	128.65	120.42
6	J	79	GLU	N-CA-C	-5.79	104.56	111.69
11	U	12	PHE	N-CA-C	-5.79	106.37	113.50
1	M	167	ASN	N-CA-CB	5.79	118.47	110.07
3	C	224	THR	O-C-N	5.79	128.34	122.09
6	J	97	ILE	CB-CA-C	-5.79	104.23	112.22
11	a	126	PHE	CA-C-N	5.79	129.61	120.47
11	a	126	PHE	C-N-CA	5.79	129.61	120.47
7	I	72	SER	CA-C-N	5.79	129.11	120.31
7	I	72	SER	C-N-CA	5.79	129.11	120.31
11	U	67	GLY	CA-C-N	5.79	128.03	120.28
11	U	67	GLY	C-N-CA	5.79	128.03	120.28
11	X	130	ILE	N-CA-CB	5.79	116.93	110.51
3	A	320	ASN	N-CA-C	-5.79	99.47	108.90
3	A	525	PHE	CA-CB-CG	-5.79	108.01	113.80
4	D	109	LEU	N-CA-C	-5.78	102.74	110.55
5	Q	224	ALA	O-C-N	-5.78	115.99	122.12
7	K	36	GLN	CA-C-N	5.78	128.50	120.29
7	K	36	GLN	C-N-CA	5.78	128.50	120.29
8	P	458	ASP	N-CA-CB	5.78	120.26	110.49
8	P	413	ALA	CA-C-N	5.78	128.35	120.54
8	P	413	ALA	C-N-CA	5.78	128.35	120.54
10	O	273	GLU	CA-C-N	5.78	127.96	120.44
10	O	273	GLU	C-N-CA	5.78	127.96	120.44
1	M	182	GLU	N-CA-CB	5.78	118.45	110.07
3	A	293	VAL	N-CA-CB	5.78	121.23	110.77
7	G	207	LEU	CA-C-N	5.78	128.03	120.28
7	G	207	LEU	C-N-CA	5.78	128.03	120.28
4	B	228	ASP	O-C-N	5.78	128.02	122.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	220	GLU	CA-C-N	5.78	129.09	120.31
4	D	220	GLU	C-N-CA	5.78	129.09	120.31
9	b	69	TYR	CB-CG-CD1	5.78	129.47	120.80
11	R	73	LEU	CA-C-N	5.78	127.84	120.56
11	R	73	LEU	C-N-CA	5.78	127.84	120.56
3	C	207	SER	O-C-N	-5.78	117.83	123.26
8	P	296	GLN	N-CA-CB	5.78	118.61	110.12
3	C	116	LYS	CB-CA-C	-5.77	101.21	110.79
3	C	405	ASP	N-CA-CB	5.77	120.25	110.49
4	D	234	SER	N-CA-C	-5.77	104.90	112.41
4	F	305	PRO	N-CA-CB	5.77	109.31	103.25
10	O	319	TYR	CB-CG-CD2	-5.77	112.14	120.80
4	D	423	GLU	N-CA-CB	5.77	118.99	110.33
5	Q	126	ARG	N-CA-C	-5.77	100.59	108.38
8	P	276	LYS	N-CA-C	5.77	117.25	111.07
3	C	177	ARG	N-CA-CB	5.77	120.24	110.49
7	I	24	ILE	N-CA-C	-5.77	104.88	110.42
7	G	146	VAL	N-CA-CB	5.77	118.39	110.54
11	W	95	LEU	N-CA-C	5.77	117.24	111.07
3	E	40	MET	CG-SD-CE	-5.77	88.21	100.90
8	P	241	GLN	CA-C-O	-5.77	114.31	120.42
7	I	101	GLU	CA-C-N	5.77	129.08	120.31
7	I	101	GLU	C-N-CA	5.77	129.08	120.31
11	Z	104	ALA	CA-C-N	5.77	126.38	119.98
11	Z	104	ALA	C-N-CA	5.77	126.38	119.98
5	Q	248	LEU	N-CA-C	-5.77	99.26	109.06
11	U	26	LEU	CB-CA-C	-5.77	101.83	110.88
2	N	70	ASN	N-CA-CB	5.76	118.76	110.06
4	F	479	LYS	CA-C-N	5.76	128.60	120.42
4	F	479	LYS	C-N-CA	5.76	128.60	120.42
9	b	25	ILE	O-C-N	-5.76	114.61	122.11
9	b	321	GLU	N-CA-C	5.76	117.64	111.36
10	O	332	VAL	CA-CB-CG2	-5.76	100.60	110.40
11	R	149	LEU	CB-CA-C	-5.76	101.83	110.88
11	U	95	LEU	O-C-N	5.76	128.09	122.09
8	P	48	GLU	CA-C-N	5.76	129.07	120.31
8	P	48	GLU	C-N-CA	5.76	129.07	120.31
11	R	29	ALA	CA-C-N	5.76	128.32	120.54
11	R	29	ALA	C-N-CA	5.76	128.32	120.54
11	U	109	GLY	CA-C-N	5.76	127.82	120.56
11	U	109	GLY	C-N-CA	5.76	127.82	120.56
11	W	16	GLY	CA-C-N	5.76	127.93	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	W	16	GLY	C-N-CA	5.76	127.93	120.44
1	M	49	ARG	CB-CA-C	-5.76	101.05	110.85
3	A	46	TYR	CB-CG-CD1	5.76	129.44	120.80
3	A	178	SER	N-CA-CB	5.76	120.28	110.71
4	B	479	LYS	CA-C-N	5.76	127.94	120.56
4	B	479	LYS	C-N-CA	5.76	127.94	120.56
8	P	17	ARG	CA-C-N	5.76	128.47	120.29
8	P	17	ARG	C-N-CA	5.76	128.47	120.29
11	T	100	SER	CA-C-N	5.76	126.50	119.99
11	T	100	SER	C-N-CA	5.76	126.50	119.99
2	N	8	ILE	N-CA-CB	5.76	119.13	111.64
3	A	210	THR	CA-C-N	5.76	128.26	120.38
3	A	210	THR	C-N-CA	5.76	128.26	120.38
3	A	425	ASP	CA-C-N	5.76	125.88	119.32
3	A	425	ASP	C-N-CA	5.76	125.88	119.32
4	F	160	THR	O-C-N	-5.76	115.87	122.09
5	Q	275	TYR	N-CA-CB	5.76	118.58	109.71
8	P	411	VAL	N-CA-C	-5.76	99.88	108.46
11	X	36	GLY	O-C-N	-5.76	116.43	122.13
7	K	213	GLU	CA-C-O	5.75	125.91	119.41
6	L	93	ASP	CA-C-O	5.75	126.58	119.79
11	a	153	ARG	CA-C-N	5.75	128.31	120.54
11	a	153	ARG	C-N-CA	5.75	128.31	120.54
3	A	462	LYS	N-CA-C	-5.75	106.31	113.38
4	B	257	ARG	CA-C-N	5.75	128.45	120.29
4	B	257	ARG	C-N-CA	5.75	128.45	120.29
4	B	273	HIS	CE1-NE2-CD2	-5.75	103.25	109.00
3	C	75	GLU	N-CA-CB	5.75	118.58	110.36
9	b	84	TYR	N-CA-C	-5.75	100.33	109.59
11	W	133	LEU	N-CA-C	5.75	117.55	111.28
3	A	554	HIS	CG-CD2-NE2	5.75	112.95	107.20
3	C	144	GLY	CA-C-N	5.75	130.50	121.08
3	C	144	GLY	C-N-CA	5.75	130.50	121.08
11	S	89	ILE	N-CA-C	-5.75	104.74	111.00
4	B	372	PRO	N-CA-CB	-5.75	97.22	103.25
3	C	213	HIS	ND1-CE1-NE2	5.75	114.14	108.40
3	E	224	THR	N-CA-C	5.74	118.00	111.11
3	E	368	SER	N-CA-CB	5.74	118.56	110.12
9	b	18	GLN	OE1-CD-NE2	-5.74	116.86	122.60
3	A	62	ARG	O-C-N	-5.74	116.70	123.25
11	Y	150	LEU	CA-C-N	5.74	128.77	120.79
11	Y	150	LEU	C-N-CA	5.74	128.77	120.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	T	145	ILE	N-CA-CB	5.74	116.88	110.51
3	C	294	LEU	CA-C-O	5.74	126.63	120.55
8	P	379	PHE	O-C-N	5.74	127.98	122.07
7	G	121	LEU	CA-C-O	5.74	126.63	120.55
3	A	168	SER	O-C-N	-5.74	115.81	122.87
4	F	263	ALA	O-C-N	5.74	128.20	122.12
10	O	301	ILE	CA-C-N	5.74	127.97	120.28
10	O	301	ILE	C-N-CA	5.74	127.97	120.28
11	W	52	LYS	CA-C-N	5.74	127.97	120.28
11	W	52	LYS	C-N-CA	5.74	127.97	120.28
8	P	380	TRP	CE3-CZ3-CH2	-5.73	113.65	121.10
9	b	324	ASN	N-CA-CB	5.73	120.18	110.49
1	M	113	ILE	N-CA-C	-5.73	100.09	108.11
11	R	63	ILE	N-CA-CB	5.73	117.90	110.57
1	M	66	PHE	O-C-N	-5.73	116.05	122.12
3	C	42	GLY	CA-C-O	5.73	126.71	119.72
4	F	393	ARG	NE-CZ-NH2	5.73	124.36	119.20
7	K	52	ARG	CA-C-N	5.73	127.89	120.44
7	K	52	ARG	C-N-CA	5.73	127.89	120.44
8	P	334	GLU	CB-CG-CD	-5.73	102.86	112.60
3	C	243	LEU	N-CA-C	5.73	117.60	111.36
10	O	128	LYS	CB-CG-CD	5.73	124.47	111.30
11	a	41	ALA	CA-C-O	5.73	126.83	120.82
11	a	71	SER	N-CA-CB	5.73	118.47	109.94
3	A	335	THR	CA-C-N	5.73	126.30	120.00
3	A	335	THR	C-N-CA	5.73	126.30	120.00
10	O	383	GLU	CA-C-O	-5.73	114.74	120.64
5	Q	265	VAL	N-CA-CB	5.72	118.33	110.54
8	P	77	LEU	N-CA-CB	5.72	118.31	110.01
10	O	59	ASP	CA-C-O	-5.72	114.81	120.82
1	M	210	LYS	N-CA-CB	5.72	118.63	110.16
2	N	28	ILE	N-CA-CB	5.72	118.88	111.67
3	A	385	GLY	CA-C-N	5.72	128.41	120.29
3	A	385	GLY	C-N-CA	5.72	128.41	120.29
3	C	32	GLY	CA-C-O	-5.72	113.34	121.52
3	C	482	ARG	O-C-N	5.72	128.27	122.09
8	P	421	GLN	CA-C-N	5.72	128.30	120.46
8	P	421	GLN	C-N-CA	5.72	128.30	120.46
4	F	227	GLN	CA-C-N	5.72	127.88	120.44
4	F	227	GLN	C-N-CA	5.72	127.88	120.44
1	M	29	TYR	CA-C-O	-5.72	114.81	120.82
4	D	446	GLN	O-C-N	-5.72	117.80	123.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	365	HIS	N-CA-C	5.72	117.51	111.28
7	K	68	LYS	CA-C-O	-5.72	114.81	120.82
8	P	110	GLY	O-C-N	5.72	129.02	122.33
9	b	350	GLN	CA-C-N	5.72	127.94	120.28
9	b	350	GLN	C-N-CA	5.72	127.94	120.28
11	V	142	TYR	N-CA-CB	5.72	118.53	110.12
4	B	325	ARG	N-CA-C	5.72	119.23	111.17
7	I	82	ASN	CA-C-N	5.72	129.00	120.31
7	I	82	ASN	C-N-CA	5.72	129.00	120.31
4	B	219	LEU	CB-CA-C	-5.72	101.30	110.79
3	E	327	ALA	CB-CA-C	-5.72	101.30	110.79
7	K	102	GLU	N-CA-C	-5.72	105.05	111.28
8	P	365	SER	CA-C-N	5.72	130.48	122.36
8	P	365	SER	C-N-CA	5.72	130.48	122.36
4	B	402	GLN	N-CA-CB	5.71	118.36	110.07
3	C	289	GLU	CA-C-N	5.71	128.40	120.29
3	C	289	GLU	C-N-CA	5.71	128.40	120.29
8	P	119	GLU	O-C-N	-5.71	116.18	122.07
9	b	69	TYR	CB-CG-CD2	-5.71	112.23	120.80
10	O	100	LEU	CA-C-N	5.71	126.98	119.84
10	O	100	LEU	C-N-CA	5.71	126.98	119.84
3	C	419	ALA	N-CA-C	-5.71	104.53	112.30
11	Y	25	SER	N-CA-C	-5.71	104.97	111.14
11	W	103	ALA	CB-CA-C	-5.71	101.14	110.85
7	G	42	GLU	CB-CA-C	-5.71	101.14	110.85
11	U	27	GLY	CA-C-N	5.71	128.40	120.29
11	U	27	GLY	C-N-CA	5.71	128.40	120.29
11	S	111	VAL	CB-CA-C	-5.71	104.57	111.88
3	C	403	SER	CA-C-O	-5.71	112.34	120.16
3	E	416	VAL	N-CA-C	-5.71	100.37	108.65
11	Z	135	PHE	N-CA-CB	5.71	119.13	110.28
8	P	247	LEU	N-CA-C	-5.71	105.14	111.36
11	U	120	SER	N-CA-C	5.71	117.96	111.11
11	X	137	GLU	CA-C-N	5.71	128.52	120.42
11	X	137	GLU	C-N-CA	5.71	128.52	120.42
4	D	173	PHE	CA-CB-CG	5.71	119.50	113.80
10	O	233	LEU	N-CA-C	-5.71	99.89	109.07
3	E	263	THR	O-C-N	5.70	128.16	122.12
3	E	383	TYR	CA-C-N	5.70	127.86	120.44
3	E	383	TYR	C-N-CA	5.70	127.86	120.44
7	I	57	ASN	CA-C-O	-5.70	114.83	120.70
3	C	478	PHE	CA-C-N	5.70	125.38	119.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	478	PHE	C-N-CA	5.70	125.38	119.05
8	P	354	THR	N-CA-C	-5.70	102.46	110.50
3	A	145	LYS	CA-CB-CG	5.70	125.50	114.10
4	D	116	SER	N-CA-C	-5.70	105.66	113.30
5	Q	228	LEU	N-CA-C	-5.70	100.53	109.25
6	L	46	TYR	N-CA-C	-5.70	106.16	113.23
8	P	415	GLN	OE1-CD-NE2	-5.70	116.90	122.60
10	O	203	LYS	CB-CA-C	-5.70	101.93	110.88
11	R	150	LEU	CA-C-O	-5.70	114.80	120.90
11	a	40	CYS	CA-C-O	-5.70	114.47	120.63
4	F	201	HIS	CA-C-N	5.70	132.43	121.54
4	F	201	HIS	C-N-CA	5.70	132.43	121.54
1	M	212	ASN	OD1-CG-ND2	-5.70	116.90	122.60
10	O	369	THR	N-CA-C	-5.70	100.65	109.14
7	K	61	ASN	CA-C-O	5.70	125.96	119.18
9	b	75	LEU	CA-C-O	-5.70	114.38	120.42
10	O	326	ASN	CB-CA-C	-5.70	101.50	110.79
3	A	96	LEU	CB-CA-C	-5.69	101.57	110.74
10	O	151	ASN	N-CA-CB	5.69	118.59	110.16
3	A	357	SER	CA-C-N	5.69	128.37	120.29
3	A	357	SER	C-N-CA	5.69	128.37	120.29
3	A	378	GLN	OE1-CD-NE2	5.69	128.29	122.60
3	A	600	PHE	N-CA-C	5.69	117.57	111.36
11	Y	26	LEU	N-CA-CB	5.69	118.42	109.94
11	Y	31	GLY	CA-C-N	5.69	128.22	120.54
11	Y	31	GLY	C-N-CA	5.69	128.22	120.54
3	C	80	THR	CA-C-N	5.69	128.26	120.35
3	C	80	THR	C-N-CA	5.69	128.26	120.35
4	D	324	GLY	N-CA-C	-5.69	99.70	113.18
8	P	23	ARG	CB-CA-C	5.69	119.11	109.84
11	Y	100	SER	CA-C-N	5.69	126.25	119.94
11	Y	100	SER	C-N-CA	5.69	126.25	119.94
11	Z	126	PHE	CA-C-N	5.69	129.46	120.47
11	Z	126	PHE	C-N-CA	5.69	129.46	120.47
8	P	35	GLU	N-CA-C	-5.69	98.69	110.80
5	Q	121	GLY	N-CA-C	-5.69	99.70	113.18
7	I	76	THR	CA-CB-CG2	-5.69	100.83	110.50
11	U	94	GLY	CA-C-N	5.69	128.22	120.54
11	U	94	GLY	C-N-CA	5.69	128.22	120.54
2	N	41	GLN	N-CA-C	-5.68	99.46	108.73
3	A	238	ARG	CA-C-N	5.68	129.45	120.47
3	A	238	ARG	C-N-CA	5.68	129.45	120.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	377	ASP	CA-C-N	5.68	130.64	122.40
3	A	377	ASP	C-N-CA	5.68	130.64	122.40
3	E	327	ALA	O-C-N	5.68	128.15	122.12
3	E	444	LYS	CA-C-N	5.68	128.36	120.29
3	E	444	LYS	C-N-CA	5.68	128.36	120.29
10	O	206	PHE	CA-C-N	5.68	127.89	120.28
10	O	206	PHE	C-N-CA	5.68	127.89	120.28
3	A	460	TYR	O-C-N	-5.68	117.34	123.42
3	C	611	PHE	N-CA-C	-5.68	105.09	111.28
3	C	34	VAL	N-CA-C	-5.68	100.25	108.71
8	P	120	ASP	CA-C-N	5.68	125.35	119.56
8	P	120	ASP	C-N-CA	5.68	125.35	119.56
8	P	326	SER	O-C-N	5.68	128.14	122.12
10	O	201	SER	O-C-N	5.68	128.14	122.12
3	C	267	GLN	OE1-CD-NE2	-5.68	116.92	122.60
3	E	555	ASP	CA-C-O	5.68	126.44	120.42
3	E	579	HIS	O-C-N	5.68	128.62	122.15
11	V	30	TYR	CB-CG-CD2	-5.68	112.28	120.80
11	X	108	ILE	CA-CB-CG1	5.68	120.05	110.40
4	D	146	TYR	CA-C-N	5.67	126.93	119.84
4	D	146	TYR	C-N-CA	5.67	126.93	119.84
3	E	525	PHE	N-CA-C	-5.67	103.92	111.24
8	P	206	HIS	ND1-CE1-NE2	5.67	114.07	108.40
11	X	96	SER	CB-CA-C	-5.67	101.97	110.88
8	P	78	ILE	CA-CB-CG1	-5.67	100.76	110.40
6	J	34	GLN	CG-CD-OE1	-5.67	109.46	120.80
11	R	140	GLY	CA-C-O	-5.67	114.55	120.90
11	W	159	VAL	N-CA-CB	5.67	120.59	111.23
11	S	36	GLY	CA-C-N	5.67	128.53	120.53
11	S	36	GLY	C-N-CA	5.67	128.53	120.53
11	S	83	ALA	O-C-N	-5.67	115.05	122.59
11	X	72	VAL	N-CA-CB	5.67	117.19	110.55
2	N	87	ALA	N-CA-C	-5.67	105.70	113.30
3	A	132	ALA	N-CA-CB	5.67	119.96	110.32
3	A	298	PRO	CA-C-N	5.67	128.93	120.31
3	A	298	PRO	C-N-CA	5.67	128.93	120.31
4	B	434	GLU	N-CA-CB	5.67	118.55	110.16
4	D	479	LYS	CA-C-N	5.67	128.47	120.42
4	D	479	LYS	C-N-CA	5.67	128.47	120.42
7	G	72	SER	N-CA-CB	5.67	118.95	110.22
7	I	199	ILE	N-CA-C	-5.67	98.98	107.37
11	R	55	VAL	O-C-N	-5.67	114.64	121.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	V	102	LEU	CA-C-O	-5.67	114.83	120.90
3	C	84	PRO	N-CA-C	-5.67	102.96	111.57
3	C	267	GLN	CA-C-N	5.67	127.87	120.28
3	C	267	GLN	C-N-CA	5.67	127.87	120.28
3	C	302	THR	CA-C-N	5.67	131.68	122.67
3	C	302	THR	C-N-CA	5.67	131.68	122.67
3	C	453	SER	CA-C-N	-5.67	116.16	123.19
3	C	453	SER	C-N-CA	-5.67	116.16	123.19
3	C	583	SER	CB-CA-C	-5.67	99.81	110.01
3	E	84	PRO	CA-C-O	-5.67	115.05	122.19
8	P	137	GLN	OE1-CD-NE2	5.67	128.27	122.60
4	F	256	PRO	CA-C-N	5.67	127.87	120.28
4	F	256	PRO	C-N-CA	5.67	127.87	120.28
9	b	325	LYS	N-CA-C	-5.67	106.36	113.72
3	E	303	GLU	CA-C-N	5.66	128.87	119.35
3	E	303	GLU	C-N-CA	5.66	128.87	119.35
5	Q	257	ALA	N-CA-CB	5.66	119.06	110.28
7	G	126	VAL	CA-CB-CG1	5.66	120.03	110.40
11	U	107	ALA	N-CA-C	-5.66	104.80	110.97
11	V	129	MET	CA-C-N	5.66	127.69	120.56
11	V	129	MET	C-N-CA	5.66	127.69	120.56
10	O	75	ILE	CA-CB-CG2	-5.66	100.88	110.50
7	I	210	LEU	CA-C-N	5.66	128.14	120.38
7	I	210	LEU	C-N-CA	5.66	128.14	120.38
2	N	63	ASP	CA-C-N	5.66	129.45	122.37
2	N	63	ASP	C-N-CA	5.66	129.45	122.37
3	E	556	GLU	O-C-N	5.66	129.23	122.27
4	F	124	PRO	CA-N-CD	-5.66	104.08	112.00
6	J	98	LEU	CA-C-N	5.66	127.69	120.56
6	J	98	LEU	C-N-CA	5.66	127.69	120.56
11	Z	51	PHE	O-C-N	-5.66	116.20	122.09
9	b	297	SER	O-C-N	5.66	127.90	122.07
10	O	310	ARG	CA-C-N	5.66	128.45	120.42
10	O	310	ARG	C-N-CA	5.66	128.45	120.42
3	C	495	LEU	CA-C-N	5.66	127.86	120.28
3	C	495	LEU	C-N-CA	5.66	127.86	120.28
4	D	311	ASP	CA-CB-CG	-5.66	106.94	112.60
2	N	73	ILE	CA-C-N	5.66	128.32	120.29
2	N	73	ILE	C-N-CA	5.66	128.32	120.29
4	B	435	PHE	CA-CB-CG	5.66	119.45	113.80
11	V	70	VAL	CB-CA-C	-5.66	104.64	111.88
4	B	58	PRO	N-CA-C	-5.65	108.80	114.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	162	ASN	OD1-CG-ND2	-5.65	116.95	122.60
3	C	221	ARG	NH1-CZ-NH2	-5.65	111.95	119.30
8	P	87	SER	CA-C-O	-5.65	115.40	121.56
4	D	64	GLN	N-CA-C	-5.65	100.96	109.95
4	F	338	PRO	CA-C-O	5.65	125.12	118.68
7	K	119	PRO	N-CA-CB	5.65	109.50	103.39
11	U	100	SER	N-CA-CB	5.65	118.21	110.01
11	Z	91	LEU	CA-C-N	5.65	127.20	120.14
11	Z	91	LEU	C-N-CA	5.65	127.20	120.14
4	B	431	LEU	CA-C-O	-5.65	114.56	120.55
5	Q	155	ASP	CA-CB-CG	5.65	118.25	112.60
9	b	56	VAL	CA-C-O	-5.65	115.17	121.05
4	B	180	HIS	CE1-NE2-CD2	-5.65	103.35	109.00
8	P	237	HIS	CA-CB-CG	-5.65	108.15	113.80
11	Y	146	VAL	N-CA-C	5.65	116.38	110.62
11	W	126	PHE	N-CA-C	-5.65	105.12	111.28
11	T	151	ASN	CA-C-N	5.65	128.41	120.28
11	T	151	ASN	C-N-CA	5.65	128.41	120.28
4	D	184	ALA	N-CA-CB	5.65	118.42	110.12
3	E	240	LEU	CA-C-O	-5.65	114.89	120.70
1	M	78	ASN	N-CA-CB	5.64	119.18	110.21
1	M	151	SER	CB-CA-C	-5.64	101.42	110.79
4	B	163	SER	CA-C-O	-5.64	114.21	120.70
9	b	76	LEU	N-CA-C	5.64	117.43	111.28
7	I	18	ASN	CA-CB-CG	-5.64	106.96	112.60
11	R	139	LEU	CA-C-O	5.64	126.53	120.55
4	B	181	ASN	CA-CB-CG	-5.64	106.96	112.60
4	B	456	GLU	CA-C-N	5.64	127.84	120.28
4	B	456	GLU	C-N-CA	5.64	127.84	120.28
3	E	142	THR	CA-C-N	5.64	126.89	119.84
3	E	142	THR	C-N-CA	5.64	126.89	119.84
3	E	270	SER	N-CA-C	5.64	117.43	111.28
3	E	522	LYS	CB-CA-C	-5.64	102.02	110.88
9	b	207	LEU	CA-C-O	-5.64	112.61	119.32
11	U	46	ARG	CB-CA-C	-5.64	99.06	110.17
11	W	23	PHE	CB-CA-C	5.64	120.15	110.79
3	A	567	TRP	CG-CD2-CE3	-5.64	128.26	133.90
3	E	330	GLU	N-CA-C	-5.64	105.22	111.36
3	A	109	GLN	N-CA-CB	5.63	120.01	110.49
4	B	409	ILE	CA-CB-CG1	-5.63	100.82	110.40
10	O	282	GLN	N-CA-C	5.63	117.10	111.07
11	V	22	ILE	O-C-N	5.63	129.61	122.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	a	126	PHE	CB-CA-C	5.63	120.14	110.79
3	C	382	ALA	CA-C-O	5.63	126.39	120.42
5	Q	80	PHE	CA-CB-CG	-5.63	108.17	113.80
4	B	411	LYS	CA-C-N	5.63	128.29	120.29
4	B	411	LYS	C-N-CA	5.63	128.29	120.29
3	E	339	LEU	N-CA-CB	5.63	118.40	110.12
7	G	34	GLU	CA-C-N	5.63	127.66	120.56
7	G	34	GLU	C-N-CA	5.63	127.66	120.56
7	I	87	LYS	CA-C-N	5.63	127.77	120.56
7	I	87	LYS	C-N-CA	5.63	127.77	120.56
4	B	475	ARG	N-CA-C	-5.63	106.62	112.93
4	F	87	ASP	CA-C-O	-5.63	114.64	120.89
11	Y	58	ILE	CA-C-N	5.63	127.82	120.28
11	Y	58	ILE	C-N-CA	5.63	127.82	120.28
4	B	210	ILE	CA-CB-CG2	-5.63	100.93	110.50
4	D	330	THR	CA-C-O	5.63	126.78	120.70
8	P	237	HIS	N-CA-C	5.63	117.86	111.11
10	O	108	PRO	CA-C-N	5.63	128.28	120.29
10	O	108	PRO	C-N-CA	5.63	128.28	120.29
8	P	171	ILE	N-CA-CB	5.63	120.95	110.77
9	b	341	ILE	CB-CA-C	5.63	116.77	110.52
9	b	137	ASP	N-CA-C	5.62	117.09	111.07
2	N	100	PRO	O-C-N	5.62	130.23	122.64
11	W	148	LEU	O-C-N	5.62	127.94	122.09
11	Z	53	ASN	CA-CB-CG	5.62	118.22	112.60
4	F	384	LYS	CA-C-O	5.62	126.51	120.55
10	O	159	LEU	CA-C-N	5.62	128.27	120.29
10	O	159	LEU	C-N-CA	5.62	128.27	120.29
11	V	57	VAL	N-CA-C	5.62	116.35	110.62
3	C	239	VAL	N-CA-C	5.62	116.35	110.62
7	K	208	LYS	CA-C-O	5.62	126.51	120.55
10	O	150	ALA	CA-C-N	5.62	128.27	120.29
10	O	150	ALA	C-N-CA	5.62	128.27	120.29
11	U	123	PRO	CA-C-N	5.62	130.23	120.68
11	U	123	PRO	C-N-CA	5.62	130.23	120.68
11	V	110	ILE	N-CA-C	-5.62	105.14	110.42
4	F	396	HIS	CG-CD2-NE2	5.62	112.82	107.20
11	X	85	TYR	O-C-N	5.62	128.07	122.12
11	X	120	SER	N-CA-C	5.62	117.85	111.11
7	K	55	THR	N-CA-CB	5.62	118.98	110.28
9	b	142	ARG	CA-C-N	5.61	127.80	120.28
9	b	142	ARG	C-N-CA	5.61	127.80	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	V	46	ARG	O-C-N	-5.61	113.67	121.47
3	A	589	PRO	CB-CA-C	5.61	116.79	109.89
3	E	264	VAL	CA-CB-CG2	5.61	119.94	110.40
7	K	213	GLU	CA-C-N	5.61	128.84	120.31
7	K	213	GLU	C-N-CA	5.61	128.84	120.31
6	H	96	LYS	CB-CA-C	-5.61	101.48	110.79
11	W	68	LEU	CA-C-O	-5.61	114.60	120.55
11	X	96	SER	O-C-N	-5.61	116.29	122.07
11	Z	87	GLY	CA-C-N	5.61	128.36	120.28
11	Z	87	GLY	C-N-CA	5.61	128.36	120.28
3	C	38	GLU	O-C-N	-5.61	116.12	122.68
5	Q	111	ILE	CA-C-N	5.61	127.80	120.28
5	Q	111	ILE	C-N-CA	5.61	127.80	120.28
11	Y	71	SER	N-CA-C	5.61	117.86	111.02
4	B	260	LEU	CB-CA-C	-5.61	101.48	110.79
4	B	399	VAL	CB-CA-C	5.61	119.71	112.14
5	Q	142	ALA	CB-CA-C	-5.61	101.41	110.77
1	M	171	ASN	CA-C-N	5.61	127.73	120.44
1	M	171	ASN	C-N-CA	5.61	127.73	120.44
4	D	281	MET	CA-CB-CG	5.61	125.31	114.10
4	F	401	ASN	CA-CB-CG	-5.61	106.99	112.60
5	Q	69	GLN	CA-C-N	5.61	128.25	120.29
5	Q	69	GLN	C-N-CA	5.61	128.25	120.29
11	R	63	ILE	CB-CA-C	5.61	119.36	112.02
11	Z	82	GLN	N-CA-C	-5.61	100.78	109.24
3	E	88	THR	N-CA-C	-5.60	105.94	112.89
4	F	470	LYS	CA-C-N	5.60	128.25	120.29
4	F	470	LYS	C-N-CA	5.60	128.25	120.29
5	Q	84	ARG	CB-CA-C	-5.60	101.49	110.79
6	L	11	LEU	O-C-N	5.60	128.06	122.12
7	K	148	LEU	CA-C-N	5.60	127.62	120.56
7	K	148	LEU	C-N-CA	5.60	127.62	120.56
7	K	156	ILE	CA-C-O	-5.60	114.29	120.96
4	B	411	LYS	O-C-N	5.60	128.06	122.12
4	D	154	GLY	O-C-N	5.60	129.50	122.39
3	E	266	SER	N-CA-CB	5.60	118.45	110.16
11	a	89	ILE	CA-CB-CG1	5.60	119.92	110.40
1	M	120	PHE	CA-C-O	-5.60	115.20	121.81
3	A	76	THR	CA-CB-OG1	5.60	118.00	109.60
4	D	464	LEU	CA-C-N	5.60	130.07	120.72
4	D	464	LEU	C-N-CA	5.60	130.07	120.72
5	Q	39	LEU	CA-C-N	5.60	127.78	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	Q	39	LEU	C-N-CA	5.60	127.78	120.28
7	K	22	ALA	O-C-N	5.60	128.13	122.09
7	G	53	ASN	CA-C-O	-5.60	114.94	120.82
2	N	49	GLU	CA-C-N	5.59	128.37	120.42
2	N	49	GLU	C-N-CA	5.59	128.37	120.42
4	B	173	PHE	CA-C-N	5.59	132.97	123.01
4	B	173	PHE	C-N-CA	5.59	132.97	123.01
5	Q	222	ASN	CA-C-N	5.59	128.36	120.42
5	Q	222	ASN	C-N-CA	5.59	128.36	120.42
7	I	17	LEU	O-C-N	5.59	128.53	122.15
11	Z	70	VAL	N-CA-CB	5.59	117.09	110.55
11	Z	118	GLY	O-C-N	5.59	127.56	122.19
4	D	247	ASP	CA-C-N	5.59	126.83	119.84
4	D	247	ASP	C-N-CA	5.59	126.83	119.84
5	Q	136	LEU	CA-C-O	-5.59	113.25	118.73
6	J	46	TYR	CB-CG-CD1	-5.59	112.42	120.80
8	P	121	PRO	CA-C-N	5.59	127.77	120.28
8	P	121	PRO	C-N-CA	5.59	127.77	120.28
10	O	280	LEU	CA-C-N	5.59	127.77	120.28
10	O	280	LEU	C-N-CA	5.59	127.77	120.28
11	X	71	SER	N-CA-C	5.59	117.82	111.11
11	V	73	LEU	O-C-N	5.59	128.06	122.08
3	A	212	TYR	N-CA-CB	5.58	119.28	110.23
3	E	186	ALA	N-CA-C	5.58	116.73	109.64
9	b	271	SER	CA-C-N	5.58	131.75	121.70
9	b	271	SER	C-N-CA	5.58	131.75	121.70
6	H	27	TYR	CA-C-N	5.58	127.70	120.44
6	H	27	TYR	C-N-CA	5.58	127.70	120.44
11	U	18	ALA	CA-C-O	-5.58	115.14	121.00
8	P	37	SER	CA-C-N	5.58	128.32	120.28
8	P	37	SER	C-N-CA	5.58	128.32	120.28
10	O	300	PHE	CA-C-N	5.58	128.11	120.46
10	O	300	PHE	C-N-CA	5.58	128.11	120.46
7	I	205	GLU	N-CA-CB	5.58	118.32	110.12
11	R	24	THR	OG1-CB-CG2	-5.58	98.14	109.30
11	W	144	LEU	CA-C-N	5.58	128.08	120.77
11	W	144	LEU	C-N-CA	5.58	128.08	120.77
3	A	567	TRP	CA-CB-CG	5.58	124.20	113.60
1	M	12	ARG	CD-NE-CZ	5.58	132.21	124.40
3	A	536	ALA	O-C-N	-5.58	115.79	122.15
3	C	104	ILE	CA-C-O	5.58	126.25	120.39
3	C	561	VAL	N-CA-C	5.58	116.35	110.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	H	15	LYS	CA-C-O	-5.58	114.51	120.42
7	G	50	ILE	N-CA-CB	5.58	116.70	110.51
7	I	71	LEU	CA-C-N	5.58	128.79	120.31
7	I	71	LEU	C-N-CA	5.58	128.79	120.31
4	B	458	LEU	O-C-N	-5.58	115.79	122.15
5	Q	69	GLN	OE1-CD-NE2	5.58	128.18	122.60
9	b	33	LEU	O-C-N	5.58	127.81	122.07
11	X	64	ALA	CA-C-O	-5.58	113.95	120.20
2	N	68	LEU	O-C-N	-5.57	116.69	123.16
3	C	115	ILE	CB-CA-C	5.57	119.67	112.14
4	F	244	LEU	N-CA-C	-5.57	101.04	109.85
4	F	344	HIS	CB-CA-C	5.57	118.60	109.46
11	V	95	LEU	N-CA-C	5.57	117.36	111.28
6	J	90	LYS	N-CA-CB	5.57	118.55	110.47
4	B	485	TYR	CB-CG-CD2	-5.57	112.44	120.80
5	Q	159	ALA	CA-C-N	5.57	126.80	119.84
5	Q	159	ALA	C-N-CA	5.57	126.80	119.84
11	R	146	VAL	CB-CA-C	5.57	119.66	112.14
11	W	43	CYS	CA-C-O	-5.57	113.56	119.97
3	C	330	GLU	CA-C-O	5.57	126.44	120.70
5	Q	116	HIS	CB-CG-CD2	-5.57	123.96	131.20
4	D	313	SER	CA-C-N	5.57	128.19	120.29
4	D	313	SER	C-N-CA	5.57	128.19	120.29
4	F	42	GLU	N-CA-C	-5.57	99.45	108.52
4	F	366	ASN	N-CA-C	5.57	118.11	111.71
7	K	127	GLU	N-CA-CB	5.57	118.79	110.22
11	X	122	GLN	CA-C-O	-5.57	113.73	120.74
11	a	110	ILE	N-CA-C	-5.57	105.30	110.53
3	A	59	GLU	CA-C-N	5.56	129.44	122.43
3	A	59	GLU	C-N-CA	5.56	129.44	122.43
3	E	41	ILE	O-C-N	-5.56	116.75	122.82
3	E	570	LEU	CA-C-N	5.56	128.19	120.29
3	E	570	LEU	C-N-CA	5.56	128.19	120.29
3	E	576	ASP	CA-CB-CG	-5.56	107.04	112.60
11	R	77	SER	N-CA-C	5.56	119.81	113.19
11	X	53	ASN	N-CA-CB	5.56	118.23	109.94
11	Z	33	ALA	CA-C-N	5.56	128.05	120.54
11	Z	33	ALA	C-N-CA	5.56	128.05	120.54
3	A	377	ASP	N-CA-C	5.56	118.39	110.10
1	M	115	PRO	N-CA-C	-5.56	106.90	114.80
8	P	228	THR	CA-C-O	-5.56	115.23	121.40
6	J	76	VAL	CA-CB-CG2	-5.56	100.95	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	X	64	ALA	CA-C-N	5.56	128.32	120.42
11	X	64	ALA	C-N-CA	5.56	128.32	120.42
3	A	476	PRO	CA-C-O	-5.56	115.08	121.36
3	C	528	GLN	N-CA-C	-5.56	98.96	110.80
4	D	114	ASP	CA-CB-CG	5.56	118.16	112.60
5	Q	232	ASP	CA-C-N	5.56	130.01	122.90
5	Q	232	ASP	C-N-CA	5.56	130.01	122.90
11	T	27	GLY	CA-C-O	5.56	126.78	121.05
4	B	309	TYR	O-C-N	5.56	127.87	122.09
11	X	28	ALA	O-C-N	5.55	128.48	122.15
3	E	260	CYS	CA-C-O	-5.55	114.96	120.90
3	E	427	VAL	O-C-N	5.55	127.35	121.91
1	M	24	GLY	CA-C-N	5.55	127.72	120.28
1	M	24	GLY	C-N-CA	5.55	127.72	120.28
1	M	210	LYS	O-C-N	5.55	128.48	122.15
3	A	425	ASP	N-CA-CB	5.55	118.69	109.98
4	D	308	MET	CA-C-N	5.55	127.72	120.28
4	D	308	MET	C-N-CA	5.55	127.72	120.28
3	E	298	PRO	CA-C-O	-5.55	111.23	119.00
8	P	89	ASN	O-C-N	5.55	129.55	123.22
4	B	151	ILE	N-CA-C	-5.55	100.34	108.11
3	C	151	HIS	ND1-CE1-NE2	5.55	113.95	108.40
5	Q	287	HIS	ND1-CE1-NE2	5.55	113.95	108.40
7	K	128	ALA	CA-C-N	5.55	129.98	120.72
7	K	128	ALA	C-N-CA	5.55	129.98	120.72
8	P	11	THR	N-CA-C	-5.55	105.31	111.36
9	b	177	ALA	N-CA-CB	5.55	119.86	110.49
11	V	114	ALA	N-CA-C	5.55	118.25	111.82
11	T	113	ASP	CA-C-N	5.55	128.27	120.28
11	T	113	ASP	C-N-CA	5.55	128.27	120.28
3	C	411	SER	N-CA-C	-5.54	100.20	109.24
11	Y	55	VAL	O-C-N	-5.54	114.78	121.10
1	M	214	THR	CA-C-O	5.54	126.34	119.97
3	A	558	GLN	O-C-N	-5.54	115.83	122.15
3	E	210	THR	N-CA-C	-5.54	101.71	109.69
3	E	614	SER	CA-C-O	-5.54	114.99	120.70
7	I	208	LYS	N-CA-C	5.54	117.32	111.28
11	W	139	LEU	N-CA-C	-5.54	105.14	111.07
3	C	569	LYS	CA-C-N	5.54	127.70	120.28
3	C	569	LYS	C-N-CA	5.54	127.70	120.28
5	Q	344	VAL	CB-CA-C	5.54	117.90	110.42
11	T	145	ILE	CA-C-N	5.54	127.54	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	T	145	ILE	C-N-CA	5.54	127.54	120.56
11	W	73	LEU	CA-C-N	5.54	127.54	120.56
11	W	73	LEU	C-N-CA	5.54	127.54	120.56
11	a	12	PHE	N-CA-C	-5.54	106.88	113.97
3	A	324	MET	CA-C-N	5.54	126.76	119.84
3	A	324	MET	C-N-CA	5.54	126.76	119.84
3	C	142	THR	CA-C-N	5.54	125.84	119.92
3	C	142	THR	C-N-CA	5.54	125.84	119.92
10	O	210	TYR	N-CA-CB	5.54	118.26	110.12
11	Y	64	ALA	O-C-N	5.54	128.51	122.20
4	B	120	ILE	CA-C-N	5.54	128.72	120.31
4	B	120	ILE	C-N-CA	5.54	128.72	120.31
4	D	269	GLN	CB-CA-C	-5.54	100.04	110.67
3	A	548	ARG	NE-CZ-NH2	-5.53	114.22	119.20
3	C	362	GLU	CA-C-N	5.53	128.15	120.29
3	C	362	GLU	C-N-CA	5.53	128.15	120.29
4	D	79	VAL	N-CA-CB	5.53	116.75	110.72
3	E	162	PHE	N-CA-CB	5.53	118.42	110.06
7	I	10	PRO	N-CA-CB	5.53	109.57	103.26
4	F	136	GLY	N-CA-C	-5.53	107.61	115.30
5	Q	102	TYR	N-CA-CB	5.53	118.35	110.16
11	V	64	ALA	CB-CA-C	-5.53	101.28	110.68
11	X	110	ILE	CA-C-N	5.53	127.53	120.56
11	X	110	ILE	C-N-CA	5.53	127.53	120.56
3	A	147	GLN	CA-C-O	-5.53	115.31	121.23
3	A	475	TYR	N-CA-CB	5.53	120.22	110.37
5	Q	21	ARG	CA-C-N	5.53	127.69	120.28
5	Q	21	ARG	C-N-CA	5.53	127.69	120.28
9	b	136	ASN	CA-CB-CG	5.53	118.13	112.60
3	C	321	THR	N-CA-C	-5.53	102.28	110.46
5	Q	225	LEU	CA-C-N	5.53	127.63	120.44
5	Q	225	LEU	C-N-CA	5.53	127.63	120.44
11	Z	58	ILE	CA-C-N	5.53	127.69	120.28
11	Z	58	ILE	C-N-CA	5.53	127.69	120.28
3	A	275	SER	CA-C-N	5.53	127.63	120.44
3	A	275	SER	C-N-CA	5.53	127.63	120.44
4	B	358	ILE	N-CA-CB	5.53	118.77	111.25
3	E	202	PHE	CA-CB-CG	5.53	119.33	113.80
9	b	75	LEU	CA-C-N	5.53	127.69	120.28
9	b	75	LEU	C-N-CA	5.53	127.69	120.28
4	B	42	GLU	CA-C-O	5.53	126.37	120.46
4	D	336	THR	N-CA-C	-5.53	100.23	109.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	P	214	LEU	N-CA-C	5.53	117.30	111.28
8	P	470	GLN	CA-C-N	5.53	127.68	120.28
8	P	470	GLN	C-N-CA	5.53	127.68	120.28
3	A	163	GLU	CB-CG-CD	-5.52	103.21	112.60
3	A	253	CYS	CA-CB-SG	-5.52	101.70	114.40
4	B	218	ASN	O-C-N	5.52	129.45	123.10
8	P	231	VAL	CA-CB-CG1	5.52	119.79	110.40
6	J	28	ARG	CA-C-N	5.52	127.95	120.38
6	J	28	ARG	C-N-CA	5.52	127.95	120.38
11	Y	26	LEU	CA-C-N	5.52	126.23	119.99
11	Y	26	LEU	C-N-CA	5.52	126.23	119.99
3	E	579	HIS	ND1-CE1-NE2	5.52	113.92	108.40
4	F	222	ALA	CB-CA-C	-5.52	101.62	110.79
9	b	242	GLY	CA-C-O	-5.52	115.06	122.24
10	O	275	ASP	CA-C-O	5.52	126.27	120.42
1	M	197	ARG	N-CA-C	5.52	117.38	111.36
3	C	601	GLU	CA-C-N	5.52	128.13	120.29
3	C	601	GLU	C-N-CA	5.52	128.13	120.29
3	E	548	ARG	O-C-N	-5.52	116.27	122.12
8	P	199	TYR	CA-CB-CG	-5.52	103.96	113.90
8	P	464	GLU	CA-C-N	5.52	127.68	120.28
8	P	464	GLU	C-N-CA	5.52	127.68	120.28
10	O	350	PHE	CA-CB-CG	5.52	119.32	113.80
11	Y	71	SER	N-CA-CB	5.52	118.21	109.82
3	E	586	PHE	CA-CB-CG	-5.52	108.28	113.80
7	K	80	ILE	N-CA-C	-5.52	105.15	110.72
11	R	140	GLY	N-CA-C	-5.52	105.81	112.49
8	P	302	VAL	O-C-N	-5.52	116.66	122.67
11	V	143	GLY	CA-C-N	5.52	127.61	120.44
11	V	143	GLY	C-N-CA	5.52	127.61	120.44
4	B	48	ARG	N-CA-CB	5.51	119.01	110.46
3	C	565	ALA	N-CA-C	-5.51	99.05	110.80
11	U	28	ALA	CA-C-N	5.51	127.61	120.44
11	U	28	ALA	C-N-CA	5.51	127.61	120.44
11	U	33	ALA	O-C-N	5.51	127.98	122.08
3	C	229	ALA	N-CA-C	5.51	118.31	110.10
6	J	14	GLU	CA-C-N	5.51	128.12	120.29
6	J	14	GLU	C-N-CA	5.51	128.12	120.29
7	I	217	ALA	CA-C-O	5.51	126.61	120.82
1	M	52	ASP	CA-CB-CG	-5.51	107.09	112.60
3	A	557	ALA	CA-C-N	5.51	128.12	120.29
3	A	557	ALA	C-N-CA	5.51	128.12	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	344	HIS	CA-CB-CG	5.51	119.31	113.80
3	E	514	THR	CA-C-O	-5.51	114.71	120.55
11	W	52	LYS	N-CA-C	5.51	117.37	111.36
4	B	478	PRO	N-CA-CB	5.51	108.99	103.48
4	D	226	LYS	CA-C-N	5.51	128.11	120.29
4	D	226	LYS	C-N-CA	5.51	128.11	120.29
3	E	519	THR	N-CA-CB	5.51	118.22	110.12
11	X	107	ALA	N-CA-CB	5.51	118.00	110.01
4	D	436	LEU	O-C-N	5.51	127.74	122.07
3	E	599	GLU	N-CA-C	-5.51	105.28	111.28
5	Q	11	GLY	O-C-N	5.51	127.48	122.19
10	O	180	LYS	CA-C-O	-5.51	115.27	120.34
1	M	84	GLN	CB-CA-C	-5.51	101.65	110.79
10	O	342	SER	CA-C-N	5.51	127.66	120.28
10	O	342	SER	C-N-CA	5.51	127.66	120.28
3	E	494	GLU	CA-C-O	5.50	126.60	120.82
9	b	82	LYS	CA-C-N	5.50	132.06	121.54
9	b	82	LYS	C-N-CA	5.50	132.06	121.54
9	b	94	GLY	N-CA-C	-5.50	106.12	112.50
10	O	302	ASN	N-CA-C	5.50	117.28	111.28
3	A	323	ASN	CB-CA-C	-5.50	100.31	109.55
4	B	211	VAL	N-CA-CB	5.50	118.79	111.64
4	B	294	ALA	O-C-N	-5.50	116.18	121.85
8	P	344	GLU	CA-C-N	5.50	127.49	120.56
8	P	344	GLU	C-N-CA	5.50	127.49	120.56
4	B	411	LYS	CB-CA-C	-5.50	101.66	110.79
4	F	57	LEU	CA-C-O	5.50	126.74	120.97
4	F	312	LEU	CA-C-N	5.50	128.41	120.38
4	F	312	LEU	C-N-CA	5.50	128.41	120.38
3	A	614	SER	N-CA-C	5.50	117.08	111.14
3	C	204	GLY	O-C-N	-5.50	117.01	123.17
3	C	272	TYR	N-CA-C	5.50	117.35	111.36
3	E	54	ASP	CA-C-O	-5.50	114.14	120.24
7	K	141	ALA	O-C-N	5.50	129.35	122.92
9	b	77	LYS	CA-C-O	-5.50	115.03	121.07
7	I	64	SER	CB-CA-C	-5.50	100.64	110.70
11	a	94	GLY	CA-C-N	5.50	127.96	120.54
11	a	94	GLY	C-N-CA	5.50	127.96	120.54
4	B	255	THR	CA-C-N	5.50	125.01	119.19
4	B	255	THR	C-N-CA	5.50	125.01	119.19
3	C	473	SER	CA-C-N	5.50	129.90	120.72
3	C	473	SER	C-N-CA	5.50	129.90	120.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	554	HIS	ND1-CE1-NE2	5.49	113.89	108.40
7	K	56	ASN	O-C-N	5.49	128.41	122.15
8	P	473	ILE	CA-C-N	5.49	126.08	119.98
8	P	473	ILE	C-N-CA	5.49	126.08	119.98
3	E	575	GLY	CA-C-N	5.49	127.58	120.44
3	E	575	GLY	C-N-CA	5.49	127.58	120.44
