



Full wwPDB EM Validation Report ⓘ

Mar 12, 2026 – 06:39 AM UTC

PDB ID : 7PBX / pdb_00007pbx
EMDB ID : EMD-13308
Title : Cryo-EM structure of the GroEL-GroES complex with ADP bound to both rings ("tight" conformation).
Authors : Pichkur, E.B.; Stanishneva-Konovalova, T.B.
Deposited on : 2021-08-02
Resolution : 3.43 Å(reported)
Based on initial model : 1SX4

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
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
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

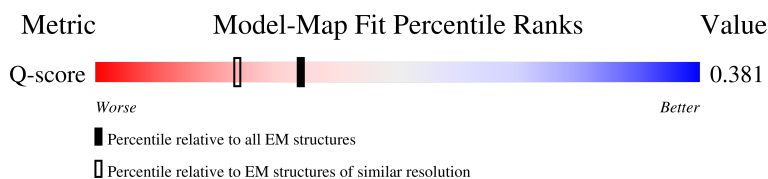
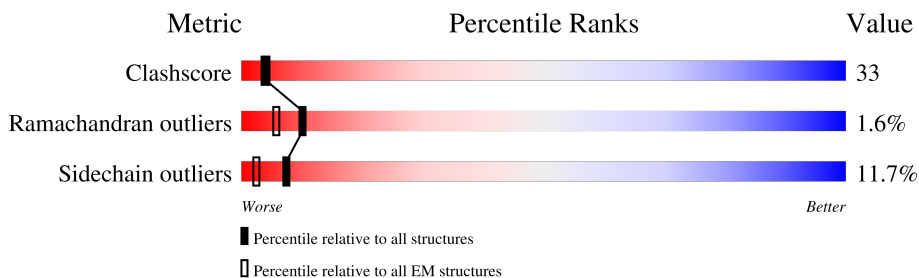
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.43 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.



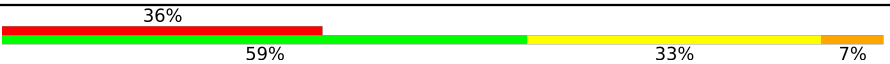
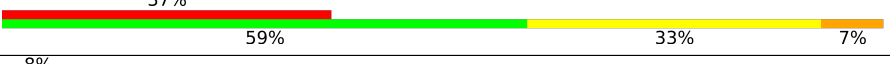
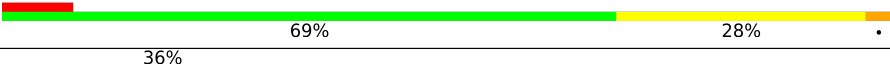
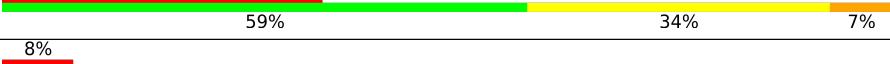
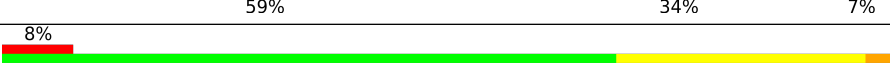
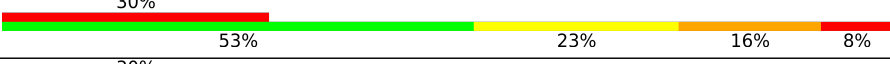
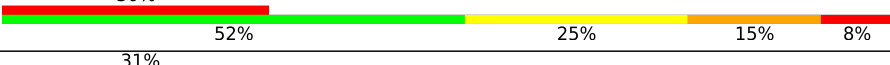
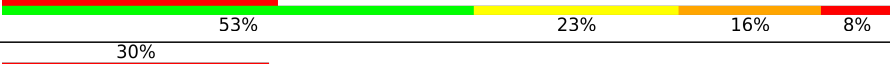
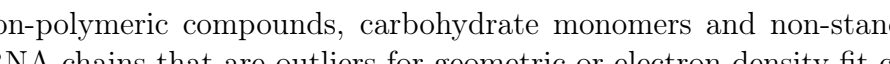
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	13927 (2.93 - 3.93)

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	Ac	524	
1	Ad	524	
1	Ai	524	
1	Aj	524	

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Mol	Chain	Length	Quality of chain
1	Ao	524	
1	Ap	524	
1	Au	524	
1	Av	524	
1	Ba	524	
1	Bb	524	
1	Bg	524	
1	Bh	524	
1	Bm	524	
1	Bn	524	
2	Af	97	
2	Al	97	
2	Ar	97	
2	Ax	97	
2	Bd	97	
2	Bj	97	
2	Bp	97	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	ADP	Ad	601	X	-	-	-
3	ADP	Aj	601	X	-	-	-
3	ADP	Ap	601	X	-	-	-
3	ADP	Av	601	X	-	-	-
3	ADP	Bb	601	X	-	-	-
3	ADP	Bh	601	X	-	-	-
3	ADP	Bn	601	X	-	-	-

2 Entry composition [i](#)

There are 4 unique types of molecules in this entry. The entry contains 59472 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 60 kDa chaperonin.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Ac	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Ad	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Ai	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Aj	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Ao	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Ap	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Au	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Av	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Ba	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Bb	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Bg	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Bh	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Bm	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		
1	Bn	524	Total	C	N	O	S	0	0
			3856	2397	665	774	20		

- Molecule 2 is a protein called 10 kDa chaperonin.

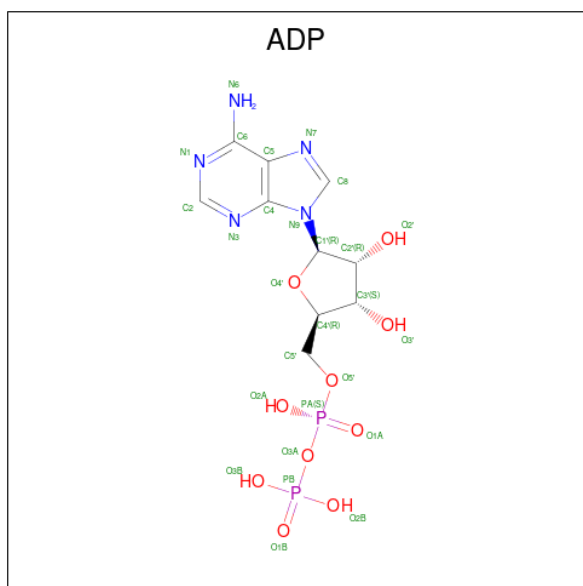
Mol	Chain	Residues	Atoms					AltConf	Trace
2	Af	97	Total	C	N	O	S	0	0
			728	454	127	145	2		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	Al	97	Total	C	N	O	S	0	0
			728	454	127	145	2		
2	Ar	97	Total	C	N	O	S	0	0
			728	454	127	145	2		
2	Ax	97	Total	C	N	O	S	0	0
			728	454	127	145	2		
2	Bd	97	Total	C	N	O	S	0	0
			728	454	127	145	2		
2	Bj	97	Total	C	N	O	S	0	0
			728	454	127	145	2		
2	Bp	97	Total	C	N	O	S	0	0
			728	454	127	145	2		

- Molecule 3 is ADENOSINE-5'-DIPHOSPHATE (CCD ID: ADP) (formula: $C_{10}H_{15}N_5O_{10}P_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
3	Ac	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Ad	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Ai	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Aj	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Ao	1	Total	C	N	O	P	0
			27	10	5	10	2	

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Mol	Chain	Residues	Atoms					AltConf
3	Ap	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Au	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Av	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Ba	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Bb	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Bg	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Bh	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Bm	1	Total	C	N	O	P	0
			27	10	5	10	2	
3	Bn	1	Total	C	N	O	P	0
			27	10	5	10	2	

- Molecule 4 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
4	Ac	1	Total	Mg	0
			1	1	
4	Ad	1	Total	Mg	0
			1	1	
4	Ai	1	Total	Mg	0
			1	1	
4	Aj	1	Total	Mg	0
			1	1	
4	Ao	1	Total	Mg	0
			1	1	
4	Ap	1	Total	Mg	0
			1	1	
4	Au	1	Total	Mg	0
			1	1	
4	Av	1	Total	Mg	0
			1	1	
4	Ba	1	Total	Mg	0
			1	1	
4	Bb	1	Total	Mg	0
			1	1	

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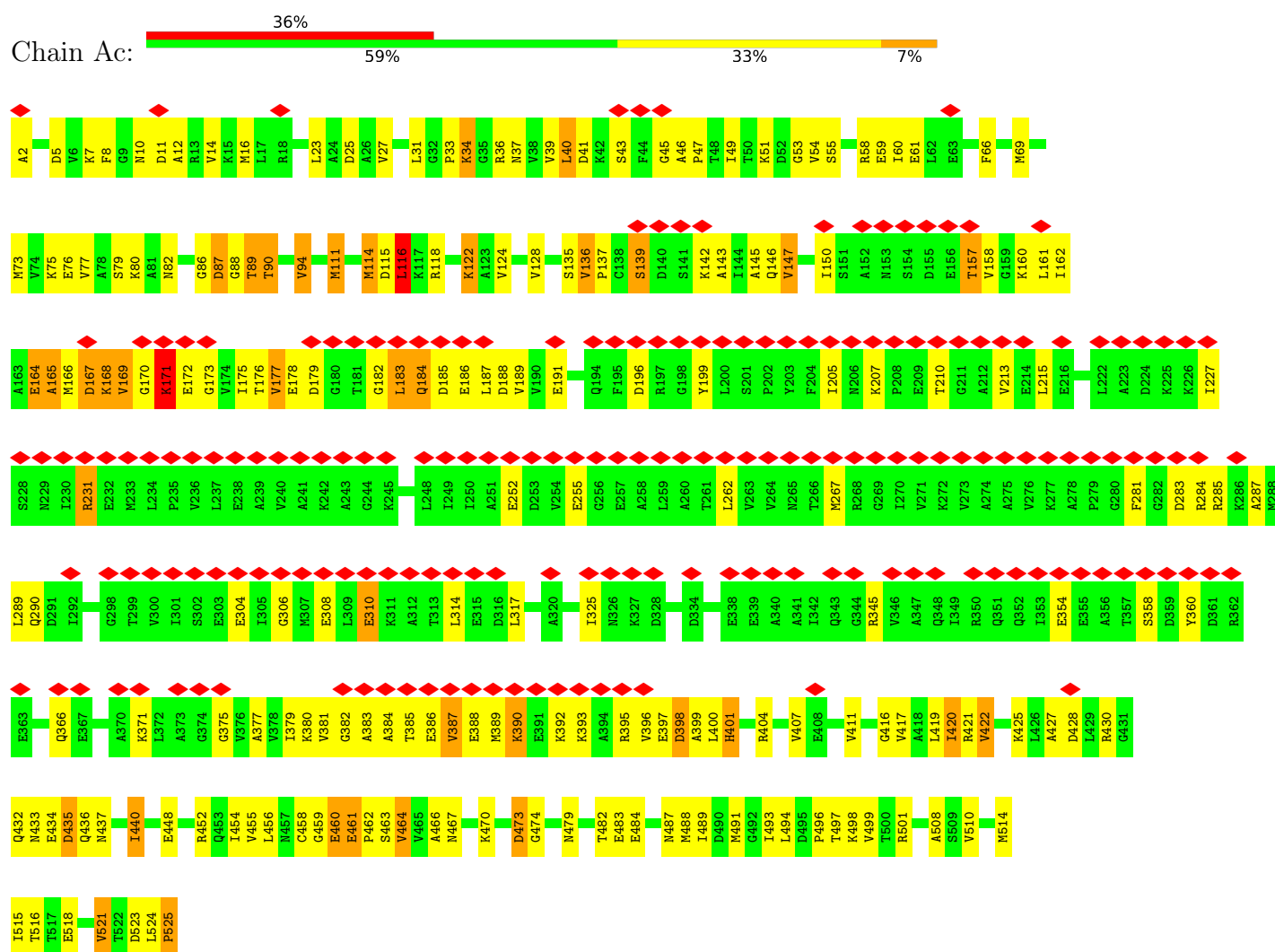
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Mol	Chain	Residues	Atoms		AltConf
4	Bg	1	Total 1	Mg 1	0
4	Bh	1	Total 1	Mg 1	0
4	Bm	1	Total 1	Mg 1	0
4	Bn	1	Total 1	Mg 1	0

3 Residue-property plots

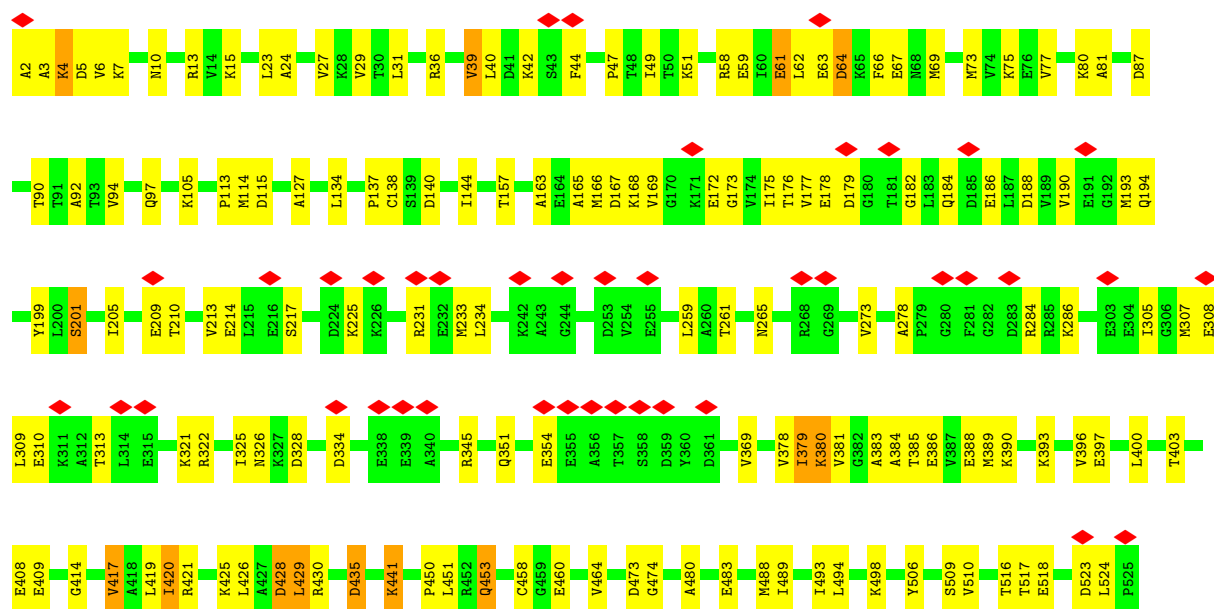
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: 60 kDa chaperonin

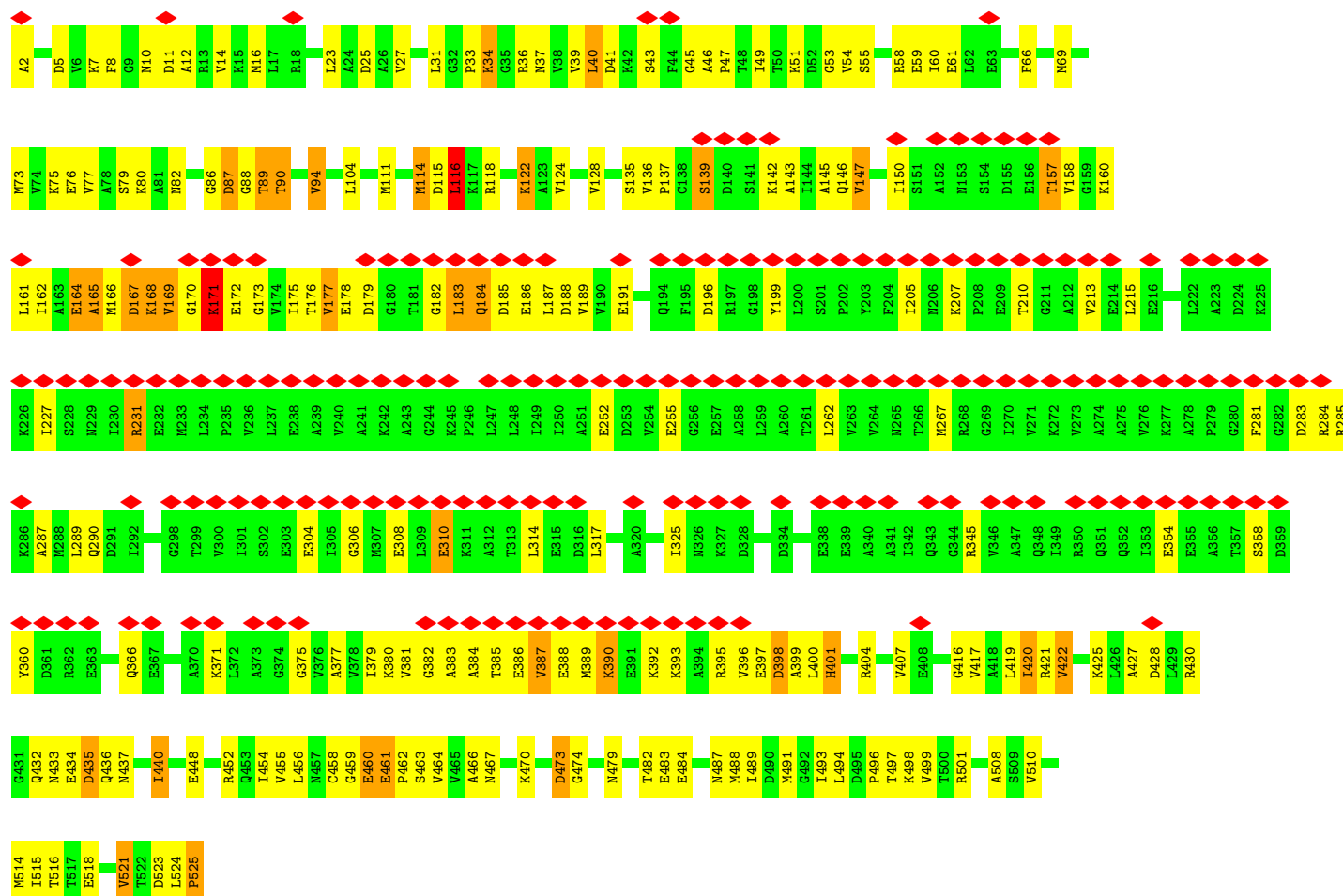


- Molecule 1: 60 kDa chaperonin

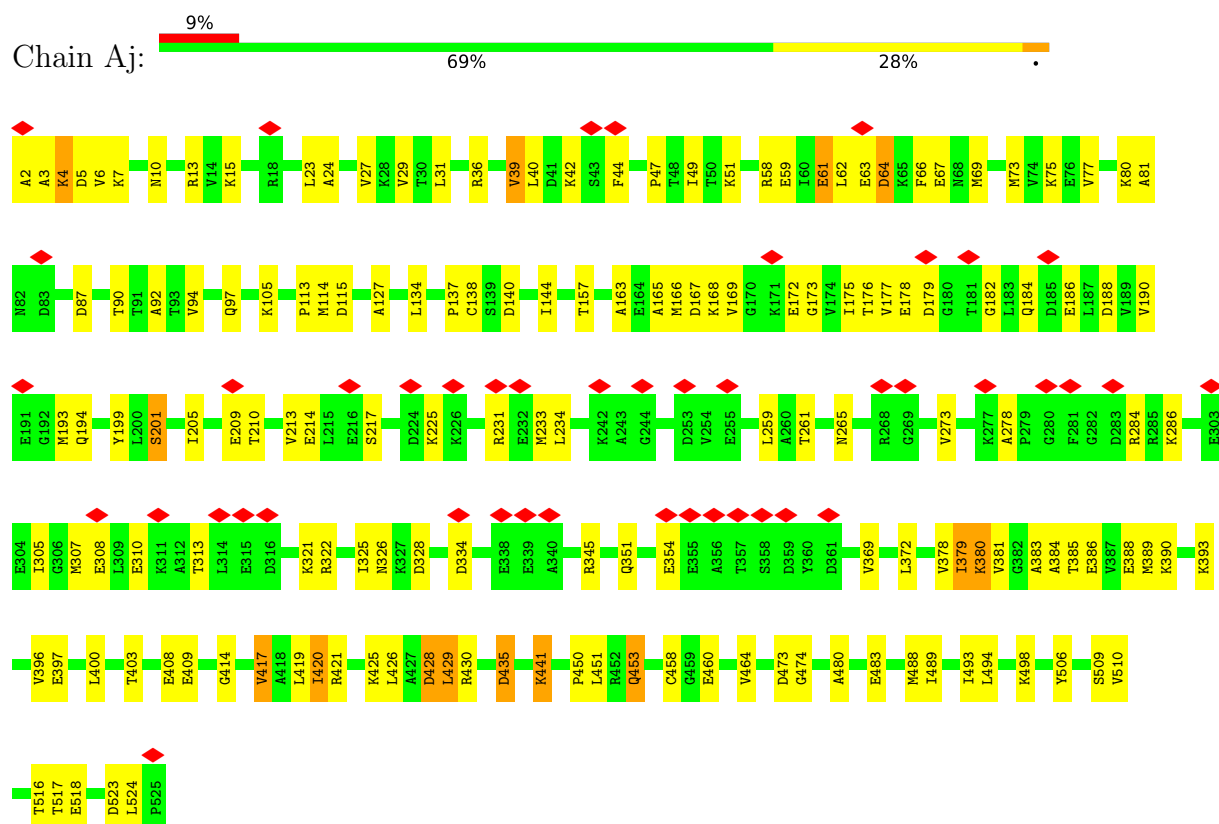




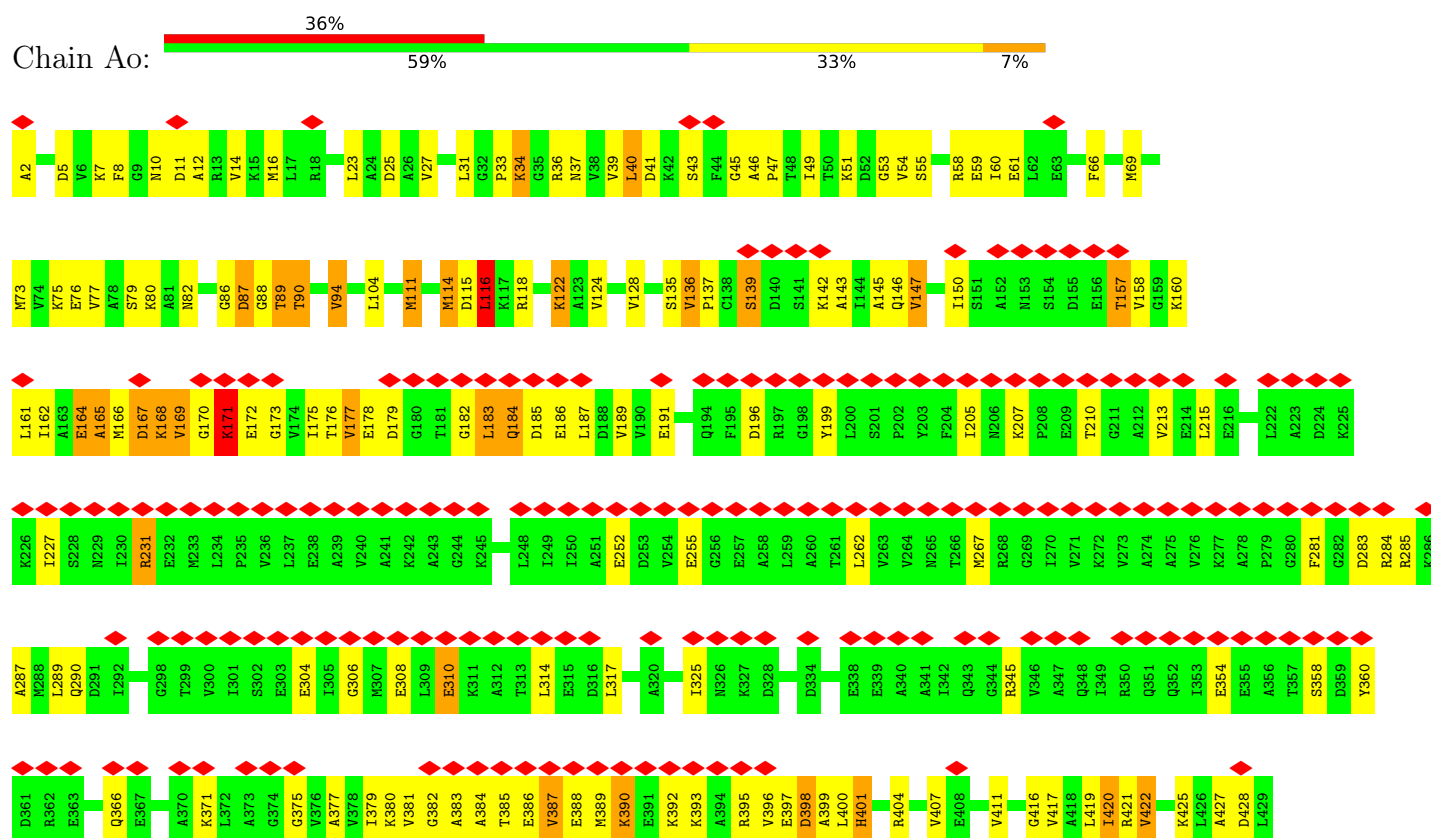
● Molecule 1: 60 kDa chaperonin

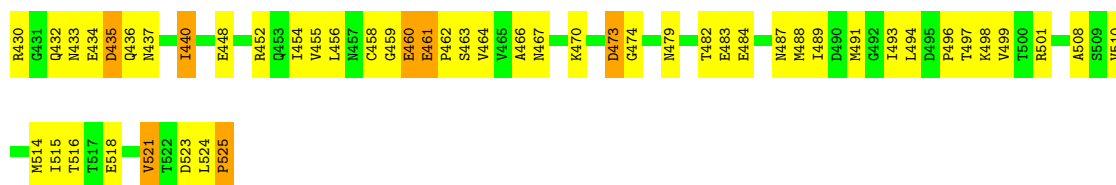


- Molecule 1: 60 kDa chaperonin

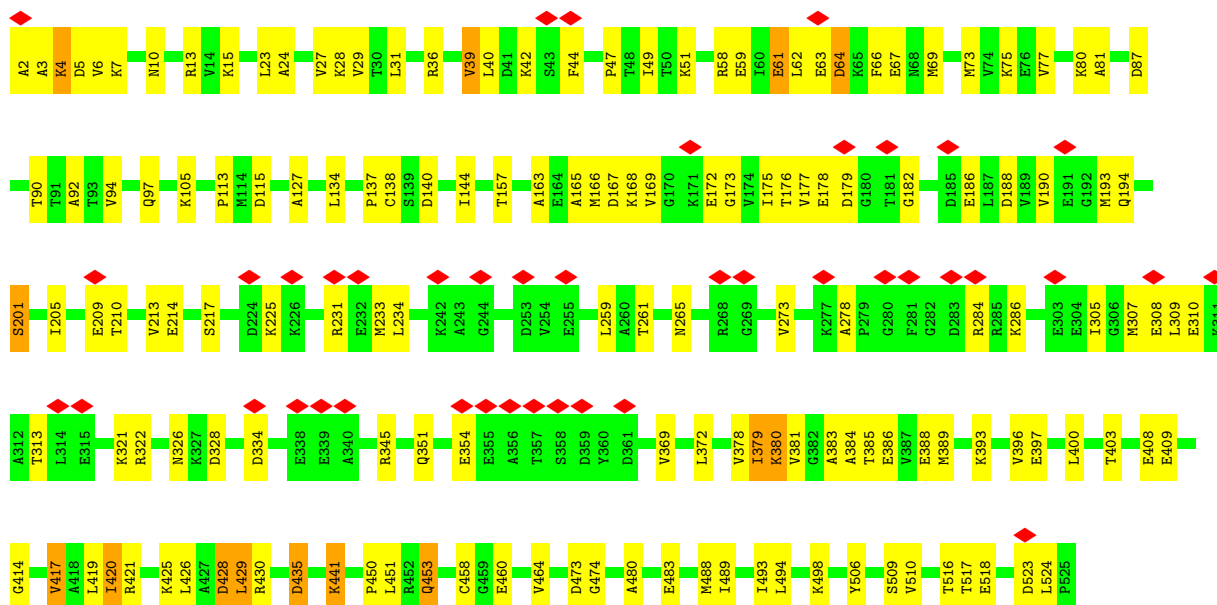
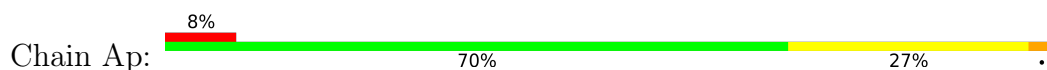


- Molecule 1: 60 kDa chaperonin

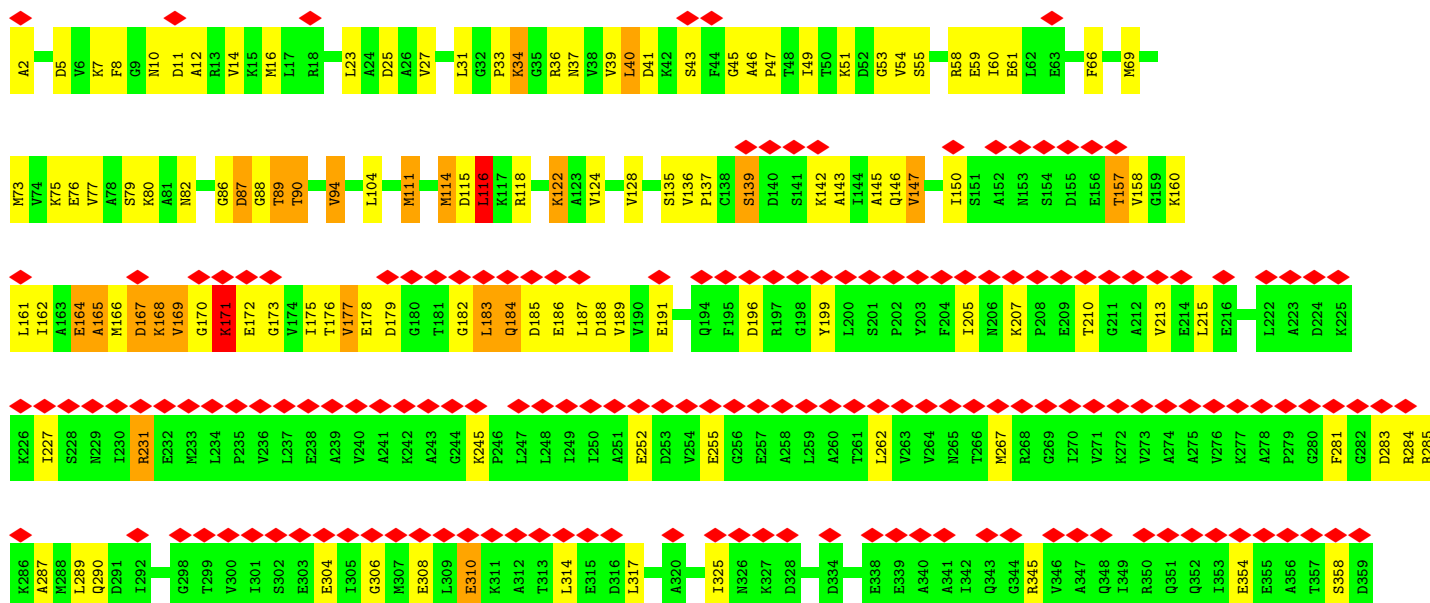
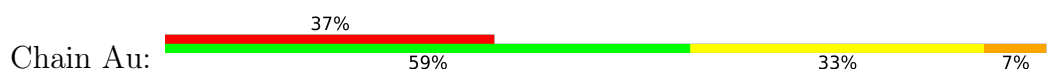