8	P	310	LYS	N-CA-CB	5.49	117.97	110.01
10	O	218	VAL	CA-CB-CG1	5.49	119.73	110.40
10	O	222	ALA	N-CA-CB	5.49	119.77	110.49
6	J	19	GLU	CA-C-N	5.49	127.48	120.56
6	J	19	GLU	C-N-CA	5.49	127.48	120.56
11	X	87	GLY	CA-C-N	5.49	128.40	120.38
11	X	87	GLY	C-N-CA	5.49	128.40	120.38
4	B	354	THR	CA-C-N	5.49	130.31	122.08
4	B	354	THR	C-N-CA	5.49	130.31	122.08
3	C	492	ALA	CA-C-N	5.49	127.58	120.44
3	C	492	ALA	C-N-CA	5.49	127.58	120.44
4	F	420	VAL	CA-CB-CG2	5.49	119.73	110.40
1	M	195	LEU	CA-C-O	-5.49	115.06	120.82
4	D	372	PRO	N-CA-C	-5.49	101.17	112.47
6	J	21	VAL	CA-C-N	5.49	127.63	120.28
6	J	21	VAL	C-N-CA	5.49	127.63	120.28
11	X	126	PHE	N-CA-C	-5.48	105.22	111.14
11	a	51	PHE	O-C-N	5.48	127.93	122.12
3	E	234	LEU	CA-C-N	5.48	130.74	121.14
3	E	234	LEU	C-N-CA	5.48	130.74	121.14
7	K	213	GLU	N-CA-C	-5.48	106.72	113.41
11	S	141	LEU	CA-C-N	5.48	127.63	120.28
11	S	141	LEU	C-N-CA	5.48	127.63	120.28
11	a	82	GLN	CA-C-N	5.48	129.03	120.75
11	a	82	GLN	C-N-CA	5.48	129.03	120.75
4	D	462	TRP	CD2-CE2-CZ2	-5.48	116.92	122.40
8	P	14	ASN	CA-C-O	-5.48	114.74	120.55
8	P	166	LYS	CA-C-N	5.48	128.65	120.87
8	P	166	LYS	C-N-CA	5.48	128.65	120.87
10	O	113	ASN	CA-CB-CG	-5.48	107.12	112.60
7	G	187	GLY	N-CA-C	-5.48	104.50	112.17
11	X	65	ILE	N-CA-C	-5.48	105.19	110.72
3	E	193	LEU	N-CA-C	-5.48	106.44	113.23
6	L	19	GLU	CA-C-O	-5.48	114.61	120.42
11	Z	118	GLY	CA-C-N	5.48	127.94	120.54
11	Z	118	GLY	C-N-CA	5.48	127.94	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	168	ARG	CB-CA-C	-5.48	101.37	110.68
2	N	36	ASN	N-CA-C	-5.48	104.00	111.56
4	B	250	ILE	N-CA-C	5.48	116.21	110.62
3	C	239	VAL	CA-C-N	5.48	127.89	120.44
3	C	239	VAL	C-N-CA	5.48	127.89	120.44
3	C	436	GLN	CA-C-O	-5.48	113.02	119.05
1	M	57	MET	N-CA-CB	5.48	117.95	110.01
11	Y	55	VAL	CA-C-N	5.48	124.67	118.97
11	Y	55	VAL	C-N-CA	5.48	124.67	118.97
11	a	72	VAL	O-C-N	5.48	127.18	121.87
4	D	122	ASN	OD1-CG-ND2	5.47	128.07	122.60
4	D	138	PRO	N-CA-C	5.47	121.91	113.75
3	E	163	GLU	CB-CA-C	-5.47	102.10	109.16
5	Q	91	THR	N-CA-C	5.47	117.33	111.36
6	H	18	HIS	N-CA-CB	5.47	118.17	110.12
11	T	53	ASN	CA-C-N	5.47	129.60	120.62
11	T	53	ASN	C-N-CA	5.47	129.60	120.62
3	C	482	ARG	CA-C-O	-5.47	115.06	120.70
3	A	323	ASN	CA-C-O	5.47	125.07	119.05
7	I	124	LEU	CB-CA-C	-5.47	101.55	110.85
11	V	144	LEU	CA-C-N	5.47	127.94	120.77
11	V	144	LEU	C-N-CA	5.47	127.94	120.77
3	E	615	THR	N-CA-C	5.47	116.92	111.07
6	J	52	LYS	N-CA-C	5.47	116.92	111.07
11	W	30	TYR	CA-C-N	5.47	126.17	119.99
11	W	30	TYR	C-N-CA	5.47	126.17	119.99
11	a	74	VAL	N-CA-C	5.47	116.85	110.62
3	A	398	ALA	CA-C-O	-5.47	115.43	121.33
4	F	94	GLU	N-CA-C	-5.47	99.77	109.06
11	W	23	PHE	O-C-N	5.47	127.92	122.12
3	E	448	ARG	CG-CD-NE	-5.46	99.98	112.00
3	E	510	SER	CA-C-O	-5.46	114.76	120.55
8	P	311	GLN	N-CA-C	-5.46	105.22	111.07
7	I	57	ASN	CA-C-N	5.46	127.95	120.46
7	I	57	ASN	C-N-CA	5.46	127.95	120.46
11	V	113	ASP	CA-C-N	5.46	128.62	120.31
11	V	113	ASP	C-N-CA	5.46	128.62	120.31
4	D	208	PHE	CA-CB-CG	5.46	119.26	113.80
3	E	121	SER	CA-C-O	-5.46	114.72	121.06
4	D	242	LEU	CA-C-O	5.46	126.26	120.36
8	P	97	GLN	CA-C-N	5.46	127.54	120.44
8	P	97	GLN	C-N-CA	5.46	127.54	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	G	59	ASP	N-CA-C	-5.46	105.33	111.28
11	T	141	LEU	N-CA-CB	5.46	118.08	109.94
10	O	274	HIS	CA-C-N	5.46	128.04	120.29
10	O	274	HIS	C-N-CA	5.46	128.04	120.29
3	C	420	GLY	N-CA-C	-5.46	100.25	113.18
3	E	273	SER	N-CA-CB	5.46	117.99	109.97
7	I	174	ILE	N-CA-CB	5.46	118.02	111.31
3	A	365	ARG	CA-C-N	5.46	127.53	120.44
3	A	365	ARG	C-N-CA	5.46	127.53	120.44
3	C	157	ILE	CA-C-N	5.46	131.26	121.66
3	C	157	ILE	C-N-CA	5.46	131.26	121.66
9	b	55	PHE	CA-CB-CG	5.46	119.26	113.80
7	I	42	GLU	CB-CG-CD	-5.46	103.32	112.60
10	O	97	TYR	N-CA-C	5.46	119.36	111.56
11	R	145	ILE	CA-C-N	5.46	127.93	120.46
11	R	145	ILE	C-N-CA	5.46	127.93	120.46
2	N	12	ALA	CA-C-N	5.45	128.99	120.75
2	N	12	ALA	C-N-CA	5.45	128.99	120.75
3	A	130	THR	O-C-N	-5.45	118.22	121.71
4	F	243	ASN	OD1-CG-ND2	5.45	128.05	122.60
7	K	14	ASN	CA-C-N	5.45	127.59	120.28
7	K	14	ASN	C-N-CA	5.45	127.59	120.28
7	K	137	ALA	CA-C-O	-5.45	114.39	120.66
7	K	159	GLU	CA-C-N	5.45	128.03	120.29
7	K	159	GLU	C-N-CA	5.45	128.03	120.29
11	W	144	LEU	CA-C-O	-5.45	115.07	120.90
3	E	379	GLY	CA-C-O	5.45	125.07	119.02
7	K	154	ASP	CA-C-N	5.45	128.13	120.28
7	K	154	ASP	C-N-CA	5.45	128.13	120.28
1	M	112	TYR	N-CA-CB	5.45	121.28	111.37
2	N	108	VAL	CA-C-O	-5.45	115.28	120.95
5	Q	27	ASN	N-CA-CB	5.45	118.72	110.28
4	B	393	ARG	CA-C-N	5.45	128.12	120.28
4	B	393	ARG	C-N-CA	5.45	128.12	120.28
4	F	278	LEU	CA-C-O	5.45	126.12	120.40
8	P	318	ALA	CB-CA-C	-5.45	101.75	110.79
7	I	170	GLU	N-CA-C	-5.45	105.77	112.90
11	S	154	ALA	N-CA-C	5.44	117.64	111.11
3	E	186	ALA	CA-C-O	-5.44	114.51	120.17
4	F	80	PHE	CA-C-O	-5.44	113.37	119.79
7	G	101	GLU	CB-CA-C	-5.44	101.60	110.85
1	M	187	TYR	CA-C-N	5.44	128.15	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	187	TYR	C-N-CA	5.44	128.15	120.42
3	E	377	ASP	N-CA-CB	5.44	118.11	109.51
7	K	59	ASP	N-CA-CB	5.44	118.60	110.22
9	b	344	ASP	N-CA-C	-5.44	106.60	113.18
11	Z	30	TYR	CA-C-N	5.44	126.14	119.99
11	Z	30	TYR	C-N-CA	5.44	126.14	119.99
3	A	288	ASN	N-CA-C	-5.44	105.00	111.69
4	D	338	PRO	O-C-N	5.44	129.94	122.38
7	K	156	ILE	N-CA-C	-5.44	105.55	110.82
8	P	237	HIS	CB-CG-CD2	-5.44	124.13	131.20
10	O	367	GLN	CA-C-O	5.44	124.68	119.08
3	A	404	PRO	O-C-N	5.43	128.49	122.24
4	B	237	ARG	CG-CD-NE	-5.43	100.05	112.00
4	B	467	ILE	O-C-N	5.43	127.94	121.80
8	P	475	TYR	N-CA-C	5.43	119.07	112.23
8	P	54	LYS	CA-C-N	5.43	131.48	121.70
8	P	54	LYS	C-N-CA	5.43	131.48	121.70
10	O	311	VAL	CB-CA-C	-5.43	104.72	112.22
1	M	143	VAL	N-CA-CB	5.43	117.92	110.54
3	E	72	VAL	N-CA-C	-5.43	100.06	107.99
4	F	197	THR	CA-C-O	5.43	126.18	120.42
5	Q	53	ASN	CA-C-N	5.43	128.00	120.29
5	Q	53	ASN	C-N-CA	5.43	128.00	120.29
5	Q	202	GLU	O-C-N	-5.43	115.08	121.32
6	L	51	ASP	O-C-N	-5.43	115.59	122.27
10	O	85	ILE	CA-C-O	-5.43	115.41	121.17
10	O	110	TYR	CA-C-N	5.43	128.10	120.28
10	O	110	TYR	C-N-CA	5.43	128.10	120.28
4	B	201	HIS	CA-C-N	5.43	131.91	121.54
4	B	201	HIS	C-N-CA	5.43	131.91	121.54
4	B	147	PRO	CB-CA-C	-5.43	104.75	111.64
3	C	135	ARG	NE-CZ-NH2	-5.43	114.32	119.20
4	D	373	ILE	O-C-N	5.43	128.62	123.03
3	E	448	ARG	CD-NE-CZ	-5.43	116.80	124.40
5	Q	86	GLN	CA-C-N	5.43	131.61	122.87
5	Q	86	GLN	C-N-CA	5.43	131.61	122.87
6	L	92	ASP	CB-CA-C	-5.43	100.25	110.67
7	G	116	GLU	O-C-N	5.43	129.60	122.33
9	b	55	PHE	N-CA-C	-5.42	100.68	108.60
1	M	116	GLU	N-CA-C	-5.42	106.44	113.16
4	B	142	TYR	CA-CB-CG	-5.42	104.14	113.90
3	E	424	SER	N-CA-C	-5.42	106.03	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	543	THR	CA-C-N	5.42	127.81	120.44
3	A	543	THR	C-N-CA	5.42	127.81	120.44
3	A	548	ARG	CA-C-N	5.42	127.54	120.28
3	A	548	ARG	C-N-CA	5.42	127.54	120.28
8	P	210	PHE	N-CA-CB	5.42	118.27	110.20
11	V	71	SER	CA-C-N	5.42	127.59	120.60
11	V	71	SER	C-N-CA	5.42	127.59	120.60
11	T	54	ILE	N-CA-C	5.42	118.65	111.17
11	S	123	PRO	CB-CA-C	-5.42	104.42	112.55
3	E	175	PRO	O-C-N	-5.42	118.82	121.31
3	E	417	SER	CB-CA-C	5.42	117.37	110.22
4	F	207	ASN	CA-C-O	5.42	128.15	121.87
5	Q	144	ASP	N-CA-C	-5.42	101.15	109.76
3	C	400	ALA	N-CA-C	5.42	117.28	110.24
4	F	121	ASP	CA-C-O	5.42	125.14	119.51
7	I	148	LEU	CA-C-N	5.42	127.88	120.46
7	I	148	LEU	C-N-CA	5.42	127.88	120.46
11	Y	90	GLN	CA-C-N	5.42	128.32	120.79
11	Y	90	GLN	C-N-CA	5.42	128.32	120.79
3	A	324	MET	CA-C-O	-5.41	114.80	120.70
4	F	412	ASP	CA-C-N	5.41	127.98	120.29
4	F	412	ASP	C-N-CA	5.41	127.98	120.29
6	L	17	ALA	CA-C-N	5.41	127.53	120.28
6	L	17	ALA	C-N-CA	5.41	127.53	120.28
11	Z	85	TYR	CA-CB-CG	-5.41	104.16	113.90
11	a	96	SER	N-CA-C	5.41	116.86	111.07
4	B	273	HIS	CA-CB-CG	5.41	119.21	113.80
4	D	46	PHE	CA-C-N	-5.41	113.69	120.51
4	D	46	PHE	C-N-CA	-5.41	113.69	120.51
4	F	91	THR	O-C-N	5.41	129.68	123.29
11	a	123	PRO	CA-C-N	5.41	127.53	120.28
11	a	123	PRO	C-N-CA	5.41	127.53	120.28
3	A	116	LYS	CA-C-N	5.41	127.80	120.44
3	A	116	LYS	C-N-CA	5.41	127.80	120.44
3	A	361	ALA	CA-C-N	5.41	127.53	120.28
3	A	361	ALA	C-N-CA	5.41	127.53	120.28
3	E	220	PRO	CA-C-O	-5.41	115.17	121.34
8	P	362	GLU	CA-C-O	5.41	126.15	120.42
7	I	92	ARG	CA-C-O	-5.41	114.81	120.55
7	I	99	ILE	N-CA-C	-5.41	105.44	110.53
11	U	96	SER	O-C-N	-5.41	116.46	122.09
11	V	119	SER	CA-C-O	5.41	126.69	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	W	149	LEU	CA-C-N	5.41	127.84	120.54
11	W	149	LEU	C-N-CA	5.41	127.84	120.54
2	N	47	LYS	CA-C-N	5.41	128.53	120.31
2	N	47	LYS	C-N-CA	5.41	128.53	120.31
4	F	180	HIS	CG-CD2-NE2	5.41	112.61	107.20
8	P	180	MET	CA-C-N	5.41	127.47	120.44
8	P	180	MET	C-N-CA	5.41	127.47	120.44
11	a	131	LEU	N-CA-C	5.41	117.18	111.28
4	B	80	PHE	CA-C-O	-5.41	115.14	120.82
7	K	165	GLN	CB-CG-CD	-5.41	103.41	112.60
1	M	148	GLU	CA-C-N	5.41	127.97	120.29
1	M	148	GLU	C-N-CA	5.41	127.97	120.29
4	B	107	ASP	CA-CB-CG	5.41	118.00	112.60
5	Q	58	VAL	N-CA-C	-5.41	100.34	108.12
9	b	302	ILE	CA-CB-CG1	5.41	119.59	110.40
7	I	203	LEU	CD1-CG-CD2	5.40	122.69	110.80
6	H	19	GLU	CA-C-N	5.40	127.86	120.46
6	H	19	GLU	C-N-CA	5.40	127.86	120.46
4	D	39	VAL	CA-CB-CG2	-5.40	101.22	110.40
4	F	231	GLU	CB-CG-CD	5.40	121.78	112.60
3	E	451	PHE	CA-CB-CG	5.40	119.20	113.80
11	T	124	ARG	CA-C-O	-5.40	114.83	120.55
3	A	266	SER	N-CA-C	5.40	117.16	111.28
7	K	110	ILE	N-CA-CB	5.40	117.88	110.54
8	P	305	HIS	CE1-NE2-CD2	-5.40	103.60	109.00
7	G	88	VAL	CA-C-N	5.40	127.51	120.28
7	G	88	VAL	C-N-CA	5.40	127.51	120.28
6	J	102	VAL	CA-CB-CG1	5.40	119.58	110.40
8	P	52	VAL	CA-C-O	-5.40	115.13	120.85
11	W	41	ALA	CA-C-N	5.40	128.05	120.28
11	W	41	ALA	C-N-CA	5.40	128.05	120.28
3	A	417	SER	N-CA-CB	5.39	116.85	111.29
8	P	184	TYR	CA-CB-CG	-5.39	104.19	113.90
4	B	418	ALA	N-CA-C	-5.39	105.40	111.28
3	C	133	LEU	O-C-N	-5.39	116.17	122.96
3	E	271	LYS	CA-C-O	5.39	126.32	120.55
3	E	354	ALA	O-C-N	-5.39	116.91	123.27
5	Q	253	THR	CA-C-N	5.39	127.50	120.28
5	Q	253	THR	C-N-CA	5.39	127.50	120.28
8	P	242	LEU	CA-C-N	5.39	127.45	120.44
8	P	242	LEU	C-N-CA	5.39	127.45	120.44
8	P	413	ALA	N-CA-C	-5.39	101.09	109.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	U	87	GLY	CA-C-N	5.39	128.05	120.28
11	U	87	GLY	C-N-CA	5.39	128.05	120.28
4	D	68	LEU	O-C-N	5.39	129.24	122.23
11	X	75	CYS	N-CA-CB	5.39	118.02	109.82
11	a	47	PRO	CB-CA-C	-5.39	103.96	110.00
3	A	359	ARG	CA-C-O	-5.39	113.77	119.97
10	O	368	ASP	CB-CA-C	-5.39	101.69	110.85
9	b	47	LYS	CA-C-N	5.39	131.67	121.97
9	b	47	LYS	C-N-CA	5.39	131.67	121.97
3	A	439	TRP	N-CA-CB	5.39	119.55	110.77
5	Q	329	CYS	N-CA-CB	5.39	117.82	110.01
8	P	223	ASP	CA-CB-CG	5.39	117.99	112.60
10	O	87	GLN	CA-C-N	5.39	125.92	120.00
10	O	87	GLN	C-N-CA	5.39	125.92	120.00
10	O	95	ASN	N-CA-C	-5.39	99.33	110.80
11	T	117	ARG	CD-NE-CZ	-5.39	116.86	124.40
11	S	20	ALA	N-CA-C	5.39	117.58	111.11
4	F	219	LEU	O-C-N	5.38	127.62	122.07
4	B	482	ASP	CA-CB-CG	-5.38	107.22	112.60
5	Q	123	ILE	N-CA-C	-5.38	100.56	108.85
3	A	268	SER	O-C-N	5.38	127.82	122.12
3	C	215	TRP	CE2-CD2-CE3	5.38	124.18	118.80
3	E	95	GLU	CA-C-O	-5.38	114.56	120.43
11	U	32	THR	CA-C-O	-5.38	115.17	120.82
3	E	461	SER	N-CA-C	-5.38	99.17	108.69
3	E	547	MET	CA-C-N	5.38	127.49	120.28
3	E	547	MET	C-N-CA	5.38	127.49	120.28
4	F	412	ASP	CA-CB-CG	5.38	117.98	112.60
7	I	107	LEU	CB-CA-C	-5.38	101.86	110.79
3	A	185	ILE	N-CA-CB	5.38	118.63	111.64
3	C	392	TYR	CA-C-N	5.38	129.70	120.72
3	C	392	TYR	C-N-CA	5.38	129.70	120.72
4	D	392	THR	N-CA-CB	5.38	119.58	110.49
9	b	88	THR	N-CA-C	-5.38	100.93	109.59
3	A	49	VAL	CA-C-O	-5.38	116.31	121.63
3	E	163	GLU	O-C-N	5.38	128.25	121.64
4	F	344	HIS	CE1-NE2-CD2	-5.38	103.62	109.00
10	O	79	ILE	N-CA-C	-5.38	105.29	110.72
11	X	128	GLY	O-C-N	5.38	127.41	122.19
3	E	110	ARG	CA-C-N	5.38	126.22	119.98
3	E	110	ARG	C-N-CA	5.38	126.22	119.98
7	I	215	LEU	O-C-N	-5.38	115.44	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	102	ILE	CA-CB-CG1	5.37	119.54	110.40
8	P	12	HIS	CB-CA-C	-5.37	101.72	110.85
7	G	142	LEU	CA-C-N	5.37	130.14	122.08
7	G	142	LEU	C-N-CA	5.37	130.14	122.08
11	X	21	ILE	CA-CB-CG1	5.37	119.53	110.40
3	A	542	LYS	CA-C-N	5.37	127.48	120.28
3	A	542	LYS	C-N-CA	5.37	127.48	120.28
4	B	472	MET	CG-SD-CE	5.37	112.72	100.90
3	C	123	TYR	N-CA-CB	5.37	119.44	110.85
4	D	470	LYS	N-CA-CB	5.37	118.82	110.44
3	E	314	ARG	NE-CZ-NH1	5.37	126.87	121.50
3	E	425	ASP	CA-C-O	-5.37	114.84	120.70
11	X	39	ILE	N-CA-CB	5.37	116.83	110.55
3	C	550	PHE	CB-CG-CD2	-5.37	111.57	120.70
3	E	328	ALA	N-CA-C	5.37	117.21	111.36
3	E	378	GLN	CB-CG-CD	-5.37	103.47	112.60
3	A	170	HIS	ND1-CE1-NE2	5.37	113.77	108.40
3	E	331	ALA	CA-C-N	5.37	127.79	120.54
3	E	331	ALA	C-N-CA	5.37	127.79	120.54
11	V	18	ALA	CA-C-N	5.37	127.79	120.54
11	V	18	ALA	C-N-CA	5.37	127.79	120.54
11	S	88	PHE	CA-CB-CG	-5.37	108.43	113.80
3	A	312	MET	CA-C-N	5.37	128.01	120.28
3	A	312	MET	C-N-CA	5.37	128.01	120.28
4	D	198	LYS	CA-C-N	5.37	127.47	120.28
4	D	198	LYS	C-N-CA	5.37	127.47	120.28
4	F	349	LEU	N-CA-C	-5.37	105.51	111.36
7	I	167	ALA	CA-C-O	-5.37	114.45	120.25
11	W	124	ARG	CA-CB-CG	5.37	124.83	114.10
3	C	332	SER	CA-C-O	-5.37	115.17	121.07
5	Q	318	GLN	CA-C-O	-5.37	114.86	120.55
7	K	78	SER	N-CA-C	-5.37	105.09	111.69
11	W	25	SER	O-C-N	5.37	127.60	122.07
4	B	220	GLU	CA-C-N	5.36	127.91	120.29
4	B	220	GLU	C-N-CA	5.36	127.91	120.29
4	B	408	ALA	CA-C-N	5.36	129.09	120.30
4	B	408	ALA	C-N-CA	5.36	129.09	120.30
11	W	105	GLY	O-C-N	-5.36	116.44	122.28
11	a	18	ALA	O-C-N	5.36	127.61	122.03
2	N	34	GLU	N-CA-C	-5.36	99.58	108.75
3	A	498	VAL	CB-CA-C	-5.36	104.90	112.14
3	C	156	ASP	N-CA-CB	5.36	118.44	110.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	83	THR	CA-CB-OG1	5.36	117.64	109.60
6	H	10	LEU	N-CA-C	5.36	117.20	111.36
1	M	162	VAL	CA-C-O	-5.36	115.17	120.85
4	B	185	ALA	CB-CA-C	-5.36	101.89	110.79
3	C	314	ARG	N-CA-CB	-5.36	102.05	110.46
4	D	406	LYS	CA-C-N	5.36	127.46	120.28
4	D	406	LYS	C-N-CA	5.36	127.46	120.28
4	F	226	LYS	CG-CD-CE	5.36	123.62	111.30
6	J	68	LEU	CB-CA-C	5.36	120.54	110.63
11	U	106	PHE	CA-CB-CG	-5.36	108.44	113.80
11	V	135	PHE	N-CA-CB	5.36	118.58	110.28
11	W	139	LEU	O-C-N	5.36	127.59	122.07
3	A	563	ASN	N-CA-CB	-5.36	102.25	110.44
4	B	216	GLY	O-C-N	5.36	127.44	122.57
4	B	227	GLN	CA-C-O	-5.36	114.87	120.55
3	C	508	SER	CA-C-N	5.36	127.89	120.29
3	C	508	SER	C-N-CA	5.36	127.89	120.29
11	Y	17	CYS	CA-C-N	5.36	128.23	120.79
11	Y	17	CYS	C-N-CA	5.36	128.23	120.79
11	Y	81	LYS	CA-C-N	5.36	128.31	120.71
11	Y	81	LYS	C-N-CA	5.36	128.31	120.71
11	R	124	ARG	N-CA-C	5.36	117.87	111.71
2	N	94	ILE	CA-C-N	5.35	126.53	119.84
2	N	94	ILE	C-N-CA	5.35	126.53	119.84
3	A	27	ILE	N-CA-C	5.35	115.91	108.84
3	C	482	ARG	N-CA-CB	5.35	117.83	110.07
3	E	483	ASP	CA-CB-CG	-5.35	107.25	112.60
5	Q	90	SER	CA-C-N	5.35	127.89	120.29
5	Q	90	SER	C-N-CA	5.35	127.89	120.29
11	T	37	VAL	CB-CA-C	-5.35	104.91	112.14
9	b	332	ARG	NH1-CZ-NH2	5.35	126.26	119.30
11	R	60	ALA	CA-C-N	5.35	130.31	120.79
11	R	60	ALA	C-N-CA	5.35	130.31	120.79
1	M	73	TYR	N-CA-C	5.35	117.19	111.36
3	C	482	ARG	NE-CZ-NH1	-5.35	116.15	121.50
11	R	101	GLY	O-C-N	5.35	127.31	122.18
3	C	396	GLY	CA-C-N	5.35	130.01	122.09
3	C	396	GLY	C-N-CA	5.35	130.01	122.09
3	E	164	ASN	N-CA-C	-5.35	101.40	109.85
6	H	26	LYS	O-C-N	5.35	127.79	122.12
7	G	23	PHE	CA-CB-CG	-5.35	108.45	113.80
5	Q	9	ASP	CA-CB-CG	-5.35	107.25	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	b	263	VAL	N-CA-C	-5.34	100.37	108.17
10	O	60	THR	CA-C-N	5.34	127.44	120.28
10	O	60	THR	C-N-CA	5.34	127.44	120.28
7	G	182	ASP	N-CA-C	-5.34	105.57	112.68
11	a	143	GLY	CA-C-O	-5.34	114.91	120.90
7	K	75	ILE	CA-C-N	5.34	127.88	120.29
7	K	75	ILE	C-N-CA	5.34	127.88	120.29
10	O	282	GLN	O-C-N	5.34	127.57	122.07
7	G	50	ILE	N-CA-C	5.34	115.97	110.36
4	B	377	PRO	N-CD-CG	5.34	111.21	103.20
8	P	346	LEU	CA-C-O	5.34	126.61	121.00
6	H	49	GLN	CB-CA-C	-5.34	101.77	110.85
11	R	44	VAL	N-CA-C	-5.34	105.92	111.58
3	C	441	LEU	N-CA-CB	5.34	119.13	110.32
3	C	588	GLU	CA-C-N	5.34	126.51	119.84
3	C	588	GLU	C-N-CA	5.34	126.51	119.84
3	E	318	VAL	O-C-N	-5.34	117.57	123.18
6	L	26	LYS	CB-CA-C	-5.34	101.92	110.79
8	P	15	GLU	N-CA-C	-5.34	105.37	111.14
3	A	331	ALA	CA-C-O	-5.34	113.83	119.97
4	B	128	ALA	N-CA-C	-5.34	101.25	109.52
11	X	80	GLN	CA-C-N	5.34	130.21	122.36
11	X	80	GLN	C-N-CA	5.34	130.21	122.36
3	A	314	ARG	NE-CZ-NH2	-5.33	114.40	119.20
3	C	136	THR	N-CA-C	-5.33	107.14	113.97
4	F	274	VAL	N-CA-C	-5.33	100.70	108.17
3	C	442	ASP	O-C-N	-5.33	116.95	123.19
4	D	340	ASP	N-CA-CB	5.33	119.50	110.49
3	E	95	GLU	CB-CA-C	-5.33	100.95	109.75
4	F	401	ASN	CB-CA-C	-5.33	101.94	110.79
3	A	243	LEU	N-CA-CB	5.33	118.02	110.13
4	B	273	HIS	CG-CD2-NE2	5.33	112.53	107.20
9	b	320	PHE	CA-CB-CG	5.33	119.13	113.80
6	J	61	ASN	N-CA-C	-5.33	105.61	113.61
11	W	141	LEU	N-CA-CB	5.33	117.74	110.01
11	a	149	LEU	O-C-N	5.33	127.64	122.09
8	P	369	CYS	N-CA-CB	5.33	121.43	111.52
3	A	549	ALA	CA-C-O	-5.33	114.90	120.55
3	E	200	VAL	N-CA-C	-5.33	100.81	108.48
6	L	45	SER	N-CA-C	-5.33	106.94	113.50
8	P	77	LEU	CA-C-O	-5.33	115.22	120.82
3	C	528	GLN	CB-CG-CD	-5.33	103.54	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	484	ARG	O-C-N	-5.33	116.08	122.15
3	E	33	PRO	CA-C-N	-5.33	116.22	122.93
3	E	33	PRO	C-N-CA	-5.33	116.22	122.93
7	G	161	GLY	CA-C-N	5.33	128.41	120.31
7	G	161	GLY	C-N-CA	5.33	128.41	120.31
8	P	161	VAL	CA-CB-CG2	-5.32	101.35	110.40
10	O	130	LEU	N-CA-C	-5.32	105.39	111.14
7	G	35	ILE	N-CA-CB	5.32	116.78	110.55
11	W	74	VAL	CA-C-O	-5.32	115.53	121.17
3	A	149	GLY	N-CA-C	-5.32	108.29	115.21
7	G	27	GLU	CA-C-N	5.32	127.85	120.29
7	G	27	GLU	C-N-CA	5.32	127.85	120.29
11	S	144	LEU	CA-C-N	5.32	127.74	120.77
11	S	144	LEU	C-N-CA	5.32	127.74	120.77
3	A	342	TYR	CA-C-N	5.32	128.40	120.31
3	A	342	TYR	C-N-CA	5.32	128.40	120.31
3	C	492	ALA	O-C-N	-5.32	116.48	122.12
11	V	66	TYR	N-CA-C	-5.32	105.39	111.14
3	C	254	ILE	O-C-N	5.32	125.80	120.59
3	C	532	SER	N-CA-C	-5.32	99.85	108.52
3	E	597	HIS	O-C-N	-5.32	116.46	122.68
4	F	432	SER	N-CA-C	-5.32	105.65	111.82
11	X	27	GLY	O-C-N	5.32	127.29	122.18
11	a	70	VAL	O-C-N	-5.32	116.62	121.94
7	K	53	ASN	N-CA-C	5.32	116.76	111.07
6	J	66	GLY	CA-C-N	5.32	130.44	121.14
6	J	66	GLY	C-N-CA	5.32	130.44	121.14
7	I	194	SER	CA-C-N	5.32	131.70	121.54
7	I	194	SER	C-N-CA	5.32	131.70	121.54
11	a	73	LEU	CA-C-N	5.32	128.03	120.53
11	a	73	LEU	C-N-CA	5.32	128.03	120.53
1	M	97	ARG	NE-CZ-NH1	-5.32	116.19	121.50
4	B	454	VAL	CA-C-N	5.32	127.40	120.28
4	B	454	VAL	C-N-CA	5.32	127.40	120.28
4	D	310	THR	CA-C-O	5.32	126.05	120.42
7	K	152	MET	CG-SD-CE	-5.32	89.21	100.90
8	P	12	HIS	ND1-CE1-NE2	5.32	113.72	108.40
11	U	116	VAL	CB-CA-C	5.32	120.82	112.16
11	X	30	TYR	N-CA-CB	5.32	117.72	110.01
2	N	36	ASN	CB-CA-C	-5.31	102.89	111.18
3	C	468	ASN	CB-CA-C	5.31	119.88	110.85
4	D	379	LEU	CA-C-O	-5.31	115.04	120.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	Q	179	ILE	CB-CA-C	-5.31	104.89	112.22
6	J	59	GLN	OE1-CD-NE2	5.31	127.91	122.60
1	M	63	THR	CA-C-N	5.31	127.83	120.29
1	M	63	THR	C-N-CA	5.31	127.83	120.29
1	M	71	VAL	CA-C-N	5.31	127.35	120.44
1	M	71	VAL	C-N-CA	5.31	127.35	120.44
4	D	158	ILE	CA-C-O	5.31	128.16	121.15
4	F	298	VAL	CA-CB-CG2	5.31	119.43	110.40
7	I	57	ASN	OD1-CG-ND2	-5.31	117.29	122.60
11	R	31	GLY	CA-C-O	-5.31	115.58	121.05
11	S	108	ILE	O-C-N	5.31	127.02	121.87
11	X	48	ASP	N-CA-C	-5.31	105.86	114.09
11	a	86	THR	O-C-N	-5.31	116.09	122.15
5	Q	101	GLY	CA-C-N	5.31	127.83	120.29
5	Q	101	GLY	C-N-CA	5.31	127.83	120.29
8	P	400	GLU	CA-C-N	5.31	127.34	120.44
8	P	400	GLU	C-N-CA	5.31	127.34	120.44
1	M	203	LEU	CA-C-N	5.31	127.83	120.29
1	M	203	LEU	C-N-CA	5.31	127.83	120.29
3	C	425	ASP	N-CA-CB	5.31	118.05	110.03
3	E	53	HIS	CE1-NE2-CD2	-5.31	103.69	109.00
3	E	53	HIS	ND1-CE1-NE2	5.31	113.71	108.40
5	Q	177	ILE	CA-C-N	5.31	127.39	120.28
5	Q	177	ILE	C-N-CA	5.31	127.39	120.28
5	Q	183	LYS	CA-C-N	5.31	127.83	120.29
5	Q	183	LYS	C-N-CA	5.31	127.83	120.29
10	O	49	LYS	N-CA-CB	5.31	119.28	110.47
10	O	191	LEU	N-CA-C	-5.31	101.51	109.95
11	V	56	PRO	N-CA-CB	5.31	108.91	103.23
11	W	121	GLN	CB-CA-C	-5.31	100.98	110.70
3	C	555	ASP	O-C-N	5.31	128.20	122.15
6	J	48	ILE	CA-CB-CG2	-5.31	101.48	110.50
1	M	166	THR	N-CA-CB	5.31	118.50	110.28
3	A	504	LYS	N-CA-CB	-5.30	102.64	110.49
3	E	473	SER	CA-C-N	5.30	128.37	120.31
3	E	473	SER	C-N-CA	5.30	128.37	120.31
4	F	301	ARG	CD-NE-CZ	-5.30	116.97	124.40
8	P	115	LYS	CA-C-O	-5.30	115.25	120.82
7	I	43	TYR	CD1-CG-CD2	5.30	126.06	118.10
8	P	324	SER	CB-CA-C	-5.30	101.99	110.79
4	B	349	LEU	O-C-N	5.30	128.19	122.15
3	C	455	ASN	CA-C-O	-5.30	114.60	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	P	288	ARG	NE-CZ-NH2	-5.30	114.43	119.20
8	P	374	HIS	CA-CB-CG	-5.30	108.50	113.80
9	b	188	THR	O-C-N	-5.30	117.12	123.06
10	O	67	GLU	CA-C-N	5.30	127.38	120.28
10	O	67	GLU	C-N-CA	5.30	127.38	120.28
10	O	249	ALA	CA-C-N	5.30	127.38	120.28
10	O	249	ALA	C-N-CA	5.30	127.38	120.28
1	M	82	GLN	N-CA-CB	5.30	117.91	110.12
3	A	536	ALA	CA-C-O	5.30	126.04	120.42
4	B	276	THR	N-CA-CB	5.30	118.89	110.57
3	E	504	LYS	CA-C-N	5.30	128.37	120.31
3	E	504	LYS	C-N-CA	5.30	128.37	120.31
9	b	108	ASP	CA-C-N	5.30	127.33	120.44
9	b	108	ASP	C-N-CA	5.30	127.33	120.44
11	X	44	VAL	CB-CA-C	-5.30	106.09	112.19
11	X	50	LEU	CA-C-N	5.30	127.38	120.28
11	X	50	LEU	C-N-CA	5.30	127.38	120.28
11	Z	119	SER	CA-C-N	5.30	127.64	120.38
11	Z	119	SER	C-N-CA	5.30	127.64	120.38
8	P	11	THR	CA-C-N	5.30	127.81	120.29
8	P	11	THR	C-N-CA	5.30	127.81	120.29
11	X	22	ILE	CA-CB-CG2	-5.30	101.49	110.50
4	F	210	ILE	N-CA-C	-5.30	100.57	108.46
4	F	296	GLU	N-CA-C	-5.30	106.67	113.02
8	P	107	ASP	N-CA-C	-5.30	106.83	113.72
11	a	51	PHE	CB-CA-C	-5.30	102.00	110.79
4	D	431	LEU	N-CA-CB	5.29	118.00	110.16
4	F	314	THR	CA-C-O	-5.29	114.94	120.55
10	O	18	GLN	CA-C-O	-5.29	111.08	119.23
5	Q	256	LEU	N-CA-C	5.29	117.05	111.28
11	S	135	PHE	N-CA-CB	5.29	118.45	110.30
2	N	52	ASP	CA-CB-CG	-5.29	107.31	112.60
3	A	358	SER	N-CA-C	-5.29	105.59	111.36
11	Y	152	SER	CA-C-O	-5.29	114.94	120.55
11	S	61	GLY	N-CA-C	5.29	120.46	113.37
3	A	380	PHE	CA-CB-CG	-5.29	108.51	113.80
3	C	478	PHE	CA-CB-CG	-5.29	108.51	113.80
4	D	95	PHE	N-CA-CB	5.29	119.05	110.43
4	F	257	ARG	NE-CZ-NH1	5.29	126.79	121.50
4	F	405	ALA	O-C-N	5.29	127.80	122.09
3	A	47	GLU	N-CA-C	5.29	117.90	110.23
3	E	404	PRO	N-CA-CB	5.29	108.91	103.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	R	141	LEU	N-CA-C	5.29	116.73	111.07
2	N	111	ARG	CA-C-N	5.29	127.93	120.42
2	N	111	ARG	C-N-CA	5.29	127.93	120.42
4	B	307	TYR	N-CA-C	-5.29	105.28	112.26
8	P	332	ASP	N-CA-CB	5.29	119.42	110.49
8	P	374	HIS	CG-CD2-NE2	5.29	112.49	107.20
10	O	92	THR	CB-CA-C	-5.29	102.90	110.62
7	G	88	VAL	CA-CB-CG2	-5.29	101.41	110.40
11	Y	131	LEU	O-C-N	5.29	127.72	122.12
11	W	64	ALA	N-CA-C	5.29	117.04	111.28
4	B	308	MET	N-CA-C	-5.28	105.69	111.82
3	C	51	VAL	N-CA-CB	5.28	118.43	111.25
4	F	237	ARG	NE-CZ-NH2	-5.28	114.44	119.20
4	F	370	TYR	CA-C-O	-5.28	114.79	119.86
6	L	28	ARG	CA-C-N	5.28	127.62	120.38
6	L	28	ARG	C-N-CA	5.28	127.62	120.38
9	b	299	LEU	CB-CA-C	-5.28	102.59	110.88
2	N	113	ARG	NE-CZ-NH1	5.28	126.78	121.50
3	C	467	LEU	CA-C-O	-5.28	115.27	120.82
9	b	149	ASP	N-CA-C	5.28	117.04	111.28
11	T	34	LYS	CA-C-N	5.28	127.36	120.28
11	T	34	LYS	C-N-CA	5.28	127.36	120.28
3	A	123	TYR	N-CA-C	-5.28	102.23	110.42
4	B	112	ILE	N-CA-CB	5.28	118.43	111.25
3	C	96	LEU	CB-CA-C	-5.28	101.69	110.14
3	E	579	HIS	CA-C-O	-5.28	114.82	120.42
8	P	371	SER	CA-C-N	5.28	125.82	120.38
8	P	371	SER	C-N-CA	5.28	125.82	120.38
11	T	74	VAL	N-CA-C	5.28	115.49	110.42
3	C	584	SER	CA-C-N	5.28	127.88	120.28
3	C	584	SER	C-N-CA	5.28	127.88	120.28
4	D	256	PRO	O-C-N	5.28	129.40	122.27
7	K	108	SER	CA-C-N	5.28	125.81	120.00
7	K	108	SER	C-N-CA	5.28	125.81	120.00
8	P	341	ASN	CA-C-N	5.28	127.35	120.28
8	P	341	ASN	C-N-CA	5.28	127.35	120.28
2	N	59	GLU	N-CA-C	5.28	120.58	114.04
4	B	353	ILE	N-CA-C	5.28	116.05	110.72
4	D	95	PHE	N-CA-C	-5.28	100.64	109.24
3	C	117	GLU	CB-CG-CD	-5.27	103.63	112.60
6	L	10	LEU	CA-C-N	5.27	127.35	120.28
6	L	10	LEU	C-N-CA	5.27	127.35	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	123	THR	N-CA-C	-5.27	101.69	109.18
3	A	111	PRO	N-CA-CB	5.27	107.86	103.17
3	C	486	LYS	N-CA-C	5.27	117.03	111.28
5	Q	293	MET	N-CA-CB	5.27	117.97	110.16
8	P	211	MET	CA-C-N	5.27	124.90	119.05
8	P	211	MET	C-N-CA	5.27	124.90	119.05
9	b	283	ASP	N-CA-C	-5.27	104.97	111.40
3	A	327	ALA	N-CA-CB	5.27	117.87	110.12
3	A	500	GLN	O-C-N	5.27	127.51	122.03
3	C	471	TYR	CA-C-N	5.27	127.34	120.28
3	C	471	TYR	C-N-CA	5.27	127.34	120.28
4	F	107	ASP	CA-CB-CG	-5.27	107.33	112.60
4	F	155	VAL	CA-C-N	5.27	127.34	120.28
4	F	155	VAL	C-N-CA	5.27	127.34	120.28
8	P	317	ASN	CA-CB-CG	-5.27	107.33	112.60
10	O	305	HIS	CE1-NE2-CD2	-5.27	103.73	109.00
7	G	49	ASN	N-CA-C	5.27	116.71	111.07
4	F	407	TYR	CA-C-N	5.27	127.29	120.44
4	F	407	TYR	C-N-CA	5.27	127.29	120.44
11	R	144	LEU	CA-C-N	5.27	127.67	120.77
11	R	144	LEU	C-N-CA	5.27	127.67	120.77
3	E	388	LEU	N-CA-CB	5.27	117.95	110.16
3	E	433	GLY	O-C-N	5.27	127.23	122.18
3	C	333	ILE	CA-CB-CG1	5.26	119.35	110.40
4	D	182	GLU	CA-C-N	5.26	127.90	120.42
4	D	182	GLU	C-N-CA	5.26	127.90	120.42
5	Q	122	GLU	N-CA-C	-5.26	101.88	110.20
10	O	30	THR	OG1-CB-CG2	-5.26	98.77	109.30
11	V	84	LEU	N-CA-C	5.26	116.70	111.07
3	A	154	GLY	CA-C-N	5.26	132.14	121.93
3	A	154	GLY	C-N-CA	5.26	132.14	121.93
2	N	36	ASN	N-CA-CB	5.26	119.17	111.54
3	C	602	LYS	N-CA-C	-5.26	105.62	111.36
4	D	201	HIS	ND1-CE1-NE2	5.26	113.66	108.40
10	O	74	GLN	CA-C-N	5.26	127.89	120.42
10	O	74	GLN	C-N-CA	5.26	127.89	120.42
11	Y	101	GLY	N-CA-C	-5.26	106.40	112.50
11	W	30	TYR	O-C-N	5.26	127.49	122.07
3	A	311	ILE	CA-C-N	5.26	127.33	120.28
3	A	311	ILE	C-N-CA	5.26	127.33	120.28
3	C	240	LEU	N-CA-C	-5.26	105.46	111.14
4	D	286	ASP	CA-C-N	5.26	127.33	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	286	ASP	C-N-CA	5.26	127.33	120.28
4	D	420	VAL	N-CA-C	5.26	117.15	111.58
3	E	523	GLU	O-C-N	-5.26	116.41	122.09
3	E	566	ASN	CA-C-N	5.26	127.76	120.29
3	E	566	ASN	C-N-CA	5.26	127.76	120.29
4	F	181	ASN	CB-CA-C	-5.26	102.06	110.79
4	F	453	THR	N-CA-C	-5.26	101.30	109.24
5	Q	32	ASN	CA-C-N	5.26	127.33	120.28
5	Q	32	ASN	C-N-CA	5.26	127.33	120.28
8	P	247	LEU	CA-C-N	5.26	127.33	120.28
8	P	247	LEU	C-N-CA	5.26	127.33	120.28
11	R	137	GLU	N-CA-C	-5.26	106.37	112.89
11	U	72	VAL	CA-CB-CG1	5.26	119.34	110.40
11	Z	69	VAL	N-CA-CB	5.26	117.30	110.57
4	D	153	THR	CA-C-O	5.26	125.69	119.48
4	D	365	HIS	ND1-CE1-NE2	5.26	113.66	108.40
8	P	8	MET	N-CA-C	-5.26	108.12	114.75
9	b	61	ARG	CA-C-N	5.26	127.28	120.44
9	b	61	ARG	C-N-CA	5.26	127.28	120.44
11	X	84	LEU	O-C-N	5.26	128.37	122.22
4	B	427	ILE	O-C-N	5.26	127.24	121.83
3	C	334	TYR	CB-CG-CD2	-5.26	112.92	120.80
4	D	476	ILE	CA-C-N	5.26	127.69	120.39
4	D	476	ILE	C-N-CA	5.26	127.69	120.39
9	b	264	ASP	CA-C-O	-5.26	114.70	120.69
11	U	85	TYR	O-C-N	-5.25	116.16	122.15
4	D	144	ARG	N-CA-C	-5.25	105.11	112.25
9	b	144	ILE	CA-CB-CG1	5.25	119.33	110.40
4	D	311	ASP	CA-C-N	5.25	127.32	120.28
4	D	311	ASP	C-N-CA	5.25	127.32	120.28
4	F	462	TRP	CA-C-O	5.25	125.99	120.42
6	L	48	ILE	CA-CB-CG1	5.25	119.33	110.40
8	P	421	GLN	CB-CG-CD	-5.25	103.67	112.60
10	O	336	ASN	CA-C-N	5.25	127.58	120.44
10	O	336	ASN	C-N-CA	5.25	127.58	120.44
11	a	122	GLN	O-C-N	-5.25	116.64	121.42
8	P	235	SER	CA-C-O	5.25	124.91	119.97
11	S	137	GLU	CB-CG-CD	-5.25	103.67	112.60
4	B	65	GLY	CA-C-O	5.25	127.50	121.46
8	P	362	GLU	CA-C-N	5.25	127.26	120.44
8	P	362	GLU	C-N-CA	5.25	127.26	120.44
8	P	448	ALA	CA-C-N	5.25	127.31	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	P	448	ALA	C-N-CA	5.25	127.31	120.28
11	T	147	ALA	CA-C-N	5.25	127.62	120.54
11	T	147	ALA	C-N-CA	5.25	127.62	120.54
3	A	370	ARG	CA-C-O	-5.25	114.99	120.55
3	E	370	ARG	N-CA-C	-5.25	105.64	111.36
4	F	55	LEU	O-C-N	5.25	129.20	123.27
4	D	357	GLN	CA-C-N	5.25	130.43	122.98
4	D	357	GLN	C-N-CA	5.25	130.43	122.98
5	Q	170	GLU	CA-C-O	-5.25	112.94	119.18
5	Q	232	ASP	CA-CB-CG	5.25	117.84	112.60
8	P	245	HIS	CG-CD2-NE2	5.25	112.44	107.20
9	b	294	THR	CA-C-N	5.25	127.26	120.44
9	b	294	THR	C-N-CA	5.25	127.26	120.44
11	W	116	VAL	CA-C-O	5.25	125.43	119.92
4	B	430	LYS	N-CA-CB	5.24	117.83	110.12
3	C	600	PHE	CA-C-N	5.24	127.73	120.29
3	C	600	PHE	C-N-CA	5.24	127.73	120.29
3	E	245	PRO	N-CA-CB	5.24	108.24	103.15
3	E	479	PRO	CA-C-N	5.24	127.86	120.42
3	E	479	PRO	C-N-CA	5.24	127.86	120.42
11	S	111	VAL	CA-C-N	5.24	125.92	119.99
11	S	111	VAL	C-N-CA	5.24	125.92	119.99
3	C	519	THR	CA-C-N	5.24	127.30	120.28
3	C	519	THR	C-N-CA	5.24	127.30	120.28
3	A	58	GLY	N-CA-C	-5.24	101.71	111.14
4	B	300	GLY	O-C-N	-5.24	115.43	122.92
4	B	423	GLU	CA-C-O	-5.24	113.43	119.56
3	E	368	SER	N-CA-C	-5.24	105.57	111.28
3	E	582	SER	CB-CA-C	-5.24	102.09	110.79
4	F	303	GLY	N-CA-C	-5.24	108.02	115.30
10	O	55	ILE	CA-C-N	5.24	129.19	121.96
10	O	55	ILE	C-N-CA	5.24	129.19	121.96
11	V	72	VAL	CA-C-N	5.24	128.07	120.79
11	V	72	VAL	C-N-CA	5.24	128.07	120.79
3	A	558	GLN	CA-C-O	5.24	125.97	120.42
3	C	591	ARG	CD-NE-CZ	-5.24	117.07	124.40
3	E	71	GLN	OE1-CD-NE2	5.24	127.84	122.60
7	G	61	ASN	N-CA-CB	5.24	119.09	110.39
6	L	5	ASN	OD1-CG-ND2	5.24	127.84	122.60
11	Y	79	GLY	N-CA-C	-5.24	103.49	111.14