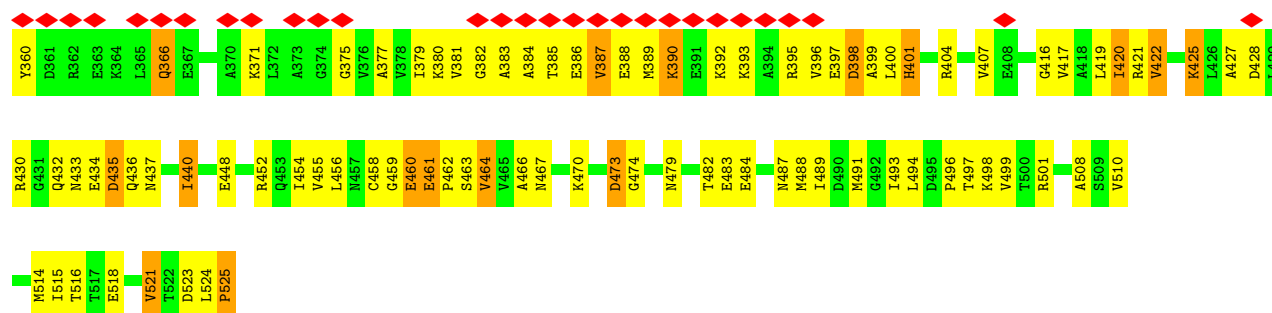


- Molecule 1: 60 kDa chaperonin

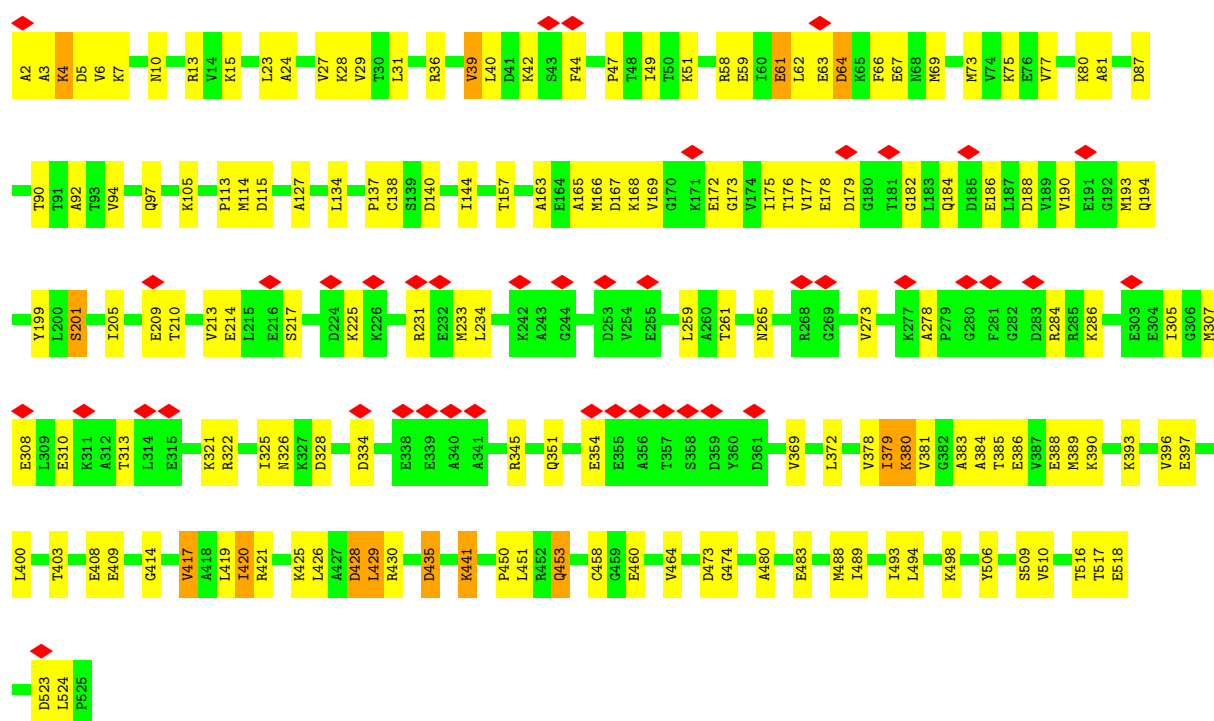


- Molecule 1: 60 kDa chaperonin

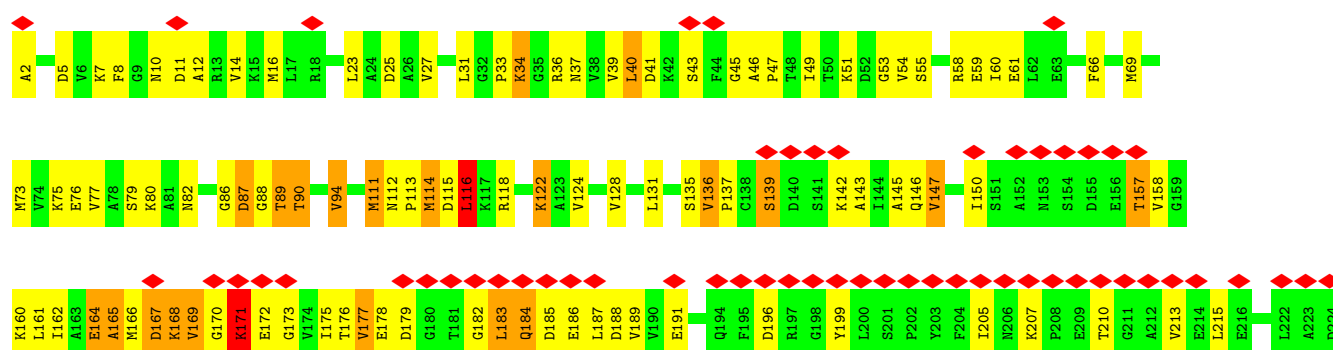


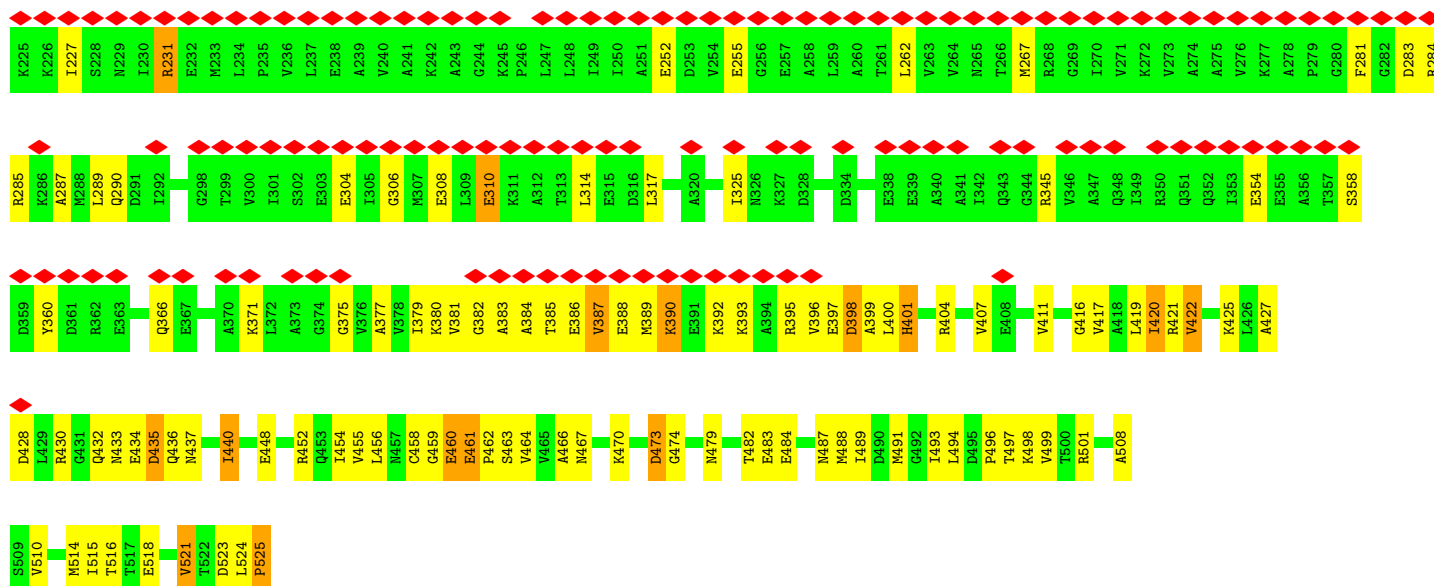


- Molecule 1: 60 kDa chaperonin

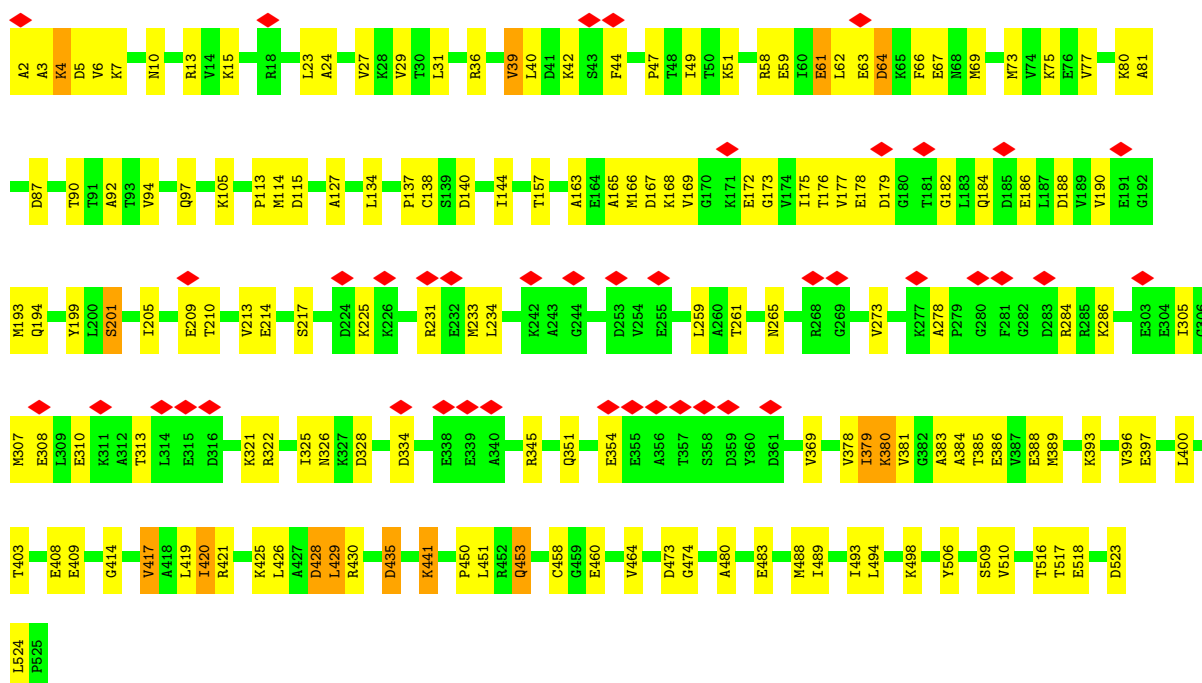


- Molecule 1: 60 kDa chaperonin



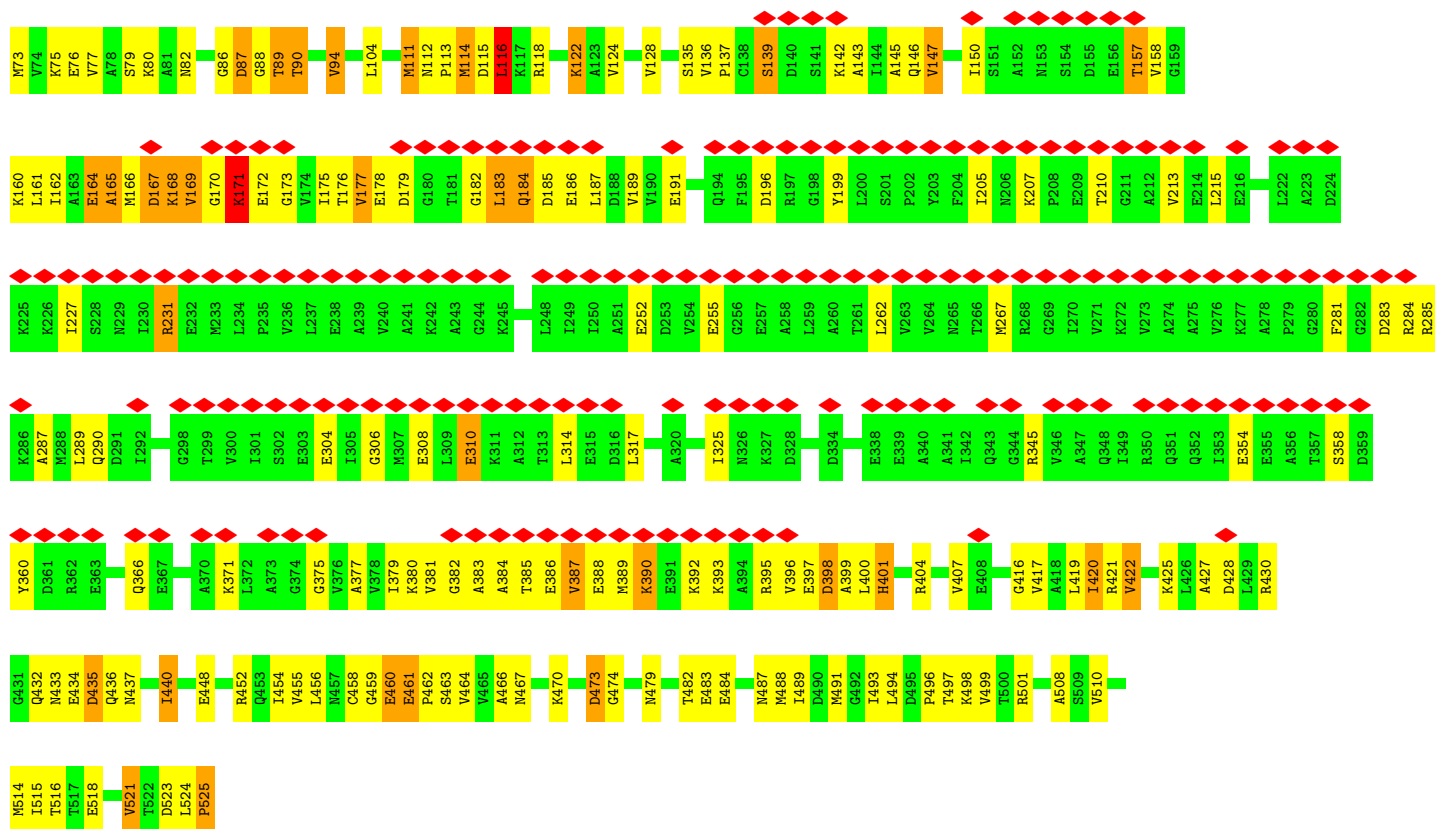


• Molecule 1: 60 kDa chaperonin

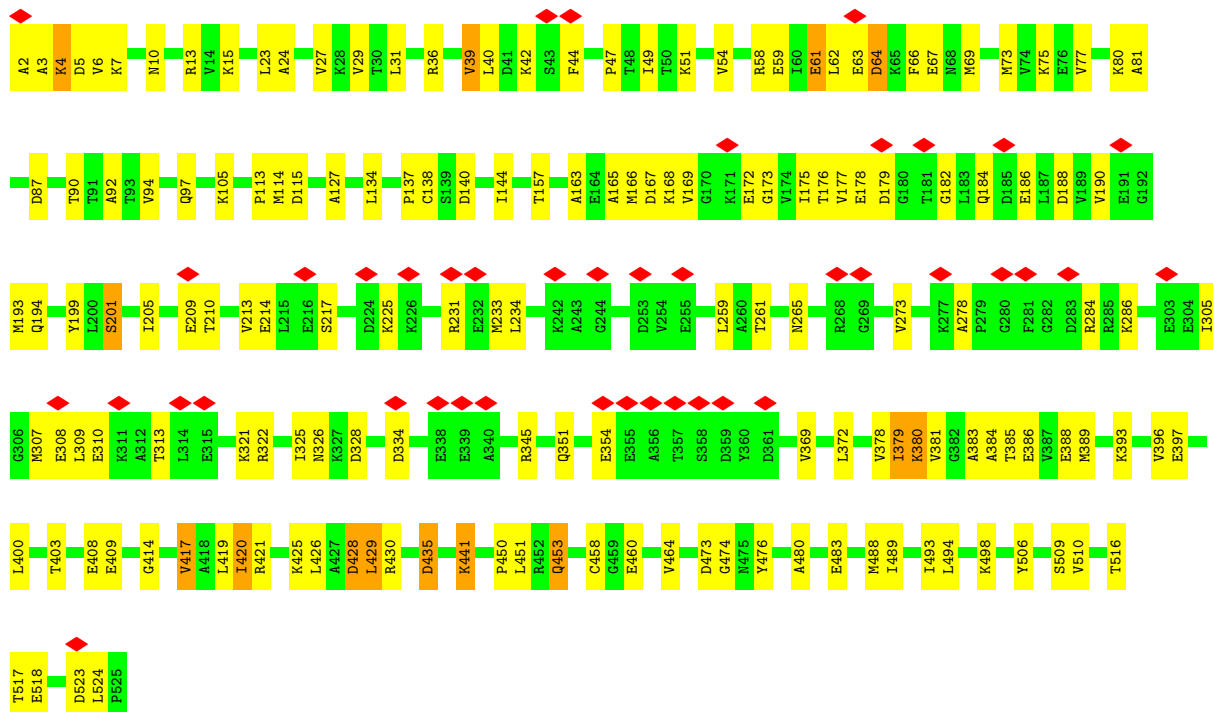


• Molecule 1: 60 kDa chaperonin

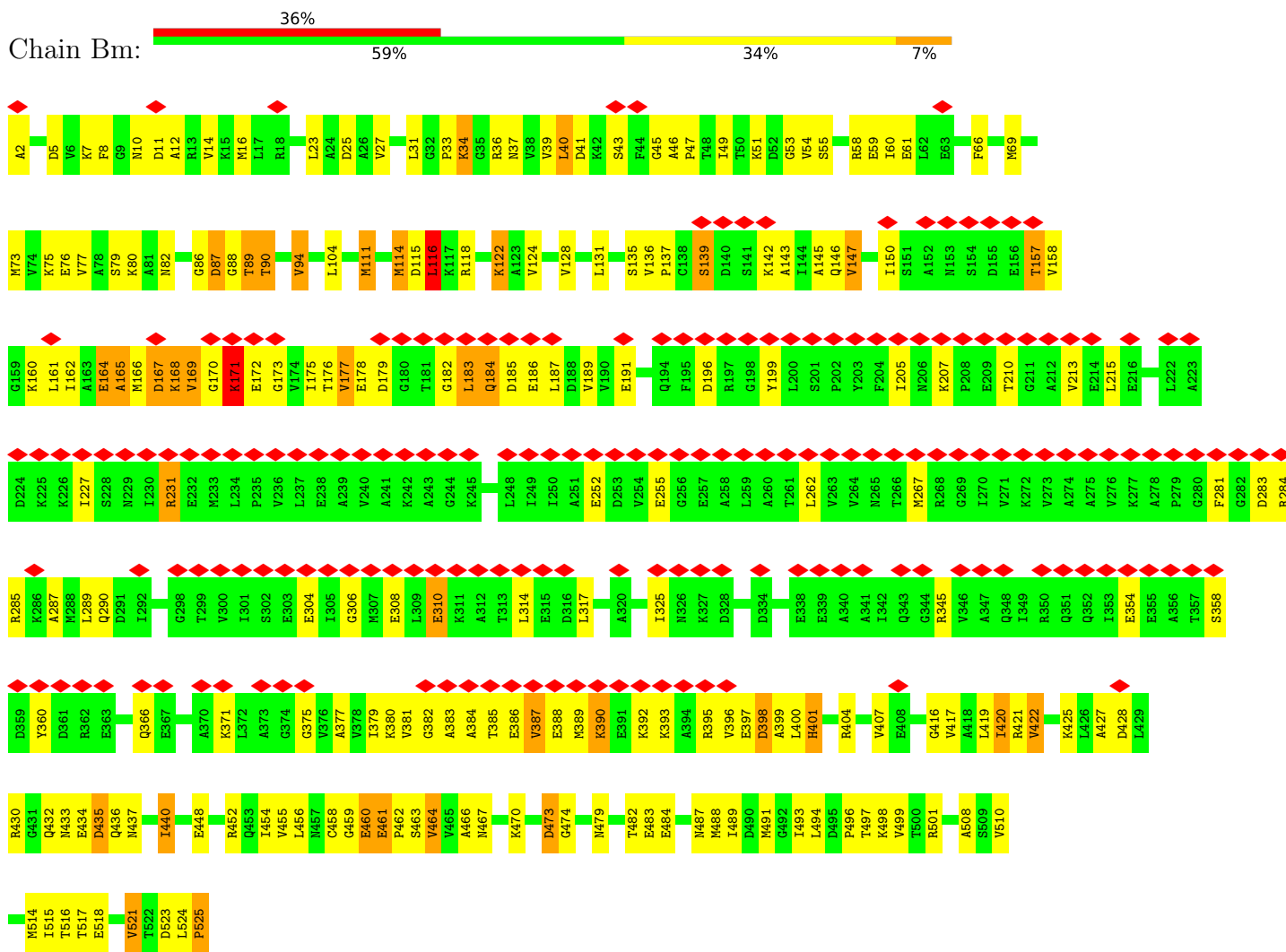




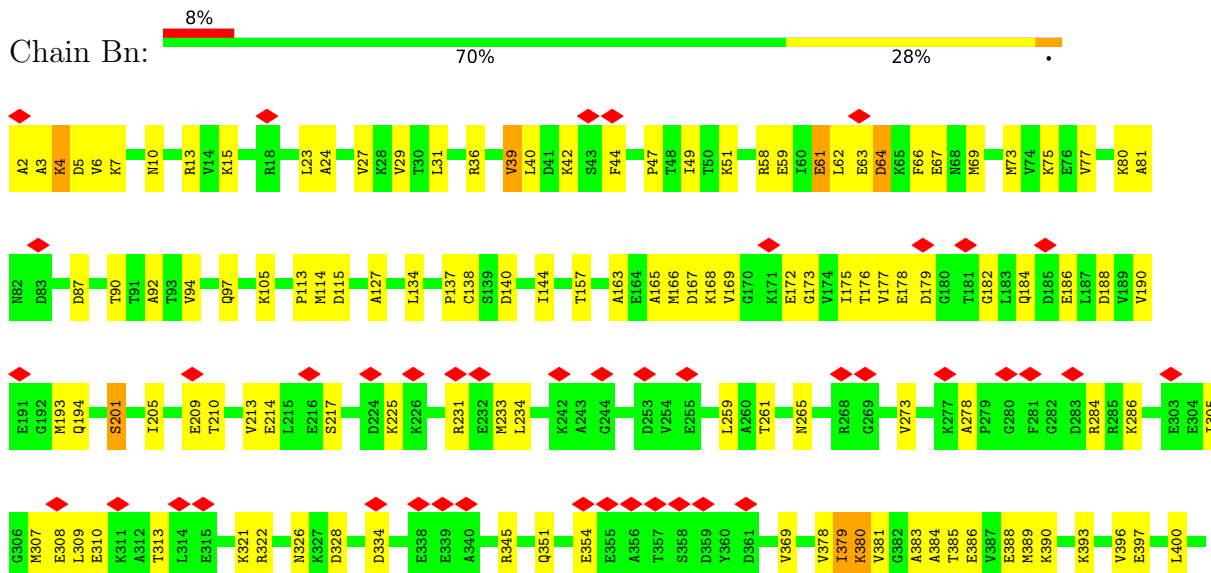
- Molecule 1: 60 kDa chaperonin

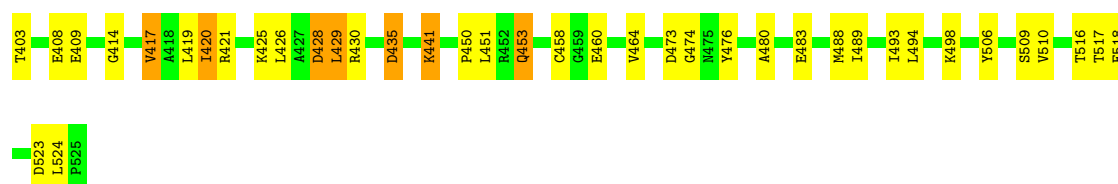


Chain Bm:

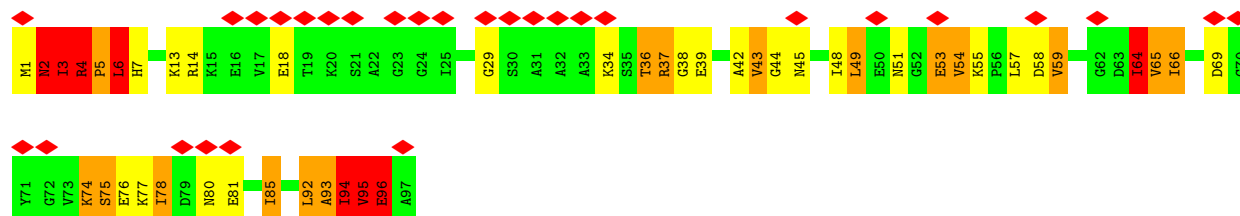


Chain Bn:

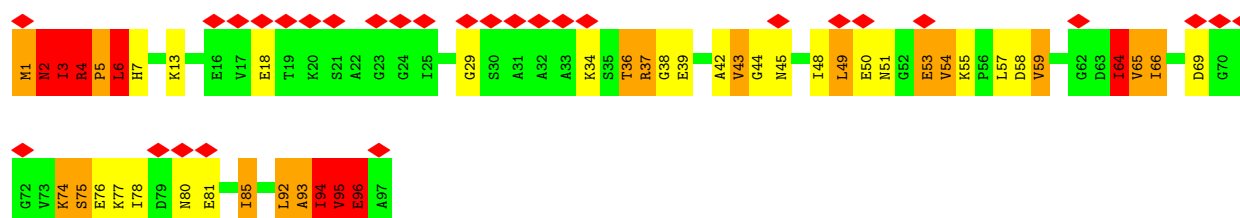




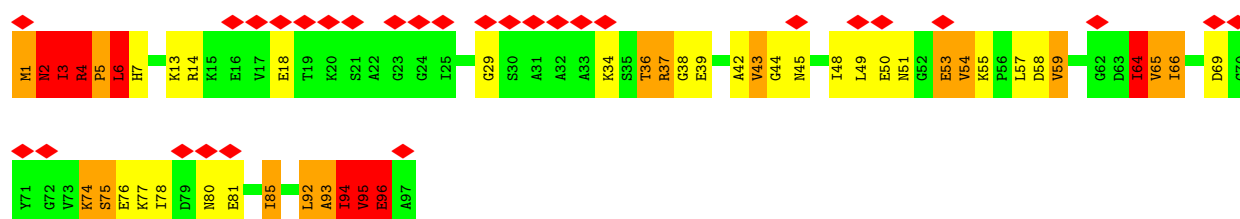
- Molecule 2: 10 kDa chaperonin



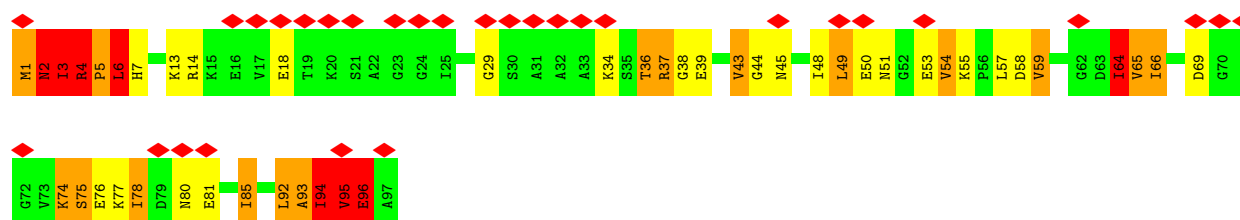
- Molecule 2: 10 kDa chaperonin



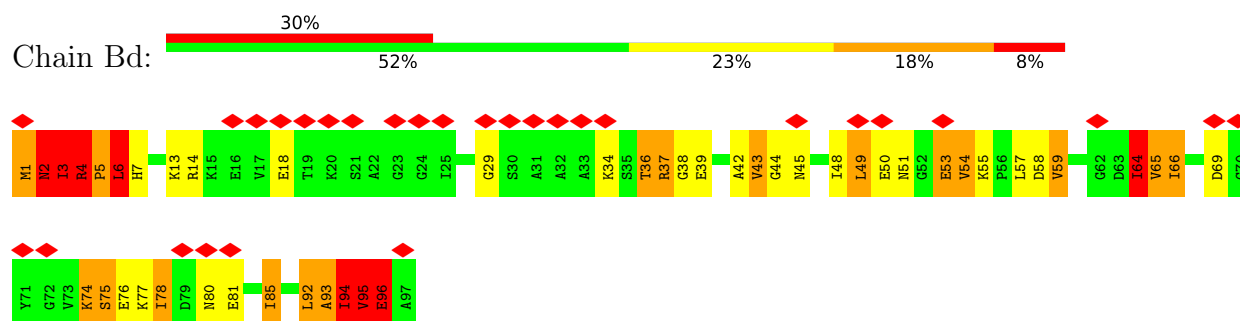
- Molecule 2: 10 kDa chaperonin



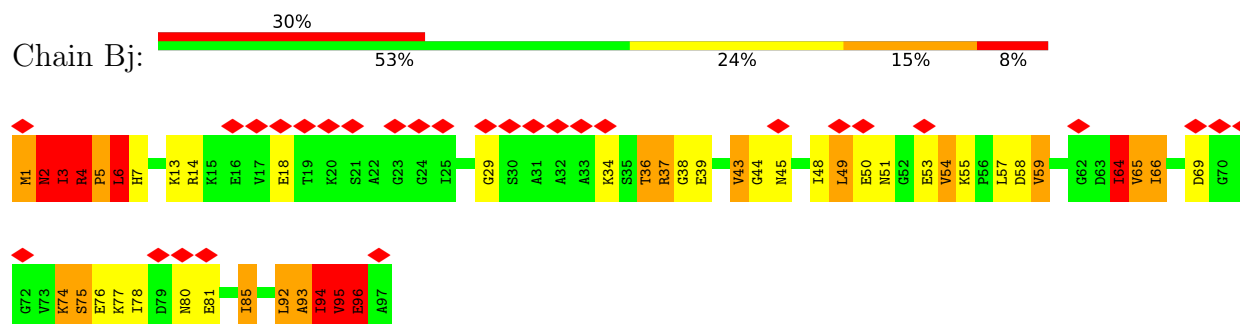
- Molecule 2: 10 kDa chaperonin



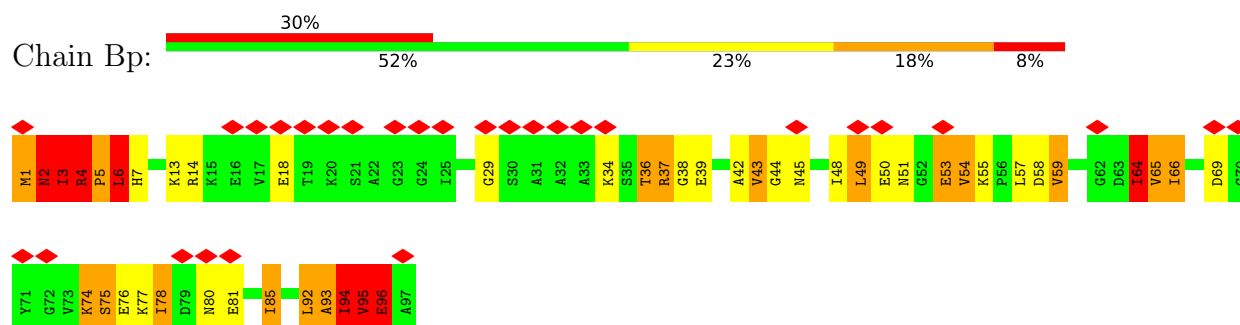
● Molecule 2: 10 kDa chaperonin



● Molecule 2: 10 kDa chaperonin



● Molecule 2: 10 kDa chaperonin



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	41000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	100	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	5.566	Depositor
Minimum map value	-1.036	Depositor
Average map value	0.023	Depositor
Map value standard deviation	0.187	Depositor
Recommended contour level	1.5	Depositor
Map size (Å)	425.088, 425.088, 425.088	wwPDB
Map dimensions	384, 384, 384	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.107, 1.107, 1.107	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: MG, ADP

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	Ac	1.52	10/3884 (0.3%)	1.74	72/5243 (1.4%)
1	Ad	0.92	1/3884 (0.0%)	1.46	26/5243 (0.5%)
1	Ai	1.52	10/3884 (0.3%)	1.74	72/5243 (1.4%)
1	Aj	0.92	0/3884	1.46	24/5243 (0.5%)
1	Ao	1.52	10/3884 (0.3%)	1.74	72/5243 (1.4%)
1	Ap	0.92	0/3884	1.46	26/5243 (0.5%)
1	Au	1.52	10/3884 (0.3%)	1.74	74/5243 (1.4%)
1	Av	0.92	0/3884	1.46	24/5243 (0.5%)
1	Ba	1.52	10/3884 (0.3%)	1.74	72/5243 (1.4%)
1	Bb	0.92	0/3884	1.46	24/5243 (0.5%)
1	Bg	1.52	10/3884 (0.3%)	1.74	72/5243 (1.4%)
1	Bh	0.92	1/3884 (0.0%)	1.46	27/5243 (0.5%)
1	Bm	1.52	10/3884 (0.3%)	1.74	72/5243 (1.4%)
1	Bn	0.92	1/3884 (0.0%)	1.46	26/5243 (0.5%)
2	Af	4.01	20/732 (2.7%)	2.63	36/983 (3.7%)
2	Al	3.99	19/732 (2.6%)	2.55	34/983 (3.5%)
2	Ar	4.01	20/732 (2.7%)	2.63	36/983 (3.7%)
2	Ax	4.01	20/732 (2.7%)	2.63	36/983 (3.7%)
2	Bd	4.01	20/732 (2.7%)	2.63	36/983 (3.7%)
2	Bj	3.99	19/732 (2.6%)	2.55	35/983 (3.6%)
2	Bp	4.01	20/732 (2.7%)	2.63	36/983 (3.7%)
All	All	1.68	211/59500 (0.4%)	1.71	932/80283 (1.2%)

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	Ac	0	5
1	Ad	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	Ai	0	5
1	Aj	0	1
1	Ao	0	5
1	Ap	0	1
1	Au	0	5
1	Av	0	1
1	Ba	0	5
1	Bb	0	1
1	Bg	0	5
1	Bh	0	1
1	Bm	0	5
1	Bn	0	1
2	Af	0	3
2	Al	0	3
2	Ar	0	3
2	Ax	0	3
2	Bd	0	3
2	Bj	0	3
2	Bp	0	3
All	All	0	63

All (211) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Bm	525	PRO	C-O	68.93	2.61	1.23
1	Bg	525	PRO	C-O	68.92	2.61	1.23
1	Au	525	PRO	C-O	68.90	2.61	1.23
1	Ai	525	PRO	C-O	68.90	2.61	1.23
1	Ba	525	PRO	C-O	68.90	2.61	1.23
1	Ac	525	PRO	C-O	68.89	2.61	1.23
1	Ao	525	PRO	C-O	68.88	2.61	1.23
2	Bd	5	PRO	CA-CB	53.95	2.28	1.53
2	Ax	5	PRO	CA-CB	53.95	2.28	1.53
2	Bj	5	PRO	CA-CB	53.95	2.28	1.53
2	Bp	5	PRO	CA-CB	53.93	2.28	1.53
2	Af	5	PRO	CA-CB	53.92	2.28	1.53
2	Ar	5	PRO	CA-CB	53.91	2.28	1.53
2	Al	5	PRO	CA-CB	53.90	2.28	1.53
2	Bp	96	GLU	CB-CG	52.21	3.09	1.52
2	Ar	96	GLU	CB-CG	52.20	3.09	1.52
2	Ax	96	GLU	CB-CG	52.19	3.09	1.52
2	Af	96	GLU	CB-CG	52.19	3.09	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Bj	96	GLU	CB-CG	52.19	3.09	1.52
2	Bd	96	GLU	CB-CG	52.18	3.08	1.52
2	Al	96	GLU	CB-CG	52.16	3.08	1.52
2	Ax	5	PRO	N-CA	43.92	2.01	1.47
2	Bj	5	PRO	N-CA	43.88	2.01	1.47
2	Af	5	PRO	N-CA	43.87	2.01	1.47
2	Bp	5	PRO	N-CA	43.87	2.01	1.47
2	Ar	5	PRO	N-CA	43.85	2.01	1.47
2	Bd	5	PRO	N-CA	43.85	2.01	1.47
2	Al	5	PRO	N-CA	43.83	2.01	1.47
2	Al	5	PRO	N-CD	35.96	1.98	1.47
2	Ar	5	PRO	N-CD	35.92	1.98	1.47
2	Ax	5	PRO	N-CD	35.89	1.98	1.47
2	Bp	5	PRO	N-CD	35.89	1.98	1.47
2	Af	5	PRO	N-CD	35.88	1.98	1.47
2	Bd	5	PRO	N-CD	35.88	1.98	1.47
2	Bj	5	PRO	N-CD	35.85	1.98	1.47
2	Bd	3	ILE	CA-C	20.70	1.77	1.52
2	Bp	3	ILE	CA-C	20.67	1.77	1.52
2	Ax	3	ILE	CA-C	20.66	1.77	1.52
2	Af	3	ILE	CA-C	20.66	1.77	1.52
2	Ar	3	ILE	CA-C	20.59	1.77	1.52
2	Al	3	ILE	CA-C	19.32	1.77	1.52
2	Bj	3	ILE	CA-C	19.25	1.77	1.52
2	Bp	5	PRO	CG-CD	19.09	2.15	1.50
2	Ar	5	PRO	CG-CD	19.09	2.15	1.50
2	Af	5	PRO	CG-CD	19.08	2.15	1.50
2	Bd	5	PRO	CG-CD	19.08	2.15	1.50
2	Ax	5	PRO	CG-CD	19.08	2.15	1.50
2	Al	5	PRO	CG-CD	19.07	2.15	1.50
2	Bj	5	PRO	CG-CD	19.07	2.15	1.50
2	Al	94	ILE	CA-C	16.97	1.74	1.52
2	Af	94	ILE	CA-C	16.94	1.74	1.52
2	Bd	94	ILE	CA-C	16.94	1.74	1.52
2	Bp	94	ILE	CA-C	16.92	1.74	1.52
2	Ar	94	ILE	CA-C	16.92	1.74	1.52
2	Bj	94	ILE	CA-C	16.90	1.74	1.52
2	Ax	94	ILE	CA-C	16.89	1.74	1.52
1	Au	462	PRO	N-CD	-15.06	1.26	1.47
1	Ao	462	PRO	N-CD	-15.06	1.26	1.47
1	Ac	462	PRO	N-CD	-15.02	1.26	1.47
1	Bm	462	PRO	N-CD	-15.01	1.26	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ba	462	PRO	N-CD	-14.98	1.26	1.47
1	Ai	462	PRO	N-CD	-14.97	1.26	1.47
1	Bg	462	PRO	N-CD	-14.95	1.26	1.47
1	Ao	137	PRO	N-CD	13.80	1.67	1.47
1	Ai	137	PRO	N-CD	13.79	1.67	1.47
1	Bm	137	PRO	N-CD	13.79	1.67	1.47
1	Bg	137	PRO	N-CD	13.79	1.67	1.47
1	Ba	137	PRO	N-CD	13.78	1.67	1.47
1	Ac	137	PRO	N-CD	13.77	1.67	1.47
1	Au	137	PRO	N-CD	13.77	1.67	1.47
2	Bp	5	PRO	CB-CG	12.30	2.11	1.49
2	Af	5	PRO	CB-CG	12.30	2.11	1.49
2	Ar	5	PRO	CB-CG	12.30	2.11	1.49
2	Bj	5	PRO	CB-CG	12.30	2.11	1.49
2	Ax	5	PRO	CB-CG	12.30	2.11	1.49
2	Bd	5	PRO	CB-CG	12.30	2.11	1.49
2	Al	5	PRO	CB-CG	12.29	2.11	1.49
2	Bj	94	ILE	C-N	12.27	1.50	1.33
2	Bd	94	ILE	C-N	12.26	1.50	1.33
2	Ar	94	ILE	C-N	12.23	1.50	1.33
2	Al	94	ILE	C-N	12.23	1.50	1.33
2	Ax	94	ILE	C-N	12.22	1.50	1.33
2	Af	94	ILE	C-N	12.22	1.50	1.33
2	Bp	94	ILE	C-N	12.22	1.50	1.33
2	Bd	4	ARG	N-CA	11.29	1.62	1.46
2	Al	4	ARG	N-CA	11.29	1.62	1.46
2	Bp	4	ARG	N-CA	11.28	1.62	1.46
2	Ax	4	ARG	N-CA	11.27	1.62	1.46
2	Ar	4	ARG	N-CA	11.26	1.62	1.46
2	Af	4	ARG	N-CA	11.24	1.61	1.46
2	Bj	4	ARG	N-CA	11.22	1.61	1.46
2	Al	94	ILE	CA-CB	11.15	1.69	1.54
2	Ax	94	ILE	CA-CB	11.15	1.69	1.54
2	Bp	94	ILE	CA-CB	11.13	1.69	1.54
2	Bj	94	ILE	CA-CB	11.12	1.69	1.54
2	Ar	94	ILE	CA-CB	11.12	1.69	1.54
2	Bd	94	ILE	CA-CB	11.12	1.69	1.54
2	Af	94	ILE	CA-CB	11.12	1.69	1.54
2	Bd	95	VAL	N-CA	10.27	1.65	1.46
2	Af	95	VAL	N-CA	10.25	1.65	1.46
2	Al	95	VAL	N-CA	10.24	1.65	1.46
2	Bj	95	VAL	N-CA	10.24	1.65	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Ax	95	VAL	N-CA	10.23	1.65	1.46
2	Bp	95	VAL	N-CA	10.23	1.65	1.46
2	Ar	95	VAL	N-CA	10.22	1.65	1.46
1	Ai	33	PRO	N-CD	-9.84	1.33	1.47
1	Ao	33	PRO	N-CD	-9.83	1.33	1.47
1	Bm	33	PRO	N-CD	-9.81	1.34	1.47
1	Ac	33	PRO	N-CD	-9.80	1.34	1.47
1	Ba	33	PRO	N-CD	-9.78	1.34	1.47
1	Bg	33	PRO	N-CD	-9.78	1.34	1.47
1	Au	33	PRO	N-CD	-9.76	1.34	1.47
2	Bp	3	ILE	N-CA	8.79	1.54	1.46
2	Bj	3	ILE	C-N	8.75	1.51	1.33
2	Af	3	ILE	C-N	8.75	1.51	1.33
2	Ax	3	ILE	C-N	8.75	1.51	1.33
2	Ar	3	ILE	C-N	8.75	1.51	1.33
2	Af	3	ILE	N-CA	8.72	1.54	1.46
2	Bd	3	ILE	C-N	8.72	1.51	1.33
2	Bp	3	ILE	C-N	8.72	1.51	1.33
2	Al	3	ILE	C-N	8.72	1.51	1.33
2	Ax	3	ILE	N-CA	8.71	1.54	1.46
2	Ar	3	ILE	N-CA	8.69	1.54	1.46
2	Bd	3	ILE	N-CA	8.68	1.54	1.46
2	Bd	64	ILE	CA-C	7.13	1.61	1.52
2	Bp	64	ILE	CA-C	7.13	1.61	1.52
2	Bj	64	ILE	CA-C	7.10	1.61	1.52
2	Af	64	ILE	CA-C	7.09	1.61	1.52
2	Al	64	ILE	CA-C	7.08	1.61	1.52
2	Ax	64	ILE	CA-C	7.08	1.61	1.52
2	Ar	64	ILE	CA-C	7.07	1.61	1.52
2	Ar	95	VAL	CA-CB	6.65	1.72	1.54
2	Bp	95	VAL	CA-CB	6.64	1.72	1.54
2	Ax	95	VAL	CA-CB	6.63	1.72	1.54
2	Af	95	VAL	CA-CB	6.63	1.72	1.54
2	Al	95	VAL	CA-CB	6.62	1.72	1.54
2	Bj	95	VAL	CA-CB	6.61	1.72	1.54
2	Bd	95	VAL	CA-CB	6.60	1.72	1.54
1	Bg	33	PRO	CA-C	6.58	1.61	1.52
1	Ai	33	PRO	CA-C	6.57	1.61	1.52
1	Ao	33	PRO	CA-C	6.56	1.61	1.52
1	Au	33	PRO	CA-C	6.55	1.61	1.52
1	Ac	33	PRO	CA-C	6.54	1.61	1.52
1	Ba	33	PRO	CA-C	6.50	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Bm	33	PRO	CA-C	6.49	1.61	1.52
1	Ai	496	PRO	N-CD	6.46	1.56	1.47
1	Au	496	PRO	N-CD	6.45	1.56	1.47
1	Ac	496	PRO	N-CD	6.45	1.56	1.47
1	Ba	496	PRO	N-CD	6.45	1.56	1.47
1	Bg	496	PRO	N-CD	6.45	1.56	1.47
1	Ao	496	PRO	N-CD	6.44	1.56	1.47
1	Bm	496	PRO	N-CD	6.43	1.56	1.47
2	Ar	4	ARG	CA-C	6.37	1.60	1.52
2	Al	3	ILE	N-CA	6.36	1.54	1.46
2	Bj	3	ILE	N-CA	6.36	1.54	1.46
2	Ar	5	PRO	CA-C	6.35	1.60	1.52
2	Al	5	PRO	CA-C	6.34	1.60	1.52
2	Bj	4	ARG	CA-C	6.32	1.60	1.52
2	Al	4	ARG	CA-C	6.32	1.60	1.52
2	Af	5	PRO	CA-C	6.32	1.60	1.52
2	Af	4	ARG	CA-C	6.31	1.60	1.52
2	Bd	5	PRO	CA-C	6.31	1.60	1.52
2	Ax	4	ARG	CA-C	6.29	1.60	1.52
2	Bp	4	ARG	CA-C	6.28	1.60	1.52
2	Bp	5	PRO	CA-C	6.28	1.60	1.52
2	Ax	5	PRO	CA-C	6.28	1.60	1.52
2	Bj	5	PRO	CA-C	6.27	1.60	1.52
2	Bd	4	ARG	CA-C	6.26	1.60	1.52
2	Bd	2	ASN	C-N	6.13	1.39	1.33
2	Af	2	ASN	C-N	6.12	1.39	1.33
2	Bp	2	ASN	C-N	6.12	1.39	1.33
2	Ar	2	ASN	C-N	6.11	1.39	1.33
2	Ax	2	ASN	C-N	6.06	1.39	1.33
1	Au	136	VAL	N-CA	5.73	1.50	1.46
1	Ao	136	VAL	N-CA	5.67	1.50	1.46
1	Ac	136	VAL	N-CA	5.67	1.50	1.46
1	Ai	136	VAL	N-CA	5.66	1.50	1.46
1	Ba	136	VAL	N-CA	5.64	1.50	1.46
1	Bg	136	VAL	N-CA	5.64	1.50	1.46
1	Bm	136	VAL	N-CA	5.61	1.50	1.46
1	Ao	168	LYS	CA-C	5.31	1.59	1.52
1	Bg	168	LYS	CA-C	5.28	1.59	1.52
1	Bm	168	LYS	CA-C	5.26	1.59	1.52
2	Ax	96	GLU	CA-CB	5.26	1.59	1.52
2	Al	96	GLU	CA-CB	5.26	1.59	1.52
1	Au	168	LYS	CA-C	5.26	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ac	168	LYS	CA-C	5.25	1.59	1.52
1	Ba	168	LYS	CA-C	5.23	1.59	1.52
2	Ar	96	GLU	CA-CB	5.22	1.59	1.52
2	Bd	96	GLU	CA-CB	5.22	1.59	1.52
2	Bj	96	GLU	CA-CB	5.21	1.59	1.52
2	Af	96	GLU	CA-CB	5.20	1.59	1.52
1	Ai	168	LYS	CA-C	5.20	1.59	1.52
2	Bp	96	GLU	CA-CB	5.20	1.59	1.52
1	Ba	183	LEU	CA-C	5.11	1.59	1.52
1	Ao	183	LEU	CA-C	5.10	1.59	1.52
1	Au	398	ASP	CA-C	5.10	1.59	1.52
1	Ba	398	ASP	CA-C	5.10	1.59	1.52
1	Bm	183	LEU	CA-C	5.08	1.59	1.52
1	Ac	183	LEU	CA-C	5.07	1.59	1.52
1	Au	183	LEU	CA-C	5.07	1.59	1.52
1	Ac	398	ASP	CA-C	5.06	1.59	1.52
1	Ao	398	ASP	CA-C	5.05	1.59	1.52
1	Bg	398	ASP	CA-C	5.05	1.59	1.52
1	Bg	183	LEU	CA-C	5.05	1.59	1.52
1	Ai	183	LEU	CA-C	5.04	1.59	1.52
1	Ai	398	ASP	CA-C	5.04	1.59	1.52
1	Bn	137	PRO	N-CD	-5.03	1.40	1.47
1	Bm	398	ASP	CA-C	5.02	1.59	1.52
1	Bh	137	PRO	N-CD	-5.02	1.40	1.47
1	Ad	137	PRO	N-CD	-5.00	1.40	1.47