11	T	159	VAL	N-CA-CB	5.24	119.87	111.23
3	E	83	ASP	CA-CB-CG	-5.24	107.36	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	392	TYR	CA-C-N	5.24	128.98	120.60
3	E	392	TYR	C-N-CA	5.24	128.98	120.60
5	Q	244	ASN	CA-C-O	-5.24	115.63	121.23
8	P	472	ILE	CA-C-O	5.24	126.86	121.05
11	R	11	PHE	N-CA-CB	-5.24	101.60	110.50
11	X	113	ASP	CA-C-O	5.24	126.50	120.90
3	A	285	GLU	CA-C-N	5.23	127.24	120.44
3	A	285	GLU	C-N-CA	5.23	127.24	120.44
3	A	481	LEU	N-CA-CB	5.23	117.90	110.16
10	O	9	ASN	N-CA-C	5.23	117.47	110.35
11	T	39	ILE	N-CA-C	5.23	115.85	110.36
3	A	471	TYR	CA-C-N	5.23	127.29	120.28
3	A	471	TYR	C-N-CA	5.23	127.29	120.28
3	A	566	ASN	CA-CB-CG	-5.23	107.37	112.60
4	B	318	ARG	CB-CG-CD	5.23	123.33	111.30
5	Q	71	TYR	N-CA-CB	5.23	117.90	110.16
6	L	58	GLU	CA-C-N	5.23	127.81	120.28
6	L	58	GLU	C-N-CA	5.23	127.81	120.28
9	b	277	VAL	N-CA-C	5.23	115.95	110.62
4	F	460	GLN	CA-C-N	5.23	127.28	120.28
4	F	460	GLN	C-N-CA	5.23	127.28	120.28
9	b	272	GLN	OE1-CD-NE2	5.23	127.83	122.60
4	D	222	ALA	N-CA-C	-5.23	105.66	111.36
3	E	181	THR	N-CA-C	-5.23	100.88	109.40
11	Z	56	PRO	CA-N-CD	-5.23	104.68	112.00
1	M	173	ILE	CA-C-N	5.22	127.54	120.44
1	M	173	ILE	C-N-CA	5.22	127.54	120.44
4	B	240	LEU	CB-CA-C	-5.22	100.68	109.72
4	B	348	ASP	CA-C-O	-5.22	115.32	120.70
3	E	551	ILE	CA-C-O	-5.22	115.52	120.95
6	L	52	LYS	CA-C-O	-5.22	115.33	120.82
8	P	244	TYR	N-CA-C	-5.22	105.50	111.14
10	O	221	SER	N-CA-CB	5.22	118.35	110.30
3	C	519	THR	N-CA-CB	5.22	117.80	110.12
9	b	249	ILE	O-C-N	5.22	127.21	121.83
6	H	69	GLU	CA-CB-CG	5.22	124.55	114.10
11	W	77	SER	CA-C-O	-5.22	112.28	119.12
10	O	42	ARG	N-CA-C	-5.22	106.50	112.92
11	a	142	TYR	N-CA-CB	5.22	117.79	110.12
8	P	108	LYS	N-CA-C	-5.22	105.50	111.14
8	P	221	ALA	N-CA-CB	5.22	117.79	110.12
11	Y	46	ARG	CA-C-O	-5.22	113.01	120.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	265	ILE	CA-CB-CG1	5.22	119.27	110.40
8	P	442	ASP	CB-CA-C	-5.22	102.69	110.88
7	G	84	MET	O-C-N	-5.22	116.45	122.09
11	T	124	ARG	NE-CZ-NH2	-5.22	114.50	119.20
3	A	423	PHE	N-CA-CB	5.22	118.42	110.44
3	A	485	MET	N-CA-C	5.22	116.97	111.28
4	B	101	ARG	N-CA-C	-5.21	101.14	109.07
3	E	492	ALA	CA-C-N	5.21	127.53	120.44
3	E	492	ALA	C-N-CA	5.21	127.53	120.44
4	F	129	GLU	N-CA-C	-5.21	107.94	114.56
8	P	172	ASN	OD1-CG-ND2	5.21	127.81	122.60
8	P	474	GLY	CA-C-O	5.21	126.12	120.75
10	O	379	ASP	N-CA-CB	5.21	117.62	109.85
7	G	159	GLU	N-CA-CB	-5.21	102.19	110.22
11	Y	51	PHE	N-CA-C	5.21	116.96	111.28
3	C	539	PRO	N-CA-CB	5.21	108.29	103.39
5	Q	201	PRO	N-CA-C	5.21	121.52	113.75
8	P	116	PHE	CA-C-N	5.21	127.22	120.44
8	P	116	PHE	C-N-CA	5.21	127.22	120.44
1	M	77	GLU	N-CA-CB	5.21	119.64	111.56
3	A	341	GLU	CA-C-N	5.21	127.53	120.44
3	A	341	GLU	C-N-CA	5.21	127.53	120.44
3	A	344	ARG	O-C-N	5.21	127.64	122.12
4	B	453	THR	CA-C-O	-5.21	115.66	121.81
11	R	62	ILE	CA-C-N	5.21	127.23	120.56
11	R	62	ILE	C-N-CA	5.21	127.23	120.56
11	U	88	PHE	CB-CG-CD1	5.21	129.56	120.70
3	E	514	THR	O-C-N	5.21	127.64	122.12
7	I	92	ARG	N-CA-CB	5.21	117.78	110.12
3	A	568	SER	CA-C-N	5.21	127.21	120.44
3	A	568	SER	C-N-CA	5.21	127.21	120.44
4	D	398	ASP	CA-CB-CG	-5.21	107.39	112.60
4	F	210	ILE	CA-CB-CG2	-5.21	101.64	110.50
8	P	370	TRP	N-CA-CB	5.21	117.63	109.97
10	O	296	TYR	CA-C-N	5.21	127.12	120.56
10	O	296	TYR	C-N-CA	5.21	127.12	120.56
11	S	153	ARG	N-CA-CB	-5.21	102.42	110.13
3	C	344	ARG	CB-CA-C	-5.21	102.71	110.88
3	C	610	ARG	CA-C-N	5.21	127.26	120.28
3	C	610	ARG	C-N-CA	5.21	127.26	120.28
3	E	315	THR	N-CA-CB	5.21	119.89	110.83
11	Y	155	THR	N-CA-C	5.21	121.89	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	S	156	GLN	CA-C-N	5.21	131.48	121.54
11	S	156	GLN	C-N-CA	5.21	131.48	121.54
6	J	13	ALA	CA-C-N	5.21	127.68	120.29
6	J	13	ALA	C-N-CA	5.21	127.68	120.29
4	F	204	HIS	CE1-NE2-CD2	-5.20	103.80	109.00
4	F	299	PRO	CA-C-O	-5.20	115.28	122.15
10	O	175	LEU	O-C-N	5.20	128.78	122.85
11	R	85	TYR	N-CA-C	5.20	116.95	111.28
11	R	111	VAL	CA-C-N	5.20	125.87	119.99
11	R	111	VAL	C-N-CA	5.20	125.87	119.99
1	M	168	ARG	CA-C-O	-5.20	115.01	120.63
11	T	137	GLU	CB-CG-CD	-5.20	103.76	112.60
4	D	145	ILE	N-CA-C	-5.20	100.63	108.12
10	O	41	GLY	CA-C-O	5.20	125.47	119.13
11	Y	43	CYS	CA-C-O	-5.20	113.99	119.97
3	C	47	GLU	N-CA-CB	5.20	117.68	109.83
3	C	167	ILE	CA-C-N	5.20	131.26	122.79
3	C	167	ILE	C-N-CA	5.20	131.26	122.79
4	D	126	VAL	O-C-N	5.20	127.31	121.90
8	P	22	SER	N-CA-C	5.20	116.63	111.07
9	b	262	ASP	N-CA-C	-5.20	105.51	111.07
11	a	63	ILE	O-C-N	5.20	127.00	121.91
4	B	304	TYR	CA-C-O	-5.20	115.83	120.19
3	A	142	THR	CA-C-O	-5.20	114.08	120.05
3	A	391	PHE	N-CA-CB	-5.20	102.47	110.16
3	C	540	ILE	O-C-N	-5.20	116.48	121.83
6	L	34	GLN	N-CA-CB	5.20	117.76	110.12
6	J	18	HIS	CB-CG-ND1	5.20	130.49	122.70
11	T	112	GLY	CA-C-N	5.20	127.51	120.65
11	T	112	GLY	C-N-CA	5.20	127.51	120.65
1	M	33	LYS	CA-C-N	5.19	127.24	120.28
1	M	33	LYS	C-N-CA	5.19	127.24	120.28
3	A	392	TYR	N-CA-C	5.19	117.84	111.82
4	B	468	TYR	O-C-N	-5.19	115.82	121.53
4	B	470	LYS	CA-C-N	5.19	129.51	120.68
4	B	470	LYS	C-N-CA	5.19	129.51	120.68
3	C	581	VAL	CG1-CB-CG2	5.19	122.23	110.80
3	E	249	GLY	CA-C-O	5.19	124.14	118.95
4	F	367	LYS	N-CA-C	5.19	117.84	111.82
8	P	19	ILE	CA-CB-CG1	5.19	119.23	110.40
11	U	129	MET	CA-C-N	5.19	127.30	120.60
11	U	129	MET	C-N-CA	5.19	127.30	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	S	13	GLY	CA-C-N	5.19	127.76	120.28
11	S	13	GLY	C-N-CA	5.19	127.76	120.28
3	C	170	HIS	N-CA-C	-5.19	98.86	107.99
4	D	365	HIS	CG-CD2-NE2	5.19	112.39	107.20
4	F	194	VAL	O-C-N	5.19	127.18	121.83
11	a	88	PHE	CA-CB-CG	-5.19	108.61	113.80
3	C	223	VAL	CA-C-O	-5.19	115.84	121.19
6	L	19	GLU	CB-CG-CD	-5.19	103.78	112.60
9	b	41	PHE	N-CA-CB	5.19	118.24	109.94
11	V	113	ASP	O-C-N	-5.19	116.69	122.09
11	V	154	ALA	CA-C-N	5.19	128.71	121.24
11	V	154	ALA	C-N-CA	5.19	128.71	121.24
3	A	61	ILE	CA-C-O	-5.19	114.79	120.96
4	B	481	LEU	N-CA-C	-5.19	105.70	111.36
3	C	199	GLU	N-CA-C	-5.19	100.58	109.24
4	D	37	PRO	CA-C-N	5.19	128.21	120.95
4	D	37	PRO	C-N-CA	5.19	128.21	120.95
4	D	39	VAL	CA-C-N	5.19	129.72	122.93
4	D	39	VAL	C-N-CA	5.19	129.72	122.93
4	D	409	ILE	CB-CA-C	-5.19	105.14	112.14
3	E	100	LEU	N-CA-C	-5.19	106.80	113.23
3	E	298	PRO	N-CD-CG	5.19	110.98	103.20
8	P	108	LYS	CA-C-O	-5.19	115.36	120.70
10	O	269	GLN	CB-CG-CD	-5.19	103.78	112.60
11	X	96	SER	N-CA-CB	5.19	117.53	110.01
4	F	80	PHE	CA-CB-CG	-5.19	108.61	113.80
11	Z	132	ILE	CA-C-N	5.19	127.48	120.38
11	Z	132	ILE	C-N-CA	5.19	127.48	120.38
3	A	99	GLY	N-CA-C	-5.18	108.09	115.30
3	A	461	SER	N-CA-CB	5.18	119.14	110.59
3	C	434	ILE	CA-CB-CG2	-5.18	101.69	110.50
3	A	291	ALA	CA-C-O	-5.18	115.06	120.55
3	C	554	HIS	CG-CD2-NE2	5.18	112.38	107.20
4	D	265	TYR	O-C-N	5.18	127.69	122.09
9	b	220	GLN	OE1-CD-NE2	5.18	127.78	122.60
11	S	156	GLN	O-C-N	5.18	129.48	122.59
4	B	412	ASP	CA-C-N	5.18	127.74	120.28
4	B	412	ASP	C-N-CA	5.18	127.74	120.28
8	P	407	ARG	NE-CZ-NH1	-5.18	116.32	121.50
11	T	140	GLY	CA-C-N	5.18	127.53	120.54
11	T	140	GLY	C-N-CA	5.18	127.53	120.54
11	S	39	ILE	O-C-N	5.18	126.98	121.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	218	ASN	N-CA-CB	5.18	117.66	110.26
8	P	53	LYS	CA-C-N	5.18	131.43	121.54
8	P	53	LYS	C-N-CA	5.18	131.43	121.54
11	a	27	GLY	CA-C-N	5.18	127.64	120.29
11	a	27	GLY	C-N-CA	5.18	127.64	120.29
11	a	69	VAL	CB-CA-C	5.18	118.80	112.02
4	B	349	LEU	CA-C-O	-5.17	114.94	120.42
4	D	70	ILE	N-CA-C	-5.17	101.03	108.48
11	Y	38	GLY	CA-C-N	5.17	127.08	120.56
11	Y	38	GLY	C-N-CA	5.17	127.08	120.56
11	T	48	ASP	N-CA-C	-5.17	106.99	113.72
7	K	122	GLN	CA-C-N	5.17	128.17	120.31
7	K	122	GLN	C-N-CA	5.17	128.17	120.31
4	B	73	ASP	CA-C-O	-5.17	113.11	120.51
4	D	457	SER	N-CA-CB	5.17	117.51	110.01
11	W	123	PRO	O-C-N	5.17	130.81	122.74
11	Z	56	PRO	CA-C-O	-5.17	111.19	120.60
4	B	242	LEU	N-CA-CB	5.17	119.36	110.68
4	D	183	ILE	CB-CA-C	-5.17	105.08	112.22
4	D	400	SER	CB-CA-C	-5.17	102.21	110.79
3	E	195	GLU	CA-C-N	5.17	128.81	121.42
3	E	195	GLU	C-N-CA	5.17	128.81	121.42
8	P	444	THR	N-CA-CB	5.17	117.81	110.16
11	S	79	GLY	CA-C-O	-5.17	116.18	122.75
2	N	51	THR	CA-C-N	5.17	127.47	120.44
2	N	51	THR	C-N-CA	5.17	127.47	120.44
3	A	85	VAL	N-CA-C	-5.17	100.20	107.75
3	A	236	GLY	N-CA-C	-5.17	108.48	115.36
3	C	466	VAL	CA-C-N	5.17	127.16	120.44
3	C	466	VAL	C-N-CA	5.17	127.16	120.44
8	P	150	LEU	CA-C-O	-5.17	115.07	120.55
7	G	154	ASP	CA-C-N	5.17	127.21	120.28
7	G	154	ASP	C-N-CA	5.17	127.21	120.28
11	S	143	GLY	CA-C-N	5.17	127.52	120.54
11	S	143	GLY	C-N-CA	5.17	127.52	120.54
3	E	151	HIS	CE1-NE2-CD2	-5.17	103.83	109.00
10	O	234	PHE	CA-C-N	5.17	130.42	122.93
10	O	234	PHE	C-N-CA	5.17	130.42	122.93
11	W	130	ILE	CB-CA-C	5.17	118.49	111.88
7	G	173	VAL	O-C-N	5.16	129.14	123.10
3	A	299	GLU	CA-C-O	-5.16	114.03	119.97
11	X	150	LEU	CA-C-N	5.16	127.97	120.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	X	150	LEU	C-N-CA	5.16	127.97	120.79
1	M	49	ARG	CA-C-N	5.16	127.75	120.42
1	M	49	ARG	C-N-CA	5.16	127.75	120.42
5	Q	205	LYS	CB-CA-C	-5.16	102.43	110.74
10	O	143	ALA	N-CA-C	5.16	116.90	111.28
10	O	175	LEU	CA-C-O	-5.16	115.72	121.81
11	Z	68	LEU	CA-C-N	5.16	127.17	120.56
11	Z	68	LEU	C-N-CA	5.16	127.17	120.56
1	M	82	GLN	CB-CG-CD	-5.16	103.83	112.60
3	A	144	GLY	O-C-N	5.16	129.41	122.70
4	D	241	PHE	CA-CB-CG	-5.16	108.64	113.80
3	E	285	GLU	CA-C-N	5.16	127.61	120.29
3	E	285	GLU	C-N-CA	5.16	127.61	120.29
8	P	441	LEU	O-C-N	-5.16	116.27	122.15
9	b	251	LYS	CA-C-N	5.16	127.53	120.46
9	b	251	LYS	C-N-CA	5.16	127.53	120.46
11	R	83	ALA	CB-CA-C	-5.16	101.17	109.89
4	D	312	LEU	CA-C-N	5.16	127.70	120.28
4	D	312	LEU	C-N-CA	5.16	127.70	120.28
4	F	403	LEU	CB-CA-C	-5.16	102.79	110.88
5	Q	6	PHE	CB-CG-CD2	5.16	129.46	120.70
8	P	108	LYS	CB-CG-CD	5.16	123.16	111.30
9	b	151	PHE	CB-CG-CD2	-5.16	111.94	120.70
11	Z	144	LEU	CA-C-N	5.16	131.25	121.97
11	Z	144	LEU	C-N-CA	5.16	131.25	121.97
11	a	82	GLN	OE1-CD-NE2	-5.16	117.44	122.60
11	a	44	VAL	CA-C-N	5.15	127.45	120.44
11	a	44	VAL	C-N-CA	5.15	127.45	120.44
2	N	81	VAL	CB-CA-C	-5.15	105.11	112.22
3	A	234	LEU	O-C-N	5.15	128.71	122.68
4	D	46	PHE	O-C-N	-5.15	115.39	121.32
3	A	399	VAL	N-CA-C	-5.15	100.99	108.36
4	D	135	ASN	N-CA-C	-5.15	106.15	112.90
4	F	414	ALA	O-C-N	5.15	127.58	122.12
5	Q	143	THR	CA-C-O	5.15	125.02	119.15
7	K	23	PHE	N-CA-CB	5.15	117.69	110.12
9	b	195	LYS	O-C-N	-5.15	116.28	122.15
11	Y	62	ILE	CA-CB-CG1	5.15	119.16	110.40
2	N	17	THR	CA-C-N	5.15	127.18	120.28
2	N	17	THR	C-N-CA	5.15	127.18	120.28
4	B	326	ASN	CA-CB-CG	5.15	117.75	112.60
3	C	94	VAL	CA-C-N	5.15	129.82	122.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	94	VAL	C-N-CA	5.15	129.82	122.72
4	D	106	GLU	CB-CA-C	-5.15	102.02	110.72
5	Q	244	ASN	O-C-N	5.15	128.93	123.42
9	b	205	ARG	CA-C-O	-5.15	114.97	120.42
11	V	57	VAL	CA-C-O	-5.15	115.60	120.95
3	A	449	LYS	CG-CD-CE	5.15	123.14	111.30
1	M	122	LEU	N-CA-C	-5.14	104.81	111.71
3	E	584	SER	O-C-N	5.14	127.57	122.12
5	Q	5	TYR	N-CA-C	-5.14	100.91	108.99
6	J	15	LYS	CA-C-N	5.14	127.60	120.29
6	J	15	LYS	C-N-CA	5.14	127.60	120.29
3	A	244	PHE	O-C-N	5.14	124.83	121.23
4	B	473	LEU	N-CA-C	-5.14	100.52	108.90
3	E	295	MET	CA-C-N	5.14	128.12	120.31
3	E	295	MET	C-N-CA	5.14	128.12	120.31
8	P	239	GLY	N-CA-C	5.14	118.90	112.73
9	b	25	ILE	CA-C-O	5.14	125.92	120.26
9	b	120	ARG	NH1-CZ-NH2	5.14	125.98	119.30
10	O	156	LYS	CA-C-N	5.14	127.17	120.28
10	O	156	LYS	C-N-CA	5.14	127.17	120.28
6	H	20	ILE	O-C-N	5.14	126.86	121.87
6	H	24	ALA	CA-C-O	5.14	125.88	119.97
11	W	28	ALA	O-C-N	-5.14	116.29	122.15
4	F	195	ARG	CA-C-N	5.14	124.94	119.28
4	F	195	ARG	C-N-CA	5.14	124.94	119.28
11	T	132	ILE	CA-C-N	5.14	127.42	120.38
11	T	132	ILE	C-N-CA	5.14	127.42	120.38
1	M	20	THR	CA-CB-OG1	5.14	117.31	109.60
1	M	34	ARG	CD-NE-CZ	-5.14	117.20	124.40
7	K	193	ALA	N-CA-C	5.14	116.88	111.28
3	A	242	ALA	N-CA-C	5.14	116.69	111.14
3	C	217	VAL	N-CA-C	-5.14	106.89	112.80
3	E	206	LYS	CB-CG-CD	5.14	123.11	111.30
3	E	500	GLN	CB-CA-C	-5.14	102.82	110.88
10	O	190	HIS	CE1-NE2-CD2	-5.14	103.86	109.00
4	B	307	TYR	CA-C-N	5.13	128.12	120.31
4	B	307	TYR	C-N-CA	5.13	128.12	120.31
3	C	175	PRO	N-CA-CB	5.13	108.06	103.08
9	b	92	LEU	O-C-N	5.13	128.38	122.17
11	V	86	THR	N-CA-C	-5.13	105.68	111.28
4	B	316	TYR	CA-C-O	-5.13	114.30	120.10
7	K	188	VAL	CA-C-N	-5.13	116.27	123.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	K	188	VAL	C-N-CA	-5.13	116.27	123.10
3	A	164	ASN	CA-CB-CG	5.13	117.73	112.60
3	A	172	ILE	CA-CB-CG1	5.13	119.12	110.40
3	A	541	TRP	CA-C-N	5.13	127.58	120.29
3	A	541	TRP	C-N-CA	5.13	127.58	120.29
3	C	494	GLU	CB-CG-CD	-5.13	103.88	112.60
6	L	57	PHE	CA-C-N	5.13	129.29	120.72
6	L	57	PHE	C-N-CA	5.13	129.29	120.72
7	G	24	ILE	CA-C-O	-5.13	115.73	121.17
11	U	32	THR	CA-C-N	5.13	127.92	120.79
11	U	32	THR	C-N-CA	5.13	127.92	120.79
11	W	78	LEU	N-CA-CB	5.13	117.44	109.48
11	W	153	ARG	CA-C-N	5.13	128.52	120.82
11	W	153	ARG	C-N-CA	5.13	128.52	120.82
11	a	23	PHE	N-CA-C	5.13	116.87	111.28
3	E	269	LEU	CA-C-O	-5.13	114.98	120.42
5	Q	30	TYR	CB-CG-CD1	-5.13	113.10	120.80
5	Q	31	ILE	N-CA-CB	5.13	116.55	110.55
7	K	207	LEU	CA-C-O	-5.13	115.11	120.55
8	P	285	LYS	CA-C-N	5.13	127.14	120.88
8	P	285	LYS	C-N-CA	5.13	127.14	120.88
4	D	194	VAL	N-CA-C	5.13	115.85	110.62
4	F	231	GLU	N-CA-CB	-5.13	102.58	110.12
5	Q	13	ILE	CA-CB-CG1	5.13	119.12	110.40
11	W	32	THR	CA-CB-OG1	5.13	117.29	109.60
11	W	159	VAL	CA-C-N	5.13	130.93	121.70
11	W	159	VAL	C-N-CA	5.13	130.93	121.70
3	C	579	HIS	ND1-CE1-NE2	5.13	113.53	108.40
5	Q	73	SER	CA-C-N	5.12	127.15	120.28
5	Q	73	SER	C-N-CA	5.12	127.15	120.28
5	Q	163	LYS	CB-CA-C	-5.12	102.14	110.85
1	M	182	GLU	CB-CA-C	-5.12	102.81	110.90
3	A	359	ARG	O-C-N	5.12	128.57	122.27
4	D	333	PRO	CA-C-N	5.12	129.91	123.10
4	D	333	PRO	C-N-CA	5.12	129.91	123.10
4	F	302	ARG	N-CA-C	5.12	118.66	111.90
5	Q	161	TYR	CA-C-O	-5.12	114.31	120.10
9	b	200	GLU	N-CA-CB	5.12	117.50	110.07
11	Z	11	PHE	CB-CG-CD2	5.12	129.41	120.70
11	Z	52	LYS	CA-C-O	-5.12	114.99	120.42
4	B	195	ARG	CA-C-O	-5.12	113.37	118.34
4	B	304	TYR	CA-C-N	5.12	126.24	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	304	TYR	C-N-CA	5.12	126.24	119.84
3	E	254	ILE	CA-C-N	5.12	127.16	120.25
3	E	254	ILE	C-N-CA	5.12	127.16	120.25
11	a	107	ALA	CB-CA-C	-5.12	102.84	110.88
7	K	114	ARG	CD-NE-CZ	-5.12	117.23	124.40
2	N	62	ASP	N-CA-C	-5.12	105.05	113.50
3	A	399	VAL	CA-C-O	5.12	126.05	120.57
4	D	219	LEU	O-C-N	5.12	127.55	122.12
8	P	152	GLN	OE1-CD-NE2	5.12	127.72	122.60
11	R	103	ALA	CB-CA-C	-5.12	101.33	110.70
11	V	97	VAL	CG1-CB-CG2	5.12	122.06	110.80
3	A	333	ILE	CA-CB-CG2	-5.12	101.80	110.50
8	P	111	ASP	CA-C-N	5.12	127.65	120.28
8	P	111	ASP	C-N-CA	5.12	127.65	120.28
7	G	200	ASN	CB-CA-C	-5.12	102.97	111.41
11	Y	133	LEU	N-CA-C	5.12	117.52	111.33
11	R	106	PHE	CA-CB-CG	5.12	118.92	113.80
3	A	207	SER	N-CA-C	-5.11	99.91	110.80
3	A	233	LEU	CD1-CG-CD2	5.11	122.05	110.80
11	U	102	LEU	CB-CA-C	-5.11	102.85	110.88
11	X	44	VAL	N-CA-C	5.11	116.46	111.91
3	E	516	ASP	N-CA-C	5.11	116.66	111.14
9	b	206	VAL	N-CA-C	5.11	115.88	110.72
1	M	25	ALA	CA-C-N	5.11	127.55	120.29
1	M	25	ALA	C-N-CA	5.11	127.55	120.29
4	D	78	GLN	CB-CG-CD	5.11	121.29	112.60
9	b	73	TYR	CA-C-N	5.11	127.38	120.38
9	b	73	TYR	C-N-CA	5.11	127.38	120.38
11	R	52	LYS	CB-CA-C	-5.11	101.35	110.70
11	U	17	CYS	CA-C-N	5.11	127.40	120.65
11	U	17	CYS	C-N-CA	5.11	127.40	120.65
3	E	595	GLU	CA-C-N	5.11	128.87	122.48
3	E	595	GLU	C-N-CA	5.11	128.87	122.48
4	F	378	SER	N-CA-CB	5.11	117.48	109.97
8	P	51	LEU	N-CA-CB	5.11	117.72	110.16
10	O	35	ASN	N-CA-CB	5.11	117.69	110.13
3	A	201	GLU	CB-CG-CD	-5.11	103.92	112.60
3	A	218	ARG	N-CA-CB	5.11	118.48	110.46
4	B	300	GLY	CA-C-N	5.11	127.96	120.71
4	B	300	GLY	C-N-CA	5.11	127.96	120.71
6	L	56	GLU	CA-C-N	5.11	127.54	120.29
6	L	56	GLU	C-N-CA	5.11	127.54	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	P	377	ASN	CA-CB-CG	-5.11	107.49	112.60
1	M	183	ASN	CA-C-N	5.11	127.38	120.44
1	M	183	ASN	C-N-CA	5.11	127.38	120.44
3	E	484	ARG	NE-CZ-NH1	5.11	126.61	121.50
5	Q	206	GLU	CA-C-O	5.11	125.02	119.40
10	O	151	ASN	CB-CA-C	-5.11	102.17	110.85
4	D	148	GLU	N-CA-CB	5.10	119.12	110.49
3	E	416	VAL	N-CA-CB	5.10	119.95	112.35
5	Q	301	THR	N-CA-CB	5.10	117.62	110.12
11	X	82	GLN	OE1-CD-NE2	-5.10	117.50	122.60
11	Y	44	VAL	CA-CB-CG2	5.10	119.08	110.40
11	U	156	GLN	OE1-CD-NE2	5.10	127.70	122.60
11	X	53	ASN	CA-CB-CG	5.10	117.70	112.60
4	B	287	ALA	N-CA-CB	5.10	117.41	110.01
4	D	399	VAL	N-CA-C	-5.10	105.57	110.72
8	P	233	THR	O-C-N	-5.10	116.62	122.95
1	M	119	ASP	CA-CB-CG	-5.10	107.50	112.60
4	B	67	VAL	CA-C-N	5.10	127.53	120.29
4	B	67	VAL	C-N-CA	5.10	127.53	120.29
3	C	332	SER	CA-C-N	5.10	127.66	120.42
3	C	332	SER	C-N-CA	5.10	127.66	120.42
3	E	366	GLU	CB-CA-C	-5.10	102.18	110.85
4	F	111	ARG	CB-CA-C	-5.10	100.88	109.50
5	Q	116	HIS	CE1-NE2-CD2	-5.10	103.90	109.00
10	O	148	THR	N-CA-C	5.10	116.84	111.28
10	O	202	LEU	O-C-N	-5.10	114.84	122.39
11	V	151	ASN	CB-CA-C	-5.10	102.87	110.88
4	B	279	THR	O-C-N	-5.10	117.05	123.27
3	E	111	PRO	N-CA-CB	5.10	107.71	103.17
3	E	307	THR	O-C-N	5.10	129.50	123.33
4	F	308	MET	CA-C-N	5.10	127.42	120.54
4	F	308	MET	C-N-CA	5.10	127.42	120.54
5	Q	22	ASN	N-CA-C	5.10	116.84	111.28
7	G	97	ASP	CA-CB-CG	-5.10	107.50	112.60
1	M	17	LEU	CB-CA-C	-5.10	102.85	110.90
3	E	589	PRO	O-C-N	-5.10	115.76	122.64
11	Y	95	LEU	CA-C-N	5.10	127.06	120.44
11	Y	95	LEU	C-N-CA	5.10	127.06	120.44
11	R	144	LEU	O-C-N	5.10	127.33	122.03
11	a	50	LEU	CA-C-N	5.10	127.11	120.28
11	a	50	LEU	C-N-CA	5.10	127.11	120.28
1	M	27	GLN	CA-C-N	5.09	125.64	119.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	27	GLN	C-N-CA	5.09	125.64	119.98
3	E	601	GLU	N-CA-C	5.09	116.83	111.28
11	S	104	ALA	CA-C-N	5.09	125.74	120.03
11	S	104	ALA	C-N-CA	5.09	125.74	120.03
4	B	407	TYR	CA-C-N	5.09	127.11	120.28
4	B	407	TYR	C-N-CA	5.09	127.11	120.28
5	Q	216	ALA	CA-C-N	5.09	127.11	120.28
5	Q	216	ALA	C-N-CA	5.09	127.11	120.28
11	T	64	ALA	O-C-N	5.09	128.01	122.20
4	F	118	ARG	CD-NE-CZ	-5.09	117.27	124.40
6	H	9	THR	CA-C-N	5.09	127.52	120.29
6	H	9	THR	C-N-CA	5.09	127.52	120.29
11	V	144	LEU	CA-C-O	5.09	126.17	120.82
7	G	145	ASP	CA-CB-CG	5.09	117.69	112.60
6	J	51	ASP	CA-CB-CG	5.09	117.69	112.60
3	C	442	ASP	CA-C-N	5.09	127.10	120.28
3	C	442	ASP	C-N-CA	5.09	127.10	120.28
5	Q	112	THR	CA-C-N	5.09	125.63	119.98
5	Q	112	THR	C-N-CA	5.09	125.63	119.98
10	O	178	ILE	N-CA-C	-5.09	106.49	111.88
11	Z	13	GLY	O-C-N	-5.09	117.25	122.19
3	A	572	ASP	N-CA-CB	5.09	117.69	110.16
9	b	342	PRO	CB-CA-C	5.09	117.74	111.23
11	W	73	LEU	N-CA-CB	5.09	117.52	109.94
11	Z	120	SER	N-CA-C	5.09	117.48	111.33
1	M	127	ARG	CB-CG-CD	5.08	123.00	111.30
3	C	410	VAL	O-C-N	-5.08	117.89	123.18
3	C	308	LYS	O-C-N	-5.08	116.86	123.32
4	D	250	ILE	N-CA-C	5.08	115.80	110.62
3	E	466	VAL	CB-CA-C	5.08	119.23	112.22
5	Q	65	THR	N-CA-C	5.08	116.51	111.07
3	A	523	GLU	O-C-N	5.08	127.58	122.09
3	A	554	HIS	ND1-CE1-NE2	5.08	113.48	108.40
3	A	561	VAL	N-CA-CB	5.08	119.34	110.65
4	B	126	VAL	CA-C-N	5.08	131.24	121.54
4	B	126	VAL	C-N-CA	5.08	131.24	121.54
4	F	67	VAL	N-CA-CB	5.08	116.46	110.82
11	R	106	PHE	N-CA-C	-5.08	105.20	111.40
1	M	184	THR	CA-CB-CG2	5.08	119.13	110.50
3	E	206	LYS	CA-C-N	5.08	131.24	121.54
3	E	206	LYS	C-N-CA	5.08	131.24	121.54
3	E	409	SER	CB-CA-C	-5.08	99.12	109.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	438	LYS	CB-CG-CD	5.08	122.98	111.30
8	P	246	SER	CA-C-N	5.08	127.50	120.29
8	P	246	SER	C-N-CA	5.08	127.50	120.29
11	T	23	PHE	N-CA-C	5.08	116.81	111.28
11	W	65	ILE	N-CA-C	-5.08	104.74	111.09
11	Z	129	MET	CA-C-O	5.08	125.93	120.70
10	O	115	GLN	CA-C-N	5.08	131.24	121.54
10	O	115	GLN	C-N-CA	5.08	131.24	121.54
4	F	451	ASP	N-CA-CB	5.08	119.20	110.68
10	O	154	SER	O-C-N	5.08	127.94	122.15
11	Z	155	THR	N-CA-CB	5.08	117.43	109.97
11	a	151	ASN	N-CA-CB	5.08	117.50	109.94
3	C	446	ALA	N-CA-C	5.07	116.81	111.28
4	D	433	LEU	CB-CA-C	-5.07	102.37	110.79
4	F	313	SER	CA-C-N	5.07	127.08	120.28
4	F	313	SER	C-N-CA	5.07	127.08	120.28
6	L	34	GLN	CA-C-N	5.07	127.08	120.28
6	L	34	GLN	C-N-CA	5.07	127.08	120.28
6	L	96	LYS	CA-C-N	5.07	127.05	120.56
6	L	96	LYS	C-N-CA	5.07	127.05	120.56
7	G	141	ALA	CA-C-O	-5.07	115.83	121.51
11	T	110	ILE	CB-CA-C	5.07	118.42	111.87
3	A	184	TRP	CE2-CD2-CE3	5.07	123.87	118.80
4	F	477	SER	O-C-N	5.07	127.21	121.53
9	b	250	ARG	CB-CA-C	-5.07	102.37	110.79
10	O	131	ILE	O-C-N	5.07	127.05	121.83
3	A	559	LYS	O-C-N	-5.07	116.85	122.07
9	b	70	ARG	CA-C-O	-5.07	115.18	120.55
10	O	71	VAL	CB-CA-C	5.07	118.98	112.14
11	R	69	VAL	CB-CA-C	5.07	118.66	112.02
3	A	266	SER	O-C-N	-5.07	116.75	122.12
3	C	550	PHE	N-CA-CB	5.07	117.36	110.01
1	M	55	GLN	N-CA-CB	5.07	117.42	110.07
8	P	83	LEU	CA-C-N	5.07	127.07	120.28
8	P	83	LEU	C-N-CA	5.07	127.07	120.28
9	b	40	GLN	CG-CD-NE2	-5.07	108.80	116.40
11	Y	125	LEU	CB-CA-C	-5.07	102.58	110.94
11	U	122	GLN	CB-CG-CD	-5.07	103.99	112.60
11	S	61	GLY	CA-C-O	-5.07	114.73	120.30
1	M	64	ALA	CA-C-N	5.07	127.07	120.28
1	M	64	ALA	C-N-CA	5.07	127.07	120.28
8	P	42	SER	N-CA-CB	5.07	117.57	110.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	Z	127	VAL	O-C-N	-5.07	116.75	121.87
3	A	243	LEU	O-C-N	-5.06	116.04	122.17
10	O	253	LYS	CA-C-N	5.06	131.21	121.54
10	O	253	LYS	C-N-CA	5.06	131.21	121.54
11	U	23	PHE	CA-CB-CG	-5.06	108.74	113.80
3	C	602	LYS	N-CA-CB	5.06	117.65	110.16
4	D	284	TYR	CA-C-N	5.06	127.48	120.29
4	D	284	TYR	C-N-CA	5.06	127.48	120.29
3	E	589	PRO	N-CA-C	-5.06	102.04	112.47
5	Q	252	ALA	CB-CA-C	-5.06	102.24	110.85
6	L	5	ASN	CA-CB-CG	-5.06	107.54	112.60
9	b	45	ASN	CA-CB-CG	-5.06	107.54	112.60
7	G	122	GLN	CG-CD-OE1	5.06	130.93	120.80
6	L	73	GLU	CA-C-N	5.06	127.57	120.28
6	L	73	GLU	C-N-CA	5.06	127.57	120.28
8	P	381	SER	N-CA-C	5.06	116.80	111.28
9	b	260	LEU	CB-CA-C	-5.06	102.78	110.88
6	J	46	TYR	CG-CD2-CE2	-5.06	113.61	121.20
11	Y	136	ALA	N-CA-C	-5.06	106.61	112.89
3	C	316	THR	N-CA-CB	5.06	119.18	110.68
7	K	22	ALA	CA-C-O	-5.06	115.49	120.70
7	G	168	PRO	CA-C-O	-5.06	115.26	121.03
3	A	477	GLU	CA-C-N	5.06	129.56	121.62
3	A	477	GLU	C-N-CA	5.06	129.56	121.62
8	P	286	VAL	CA-C-N	5.06	127.01	120.44
8	P	286	VAL	C-N-CA	5.06	127.01	120.44
11	U	148	LEU	N-CA-CB	5.06	117.47	109.94
3	C	66	ASP	N-CA-C	-5.06	106.28	112.90
3	C	360	TRP	CD2-CE2-CZ2	-5.06	117.34	122.40
3	E	583	SER	N-CA-C	-5.06	106.89	113.16
11	W	107	ALA	CA-C-N	5.06	128.46	120.47
11	W	107	ALA	C-N-CA	5.06	128.46	120.47
11	Z	16	GLY	CA-C-N	5.06	129.23	121.19
11	Z	16	GLY	C-N-CA	5.06	129.23	121.19
3	A	221	ARG	CA-C-O	-5.05	114.98	120.69
5	Q	128	HIS	ND1-CE1-NE2	5.05	113.45	108.40
7	K	120	ILE	N-CA-C	-5.05	105.78	110.53
11	R	153	ARG	N-CA-C	-5.05	105.23	111.40
4	B	264	GLU	CB-CG-CD	5.05	121.19	112.60
4	B	333	PRO	N-CA-CB	5.05	108.05	103.15
3	C	498	VAL	CA-C-N	5.05	126.93	120.56
3	C	498	VAL	C-N-CA	5.05	126.93	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	T	22	ILE	CB-CA-C	-5.05	105.27	111.94
3	E	70	ILE	N-CA-C	-5.05	100.93	108.46
11	W	57	VAL	N-CA-C	5.05	116.38	110.62
11	X	64	ALA	O-C-N	5.05	127.96	122.20
11	Z	39	ILE	CA-C-N	5.05	127.05	120.28
11	Z	39	ILE	C-N-CA	5.05	127.05	120.28
2	N	52	ASP	CB-CA-C	-5.05	102.92	110.90
3	A	214	THR	O-C-N	-5.05	116.80	123.16
3	C	182	ILE	CA-CB-CG1	5.05	118.99	110.40
7	K	111	ALA	O-C-N	5.05	128.13	122.22
8	P	148	SER	N-CA-CB	5.05	117.46	109.94
8	P	251	TRP	O-C-N	5.05	127.47	122.12
4	D	351	GLY	CA-C-N	5.05	127.46	120.29
4	D	351	GLY	C-N-CA	5.05	127.46	120.29
3	A	315	THR	CA-CB-OG1	5.05	117.17	109.60
3	E	151	HIS	ND1-CE1-NE2	5.05	113.45	108.40
11	W	29	ALA	CA-C-N	5.05	127.00	120.44
11	W	29	ALA	C-N-CA	5.05	127.00	120.44
3	A	558	GLN	CA-C-N	5.04	127.00	120.44
3	A	558	GLN	C-N-CA	5.04	127.00	120.44
3	C	391	PHE	CA-C-N	5.04	127.04	120.28
3	C	391	PHE	C-N-CA	5.04	127.04	120.28
5	Q	170	GLU	O-C-N	5.04	129.57	122.41
3	C	324	MET	N-CA-C	-5.04	104.33	110.13
3	E	275	SER	CA-C-N	5.04	127.04	120.28
3	E	275	SER	C-N-CA	5.04	127.04	120.28
5	Q	41	ASP	N-CA-C	5.04	116.86	111.36
8	P	82	HIS	CG-CD2-NE2	5.04	112.24	107.20
7	G	135	PRO	N-CA-CB	5.04	106.07	101.83
11	T	117	ARG	CB-CA-C	-5.04	100.99	110.67
3	C	86	LEU	N-CA-CB	-5.04	102.78	110.65
5	Q	207	CYS	CA-C-N	5.04	127.03	120.28
5	Q	207	CYS	C-N-CA	5.04	127.03	120.28
10	O	318	ARG	NH1-CZ-NH2	-5.04	112.75	119.30
10	O	374	TYR	N-CA-C	5.04	117.32	111.02
3	A	174	LEU	CB-CA-C	-5.04	101.51	109.42
4	D	328	SER	N-CA-C	-5.04	101.08	108.79
7	I	28	ALA	CA-C-N	5.04	126.99	120.44
7	I	28	ALA	C-N-CA	5.04	126.99	120.44
11	V	57	VAL	N-CA-CB	5.04	117.39	110.54
11	S	116	VAL	CA-C-N	5.04	127.97	120.31
11	S	116	VAL	C-N-CA	5.04	127.97	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	41	LYS	N-CA-CB	5.04	117.53	110.12
4	D	111	ARG	CD-NE-CZ	-5.04	117.35	124.40
5	Q	239	SER	CA-C-O	-5.04	113.36	118.90
9	b	180	ILE	N-CA-C	-5.04	106.53	111.77
7	I	10	PRO	CA-C-N	5.04	127.03	120.28
7	I	10	PRO	C-N-CA	5.04	127.03	120.28
3	A	305	SER	CA-C-O	5.04	127.71	120.51
3	E	354	ALA	CA-C-O	5.04	125.86	120.32
7	G	165	GLN	N-CA-C	-5.04	107.14	113.28
11	W	45	LEU	CA-C-O	5.04	126.15	120.00
3	C	493	GLU	CA-C-N	5.04	127.44	120.29
3	C	493	GLU	C-N-CA	5.04	127.44	120.29
3	E	422	ASP	CA-CB-CG	5.04	117.64	112.60
3	E	573	SER	CB-CA-C	-5.04	101.48	110.70
10	O	57	SER	CA-C-O	-5.04	115.21	121.50
11	U	51	PHE	CA-C-N	5.04	127.03	120.28
11	U	51	PHE	C-N-CA	5.04	127.03	120.28
1	M	89	THR	N-CA-C	-5.03	101.79	108.74
8	P	326	SER	CA-C-O	-5.03	115.21	120.55
10	O	192	THR	CA-C-O	-5.03	116.02	121.36
6	J	70	LYS	CG-CD-CE	5.03	122.88	111.30
11	X	149	LEU	CA-C-N	5.03	126.98	120.44
11	X	149	LEU	C-N-CA	5.03	126.98	120.44
11	Z	127	VAL	CA-C-O	5.03	125.95	120.57
3	C	103	THR	N-CA-C	-5.03	101.09	108.99
10	O	37	THR	CA-C-O	5.03	126.60	120.31
7	I	135	PRO	CA-C-N	5.03	130.49	122.94
7	I	135	PRO	C-N-CA	5.03	130.49	122.94
11	W	105	GLY	CA-C-N	5.03	127.28	120.44
11	W	105	GLY	C-N-CA	5.03	127.28	120.44
4	B	353	ILE	CA-C-N	5.03	129.74	121.39
4	B	353	ILE	C-N-CA	5.03	129.74	121.39
4	D	87	ASP	CA-C-N	5.03	126.99	120.70
4	D	87	ASP	C-N-CA	5.03	126.99	120.70
7	K	64	SER	O-C-N	-5.03	116.42	122.15
9	b	87	ASP	N-CA-CB	5.03	118.99	110.49
7	I	43	TYR	CG-CD1-CE1	-5.03	113.66	121.20
11	S	18	ALA	CA-C-N	5.03	126.98	120.44
11	S	18	ALA	C-N-CA	5.03	126.98	120.44
4	D	126	VAL	CA-C-O	-5.03	115.47	121.05
3	E	380	PHE	CA-CB-CG	-5.03	108.77	113.80
3	E	568	SER	CA-C-N	5.03	127.43	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	568	SER	C-N-CA	5.03	127.43	120.29
3	A	520	LEU	N-CA-C	5.03	116.84	111.36
3	E	416	VAL	CA-CB-CG1	-5.03	101.86	110.40
8	P	193	LEU	N-CA-C	-5.03	105.80	111.28
8	P	400	GLU	O-C-N	5.03	127.45	122.12
6	H	93	ASP	CA-CB-CG	-5.03	107.57	112.60
8	P	54	LYS	N-CA-CB	5.02	118.98	110.49
4	B	82	GLY	CA-C-O	-5.02	116.21	122.74
3	C	90	LYS	CA-C-N	5.02	125.74	120.11
3	C	90	LYS	C-N-CA	5.02	125.74	120.11
4	D	39	VAL	N-CA-CB	5.02	118.08	111.25
4	F	125	LYS	N-CA-CB	5.02	117.41	109.83
4	B	96	THR	CA-CB-OG1	5.02	117.13	109.60
3	C	418	PRO	CA-C-O	-5.02	115.81	121.43
3	C	489	LEU	CA-C-O	-5.02	115.10	120.42
5	Q	176	ASN	CA-C-N	5.02	126.88	120.56
5	Q	176	ASN	C-N-CA	5.02	126.88	120.56
8	P	160	LEU	CA-C-N	5.02	126.99	120.56
8	P	160	LEU	C-N-CA	5.02	126.99	120.56
8	P	458	ASP	CA-C-N	5.02	126.97	120.44
8	P	458	ASP	C-N-CA	5.02	126.97	120.44
1	M	79	ILE	N-CA-CB	5.02	117.36	110.54
9	b	197	ALA	O-C-N	-5.02	116.35	122.22
6	J	10	LEU	N-CA-C	-5.02	105.89	111.36
11	U	43	CYS	N-CA-CB	5.02	118.72	110.39
11	Z	30	TYR	N-CA-C	5.02	117.13	111.11
11	a	33	ALA	CA-C-N	5.02	127.31	120.54
11	a	33	ALA	C-N-CA	5.02	127.31	120.54
4	B	381	ARG	NH1-CZ-NH2	5.02	125.82	119.30
9	b	205	ARG	NE-CZ-NH1	-5.02	116.48	121.50
11	a	132	ILE	CA-C-N	5.02	127.31	120.54
11	a	132	ILE	C-N-CA	5.02	127.31	120.54
4	D	44	VAL	CA-C-N	-5.01	115.99	123.11
4	D	44	VAL	C-N-CA	-5.01	115.99	123.11
4	D	418	ALA	N-CA-C	5.01	116.75	111.28
6	H	34	GLN	N-CA-C	-5.01	105.81	111.28
11	T	44	VAL	CB-CA-C	-5.01	103.99	112.16
11	a	71	SER	CA-C-N	5.01	127.33	120.46
11	a	71	SER	C-N-CA	5.01	127.33	120.46
3	A	173	LEU	CA-C-O	-5.01	115.50	121.56
3	C	608	GLN	N-CA-CB	5.01	117.49	110.12
7	I	126	VAL	CA-CB-CG1	5.01	118.92	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	Z	63	ILE	CA-C-N	5.01	127.70	120.38
11	Z	63	ILE	C-N-CA	5.01	127.70	120.38
7	K	113	ASN	CB-CA-C	-5.01	102.77	110.78
7	G	18	ASN	OD1-CG-ND2	-5.01	117.59	122.60
11	Z	127	VAL	CA-C-N	5.01	126.65	120.34
11	Z	127	VAL	C-N-CA	5.01	126.65	120.34
10	O	119	ARG	N-CA-CB	5.01	117.57	110.16
4	B	327	GLY	N-CA-C	-5.01	105.91	112.82
4	D	326	ASN	O-C-N	5.01	127.35	122.19
8	P	450	ILE	O-C-N	5.01	126.72	121.87
11	W	35	SER	CA-C-O	-5.01	115.56	120.82
11	Z	137	GLU	N-CA-C	-5.01	106.68	112.89
11	V	29	ALA	N-CA-CB	5.00	117.27	110.01
3	A	251	THR	N-CA-C	-5.00	100.88	109.24
3	C	373	GLU	N-CA-C	5.00	117.15	110.35
3	C	498	VAL	N-CA-CB	-5.00	103.74	110.54
4	F	189	ARG	NH1-CZ-NH2	-5.00	112.80	119.30
5	Q	174	ASP	CB-CA-C	-5.00	109.29	115.89
5	Q	279	LEU	N-CA-C	-5.00	107.23	113.38
8	P	255	PHE	CB-CG-CD2	-5.00	112.19	120.70
8	P	439	ASP	CA-C-N	5.00	127.31	120.46
8	P	439	ASP	C-N-CA	5.00	127.31	120.46
7	G	92	ARG	CD-NE-CZ	-5.00	117.40	124.40
7	I	128	ALA	CA-C-N	5.00	127.48	120.28
7	I	128	ALA	C-N-CA	5.00	127.48	120.28
11	R	85	TYR	CB-CG-CD1	5.00	128.30	120.80
11	a	63	ILE	N-CA-CB	5.00	116.40	110.55
4	F	219	LEU	CA-C-N	5.00	127.39	120.29
4	F	219	LEU	C-N-CA	5.00	127.39	120.29