All (932) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Ar	3	ILE	N-CA-C	18.74	132.39	113.47
2	Ax	3	ILE	N-CA-C	18.73	132.39	113.47
2	Bd	3	ILE	N-CA-C	18.71	132.37	113.47
2	Bp	3	ILE	N-CA-C	18.70	132.35	113.47
2	Af	3	ILE	N-CA-C	18.69	132.35	113.47
2	Bj	94	ILE	CA-C-N	18.01	154.12	121.70
2	Bj	94	ILE	C-N-CA	18.01	154.12	121.70
2	Af	94	ILE	CA-C-N	18.00	154.10	121.70
2	Af	94	ILE	C-N-CA	18.00	154.10	121.70
2	Bp	94	ILE	CA-C-N	18.00	154.10	121.70
2	Bp	94	ILE	C-N-CA	18.00	154.10	121.70
2	Ar	94	ILE	CA-C-N	17.99	154.09	121.70
2	Ar	94	ILE	C-N-CA	17.99	154.09	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Ar	94	ILE	CB-CA-C	17.99	140.79	111.29
2	Ax	94	ILE	CA-C-N	17.99	154.07	121.70
2	Ax	94	ILE	C-N-CA	17.99	154.07	121.70
2	Al	94	ILE	CA-C-N	17.98	154.07	121.70
2	Al	94	ILE	C-N-CA	17.98	154.07	121.70
2	Bj	94	ILE	CB-CA-C	17.98	140.78	111.29
2	Bd	94	ILE	CB-CA-C	17.98	140.78	111.29
2	Af	94	ILE	CB-CA-C	17.98	140.78	111.29
2	Al	94	ILE	CB-CA-C	17.98	140.78	111.29
2	Bd	94	ILE	CA-C-N	17.98	154.06	121.70
2	Bd	94	ILE	C-N-CA	17.98	154.06	121.70
2	Ax	94	ILE	CB-CA-C	17.98	140.77	111.29
2	Bp	94	ILE	CB-CA-C	17.97	140.76	111.29
2	Ax	95	VAL	N-CA-CB	17.34	140.98	111.50
2	Ar	95	VAL	N-CA-CB	17.34	140.98	111.50
2	Bd	95	VAL	N-CA-CB	17.33	140.96	111.50
2	Bj	95	VAL	N-CA-CB	17.33	140.96	111.50
2	Bp	95	VAL	N-CA-CB	17.33	140.96	111.50
2	Af	95	VAL	N-CA-CB	17.32	140.95	111.50
2	Al	95	VAL	N-CA-CB	17.32	140.94	111.50
1	Ac	167	ASP	N-CA-C	-16.64	93.17	111.14
1	Ba	167	ASP	N-CA-C	-16.64	93.17	111.14
1	Ai	167	ASP	N-CA-C	-16.64	93.17	111.14
1	Bg	167	ASP	N-CA-C	-16.63	93.18	111.14
1	Au	167	ASP	N-CA-C	-16.62	93.19	111.14
1	Bm	167	ASP	N-CA-C	-16.61	93.20	111.14
1	Ao	167	ASP	N-CA-C	-16.61	93.20	111.14
2	Bj	3	ILE	O-C-N	-15.59	103.08	122.57
2	Al	3	ILE	O-C-N	-15.55	103.13	122.57
2	Af	3	ILE	O-C-N	-14.77	103.12	122.03
2	Ar	3	ILE	O-C-N	-14.77	103.13	122.03
2	Ax	3	ILE	O-C-N	-14.76	103.14	122.03
2	Bd	3	ILE	O-C-N	-14.76	103.14	122.03
2	Bp	3	ILE	O-C-N	-14.76	103.14	122.03
2	Ax	94	ILE	CA-CB-CG1	14.19	134.52	110.40
1	Ao	399	ALA	N-CA-C	14.18	128.13	111.11
2	Bp	94	ILE	CA-CB-CG1	14.18	134.51	110.40
2	Al	94	ILE	CA-CB-CG1	14.17	134.50	110.40
2	Af	94	ILE	CA-CB-CG1	14.17	134.49	110.40
2	Ar	94	ILE	CA-CB-CG1	14.17	134.49	110.40
1	Bm	399	ALA	N-CA-C	14.17	128.11	111.11
2	Ax	3	ILE	CA-C-N	14.17	156.36	121.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Ax	3	ILE	C-N-CA	14.17	156.36	121.80
1	Ac	399	ALA	N-CA-C	14.16	128.10	111.11
2	Ar	3	ILE	CA-C-N	14.16	156.35	121.80
2	Ar	3	ILE	C-N-CA	14.16	156.35	121.80
2	Bd	94	ILE	CA-CB-CG1	14.16	134.47	110.40
2	Bj	94	ILE	CA-CB-CG1	14.16	134.47	110.40
1	Bg	399	ALA	N-CA-C	14.15	128.09	111.11
2	Al	3	ILE	CA-C-N	14.15	156.32	121.80
2	Al	3	ILE	C-N-CA	14.15	156.32	121.80
1	Ba	399	ALA	N-CA-C	14.15	128.09	111.11
2	Af	3	ILE	CA-C-N	14.14	156.31	121.80
2	Af	3	ILE	C-N-CA	14.14	156.31	121.80
2	Bd	3	ILE	CA-C-N	14.14	156.29	121.80
2	Bd	3	ILE	C-N-CA	14.14	156.29	121.80
2	Bp	3	ILE	CA-C-N	14.13	156.29	121.80
2	Bp	3	ILE	C-N-CA	14.13	156.29	121.80
1	Ai	399	ALA	N-CA-C	14.13	128.07	111.11
1	Au	399	ALA	N-CA-C	14.13	128.07	111.11
2	Bj	3	ILE	CA-C-N	14.13	156.27	121.80
2	Bj	3	ILE	C-N-CA	14.13	156.27	121.80
2	Al	96	GLU	CB-CG-CD	14.04	136.47	112.60
2	Af	96	GLU	CB-CG-CD	14.02	136.43	112.60
2	Ax	96	GLU	CB-CG-CD	14.01	136.42	112.60
2	Ar	96	GLU	CB-CG-CD	14.01	136.42	112.60
2	Bj	96	GLU	CB-CG-CD	14.01	136.42	112.60
2	Bp	96	GLU	CB-CG-CD	14.01	136.42	112.60
2	Bd	96	GLU	CB-CG-CD	14.00	136.41	112.60
1	Ba	116	LEU	N-CA-C	-13.40	96.74	111.07
1	Ai	116	LEU	N-CA-C	-13.39	96.75	111.07
1	Ac	116	LEU	N-CA-C	-13.37	96.76	111.07
1	Bm	116	LEU	N-CA-C	-13.37	96.77	111.07
1	Ao	116	LEU	N-CA-C	-13.36	96.78	111.07
1	Au	116	LEU	N-CA-C	-13.35	96.79	111.07
1	Bg	116	LEU	N-CA-C	-13.34	96.79	111.07
2	Bj	4	ARG	N-CA-C	13.24	139.07	109.81
2	Bd	4	ARG	N-CA-C	13.23	139.06	109.81
2	Af	4	ARG	N-CA-C	13.23	139.05	109.81
2	Bp	4	ARG	N-CA-C	13.23	139.05	109.81
2	Ax	4	ARG	N-CA-C	13.23	139.04	109.81
2	Ar	4	ARG	N-CA-C	13.21	139.00	109.81
2	Al	4	ARG	N-CA-C	13.21	139.00	109.81
2	Bp	5	PRO	CB-CA-C	12.94	127.79	111.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Bj	5	PRO	CB-CA-C	12.93	127.78	111.23
2	Ax	5	PRO	CB-CA-C	12.93	127.78	111.23
2	Af	5	PRO	CB-CA-C	12.92	127.77	111.23
2	Ar	5	PRO	CB-CA-C	12.92	127.77	111.23
2	Al	5	PRO	CB-CA-C	12.92	127.76	111.23
2	Bd	5	PRO	CB-CA-C	12.91	127.76	111.23
2	Al	64	ILE	CB-CA-C	12.81	132.30	111.29
2	Ax	64	ILE	CB-CA-C	12.81	132.30	111.29
2	Bp	64	ILE	CB-CA-C	12.80	132.29	111.29
2	Bd	64	ILE	CB-CA-C	12.80	132.28	111.29
2	Ar	64	ILE	CB-CA-C	12.79	132.28	111.29
2	Af	64	ILE	CB-CA-C	12.78	132.26	111.29
2	Bj	64	ILE	CB-CA-C	12.78	132.25	111.29
2	Ar	2	ASN	CA-C-N	12.03	135.49	122.14
2	Ar	2	ASN	C-N-CA	12.03	135.49	122.14
2	Ax	2	ASN	CA-C-N	12.03	135.49	122.14
2	Ax	2	ASN	C-N-CA	12.03	135.49	122.14
2	Bp	2	ASN	CA-C-N	11.99	135.45	122.14
2	Bp	2	ASN	C-N-CA	11.99	135.45	122.14
2	Af	2	ASN	CA-C-N	11.98	135.44	122.14
2	Af	2	ASN	C-N-CA	11.98	135.44	122.14
2	Bd	2	ASN	CA-C-N	11.98	135.44	122.14
2	Bd	2	ASN	C-N-CA	11.98	135.44	122.14
2	Ax	94	ILE	O-C-N	-11.78	107.84	122.57
2	Ar	94	ILE	O-C-N	-11.77	107.85	122.57
2	Bd	94	ILE	O-C-N	-11.77	107.86	122.57
2	Al	94	ILE	O-C-N	-11.75	107.88	122.57
2	Af	94	ILE	O-C-N	-11.74	107.89	122.57
2	Bj	94	ILE	O-C-N	-11.74	107.89	122.57
2	Bp	94	ILE	O-C-N	-11.74	107.90	122.57
1	Ao	172	GLU	N-CA-C	11.61	126.94	113.01
1	Ai	172	GLU	N-CA-C	11.60	126.93	113.01
1	Bg	172	GLU	N-CA-C	11.59	126.91	113.01
1	Ac	172	GLU	N-CA-C	11.58	126.91	113.01
1	Ba	172	GLU	N-CA-C	11.58	126.91	113.01
1	Au	172	GLU	N-CA-C	11.58	126.90	113.01
1	Bm	172	GLU	N-CA-C	11.57	126.89	113.01
1	Ai	147	VAL	N-CA-C	-11.53	99.36	110.42
1	Bm	147	VAL	N-CA-C	-11.53	99.36	110.42
1	Ba	147	VAL	N-CA-C	-11.50	99.38	110.42
1	Au	147	VAL	N-CA-C	-11.50	99.38	110.42
1	Ac	147	VAL	N-CA-C	-11.49	99.39	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Bg	147	VAL	N-CA-C	-11.47	99.40	110.42
1	Ao	147	VAL	N-CA-C	-11.47	99.41	110.42
1	Ao	435	ASP	N-CA-C	-11.15	99.09	111.14
1	Ba	435	ASP	N-CA-C	-11.14	99.10	111.14
1	Au	435	ASP	N-CA-C	-11.13	99.12	111.14
1	Ai	435	ASP	N-CA-C	-11.13	99.12	111.14
1	Bg	435	ASP	N-CA-C	-11.12	99.12	111.14
1	Ac	435	ASP	N-CA-C	-11.12	99.13	111.14
1	Ai	497	THR	N-CA-C	-11.11	98.93	111.82
1	Bm	435	ASP	N-CA-C	-11.10	99.15	111.14
1	Bg	497	THR	N-CA-C	-11.09	98.95	111.82
1	Ac	497	THR	N-CA-C	-11.09	98.95	111.82
1	Au	497	THR	N-CA-C	-11.09	98.96	111.82
1	Ao	497	THR	N-CA-C	-11.08	98.97	111.82
1	Bm	497	THR	N-CA-C	-11.08	98.97	111.82
2	Bp	4	ARG	O-C-N	-11.07	108.59	121.32
2	Bd	4	ARG	O-C-N	-11.07	108.59	121.32
2	Bj	4	ARG	O-C-N	-11.06	108.60	121.32
2	Al	4	ARG	O-C-N	-11.05	108.61	121.32
1	Ba	497	THR	N-CA-C	-11.05	99.00	111.82
2	Al	3	ILE	N-CA-C	11.05	132.32	109.34
2	Af	4	ARG	O-C-N	-11.05	108.62	121.32
2	Bj	3	ILE	N-CA-C	11.05	132.31	109.34
2	Ar	4	ARG	O-C-N	-11.04	108.62	121.32
2	Ax	4	ARG	O-C-N	-11.02	108.65	121.32
2	Al	95	VAL	CA-CB-CG1	10.69	128.57	110.40
2	Bd	95	VAL	CA-CB-CG1	10.69	128.57	110.40
1	Ao	462	PRO	CA-N-CD	10.69	126.96	112.00
2	Bj	95	VAL	CA-CB-CG1	10.69	128.57	110.40
1	Bm	462	PRO	CA-N-CD	10.68	126.95	112.00
2	Af	95	VAL	CA-CB-CG1	10.67	128.54	110.40
1	Ai	462	PRO	CA-N-CD	10.67	126.94	112.00
1	Ac	462	PRO	CA-N-CD	10.66	126.93	112.00
2	Ar	95	VAL	CA-CB-CG1	10.66	128.53	110.40
1	Ba	462	PRO	CA-N-CD	10.65	126.91	112.00
2	Ax	95	VAL	CA-CB-CG1	10.65	128.50	110.40
2	Bp	95	VAL	CA-CB-CG1	10.64	128.50	110.40
1	Au	462	PRO	CA-N-CD	10.64	126.90	112.00
1	Bg	462	PRO	CA-N-CD	10.64	126.90	112.00
1	Ao	499	VAL	N-CA-C	10.36	120.37	110.42
1	Ba	499	VAL	N-CA-C	10.35	120.36	110.42
1	Au	499	VAL	N-CA-C	10.34	120.35	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ac	499	VAL	N-CA-C	10.33	120.34	110.42
1	Ai	499	VAL	N-CA-C	10.32	120.33	110.42
1	Bm	499	VAL	N-CA-C	10.31	120.32	110.42
1	Bg	499	VAL	N-CA-C	10.29	120.30	110.42
1	Bm	136	VAL	N-CA-C	10.21	116.85	107.56
1	Bg	136	VAL	N-CA-C	10.20	116.84	107.56
1	Ba	136	VAL	N-CA-C	10.20	116.84	107.56
1	Ai	136	VAL	N-CA-C	10.16	116.81	107.56
1	Ac	136	VAL	N-CA-C	10.15	116.80	107.56
1	Au	136	VAL	N-CA-C	10.15	116.80	107.56
1	Ao	136	VAL	N-CA-C	10.14	116.79	107.56
1	Bg	169	VAL	N-CA-CB	-10.10	98.51	111.64
1	Ac	169	VAL	N-CA-CB	-10.09	98.52	111.64
1	Ao	169	VAL	N-CA-CB	-10.09	98.53	111.64
1	Au	169	VAL	N-CA-CB	-10.09	98.53	111.64
1	Ai	169	VAL	N-CA-CB	-10.07	98.55	111.64
1	Ba	169	VAL	N-CA-CB	-10.07	98.55	111.64
1	Bm	169	VAL	N-CA-CB	-10.06	98.56	111.64
1	Ao	401	HIS	N-CA-C	-10.01	100.33	111.14
1	Ba	401	HIS	N-CA-C	-9.98	100.36	111.14
1	Bm	401	HIS	N-CA-C	-9.98	100.36	111.14
1	Ac	401	HIS	N-CA-C	-9.96	100.38	111.14
1	Bg	401	HIS	N-CA-C	-9.95	100.40	111.14
1	Au	401	HIS	N-CA-C	-9.94	100.40	111.14
1	Ai	401	HIS	N-CA-C	-9.93	100.44	111.07
1	Bm	12	ALA	N-CA-C	9.75	121.91	111.28
1	Ai	12	ALA	N-CA-C	9.74	121.90	111.28
1	Ao	12	ALA	N-CA-C	9.74	121.90	111.28
1	Bg	12	ALA	N-CA-C	9.74	121.90	111.28
1	Ac	12	ALA	N-CA-C	9.74	121.89	111.28
1	Au	12	ALA	N-CA-C	9.73	121.89	111.28
1	Ba	12	ALA	N-CA-C	9.73	121.88	111.28
1	Ao	397	GLU	N-CA-C	-9.66	100.83	111.36
1	Ai	397	GLU	N-CA-C	-9.65	100.84	111.36
1	Ba	397	GLU	N-CA-C	-9.65	100.84	111.36
1	Au	397	GLU	N-CA-C	-9.64	100.85	111.36
1	Bg	397	GLU	N-CA-C	-9.63	100.86	111.36
1	Ac	397	GLU	N-CA-C	-9.60	100.89	111.36
1	Bm	397	GLU	N-CA-C	-9.59	100.91	111.36
1	Bg	34	LYS	N-CA-C	9.49	124.48	113.19
1	Bm	34	LYS	N-CA-C	9.49	124.48	113.19
1	Ac	34	LYS	N-CA-C	9.48	124.47	113.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Au	34	LYS	N-CA-C	9.48	124.47	113.19
1	Ba	34	LYS	N-CA-C	9.47	124.46	113.19
1	Ai	34	LYS	N-CA-C	9.46	124.45	113.19
1	Ao	34	LYS	N-CA-C	9.46	124.45	113.19
1	Ba	137	PRO	N-CA-CB	9.25	111.60	103.27
1	Au	137	PRO	N-CA-CB	9.24	111.59	103.27
2	Bp	94	ILE	CA-C-O	-9.22	109.25	120.78
1	Ac	137	PRO	N-CA-CB	9.20	111.55	103.27
1	Bg	137	PRO	N-CA-CB	9.20	111.55	103.27
2	Af	94	ILE	CA-C-O	-9.19	109.30	120.78
1	Ai	137	PRO	N-CA-CB	9.19	111.54	103.27
1	Bm	137	PRO	N-CA-CB	9.19	111.54	103.27
2	Al	94	ILE	CA-C-O	-9.18	109.30	120.78
2	Ax	94	ILE	CA-C-O	-9.18	109.31	120.78
2	Bd	94	ILE	CA-C-O	-9.17	109.32	120.78
2	Ar	94	ILE	CA-C-O	-9.16	109.33	120.78
2	Bj	94	ILE	CA-C-O	-9.16	109.33	120.78
2	Ax	95	VAL	CA-CB-CG2	9.15	125.95	110.40
1	Ao	137	PRO	N-CA-CB	9.14	111.50	103.27
2	Al	95	VAL	CA-CB-CG2	9.13	125.93	110.40
2	Bd	95	VAL	CA-CB-CG2	9.13	125.92	110.40
2	Bp	95	VAL	CA-CB-CG2	9.13	125.92	110.40
2	Bj	95	VAL	CA-CB-CG2	9.13	125.92	110.40
2	Af	95	VAL	CA-CB-CG2	9.12	125.91	110.40
2	Ar	95	VAL	CA-CB-CG2	9.11	125.88	110.40
2	Al	96	GLU	CA-CB-CG	8.99	132.08	114.10
1	Au	147	VAL	N-CA-CB	8.98	121.06	110.55
2	Bj	96	GLU	CA-CB-CG	8.98	132.06	114.10
1	Ba	147	VAL	N-CA-CB	8.98	121.06	110.55
1	Bg	147	VAL	N-CA-CB	8.98	121.05	110.55
2	Af	96	GLU	CA-CB-CG	8.97	132.05	114.10
2	Bp	96	GLU	CA-CB-CG	8.97	132.04	114.10
2	Ar	96	GLU	CA-CB-CG	8.97	132.03	114.10
2	Ax	96	GLU	CA-CB-CG	8.97	132.03	114.10
2	Bd	96	GLU	CA-CB-CG	8.96	132.03	114.10
1	Ac	147	VAL	N-CA-CB	8.96	121.03	110.55
1	Ao	147	VAL	N-CA-CB	8.96	121.03	110.55
1	Ai	147	VAL	N-CA-CB	8.94	121.02	110.55
1	Bm	147	VAL	N-CA-CB	8.94	121.00	110.55
1	Ap	140	ASP	N-CA-C	-8.64	97.49	110.28
1	Ad	140	ASP	N-CA-C	-8.64	97.50	110.28
1	Av	140	ASP	N-CA-C	-8.63	97.50	110.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Aj	140	ASP	N-CA-C	-8.63	97.50	110.28
1	Bn	140	ASP	N-CA-C	-8.63	97.51	110.28
1	Bb	140	ASP	N-CA-C	-8.63	97.51	110.28
1	Bh	140	ASP	N-CA-C	-8.63	97.51	110.28
1	Bb	165	ALA	N-CA-C	-8.39	102.21	111.36
1	Aj	165	ALA	N-CA-C	-8.38	102.22	111.36
1	Bn	165	ALA	N-CA-C	-8.38	102.23	111.36
1	Av	165	ALA	N-CA-C	-8.38	102.23	111.36
1	Ad	165	ALA	N-CA-C	-8.37	102.23	111.36
1	Bh	165	ALA	N-CA-C	-8.35	102.25	111.36
1	Ap	165	ALA	N-CA-C	-8.35	102.26	111.36
1	Au	387	VAL	N-CA-CB	8.33	121.23	110.57
1	Bg	387	VAL	N-CA-CB	8.33	121.23	110.57
1	Bm	135	SER	N-CA-C	8.33	122.49	110.24
1	Ai	135	SER	N-CA-C	8.32	122.48	110.24
1	Ao	135	SER	N-CA-C	8.32	122.48	110.24
1	Ac	135	SER	N-CA-C	8.32	122.47	110.24
1	Ba	387	VAL	N-CA-CB	8.32	121.22	110.57
1	Ba	135	SER	N-CA-C	8.32	122.47	110.24
1	Ai	387	VAL	N-CA-CB	8.32	121.21	110.57
1	Au	135	SER	N-CA-C	8.32	122.46	110.24
1	Ac	387	VAL	N-CA-CB	8.31	121.21	110.57
1	Bg	135	SER	N-CA-C	8.31	122.45	110.24
1	Ao	387	VAL	N-CA-CB	8.30	121.19	110.57
1	Bm	387	VAL	N-CA-CB	8.29	121.19	110.57
1	Ai	10	ASN	N-CA-C	-8.25	102.25	111.82
1	Au	10	ASN	N-CA-C	-8.23	102.27	111.82
1	Bg	390	LYS	N-CA-C	-8.22	102.26	111.14
1	Ai	390	LYS	N-CA-C	-8.22	102.26	111.14
1	Bg	10	ASN	N-CA-C	-8.22	102.29	111.82
1	Ai	165	ALA	N-CA-C	8.22	120.24	111.28
1	Bm	390	LYS	N-CA-C	-8.22	102.27	111.14
1	Au	390	LYS	N-CA-C	-8.21	102.27	111.14
1	Ac	10	ASN	N-CA-C	-8.21	102.29	111.82
1	Bg	435	ASP	N-CA-CB	8.21	121.97	110.07
1	Bm	10	ASN	N-CA-C	-8.21	102.30	111.82
1	Ac	390	LYS	N-CA-C	-8.21	102.28	111.14
1	Ba	390	LYS	N-CA-C	-8.21	102.28	111.14
1	Au	165	ALA	N-CA-C	8.20	120.22	111.28
1	Ai	435	ASP	N-CA-CB	8.20	121.96	110.07
1	Ba	435	ASP	N-CA-CB	8.20	121.95	110.07
1	Bg	165	ALA	N-CA-C	8.20	120.21	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ao	390	LYS	N-CA-C	-8.19	102.29	111.14
1	Ac	165	ALA	N-CA-C	8.19	120.21	111.28
1	Ba	165	ALA	N-CA-C	8.19	120.21	111.28
1	Ao	435	ASP	N-CA-CB	8.19	121.95	110.07
1	Ba	10	ASN	N-CA-C	-8.19	102.32	111.82
1	Au	435	ASP	N-CA-CB	8.19	121.94	110.07
1	Ao	10	ASN	N-CA-C	-8.18	102.33	111.82
1	Bm	435	ASP	N-CA-CB	8.18	121.94	110.07
1	Ac	435	ASP	N-CA-CB	8.18	121.93	110.07
1	Ao	165	ALA	N-CA-C	8.17	120.19	111.28
1	Bm	165	ALA	N-CA-C	8.16	120.18	111.28
1	Bb	182	GLY	N-CA-C	-7.98	100.69	111.54
1	Ad	182	GLY	N-CA-C	-7.96	100.71	111.54
1	Bn	182	GLY	N-CA-C	-7.96	100.71	111.54
1	Ap	182	GLY	N-CA-C	-7.96	100.72	111.54
1	Av	182	GLY	N-CA-C	-7.95	100.73	111.54
1	Bh	182	GLY	N-CA-C	-7.94	100.74	111.54
1	Aj	182	GLY	N-CA-C	-7.93	100.75	111.54
1	Bm	462	PRO	N-CA-CB	-7.80	94.96	103.39
1	Ao	462	PRO	N-CA-CB	-7.79	94.98	103.39
1	Ac	462	PRO	N-CA-CB	-7.78	94.99	103.39
1	Ai	462	PRO	N-CA-CB	-7.77	95.00	103.39
1	Ba	462	PRO	N-CA-CB	-7.75	95.02	103.39
1	Au	462	PRO	N-CA-CB	-7.74	95.03	103.39
1	Bg	462	PRO	N-CA-CB	-7.72	95.05	103.39
1	Bg	422	VAL	N-CA-CB	7.67	120.39	110.57
1	Ao	422	VAL	N-CA-CB	7.66	120.37	110.57
1	Ba	422	VAL	N-CA-CB	7.65	120.37	110.57
1	Ac	422	VAL	N-CA-CB	7.65	120.36	110.57
1	Au	422	VAL	N-CA-CB	7.64	120.35	110.57
1	Ai	422	VAL	N-CA-CB	7.62	120.32	110.57
1	Bm	422	VAL	N-CA-CB	7.61	120.31	110.57
1	Bg	88	GLY	N-CA-C	-7.60	104.06	115.00
1	Ai	88	GLY	N-CA-C	-7.58	104.08	115.00
1	Ba	88	GLY	N-CA-C	-7.58	104.09	115.00
1	Ac	88	GLY	N-CA-C	-7.57	104.10	115.00
1	Au	88	GLY	N-CA-C	-7.56	104.11	115.00
1	Ao	88	GLY	N-CA-C	-7.55	104.12	115.00
1	Bm	88	GLY	N-CA-C	-7.55	104.12	115.00
1	Au	345	ARG	N-CA-C	7.52	119.48	111.28
1	Bg	345	ARG	N-CA-C	7.49	119.44	111.28
1	Ai	345	ARG	N-CA-C	7.47	119.43	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Al	2	ASN	CA-C-N	7.47	135.42	121.97
2	Al	2	ASN	C-N-CA	7.47	135.42	121.97
1	Ao	345	ARG	N-CA-C	7.47	119.43	111.28
1	Ba	345	ARG	N-CA-C	7.47	119.42	111.28
1	Ac	345	ARG	N-CA-C	7.47	119.42	111.28
2	Bj	2	ASN	CA-C-N	7.47	135.41	121.97
2	Bj	2	ASN	C-N-CA	7.47	135.41	121.97
1	Bm	345	ARG	N-CA-C	7.42	119.37	111.28
1	Ba	94	VAL	N-CA-C	-7.41	103.56	110.53
1	Bm	94	VAL	N-CA-C	-7.41	103.57	110.53
1	Ac	94	VAL	N-CA-C	-7.41	103.57	110.53
1	Bn	429	LEU	N-CA-C	-7.40	99.08	110.10
1	Ba	473	ASP	N-CA-C	7.40	121.30	109.24
1	Bg	94	VAL	N-CA-C	-7.40	103.58	110.53
1	Bm	473	ASP	N-CA-C	7.40	121.30	109.24
1	Aj	429	LEU	N-CA-C	-7.39	99.08	110.10
1	Bh	429	LEU	N-CA-C	-7.39	99.09	110.10
1	Ad	429	LEU	N-CA-C	-7.39	99.09	110.10
1	Ac	473	ASP	N-CA-C	7.39	121.28	109.24
1	Au	94	VAL	N-CA-C	-7.38	103.59	110.53
1	Au	473	ASP	N-CA-C	7.38	121.28	109.24
1	Bb	429	LEU	N-CA-C	-7.38	99.10	110.10
1	Bg	473	ASP	N-CA-C	7.38	121.27	109.24
1	Ai	94	VAL	N-CA-C	-7.38	103.60	110.53
1	Ap	429	LEU	N-CA-C	-7.38	99.11	110.10
1	Ao	94	VAL	N-CA-C	-7.37	103.60	110.53
1	Av	429	LEU	N-CA-C	-7.37	99.12	110.10
1	Ao	473	ASP	N-CA-C	7.37	121.25	109.24
1	Ai	473	ASP	N-CA-C	7.37	121.25	109.24
1	Ao	43	SER	N-CA-C	7.36	119.30	111.28
1	Bm	43	SER	N-CA-C	7.36	119.30	111.28
1	Ba	43	SER	N-CA-C	7.35	119.29	111.28
1	Ai	43	SER	N-CA-C	7.35	119.29	111.28
1	Ac	43	SER	N-CA-C	7.33	119.27	111.28
1	Au	43	SER	N-CA-C	7.33	119.27	111.28
1	Bg	43	SER	N-CA-C	7.32	119.26	111.28
1	Au	499	VAL	N-CA-CB	-7.18	102.15	110.55
1	Ai	114	MET	N-CA-C	7.17	118.74	111.07
1	Ai	499	VAL	N-CA-CB	-7.16	102.17	110.55
1	Ba	499	VAL	N-CA-CB	-7.15	102.19	110.55
1	Bg	499	VAL	N-CA-CB	-7.15	102.19	110.55
1	Ac	499	VAL	N-CA-CB	-7.15	102.19	110.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Au	114	MET	N-CA-C	7.14	118.71	111.07
1	Bm	499	VAL	N-CA-CB	-7.14	102.20	110.55
1	Ao	499	VAL	N-CA-CB	-7.13	102.20	110.55
1	Ac	114	MET	N-CA-C	7.11	118.68	111.07
1	Bm	114	MET	N-CA-C	7.11	118.68	111.07
1	Ba	114	MET	N-CA-C	7.11	118.68	111.07
1	Bg	114	MET	N-CA-C	7.10	118.67	111.07
1	Ao	114	MET	N-CA-C	7.08	118.64	111.07
1	Bb	168	LYS	N-CA-C	7.05	118.62	111.07
1	Bh	168	LYS	N-CA-C	7.04	118.61	111.07
1	Ap	168	LYS	N-CA-C	7.03	118.59	111.07
1	Ad	168	LYS	N-CA-C	7.02	118.58	111.07
2	Ar	64	ILE	CA-CB-CG2	7.00	122.40	110.50
1	Av	168	LYS	N-CA-C	7.00	118.56	111.07
2	Bd	64	ILE	CA-CB-CG2	7.00	122.40	110.50
2	Bj	64	ILE	CA-CB-CG2	7.00	122.40	110.50
1	Au	137	PRO	CA-N-CD	-7.00	102.20	112.00
2	Af	64	ILE	CA-CB-CG2	7.00	122.39	110.50
2	Al	64	ILE	CA-CB-CG2	6.99	122.39	110.50
2	Bp	64	ILE	CA-CB-CG2	6.98	122.36	110.50
1	Aj	167	ASP	N-CA-C	6.97	119.53	111.02
2	Ax	64	ILE	CA-CB-CG2	6.97	122.34	110.50
1	Bb	167	ASP	N-CA-C	6.97	119.52	111.02
1	Bm	137	PRO	CA-N-CD	-6.97	102.25	112.00
1	Bn	167	ASP	N-CA-C	6.97	119.52	111.02
1	Av	167	ASP	N-CA-C	6.96	119.51	111.02
1	Ad	167	ASP	N-CA-C	6.96	119.51	111.02
1	Ba	137	PRO	CA-N-CD	-6.96	102.26	112.00
1	Aj	321	LYS	N-CA-C	6.96	118.86	111.28
1	Ao	137	PRO	CA-N-CD	-6.96	102.26	112.00
1	Bh	167	ASP	N-CA-C	6.95	119.50	111.02
1	Ac	137	PRO	CA-N-CD	-6.95	102.27	112.00
1	Ad	321	LYS	N-CA-C	6.95	118.85	111.28
1	Av	321	LYS	N-CA-C	6.94	118.84	111.28
1	Ap	167	ASP	N-CA-C	6.94	119.48	111.02
1	Ai	137	PRO	CA-N-CD	-6.94	102.29	112.00
1	Bg	137	PRO	CA-N-CD	-6.93	102.29	112.00
1	Bh	321	LYS	N-CA-C	6.93	118.84	111.28
1	Bn	321	LYS	N-CA-C	6.93	118.83	111.28
1	Ba	184	GLN	N-CA-CB	6.92	121.70	110.41
1	Bb	321	LYS	N-CA-C	6.92	118.83	111.28
1	Ap	321	LYS	N-CA-C	6.91	118.82	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Au	184	GLN	N-CA-CB	6.91	121.68	110.41
1	Bm	184	GLN	N-CA-CB	6.91	121.68	110.41
1	Bg	184	GLN	N-CA-CB	6.91	121.67	110.41
1	Ac	184	GLN	N-CA-CB	6.90	121.66	110.41
1	Ao	184	GLN	N-CA-CB	6.89	121.65	110.41
1	Ai	184	GLN	N-CA-CB	6.89	121.64	110.41
2	Ar	4	ARG	CA-CB-CG	6.89	127.87	114.10
1	Ai	433	ASN	N-CA-C	-6.88	99.28	109.81
2	Al	4	ARG	CA-CB-CG	6.88	127.85	114.10
1	Au	433	ASN	N-CA-C	-6.87	99.29	109.81
1	Bm	433	ASN	N-CA-C	-6.87	99.30	109.81
1	Ac	433	ASN	N-CA-C	-6.87	99.30	109.81
2	Af	4	ARG	CA-CB-CG	6.87	127.83	114.10
1	Ao	433	ASN	N-CA-C	-6.87	99.31	109.81
1	Bg	433	ASN	N-CA-C	-6.86	99.31	109.81
2	Bj	4	ARG	CA-CB-CG	6.86	127.82	114.10
2	Ax	4	ARG	CA-CB-CG	6.86	127.82	114.10
2	Bp	4	ARG	CA-CB-CG	6.86	127.82	114.10
2	Bd	4	ARG	CA-CB-CG	6.84	127.79	114.10
1	Ba	433	ASN	N-CA-C	-6.84	99.34	109.81
1	Ai	464	VAL	N-CA-C	-6.84	104.10	110.53
1	Au	464	VAL	N-CA-C	-6.83	104.11	110.53
1	Ao	262	LEU	N-CA-C	6.82	118.79	111.36
1	Ai	262	LEU	N-CA-C	6.81	118.78	111.36
1	Ac	262	LEU	N-CA-C	6.81	118.78	111.36
1	Ac	464	VAL	N-CA-C	-6.80	104.14	110.53
1	Bg	262	LEU	N-CA-C	6.80	118.77	111.36
1	Au	262	LEU	N-CA-C	6.79	118.76	111.36
1	Ba	262	LEU	N-CA-C	6.79	118.76	111.36
1	Bm	464	VAL	N-CA-C	-6.79	104.15	110.53
1	Bg	464	VAL	N-CA-C	-6.79	104.15	110.53
1	Bm	262	LEU	N-CA-C	6.78	118.75	111.36
1	Ao	464	VAL	N-CA-C	-6.77	104.17	110.53
1	Ba	464	VAL	N-CA-C	-6.77	104.17	110.53
1	Bn	168	LYS	N-CA-C	6.72	118.61	111.28
1	Aj	168	LYS	N-CA-C	6.68	118.56	111.28
1	Au	304	GLU	N-CA-C	6.63	118.16	111.07
1	Ba	304	GLU	N-CA-C	6.62	118.16	111.07
1	Bg	304	GLU	N-CA-C	6.62	118.16	111.07
1	Ai	304	GLU	N-CA-C	6.62	118.15	111.07
1	Ac	304	GLU	N-CA-C	6.62	118.15	111.07
1	Ao	304	GLU	N-CA-C	6.59	118.13	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Bm	304	GLU	N-CA-C	6.59	118.12	111.07
1	Bg	182	GLY	N-CA-C	-6.54	101.11	111.18
1	Bm	182	GLY	N-CA-C	-6.53	101.13	111.18
1	Ac	182	GLY	N-CA-C	-6.52	101.14	111.18
1	Ba	182	GLY	N-CA-C	-6.52	101.14	111.18
1	Ao	182	GLY	N-CA-C	-6.51	101.16	111.18
1	Au	182	GLY	N-CA-C	-6.51	101.16	111.18
1	Ai	182	GLY	N-CA-C	-6.50	101.17	111.18
1	Au	207	LYS	N-CA-C	6.42	122.43	113.57
1	Au	459	GLY	N-CA-C	-6.42	106.57	114.92
1	Ac	207	LYS	N-CA-C	6.42	122.43	113.57
1	Ao	207	LYS	N-CA-C	6.42	122.42	113.57
1	Ba	207	LYS	N-CA-C	6.42	122.42	113.57
1	Bg	207	LYS	N-CA-C	6.41	122.41	113.57
1	Bg	459	GLY	N-CA-C	-6.41	106.59	114.92
1	Ai	459	GLY	N-CA-C	-6.41	106.59	114.92
1	Ac	459	GLY	N-CA-C	-6.40	106.60	114.92
1	Bm	459	GLY	N-CA-C	-6.39	106.61	114.92
1	Bm	207	LYS	N-CA-C	6.39	122.39	113.57
1	Ai	207	LYS	N-CA-C	6.39	122.39	113.57
1	Ba	459	GLY	N-CA-C	-6.39	106.61	114.92
1	Bm	58	ARG	N-CA-C	-6.38	104.41	111.36
1	Ao	459	GLY	N-CA-C	-6.36	106.65	114.92
1	Au	58	ARG	N-CA-C	-6.36	104.42	111.36
2	Bj	5	PRO	O-C-N	-6.36	115.13	123.01
2	Al	5	PRO	O-C-N	-6.36	115.13	123.01
1	Ac	58	ARG	N-CA-C	-6.35	104.44	111.36
1	Ba	58	ARG	N-CA-C	-6.35	104.44	111.36
1	Ai	58	ARG	N-CA-C	-6.35	104.44	111.36
2	Bp	5	PRO	O-C-N	-6.34	115.14	123.01
1	Bg	496	PRO	CB-CA-C	-6.34	103.11	111.23
2	Bd	5	PRO	O-C-N	-6.34	115.15	123.01
1	Ao	58	ARG	N-CA-C	-6.33	104.46	111.36
1	Au	496	PRO	CB-CA-C	-6.33	103.13	111.23
1	Bm	496	PRO	CB-CA-C	-6.33	103.13	111.23
2	Af	5	PRO	O-C-N	-6.32	115.17	123.01
2	Ax	5	PRO	O-C-N	-6.32	115.17	123.01
1	Ac	496	PRO	CB-CA-C	-6.32	103.14	111.23
2	Ar	5	PRO	O-C-N	-6.32	115.17	123.01
1	Ba	496	PRO	CB-CA-C	-6.31	103.15	111.23
1	Bg	58	ARG	N-CA-C	-6.30	104.50	111.36
1	Ao	496	PRO	CB-CA-C	-6.29	103.17	111.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ai	496	PRO	CB-CA-C	-6.29	103.18	111.23
2	Ar	3	ILE	N-CA-CB	-6.26	104.88	112.33
2	Bp	3	ILE	N-CA-CB	-6.24	104.91	112.33
2	Af	3	ILE	N-CA-CB	-6.23	104.92	112.33
2	Bd	3	ILE	N-CA-CB	-6.23	104.92	112.33
2	Ax	3	ILE	N-CA-CB	-6.22	104.92	112.33
1	Ap	61	GLU	N-CA-C	-6.19	99.66	109.07
1	Bn	61	GLU	N-CA-C	-6.19	99.67	109.07
1	Ad	61	GLU	N-CA-C	-6.18	99.67	109.07
1	Av	61	GLU	N-CA-C	-6.18	99.68	109.07
2	Ar	95	VAL	CB-CA-C	-6.17	99.67	111.40
1	Bb	61	GLU	N-CA-C	-6.17	99.69	109.07
1	Aj	61	GLU	N-CA-C	-6.17	99.69	109.07
1	Bh	61	GLU	N-CA-C	-6.17	99.69	109.07
2	Al	95	VAL	CB-CA-C	-6.16	99.70	111.40
2	Ax	95	VAL	CB-CA-C	-6.16	99.71	111.40
2	Bp	95	VAL	CB-CA-C	-6.16	99.70	111.40
2	Bj	95	VAL	CB-CA-C	-6.15	99.71	111.40
2	Af	95	VAL	CB-CA-C	-6.15	99.72	111.40
1	Au	390	LYS	N-CA-CB	6.14	118.98	110.07
1	Ai	390	LYS	N-CA-CB	6.14	118.97	110.07
2	Bd	95	VAL	CB-CA-C	-6.14	99.74	111.40
1	Ba	390	LYS	N-CA-CB	6.13	118.97	110.07
1	Ac	390	LYS	N-CA-CB	6.13	118.96	110.07
1	Bm	390	LYS	N-CA-CB	6.12	118.94	110.07
1	Bg	390	LYS	N-CA-CB	6.11	118.94	110.07
1	Ao	390	LYS	N-CA-CB	6.11	118.93	110.07
1	Bb	386	GLU	N-CA-C	-6.01	104.66	112.23
1	Bh	386	GLU	N-CA-C	-6.00	104.67	112.23
1	Bn	386	GLU	N-CA-C	-6.00	104.67	112.23
1	Av	138	CYS	CB-CA-C	-6.00	100.36	110.19
1	Ap	138	CYS	CB-CA-C	-5.99	100.36	110.19
1	Ba	171	LYS	N-CA-CB	5.99	120.61	110.49
1	Aj	138	CYS	CB-CA-C	-5.99	100.37	110.19
1	Bh	138	CYS	CB-CA-C	-5.99	100.37	110.19
1	Ad	138	CYS	CB-CA-C	-5.99	100.37	110.19
1	Ad	386	GLU	N-CA-C	-5.98	104.69	112.23
1	Bb	138	CYS	CB-CA-C	-5.98	100.39	110.19
1	Aj	386	GLU	N-CA-C	-5.97	104.70	112.23
1	Ai	171	LYS	N-CA-CB	5.97	120.58	110.49
1	Ap	386	GLU	N-CA-C	-5.97	104.70	112.23
1	Bn	138	CYS	CB-CA-C	-5.97	100.40	110.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Bg	12	ALA	N-CA-CB	-5.97	101.35	110.12
1	Ac	171	LYS	N-CA-CB	5.96	120.57	110.49
1	Av	386	GLU	N-CA-C	-5.96	104.72	112.23
1	Bm	171	LYS	N-CA-CB	5.96	120.56	110.49
1	Au	171	LYS	N-CA-CB	5.95	120.55	110.49
1	Ba	12	ALA	N-CA-CB	-5.95	101.37	110.12
1	Ao	171	LYS	N-CA-CB	5.95	120.54	110.49
2	Bp	2	ASN	CA-CB-CG	5.95	118.55	112.60
2	Ar	2	ASN	CA-CB-CG	5.94	118.54	112.60
1	Ao	12	ALA	N-CA-CB	-5.94	101.39	110.12
1	Au	12	ALA	N-CA-CB	-5.93	101.40	110.12
1	Bg	171	LYS	N-CA-CB	5.93	120.52	110.49
1	Ac	12	ALA	N-CA-CB	-5.93	101.40	110.12
2	Al	2	ASN	CA-CB-CG	5.93	118.53	112.60
1	Bm	12	ALA	N-CA-CB	-5.93	101.40	110.12
2	Bj	2	ASN	CA-CB-CG	5.93	118.53	112.60
2	Ax	2	ASN	CA-CB-CG	5.92	118.52	112.60
2	Af	2	ASN	CA-CB-CG	5.91	118.51	112.60
1	Ao	416	GLY	N-CA-C	-5.91	107.50	115.36
1	Ba	416	GLY	N-CA-C	-5.90	107.51	115.36
1	Ai	12	ALA	N-CA-CB	-5.90	101.45	110.12
2	Bd	2	ASN	CA-CB-CG	5.89	118.49	112.60
2	Bd	3	ILE	CA-C-O	-5.89	113.68	118.98
1	Ac	416	GLY	N-CA-C	-5.88	107.54	115.36
2	Bp	3	ILE	CA-C-O	-5.88	113.69	118.98
2	Af	3	ILE	CA-C-O	-5.88	113.69	118.98
1	Bg	416	GLY	N-CA-C	-5.88	107.55	115.36
1	Ai	416	GLY	N-CA-C	-5.87	107.55	115.36
2	Bp	57	LEU	CA-C-N	5.86	128.14	120.28
2	Bp	57	LEU	C-N-CA	5.86	128.14	120.28
2	Ax	3	ILE	CA-C-O	-5.86	113.71	118.98
1	Au	416	GLY	N-CA-C	-5.86	107.57	115.36
1	Bm	416	GLY	N-CA-C	-5.86	107.57	115.36
2	Ar	3	ILE	CA-C-O	-5.85	113.72	118.98
2	Al	57	LEU	CA-C-N	5.84	128.10	120.28
2	Al	57	LEU	C-N-CA	5.84	128.10	120.28
2	Ax	57	LEU	CA-C-N	5.84	128.10	120.28
2	Ax	57	LEU	C-N-CA	5.84	128.10	120.28
2	Bj	57	LEU	CA-C-N	5.84	128.10	120.28
2	Bj	57	LEU	C-N-CA	5.84	128.10	120.28
2	Bd	57	LEU	CA-C-N	5.83	128.10	120.28
2	Bd	57	LEU	C-N-CA	5.83	128.10	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Af	57	LEU	CA-C-N	5.83	128.10	120.28
2	Af	57	LEU	C-N-CA	5.83	128.10	120.28
2	Af	94	ILE	N-CA-C	-5.83	97.21	109.34
2	Al	94	ILE	N-CA-C	-5.83	97.21	109.34
2	Ar	57	LEU	CA-C-N	5.83	128.09	120.28
2	Ar	57	LEU	C-N-CA	5.83	128.09	120.28
2	Bd	94	ILE	N-CA-C	-5.83	97.22	109.34
2	Ar	94	ILE	N-CA-C	-5.82	97.23	109.34
2	Bj	94	ILE	N-CA-C	-5.82	97.23	109.34
2	Bp	94	ILE	N-CA-C	-5.82	97.23	109.34
2	Ax	94	ILE	N-CA-C	-5.82	97.24	109.34
1	Ba	168	LYS	N-CA-C	5.81	118.11	111.02
1	Bm	168	LYS	N-CA-C	5.81	118.11	111.02
1	Au	168	LYS	N-CA-C	5.81	118.11	111.02
1	Ai	168	LYS	N-CA-C	5.80	118.09	111.02
1	Ao	168	LYS	N-CA-C	5.80	118.09	111.02
1	Ac	168	LYS	N-CA-C	5.79	118.09	111.02
1	Bg	168	LYS	N-CA-C	5.79	118.09	111.02
1	Aj	81	ALA	N-CA-C	-5.78	104.98	111.28
1	Ap	81	ALA	N-CA-C	-5.77	104.99	111.28
2	Ar	3	ILE	CA-CB-CG1	5.77	120.20	110.40
2	Bp	3	ILE	CA-CB-CG1	5.76	120.19	110.40
1	Bh	81	ALA	N-CA-C	-5.76	105.00	111.28
2	Bj	3	ILE	CA-CB-CG1	5.76	120.19	110.40
2	Al	3	ILE	CA-CB-CG1	5.76	120.19	110.40
1	Av	81	ALA	N-CA-C	-5.75	105.01	111.28
1	Bb	81	ALA	N-CA-C	-5.75	105.02	111.28
2	Af	3	ILE	CA-CB-CG1	5.74	120.16	110.40
2	Ax	3	ILE	CA-CB-CG1	5.74	120.15	110.40
1	Ad	81	ALA	N-CA-C	-5.74	105.03	111.28
1	Bn	81	ALA	N-CA-C	-5.73	105.03	111.28
2	Bd	3	ILE	CA-CB-CG1	5.71	120.11	110.40
2	Bd	6	LEU	N-CA-CB	5.71	118.68	110.06
1	Av	64	ASP	N-CA-CB	5.70	118.49	109.71
2	Al	6	LEU	N-CA-CB	5.70	118.66	110.06
2	Al	3	ILE	CA-C-O	-5.69	113.67	120.78
1	Ba	461	GLU	N-CA-C	-5.69	101.14	109.50
2	Bj	6	LEU	N-CA-CB	5.69	118.65	110.06
2	Af	6	LEU	N-CA-CB	5.69	118.65	110.06
1	Ai	401	HIS	N-CA-CB	5.69	118.25	110.01
1	Ai	86	GLY	CA-C-N	5.68	132.39	121.54
1	Ai	86	GLY	C-N-CA	5.68	132.39	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Ax	6	LEU	N-CA-CB	5.68	118.64	110.06
1	Bm	461	GLU	N-CA-C	-5.68	101.15	109.50
1	Bn	64	ASP	N-CA-CB	5.68	118.46	109.71
1	Ac	461	GLU	N-CA-C	-5.68	101.15	109.50
1	Ao	461	GLU	N-CA-C	-5.68	101.15	109.50
1	Au	461	GLU	N-CA-C	-5.68	101.15	109.50
1	Ba	86	GLY	CA-C-N	5.68	132.39	121.54
1	Ba	86	GLY	C-N-CA	5.68	132.39	121.54
1	Bg	401	HIS	N-CA-CB	5.68	118.31	110.07
2	Bj	3	ILE	CA-C-O	-5.68	113.68	120.78
1	Ac	86	GLY	CA-C-N	5.68	132.38	121.54
1	Ac	86	GLY	C-N-CA	5.68	132.38	121.54
2	Ar	6	LEU	N-CA-CB	5.68	118.63	110.06
2	Bp	6	LEU	N-CA-CB	5.68	118.63	110.06
1	Ac	401	HIS	N-CA-CB	5.67	118.29	110.07
1	Ao	86	GLY	CA-C-N	5.67	132.37	121.54
1	Ao	86	GLY	C-N-CA	5.67	132.37	121.54
1	Bg	461	GLU	N-CA-C	-5.67	101.17	109.50
1	Au	86	GLY	CA-C-N	5.67	132.36	121.54
1	Au	86	GLY	C-N-CA	5.67	132.36	121.54
1	Bh	64	ASP	N-CA-CB	5.67	118.44	109.71
1	Ad	64	ASP	N-CA-CB	5.66	118.43	109.71
1	Bm	86	GLY	CA-C-N	5.66	132.35	121.54
1	Bm	86	GLY	C-N-CA	5.66	132.35	121.54
1	Ba	401	HIS	N-CA-CB	5.66	118.28	110.07
1	Bm	401	HIS	N-CA-CB	5.66	118.27	110.07
1	Ai	461	GLU	N-CA-C	-5.65	101.19	109.50
1	Ba	525	PRO	CA-C-O	-5.65	104.05	121.00
1	Bb	64	ASP	N-CA-CB	5.65	118.41	109.71
1	Bg	460	GLU	N-CA-C	-5.65	102.54	110.50
1	Au	525	PRO	CA-C-O	-5.65	104.06	121.00
1	Ao	401	HIS	N-CA-CB	5.64	118.26	110.07
1	Bm	460	GLU	N-CA-C	-5.64	102.54	110.50
1	Bm	525	PRO	CA-C-O	-5.64	104.06	121.00
1	Ai	460	GLU	N-CA-C	-5.64	102.54	110.50
1	Au	401	HIS	N-CA-CB	5.64	118.25	110.07
1	Ac	525	PRO	CA-C-O	-5.64	104.08	121.00
1	Bg	525	PRO	CA-C-O	-5.64	104.09	121.00
1	Bg	86	GLY	CA-C-N	5.64	132.31	121.54
1	Bg	86	GLY	C-N-CA	5.64	132.31	121.54
1	Ao	460	GLU	N-CA-C	-5.63	102.56	110.50
1	Ap	64	ASP	N-CA-CB	5.63	118.39	109.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ai	525	PRO	CA-C-O	-5.63	104.10	121.00
1	Aj	64	ASP	N-CA-CB	5.63	118.38	109.71
1	Ao	525	PRO	CA-C-O	-5.63	104.11	121.00
1	Ac	460	GLU	N-CA-C	-5.63	102.56	110.50
1	Av	234	LEU	N-CA-C	5.63	122.25	109.81
1	Au	460	GLU	N-CA-C	-5.62	102.57	110.50
1	Bb	234	LEU	N-CA-C	5.62	122.23	109.81
1	Bn	234	LEU	N-CA-C	5.62	122.23	109.81
1	Ad	234	LEU	N-CA-C	5.61	122.21	109.81
1	Bh	234	LEU	N-CA-C	5.61	122.20	109.81
1	Ba	460	GLU	N-CA-C	-5.60	102.60	110.50
1	Ap	234	LEU	N-CA-C	5.60	122.18	109.81
1	Aj	234	LEU	N-CA-C	5.59	122.17	109.81
1	Bn	278	ALA	CA-C-N	5.54	125.84	119.92
1	Bn	278	ALA	C-N-CA	5.54	125.84	119.92
1	Bn	64	ASP	N-CA-C	-5.52	101.48	109.59
1	Bb	64	ASP	N-CA-C	-5.51	101.49	109.59
1	Av	64	ASP	N-CA-C	-5.50	101.50	109.59
1	Ad	64	ASP	N-CA-C	-5.50	101.50	109.59
1	Bm	417	VAL	N-CA-C	-5.50	105.17	110.72
1	Ap	64	ASP	N-CA-C	-5.50	101.51	109.59
1	Bh	64	ASP	N-CA-C	-5.49	101.52	109.59
1	Aj	64	ASP	N-CA-C	-5.49	101.53	109.59
1	Ap	278	ALA	CA-C-N	5.49	125.79	119.92
1	Ap	278	ALA	C-N-CA	5.49	125.79	119.92
1	Ad	278	ALA	CA-C-N	5.48	125.79	119.92
1	Ad	278	ALA	C-N-CA	5.48	125.79	119.92
1	Av	278	ALA	CA-C-N	5.47	125.78	119.92
1	Av	278	ALA	C-N-CA	5.47	125.78	119.92
1	Bb	278	ALA	CA-C-N	5.47	125.77	119.92
1	Bb	278	ALA	C-N-CA	5.47	125.77	119.92
1	Bg	417	VAL	N-CA-C	-5.47	105.20	110.72
1	Aj	278	ALA	CA-C-N	5.46	125.77	119.92
1	Aj	278	ALA	C-N-CA	5.46	125.77	119.92
1	Bh	278	ALA	CA-C-N	5.46	125.76	119.92
1	Bh	278	ALA	C-N-CA	5.46	125.76	119.92
1	Ac	417	VAL	N-CA-C	-5.46	105.21	110.72
1	Bg	310	GLU	N-CA-C	5.45	122.41	110.80
1	Bm	384	ALA	N-CA-C	-5.45	105.34	111.28
1	Ac	310	GLU	N-CA-C	5.44	122.39	110.80
1	Ao	417	VAL	N-CA-C	-5.44	105.23	110.72
1	Ba	310	GLU	N-CA-C	5.44	122.38	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ac	384	ALA	N-CA-C	-5.43	105.36	111.28
1	Ai	384	ALA	N-CA-C	-5.43	105.36	111.28
1	Ai	417	VAL	N-CA-C	-5.43	105.23	110.72
1	Ba	384	ALA	N-CA-C	-5.43	105.36	111.28
1	Au	310	GLU	N-CA-C	5.43	122.36	110.80
1	Bg	384	ALA	N-CA-C	-5.43	105.36	111.28
1	Au	417	VAL	N-CA-C	-5.43	105.24	110.72
1	Ao	310	GLU	N-CA-C	5.43	122.36	110.80
1	Ba	417	VAL	N-CA-C	-5.43	105.24	110.72
1	Ao	384	ALA	N-CA-C	-5.42	105.37	111.28
1	Ai	310	GLU	N-CA-C	5.42	122.35	110.80
1	Bm	310	GLU	N-CA-C	5.42	122.34	110.80
1	Au	384	ALA	N-CA-C	-5.42	105.38	111.28
1	Ba	164	GLU	CB-CA-C	5.42	119.38	110.88
1	Ba	170	GLY	N-CA-C	-5.41	100.35	113.18
1	Bb	408	GLU	N-CA-C	5.41	116.86	111.07
2	Bj	36	THR	N-CA-C	-5.41	106.52	113.01
1	Aj	408	GLU	N-CA-C	5.41	116.86	111.07
1	Ac	164	GLU	CB-CA-C	5.40	119.36	110.88
2	Al	36	THR	N-CA-C	-5.40	106.53	113.01
1	Au	164	GLU	CB-CA-C	5.40	119.36	110.88
1	Ai	170	GLY	N-CA-C	-5.39	100.39	113.18
1	Av	408	GLU	N-CA-C	5.39	116.84	111.07
1	Au	170	GLY	N-CA-C	-5.39	100.40	113.18
1	Ap	408	GLU	N-CA-C	5.39	116.84	111.07
1	Ao	164	GLU	CB-CA-C	5.39	119.34	110.88
2	Ar	36	THR	N-CA-C	-5.38	106.55	113.01
1	Bg	45	GLY	CA-C-O	-5.38	118.27	122.52
1	Bm	164	GLU	CB-CA-C	5.38	119.33	110.88
1	Ac	170	GLY	N-CA-C	-5.38	100.42	113.18
1	Bg	164	GLU	CB-CA-C	5.38	119.33	110.88
1	Bg	170	GLY	N-CA-C	-5.38	100.42	113.18
1	Ai	164	GLU	CB-CA-C	5.38	119.32	110.88
1	Ad	408	GLU	N-CA-C	5.38	116.82	111.07
1	Bm	170	GLY	N-CA-C	-5.37	100.45	113.18
2	Ax	36	THR	N-CA-C	-5.37	106.57	113.01
1	Ao	170	GLY	N-CA-C	-5.37	100.46	113.18
1	Bh	408	GLU	N-CA-C	5.37	116.81	111.07
2	Af	36	THR	N-CA-C	-5.36	106.57	113.01
2	Bd	36	THR	N-CA-C	-5.36	106.58	113.01
1	Ao	45	GLY	CA-C-O	-5.35	118.29	122.52
1	Bn	408	GLU	N-CA-C	5.35	116.80	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ac	45	GLY	CA-C-O	-5.35	118.29	122.52
1	Ba	45	GLY	CA-C-O	-5.35	118.29	122.52
1	Bm	45	GLY	CA-C-O	-5.35	118.30	122.52
1	Bh	428	ASP	CB-CA-C	-5.35	99.95	110.11
1	Ai	45	GLY	CA-C-O	-5.34	118.30	122.52
1	Au	45	GLY	CA-C-O	-5.34	118.30	122.52
1	Av	428	ASP	CB-CA-C	-5.34	99.97	110.11
1	Bn	428	ASP	CB-CA-C	-5.33	99.98	110.11
2	Bp	36	THR	N-CA-C	-5.33	106.61	113.01
1	Ad	428	ASP	CB-CA-C	-5.32	100.00	110.11
1	Ap	428	ASP	CB-CA-C	-5.32	100.01	110.11
1	Bb	428	ASP	CB-CA-C	-5.32	100.01	110.11
1	Aj	428	ASP	CB-CA-C	-5.31	100.02	110.11
1	Bm	171	LYS	N-CA-C	5.31	122.11	110.80
1	Bb	137	PRO	N-CA-C	5.31	119.42	111.14
1	Ad	137	PRO	N-CA-C	5.31	119.42	111.14
1	Bg	171	LYS	N-CA-C	5.31	122.10	110.80
1	Au	171	LYS	N-CA-C	5.31	122.10	110.80
1	Bh	137	PRO	N-CA-C	5.30	119.42	111.14
1	Bh	265	ASN	N-CA-C	5.30	116.87	111.14
1	Ba	171	LYS	N-CA-C	5.30	122.09	110.80
1	Ac	171	LYS	N-CA-C	5.30	122.08	110.80
1	Ap	137	PRO	N-CA-C	5.30	119.40	111.14
1	Ba	5	ASP	CA-C-N	-5.30	116.26	122.93
1	Ba	5	ASP	C-N-CA	-5.30	116.26	122.93
1	Bg	5	ASP	CA-C-N	-5.30	116.26	122.93
1	Bg	5	ASP	C-N-CA	-5.30	116.26	122.93
1	Av	137	PRO	N-CA-C	5.29	119.40	111.14
1	Bn	137	PRO	N-CA-C	5.29	119.39	111.14
1	Ai	171	LYS	N-CA-C	5.29	122.06	110.80
1	Aj	137	PRO	N-CA-C	5.29	119.39	111.14
1	Ao	171	LYS	N-CA-C	5.29	122.06	110.80
1	Ac	5	ASP	CA-C-N	-5.29	116.27	122.93
1	Ac	5	ASP	C-N-CA	-5.29	116.27	122.93
1	Au	371	LYS	CA-C-N	5.28	127.35	120.28
1	Au	371	LYS	C-N-CA	5.28	127.35	120.28
1	Ac	145	ALA	N-CA-C	5.27	117.44	111.11
1	Ai	145	ALA	N-CA-C	5.27	117.43	111.11
1	Ao	145	ALA	N-CA-C	5.27	117.43	111.11
1	Ba	145	ALA	N-CA-C	5.27	117.43	111.11
1	Ai	5	ASP	CA-C-N	-5.26	116.30	122.93
1	Ai	5	ASP	C-N-CA	-5.26	116.30	122.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Au	145	ALA	N-CA-C	5.26	117.43	111.11
1	Bm	5	ASP	CA-C-N	-5.26	116.30	122.93
1	Bm	5	ASP	C-N-CA	-5.26	116.30	122.93
1	Bm	145	ALA	N-CA-C	5.26	117.42	111.11
1	Ao	371	LYS	CA-C-N	5.26	127.33	120.28
1	Ao	371	LYS	C-N-CA	5.26	127.33	120.28
1	Ao	5	ASP	CA-C-N	-5.26	116.31	122.93
1	Ao	5	ASP	C-N-CA	-5.26	116.31	122.93
1	Ao	227	ILE	N-CA-C	5.26	115.87	109.30
1	Bg	371	LYS	CA-C-N	5.26	127.33	120.28
1	Bg	371	LYS	C-N-CA	5.26	127.33	120.28
1	Au	227	ILE	N-CA-C	5.25	115.87	109.30
1	Bg	145	ALA	N-CA-C	5.25	117.41	111.11
1	Bm	227	ILE	N-CA-C	5.25	115.86	109.30
1	Ac	371	LYS	CA-C-N	5.25	127.31	120.28
1	Ac	371	LYS	C-N-CA	5.25	127.31	120.28
1	Bm	371	LYS	CA-C-N	5.25	127.31	120.28
1	Bm	371	LYS	C-N-CA	5.25	127.31	120.28
2	Bd	92	LEU	CB-CA-C	-5.25	100.21	109.02
1	Ap	39	VAL	CA-C-O	-5.24	118.07	122.63
1	Av	39	VAL	CA-C-O	-5.24	118.07	122.63
1	Ba	371	LYS	CA-C-N	5.24	127.30	120.28
1	Ba	371	LYS	C-N-CA	5.24	127.30	120.28
2	Ax	92	LEU	CB-CA-C	-5.24	100.22	109.02
1	Ac	227	ILE	N-CA-C	5.24	115.85	109.30
1	Bg	227	ILE	N-CA-C	5.24	115.85	109.30
1	Au	5	ASP	CA-C-N	-5.24	116.33	122.93
1	Au	5	ASP	C-N-CA	-5.24	116.33	122.93
2	Ar	92	LEU	CB-CA-C	-5.23	100.23	109.02
2	Af	92	LEU	CB-CA-C	-5.23	100.23	109.02
1	Ai	227	ILE	N-CA-C	5.23	115.84	109.30
1	Ba	227	ILE	N-CA-C	5.23	115.84	109.30
2	Al	92	LEU	CB-CA-C	-5.23	100.24	109.02
1	Aj	39	VAL	CA-C-O	-5.23	118.08	122.63
2	Bp	92	LEU	CB-CA-C	-5.22	100.24	109.02
1	Au	167	ASP	N-CA-CB	5.22	117.64	110.07
1	Ad	39	VAL	CA-C-O	-5.21	118.09	122.63
2	Bj	92	LEU	CB-CA-C	-5.21	100.26	109.02
1	Ai	371	LYS	CA-C-N	5.21	127.26	120.28
1	Ai	371	LYS	C-N-CA	5.21	127.26	120.28
1	Ai	43	SER	N-CA-CB	-5.21	102.46	110.12
1	Bg	167	ASP	N-CA-CB	5.21	117.62	110.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Bn	39	VAL	CA-C-O	-5.20	118.10	122.63
1	Ac	167	ASP	N-CA-CB	5.20	117.61	110.07
1	Bm	167	ASP	N-CA-CB	5.20	117.61	110.07
1	Au	231	ARG	N-CA-C	5.20	116.94	111.28
1	Bh	39	VAL	CA-C-O	-5.20	118.11	122.63
1	Ao	43	SER	N-CA-CB	-5.19	102.49	110.12
1	Au	43	SER	N-CA-CB	-5.19	102.49	110.12
1	Bb	39	VAL	CA-C-O	-5.19	118.12	122.63
1	Ai	167	ASP	N-CA-CB	5.18	117.59	110.07
1	Ai	231	ARG	N-CA-C	5.18	116.93	111.28
1	Ao	167	ASP	N-CA-CB	5.18	117.58	110.07
1	Ac	43	SER	N-CA-CB	-5.18	102.51	110.12
1	Ba	167	ASP	N-CA-CB	5.18	117.58	110.07
1	Ba	43	SER	N-CA-CB	-5.17	102.52	110.12
1	Bg	43	SER	N-CA-CB	-5.17	102.51	110.12
1	Bn	354	GLU	CB-CG-CD	5.17	121.39	112.60
1	Bh	354	GLU	CB-CG-CD	5.17	121.39	112.60
1	Ap	354	GLU	CB-CG-CD	5.17	121.39	112.60
1	Ac	231	ARG	N-CA-C	5.16	116.91	111.28
1	Aj	354	GLU	CB-CG-CD	5.16	121.38	112.60
1	Bm	43	SER	N-CA-CB	-5.16	102.53	110.12
1	Bg	231	ARG	N-CA-C	5.16	116.90	111.28
1	Ad	354	GLU	CB-CG-CD	5.15	121.36	112.60
1	Ap	138	CYS	N-CA-C	5.15	116.92	108.52
1	Bb	354	GLU	CB-CG-CD	5.15	121.36	112.60
1	Ba	231	ARG	N-CA-C	5.15	116.89	111.28
1	Bm	231	ARG	N-CA-C	5.14	116.89	111.28
1	Ao	231	ARG	N-CA-C	5.14	116.89	111.28
1	Ad	138	CYS	N-CA-C	5.14	116.90	108.52
1	Av	138	CYS	N-CA-C	5.14	116.89	108.52
1	Aj	138	CYS	N-CA-C	5.13	116.88	108.52
1	Bb	138	CYS	N-CA-C	5.13	116.88	108.52
1	Bn	138	CYS	N-CA-C	5.13	116.88	108.52
1	Bh	138	CYS	N-CA-C	5.12	116.87	108.52
1	Av	354	GLU	CB-CG-CD	5.12	121.31	112.60
2	Ax	14	ARG	NE-CZ-NH1	5.11	126.61	121.50
2	Bp	14	ARG	NE-CZ-NH1	5.10	126.60	121.50
1	Ai	267	MET	CG-SD-CE	-5.09	89.70	100.90
1	Ao	116	LEU	N-CA-CB	5.09	117.39	110.01
2	Ar	14	ARG	NE-CZ-NH1	5.09	126.59	121.50
1	Ac	116	LEU	N-CA-CB	5.08	117.38	110.01
1	Au	267	MET	CG-SD-CE	-5.08	89.72	100.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ba	267	MET	CG-SD-CE	-5.08	89.72	100.90
1	Bg	267	MET	CG-SD-CE	-5.08	89.72	100.90
1	Bm	267	MET	CG-SD-CE	-5.08	89.72	100.90
1	Ac	267	MET	CG-SD-CE	-5.08	89.73	100.90
1	Ai	116	LEU	N-CA-CB	5.08	117.37	110.01
1	Ba	116	LEU	N-CA-CB	5.08	117.38	110.01
1	Bg	116	LEU	N-CA-CB	5.08	117.37	110.01
1	Bm	116	LEU	N-CA-CB	5.08	117.37	110.01
1	Au	116	LEU	N-CA-CB	5.07	117.36	110.01
2	Bj	14	ARG	NE-CZ-NH1	5.07	126.57	121.50
1	Bn	265	ASN	N-CA-C	5.07	116.88	111.36
2	Af	14	ARG	NE-CZ-NH1	5.06	126.56	121.50
1	Ao	267	MET	CG-SD-CE	-5.06	89.76	100.90
1	Ap	265	ASN	N-CA-C	5.06	116.88	111.36
1	Bh	233	MET	N-CA-C	5.05	118.71	112.54
2	Bd	14	ARG	NE-CZ-NH1	5.05	126.55	121.50
1	Av	233	MET	N-CA-C	5.05	118.70	112.54
1	Av	265	ASN	N-CA-C	5.04	116.86	111.36
1	Ad	233	MET	N-CA-C	5.04	118.68	112.54
1	Aj	233	MET	N-CA-C	5.03	118.68	112.54
1	Bn	233	MET	N-CA-C	5.03	118.68	112.54
1	Bh	309	LEU	CA-C-N	5.03	129.12	120.72
1	Bh	309	LEU	C-N-CA	5.03	129.12	120.72
1	Bb	265	ASN	N-CA-C	5.03	116.84	111.36
1	Bh	54	VAL	N-CA-C	-5.03	105.64	110.72
1	Ad	265	ASN	N-CA-C	5.03	116.84	111.36
1	Ap	233	MET	N-CA-C	5.02	118.66	112.54
1	Au	245	LYS	N-CA-C	5.01	116.19	109.83
1	Bn	309	LEU	CA-C-N	5.01	129.08	120.72
1	Bn	309	LEU	C-N-CA	5.01	129.08	120.72
1	Bb	233	MET	N-CA-C	5.01	118.65	112.54
1	Ad	309	LEU	CA-C-N	5.00	129.08	120.72
1	Ad	309	LEU	C-N-CA	5.00	129.08	120.72
1	Aj	265	ASN	N-CA-C	5.00	116.81	111.36
1	Ap	309	LEU	CA-C-N	5.00	129.07	120.72
1	Ap	309	LEU	C-N-CA	5.00	129.07	120.72
1	Au	425	LYS	CB-CA-C	5.00	118.73	110.88

There are no chirality outliers.

All (63) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	Ac	213	VAL	Peptide
1	Ac	255	GLU	Peptide
1	Ac	285	ARG	Sidechain
1	Ac	354	GLU	Peptide
1	Ac	360	TYR	Sidechain
1	Ad	345	ARG	Sidechain
2	Af	3	ILE	Peptide
2	Af	93	ALA	Peptide
2	Af	96	GLU	Peptide
1	Ai	213	VAL	Peptide
1	Ai	255	GLU	Peptide
1	Ai	285	ARG	Sidechain
1	Ai	354	GLU	Peptide
1	Ai	360	TYR	Sidechain
1	Aj	345	ARG	Sidechain
2	Al	3	ILE	Peptide
2	Al	93	ALA	Peptide
2	Al	96	GLU	Peptide
1	Ao	213	VAL	Peptide
1	Ao	255	GLU	Peptide
1	Ao	285	ARG	Sidechain
1	Ao	354	GLU	Peptide
1	Ao	360	TYR	Sidechain
1	Ap	345	ARG	Sidechain
2	Ar	3	ILE	Peptide
2	Ar	93	ALA	Peptide
2	Ar	96	GLU	Peptide
1	Au	213	VAL	Peptide
1	Au	255	GLU	Peptide
1	Au	285	ARG	Sidechain
1	Au	354	GLU	Peptide
1	Au	360	TYR	Sidechain
1	Av	345	ARG	Sidechain
2	Ax	3	ILE	Peptide
2	Ax	93	ALA	Peptide
2	Ax	96	GLU	Peptide
1	Ba	213	VAL	Peptide
1	Ba	255	GLU	Peptide
1	Ba	285	ARG	Sidechain
1	Ba	354	GLU	Peptide
1	Ba	360	TYR	Sidechain
1	Bb	345	ARG	Sidechain
2	Bd	3	ILE	Peptide

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Mol	Chain	Res	Type	Group
2	Bd	93	ALA	Peptide
2	Bd	96	GLU	Peptide
1	Bg	213	VAL	Peptide
1	Bg	255	GLU	Peptide
1	Bg	285	ARG	Sidechain
1	Bg	354	GLU	Peptide
1	Bg	360	TYR	Sidechain
1	Bh	345	ARG	Sidechain
2	Bj	3	ILE	Peptide
2	Bj	93	ALA	Peptide
2	Bj	96	GLU	Peptide
1	Bm	213	VAL	Peptide
1	Bm	255	GLU	Peptide
1	Bm	285	ARG	Sidechain
1	Bm	354	GLU	Peptide
1	Bm	360	TYR	Sidechain
1	Bn	345	ARG	Sidechain
2	Bp	3	ILE	Peptide
2	Bp	93	ALA	Peptide
2	Bp	96	GLU	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Ac	3856	0	3975	320	0
1	Ad	3856	0	3976	214	0
1	Ai	3856	0	3975	313	0
1	Aj	3856	0	3976	217	0
1	Ao	3856	0	3975	318	0
1	Ap	3856	0	3976	216	0
1	Au	3856	0	3975	316	0
1	Av	3856	0	3976	218	0
1	Ba	3856	0	3975	314	0
1	Bb	3856	0	3976	215	0
1	Bg	3856	0	3975	315	0
1	Bh	3856	0	3976	215	0
1	Bm	3856	0	3975	311	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Bn	3856	0	3976	214	0
2	Af	728	0	761	217	0
2	Al	728	0	761	214	0
2	Ar	728	0	761	210	0
2	Ax	728	0	761	207	0
2	Bd	728	0	761	212	0
2	Bj	728	0	761	208	0
2	Bp	728	0	761	213	0
3	Ac	27	0	11	1	0
3	Ad	27	0	11	1	0
3	Ai	27	0	11	1	0
3	Aj	27	0	11	1	0
3	Ao	27	0	11	1	0
3	Ap	27	0	11	0	0
3	Au	27	0	11	1	0
3	Av	27	0	11	1	0
3	Ba	27	0	11	1	0
3	Bb	27	0	11	1	0
3	Bg	27	0	11	1	0
3	Bh	27	0	11	1	0
3	Bm	27	0	11	1	0
3	Bn	27	0	11	1	0
4	Ac	1	0	0	0	0
4	Ad	1	0	0	0	0
4	Ai	1	0	0	0	0
4	Aj	1	0	0	0	0
4	Ao	1	0	0	0	0
4	Ap	1	0	0	0	0
4	Au	1	0	0	0	0
4	Av	1	0	0	0	0
4	Ba	1	0	0	0	0
4	Bb	1	0	0	0	0
4	Bg	1	0	0	0	0
4	Bh	1	0	0	0	0
4	Bm	1	0	0	0	0
4	Bn	1	0	0	0	0
All	All	59472	0	61138	3955	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 33.