There are no chirality outliers.

All (164) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	A	110	ARG	Sidechain
3	A	135	ARG	Sidechain
3	A	153	SER	Mainchain
3	A	244	PHE	Sidechain
3	A	301	TYR	Sidechain
3	A	383	TYR	Sidechain
3	A	448	ARG	Sidechain
3	A	46	TYR	Sidechain

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Mol	Chain	Res	Type	Group
3	A	463	TYR	Sidechain
3	A	586	PHE	Sidechain
3	A	611	PHE	Sidechain
4	B	142	TYR	Sidechain
4	B	144	ARG	Sidechain
4	B	195	ARG	Sidechain
4	B	223	ARG	Sidechain
4	B	225	PHE	Sidechain
4	B	265	TYR	Sidechain
4	B	272	ARG	Sidechain
4	B	302	ARG	Sidechain
4	B	325	ARG	Sidechain
4	B	381	ARG	Sidechain
4	B	393	ARG	Sidechain
4	B	455	PHE	Sidechain
4	B	475	ARG	Sidechain
3	C	123	TYR	Sidechain
3	C	191	TYR	Sidechain
3	C	218	ARG	Sidechain
3	C	301	TYR	Sidechain
3	C	342	TYR	Sidechain
3	C	383	TYR	Sidechain
3	C	394	ARG	Sidechain
3	C	438	PHE	Sidechain
3	C	460	TYR	Sidechain
3	C	478	PHE	Sidechain
3	C	482	ARG	Sidechain
3	C	548	ARG	Sidechain
3	C	553	TYR	Sidechain
3	C	610	ARG	Sidechain
4	D	131	TYR	Sidechain
4	D	142	TYR	Sidechain
4	D	146	TYR	Sidechain
4	D	257	ARG	Sidechain
4	D	273	HIS	Sidechain
4	D	295	ARG	Sidechain
4	D	302	ARG	Sidechain
4	D	307	TYR	Sidechain
4	D	316	TYR	Sidechain
4	D	370	TYR	Sidechain
4	D	404	TYR	Sidechain
4	D	48	ARG	Sidechain