All (3955) 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)
2:Al:3:ILE:CA	2:Al:3:ILE:C	1.77	1.56
2:Ar:3:ILE:CA	2:Ar:3:ILE:C	1.77	1.56
2:Bj:3:ILE:CA	2:Bj:3:ILE:C	1.77	1.56
2:Bp:3:ILE:CA	2:Bp:3:ILE:C	1.77	1.56
1:Ai:41:ASP:CB	1:Au:69:MET:CE	1.86	1.53
2:Af:3:ILE:CA	2:Af:3:ILE:C	1.77	1.52
1:Ac:41:ASP:CB	1:Ai:69:MET:CE	1.88	1.52
1:Ba:69:MET:CE	1:Bm:41:ASP:CB	1.86	1.52
1:Au:41:ASP:CB	1:Bg:69:MET:CE	1.86	1.52
2:Ax:3:ILE:C	2:Ax:3:ILE:CA	1.77	1.51
2:Bd:3:ILE:C	2:Bd:3:ILE:CA	1.77	1.51
1:Ac:69:MET:CE	1:Ao:41:ASP:CB	1.86	1.50
1:Bg:41:ASP:CB	1:Bm:69:MET:CE	1.86	1.49
1:Ao:69:MET:CE	1:Ba:41:ASP:CB	1.86	1.49
1:Au:41:ASP:HB2	1:Bg:69:MET:CE	1.47	1.43
1:Ai:41:ASP:HB2	1:Au:69:MET:CE	1.47	1.41
1:Ba:381:VAL:CB	1:Ba:393:LYS:HZ3	1.35	1.39
1:Ac:41:ASP:CA	1:Ai:69:MET:CE	2.01	1.39
2:Af:5:PRO:CA	2:Ar:96:GLU:CG	2.02	1.38
1:Bm:381:VAL:CB	1:Bm:393:LYS:HZ3	1.37	1.38
1:Ai:41:ASP:CA	1:Au:69:MET:CE	2.02	1.38
1:Ac:41:ASP:HB2	1:Ai:69:MET:CE	1.50	1.37
1:Ac:69:MET:CE	1:Ao:41:ASP:CA	2.03	1.37
1:Ao:69:MET:CE	1:Ba:41:ASP:CA	2.03	1.36
1:Bg:41:ASP:CA	1:Bm:69:MET:CE	2.02	1.36
1:Au:41:ASP:CA	1:Bg:69:MET:CE	2.02	1.35
1:Au:381:VAL:CB	1:Au:393:LYS:HZ3	1.38	1.34
1:Av:24:ALA:CB	1:Av:97:GLN:OE1	1.76	1.34
1:Ao:69:MET:HE1	1:Ba:41:ASP:CB	1.52	1.34
1:Ad:24:ALA:CB	1:Ad:97:GLN:OE1	1.76	1.33
1:Ba:69:MET:CE	1:Bm:41:ASP:CA	2.03	1.33
1:Bn:24:ALA:CB	1:Bn:97:GLN:OE1	1.76	1.33
2:Al:96:GLU:CG	2:Ax:5:PRO:CA	2.07	1.32
1:Ao:381:VAL:CB	1:Ao:393:LYS:HZ3	1.42	1.32
1:Au:389:MET:O	1:Au:393:LYS:HG2	1.25	1.32
1:Ai:389:MET:O	1:Ai:393:LYS:HG2	1.25	1.32
2:Ar:5:PRO:CA	2:Bd:96:GLU:CG	2.06	1.32
1:Ba:69:MET:CE	1:Bm:41:ASP:HB2	1.46	1.32
2:Bd:5:PRO:CA	2:Bp:96:GLU:CG	2.05	1.32
1:Ac:389:MET:O	1:Ac:393:LYS:HG2	1.25	1.32
1:Aj:24:ALA:CB	1:Aj:97:GLN:OE1	1.76	1.32
2:Ax:96:GLU:CG	2:Bj:5:PRO:CA	2.06	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bh:24:ALA:CB	1:Bh:97:GLN:OE1	1.76	1.31
1:Bb:24:ALA:CB	1:Bb:97:GLN:OE1	1.76	1.31
1:Ba:69:MET:HE1	1:Bm:41:ASP:CB	1.52	1.31
1:Ap:24:ALA:CB	1:Ap:97:GLN:OE1	1.76	1.31
2:Af:96:GLU:CG	2:Al:5:PRO:CA	2.09	1.30
1:Bg:41:ASP:CB	1:Bm:69:MET:HE1	1.51	1.30
2:Bj:96:GLU:CG	2:Bp:5:PRO:CA	2.08	1.30
1:Ao:69:MET:CE	1:Ba:41:ASP:HB2	1.46	1.30
1:Ac:41:ASP:HA	1:Ai:69:MET:CE	1.60	1.30
1:Ac:69:MET:CE	1:Ao:41:ASP:HB2	1.45	1.29
1:Au:171:LYS:CE	1:Au:407:VAL:HB	1.63	1.29
2:Bp:5:PRO:CG	2:Bp:5:PRO:CB	2.11	1.29
1:Ai:171:LYS:CE	1:Ai:407:VAL:HB	1.63	1.29
2:Ax:5:PRO:CB	2:Ax:5:PRO:CG	2.11	1.29
1:Bg:171:LYS:CE	1:Bg:407:VAL:HB	1.63	1.29
1:Bm:171:LYS:CE	1:Bm:407:VAL:HB	1.63	1.29
1:Bg:389:MET:O	1:Bg:393:LYS:HG2	1.25	1.29
1:Ac:171:LYS:CE	1:Ac:407:VAL:HB	1.63	1.28
2:Bd:5:PRO:CB	2:Bd:5:PRO:CG	2.11	1.28
1:Au:41:ASP:CB	1:Bg:69:MET:HE1	1.51	1.28
1:Ba:171:LYS:CE	1:Ba:407:VAL:HB	1.63	1.28
1:Ao:171:LYS:CE	1:Ao:407:VAL:HB	1.63	1.28
1:Ao:389:MET:O	1:Ao:393:LYS:HG2	1.25	1.28
2:Bj:5:PRO:CG	2:Bj:5:PRO:CB	2.11	1.28
1:Ai:41:ASP:CB	1:Au:69:MET:HE1	1.52	1.27
2:Ar:5:PRO:CB	2:Ar:5:PRO:CG	2.11	1.27
2:Bp:5:PRO:CD	2:Bp:5:PRO:N	1.98	1.27
2:Af:5:PRO:CD	2:Af:5:PRO:N	1.98	1.27
1:Ba:389:MET:O	1:Ba:393:LYS:HG2	1.25	1.27
2:Ar:5:PRO:CD	2:Ar:5:PRO:N	1.98	1.27
2:Ax:5:PRO:CD	2:Ax:5:PRO:N	1.98	1.26
1:Bg:41:ASP:HB2	1:Bm:69:MET:CE	1.48	1.26
2:Af:5:PRO:CG	2:Af:5:PRO:CB	2.11	1.26
2:Al:5:PRO:CB	2:Al:5:PRO:CG	2.11	1.26
2:Bd:5:PRO:N	2:Bd:5:PRO:CD	1.98	1.26
1:Ac:41:ASP:CB	1:Ai:69:MET:HE1	1.52	1.26
2:Bj:5:PRO:CD	2:Bj:5:PRO:N	1.97	1.26
2:Af:5:PRO:CA	2:Ar:96:GLU:CB	2.13	1.26
1:Ao:69:MET:CE	1:Ba:41:ASP:HA	1.64	1.26
1:Bm:389:MET:O	1:Bm:393:LYS:HG2	1.25	1.26
2:Af:76:GLU:OE1	2:Ar:37:ARG:NH2	1.69	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Al:5:PRO:CD	2:Al:5:PRO:N	1.98	1.25
1:Ac:69:MET:HE1	1:Ao:41:ASP:CB	1.54	1.25
2:Ar:5:PRO:CG	2:Ar:5:PRO:CD	2.15	1.25
2:Bp:5:PRO:CG	2:Bp:5:PRO:CD	2.15	1.25
2:Ar:76:GLU:CD	2:Bd:37:ARG:NH2	1.94	1.25
1:Ac:381:VAL:CB	1:Ac:393:LYS:HZ3	1.49	1.24
2:Bd:5:PRO:CG	2:Bd:5:PRO:CD	2.15	1.24
2:Al:37:ARG:NH2	2:Ax:76:GLU:CD	1.96	1.24
2:Al:37:ARG:NH2	2:Ax:76:GLU:OE1	1.71	1.24
2:Af:5:PRO:CD	2:Af:5:PRO:CG	2.15	1.24
2:Bj:5:PRO:CG	2:Bj:5:PRO:CD	2.15	1.24
2:Al:5:PRO:CA	2:Al:5:PRO:N	2.01	1.23
2:Ar:76:GLU:OE1	2:Bd:37:ARG:NH2	1.70	1.23
2:Bj:37:ARG:NH2	2:Bp:76:GLU:CD	1.95	1.23
2:Af:5:PRO:CA	2:Af:5:PRO:N	2.01	1.23
2:Ar:5:PRO:CA	2:Ar:5:PRO:N	2.01	1.23
2:Ax:5:PRO:CA	2:Ax:5:PRO:N	2.01	1.23
2:Al:5:PRO:CG	2:Al:5:PRO:CD	2.15	1.23
2:Ax:5:PRO:CG	2:Ax:5:PRO:CD	2.15	1.23
2:Bd:76:GLU:CD	2:Bp:37:ARG:NH2	1.96	1.22
1:Ai:381:VAL:HB	1:Ai:393:LYS:NZ	1.54	1.22
2:Bd:5:PRO:CA	2:Bd:5:PRO:N	2.01	1.22
2:Bp:5:PRO:CA	2:Bp:5:PRO:N	2.01	1.22
1:Ai:41:ASP:CG	1:Au:69:MET:HE3	1.64	1.22
1:Au:41:ASP:CG	1:Bg:69:MET:HE3	1.64	1.22
2:Bj:5:PRO:CA	2:Bj:5:PRO:N	2.01	1.22
1:Ba:69:MET:CE	1:Bm:41:ASP:HA	1.65	1.22
1:Ac:41:ASP:CG	1:Ai:69:MET:HE3	1.65	1.21
1:Ap:61:GLU:OE2	1:Bb:2:ALA:N	1.73	1.21
2:Ax:37:ARG:NH2	2:Bj:76:GLU:OE1	1.72	1.21
2:Bd:76:GLU:OE1	2:Bp:37:ARG:NH2	1.71	1.21
1:Bg:41:ASP:CG	1:Bm:69:MET:HE3	1.63	1.21
1:Bg:381:VAL:CB	1:Bg:393:LYS:HZ3	1.52	1.21
2:Ax:37:ARG:NH2	2:Bj:76:GLU:CD	1.97	1.21
1:Bg:41:ASP:HA	1:Bm:69:MET:CE	1.63	1.21
1:Au:381:VAL:HB	1:Au:393:LYS:NZ	1.54	1.21
1:Ao:69:MET:HE3	1:Ba:41:ASP:CG	1.64	1.21
1:Bb:61:GLU:OE2	1:Bn:2:ALA:N	1.73	1.21
2:Bj:37:ARG:NH2	2:Bp:76:GLU:OE1	1.71	1.21
1:Ac:381:VAL:HB	1:Ac:393:LYS:NZ	1.54	1.21
1:Ba:381:VAL:HB	1:Ba:393:LYS:NZ	1.54	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bg:381:VAL:HB	1:Bg:393:LYS:NZ	1.54	1.21
2:Af:37:ARG:NH2	2:Al:76:GLU:CD	1.99	1.20
2:Af:74:LYS:CE	2:Af:76:GLU:HB2	1.71	1.20
2:Bd:74:LYS:CE	2:Bd:76:GLU:HB2	1.71	1.20
2:Bj:74:LYS:CE	2:Bj:76:GLU:HB2	1.71	1.20
1:Bm:381:VAL:HB	1:Bm:393:LYS:NZ	1.54	1.20
2:Bp:74:LYS:CE	2:Bp:76:GLU:HB2	1.71	1.20
1:Ad:61:GLU:OE2	1:Ap:2:ALA:N	1.75	1.20
1:Aj:24:ALA:HB1	1:Aj:97:GLN:OE1	1.03	1.20
2:Al:74:LYS:CE	2:Al:76:GLU:HB2	1.71	1.20
1:Av:2:ALA:N	1:Bh:61:GLU:OE2	1.74	1.20
1:Bn:24:ALA:HB1	1:Bn:97:GLN:OE1	1.03	1.20
1:Ao:381:VAL:HB	1:Ao:393:LYS:NZ	1.54	1.20
2:Ar:74:LYS:CE	2:Ar:76:GLU:HB2	1.71	1.20
2:Ax:74:LYS:CE	2:Ax:76:GLU:HB2	1.71	1.19
2:Af:3:ILE:C	2:Ar:95:VAL:HG22	1.68	1.19
1:Ai:165:ALA:O	1:Ai:168:LYS:HB2	1.43	1.19
1:Av:24:ALA:HB1	1:Av:97:GLN:OE1	1.03	1.19
1:Ad:2:ALA:O	1:Aj:61:GLU:OE2	1.59	1.19
1:Ap:24:ALA:HB1	1:Ap:97:GLN:OE1	1.03	1.19
1:Au:165:ALA:O	1:Au:168:LYS:HB2	1.43	1.19
1:Ba:69:MET:HE3	1:Bm:41:ASP:CG	1.64	1.19
1:Bh:2:ALA:N	1:Bn:61:GLU:OE2	1.75	1.19
1:Ac:69:MET:HE3	1:Ao:41:ASP:CG	1.66	1.18
1:Aj:2:ALA:N	1:Av:61:GLU:OE2	1.74	1.18
1:Ba:385:THR:HB	1:Ba:388:GLU:HG2	1.26	1.18
1:Av:2:ALA:O	1:Bh:61:GLU:OE2	1.61	1.18
1:Ad:24:ALA:HB1	1:Ad:97:GLN:OE1	1.03	1.18
1:Au:41:ASP:HA	1:Bg:69:MET:CE	1.64	1.18
1:Bb:24:ALA:HB1	1:Bb:97:GLN:OE1	1.03	1.18
1:Ac:165:ALA:O	1:Ac:168:LYS:HB2	1.43	1.18
1:Ac:69:MET:CE	1:Ao:41:ASP:HA	1.66	1.17
1:Bg:165:ALA:O	1:Bg:168:LYS:HB2	1.43	1.17
1:Bm:385:THR:HB	1:Bm:388:GLU:HG2	1.26	1.17
2:Af:76:GLU:CD	2:Ar:37:ARG:NH2	2.02	1.17
1:Aj:2:ALA:O	1:Av:61:GLU:OE2	1.61	1.17
1:Ap:384:ALA:O	1:Bb:80:LYS:NZ	1.78	1.17
1:Bg:41:ASP:CB	1:Bm:69:MET:HE3	1.65	1.17
1:Bh:2:ALA:O	1:Bn:61:GLU:OE2	1.60	1.16
1:Ai:115:ASP:OD2	1:Ai:435:ASP:HB2	1.46	1.16
2:Al:96:GLU:CB	2:Ax:5:PRO:CA	2.24	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ba:115:ASP:OD2	1:Ba:435:ASP:HB2	1.46	1.16
1:Bh:24:ALA:HB1	1:Bh:97:GLN:OE1	1.03	1.16
1:Ba:165:ALA:O	1:Ba:168:LYS:HB2	1.43	1.16
1:Ac:171:LYS:CD	1:Ac:407:VAL:HB	1.75	1.16
1:Ad:2:ALA:N	1:Aj:61:GLU:OE2	1.79	1.16
1:Ai:41:ASP:HA	1:Au:69:MET:CE	1.64	1.16
1:Au:115:ASP:OD2	1:Au:435:ASP:HB2	1.46	1.16
1:Bb:61:GLU:OE2	1:Bn:2:ALA:O	1.62	1.16
1:Ad:61:GLU:OE2	1:Ap:2:ALA:O	1.61	1.15
2:Ax:96:GLU:CB	2:Bj:5:PRO:CA	2.24	1.15
1:Ai:171:LYS:CD	1:Ai:407:VAL:HB	1.75	1.15
1:Au:385:THR:HB	1:Au:388:GLU:HG2	1.26	1.15
1:Bg:385:THR:HB	1:Bg:388:GLU:HG2	1.26	1.15
1:Bm:171:LYS:CD	1:Bm:407:VAL:HB	1.75	1.15
1:Ac:115:ASP:OD2	1:Ac:435:ASP:HB2	1.46	1.15
1:Ba:171:LYS:CD	1:Ba:407:VAL:HB	1.75	1.15
1:Av:80:LYS:NZ	1:Bh:384:ALA:O	1.80	1.15
1:Ap:61:GLU:OE2	1:Bb:2:ALA:O	1.61	1.15
1:Au:41:ASP:CB	1:Bg:69:MET:HE3	1.65	1.15
1:Bb:384:ALA:O	1:Bn:80:LYS:NZ	1.79	1.15
1:Bg:115:ASP:OD2	1:Bg:435:ASP:HB2	1.46	1.15
1:Au:171:LYS:CD	1:Au:407:VAL:HB	1.75	1.14
1:Bg:381:VAL:CG2	1:Bg:393:LYS:HZ3	1.60	1.14
1:Ai:385:THR:HB	1:Ai:388:GLU:HG2	1.26	1.14
1:Bg:171:LYS:CD	1:Bg:407:VAL:HB	1.75	1.14
1:Ao:165:ALA:O	1:Ao:168:LYS:HB2	1.43	1.14
1:Bg:171:LYS:HE3	1:Bg:407:VAL:HB	1.16	1.14
1:Bm:115:ASP:OD2	1:Bm:435:ASP:HB2	1.46	1.14
1:Bm:171:LYS:HE3	1:Bm:407:VAL:HB	1.16	1.14
1:Ac:157:THR:HA	1:Ac:160:LYS:NZ	1.63	1.14
1:Ad:384:ALA:O	1:Ap:80:LYS:NZ	1.80	1.14
1:Ao:385:THR:HB	1:Ao:388:GLU:HG2	1.25	1.14
1:Bh:179:ASP:OD1	1:Bh:393:LYS:HD2	1.48	1.14
2:Bj:96:GLU:CB	2:Bp:5:PRO:CA	2.26	1.14
1:Bm:165:ALA:O	1:Bm:168:LYS:HB2	1.43	1.14
1:Bm:168:LYS:HD2	1:Bm:187:LEU:HD21	1.14	1.14
1:Ao:171:LYS:CD	1:Ao:407:VAL:HB	1.75	1.14
2:Bd:5:PRO:CA	2:Bp:96:GLU:CB	2.26	1.14
1:Aj:80:LYS:NZ	1:Av:384:ALA:O	1.80	1.13
2:Ar:5:PRO:CA	2:Bd:96:GLU:CB	2.25	1.13
1:Bb:179:ASP:OD1	1:Bb:393:LYS:HD2	1.48	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bg:157:THR:HA	1:Bg:160:LYS:NZ	1.63	1.13
1:Ap:39:VAL:HG12	1:Bb:69:MET:CE	1.78	1.13
1:Au:157:THR:HA	1:Au:160:LYS:NZ	1.63	1.13
1:Au:171:LYS:HE3	1:Au:407:VAL:HB	1.16	1.13
1:Bb:39:VAL:HG12	1:Bn:69:MET:CE	1.78	1.13
1:Ao:115:ASP:OD2	1:Ao:435:ASP:HB2	1.46	1.13
2:Af:37:ARG:NH2	2:Al:76:GLU:OE1	1.81	1.13
1:Ac:385:THR:HB	1:Ac:388:GLU:HG2	1.26	1.12
1:Ad:179:ASP:OD1	1:Ad:393:LYS:HD2	1.48	1.12
1:Bg:168:LYS:HD2	1:Bg:187:LEU:HD21	1.14	1.12
1:Bh:69:MET:CE	1:Bn:39:VAL:HG12	1.78	1.12
1:Ai:157:THR:HA	1:Ai:160:LYS:NZ	1.63	1.12
1:Av:69:MET:CE	1:Bh:39:VAL:HG12	1.79	1.12
1:Ba:157:THR:HA	1:Ba:160:LYS:NZ	1.63	1.12
1:Bn:179:ASP:OD1	1:Bn:393:LYS:HD2	1.48	1.12
1:Ai:171:LYS:HE3	1:Ai:407:VAL:HB	1.16	1.12
1:Ad:69:MET:CE	1:Aj:39:VAL:HG12	1.79	1.12
1:Au:386:GLU:HA	1:Au:389:MET:HE3	1.15	1.12
1:Ba:171:LYS:HE3	1:Ba:407:VAL:HB	1.16	1.12
2:Bj:5:PRO:CA	2:Bj:5:PRO:CB	2.28	1.12
1:Bh:80:LYS:NZ	1:Bn:384:ALA:O	1.81	1.11
1:Ac:41:ASP:OD1	1:Ai:69:MET:HE3	1.50	1.11
2:Al:94:ILE:HD12	2:Ax:4:ARG:HB3	1.31	1.11
1:Ao:157:THR:HA	1:Ao:160:LYS:NZ	1.63	1.11
1:Ao:381:VAL:HB	1:Ao:393:LYS:HZ3	0.98	1.11
2:Ax:5:PRO:CA	2:Ax:5:PRO:CB	2.28	1.11
1:Ad:80:LYS:NZ	1:Aj:384:ALA:O	1.83	1.11
2:Af:5:PRO:CA	2:Af:5:PRO:CB	2.28	1.11
1:Ba:69:MET:HE3	1:Bm:41:ASP:CB	1.64	1.11
1:Ac:171:LYS:HE3	1:Ac:407:VAL:HB	1.16	1.11
1:Ac:381:VAL:CG2	1:Ac:393:LYS:HZ3	1.61	1.11
2:Al:5:PRO:CA	2:Al:5:PRO:CB	2.28	1.11
1:Ap:179:ASP:OD1	1:Ap:393:LYS:HD2	1.48	1.11
2:Ax:94:ILE:HD12	2:Bj:4:ARG:HB3	1.33	1.11
1:Ba:168:LYS:HD2	1:Ba:187:LEU:HD21	1.14	1.11
1:Bm:157:THR:HA	1:Bm:160:LYS:NZ	1.63	1.11
2:Bj:94:ILE:HD12	2:Bp:4:ARG:HB3	1.31	1.11
1:Av:179:ASP:OD1	1:Av:393:LYS:HD2	1.48	1.10
1:Bg:386:GLU:HA	1:Bg:389:MET:HE3	1.14	1.10
2:Af:5:PRO:O	2:Ar:96:GLU:CD	1.95	1.10
1:Ao:171:LYS:HE3	1:Ao:407:VAL:HB	1.16	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ar:5:PRO:CA	2:Ar:5:PRO:CB	2.28	1.10
1:Aj:69:MET:CE	1:Av:39:VAL:HG12	1.79	1.10
2:Af:94:ILE:HD12	2:Al:4:ARG:HB3	1.33	1.10
2:Bd:5:PRO:CA	2:Bd:5:PRO:CB	2.28	1.10
2:Bp:5:PRO:CA	2:Bp:5:PRO:CB	2.28	1.10
1:Ai:41:ASP:OD1	1:Au:69:MET:HE3	1.51	1.10
1:Ai:386:GLU:HA	1:Ai:389:MET:HE3	1.14	1.10
1:Ba:386:GLU:HA	1:Ba:389:MET:HE3	1.14	1.10
2:Af:96:GLU:CG	2:Al:5:PRO:N	2.14	1.09
1:Ac:69:MET:HE3	1:Ao:41:ASP:CB	1.63	1.09
1:Ai:41:ASP:CB	1:Au:69:MET:HE3	1.65	1.09
1:Aj:179:ASP:OD1	1:Aj:393:LYS:HD2	1.48	1.09
2:Al:64:ILE:HG22	2:Ax:3:ILE:HG12	1.34	1.09
1:Ao:386:GLU:HA	1:Ao:389:MET:HE3	1.14	1.09
1:Au:143:ALA:HA	1:Au:146:GLN:HE22	1.17	1.09
1:Ao:168:LYS:HZ3	1:Ao:187:LEU:HD11	1.17	1.09
2:Ar:4:ARG:HB3	2:Bd:94:ILE:HD12	1.30	1.09
1:Bg:41:ASP:OD1	1:Bm:69:MET:HE3	1.49	1.09
1:Ao:143:ALA:HA	1:Ao:146:GLN:HE22	1.17	1.09
1:Au:41:ASP:OD1	1:Bg:69:MET:HE3	1.51	1.09
1:Bm:143:ALA:HA	1:Bm:146:GLN:HE22	1.17	1.09
1:Bm:168:LYS:HZ3	1:Bm:187:LEU:CD1	1.66	1.09
1:Ac:143:ALA:HA	1:Ac:146:GLN:HE22	1.17	1.08
1:Ao:69:MET:HE3	1:Ba:41:ASP:OD1	1.52	1.08
1:Au:168:LYS:HD2	1:Au:187:LEU:HD21	1.14	1.08
1:Bg:168:LYS:HZ3	1:Bg:187:LEU:CD1	1.65	1.08
1:Au:41:ASP:CA	1:Bg:69:MET:HE2	1.74	1.08
2:Ax:64:ILE:HG22	2:Bj:3:ILE:HG12	1.35	1.08
1:Ad:39:VAL:HG12	1:Ap:69:MET:CE	1.83	1.08
1:Ac:386:GLU:HA	1:Ac:389:MET:HE3	1.14	1.08
1:Ba:69:MET:HE3	1:Bm:41:ASP:OD1	1.51	1.08
2:Bj:64:ILE:HG22	2:Bp:3:ILE:HG12	1.33	1.08
1:Ao:69:MET:HE3	1:Ba:41:ASP:CB	1.64	1.07
1:Ao:381:VAL:CG2	1:Ao:393:LYS:HZ3	1.66	1.07
1:Ao:168:LYS:HD2	1:Ao:187:LEU:HD21	1.14	1.07
2:Ar:3:ILE:HG12	2:Bd:64:ILE:HG22	1.33	1.07
1:Av:2:ALA:C	1:Bh:61:GLU:OE2	1.98	1.07
1:Bm:386:GLU:HA	1:Bm:389:MET:HE3	1.14	1.07
1:Ap:61:GLU:OE2	1:Bb:2:ALA:C	1.98	1.07
1:Bb:61:GLU:OE2	1:Bn:2:ALA:C	1.98	1.07
1:Aj:2:ALA:C	1:Av:61:GLU:OE2	1.98	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:386:GLU:CA	1:Au:389:MET:HE3	1.85	1.07
2:Af:5:PRO:N	2:Ar:96:GLU:CB	2.17	1.06
2:Af:64:ILE:HG22	2:Al:3:ILE:HG12	1.37	1.06
1:Bh:2:ALA:C	1:Bn:61:GLU:OE2	1.97	1.06
1:Ad:2:ALA:C	1:Aj:61:GLU:OE2	1.98	1.06
1:Ai:381:VAL:CB	1:Ai:393:LYS:HZ3	1.68	1.06
1:Ac:69:MET:HE3	1:Ao:41:ASP:OD1	1.55	1.06
2:Al:95:VAL:HG22	2:Ax:3:ILE:C	1.80	1.06
1:Ao:168:LYS:HZ3	1:Ao:187:LEU:CD1	1.67	1.06
2:Bd:4:ARG:HB3	2:Bp:94:ILE:HD12	1.31	1.06
1:Bm:168:LYS:HZ3	1:Bm:187:LEU:HD11	1.17	1.06
1:Bg:386:GLU:CA	1:Bg:389:MET:HE3	1.85	1.06
1:Bm:386:GLU:CA	1:Bm:389:MET:HE3	1.85	1.06
1:Ai:168:LYS:HD2	1:Ai:187:LEU:HD21	1.14	1.05
2:Ax:95:VAL:HG22	2:Bj:3:ILE:C	1.81	1.05
2:Bd:3:ILE:C	2:Bp:95:VAL:HG22	1.81	1.05
1:Ac:168:LYS:HD2	1:Ac:187:LEU:HD21	1.14	1.05
1:Ac:386:GLU:CA	1:Ac:389:MET:HE3	1.85	1.05
1:Ai:386:GLU:CA	1:Ai:389:MET:HE3	1.85	1.05
1:Bg:143:ALA:HA	1:Bg:146:GLN:HE22	1.17	1.05
1:Ac:41:ASP:CA	1:Ai:69:MET:HE1	1.73	1.05
1:Ai:381:VAL:CB	1:Ai:393:LYS:NZ	2.19	1.05
1:Au:381:VAL:HB	1:Au:393:LYS:HZ3	0.90	1.05
1:Ba:143:ALA:HA	1:Ba:146:GLN:HE22	1.17	1.05
1:Ba:386:GLU:CA	1:Ba:389:MET:HE3	1.85	1.05
2:Ar:3:ILE:C	2:Bd:95:VAL:HG22	1.81	1.05
1:Au:381:VAL:CG2	1:Au:393:LYS:HZ3	1.70	1.05
1:Ai:41:ASP:CA	1:Au:69:MET:HE2	1.75	1.04
1:Ao:386:GLU:CA	1:Ao:389:MET:HE3	1.85	1.04
1:Bg:41:ASP:CA	1:Bm:69:MET:HE1	1.75	1.04
1:Ac:69:MET:HE2	1:Ao:41:ASP:CA	1.74	1.04
1:Ad:488:MET:HE3	1:Ad:493:ILE:HB	1.05	1.04
1:Aj:488:MET:HE3	1:Aj:493:ILE:HB	1.05	1.04
1:Ba:69:MET:HE2	1:Bm:41:ASP:CA	1.74	1.04
1:Bg:41:ASP:CA	1:Bm:69:MET:HE2	1.74	1.04
1:Bm:381:VAL:HB	1:Bm:393:LYS:HZ3	0.88	1.04
2:Af:5:PRO:C	2:Ar:96:GLU:CD	2.24	1.04
1:Ao:69:MET:HE2	1:Ba:41:ASP:CA	1.74	1.04
1:Ac:164:GLU:O	1:Ac:167:ASP:CG	2.00	1.04
1:Ad:61:GLU:OE2	1:Ap:2:ALA:C	1.99	1.04
2:Af:5:PRO:N	2:Ar:96:GLU:CG	2.20	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ai:164:GLU:O	1:Ai:167:ASP:CG	2.00	1.04
1:Au:164:GLU:O	1:Au:167:ASP:OD1	1.76	1.04
2:Ax:96:GLU:CG	2:Bj:5:PRO:N	2.21	1.04
2:Bd:5:PRO:N	2:Bp:96:GLU:CG	2.20	1.04
1:Bg:164:GLU:O	1:Bg:167:ASP:OD1	1.76	1.04
1:Bm:164:GLU:O	1:Bm:167:ASP:CG	2.00	1.04
1:Ai:143:ALA:HA	1:Ai:146:GLN:HE22	1.17	1.04
1:Ai:381:VAL:HB	1:Ai:393:LYS:HZ3	0.94	1.04
1:Ba:164:GLU:O	1:Ba:167:ASP:CG	2.00	1.04
2:Bj:95:VAL:HG22	2:Bp:3:ILE:C	1.83	1.04
1:Bm:164:GLU:O	1:Bm:167:ASP:OD1	1.76	1.04
1:Ao:164:GLU:O	1:Ao:167:ASP:CG	2.00	1.03
1:Av:488:MET:HE3	1:Av:493:ILE:HB	1.05	1.03
2:Bd:3:ILE:HG12	2:Bp:64:ILE:HG22	1.34	1.03
1:Bg:168:LYS:HZ3	1:Bg:187:LEU:HD11	1.18	1.03
1:Ap:488:MET:HE3	1:Ap:493:ILE:HB	1.05	1.03
1:Au:164:GLU:O	1:Au:167:ASP:CG	2.00	1.03
1:Bg:164:GLU:O	1:Bg:167:ASP:CG	2.00	1.03
1:Ac:41:ASP:CB	1:Ai:69:MET:HE3	1.65	1.03
1:Ai:164:GLU:O	1:Ai:167:ASP:OD1	1.76	1.03
1:Aj:414:GLY:O	1:Aj:488:MET:HE2	1.59	1.03
1:Ao:385:THR:HB	1:Ao:388:GLU:CG	1.89	1.03
1:Bb:414:GLY:O	1:Bb:488:MET:HE2	1.59	1.03
1:Bn:414:GLY:O	1:Bn:488:MET:HE2	1.59	1.03
1:Ac:385:THR:HB	1:Ac:388:GLU:CG	1.89	1.03
1:Au:385:THR:HB	1:Au:388:GLU:CG	1.89	1.03
1:Ba:69:MET:HE1	1:Bm:41:ASP:CA	1.77	1.03
1:Bm:381:VAL:CG2	1:Bm:393:LYS:HZ3	1.72	1.03
2:Al:96:GLU:CB	2:Ax:5:PRO:CB	2.37	1.02
1:Av:414:GLY:O	1:Av:488:MET:HE2	1.59	1.02
1:Bh:414:GLY:O	1:Bh:488:MET:HE2	1.59	1.02
2:Af:74:LYS:NZ	2:Af:76:GLU:HB2	1.74	1.02
2:Af:96:GLU:CB	2:Al:5:PRO:CA	2.37	1.02
1:Bb:488:MET:HE3	1:Bb:493:ILE:HB	1.05	1.02
2:Bj:96:GLU:CG	2:Bp:5:PRO:N	2.23	1.02
2:Bj:96:GLU:CB	2:Bp:5:PRO:CB	2.37	1.02
1:Bm:385:THR:HB	1:Bm:388:GLU:CG	1.89	1.02
1:Ac:69:MET:HE1	1:Ao:41:ASP:CA	1.79	1.02
1:Ap:414:GLY:O	1:Ap:488:MET:HE2	1.59	1.02
2:Ar:5:PRO:CB	2:Bd:96:GLU:CB	2.36	1.02
2:Ar:74:LYS:NZ	2:Ar:76:GLU:HB2	1.74	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ba:164:GLU:O	1:Ba:167:ASP:OD1	1.76	1.02
1:Ac:164:GLU:O	1:Ac:167:ASP:OD1	1.76	1.02
1:Ad:488:MET:HE3	1:Ad:493:ILE:CB	1.90	1.02
1:Ai:381:VAL:CG2	1:Ai:393:LYS:HZ2	1.73	1.02
2:Al:96:GLU:CG	2:Ax:5:PRO:N	2.22	1.02
2:Ax:96:GLU:CD	2:Bj:5:PRO:O	2.03	1.02
1:Ac:168:LYS:CE	1:Ac:189:VAL:CG2	2.38	1.02
2:Af:3:ILE:C	2:Af:3:ILE:HA	1.84	1.02
2:Af:66:ILE:HD12	2:Al:3:ILE:HD12	1.41	1.02
1:Ao:168:LYS:CE	1:Ao:189:VAL:CG2	2.38	1.02
1:Ai:168:LYS:CE	1:Ai:189:VAL:CG2	2.38	1.01
1:Ai:385:THR:HB	1:Ai:388:GLU:CG	1.89	1.01
1:Ao:164:GLU:O	1:Ao:167:ASP:OD1	1.76	1.01
1:Av:489:ILE:HD12	1:Av:494:LEU:HD21	1.42	1.01
1:Bh:489:ILE:HD12	1:Bh:494:LEU:HD21	1.42	1.01
1:Ad:414:GLY:O	1:Ad:488:MET:HE2	1.59	1.01
1:Ai:41:ASP:CA	1:Au:69:MET:HE1	1.76	1.01
1:Aj:13:ARG:NH1	1:Av:36:ARG:NH1	2.09	1.01
1:Aj:489:ILE:HD12	1:Aj:494:LEU:HD21	1.42	1.01
1:Ao:168:LYS:CD	1:Ao:187:LEU:HD21	1.91	1.01
1:Au:168:LYS:CE	1:Au:189:VAL:CG2	2.38	1.01
1:Ba:168:LYS:CE	1:Ba:189:VAL:CG2	2.38	1.01
1:Ba:385:THR:HB	1:Ba:388:GLU:CG	1.89	1.01
2:Bd:3:ILE:C	2:Bd:3:ILE:HA	1.85	1.01
2:Bj:74:LYS:HZ2	2:Bj:75:SER:C	1.69	1.01
2:Bp:3:ILE:C	2:Bp:3:ILE:HA	1.84	1.01
1:Ac:168:LYS:CD	1:Ac:187:LEU:HD21	1.91	1.01
1:Ad:489:ILE:HD12	1:Ad:494:LEU:HD21	1.42	1.01
2:Af:5:PRO:CB	2:Ar:96:GLU:CB	2.38	1.01
1:Ai:168:LYS:CD	1:Ai:187:LEU:HD21	1.91	1.01
1:Aj:488:MET:HE3	1:Aj:493:ILE:CB	1.90	1.01
2:Al:74:LYS:NZ	2:Al:76:GLU:HB2	1.74	1.01
1:Ap:488:MET:HE3	1:Ap:493:ILE:CB	1.90	1.01
1:Au:168:LYS:CD	1:Au:187:LEU:HD21	1.91	1.01
1:Av:13:ARG:NH1	1:Bh:36:ARG:NH1	2.09	1.01
1:Bn:488:MET:HE3	1:Bn:493:ILE:HB	1.05	1.01
1:Ac:41:ASP:CA	1:Ai:69:MET:HE2	1.75	1.01
2:Ax:3:ILE:C	2:Ax:3:ILE:HA	1.84	1.01
1:Ba:168:LYS:CD	1:Ba:187:LEU:HD21	1.91	1.01
2:Bd:5:PRO:O	2:Bp:96:GLU:CD	2.04	1.01
1:Bg:168:LYS:CE	1:Bg:189:VAL:CG2	2.38	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bh:13:ARG:NH1	1:Bn:36:ARG:NH1	2.09	1.01
1:Bh:488:MET:HE3	1:Bh:493:ILE:HB	1.05	1.01
1:Bn:488:MET:HE3	1:Bn:493:ILE:CB	1.90	1.01
2:Af:96:GLU:CD	2:Al:5:PRO:O	2.04	1.01
2:Ax:96:GLU:CB	2:Bj:5:PRO:CB	2.38	1.01
2:Bd:5:PRO:CB	2:Bp:96:GLU:CB	2.39	1.01
1:Bg:168:LYS:CD	1:Bg:187:LEU:HD21	1.91	1.01
2:Bj:3:ILE:C	2:Bj:3:ILE:HA	1.84	1.01
1:Bm:168:LYS:CE	1:Bm:189:VAL:CG2	2.38	1.01
1:Ao:69:MET:HE1	1:Ba:41:ASP:CA	1.77	1.00
1:Ap:36:ARG:NH1	1:Bb:13:ARG:NH1	2.08	1.00
1:Bb:36:ARG:NH1	1:Bn:13:ARG:NH1	2.08	1.00
2:Bd:74:LYS:NZ	2:Bd:76:GLU:HB2	1.74	1.00
1:Bm:168:LYS:CD	1:Bm:187:LEU:HD21	1.91	1.00
2:Ar:5:PRO:N	2:Bd:96:GLU:CG	2.23	1.00
1:Bg:385:THR:HB	1:Bg:388:GLU:CG	1.89	1.00
2:Bj:74:LYS:NZ	2:Bj:76:GLU:HB2	1.75	1.00
1:Av:488:MET:HE3	1:Av:493:ILE:CB	1.90	1.00
1:Bg:488:MET:HE3	1:Bg:493:ILE:HB	1.44	1.00
1:Bb:488:MET:HE3	1:Bb:493:ILE:CB	1.90	1.00
1:Bn:489:ILE:HD12	1:Bn:494:LEU:HD21	1.42	1.00
1:Ad:36:ARG:NH1	1:Ap:13:ARG:NH1	2.10	1.00
1:Ba:488:MET:HE3	1:Ba:493:ILE:HB	1.44	1.00
1:Bh:488:MET:HE3	1:Bh:493:ILE:CB	1.90	1.00
2:Al:96:GLU:CD	2:Ax:5:PRO:O	2.04	1.00
1:Ap:489:ILE:HD12	1:Ap:494:LEU:HD21	1.42	1.00
2:Ar:3:ILE:C	2:Ar:3:ILE:HA	1.84	1.00
1:Au:386:GLU:HA	1:Au:389:MET:CE	1.92	1.00
2:Af:4:ARG:HB3	2:Ar:94:ILE:HD12	1.41	0.99
1:Ai:381:VAL:HG23	1:Ai:393:LYS:HZ2	1.25	0.99
1:Bm:386:GLU:HA	1:Bm:389:MET:CE	1.92	0.99
2:Af:96:GLU:CG	2:Al:5:PRO:CD	2.40	0.99
2:Ax:74:LYS:NZ	2:Ax:76:GLU:HB2	1.75	0.99
2:Ax:96:GLU:CB	2:Bj:5:PRO:N	2.25	0.99
2:Bp:74:LYS:NZ	2:Bp:76:GLU:HB2	1.74	0.99
2:Al:3:ILE:C	2:Al:3:ILE:HA	1.84	0.99
1:Ac:381:VAL:HB	1:Ac:393:LYS:HZ3	1.09	0.99
1:Au:41:ASP:CA	1:Bg:69:MET:HE1	1.76	0.99
1:Ad:488:MET:CE	1:Ad:493:ILE:HB	1.93	0.99
1:Ac:386:GLU:HA	1:Ac:389:MET:CE	1.92	0.99
1:Ai:386:GLU:HA	1:Ai:389:MET:CE	1.92	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Aj:488:MET:CE	1:Aj:493:ILE:HB	1.93	0.99
1:Ad:13:ARG:NH1	1:Aj:36:ARG:NH1	2.11	0.99
2:Al:96:GLU:CB	2:Ax:5:PRO:N	2.26	0.99
1:Ao:386:GLU:HA	1:Ao:389:MET:CE	1.92	0.99
1:Au:488:MET:HE3	1:Au:493:ILE:HB	1.44	0.99
1:Ba:381:VAL:CG2	1:Ba:393:LYS:HZ3	1.76	0.99
1:Bb:36:ARG:NH1	1:Bn:13:ARG:HH12	1.61	0.99
1:Ba:386:GLU:HA	1:Ba:389:MET:CE	1.92	0.98
1:Bg:386:GLU:HA	1:Bg:389:MET:CE	1.92	0.98
1:Ap:488:MET:CE	1:Ap:493:ILE:HB	1.93	0.98
1:Bb:489:ILE:HD12	1:Bb:494:LEU:HD21	1.42	0.98
2:Bj:96:GLU:CD	2:Bp:5:PRO:O	2.06	0.98
1:Bn:134:LEU:CD1	1:Bn:425:LYS:NZ	2.27	0.98
1:Bm:488:MET:HE3	1:Bm:493:ILE:HB	1.44	0.98