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Mol	Chain	Res	Type	Group
4	D	74	ARG	Sidechain
3	E	126	ARG	Sidechain
3	E	158	TYR	Sidechain
3	E	177	ARG	Sidechain
3	E	191	TYR	Sidechain
3	E	272	TYR	Sidechain
3	E	314	ARG	Sidechain
3	E	46	TYR	Sidechain
3	E	463	TYR	Sidechain
3	E	471	TYR	Sidechain
3	E	53	HIS	Sidechain
3	E	534	TYR	Sidechain
3	E	591	ARG	Sidechain
4	F	302	ARG	Sidechain
4	F	304	TYR	Sidechain
4	F	316	TYR	Sidechain
4	F	325	ARG	Sidechain
4	F	352	TYR	Sidechain
4	F	362	ARG	Sidechain
4	F	381	ARG	Sidechain
4	F	44	VAL	Peptide
4	F	475	ARG	Sidechain
4	F	48	ARG	Sidechain
4	F	484	PHE	Sidechain
7	G	117	TYR	Sidechain
7	G	166	ARG	Sidechain
7	G	52	ARG	Sidechain
7	G	92	ARG	Sidechain
7	I	160	TYR	Sidechain
7	I	219	ARG	Sidechain
7	I	92	ARG	Sidechain
7	K	117	TYR	Sidechain
7	K	144	ARG	Sidechain
7	K	158	ARG	Sidechain
7	K	62	PHE	Sidechain
7	K	85	ARG	Sidechain
6	L	25	ARG	Sidechain
6	L	28	ARG	Sidechain
1	M	112	TYR	Sidechain
1	M	134	ARG	Sidechain
1	M	139	TYR	Sidechain
1	M	187	TYR	Sidechain