2:Ar:5:PRO:O	2:Bd:96:GLU:CD	2.05	0.98
2:Bd:5:PRO:C	2:Bp:96:GLU:CD	2.30	0.98
1:Ac:41:ASP:HB2	1:Ai:69:MET:HE1	1.00	0.98
2:Ax:96:GLU:CD	2:Bj:5:PRO:C	2.30	0.98
1:Bb:134:LEU:CD1	1:Bb:425:LYS:NZ	2.27	0.98
1:Bh:134:LEU:CD1	1:Bh:425:LYS:NZ	2.27	0.98
1:Ac:168:LYS:HZ3	1:Ac:187:LEU:HD11	1.28	0.98
1:Ap:36:ARG:NH1	1:Bb:13:ARG:HH12	1.61	0.98
2:Af:3:ILE:HG12	2:Ar:64:ILE:HG22	1.43	0.98
1:Bg:381:VAL:CB	1:Bg:393:LYS:NZ	2.20	0.98
2:Af:96:GLU:CB	2:Al:5:PRO:CD	2.42	0.97
1:Aj:134:LEU:CD1	1:Aj:425:LYS:NZ	2.27	0.97
1:Ba:381:VAL:HB	1:Ba:393:LYS:HZ3	0.83	0.97
2:Ar:5:PRO:CB	2:Bd:96:GLU:CG	2.41	0.97
1:Bh:13:ARG:HH12	1:Bn:36:ARG:NH1	1.61	0.97
2:Bj:96:GLU:CB	2:Bp:5:PRO:N	2.27	0.97
1:Ad:134:LEU:CD1	1:Ad:425:LYS:NZ	2.27	0.97
2:Af:96:GLU:CD	2:Al:5:PRO:C	2.32	0.97
2:Al:96:GLU:CD	2:Ax:5:PRO:C	2.31	0.97
2:Ar:5:PRO:C	2:Bd:96:GLU:CD	2.31	0.97
1:Bh:488:MET:CE	1:Bh:493:ILE:HB	1.93	0.97
1:Bn:488:MET:CE	1:Bn:493:ILE:HB	1.93	0.97
1:Aj:13:ARG:HH12	1:Av:36:ARG:NH1	1.62	0.97
2:Al:96:GLU:CG	2:Ax:5:PRO:CB	2.43	0.97
1:Av:134:LEU:CD1	1:Av:425:LYS:NZ	2.27	0.97
1:Av:488:MET:CE	1:Av:493:ILE:HB	1.93	0.97
1:Ap:134:LEU:CD1	1:Ap:425:LYS:NZ	2.27	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bg:41:ASP:HB2	1:Bm:69:MET:HE1	0.97	0.97
2:Af:3:ILE:HD12	2:Ar:66:ILE:HD12	1.47	0.97
2:Ar:76:GLU:CD	2:Bd:37:ARG:HH21	1.62	0.97
2:Bd:5:PRO:N	2:Bp:96:GLU:CB	2.27	0.97
2:Ar:5:PRO:N	2:Bd:96:GLU:CB	2.28	0.97
1:Bb:488:MET:CE	1:Bb:493:ILE:HB	1.93	0.97
1:Ac:69:MET:HE1	1:Ao:41:ASP:HB2	0.98	0.96
2:Af:96:GLU:CG	2:Al:5:PRO:CB	2.43	0.96
1:Ao:488:MET:HE3	1:Ao:493:ILE:HB	1.44	0.96
2:Bj:96:GLU:CG	2:Bp:5:PRO:CB	2.43	0.96
2:Bd:5:PRO:CB	2:Bp:96:GLU:CG	2.42	0.96
1:Ba:168:LYS:HE2	1:Ba:189:VAL:HG22	1.48	0.96
2:Bj:96:GLU:CD	2:Bp:5:PRO:C	2.33	0.96
1:Ac:381:VAL:CB	1:Ac:393:LYS:NZ	2.19	0.96
2:Al:74:LYS:HZ1	2:Al:76:GLU:HB2	1.30	0.96
1:Au:41:ASP:HB2	1:Bg:69:MET:HE1	0.97	0.96
2:Ax:96:GLU:CG	2:Bj:5:PRO:CB	2.43	0.96
2:Bj:37:ARG:HH21	2:Bp:76:GLU:CD	1.64	0.96
1:Bm:177:VAL:HG13	1:Bm:379:ILE:HD11	1.47	0.96
2:Af:95:VAL:N	2:Al:3:ILE:H	1.63	0.96
1:Ai:41:ASP:HB2	1:Au:69:MET:HE1	0.97	0.96
1:Ba:69:MET:HE1	1:Bm:41:ASP:HB2	0.96	0.96
2:Bd:76:GLU:CD	2:Bp:37:ARG:HH21	1.64	0.96
1:Bg:177:VAL:HG13	1:Bg:379:ILE:HD11	1.47	0.96
1:Bm:168:LYS:HE2	1:Bm:189:VAL:HG22	1.48	0.96
1:Ao:168:LYS:HE2	1:Ao:189:VAL:HG22	1.48	0.96
1:Au:381:VAL:CB	1:Au:393:LYS:NZ	2.19	0.96
1:Ai:177:VAL:HG13	1:Ai:379:ILE:HD11	1.48	0.96
1:Au:177:VAL:HG13	1:Au:379:ILE:HD11	1.47	0.96
1:Ba:381:VAL:CB	1:Ba:393:LYS:NZ	2.20	0.95
1:Ac:177:VAL:HG13	1:Ac:379:ILE:HD11	1.48	0.95
1:Ad:13:ARG:HH12	1:Aj:36:ARG:NH1	1.63	0.95
2:Al:66:ILE:HD12	2:Ax:3:ILE:HD12	1.48	0.95
1:Ao:177:VAL:HG13	1:Ao:379:ILE:HD11	1.48	0.95
1:Ba:69:MET:HE2	1:Bm:41:ASP:HA	0.96	0.95
1:Ba:177:VAL:HG13	1:Ba:379:ILE:HD11	1.48	0.95
2:Bj:96:GLU:HB3	2:Bp:5:PRO:CB	1.96	0.95
1:Ai:488:MET:HE3	1:Ai:493:ILE:HB	1.44	0.95
1:Bg:168:LYS:HE2	1:Bg:189:VAL:HG22	1.48	0.95
2:Bj:66:ILE:HD12	2:Bp:3:ILE:HD12	1.47	0.95
1:Aj:177:VAL:HG13	1:Aj:400:LEU:HD11	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ap:134:LEU:CD1	1:Ap:425:LYS:HZ3	1.80	0.95
1:Au:158:VAL:O	1:Au:161:LEU:HG	1.67	0.95
1:Bg:381:VAL:HB	1:Bg:393:LYS:HZ3	1.14	0.95
1:Bm:7:LYS:HG2	1:Bm:66:PHE:CE1	2.02	0.95
1:Ac:488:MET:HE3	1:Ac:493:ILE:HB	1.44	0.95
1:Ao:158:VAL:O	1:Ao:161:LEU:HG	1.67	0.95
1:Ai:7:LYS:HG2	1:Ai:66:PHE:CE1	2.02	0.95
1:Bg:7:LYS:HG2	1:Bg:66:PHE:CE1	2.02	0.95
2:Af:96:GLU:CB	2:Al:5:PRO:N	2.30	0.95
1:Au:157:THR:HA	1:Au:160:LYS:HZ2	1.28	0.95
1:Ba:7:LYS:HG2	1:Ba:66:PHE:CE1	2.02	0.95
2:Bj:74:LYS:HE2	2:Bj:76:GLU:HB2	1.49	0.95
2:Af:5:PRO:CB	2:Ar:96:GLU:HB3	1.96	0.94
2:Ax:66:ILE:HD12	2:Bj:3:ILE:HD12	1.47	0.94
2:Bd:74:LYS:HE2	2:Bd:76:GLU:HB2	1.49	0.94
1:Ac:158:VAL:O	1:Ac:161:LEU:HG	1.67	0.94
1:Ac:168:LYS:HD2	1:Ac:187:LEU:CD2	1.97	0.94
1:Ai:158:VAL:O	1:Ai:161:LEU:HG	1.67	0.94
1:Ai:168:LYS:HD2	1:Ai:187:LEU:CD2	1.97	0.94
1:Au:7:LYS:HG2	1:Au:66:PHE:CE1	2.02	0.94
1:Ai:41:ASP:HA	1:Au:69:MET:HE2	0.96	0.94
2:Al:96:GLU:HB3	2:Ax:5:PRO:CB	1.96	0.94
1:Ba:158:VAL:O	1:Ba:161:LEU:HG	1.67	0.94
2:Bj:96:GLU:CB	2:Bp:5:PRO:CG	2.45	0.94
1:Ad:36:ARG:NH1	1:Ap:13:ARG:HH12	1.64	0.94
1:Ad:177:VAL:HG13	1:Ad:400:LEU:HD11	1.48	0.94
2:Bd:74:LYS:HZ2	2:Bd:75:SER:C	1.75	0.94
1:Bg:158:VAL:O	1:Bg:161:LEU:HG	1.67	0.94
1:Ac:168:LYS:HE2	1:Ac:189:VAL:HG22	1.48	0.94
1:Ao:7:LYS:HG2	1:Ao:66:PHE:CE1	2.02	0.94
1:Ao:168:LYS:HD2	1:Ao:187:LEU:CD2	1.97	0.94
1:Av:177:VAL:HG13	1:Av:400:LEU:HD11	1.48	0.94
2:Ax:74:LYS:HE2	2:Ax:76:GLU:HB2	1.49	0.94
1:Bm:525:PRO:OXT	1:Bm:525:PRO:O	1.86	0.94
2:Af:74:LYS:HE2	2:Af:76:GLU:HB2	1.49	0.94
1:Ao:69:MET:HE2	1:Ba:41:ASP:HA	0.96	0.94
1:Ao:381:VAL:CB	1:Ao:393:LYS:NZ	2.19	0.94
1:Ap:134:LEU:HD11	1:Ap:425:LYS:HZ3	1.32	0.94
1:Au:168:LYS:HD2	1:Au:187:LEU:CD2	1.97	0.94
2:Bd:3:ILE:HD12	2:Bp:66:ILE:HD12	1.48	0.94
1:Bg:171:LYS:HE3	1:Bg:407:VAL:CB	1.97	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:41:ASP:HA	1:Ai:69:MET:HE2	0.94	0.94
2:Af:95:VAL:HG22	2:Al:3:ILE:C	1.93	0.94
1:Aj:134:LEU:CD1	1:Aj:425:LYS:HZ1	1.80	0.94
1:Au:171:LYS:HE3	1:Au:407:VAL:CB	1.97	0.94
2:Ax:96:GLU:CB	2:Bj:5:PRO:CD	2.46	0.94
2:Bj:96:GLU:OE1	2:Bp:44:GLY:HA2	1.67	0.94
1:Au:168:LYS:HE2	1:Au:189:VAL:HG22	1.48	0.94
1:Av:13:ARG:HH12	1:Bh:36:ARG:NH1	1.62	0.94
1:Ba:168:LYS:HD2	1:Ba:187:LEU:CD2	1.97	0.94
1:Bn:24:ALA:CB	1:Bn:97:GLN:CD	2.41	0.94
2:Al:96:GLU:OE1	2:Ax:44:GLY:HA2	1.68	0.94
1:Bg:525:PRO:OXT	1:Bg:525:PRO:O	1.86	0.94
2:Af:76:GLU:CD	2:Ar:37:ARG:HH21	1.69	0.93
1:Ac:171:LYS:HE3	1:Ac:407:VAL:CB	1.97	0.93
2:Al:96:GLU:CB	2:Ax:5:PRO:CD	2.46	0.93
2:Bj:96:GLU:CB	2:Bp:5:PRO:CD	2.45	0.93
1:Ap:24:ALA:CB	1:Ap:97:GLN:CD	2.41	0.93
1:Ap:381:VAL:HG12	1:Ap:389:MET:SD	2.09	0.93
1:Ac:525:PRO:OXT	1:Ac:525:PRO:O	1.85	0.93
2:Al:96:GLU:CB	2:Ax:5:PRO:CG	2.47	0.93
1:Ba:525:PRO:OXT	1:Ba:525:PRO:O	1.86	0.93
1:Bg:168:LYS:HD2	1:Bg:187:LEU:CD2	1.97	0.93
2:Bp:74:LYS:HZ1	2:Bp:76:GLU:HB2	1.30	0.93
1:Ac:69:MET:HE2	1:Ao:41:ASP:HA	0.97	0.93
1:Ai:389:MET:O	1:Ai:393:LYS:CG	2.16	0.93
2:Ar:5:PRO:CB	2:Bd:96:GLU:HB3	1.97	0.93
1:Ba:171:LYS:HE3	1:Ba:407:VAL:CB	1.97	0.93
1:Ba:427:ALA:O	1:Ba:430:ARG:NH1	2.02	0.93
1:Bb:381:VAL:HG12	1:Bb:389:MET:SD	2.09	0.93
2:Af:96:GLU:CB	2:Al:5:PRO:CG	2.47	0.93
2:Al:74:LYS:HE2	2:Al:76:GLU:HB2	1.49	0.93
2:Ar:44:GLY:HA2	2:Bd:96:GLU:OE1	1.68	0.93
1:Bm:168:LYS:HD2	1:Bm:187:LEU:CD2	1.97	0.93
1:Bm:171:LYS:HE3	1:Bm:407:VAL:CB	1.97	0.93
1:Ai:168:LYS:HE2	1:Ai:189:VAL:HG22	1.48	0.93
2:Al:37:ARG:HH21	2:Ax:76:GLU:CD	1.64	0.93
1:Bb:177:VAL:HG13	1:Bb:400:LEU:HD11	1.48	0.93
1:Bn:381:VAL:HG12	1:Bn:389:MET:SD	2.09	0.93
1:Ai:157:THR:HA	1:Ai:160:LYS:HZ2	1.25	0.93
2:Ar:74:LYS:HZ1	2:Ar:76:GLU:HB2	1.30	0.93
1:Ba:168:LYS:HE2	1:Ba:189:VAL:CG2	1.99	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ba:168:LYS:HZ3	1:Ba:187:LEU:HD11	1.34	0.93
1:Bb:24:ALA:CB	1:Bb:97:GLN:CD	2.41	0.93
2:Bd:5:PRO:CB	2:Bp:96:GLU:HB3	1.99	0.93
1:Bg:41:ASP:HA	1:Bm:69:MET:HE2	0.95	0.93
1:Bg:427:ALA:O	1:Bg:430:ARG:NH1	2.02	0.93
1:Ad:381:VAL:HG12	1:Ad:389:MET:SD	2.09	0.93
1:Ai:171:LYS:HE3	1:Ai:407:VAL:CB	1.97	0.93
1:Ao:171:LYS:HE3	1:Ao:407:VAL:CB	1.97	0.93
1:Au:168:LYS:HZ3	1:Au:187:LEU:HD11	1.32	0.93
2:Af:96:GLU:HG3	2:Al:5:PRO:N	1.81	0.93
1:Ao:525:PRO:OXT	1:Ao:525:PRO:O	1.85	0.93
1:Ap:61:GLU:OE2	1:Bb:2:ALA:CA	2.17	0.93
1:Au:525:PRO:OXT	1:Au:525:PRO:O	1.85	0.93
1:Ac:7:LYS:HG2	1:Ac:66:PHE:CE1	2.02	0.92
1:Aj:24:ALA:CB	1:Aj:97:GLN:CD	2.41	0.92
2:Ax:96:GLU:HB3	2:Bj:5:PRO:CB	1.98	0.92
1:Bh:177:VAL:HG13	1:Bh:400:LEU:HD11	1.48	0.92
1:Au:427:ALA:O	1:Au:430:ARG:NH1	2.02	0.92
2:Ar:5:PRO:CG	2:Bd:96:GLU:CB	2.47	0.92
1:Au:41:ASP:HA	1:Bg:69:MET:HE2	0.96	0.92
2:Ax:74:LYS:HZ1	2:Ax:76:GLU:HB2	1.31	0.92
2:Ax:96:GLU:CB	2:Bj:5:PRO:CG	2.48	0.92
1:Ba:157:THR:HA	1:Ba:160:LYS:HZ3	1.31	0.92
1:Bg:168:LYS:HE2	1:Bg:189:VAL:CG2	1.99	0.92
1:Bm:168:LYS:HE2	1:Bm:189:VAL:CG2	1.99	0.92
1:Ac:389:MET:O	1:Ac:393:LYS:CG	2.16	0.92
2:Af:3:ILE:H	2:Ar:95:VAL:N	1.66	0.92
1:Ai:168:LYS:HE2	1:Ai:189:VAL:CG2	1.99	0.92
1:Ai:525:PRO:OXT	1:Ai:525:PRO:O	1.86	0.92
1:Ap:177:VAL:HG13	1:Ap:400:LEU:HD11	1.48	0.92
2:Ax:96:GLU:OE1	2:Bj:44:GLY:HA2	1.69	0.92
1:Bm:158:VAL:O	1:Bm:161:LEU:HG	1.67	0.92
1:Ad:24:ALA:CB	1:Ad:97:GLN:CD	2.41	0.92
1:Ad:488:MET:HE1	1:Ad:493:ILE:HD12	1.51	0.92
2:Af:96:GLU:CB	2:Al:5:PRO:CB	2.47	0.92
1:Ao:157:THR:HA	1:Ao:160:LYS:HZ3	1.34	0.92
1:Bn:177:VAL:HG13	1:Bn:400:LEU:HD11	1.48	0.92
2:Bp:74:LYS:HE2	2:Bp:76:GLU:HB2	1.49	0.92
1:Ad:61:GLU:OE2	1:Ap:2:ALA:CA	2.18	0.92
1:Ai:168:LYS:HZ3	1:Ai:187:LEU:HD11	1.34	0.92
2:Bd:74:LYS:HZ1	2:Bd:76:GLU:HB2	1.32	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bm:427:ALA:O	1:Bm:430:ARG:NH1	2.02	0.92
1:Aj:381:VAL:HG12	1:Aj:389:MET:SD	2.09	0.92
2:Ar:3:ILE:HD12	2:Bd:66:ILE:HD12	1.49	0.92
1:Au:23:LEU:HD21	1:Au:75:LYS:HG3	1.52	0.92
1:Ac:168:LYS:HE2	1:Ac:189:VAL:CG2	1.99	0.92
1:Ao:427:ALA:O	1:Ao:430:ARG:NH1	2.02	0.92
2:Ar:74:LYS:HE2	2:Ar:76:GLU:HB2	1.49	0.92
1:Av:24:ALA:CB	1:Av:97:GLN:CD	2.41	0.92
2:Ax:37:ARG:HH21	2:Bj:76:GLU:CD	1.65	0.92
1:Bb:61:GLU:OE2	1:Bn:2:ALA:CA	2.17	0.92
2:Ar:5:PRO:CD	2:Bd:96:GLU:CB	2.47	0.92
1:Au:389:MET:O	1:Au:393:LYS:CG	2.16	0.92
2:Bd:5:PRO:CD	2:Bp:96:GLU:CB	2.47	0.92
1:Bg:389:MET:O	1:Bg:393:LYS:CG	2.16	0.92
1:Bh:24:ALA:CB	1:Bh:97:GLN:CD	2.41	0.92
1:Bg:157:THR:HA	1:Bg:160:LYS:HZ2	1.34	0.91
1:Bm:389:MET:O	1:Bm:393:LYS:CG	2.16	0.91
1:Ac:23:LEU:HD21	1:Ac:75:LYS:HG3	1.52	0.91
1:Av:381:VAL:HG12	1:Av:389:MET:SD	2.09	0.91
2:Bd:44:GLY:HA2	2:Bp:96:GLU:OE1	1.70	0.91
1:Bh:488:MET:HE1	1:Bh:493:ILE:HD12	1.51	0.91
1:Ac:427:ALA:O	1:Ac:430:ARG:NH1	2.02	0.91
2:Af:5:PRO:CD	2:Ar:96:GLU:CB	2.49	0.91
1:Aj:2:ALA:CA	1:Av:61:GLU:OE2	2.18	0.91
1:Ao:69:MET:HE1	1:Ba:41:ASP:HB2	0.97	0.91
1:Ao:168:LYS:HE2	1:Ao:189:VAL:CG2	1.99	0.91
2:Ax:95:VAL:N	2:Bj:3:ILE:H	1.67	0.91
1:Bh:381:VAL:HG12	1:Bh:389:MET:SD	2.09	0.91
1:Ai:427:ALA:O	1:Ai:430:ARG:NH1	2.02	0.91
1:Aj:488:MET:HE1	1:Aj:493:ILE:HD12	1.51	0.91
1:Ao:389:MET:O	1:Ao:393:LYS:CG	2.16	0.91
1:Ap:488:MET:HE1	1:Ap:493:ILE:HD12	1.51	0.91
2:Bd:3:ILE:H	2:Bp:95:VAL:N	1.67	0.91
1:Bg:23:LEU:HD21	1:Bg:75:LYS:HG3	1.52	0.91
1:Ai:23:LEU:HD21	1:Ai:75:LYS:HG3	1.52	0.91
1:Ba:389:MET:O	1:Ba:393:LYS:CG	2.16	0.91
1:Ba:73:MET:HE2	1:Bm:39:VAL:HG11	1.53	0.91
1:Bg:157:THR:HA	1:Bg:160:LYS:HZ3	1.35	0.91
1:Bn:488:MET:HE1	1:Bn:493:ILE:HD12	1.51	0.91
2:Al:95:VAL:N	2:Ax:3:ILE:H	1.69	0.91
1:Av:2:ALA:CA	1:Bh:61:GLU:OE2	2.18	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Av:134:LEU:CD1	1:Av:425:LYS:HZ1	1.82	0.91
1:Au:168:LYS:HE2	1:Au:189:VAL:CG2	1.99	0.91
1:Ac:73:MET:HE2	1:Ao:39:VAL:HG11	1.51	0.90
2:Af:74:LYS:HZ1	2:Af:76:GLU:HB2	1.30	0.90
2:Bd:5:PRO:CG	2:Bp:96:GLU:CB	2.48	0.90
1:Bh:2:ALA:CA	1:Bn:61:GLU:OE2	2.18	0.90
1:Av:488:MET:HE1	1:Av:493:ILE:HD12	1.51	0.90
1:Ao:23:LEU:HD21	1:Ao:75:LYS:HG3	1.52	0.90
1:Bb:3:ALA:C	1:Bb:524:LEU:HD13	1.97	0.90
1:Bb:488:MET:HE1	1:Bb:493:ILE:HD12	1.51	0.90
2:Ar:3:ILE:H	2:Bd:95:VAL:N	1.69	0.90
2:Ax:74:LYS:HZ2	2:Ax:75:SER:C	1.77	0.90
2:Af:3:ILE:N	2:Ar:95:VAL:HA	1.86	0.90
1:Bb:4:LYS:HE3	1:Bb:523:ASP:OD1	1.72	0.90
1:Bg:115:ASP:CG	1:Bg:435:ASP:HB2	1.97	0.90
1:Ad:3:ALA:C	1:Ad:524:LEU:HD13	1.97	0.90
1:Aj:3:ALA:C	1:Aj:524:LEU:HD13	1.97	0.90
1:Ap:4:LYS:HE3	1:Ap:523:ASP:OD1	1.72	0.90
1:Ba:161:LEU:HD12	1:Ba:162:ILE:N	1.87	0.90
1:Bn:3:ALA:C	1:Bn:524:LEU:HD13	1.97	0.90
1:Ao:73:MET:HE2	1:Ba:39:VAL:HG11	1.53	0.90
1:Ao:161:LEU:HD12	1:Ao:162:ILE:N	1.87	0.90
1:Bh:3:ALA:C	1:Bh:524:LEU:HD13	1.97	0.90
1:Bm:23:LEU:HD21	1:Bm:75:LYS:HG3	1.52	0.90
1:Bm:115:ASP:CG	1:Bm:435:ASP:HB2	1.97	0.90
1:Bg:161:LEU:HD12	1:Bg:162:ILE:N	1.87	0.90
1:Bm:157:THR:HA	1:Bm:160:LYS:HZ3	1.32	0.90
2:Af:94:ILE:HG22	2:Al:3:ILE:CG2	2.02	0.89
1:Aj:489:ILE:CD1	1:Aj:494:LEU:HD21	2.02	0.89
1:Au:161:LEU:HD12	1:Au:162:ILE:N	1.87	0.89
1:Ac:161:LEU:HD12	1:Ac:162:ILE:N	1.87	0.89
2:Af:4:ARG:HA	2:Ar:95:VAL:O	1.71	0.89
2:Af:5:PRO:C	2:Ar:96:GLU:CG	2.44	0.89
1:Bh:489:ILE:CD1	1:Bh:494:LEU:HD21	2.02	0.89
1:Bm:161:LEU:HD12	1:Bm:162:ILE:N	1.87	0.89
1:Ac:115:ASP:CG	1:Ac:435:ASP:HB2	1.97	0.89
1:Ad:4:LYS:HE3	1:Ad:523:ASP:OD1	1.72	0.89
2:Af:44:GLY:HA2	2:Ar:96:GLU:OE1	1.73	0.89
1:Ba:23:LEU:HD21	1:Ba:75:LYS:HG3	1.52	0.89
1:Ba:115:ASP:CG	1:Ba:435:ASP:HB2	1.97	0.89
1:Ac:76:GLU:OE1	1:Ao:46:ALA:HB3	1.73	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ai:161:LEU:HD12	1:Ai:162:ILE:N	1.87	0.89
2:Al:74:LYS:HZ1	2:Al:76:GLU:CB	1.85	0.89
1:Av:3:ALA:C	1:Av:524:LEU:HD13	1.97	0.89
1:Bn:4:LYS:HE3	1:Bn:523:ASP:OD1	1.72	0.89
2:Af:37:ARG:HH21	2:Al:76:GLU:CD	1.68	0.89
2:Af:74:LYS:HZ2	2:Af:75:SER:C	1.80	0.89
1:Ap:489:ILE:CD1	1:Ap:494:LEU:HD21	2.02	0.89
1:Ad:489:ILE:CD1	1:Ad:494:LEU:HD21	2.02	0.89
2:Af:92:LEU:HD13	2:Al:74:LYS:HD3	1.54	0.89
1:Ai:115:ASP:CG	1:Ai:435:ASP:HB2	1.97	0.89
2:Bj:95:VAL:N	2:Bp:3:ILE:H	1.69	0.89
1:Ac:521:VAL:HG11	1:Ao:60:ILE:HD13	1.55	0.89
2:Af:5:PRO:CB	2:Ar:96:GLU:CG	2.50	0.89
1:Ap:3:ALA:C	1:Ap:524:LEU:HD13	1.97	0.89
2:Ar:5:PRO:N	2:Bd:96:GLU:HG3	1.88	0.89
1:Av:4:LYS:HE3	1:Av:523:ASP:OD1	1.72	0.89
2:Af:3:ILE:C	2:Ar:95:VAL:CG2	2.45	0.88
1:Aj:4:LYS:HE3	1:Aj:523:ASP:OD1	1.72	0.88
1:Au:115:ASP:CG	1:Au:435:ASP:HB2	1.97	0.88
1:Av:489:ILE:CD1	1:Av:494:LEU:HD21	2.02	0.88
1:Bh:4:LYS:HE3	1:Bh:523:ASP:OD1	1.72	0.88
1:Bn:489:ILE:CD1	1:Bn:494:LEU:HD21	2.02	0.88
2:Bd:5:PRO:N	2:Bp:96:GLU:HG3	1.86	0.88
1:Bg:39:VAL:HG11	1:Bm:73:MET:HE2	1.55	0.88
1:Ao:115:ASP:CG	1:Ao:435:ASP:HB2	1.97	0.88
2:Ar:74:LYS:HZ2	2:Ar:75:SER:C	1.81	0.88
1:Au:39:VAL:HG11	1:Bg:73:MET:HE2	1.54	0.88
1:Ba:167:ASP:OD1	1:Ba:168:LYS:N	2.07	0.88
1:Ac:168:LYS:HZ3	1:Ac:187:LEU:CD1	1.86	0.88
2:Af:5:PRO:N	2:Ar:96:GLU:HG3	1.89	0.88
1:Bg:167:ASP:OD1	1:Bg:168:LYS:N	2.07	0.88
1:Bm:167:ASP:OD1	1:Bm:168:LYS:N	2.07	0.88
1:Au:167:ASP:OD1	1:Au:168:LYS:N	2.07	0.88
1:Ad:2:ALA:CA	1:Aj:61:GLU:OE2	2.22	0.88
1:Ao:167:ASP:OD1	1:Ao:168:LYS:N	2.07	0.88
1:Bm:168:LYS:HE3	1:Bm:189:VAL:HG23	1.56	0.88
2:Bp:74:LYS:HZ2	2:Bp:75:SER:C	1.81	0.88
2:Al:96:GLU:HG3	2:Ax:5:PRO:N	1.88	0.87
1:Ao:7:LYS:CG	1:Ao:66:PHE:CE1	2.57	0.87
2:Af:94:ILE:HG22	2:Al:3:ILE:HG22	1.56	0.87
1:Ba:168:LYS:HE3	1:Ba:189:VAL:HG23	1.57	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Bd:5:PRO:CD	2:Bp:96:GLU:CG	2.52	0.87
1:Bh:69:MET:HE1	1:Bn:39:VAL:HG12	1.55	0.87
2:Bj:96:GLU:HG3	2:Bp:5:PRO:N	1.89	0.87
1:Ac:7:LYS:CG	1:Ac:66:PHE:CE1	2.57	0.87
1:Ai:167:ASP:OD1	1:Ai:168:LYS:N	2.07	0.87
1:Bg:168:LYS:HE3	1:Bg:189:VAL:HG23	1.57	0.87
1:Bb:489:ILE:CD1	1:Bb:494:LEU:HD21	2.03	0.87
2:Af:74:LYS:HZ1	2:Af:76:GLU:CB	1.88	0.87
1:Ao:168:LYS:HE3	1:Ao:189:VAL:HG23	1.56	0.87
1:Ao:76:GLU:OE1	1:Ba:46:ALA:HB3	1.74	0.87
1:Au:7:LYS:CG	1:Au:66:PHE:CE1	2.57	0.87
1:Ba:76:GLU:OE1	1:Bm:46:ALA:HB3	1.73	0.87
1:Ad:134:LEU:HD11	1:Ad:425:LYS:HZ3	1.40	0.87
2:Af:5:PRO:CD	2:Ar:96:GLU:HA	2.04	0.87
2:Af:95:VAL:N	2:Al:3:ILE:N	2.22	0.87
1:Ac:168:LYS:HE3	1:Ac:189:VAL:HG23	1.56	0.87
2:Bj:96:GLU:CG	2:Bp:5:PRO:CD	2.53	0.87
1:Ac:157:THR:HA	1:Ac:160:LYS:HZ3	1.32	0.86
1:Au:115:ASP:OD1	1:Au:116:LEU:N	2.08	0.86
2:Ax:96:GLU:CG	2:Bj:5:PRO:CD	2.53	0.86
2:Ax:96:GLU:HG3	2:Bj:5:PRO:N	1.87	0.86
1:Bm:381:VAL:CB	1:Bm:393:LYS:NZ	2.19	0.86
1:Ac:115:ASP:OD1	1:Ac:116:LEU:N	2.08	0.86
1:Ac:167:ASP:OD1	1:Ac:168:LYS:N	2.07	0.86
1:Ai:7:LYS:CG	1:Ai:66:PHE:CE1	2.57	0.86
1:Ap:39:VAL:HG12	1:Bb:69:MET:HE1	1.57	0.86
1:Ba:115:ASP:OD1	1:Ba:116:LEU:N	2.09	0.86
1:Bm:115:ASP:OD1	1:Bm:116:LEU:N	2.08	0.86
2:Af:5:PRO:HD3	2:Ar:96:GLU:HA	1.54	0.86
2:Al:74:LYS:HZ1	2:Al:76:GLU:CA	1.88	0.86
1:Au:46:ALA:HB3	1:Bg:76:GLU:OE1	1.75	0.86
1:Bg:46:ALA:HB3	1:Bm:76:GLU:OE1	1.76	0.86
1:Aj:488:MET:HE1	1:Aj:493:ILE:CD1	2.06	0.86
1:Av:488:MET:HE1	1:Av:493:ILE:CD1	2.05	0.86
1:Ba:76:GLU:CD	1:Bm:46:ALA:CB	2.48	0.86
1:Bm:7:LYS:CG	1:Bm:66:PHE:CE1	2.57	0.86
2:Bp:74:LYS:HZ1	2:Bp:76:GLU:CB	1.87	0.86
1:Ac:76:GLU:CD	1:Ao:46:ALA:CB	2.49	0.86
1:Ai:39:VAL:HG11	1:Au:73:MET:HE2	1.55	0.86
1:Ad:488:MET:HE1	1:Ad:493:ILE:CD1	2.06	0.86
1:Ai:168:LYS:HE3	1:Ai:189:VAL:HG23	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ao:115:ASP:OD1	1:Ao:116:LEU:N	2.08	0.86
1:Bg:115:ASP:OD1	1:Bg:116:LEU:N	2.08	0.86
1:Ai:46:ALA:HB3	1:Au:76:GLU:OE1	1.75	0.86
1:Aj:69:MET:HE1	1:Av:39:VAL:HG12	1.57	0.86
2:Ar:5:PRO:CD	2:Bd:96:GLU:CG	2.54	0.86
2:Ar:74:LYS:HZ1	2:Ar:76:GLU:CB	1.87	0.86
1:Au:168:LYS:HE3	1:Au:189:VAL:HG23	1.56	0.86
2:Af:96:GLU:HB3	2:Al:5:PRO:CB	2.06	0.86
1:Aj:15:LYS:CE	1:Aj:66:PHE:HB2	2.06	0.86
1:Ba:7:LYS:CG	1:Ba:66:PHE:CE1	2.57	0.85
1:Ba:168:LYS:CE	1:Ba:189:VAL:HG23	2.06	0.85
1:Bb:39:VAL:HG12	1:Bn:69:MET:HE1	1.56	0.85
1:Bh:488:MET:HE1	1:Bh:493:ILE:CD1	2.06	0.85
2:Al:96:GLU:CG	2:Ax:5:PRO:CD	2.54	0.85
1:Ao:521:VAL:HG11	1:Ba:60:ILE:HD13	1.58	0.85
1:Bb:134:LEU:CD1	1:Bb:425:LYS:HZ1	1.87	0.85
2:Bj:74:LYS:HZ1	2:Bj:76:GLU:HB2	1.38	0.85
1:Ac:171:LYS:CD	1:Ac:407:VAL:CB	2.55	0.85
1:Ai:115:ASP:OD1	1:Ai:116:LEU:N	2.08	0.85
1:Ao:168:LYS:CE	1:Ao:189:VAL:HG23	2.06	0.85
1:Ao:473:ASP:OD1	1:Ao:473:ASP:O	1.95	0.85
1:Bb:488:MET:HE1	1:Bb:493:ILE:CD1	2.05	0.85
1:Bg:7:LYS:CG	1:Bg:66:PHE:CE1	2.57	0.85
1:Bg:473:ASP:O	1:Bg:473:ASP:OD1	1.95	0.85
1:Ac:473:ASP:OD1	1:Ac:473:ASP:O	1.95	0.85
1:Ad:15:LYS:CE	1:Ad:66:PHE:HB2	2.06	0.85
2:Af:96:GLU:OE1	2:Al:44:GLY:HA2	1.75	0.85
1:Ai:171:LYS:CD	1:Ai:407:VAL:CB	2.55	0.85
1:Av:15:LYS:CE	1:Av:66:PHE:HB2	2.06	0.85
1:Bm:473:ASP:OD1	1:Bm:473:ASP:O	1.95	0.85
1:Bn:134:LEU:CD1	1:Bn:425:LYS:HZ3	1.89	0.85
1:Ad:69:MET:HE1	1:Aj:39:VAL:HG12	1.54	0.85
1:Ai:479:ASN:HB2	1:Ai:491:MET:HE1	1.59	0.85
1:Ao:76:GLU:CD	1:Ba:46:ALA:CB	2.49	0.85
1:Ao:171:LYS:CD	1:Ao:407:VAL:CB	2.55	0.85
1:Ap:39:VAL:CG1	1:Bb:69:MET:CE	2.55	0.85
1:Bb:15:LYS:CE	1:Bb:66:PHE:HB2	2.06	0.85
1:Bh:134:LEU:CD1	1:Bh:425:LYS:HZ1	1.88	0.85
1:Bn:488:MET:HE1	1:Bn:493:ILE:CD1	2.06	0.85
1:Ap:488:MET:HE1	1:Ap:493:ILE:CD1	2.06	0.85
1:Au:157:THR:HA	1:Au:160:LYS:HZ3	1.42	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ba:473:ASP:O	1:Ba:473:ASP:OD1	1.95	0.85
1:Au:479:ASN:HB2	1:Au:491:MET:HE1	1.59	0.85
1:Ba:171:LYS:CD	1:Ba:407:VAL:CB	2.55	0.85
1:Ba:482:THR:O	1:Ba:484:GLU:OE1	1.95	0.85
1:Bm:168:LYS:CE	1:Bm:189:VAL:HG23	2.06	0.85
1:Bn:15:LYS:CE	1:Bn:66:PHE:HB2	2.06	0.85
1:Ac:39:VAL:HG11	1:Ai:73:MET:HE2	1.57	0.85
1:Ad:39:VAL:O	1:Ap:69:MET:HE1	1.76	0.85
1:Ao:482:THR:O	1:Ao:484:GLU:OE1	1.95	0.85
1:Au:171:LYS:CD	1:Au:407:VAL:CB	2.55	0.85
1:Bh:15:LYS:CE	1:Bh:66:PHE:HB2	2.06	0.85
1:Ap:39:VAL:O	1:Bb:69:MET:HE1	1.76	0.85
1:Au:60:ILE:HD13	1:Bg:521:VAL:HG11	1.59	0.85
1:Au:473:ASP:OD1	1:Au:473:ASP:O	1.95	0.85
2:Af:5:PRO:CG	2:Ar:96:GLU:CB	2.55	0.85
1:Ai:473:ASP:OD1	1:Ai:473:ASP:O	1.95	0.85
1:Au:46:ALA:CB	1:Bg:76:GLU:CD	2.49	0.85
1:Bg:46:ALA:CB	1:Bm:76:GLU:CD	2.50	0.85
1:Bh:69:MET:CE	1:Bn:39:VAL:CG1	2.54	0.85
2:Af:37:ARG:NH2	2:Al:76:GLU:OE2	2.10	0.84
1:Av:69:MET:CE	1:Bh:39:VAL:CG1	2.55	0.84
1:Bg:168:LYS:CE	1:Bg:189:VAL:HG23	2.06	0.84
1:Bm:171:LYS:CD	1:Bm:407:VAL:CB	2.55	0.84
2:Af:5:PRO:CA	2:Ar:96:GLU:HB2	2.05	0.84
1:Ai:168:LYS:CE	1:Ai:189:VAL:HG23	2.06	0.84
1:Av:179:ASP:OD1	1:Av:393:LYS:CD	2.26	0.84
1:Ba:521:VAL:HG11	1:Bm:60:ILE:HD13	1.58	0.84
1:Bg:171:LYS:CD	1:Bg:407:VAL:CB	2.55	0.84
1:Ac:157:THR:HA	1:Ac:160:LYS:HZ2	1.37	0.84
1:Ad:69:MET:CE	1:Aj:39:VAL:CG1	2.55	0.84
1:Ai:60:ILE:HD13	1:Au:521:VAL:HG11	1.59	0.84
1:Ap:15:LYS:CE	1:Ap:66:PHE:HB2	2.06	0.84
1:Bn:134:LEU:HD11	1:Bn:425:LYS:HZ3	1.40	0.84
1:Ac:168:LYS:CE	1:Ac:189:VAL:HG23	2.06	0.84
1:Ac:482:THR:O	1:Ac:484:GLU:OE1	1.95	0.84
1:Ai:46:ALA:CB	1:Au:76:GLU:CD	2.50	0.84
1:Aj:188:ASP:OD1	1:Aj:188:ASP:O	1.95	0.84
1:Ap:179:ASP:OD1	1:Ap:393:LYS:CD	2.26	0.84
1:Bm:157:THR:HA	1:Bm:160:LYS:HZ2	1.37	0.84
1:Bm:482:THR:O	1:Bm:484:GLU:OE1	1.95	0.84
1:Ac:479:ASN:HB2	1:Ac:491:MET:HE1	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:179:ASP:OD1	1:Ad:393:LYS:CD	2.26	0.84
2:Af:92:LEU:CD1	2:Al:74:LYS:CD	2.55	0.84
1:Ac:386:GLU:CG	1:Ai:281:PHE:CD2	1.91	0.84
2:Af:3:ILE:O	2:Ar:95:VAL:HG22	1.78	0.84
1:Bb:39:VAL:CG1	1:Bn:69:MET:CE	2.54	0.84
1:Bb:188:ASP:O	1:Bb:188:ASP:OD1	1.95	0.84
1:Ad:188:ASP:OD1	1:Ad:188:ASP:O	1.95	0.84
1:Av:69:MET:HE1	1:Bh:39:VAL:O	1.77	0.84
1:Bg:479:ASN:HB2	1:Bg:491:MET:HE1	1.59	0.84
1:Bh:134:LEU:HD11	1:Bh:425:LYS:HZ3	1.43	0.84
1:Ao:187:LEU:HD13	1:Ao:379:ILE:HG22	1.60	0.84
1:Av:69:MET:HE1	1:Bh:39:VAL:HG12	1.56	0.84
1:Ap:188:ASP:OD1	1:Ap:188:ASP:O	1.95	0.84
2:Ax:92:LEU:HD13	2:Bj:74:LYS:HD3	1.60	0.84
2:Ax:96:GLU:HA	2:Bj:5:PRO:HD3	1.60	0.84
1:Ba:187:LEU:HD13	1:Ba:379:ILE:HG22	1.60	0.84
1:Ac:187:LEU:HD13	1:Ac:379:ILE:HG22	1.60	0.83
1:Ad:36:ARG:NE	1:Ap:113:PRO:HG2	1.93	0.83
1:Bg:60:ILE:HD13	1:Bm:521:VAL:HG11	1.60	0.83
1:Aj:69:MET:HE1	1:Av:39:VAL:O	1.77	0.83
1:Aj:179:ASP:OD1	1:Aj:393:LYS:CD	2.26	0.83