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Mol	Chain	Res	Type	Group
1	M	200	PHE	Sidechain
1	M	34	ARG	Sidechain
1	M	81	TYR	Sidechain
2	N	5	ARG	Sidechain
2	N	57	PHE	Sidechain
10	O	110	TYR	Sidechain
10	O	114	PHE	Sidechain
10	O	119	ARG	Sidechain
10	O	121	PHE	Sidechain
10	O	152	TYR	Sidechain
10	O	173	ARG	Sidechain
10	O	285	ARG	Sidechain
10	O	296	TYR	Sidechain
10	O	318	ARG	Sidechain
10	O	382	TYR	Sidechain
10	O	388	TYR	Sidechain
10	O	98	ARG	Sidechain
8	P	144	PHE	Sidechain
8	P	156	HIS	Sidechain
8	P	184	TYR	Sidechain
8	P	21	ARG	Sidechain
8	P	237	HIS	Sidechain
8	P	32	ARG	Sidechain
8	P	330	TYR	Sidechain
8	P	359	TYR	Sidechain
8	P	396	ARG	Sidechain
5	Q	116	HIS	Sidechain
5	Q	12	PHE	Sidechain
5	Q	126	ARG	Sidechain
5	Q	149	TYR	Sidechain
5	Q	161	TYR	Sidechain
5	Q	18	ARG	Sidechain
5	Q	185	TYR	Sidechain
5	Q	273	TYR	Sidechain
5	Q	275	TYR	Sidechain
5	Q	289	TYR	Sidechain
5	Q	30	TYR	Sidechain
5	Q	335	ARG	Sidechain
5	Q	341	TYR	Sidechain
5	Q	51	TYR	Sidechain
11	S	85	TYR	Sidechain
11	T	11	PHE	Sidechain

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Mol	Chain	Res	Type	Group
11	T	117	ARG	Sidechain
11	T	12	PHE	Sidechain
11	T	85	TYR	Sidechain
11	U	126	PHE	Sidechain
11	U	46	ARG	Sidechain
11	V	124	ARG	Sidechain
11	V	142	TYR	Sidechain
11	W	11	PHE	Sidechain
11	W	12	PHE	Sidechain
11	W	124	ARG	Sidechain
11	W	142	TYR	Sidechain
11	X	85	TYR	Sidechain
11	Z	153	ARG	Sidechain
11	Z	76	TYR	Sidechain
11	a	12	PHE	Sidechain
11	a	142	TYR	Sidechain
9	b	112	ARG	Sidechain
9	b	193	ARG	Sidechain
9	b	208	ARG	Sidechain
9	b	236	PHE	Sidechain
9	b	241	HIS	Sidechain
9	b	250	ARG	Sidechain
9	b	268	GLU	Peptide
9	b	315	ARG	Sidechain
9	b	320	PHE	Sidechain
9	b	352	ARG	Sidechain
9	b	49	ARG	Sidechain
9	b	71	TYR	Sidechain
9	b	86	GLY	Peptide
9	b	91	TYR	Sidechain

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	M	1691	0	1740	9	0
2	N	928	0	926	4	0
3	A	4578	0	4519	16	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	4578	0	4519	12	0
3	E	4578	0	4519	15	0
4	B	3585	0	3567	17	0
4	D	3585	0	3567	13	0
4	F	3585	0	3567	17	0
5	Q	2802	0	2689	11	0
6	H	824	0	877	5	0
6	J	824	0	877	7	0
6	L	824	0	877	3	0
7	G	1731	0	1797	6	0
7	I	1731	0	1797	7	0
7	K	1731	0	1797	1	0
8	P	3712	0	3829	13	0
9	b	2540	0	2537	26	0
10	O	3122	0	3155	8	0
11	R	1071	0	1141	3	0
11	S	1071	0	1141	3	0
11	T	1071	0	1141	3	0
11	U	1071	0	1141	11	0
11	V	1071	0	1141	24	0
11	W	1071	0	1141	5	0
11	X	1071	0	1141	4	0
11	Y	1071	0	1141	6	0
11	Z	1071	0	1141	9	0
11	a	1071	0	1141	10	0
All	All	57659	0	58566	238	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 2.

All (238) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:X:160:CYS:SG	11:X:160:CYS:CB	2.01	1.47
9:b:204:TRP:CZ3	9:b:249:ILE:HG22	1.76	1.21
11:V:141:LEU:HA	11:V:144:LEU:CD2	1.71	1.21
11:V:141:LEU:O	11:V:144:LEU:HG	1.48	1.13
9:b:204:TRP:HH2	9:b:249:ILE:HB	1.10	1.09
11:V:141:LEU:HA	11:V:144:LEU:HD21	1.23	1.08
11:Z:66:TYR:HB3	11:Z:144:LEU:HD22	1.33	1.05
9:b:204:TRP:HZ3	9:b:249:ILE:HG22	0.88	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:b:204:TRP:CH2	9:b:249:ILE:HB	1.95	1.01
11:V:144:LEU:HD12	11:V:145:ILE:N	1.78	0.99
9:b:200:GLU:O	9:b:204:TRP:HD1	1.45	0.98
9:b:204:TRP:HZ3	9:b:249:ILE:CG2	1.77	0.97
9:b:200:GLU:O	9:b:204:TRP:CD1	2.19	0.96
11:a:66:TYR:HB3	11:a:144:LEU:HD22	1.52	0.90
9:b:246:ILE:O	9:b:249:ILE:HG12	1.76	0.83
9:b:204:TRP:CZ3	9:b:249:ILE:CG2	2.56	0.83
9:b:204:TRP:HH2	9:b:249:ILE:CB	1.92	0.82
11:Y:66:TYR:HB3	11:Y:144:LEU:HD22	1.61	0.82
9:b:204:TRP:CH2	9:b:249:ILE:CB	2.62	0.81
11:V:141:LEU:O	11:V:144:LEU:CG	2.30	0.78
11:U:66:TYR:HB3	11:U:144:LEU:HD22	1.64	0.78
11:U:66:TYR:CB	11:U:144:LEU:HD22	2.18	0.73
11:V:141:LEU:C	11:V:144:LEU:HG	2.13	0.72
9:b:246:ILE:O	9:b:249:ILE:CG1	2.38	0.72
11:V:141:LEU:HD23	11:V:144:LEU:HD21	1.72	0.72
11:Z:66:TYR:CB	11:Z:144:LEU:HD22	2.17	0.66
11:W:66:TYR:HB3	11:W:144:LEU:HD22	1.77	0.66
11:U:66:TYR:HB3	11:U:144:LEU:CD2	2.25	0.66
4:B:86:ILE:HD13	4:B:86:ILE:H	1.61	0.66
9:b:200:GLU:C	9:b:204:TRP:HD1	2.03	0.65
11:Y:66:TYR:HB3	11:Y:144:LEU:CD2	2.26	0.65
4:B:41:LEU:HD12	4:B:77:VAL:HG21	1.77	0.65
3:E:270:SER:HA	3:E:278:ILE:HD13	1.80	0.64
9:b:357:ILE:HD13	9:b:359:ARG:HH21	1.66	0.61
11:U:31:GLY:HA2	11:U:109:GLY:HA3	1.80	0.61
11:V:141:LEU:CA	11:V:144:LEU:HD21	2.16	0.61
4:D:46:PHE:H	4:D:47:PRO:CD	2.14	0.61
4:D:46:PHE:H	4:D:47:PRO:HD3	1.66	0.60
4:D:440:GLU:HA	4:D:444:ILE:HD12	1.84	0.60
3:E:405:ASP:H	3:E:406:ARG:HH21	1.50	0.59
11:a:66:TYR:CB	11:a:144:LEU:HD22	2.29	0.59
11:Y:66:TYR:CB	11:Y:144:LEU:HD22	2.30	0.59
11:U:66:TYR:CG	11:U:144:LEU:HD22	2.36	0.59
11:V:144:LEU:HD12	11:V:145:ILE:H	1.65	0.58
11:a:66:TYR:HB3	11:a:144:LEU:CD2	2.31	0.57
4:B:29:ASN:HD21	7:I:198:GLU:HG3	1.69	0.57
5:Q:25:LEU:H	5:Q:25:LEU:HD12	1.69	0.57
6:L:21:VAL:HG12	6:L:25:ARG:HE	1.70	0.57
11:V:141:LEU:HA	11:V:144:LEU:CG	2.32	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:263:ALA:HB1	4:D:274:VAL:HG11	1.87	0.57
11:V:141:LEU:HA	11:V:144:LEU:HD23	1.79	0.56
11:Z:20:ALA:HB2	11:Z:94:GLY:HA2	1.86	0.56
11:V:141:LEU:CD2	11:V:144:LEU:HD21	2.35	0.56
1:M:136:LYS:HB3	2:N:22:LEU:HD22	1.88	0.55
10:O:237:HIS:CD2	6:H:7:ILE:HD11	2.42	0.55
3:E:193:LEU:HD13	3:E:193:LEU:H	1.71	0.55
4:B:166:ARG:HG2	4:B:273:HIS:CE1	2.42	0.55
9:b:138:LEU:HD11	9:b:277:VAL:HG22	1.89	0.54
1:M:71:VAL:HG13	1:M:131:GLN:HB3	1.88	0.54
3:E:30:VAL:HG23	3:E:81:VAL:HG22	1.90	0.54
4:F:171:PRO:HB3	4:F:333:PRO:HG2	1.90	0.54
4:B:165:ALA:HB2	4:B:386:ALA:CB	2.38	0.54
8:P:368:LEU:HD12	8:P:368:LEU:H	1.73	0.53
7:I:143:GLU:CD	7:I:143:GLU:H	2.16	0.53
3:C:158:TYR:CE1	3:C:198:LEU:HD13	2.44	0.53
3:C:258:PHE:CD2	4:D:352:TYR:CD1	2.97	0.52
4:D:115:GLY:HA3	4:D:243:ASN:HD22	1.73	0.52
6:H:80:LEU:HA	6:H:83:ILE:HD12	1.91	0.52
11:W:66:TYR:CG	11:W:144:LEU:HD22	2.44	0.52
4:F:462:TRP:HA	4:F:462:TRP:CE3	2.45	0.52
11:U:21:ILE:HD11	11:T:143:GLY:HA2	1.92	0.52
3:E:589:PRO:HA	3:E:597:HIS:CE1	2.45	0.52
1:M:43:PHE:CZ	2:N:112:VAL:HG13	2.45	0.51
4:B:165:ALA:HB2	4:B:386:ALA:HB2	1.92	0.51
9:b:204:TRP:CZ3	9:b:249:ILE:CB	2.91	0.51
11:Y:31:GLY:HA2	11:Y:109:GLY:HA3	1.93	0.51
3:E:450:HIS:CE1	3:E:523:GLU:HA	2.45	0.51
4:B:250:ILE:HD13	4:B:250:ILE:H	1.75	0.51
4:F:260:LEU:HB3	4:F:318:ARG:HH11	1.76	0.51
3:A:323:ASN:HD22	4:B:313:SER:HB3	1.77	0.50
4:F:439:PHE:CZ	4:F:443:PHE:CD2	2.99	0.50
11:X:113:ASP:O	11:X:116:VAL:HG22	2.12	0.50
11:Z:73:LEU:HD22	11:Z:148:LEU:HD23	1.94	0.50
4:F:198:LYS:HG3	4:F:203:GLY:HA3	1.93	0.50
9:b:215:THR:HG21	6:J:3:GLN:HG3	1.92	0.50
6:L:91:LYS:O	6:L:95:VAL:HG23	2.11	0.50
5:Q:206:GLU:HB3	5:Q:302:GLN:HE22	1.77	0.49
11:Z:66:TYR:HB3	11:Z:144:LEU:CD2	2.24	0.49
5:Q:125:GLN:H	5:Q:125:GLN:CD	2.20	0.49
9:b:184:VAL:HG11	6:J:11:LEU:HD23	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:R:132:ILE:HG23	11:S:57:VAL:HG11	1.95	0.49
3:A:174:LEU:HD12	3:A:175:PRO:HD2	1.95	0.49
11:Y:66:TYR:CG	11:Y:144:LEU:HD22	2.48	0.49
4:D:153:THR:HG23	4:D:164:ILE:HD12	1.95	0.48
3:C:137:ILE:HD12	3:C:139:TRP:HE1	1.78	0.48
11:V:68:LEU:O	11:V:72:VAL:HG23	2.13	0.48
5:Q:286:ASP:OD1	5:Q:342:ILE:HG23	2.13	0.48
11:U:125:LEU:CD1	11:V:43:CYS:HB3	2.43	0.48
9:b:249:ILE:HG13	9:b:250:ARG:N	2.29	0.48
9:b:204:TRP:CH2	9:b:249:ILE:CA	2.96	0.48
10:O:184:PHE:HB3	10:O:262:TYR:CD1	2.48	0.48
8:P:411:VAL:HG11	8:P:456:HIS:CE1	2.48	0.48
11:X:70:VAL:HG21	11:X:97:VAL:HG11	1.94	0.47
3:E:589:PRO:HA	3:E:597:HIS:HE1	1.79	0.47
5:Q:101:GLY:HA3	5:Q:188:TYR:CE1	2.49	0.47
11:U:118:GLY:HA2	11:V:44:VAL:CG1	2.44	0.47
3:E:391:PHE:CZ	3:E:412:ILE:HD11	2.50	0.47
4:F:124:PRO:HA	7:G:89:LEU:HD13	1.96	0.47
4:F:175:ALA:H	4:F:178:LEU:HD12	1.78	0.47
5:Q:196:VAL:HG22	5:Q:205:LYS:HZ2	1.80	0.47
6:L:99:ILE:HD11	7:K:106:LYS:HB2	1.97	0.47
8:P:438:ILE:HA	8:P:441:LEU:HD12	1.97	0.47
9:b:246:ILE:C	9:b:249:ILE:HG12	2.40	0.47
7:I:139:VAL:HG11	7:I:149:ILE:HD13	1.97	0.47
11:V:141:LEU:O	11:V:144:LEU:CD1	2.62	0.47
11:X:74:VAL:HG13	11:X:90:GLN:HE21	1.78	0.47
8:P:180:MET:HE1	8:P:232:ALA:HA	1.96	0.47
1:M:150:ALA:HB1	2:N:66:ILE:HD13	1.97	0.46
3:C:226:LYS:HD3	3:C:398:ALA:HB2	1.97	0.46
4:D:41:LEU:HD12	4:D:77:VAL:HG21	1.96	0.46
4:D:173:PHE:HA	4:D:337:MET:HE1	1.97	0.46
3:A:251:THR:HA	3:A:412:ILE:HG23	1.98	0.46
8:P:147:VAL:HG22	8:P:193:LEU:HD11	1.97	0.46
11:V:144:LEU:CD1	11:V:145:ILE:N	2.64	0.46
4:B:236:GLU:HG2	7:I:81:ALA:HB1	1.96	0.46
3:A:290:MET:HE2	3:A:290:MET:HA	1.97	0.46
5:Q:17:VAL:HG13	5:Q:312:TRP:CD2	2.51	0.46
4:D:316:TYR:HA	4:D:331:GLN:HE22	1.80	0.46
9:b:92:LEU:HD23	9:b:351:ALA:HB2	1.97	0.46
3:A:223:VAL:HG21	3:A:398:ALA:HB1	1.97	0.46
11:V:144:LEU:HD12	11:V:144:LEU:C	2.37	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Z:20:ALA:HB2	11:Z:94:GLY:CA	2.45	0.46
3:A:406:ARG:HE	3:A:406:ARG:N	2.15	0.45
11:a:46:ARG:HD3	11:a:49:LEU:HD11	1.98	0.45
3:A:170:HIS:CD2	3:A:172:ILE:HD13	2.51	0.45
3:E:44:ALA:H	3:E:47:GLU:HB2	1.82	0.45
3:C:109:GLN:HE22	3:C:339:LEU:HD11	1.81	0.45
11:W:66:TYR:CB	11:W:144:LEU:HD22	2.43	0.45
3:A:603:LEU:HD13	3:A:607:MET:HG3	1.97	0.45
9:b:204:TRP:CH2	9:b:249:ILE:HA	2.52	0.45
3:C:231:TYR:O	3:C:247:VAL:HG23	2.17	0.45
11:Z:24:THR:HG23	11:Z:101:GLY:HA3	1.99	0.45
3:E:96:LEU:HB2	3:E:213:HIS:CE1	2.52	0.45
3:A:232:PRO:O	3:A:233:LEU:HD23	2.17	0.45
3:E:514:THR:HA	3:E:554:HIS:HE1	1.82	0.45
4:F:344:HIS:HA	4:F:345:PRO:HD3	1.87	0.45
4:B:143:ALA:HB1	4:B:325:ARG:HH21	1.81	0.45
3:E:93:SER:HA	3:E:216:PRO:HA	1.98	0.45
5:Q:195:PHE:O	5:Q:199:GLU:HG3	2.17	0.45
11:a:39:ILE:HG12	11:a:53:ASN:HB3	1.99	0.45
3:C:147:GLN:O	3:C:182:ILE:HD11	2.16	0.44
11:Z:117:ARG:H	11:Z:117:ARG:HD2	1.82	0.44
4:F:38:LEU:HG	4:F:78:GLN:HE22	1.80	0.44
11:V:144:LEU:HD12	11:V:145:ILE:CA	2.46	0.44
4:B:474:ASN:C	4:B:476:ILE:H	2.24	0.44
8:P:395:PHE:CE2	8:P:437:SER:HB2	2.53	0.44
6:J:10:LEU:HD12	6:J:10:LEU:HA	1.82	0.44
3:C:101:MET:HE2	3:C:343:PHE:CZ	2.53	0.44
11:Z:138:VAL:HG21	11:a:65:ILE:HD11	1.98	0.44
11:a:66:TYR:CG	11:a:144:LEU:HD22	2.52	0.44
3:C:192:THR:HG22	3:C:193:LEU:H	1.83	0.44
4:F:125:LYS:H	7:G:89:LEU:HD13	1.82	0.44
8:P:466:LEU:HD13	8:P:466:LEU:C	2.43	0.44
10:O:218:VAL:HG13	6:H:10:LEU:HD12	1.98	0.44
11:U:131:LEU:HG	11:U:135:PHE:CZ	2.53	0.44
1:M:124:GLY:HA2	5:Q:226:ASN:HD22	1.82	0.44
11:Y:111:VAL:HG11	11:Y:132:ILE:HG22	2.00	0.44
9:b:324:ASN:HD21	9:b:336:ILE:HD11	1.82	0.43
11:V:141:LEU:HD23	11:V:144:LEU:CD2	2.46	0.43
1:M:150:ALA:CB	2:N:66:ILE:HD13	2.48	0.43
11:T:70:VAL:O	11:T:74:VAL:HG23	2.17	0.43
8:P:368:LEU:HD12	8:P:368:LEU:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:497:GLN:HA	3:E:500:GLN:HE21	1.84	0.43
4:F:160:THR:HA	4:F:396:HIS:CE1	2.53	0.43
5:Q:168:THR:HG22	5:Q:173:ASP:HB2	2.01	0.43
7:G:10:PRO:HA	7:G:13:VAL:HG22	1.99	0.43
3:A:240:LEU:HD23	3:A:439:TRP:CZ3	2.54	0.43
3:A:440:GLY:O	3:A:441:LEU:HD23	2.18	0.43
11:V:128:GLY:HA3	11:W:50:LEU:HD21	2.01	0.43
5:Q:18:ARG:HD2	11:a:41:ALA:HB2	1.99	0.43
8:P:196:ILE:HG21	8:P:196:ILE:HD13	1.84	0.43
8:P:161:VAL:HG21	8:P:193:LEU:HD13	2.01	0.43
1:M:145:THR:HG22	1:M:149:LEU:HD12	1.99	0.42
4:F:341:ASP:HB3	4:F:343:THR:H	1.84	0.42
6:J:99:ILE:HD13	6:J:99:ILE:HA	1.88	0.42
4:F:296:GLU:CD	4:F:296:GLU:H	2.26	0.42
10:O:262:TYR:CD1	10:O:267:ILE:HD11	2.53	0.42
3:C:244:PHE:HB3	3:C:461:SER:HB2	2.01	0.42
4:F:30:THR:HG22	4:F:92:THR:HG22	2.01	0.42
4:B:476:ILE:HG21	4:B:481:LEU:HD13	2.01	0.42
11:S:66:TYR:HB3	11:S:144:LEU:HD22	2.01	0.42
3:A:532:SER:C	3:A:534:TYR:H	2.27	0.42
4:B:67:VAL:HG12	4:B:77:VAL:HG22	2.01	0.42
6:J:17:ALA:HB2	7:I:24:ILE:HG22	2.01	0.42
6:J:87:ALA:O	6:J:91:LYS:HB2	2.19	0.42
11:U:39:ILE:HG23	11:U:53:ASN:HB3	2.00	0.42
3:A:256:GLY:HA3	3:A:262:LYS:HD3	2.02	0.42
1:M:68:LEU:HD13	1:M:68:LEU:C	2.45	0.42
4:B:139:ILE:HG13	4:B:141:PRO:HD3	2.02	0.42
3:A:552:SER:HB2	3:A:607:MET:HE1	2.01	0.42
4:B:68:LEU:N	4:B:68:LEU:HD22	2.33	0.42
4:F:166:ARG:CZ	4:F:273:HIS:NE2	2.83	0.41
11:R:36:GLY:HA2	11:a:132:ILE:HG21	2.01	0.41
4:F:41:LEU:CD1	4:F:77:VAL:HG21	2.51	0.41
6:H:9:THR:HB	7:G:17:LEU:HD11	2.02	0.41
4:F:138:PRO:HD3	4:F:318:ARG:HH21	1.84	0.41
11:W:66:TYR:HB3	11:W:144:LEU:CD2	2.47	0.41
1:M:83:VAL:HG22	1:M:122:LEU:HD13	2.02	0.41
3:E:481:LEU:HD21	3:E:548:ARG:HE	1.86	0.41
4:D:64:GLN:HG3	4:D:80:PHE:CD2	2.55	0.41
8:P:80:LEU:HD22	8:P:96:VAL:HG13	2.02	0.41
10:O:184:PHE:HB3	10:O:262:TYR:CG	2.56	0.41
11:V:141:LEU:CA	11:V:144:LEU:HG	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:a:62:ILE:O	11:a:66:TYR:CD2	2.73	0.41
3:A:589:PRO:HA	3:A:597:HIS:CG	2.55	0.41
4:D:51:GLU:HA	4:D:99:SER:HA	2.03	0.41
11:S:70:VAL:HG13	11:S:151:ASN:HD21	1.85	0.41
4:B:211:VAL:CG1	4:B:259:ALA:HB1	2.51	0.41
8:P:161:VAL:CG2	8:P:193:LEU:HD13	2.50	0.41
9:b:269:GLY:H	9:b:276:LYS:HG2	1.86	0.41
10:O:107:VAL:HB	10:O:108:PRO:HD3	2.02	0.41
10:O:216:ASN:H	7:G:19:LYS:HE2	1.85	0.41
6:H:10:LEU:HD21	7:G:20:MET:HB3	2.03	0.41
6:J:27:TYR:O	6:J:31:LYS:HG2	2.20	0.41
3:C:355:ASP:HA	3:C:356:SER:HA	1.91	0.41
11:R:15:ILE:HB	11:R:91:LEU:HD13	2.02	0.41
10:O:68:LEU:HD21	10:O:309:LEU:HD23	2.03	0.41
7:I:142:LEU:HD11	7:I:186:GLY:HA2	2.03	0.41
11:T:74:VAL:HG13	11:T:90:GLN:HG2	2.03	0.40
3:E:98:PRO:HA	3:E:170:HIS:CD2	2.57	0.40
9:b:129:ASP:O	9:b:133:VAL:HG23	2.21	0.40
3:A:30:VAL:HG13	3:A:35:VAL:HG22	2.04	0.40
11:U:118:GLY:HA2	11:V:44:VAL:HG11	2.03	0.40
11:V:141:LEU:CA	11:V:144:LEU:CD2	2.67	0.40
4:B:245:ALA:HB1	3:C:389:ALA:HB1	2.02	0.40
8:P:104:LEU:HD23	8:P:114:VAL:HG22	2.04	0.40
7:I:121:LEU:HA	7:I:124:LEU:HD12	2.04	0.40
4:D:398:ASP:HB3	4:D:476:ILE:HD12	2.02	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	M	208/256 (81%)	206 (99%)	2 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	N	113/118 (96%)	102 (90%)	10 (9%)	1 (1%)	14	51
3	A	591/616 (96%)	541 (92%)	31 (5%)	19 (3%)	3	21
3	C	591/616 (96%)	538 (91%)	37 (6%)	16 (3%)	4	25
3	E	591/616 (96%)	542 (92%)	32 (5%)	17 (3%)	3	23
4	B	455/517 (88%)	413 (91%)	27 (6%)	15 (3%)	3	21
4	D	455/517 (88%)	416 (91%)	25 (6%)	14 (3%)	3	22
4	F	455/517 (88%)	411 (90%)	30 (7%)	14 (3%)	3	22
5	Q	343/345 (99%)	318 (93%)	18 (5%)	7 (2%)	6	31
6	H	103/114 (90%)	99 (96%)	3 (3%)	1 (1%)	12	48
6	J	103/114 (90%)	100 (97%)	3 (3%)	0	100	100
6	L	103/114 (90%)	98 (95%)	4 (4%)	1 (1%)	12	48
7	G	215/233 (92%)	207 (96%)	7 (3%)	1 (0%)	24	63
7	I	215/233 (92%)	208 (97%)	6 (3%)	1 (0%)	24	63
7	K	215/233 (92%)	205 (95%)	9 (4%)	1 (0%)	24	63
8	P	457/478 (96%)	431 (94%)	18 (4%)	8 (2%)	6	34
9	b	306/840 (36%)	274 (90%)	25 (8%)	7 (2%)	5	28
10	O	390/392 (100%)	350 (90%)	21 (5%)	19 (5%)	1	16
11	R	148/160 (92%)	138 (93%)	6 (4%)	4 (3%)	4	25
11	S	148/160 (92%)	140 (95%)	6 (4%)	2 (1%)	9	40
11	T	148/160 (92%)	143 (97%)	5 (3%)	0	100	100
11	U	148/160 (92%)	140 (95%)	5 (3%)	3 (2%)	6	31
11	V	148/160 (92%)	139 (94%)	5 (3%)	4 (3%)	4	25
11	W	148/160 (92%)	137 (93%)	8 (5%)	3 (2%)	6	31
11	X	148/160 (92%)	138 (93%)	8 (5%)	2 (1%)	9	40
11	Y	148/160 (92%)	139 (94%)	8 (5%)	1 (1%)	18	56
11	Z	148/160 (92%)	136 (92%)	9 (6%)	3 (2%)	6	31
11	a	148/160 (92%)	138 (93%)	7 (5%)	3 (2%)	6	31
All	All	7389/8469 (87%)	6847 (93%)	375 (5%)	167 (2%)	7	28

All (167) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	A	257	ALA

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Mol	Chain	Res	Type
3	A	475	TYR
4	B	292	SER
3	C	475	TYR
3	C	529	ASN
3	C	565	ALA
4	D	46	PHE
4	D	467	ILE
3	E	257	ALA
3	E	308	LYS
3	E	475	TYR
4	F	143	ALA
4	F	377	PRO
8	P	53	LYS
8	P	390	ASP
9	b	49	ARG
9	b	178	ALA
10	O	116	TRP
10	O	254	LYS
11	U	156	GLN
11	X	47	PRO
2	N	4	LYS
3	A	529	ASN
3	A	575	GLY
4	B	83	THR
4	B	141	PRO
4	B	391	MET
3	C	259	GLY
3	C	378	GLN
3	C	528	GLN
3	C	535	ASP
3	C	575	GLY
4	D	59	ASP
4	D	127	PHE
3	E	230	ASP
3	E	575	GLY
3	E	590	SER
4	F	141	PRO
4	F	179	PRO
4	F	391	MET
5	Q	131	GLY
8	P	54	LYS
8	P	332	ASP

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Mol	Chain	Res	Type
8	P	412	ASN
8	P	458	ASP
9	b	24	GLU
10	O	39	ILE
10	O	172	VAL
6	H	77	GLN
7	G	144	ARG
11	Y	155	THR
11	R	157	ASP
11	V	123	PRO
11	V	156	GLN
11	V	158	VAL
11	S	158	VAL
11	Z	159	VAL
11	a	158	VAL
11	a	159	VAL
3	A	42	GLY
3	A	207	SER
3	A	245	PRO
3	A	308	LYS
3	A	405	ASP
3	A	449	LYS
3	A	595	GLU
4	B	44	VAL
4	B	293	ALA
4	B	305	PRO
4	B	319	ALA
4	B	372	PRO
4	B	377	PRO
3	C	508	SER
4	D	48	ARG
4	D	122	ASN
4	D	141	PRO
4	D	319	ALA
3	E	44	ALA
3	E	78	GLY
3	E	589	PRO
3	E	594	LYS
3	E	595	GLU
4	F	128	ALA
4	F	167	GLY
4	F	202	ASP

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Mol	Chain	Res	Type
4	F	424	ALA
5	Q	176	ASN
5	Q	230	SER
5	Q	261	ASP
6	L	63	GLY
8	P	410	ASP
9	b	46	SER
9	b	177	ALA
9	b	265	SER
10	O	7	THR
10	O	96	ALA
10	O	167	THR
10	O	171	SER
10	O	176	HIS
10	O	186	LEU
10	O	335	LYS
11	U	47	PRO
11	V	159	VAL
11	W	47	PRO
11	W	158	VAL
11	Z	46	ARG
11	Z	158	VAL
3	A	203	ASP
3	C	78	GLY
3	C	257	ALA
3	C	260	CYS
3	C	590	SER
4	D	202	ASP
4	D	340	ASP
4	D	390	GLY
4	D	474	ASN
3	E	45	MET
3	E	207	SER
3	E	310	PRO
4	F	148	GLU
4	F	326	ASN
5	Q	231	SER
10	O	95	ASN
11	R	156	GLN
11	S	159	VAL
11	X	159	VAL
3	A	75	GLU

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Mol	Chain	Res	Type
3	A	177	ARG
3	A	305	SER
3	A	381	PRO
4	B	138	PRO
4	B	149	GLU
4	B	202	ASP
4	B	271	GLU
3	C	177	ARG
3	C	230	ASP
3	E	55	ASN
4	F	292	SER
8	P	135	ASP
10	O	106	PRO
10	O	355	ALA
11	R	80	GLN
11	U	159	VAL
4	D	391	MET
5	Q	117	ASP
10	O	120	LYS
10	O	189	GLU
11	W	159	VAL
11	a	156	GLN
10	O	101	PRO
3	A	310	PRO
3	A	375	PRO
4	D	58	PRO
4	F	72	GLY
7	K	168	PRO
11	R	158	VAL
3	A	284	GLY
4	B	139	ILE
3	C	420	GLY
3	E	143	PRO
3	E	564	GLY
5	Q	272	VAL
9	b	48	VAL
10	O	362	GLY
7	I	168	PRO
4	F	138	PRO
10	O	168	GLY

5.3.2 Protein sidechains ⓘ

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	M	183/221 (83%)	180 (98%)	3 (2%)	55	70
2	N	102/104 (98%)	100 (98%)	2 (2%)	48	66
3	A	497/515 (96%)	475 (96%)	22 (4%)	25	47
3	C	497/515 (96%)	471 (95%)	26 (5%)	21	42
3	E	497/515 (96%)	476 (96%)	21 (4%)	26	48
4	B	391/444 (88%)	374 (96%)	17 (4%)	26	47
4	D	391/444 (88%)	382 (98%)	9 (2%)	44	64
4	F	391/444 (88%)	370 (95%)	21 (5%)	20	41
5	Q	309/309 (100%)	296 (96%)	13 (4%)	26	48
6	H	87/94 (93%)	84 (97%)	3 (3%)	32	54
6	J	87/94 (93%)	85 (98%)	2 (2%)	44	64
6	L	87/94 (93%)	84 (97%)	3 (3%)	32	54
7	G	194/208 (93%)	191 (98%)	3 (2%)	57	72
7	I	194/208 (93%)	190 (98%)	4 (2%)	47	65
7	K	194/208 (93%)	189 (97%)	5 (3%)	40	62
8	P	426/439 (97%)	416 (98%)	10 (2%)	44	64
9	b	275/728 (38%)	262 (95%)	13 (5%)	23	45
10	O	348/348 (100%)	341 (98%)	7 (2%)	48	66
11	R	110/119 (92%)	103 (94%)	7 (6%)	16	37
11	S	110/119 (92%)	103 (94%)	7 (6%)	16	37
11	T	110/119 (92%)	106 (96%)	4 (4%)	31	52
11	U	110/119 (92%)	105 (96%)	5 (4%)	24	46
11	V	110/119 (92%)	108 (98%)	2 (2%)	51	68
11	W	110/119 (92%)	107 (97%)	3 (3%)	39	61
11	X	110/119 (92%)	107 (97%)	3 (3%)	39	61
11	Y	110/119 (92%)	102 (93%)	8 (7%)	13	34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
11	Z	110/119 (92%)	108 (98%)	2 (2%)	51 68
11	a	110/119 (92%)	105 (96%)	5 (4%)	24 46
All	All	6250/7122 (88%)	6020 (96%)	230 (4%)	31 51

All (230) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	M	113	ILE
1	M	132	VAL
1	M	139	TYR
2	N	22	LEU
2	N	91	ILE
3	A	51	VAL
3	A	60	VAL
3	A	83	ASP
3	A	103	THR
3	A	175	PRO
3	A	185	ILE
3	A	196	LYS
3	A	197	ILE
3	A	286	ARG
3	A	290	MET
3	A	315	THR
3	A	352	MET
3	A	353	ILE
3	A	364	LEU
3	A	406	ARG
3	A	426	PRO
3	A	458	VAL
3	A	466	VAL
3	A	478	PHE
3	A	498	VAL
3	A	578	LYS
3	A	603	LEU
4	B	47	PRO
4	B	86	ILE
4	B	91	THR
4	B	164	ILE
4	B	174	SER
4	B	194	VAL
4	B	195	ARG

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Mol	Chain	Res	Type
4	B	198	LYS
4	B	219	LEU
4	B	242	LEU
4	B	250	ILE
4	B	341	ASP
4	B	345	PRO
4	B	357	GLN
4	B	391	MET
4	B	426	SER
4	B	479	LYS
3	C	41	ILE
3	C	60	VAL
3	C	81	VAL
3	C	96	LEU
3	C	103	THR
3	C	108	ILE
3	C	124	ILE
3	C	192	THR
3	C	193	LEU
3	C	197	ILE
3	C	233	LEU
3	C	262	LYS
3	C	279	ILE
3	C	286	ARG
3	C	290	MET
3	C	301	TYR
3	C	302	THR
3	C	333	ILE
3	C	353	ILE
3	C	404	PRO
3	C	406	ARG
3	C	418	PRO
3	C	422	ASP
3	C	435	THR
3	C	559	LYS
3	C	603	LEU
4	D	34	VAL
4	D	86	ILE
4	D	102	ILE
4	D	131	TYR
4	D	206	GLU
4	D	250	ILE

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Mol	Chain	Res	Type
4	D	337	MET
4	D	353	ILE
4	D	355	GLU
3	E	41	ILE
3	E	185	ILE
3	E	192	THR
3	E	193	LEU
3	E	197	ILE
3	E	214	THR
3	E	243	LEU
3	E	258	PHE
3	E	278	ILE
3	E	286	ARG
3	E	374	MET
3	E	406	ARG
3	E	434	ILE
3	E	435	THR
3	E	454	ILE
3	E	466	VAL
3	E	476	PRO
3	E	477	GLU
3	E	527	GLN
3	E	588	GLU
3	E	603	LEU
4	F	34	VAL
4	F	39	VAL
4	F	43	LYS
4	F	47	PRO
4	F	66	GLN
4	F	68	LEU
4	F	91	THR
4	F	134	ILE
4	F	164	ILE
4	F	169	LYS
4	F	206	GLU
4	F	215	MET
4	F	231	GLU
4	F	240	LEU
4	F	261	THR
4	F	310	THR
4	F	391	MET
4	F	394	LYS

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Mol	Chain	Res	Type
4	F	417	LYS
4	F	425	LEU
4	F	462	TRP
5	Q	2	GLU
5	Q	58	VAL
5	Q	59	SER
5	Q	102	TYR
5	Q	107	VAL
5	Q	125	GLN
5	Q	161	TYR
5	Q	179	ILE
5	Q	186	LYS
5	Q	222	ASN
5	Q	262	PHE
5	Q	286	ASP
5	Q	316	LYS
6	L	9	THR
6	L	14	GLU
6	L	104	LYS
7	K	13	VAL
7	K	146	VAL
7	K	147	ASP
7	K	175	SER
7	K	215	LEU
8	P	36	LEU
8	P	170	LEU
8	P	177	ILE
8	P	207	GLU
8	P	236	ASN
8	P	282	ILE
8	P	285	LYS
8	P	313	LEU
8	P	368	LEU
8	P	469	THR
9	b	20	TYR
9	b	21	ILE
9	b	59	ILE
9	b	85	GLU
9	b	102	PRO
9	b	184	VAL
9	b	187	VAL
9	b	216	VAL

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Mol	Chain	Res	Type
9	b	250	ARG
9	b	277	VAL
9	b	291	THR
9	b	306	LEU
9	b	341	ILE
10	O	111	LEU
10	O	124	ASP
10	O	171	SER
10	O	175	LEU
10	O	212	THR
10	O	224	VAL
10	O	238	LEU
6	H	50	LYS
6	H	76	VAL
6	H	85	LYS
7	G	20	MET
7	G	71	LEU
7	G	146	VAL
6	J	68	LEU
6	J	99	ILE
7	I	86	LEU
7	I	104	LYS
7	I	126	VAL
7	I	201	ASN
11	Y	15	ILE
11	Y	58	ILE
11	Y	110	ILE
11	Y	139	LEU
11	Y	146	VAL
11	Y	150	LEU
11	Y	151	ASN
11	Y	159	VAL
11	R	21	ILE
11	R	56	PRO
11	R	58	ILE
11	R	116	VAL
11	R	125	LEU
11	R	134	ILE
11	R	159	VAL
11	U	57	VAL
11	U	63	ILE
11	U	121	GLN

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Mol	Chain	Res	Type
11	U	132	ILE
11	U	152	SER
11	V	11	PHE
11	V	63	ILE
11	T	11	PHE
11	T	21	ILE
11	T	54	ILE
11	T	138	VAL
11	W	34	LYS
11	W	44	VAL
11	W	57	VAL
11	S	15	ILE
11	S	44	VAL
11	S	63	ILE
11	S	86	THR
11	S	120	SER
11	S	124	ARG
11	S	132	ILE
11	X	81	LYS
11	X	86	THR
11	X	132	ILE
11	Z	56	PRO
11	Z	116	VAL
11	a	21	ILE
11	a	56	PRO
11	a	59	MET
11	a	78	LEU
11	a	116	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (140) such sidechains are listed below:

Mol	Chain	Res	Type
1	M	98	GLN
1	M	175	HIS
1	M	212	ASN
2	N	72	HIS
2	N	86	ASN
3	A	109	GLN
3	A	170	HIS
3	A	213	HIS
3	A	248	GLN
3	A	320	ASN

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Mol	Chain	Res	Type
3	A	323	ASN
3	A	378	GLN
3	A	529	ASN
3	A	554	HIS
3	A	597	HIS
4	B	50	ASN
4	B	64	GLN
4	B	140	ASN
4	B	232	ASN
4	B	246	ASN
4	B	273	HIS
4	B	344	HIS
4	B	357	GLN
4	B	366	ASN
4	B	396	HIS
4	B	474	ASN
3	C	109	GLN
3	C	140	GLN
3	C	151	HIS
3	C	170	HIS
3	C	213	HIS
3	C	447	GLN
3	C	450	HIS
3	C	468	ASN
3	C	497	GLN
3	C	597	HIS
4	D	29	ASN
4	D	64	GLN
4	D	66	GLN
4	D	201	HIS
4	D	227	GLN
4	D	243	ASN
4	D	273	HIS
4	D	326	ASN
4	D	331	GLN
4	D	363	GLN
4	D	401	ASN
3	E	55	ASN
3	E	109	GLN
3	E	151	HIS
3	E	170	HIS
3	E	213	HIS

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Mol	Chain	Res	Type
3	E	500	GLN
3	E	554	HIS
4	F	35	ASN
4	F	78	GLN
4	F	162	ASN
4	F	190	GLN
4	F	269	GLN
4	F	339	ASN
4	F	363	GLN
4	F	365	HIS
5	Q	10	ASN
5	Q	22	ASN
5	Q	27	ASN
5	Q	53	ASN
5	Q	69	GLN
5	Q	106	ASN
5	Q	116	HIS
5	Q	125	GLN
5	Q	176	ASN
5	Q	222	ASN
5	Q	226	ASN
5	Q	244	ASN
5	Q	255	HIS
5	Q	283	ASN
5	Q	302	GLN
5	Q	303	GLN
6	L	3	GLN
6	L	5	ASN
6	L	12	GLN
7	K	12	GLN
7	K	21	GLN
7	K	56	ASN
7	K	57	ASN
7	K	74	GLN
7	K	176	ASN
8	P	152	GLN
8	P	156	HIS
8	P	179	GLN
8	P	191	GLN
8	P	337	GLN
8	P	341	ASN
8	P	377	ASN

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Mol	Chain	Res	Type
8	P	403	GLN
8	P	412	ASN
8	P	425	ASN
8	P	429	HIS
8	P	455	ASN
8	P	456	HIS
9	b	18	GLN
9	b	68	GLN
9	b	241	HIS
9	b	278	ASN
9	b	324	ASN
10	O	74	GLN
10	O	87	GLN
10	O	103	ASN
10	O	113	ASN
10	O	153	ASN
10	O	237	HIS
10	O	242	ASN
10	O	282	GLN
10	O	302	ASN
10	O	354	ASN
10	O	373	GLN
6	H	3	GLN
6	H	59	GLN
7	G	41	GLN
7	G	94	GLN
7	G	112	ASN
6	J	18	HIS
7	I	49	ASN
7	I	57	ASN
7	I	61	ASN
7	I	94	GLN
7	I	176	ASN
7	I	200	ASN
11	Y	151	ASN
11	R	82	GLN
11	U	151	ASN
11	U	156	GLN
11	V	122	GLN
11	V	151	ASN
11	W	122	GLN
11	S	82	GLN

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Mol	Chain	Res	Type
11	S	151	ASN
11	Z	151	ASN
11	a	82	GLN
11	a	151	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

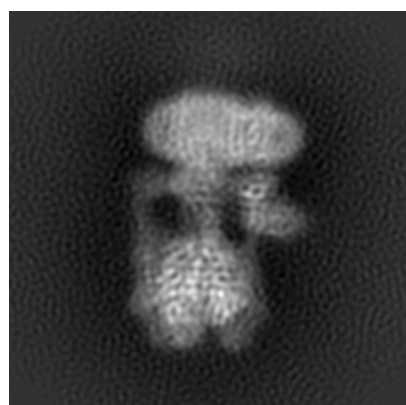
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-6284. These allow visual inspection of the internal detail of the map and identification of artifacts.

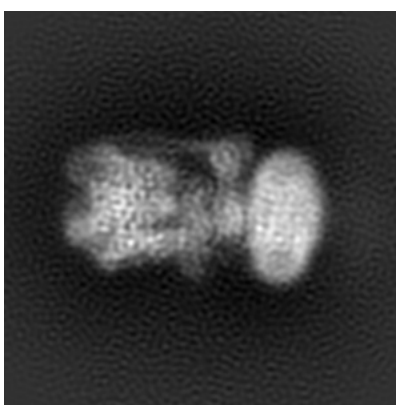
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

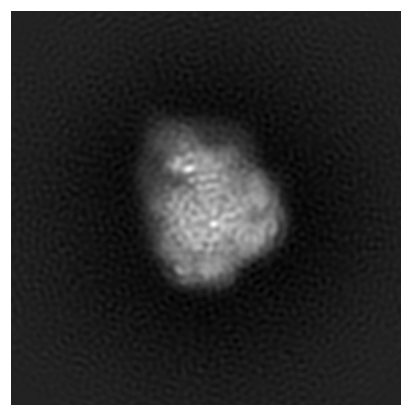
6.1.1 Primary map



X



Y

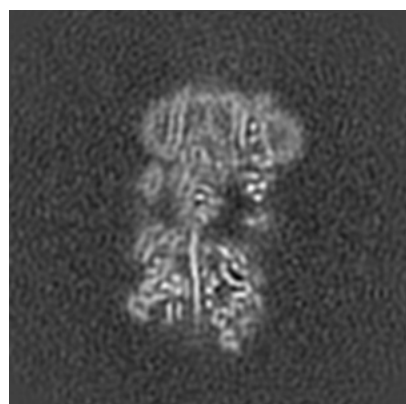


Z

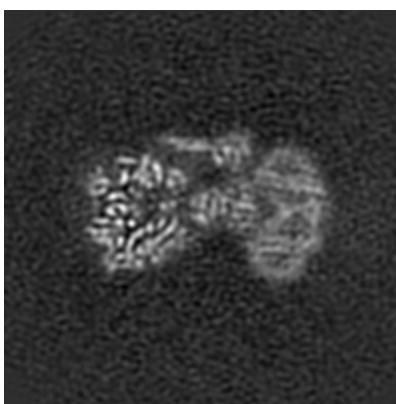
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

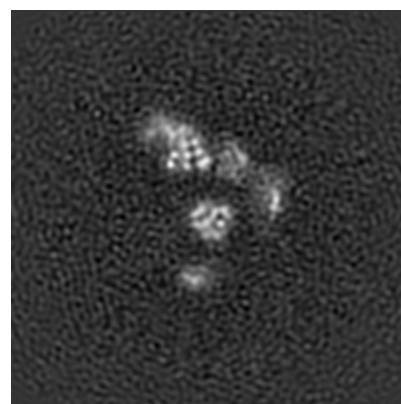
6.2.1 Primary map



X Index: 128



Y Index: 128

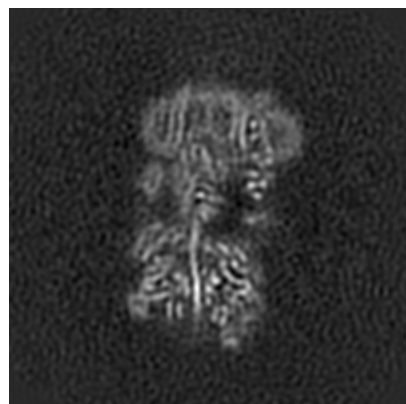


Z Index: 128

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

6.3 Largest variance slices [i](#)

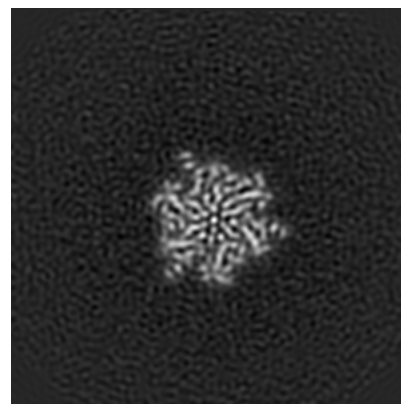
6.3.1 Primary map



X Index: 129



Y Index: 115

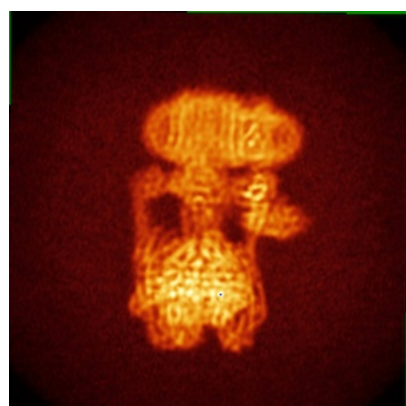


Z Index: 75

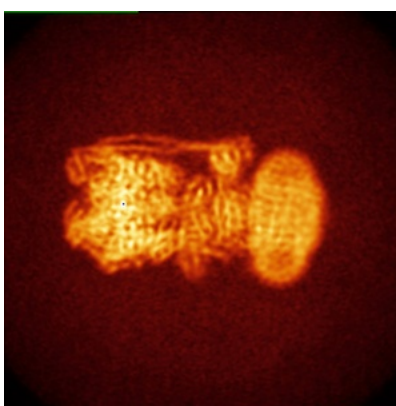
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

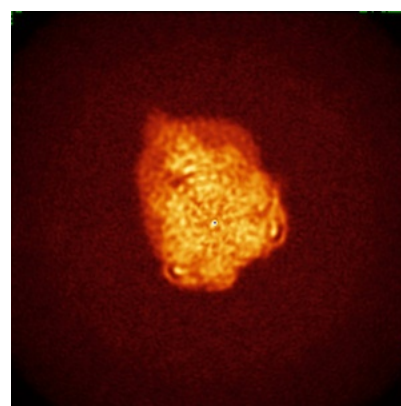
6.4.1 Primary map



X



Y



Z

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

6.5 Orthogonal surface views

This section was not generated.

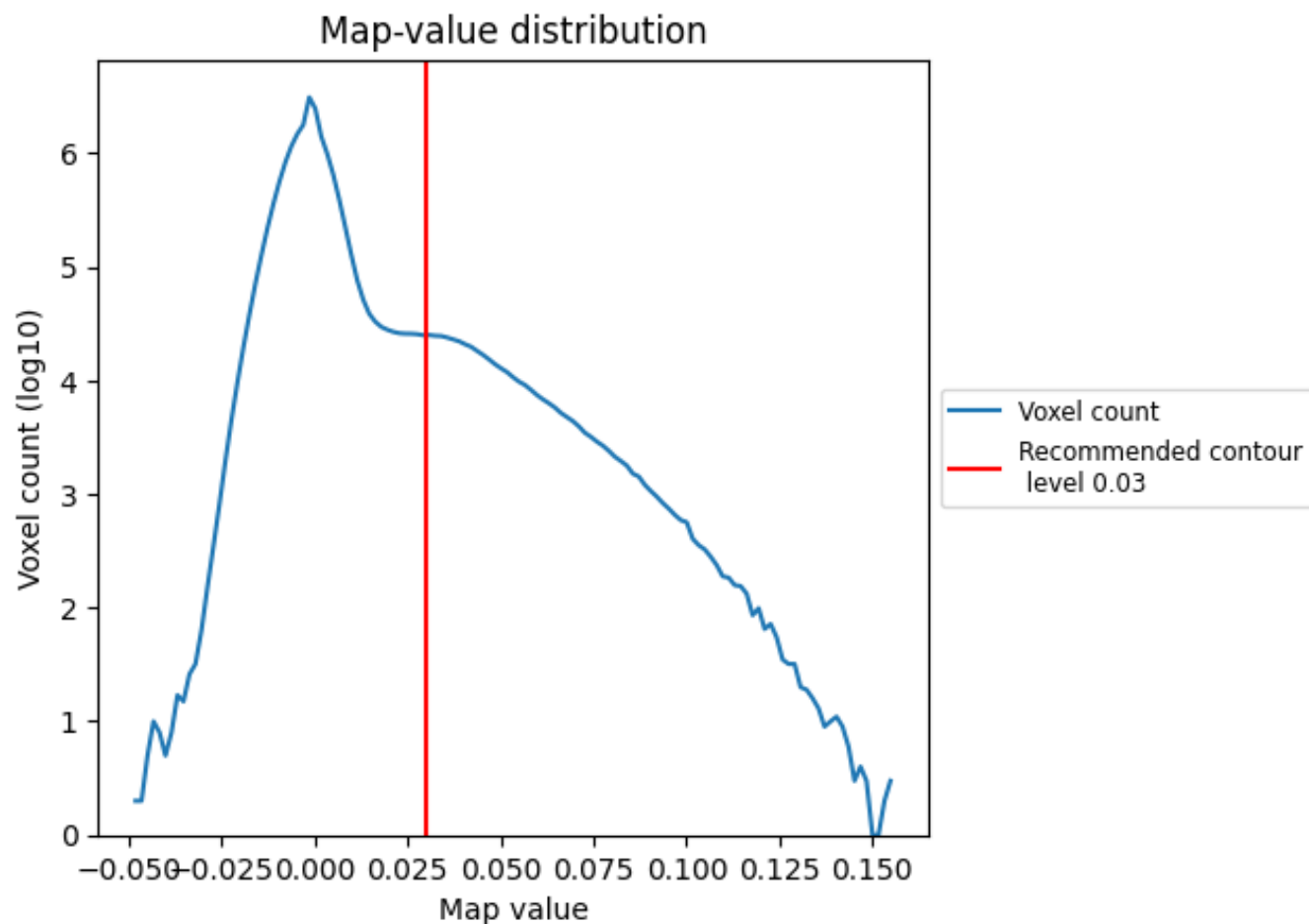
6.6 Mask visualisation

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

7 Map analysis [i](#)

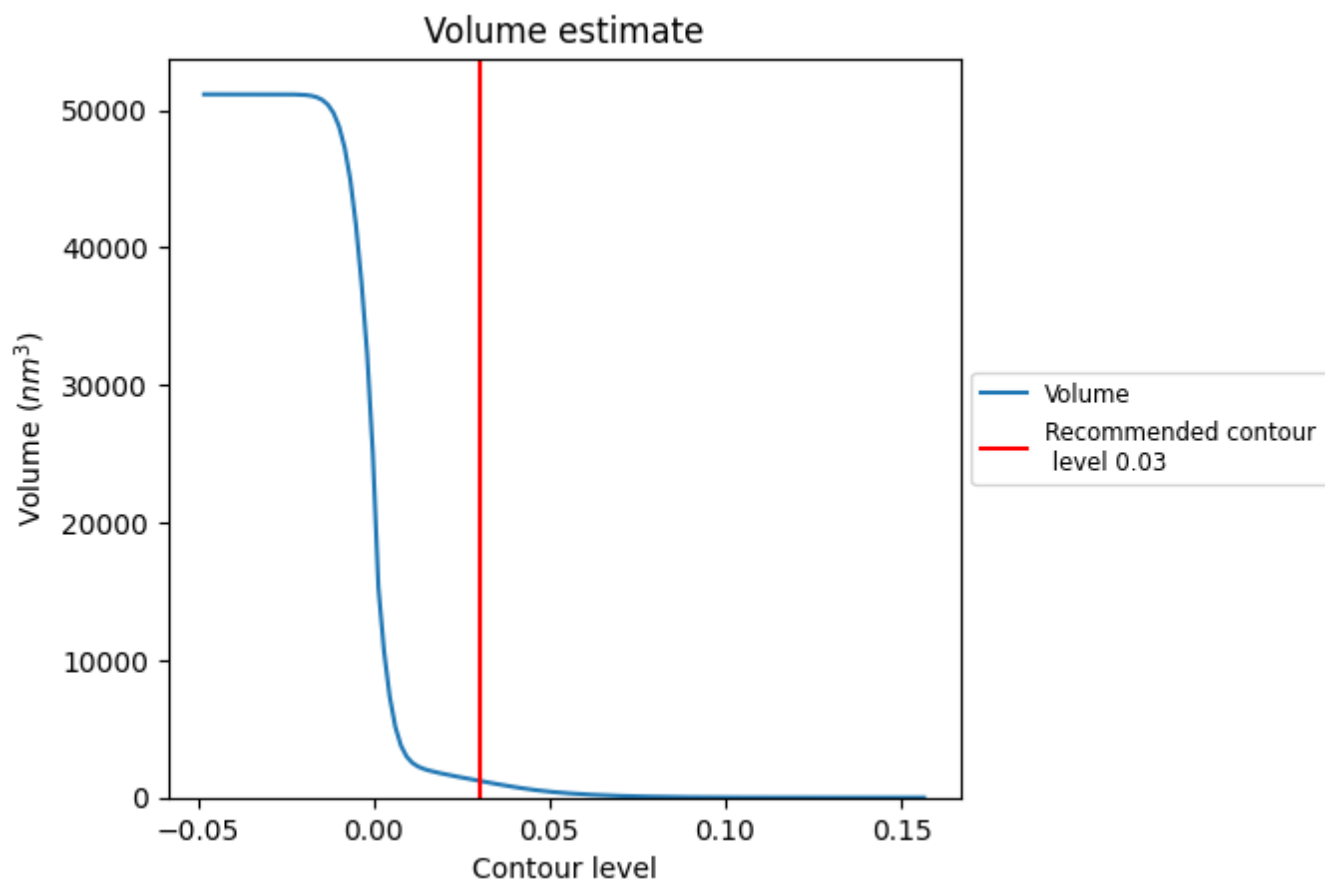
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

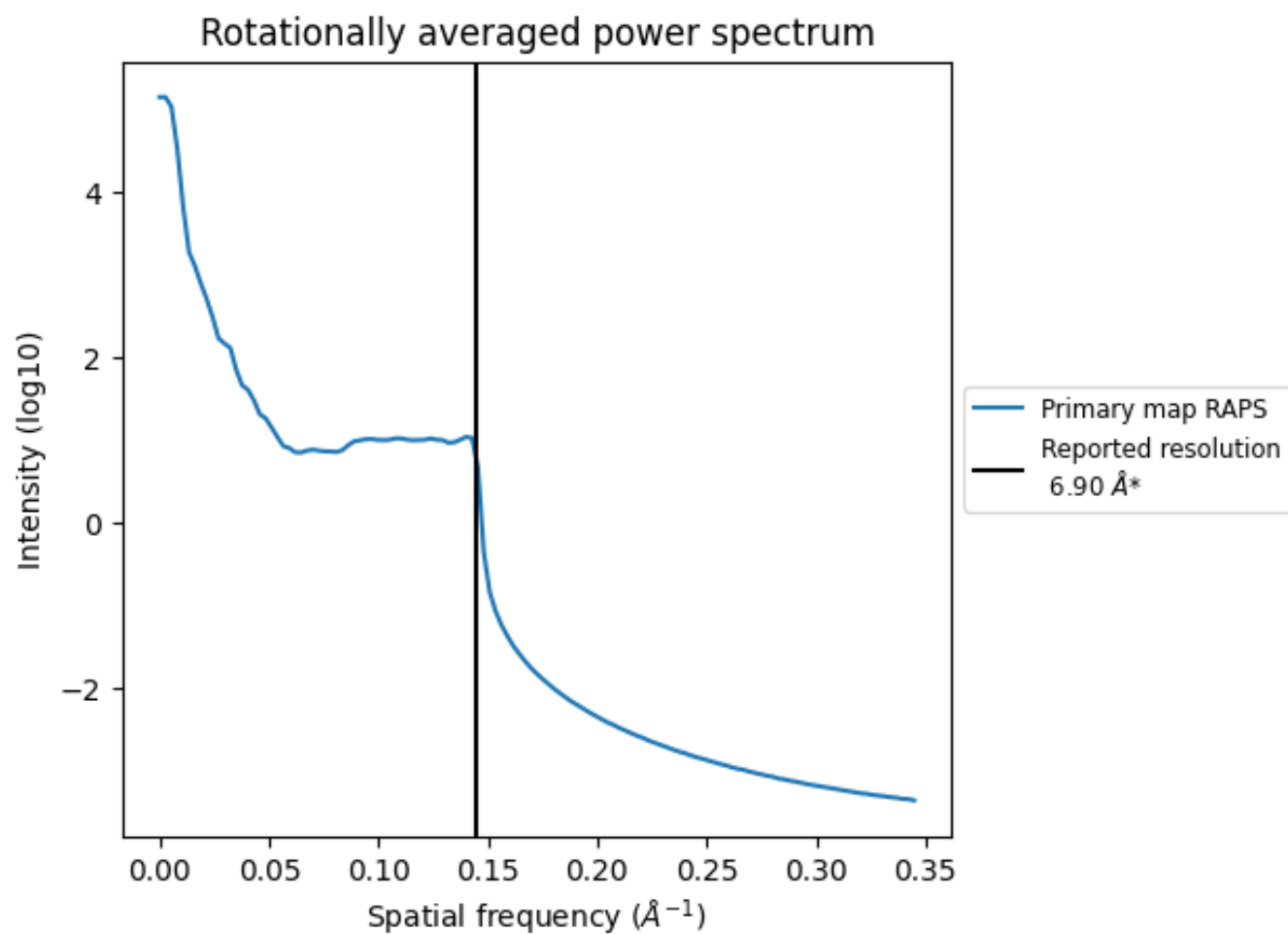
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1220 nm³; this corresponds to an approximate mass of 1102 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 ⓘ

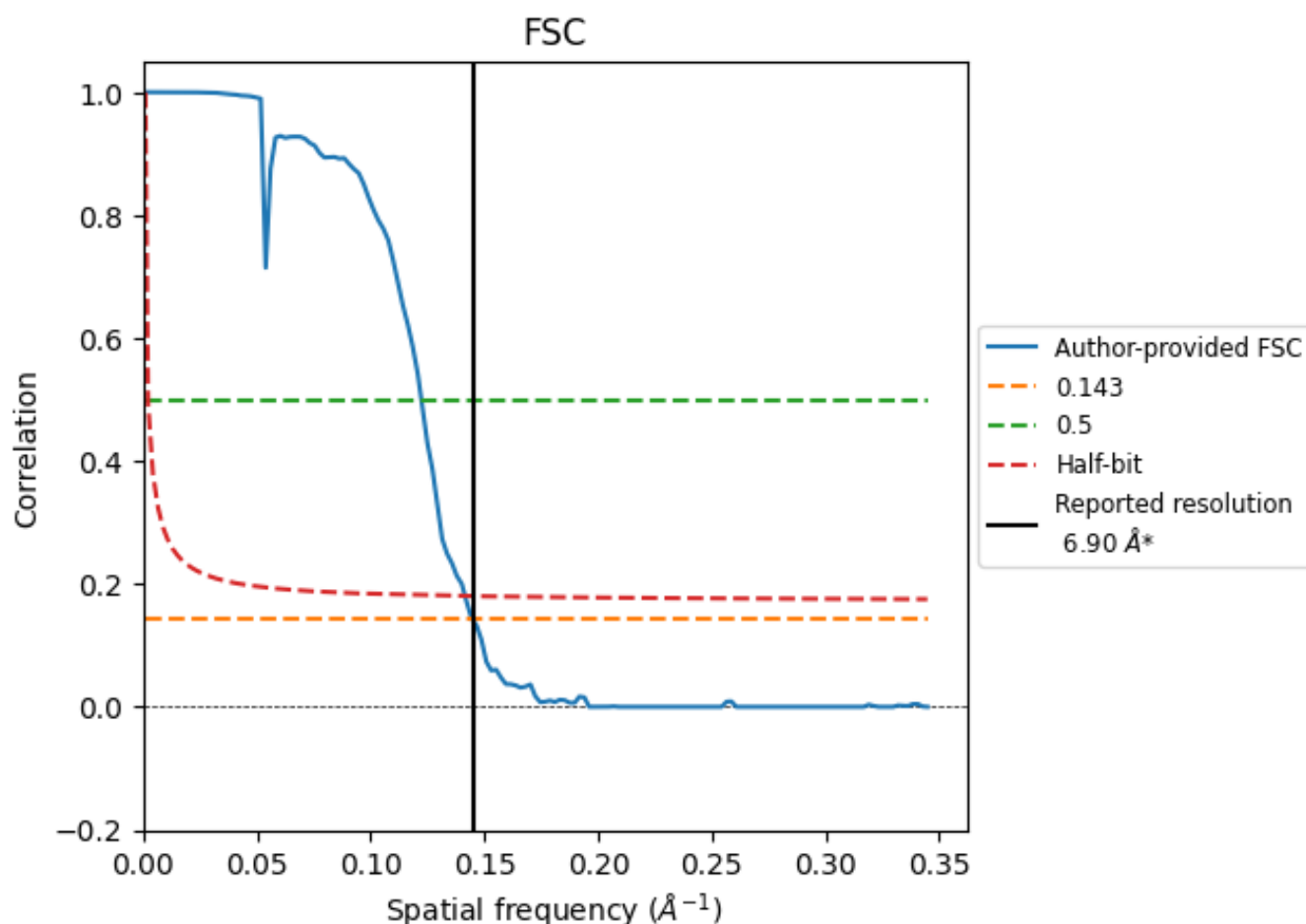


*Reported resolution corresponds to spatial frequency of 0.145 Å⁻¹

8 Fourier-Shell correlation [i](#)

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 [i](#)



*Reported resolution corresponds to spatial frequency of 0.145 Å⁻¹

8.2 Resolution estimates [i](#)

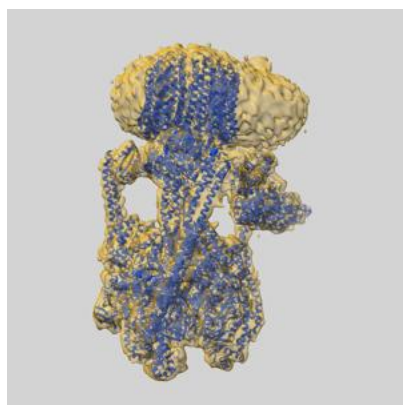
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	6.90	-	-
Author-provided FSC curve	6.92	8.17	7.07
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

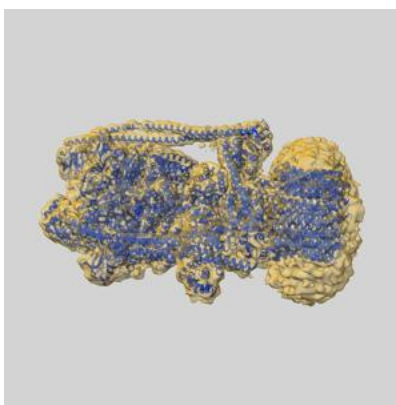
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-6284 and PDB model 3J9T. Per-residue inclusion information can be found in section [3](#) on page [7](#).

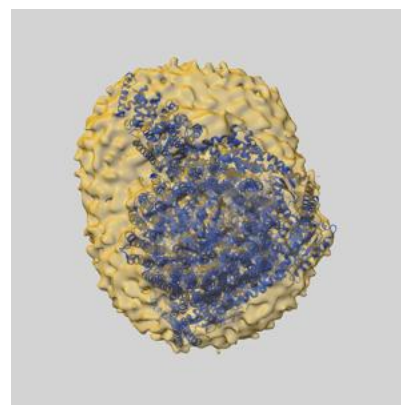
9.1 Map-model overlay [i](#)



X



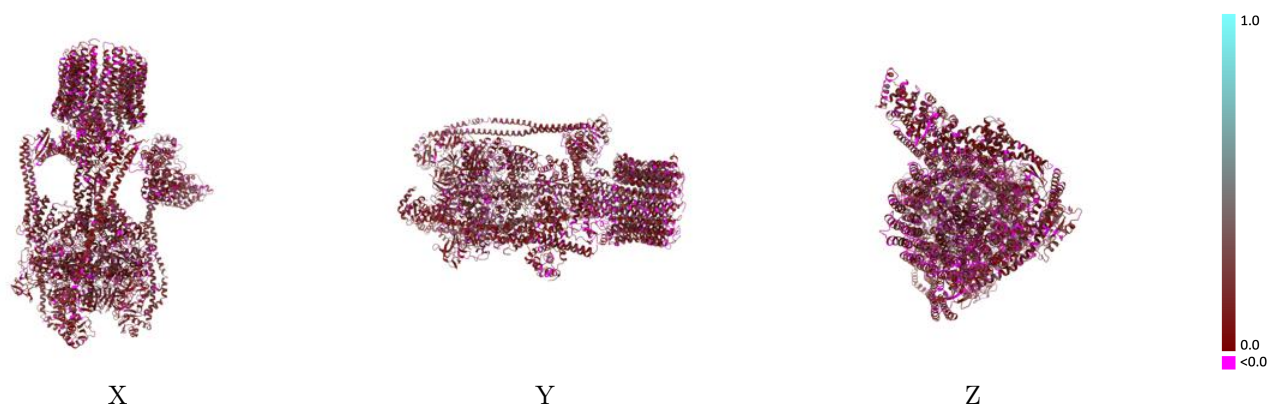
Y



Z

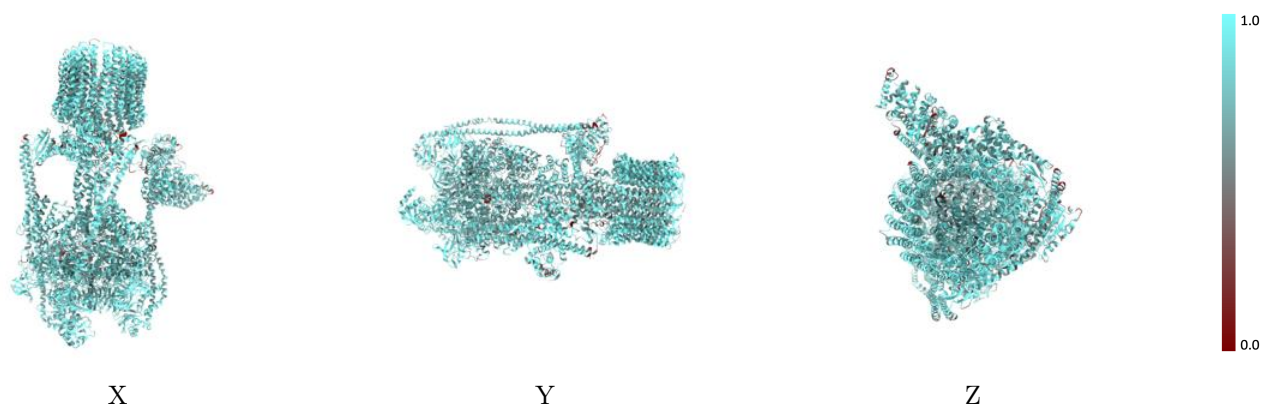
The images above show the 3D surface view of the map at the recommended contour level 0.03 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



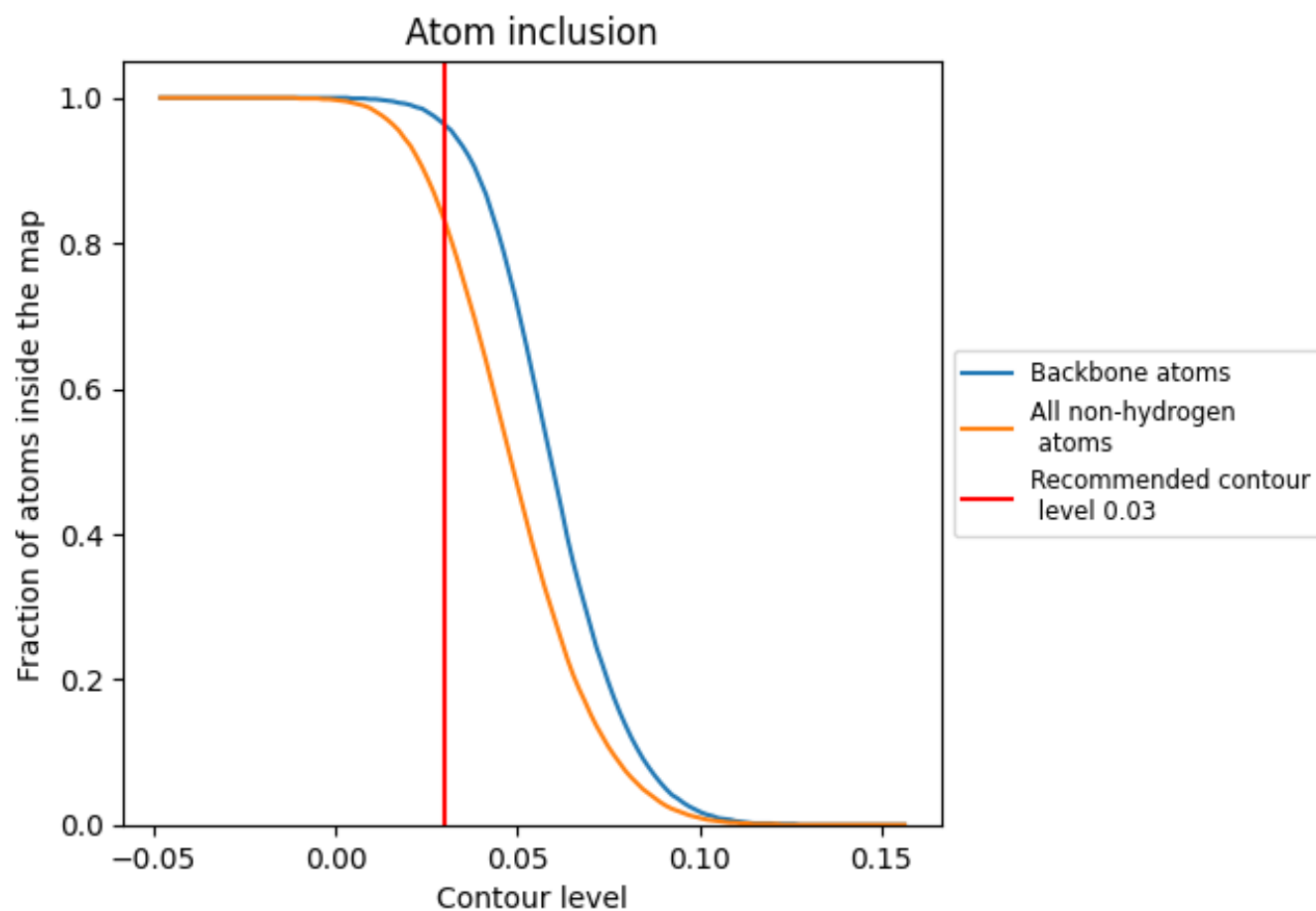
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.03).

9.4 Atom inclusion [i](#)



At the recommended contour level, 96% of all backbone atoms, 83% 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 (0.03) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8300	 0.1280
A	 0.8390	 0.1420
B	 0.8190	 0.1320
C	 0.8400	 0.1390
D	 0.8180	 0.1290
E	 0.8500	 0.1400
F	 0.8220	 0.1320
G	 0.8370	 0.1440
H	 0.8030	 0.1400
I	 0.8250	 0.1460
J	 0.7800	 0.1530
K	 0.8340	 0.1500
L	 0.7930	 0.1500
M	 0.8040	 0.1160
N	 0.8080	 0.1430
O	 0.7920	 0.1220
P	 0.8080	 0.1290
Q	 0.7790	 0.0950
R	 0.8800	 0.0950
S	 0.9020	 0.0960
T	 0.9040	 0.1140
U	 0.8790	 0.1250
V	 0.8280	 0.1130
W	 0.8290	 0.1210
X	 0.8820	 0.1210
Y	 0.9110	 0.1130
Z	 0.9020	 0.0940
a	 0.8720	 0.0990
b	 0.7880	 0.1030