1:Au:168:LYS:HZ3	1:Au:187:LEU:CD1	1.90	0.83
1:Av:134:LEU:HD13	1:Av:425:LYS:HZ1	1.44	0.83
1:Bb:39:VAL:O	1:Bn:69:MET:HE1	1.76	0.83
1:Bn:188:ASP:OD1	1:Bn:188:ASP:O	1.95	0.83
2:Ar:74:LYS:HD3	2:Bd:92:LEU:HD13	1.59	0.83
2:Ax:74:LYS:HZ1	2:Ax:76:GLU:CB	1.90	0.83
2:Bj:92:LEU:HD13	2:Bp:74:LYS:HD3	1.60	0.83
1:Av:188:ASP:OD1	1:Av:188:ASP:O	1.95	0.83
1:Bb:179:ASP:OD1	1:Bb:393:LYS:CD	2.26	0.83
1:Aj:69:MET:CE	1:Av:39:VAL:CG1	2.55	0.83
1:Ao:157:THR:HA	1:Ao:160:LYS:HZ2	1.35	0.83
2:Ar:51:ASN:HD22	2:Bd:55:LYS:HE3	1.44	0.83
1:Ba:157:THR:HA	1:Ba:160:LYS:HZ2	1.38	0.83
1:Bh:69:MET:HE1	1:Bn:39:VAL:O	1.77	0.83
1:Bh:188:ASP:O	1:Bh:188:ASP:OD1	1.95	0.83
1:Bm:187:LEU:HD13	1:Bm:379:ILE:HG22	1.60	0.83
1:Bg:482:THR:O	1:Bg:484:GLU:OE1	1.95	0.83
2:Bj:96:GLU:HA	2:Bp:5:PRO:HD3	1.61	0.83
1:Ac:60:ILE:HD13	1:Ai:521:VAL:HG11	1.60	0.83
1:Ai:482:THR:O	1:Ai:484:GLU:OE1	1.95	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Al:96:GLU:HA	2:Ax:5:PRO:HD3	1.60	0.83
1:Au:168:LYS:CE	1:Au:189:VAL:HG23	2.06	0.83
1:Ao:479:ASN:HB2	1:Ao:491:MET:HE1	1.59	0.83
1:Ac:47:PRO:CG	1:Ai:69:MET:HG2	2.09	0.83
2:Al:74:LYS:HZ2	2:Al:75:SER:C	1.87	0.83
1:Ao:479:ASN:CB	1:Ao:491:MET:HE1	2.08	0.83
1:Au:479:ASN:CB	1:Au:491:MET:HE1	2.08	0.83
1:Au:482:THR:O	1:Au:484:GLU:OE1	1.95	0.83
2:Bj:55:LYS:HE3	2:Bp:51:ASN:HD22	1.44	0.83
1:Ac:479:ASN:CB	1:Ac:491:MET:HE1	2.08	0.82
1:Ai:187:LEU:HD13	1:Ai:379:ILE:HG22	1.60	0.82
2:Bd:74:LYS:HD3	2:Bp:92:LEU:HD13	1.58	0.82
1:Bm:479:ASN:CB	1:Bm:491:MET:HE1	2.08	0.82
1:Ad:134:LEU:CD1	1:Ad:425:LYS:HZ1	1.91	0.82
2:Ax:95:VAL:HA	2:Bj:3:ILE:N	1.95	0.82
1:Bg:381:VAL:HG23	1:Bg:393:LYS:HZ3	1.44	0.82
1:Ai:479:ASN:CB	1:Ai:491:MET:HE1	2.08	0.82
1:Aj:134:LEU:HD13	1:Aj:425:LYS:HZ1	1.42	0.82
1:Bb:134:LEU:HD11	1:Bb:425:LYS:HZ3	1.44	0.82
1:Bn:179:ASP:OD1	1:Bn:393:LYS:CD	2.26	0.82
2:Al:92:LEU:HD13	2:Ax:74:LYS:HD3	1.60	0.82
1:Ba:479:ASN:HB2	1:Ba:491:MET:HE1	1.59	0.82
1:Bb:134:LEU:CD1	1:Bb:425:LYS:HZ3	1.92	0.82
1:Bg:479:ASN:CB	1:Bg:491:MET:HE1	2.08	0.82
1:Ad:69:MET:HE1	1:Aj:39:VAL:O	1.79	0.82
2:Af:74:LYS:CE	2:Af:76:GLU:CB	2.58	0.82
1:Ba:479:ASN:CB	1:Ba:491:MET:HE1	2.08	0.82
1:Bh:134:LEU:CD1	1:Bh:425:LYS:HZ3	1.91	0.82
2:Bj:37:ARG:NH2	2:Bp:76:GLU:OE2	2.12	0.82
1:Bm:479:ASN:HB2	1:Bm:491:MET:HE1	1.59	0.82
1:Ac:46:ALA:HB3	1:Ai:76:GLU:OE1	1.80	0.82
1:Bg:187:LEU:HD13	1:Bg:379:ILE:HG22	1.60	0.82
2:Bd:3:ILE:N	2:Bp:95:VAL:HA	1.95	0.82
1:Ai:7:LYS:HG2	1:Ai:66:PHE:CZ	2.15	0.82
1:Ao:7:LYS:HG2	1:Ao:66:PHE:CZ	2.15	0.82
1:Bh:179:ASP:OD1	1:Bh:393:LYS:CD	2.26	0.81
1:Ai:168:LYS:HZ3	1:Ai:187:LEU:CD1	1.93	0.81
1:Ai:389:MET:C	1:Ai:393:LYS:HG2	2.05	0.81
2:Al:55:LYS:HE3	2:Ax:51:ASN:HD22	1.44	0.81
1:Ao:434:GLU:HA	1:Ao:437:ASN:HD22	1.45	0.81
2:Bd:5:PRO:HD3	2:Bp:96:GLU:HA	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Bp:74:LYS:HZ1	2:Bp:76:GLU:CA	1.93	0.81
2:Af:51:ASN:HD22	2:Ar:55:LYS:HE3	1.45	0.81
2:Af:92:LEU:HD12	2:Al:74:LYS:HD2	1.63	0.81
2:Al:74:LYS:CE	2:Al:76:GLU:CB	2.57	0.81
2:Ar:76:GLU:OE2	2:Bd:37:ARG:NH2	2.11	0.81
1:Au:187:LEU:HD13	1:Au:379:ILE:HG22	1.60	0.81
1:Ba:434:GLU:HA	1:Ba:437:ASN:HD22	1.45	0.81
1:Bh:177:VAL:CG1	1:Bh:400:LEU:HD11	2.11	0.81
1:Ac:389:MET:C	1:Ac:393:LYS:HG2	2.05	0.81
2:Al:37:ARG:NH2	2:Ax:76:GLU:OE2	2.13	0.81
2:Ar:74:LYS:CD	2:Bd:92:LEU:CD1	2.59	0.81
1:Av:15:LYS:HE3	1:Av:66:PHE:HB2	1.63	0.81
2:Bd:51:ASN:HD22	2:Bp:55:LYS:HE3	1.46	0.81
1:Ai:166:MET:SD	1:Ai:175:ILE:HD12	2.21	0.81
1:Av:177:VAL:CG1	1:Av:400:LEU:HD11	2.11	0.81
2:Bd:74:LYS:HZ1	2:Bd:76:GLU:CB	1.92	0.81
1:Bn:177:VAL:CG1	1:Bn:400:LEU:HD11	2.11	0.81
1:Ac:7:LYS:HG2	1:Ac:66:PHE:CZ	2.15	0.81
1:Ad:15:LYS:HE3	1:Ad:66:PHE:HB2	1.62	0.81
1:Ap:15:LYS:HE3	1:Ap:66:PHE:HB2	1.62	0.81
2:Ar:74:LYS:HZ1	2:Ar:76:GLU:CA	1.93	0.81
1:Au:389:MET:C	1:Au:393:LYS:HG2	2.05	0.81
1:Ba:7:LYS:HG2	1:Ba:66:PHE:CZ	2.15	0.81
1:Bb:15:LYS:HE3	1:Bb:66:PHE:HB2	1.62	0.81
1:Bb:177:VAL:CG1	1:Bb:400:LEU:HD11	2.10	0.81
2:Bd:74:LYS:CD	2:Bp:92:LEU:CD1	2.58	0.81
2:Bd:76:GLU:OE2	2:Bp:37:ARG:NH2	2.12	0.81
1:Bg:166:MET:SD	1:Bg:175:ILE:HD12	2.21	0.81
1:Bn:15:LYS:HE3	1:Bn:66:PHE:HB2	1.63	0.81
1:Bh:15:LYS:HE3	1:Bh:66:PHE:HB2	1.62	0.81
1:Ac:179:ASP:HA	1:Ac:393:LYS:HE3	1.62	0.81
1:Ap:36:ARG:NE	1:Bb:113:PRO:HG2	1.96	0.81
2:Ax:37:ARG:NH2	2:Bj:76:GLU:OE2	2.14	0.81
1:Ac:46:ALA:CB	1:Ai:76:GLU:CD	2.54	0.81
1:Ap:177:VAL:CG1	1:Ap:400:LEU:HD11	2.11	0.81
1:Au:179:ASP:HA	1:Au:393:LYS:HE3	1.63	0.81
1:Ba:166:MET:SD	1:Ba:175:ILE:HD12	2.21	0.81
1:Ba:168:LYS:HZ3	1:Ba:187:LEU:CD1	1.93	0.81
1:Bg:122:LYS:HD2	1:Bg:440:ILE:HD11	1.63	0.81
1:Bm:166:MET:SD	1:Bm:175:ILE:HD12	2.21	0.81
1:Au:7:LYS:HG2	1:Au:66:PHE:CZ	2.15	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:166:MET:SD	1:Au:175:ILE:HD12	2.21	0.81
2:Ax:55:LYS:HE3	2:Bj:51:ASN:HD22	1.45	0.81
1:Bm:122:LYS:HD2	1:Bm:440:ILE:HD11	1.63	0.81
1:Ad:39:VAL:HG12	1:Ap:69:MET:HE1	1.61	0.80
2:Af:95:VAL:HA	2:Al:3:ILE:N	1.96	0.80
1:Aj:15:LYS:HE3	1:Aj:66:PHE:HB2	1.63	0.80
1:Aj:177:VAL:CG1	1:Aj:400:LEU:HD11	2.11	0.80
1:Ao:389:MET:C	1:Ao:393:LYS:HG2	2.05	0.80
1:Ac:143:ALA:HA	1:Ac:146:GLN:NE2	1.95	0.80
2:Af:96:GLU:HA	2:Al:5:PRO:HD3	1.63	0.80
1:Bg:7:LYS:HG2	1:Bg:66:PHE:CZ	2.15	0.80
1:Ai:434:GLU:HA	1:Ai:437:ASN:HD22	1.45	0.80
2:Al:96:GLU:HA	2:Ax:5:PRO:CD	2.12	0.80
1:Ao:166:MET:SD	1:Ao:175:ILE:HD12	2.21	0.80
1:Bm:115:ASP:OD2	1:Bm:435:ASP:CB	2.29	0.80
1:Bm:389:MET:C	1:Bm:393:LYS:HG2	2.05	0.80
1:Bm:434:GLU:HA	1:Bm:437:ASN:HD22	1.45	0.80
1:Ai:143:ALA:HA	1:Ai:146:GLN:NE2	1.95	0.80
1:Ao:143:ALA:HA	1:Ao:146:GLN:NE2	1.95	0.80
2:Ar:5:PRO:HD3	2:Bd:96:GLU:HA	1.62	0.80
1:Bg:143:ALA:HA	1:Bg:146:GLN:NE2	1.95	0.80
1:Ac:166:MET:SD	1:Ac:175:ILE:HD12	2.21	0.80
2:Af:5:PRO:O	2:Ar:96:GLU:CG	2.29	0.80
1:Aj:113:PRO:HG2	1:Av:36:ARG:NE	1.97	0.80
1:Au:143:ALA:HA	1:Au:146:GLN:NE2	1.95	0.80
2:Bd:3:ILE:N	2:Bp:95:VAL:N	2.29	0.80
1:Bm:7:LYS:HG2	1:Bm:66:PHE:CZ	2.15	0.80
1:Ac:434:GLU:HA	1:Ac:437:ASN:HD22	1.45	0.80
1:Ad:177:VAL:CG1	1:Ad:400:LEU:HD11	2.11	0.80
2:Bj:92:LEU:CD1	2:Bp:74:LYS:CD	2.60	0.80
1:Bn:134:LEU:CD1	1:Bn:425:LYS:HZ1	1.91	0.80
2:Ax:74:LYS:CE	2:Ax:76:GLU:CB	2.58	0.80
1:Bg:389:MET:C	1:Bg:393:LYS:HG2	2.06	0.80
1:Ai:157:THR:HA	1:Ai:160:LYS:HZ3	1.45	0.80
1:Ao:179:ASP:HA	1:Ao:393:LYS:HE3	1.63	0.80
1:Au:122:LYS:HD2	1:Au:440:ILE:HD11	1.63	0.80
1:Ba:179:ASP:HA	1:Ba:393:LYS:HE3	1.63	0.80
1:Bg:434:GLU:HA	1:Bg:437:ASN:HD22	1.45	0.80
1:Bm:179:ASP:HA	1:Bm:393:LYS:HE3	1.63	0.80
1:Ai:479:ASN:HB2	1:Ai:491:MET:CE	2.12	0.80
2:Ar:3:ILE:N	2:Bd:95:VAL:HA	1.97	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ba:122:LYS:HD2	1:Ba:440:ILE:HD11	1.63	0.80
2:Bd:74:LYS:HD2	2:Bp:92:LEU:HD12	1.63	0.80
1:Bg:115:ASP:OD2	1:Bg:435:ASP:CB	2.29	0.80
1:Bg:179:ASP:HA	1:Bg:393:LYS:HE3	1.63	0.80
1:Bm:143:ALA:HA	1:Bm:146:GLN:NE2	1.95	0.80
1:Ad:134:LEU:CD1	1:Ad:425:LYS:HZ3	1.89	0.79
1:Au:479:ASN:HB2	1:Au:491:MET:CE	2.12	0.79
2:Ax:96:GLU:HA	2:Bj:5:PRO:CD	2.12	0.79
2:Af:74:LYS:HZ1	2:Af:76:GLU:CA	1.94	0.79
1:Ba:143:ALA:HA	1:Ba:146:GLN:NE2	1.95	0.79
1:Ai:115:ASP:OD2	1:Ai:435:ASP:CB	2.29	0.79
1:Au:386:GLU:HG3	1:Au:389:MET:HE3	1.65	0.79
2:Ax:92:LEU:HD12	2:Bj:74:LYS:HD2	1.65	0.79
2:Al:95:VAL:HA	2:Ax:3:ILE:N	1.96	0.79
2:Ar:74:LYS:HD2	2:Bd:92:LEU:HD12	1.63	0.79
1:Bb:36:ARG:NE	1:Bn:113:PRO:HG2	1.97	0.79
1:Bg:479:ASN:HB2	1:Bg:491:MET:CE	2.12	0.79
1:Ac:73:MET:CE	1:Ao:39:VAL:HG11	2.12	0.79
2:Af:94:ILE:C	2:Al:3:ILE:H	1.89	0.79
1:Ai:179:ASP:HA	1:Ai:393:LYS:HE3	1.63	0.79
1:Ao:385:THR:HB	1:Ao:388:GLU:CD	2.07	0.79
1:Ao:467:ASN:HD22	1:Ap:464:VAL:HG13	1.48	0.79
1:Av:113:PRO:HG2	1:Bh:36:ARG:NE	1.97	0.79
1:Ba:385:THR:HB	1:Ba:388:GLU:CD	2.07	0.79
1:Bh:113:PRO:HG2	1:Bn:36:ARG:NE	1.98	0.79
2:Bj:96:GLU:HB2	2:Bp:5:PRO:CA	2.13	0.79
1:Bm:168:LYS:CE	1:Bm:189:VAL:HG22	2.08	0.79
1:Ac:479:ASN:HB2	1:Ac:491:MET:CE	2.12	0.79
2:Af:96:GLU:CG	2:Al:5:PRO:CG	2.61	0.79
2:Ax:95:VAL:N	2:Bj:3:ILE:N	2.30	0.79
1:Ad:44:PHE:O	1:Ad:44:PHE:CD1	2.36	0.79
2:Al:96:GLU:HB2	2:Ax:5:PRO:CA	2.12	0.79
2:Ax:96:GLU:CG	2:Bj:5:PRO:C	2.56	0.79
1:Ba:389:MET:C	1:Ba:393:LYS:HG2	2.05	0.79
1:Ba:479:ASN:HB2	1:Ba:491:MET:CE	2.12	0.79
1:Bg:385:THR:HB	1:Bg:388:GLU:CD	2.07	0.79
1:Au:434:GLU:HA	1:Au:437:ASN:HD22	1.45	0.79
2:Ax:92:LEU:CD1	2:Bj:74:LYS:CD	2.60	0.79
1:Bg:47:PRO:CG	1:Bm:69:MET:HG2	2.13	0.79
1:Bg:168:LYS:CE	1:Bg:189:VAL:HG22	2.08	0.79
2:Bj:92:LEU:HD12	2:Bp:74:LYS:HD2	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Al:92:LEU:CD1	2:Ax:74:LYS:CD	2.60	0.79
1:Ap:44:PHE:O	1:Ap:44:PHE:CD1	2.36	0.79
1:Av:44:PHE:O	1:Av:44:PHE:CD1	2.36	0.79
1:Bm:479:ASN:HB2	1:Bm:491:MET:CE	2.12	0.79
1:Ad:39:VAL:CG1	1:Ap:69:MET:CE	2.59	0.78
2:Al:92:LEU:HD12	2:Ax:74:LYS:HD2	1.65	0.78
1:Ap:36:ARG:HH12	1:Bb:13:ARG:NH1	1.81	0.78
2:Bp:74:LYS:CE	2:Bp:76:GLU:CB	2.57	0.78
1:Ad:113:PRO:HG2	1:Aj:36:ARG:NE	1.98	0.78
2:Ar:3:ILE:N	2:Bd:95:VAL:N	2.31	0.78
1:Ba:115:ASP:OD2	1:Ba:435:ASP:CB	2.29	0.78
1:Bg:386:GLU:HG3	1:Bg:389:MET:HE3	1.65	0.78
1:Bm:386:GLU:HG3	1:Bm:389:MET:HE3	1.65	0.78
1:Ad:61:GLU:CD	1:Ap:2:ALA:O	2.26	0.78
1:Ai:385:THR:HB	1:Ai:388:GLU:CD	2.07	0.78
1:Ao:115:ASP:OD2	1:Ao:435:ASP:CB	2.29	0.78
2:Ax:96:GLU:HB2	2:Bj:5:PRO:CA	2.13	0.78
1:Bb:36:ARG:HH12	1:Bn:13:ARG:NH1	1.80	0.78
1:Bb:134:LEU:HD13	1:Bb:425:LYS:HZ1	1.47	0.78
2:Bd:5:PRO:C	2:Bp:96:GLU:CG	2.56	0.78
1:Ai:122:LYS:HD2	1:Ai:440:ILE:HD11	1.63	0.78
1:Aj:44:PHE:O	1:Aj:44:PHE:CD1	2.36	0.78
2:Al:96:GLU:CG	2:Ax:5:PRO:C	2.57	0.78
1:Ao:479:ASN:HB2	1:Ao:491:MET:CE	2.12	0.78
1:Bg:467:ASN:HD22	1:Bh:464:VAL:HG13	1.48	0.78
2:Bj:74:LYS:CE	2:Bj:76:GLU:CB	2.58	0.78
2:Bj:96:GLU:HA	2:Bp:5:PRO:CD	2.13	0.78
1:Ac:467:ASN:ND2	1:Ad:464:VAL:CG1	2.47	0.78
1:Ao:122:LYS:HD2	1:Ao:440:ILE:HD11	1.63	0.78
1:Au:467:ASN:ND2	1:Av:464:VAL:CG1	2.47	0.78
1:Au:467:ASN:HD22	1:Av:464:VAL:HG13	1.48	0.78
1:Ba:73:MET:CE	1:Bm:39:VAL:HG11	2.13	0.78
1:Bm:467:ASN:ND2	1:Bn:464:VAL:CG1	2.47	0.78
1:Ac:385:THR:HB	1:Ac:388:GLU:CD	2.07	0.78
1:Ao:467:ASN:ND2	1:Ap:464:VAL:CG1	2.47	0.78
1:Ba:386:GLU:HG3	1:Ba:389:MET:HE3	1.65	0.78
1:Bh:44:PHE:CD1	1:Bh:44:PHE:O	2.36	0.78
2:Af:5:PRO:C	2:Ar:96:GLU:OE1	2.27	0.78
1:Au:385:THR:HB	1:Au:388:GLU:CD	2.08	0.78
1:Bn:44:PHE:CD1	1:Bn:44:PHE:O	2.36	0.78
1:Ai:386:GLU:HG3	1:Ai:389:MET:CE	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:115:ASP:OD2	1:Au:435:ASP:CB	2.29	0.78
1:Au:386:GLU:HG3	1:Au:389:MET:CE	2.14	0.78
1:Bb:44:PHE:CD1	1:Bb:44:PHE:O	2.36	0.78
1:Bg:386:GLU:HG3	1:Bg:389:MET:CE	2.14	0.78
2:Bj:94:ILE:HG22	2:Bp:3:ILE:CG2	2.14	0.78
1:Ac:381:VAL:HG23	1:Ac:393:LYS:HZ3	1.47	0.78
1:Ai:47:PRO:CG	1:Au:69:MET:HG2	2.14	0.78
1:Ap:61:GLU:CD	1:Bb:2:ALA:O	2.27	0.78
1:Ba:467:ASN:ND2	1:Bb:464:VAL:CG1	2.47	0.78
1:Ai:39:VAL:HG11	1:Au:73:MET:CE	2.14	0.78
2:Al:95:VAL:N	2:Ax:3:ILE:N	2.31	0.78
1:Ap:473:ASP:OD1	1:Ap:474:GLY:N	2.17	0.78
2:Bj:95:VAL:N	2:Bp:3:ILE:N	2.31	0.78
1:Bm:386:GLU:HG3	1:Bm:389:MET:CE	2.14	0.78
1:Ac:386:GLU:HG3	1:Ac:389:MET:HE3	1.65	0.77
1:Ai:168:LYS:CE	1:Ai:189:VAL:HG22	2.08	0.77
1:Aj:2:ALA:O	1:Av:61:GLU:CD	2.27	0.77
1:Ao:168:LYS:CE	1:Ao:189:VAL:HG22	2.08	0.77
1:Ao:386:GLU:HG3	1:Ao:389:MET:CE	2.14	0.77
2:Ar:5:PRO:CA	2:Bd:96:GLU:HB2	2.13	0.77
1:Av:134:LEU:HD11	1:Av:425:LYS:HZ3	1.49	0.77
1:Av:488:MET:CE	1:Av:493:ILE:HD12	2.14	0.77
1:Bh:473:ASP:OD1	1:Bh:474:GLY:N	2.17	0.77
2:Bj:95:VAL:HA	2:Bp:3:ILE:N	1.97	0.77
1:Bm:385:THR:HB	1:Bm:388:GLU:CD	2.07	0.77
1:Bm:498:LYS:HD2	1:Bm:501:ARG:HH21	1.50	0.77
2:Bp:65:VAL:HA	2:Bp:94:ILE:HG23	1.66	0.77
1:Ac:115:ASP:OD2	1:Ac:435:ASP:CB	2.29	0.77
1:Ac:386:GLU:HG3	1:Ac:389:MET:CE	2.14	0.77
2:Af:3:ILE:N	2:Ar:95:VAL:N	2.31	0.77
1:Ao:139:SER:HA	1:Ao:171:LYS:NZ	2.00	0.77
2:Ar:65:VAL:HA	2:Ar:94:ILE:HG23	1.66	0.77
1:Au:39:VAL:HG11	1:Bg:73:MET:CE	2.13	0.77
1:Ba:386:GLU:HG3	1:Ba:389:MET:CE	2.14	0.77
2:Bd:3:ILE:CG2	2:Bp:94:ILE:HG22	2.13	0.77
1:Bh:488:MET:CE	1:Bh:493:ILE:HD12	2.14	0.77
1:Bm:139:SER:HA	1:Bm:171:LYS:NZ	2.00	0.77
1:Ai:139:SER:HA	1:Ai:171:LYS:NZ	2.00	0.77
1:Ai:467:ASN:ND2	1:Aj:464:VAL:CG1	2.47	0.77
2:Bd:65:VAL:HA	2:Bd:94:ILE:HG23	1.66	0.77
1:Ac:139:SER:HA	1:Ac:171:LYS:NZ	2.00	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:165:ALA:O	1:Au:168:LYS:CB	2.31	0.77
1:Av:473:ASP:OD1	1:Av:474:GLY:N	2.17	0.77
2:Bj:65:VAL:HA	2:Bj:94:ILE:HG23	1.66	0.77
1:Ac:122:LYS:HD2	1:Ac:440:ILE:HD11	1.63	0.77
1:Ao:73:MET:CE	1:Ba:39:VAL:HG11	2.13	0.77
2:Ar:74:LYS:CE	2:Ar:76:GLU:CB	2.58	0.77
1:Bb:473:ASP:OD1	1:Bb:474:GLY:N	2.18	0.77
2:Bd:4:ARG:HA	2:Bp:95:VAL:O	1.85	0.77
2:Bd:74:LYS:CE	2:Bd:76:GLU:CB	2.57	0.77
1:Bn:488:MET:CE	1:Bn:493:ILE:HD12	2.14	0.77
1:Ad:186:GLU:OE2	1:Ad:380:LYS:CB	2.33	0.77
2:Af:65:VAL:HA	2:Af:94:ILE:HG23	1.66	0.77
1:Ai:386:GLU:HG3	1:Ai:389:MET:HE3	1.65	0.77
1:Ai:467:ASN:HD22	1:Aj:464:VAL:HG13	1.48	0.77
1:Ao:386:GLU:HG3	1:Ao:389:MET:HE3	1.65	0.77
2:Ax:95:VAL:O	2:Bj:4:ARG:HA	1.83	0.77
1:Bb:488:MET:CE	1:Bb:493:ILE:HD12	2.14	0.77
2:Bd:5:PRO:CD	2:Bp:96:GLU:HA	2.14	0.77
1:Bg:467:ASN:ND2	1:Bh:464:VAL:CG1	2.47	0.77
1:Bg:498:LYS:HD2	1:Bg:501:ARG:HH21	1.50	0.77
1:Bm:467:ASN:HD22	1:Bn:464:VAL:HG13	1.48	0.77
1:Bn:186:GLU:OE2	1:Bn:380:LYS:CB	2.33	0.77
1:Ai:165:ALA:O	1:Ai:168:LYS:CB	2.31	0.77
1:Aj:488:MET:CE	1:Aj:493:ILE:HD12	2.14	0.77
1:Au:47:PRO:CG	1:Bg:69:MET:HG2	2.14	0.77
2:Ax:94:ILE:HG22	2:Bj:3:ILE:CG2	2.14	0.77
1:Ba:168:LYS:CE	1:Ba:189:VAL:HG22	2.08	0.77
1:Bg:41:ASP:OD1	1:Bm:69:MET:CE	2.33	0.77
1:Ac:47:PRO:HG3	1:Ai:69:MET:HG2	1.66	0.77
2:Af:92:LEU:CD1	2:Al:74:LYS:HD3	2.14	0.77
1:Ap:488:MET:CE	1:Ap:493:ILE:HD12	2.14	0.77
1:Av:2:ALA:O	1:Bh:61:GLU:CD	2.27	0.77
2:Ax:74:LYS:HZ1	2:Ax:76:GLU:CA	1.98	0.77
2:Bj:95:VAL:O	2:Bp:4:ARG:HA	1.85	0.77
2:Af:94:ILE:HG22	2:Al:3:ILE:CB	2.15	0.77
1:Aj:134:LEU:HD11	1:Aj:425:LYS:NZ	2.00	0.77
1:Bb:61:GLU:CD	1:Bn:2:ALA:O	2.27	0.77
1:Bh:2:ALA:O	1:Bn:61:GLU:CD	2.27	0.77
1:Ad:36:ARG:HH12	1:Ap:13:ARG:NH1	1.82	0.77
1:Ad:473:ASP:OD1	1:Ad:474:GLY:N	2.17	0.77
1:Ad:488:MET:CE	1:Ad:493:ILE:HD12	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Af:74:LYS:HD3	2:Ar:92:LEU:HD13	1.67	0.77
2:Af:96:GLU:OE1	2:Al:5:PRO:C	2.27	0.77
1:Ao:498:LYS:HD2	1:Ao:501:ARG:HH21	1.50	0.77
2:Ar:4:ARG:HA	2:Bd:95:VAL:O	1.85	0.77
2:Ar:5:PRO:CD	2:Bd:96:GLU:HA	2.13	0.77
1:Au:139:SER:HA	1:Au:171:LYS:NZ	2.00	0.77
1:Av:5:ASP:N	1:Av:524:LEU:HD12	2.00	0.77
2:Ax:74:LYS:NZ	2:Ax:75:SER:C	2.43	0.77
1:Ac:498:LYS:HD2	1:Ac:501:ARG:HH21	1.50	0.76
1:Aj:186:GLU:OE2	1:Aj:380:LYS:CB	2.33	0.76
1:Ao:69:MET:HG2	1:Ba:47:PRO:CG	2.15	0.76
1:Ao:385:THR:CB	1:Ao:388:GLU:HG2	2.12	0.76
1:Au:498:LYS:HD2	1:Au:501:ARG:HH21	1.50	0.76
2:Bj:74:LYS:NZ	2:Bj:75:SER:C	2.44	0.76
1:Bn:4:LYS:C	1:Bn:524:LEU:HD11	2.10	0.76
1:Ad:7:LYS:HE2	1:Ad:15:LYS:HD2	1.68	0.76
2:Al:94:ILE:HG22	2:Ax:3:ILE:CG2	2.15	0.76
1:Au:175:ILE:HG12	1:Au:377:ALA:HB3	1.67	0.76
1:Ba:139:SER:HA	1:Ba:171:LYS:NZ	2.00	0.76
1:Bb:186:GLU:OE2	1:Bb:380:LYS:CB	2.33	0.76
1:Ac:385:THR:CB	1:Ac:388:GLU:HG2	2.12	0.76
1:Ad:4:LYS:C	1:Ad:524:LEU:HD11	2.10	0.76
1:Ad:134:LEU:HD13	1:Ad:425:LYS:HZ1	1.51	0.76
1:Aj:7:LYS:HE2	1:Aj:15:LYS:HD2	1.68	0.76
2:Al:95:VAL:O	2:Ax:4:ARG:HA	1.83	0.76
1:Ap:4:LYS:C	1:Ap:524:LEU:HD11	2.10	0.76
1:Ap:7:LYS:HE2	1:Ap:15:LYS:HD2	1.67	0.76
1:Av:186:GLU:OE2	1:Av:380:LYS:CB	2.33	0.76
1:Ba:467:ASN:HD22	1:Bb:464:VAL:HG13	1.48	0.76
1:Bh:4:LYS:C	1:Bh:524:LEU:HD11	2.10	0.76
1:Bh:186:GLU:OE2	1:Bh:380:LYS:CB	2.33	0.76
1:Bn:5:ASP:N	1:Bn:524:LEU:HD12	2.00	0.76
1:Bn:473:ASP:OD1	1:Bn:474:GLY:N	2.17	0.76
2:Af:5:PRO:CD	2:Ar:96:GLU:CG	2.63	0.76
1:Bb:5:ASP:N	1:Bb:524:LEU:HD12	2.00	0.76
1:Bb:7:LYS:HE2	1:Bb:15:LYS:HD2	1.67	0.76
1:Bg:175:ILE:HG12	1:Bg:377:ALA:HB3	1.67	0.76
1:Ad:2:ALA:O	1:Aj:61:GLU:CD	2.29	0.76
1:Ai:498:LYS:HD2	1:Ai:501:ARG:HH21	1.49	0.76
2:Al:74:LYS:NZ	2:Al:75:SER:C	2.44	0.76
1:Ap:186:GLU:OE2	1:Ap:380:LYS:CB	2.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ar:3:ILE:CG2	2:Bd:94:ILE:HG22	2.15	0.76
1:Bg:39:VAL:HG11	1:Bm:73:MET:CE	2.14	0.76
2:Bj:96:GLU:CG	2:Bp:5:PRO:C	2.59	0.76
1:Ac:39:VAL:HG11	1:Ai:73:MET:CE	2.16	0.76
1:Aj:5:ASP:N	1:Aj:524:LEU:HD12	2.00	0.76
2:Al:95:VAL:CG2	2:Ax:3:ILE:C	2.59	0.76
1:Ba:69:MET:HG2	1:Bm:47:PRO:CG	2.16	0.76
1:Bg:47:PRO:HG3	1:Bm:69:MET:HG2	1.68	0.76
1:Bg:139:SER:HA	1:Bg:171:LYS:NZ	2.00	0.76
1:Ac:467:ASN:HD22	1:Ad:464:VAL:HG13	1.48	0.76
1:Ai:385:THR:CB	1:Ai:388:GLU:HG2	2.12	0.76
1:Av:7:LYS:HE2	1:Av:15:LYS:HD2	1.68	0.76
2:Ax:95:VAL:CG2	2:Bj:3:ILE:C	2.59	0.76
2:Bd:5:PRO:CA	2:Bp:96:GLU:HB2	2.14	0.76
1:Bm:467:ASN:ND2	1:Bn:464:VAL:HG13	2.01	0.76
1:Bn:7:LYS:HE2	1:Bn:15:LYS:HD2	1.67	0.76
1:Ac:69:MET:HG2	1:Ao:47:PRO:CG	2.16	0.76
1:Aj:473:ASP:OD1	1:Aj:474:GLY:N	2.17	0.76
1:Au:467:ASN:ND2	1:Av:464:VAL:HG13	2.01	0.76
1:Ba:498:LYS:HD2	1:Ba:501:ARG:HH21	1.50	0.76
1:Bh:5:ASP:N	1:Bh:524:LEU:HD12	2.00	0.76
1:Bh:7:LYS:HE2	1:Bh:15:LYS:HD2	1.68	0.76
1:Bh:134:LEU:HD13	1:Bh:425:LYS:HZ1	1.48	0.76
1:Ai:168:LYS:NZ	1:Ai:187:LEU:HD11	2.01	0.76
1:Ac:165:ALA:O	1:Ac:168:LYS:CB	2.31	0.76
2:Al:65:VAL:HA	2:Al:94:ILE:HG23	1.66	0.76
1:Ap:488:MET:CE	1:Ap:493:ILE:CB	2.60	0.76
1:Au:168:LYS:NZ	1:Au:187:LEU:HD11	2.01	0.76
1:Bh:4:LYS:C	1:Bh:524:LEU:CD1	2.59	0.76
1:Ai:467:ASN:ND2	1:Aj:464:VAL:HG13	2.01	0.75
1:Aj:4:LYS:C	1:Aj:524:LEU:HD11	2.10	0.75
1:Ap:4:LYS:C	1:Ap:524:LEU:CD1	2.59	0.75
1:Av:4:LYS:C	1:Av:524:LEU:HD11	2.11	0.75
1:Bb:4:LYS:C	1:Bb:524:LEU:HD11	2.10	0.75
1:Ad:4:LYS:C	1:Ad:524:LEU:CD1	2.59	0.75
1:Ai:479:ASN:HD22	1:Ai:491:MET:HE2	1.52	0.75
1:Ao:175:ILE:HG12	1:Ao:377:ALA:HB3	1.67	0.75
1:Ba:479:ASN:HD22	1:Ba:491:MET:HE2	1.51	0.75
1:Ac:168:LYS:HE3	1:Ac:189:VAL:CG2	2.15	0.75
1:Av:4:LYS:C	1:Av:524:LEU:CD1	2.59	0.75
1:Bn:134:LEU:HD13	1:Bn:425:LYS:HZ1	1.51	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:5:ASP:N	1:Ad:524:LEU:HD12	2.00	0.75
1:Ap:5:ASP:N	1:Ap:524:LEU:HD12	2.00	0.75
1:Ba:381:VAL:CG2	1:Ba:393:LYS:NZ	2.47	0.75
2:Bd:3:ILE:HG22	2:Bp:94:ILE:HG22	1.69	0.75
1:Aj:488:MET:CE	1:Aj:493:ILE:CB	2.60	0.75
1:Au:161:LEU:HA	1:Au:164:GLU:OE2	1.87	0.75
1:Ba:161:LEU:HA	1:Ba:164:GLU:OE2	1.87	0.75
1:Bg:23:LEU:CD2	1:Bg:75:LYS:HG3	2.17	0.75
1:Bg:467:ASN:ND2	1:Bh:464:VAL:HG13	2.01	0.75
1:Bm:161:LEU:HA	1:Bm:164:GLU:OE2	1.87	0.75
2:Bp:74:LYS:NZ	2:Bp:75:SER:C	2.43	0.75
1:Ac:73:MET:HE1	1:Ao:39:VAL:HG21	1.69	0.75
1:Ao:23:LEU:CD2	1:Ao:75:LYS:HG3	2.17	0.75
1:Ao:381:VAL:CG2	1:Ao:393:LYS:NZ	2.47	0.75
1:Ao:479:ASN:HD22	1:Ao:491:MET:HE2	1.52	0.75
1:Ap:134:LEU:CD1	1:Ap:425:LYS:HZ1	2.00	0.75
2:Ax:65:VAL:HA	2:Ax:94:ILE:HG23	1.66	0.75
1:Bg:168:LYS:NZ	1:Bg:187:LEU:HD11	2.01	0.75
1:Ao:467:ASN:ND2	1:Ap:464:VAL:HG13	2.01	0.75
2:Ar:74:LYS:HD3	2:Bd:92:LEU:CD1	2.17	0.75
1:Au:41:ASP:OD1	1:Bg:69:MET:CE	2.34	0.75
1:Bg:479:ASN:HD22	1:Bg:491:MET:HE2	1.52	0.75
1:Bh:13:ARG:NH1	1:Bn:36:ARG:HH12	1.82	0.75
1:Ac:161:LEU:HA	1:Ac:164:GLU:OE2	1.87	0.75
1:Ac:479:ASN:HD22	1:Ac:491:MET:HE2	1.52	0.75
2:Ar:5:PRO:C	2:Bd:96:GLU:CG	2.57	0.75
1:Au:168:LYS:HE3	1:Au:189:VAL:CG2	2.15	0.75
2:Bj:94:ILE:HG22	2:Bp:3:ILE:HG22	1.68	0.75
1:Ac:168:LYS:NZ	1:Ac:187:LEU:HD11	2.01	0.75
1:Ai:175:ILE:HG12	1:Ai:377:ALA:HB3	1.67	0.75
1:Aj:134:LEU:HD11	1:Aj:425:LYS:HZ3	1.52	0.75
1:Ao:161:LEU:HA	1:Ao:164:GLU:OE2	1.87	0.75
2:Ar:74:LYS:NZ	2:Ar:75:SER:C	2.44	0.75
1:Au:23:LEU:CD2	1:Au:75:LYS:HG3	2.17	0.75
1:Au:385:THR:CB	1:Au:388:GLU:HG2	2.12	0.75
1:Ba:23:LEU:CD2	1:Ba:75:LYS:HG3	2.17	0.75
1:Ba:168:LYS:NZ	1:Ba:187:LEU:HD11	2.01	0.75
1:Ba:467:ASN:ND2	1:Bb:464:VAL:HG13	2.01	0.75
1:Bb:4:LYS:C	1:Bb:524:LEU:CD1	2.59	0.75
1:Bm:23:LEU:CD2	1:Bm:75:LYS:HG3	2.17	0.75
1:Bm:175:ILE:HG12	1:Bm:377:ALA:HB3	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bn:4:LYS:C	1:Bn:524:LEU:CD1	2.59	0.75
1:Ac:23:LEU:CD2	1:Ac:75:LYS:HG3	2.17	0.74
2:Af:96:GLU:HG2	2:Al:5:PRO:CG	2.16	0.74
1:Aj:409:GLU:O	1:Aj:409:GLU:HG2	1.87	0.74
1:Av:134:LEU:CD1	1:Av:425:LYS:HZ3	1.98	0.74
2:Bd:74:LYS:NZ	2:Bd:75:SER:C	2.43	0.74
2:Bd:74:LYS:HD3	2:Bp:92:LEU:CD1	2.17	0.74
1:Ac:175:ILE:HG12	1:Ac:377:ALA:HB3	1.67	0.74
1:Ai:168:LYS:HE3	1:Ai:189:VAL:CG2	2.15	0.74
1:Aj:4:LYS:C	1:Aj:524:LEU:CD1	2.59	0.74
1:Aj:13:ARG:NH1	1:Av:36:ARG:HH12	1.82	0.74
1:Ao:176:THR:O	1:Ao:379:ILE:HG13	1.87	0.74
1:Ba:175:ILE:HG12	1:Ba:377:ALA:HB3	1.67	0.74
2:Af:74:LYS:NZ	2:Af:75:SER:C	2.43	0.74
1:Ap:7:LYS:HG3	1:Ap:66:PHE:CZ	2.22	0.74
1:Ap:7:LYS:HD2	1:Ap:66:PHE:CE2	2.23	0.74
1:Bh:7:LYS:HD2	1:Bh:66:PHE:CE2	2.22	0.74
1:Ai:161:LEU:HA	1:Ai:164:GLU:OE2	1.87	0.74
1:Av:7:LYS:HD2	1:Av:66:PHE:CE2	2.23	0.74
1:Av:409:GLU:HG2	1:Av:409:GLU:O	1.87	0.74
1:Ba:176:THR:O	1:Ba:379:ILE:HG13	1.87	0.74
1:Bg:176:THR:O	1:Bg:379:ILE:HG13	1.87	0.74
1:Ac:467:ASN:ND2	1:Ad:464:VAL:HG13	2.01	0.74
1:Ad:36:ARG:HB3	1:Ap:516:THR:O	1.87	0.74
2:Af:5:PRO:CD	2:Ar:96:GLU:CA	2.66	0.74
2:Ax:94:ILE:HG22	2:Bj:3:ILE:HG22	1.69	0.74
2:Bj:74:LYS:NZ	2:Bj:76:GLU:CB	2.51	0.74
1:Ac:41:ASP:OD1	1:Ai:69:MET:CE	2.34	0.74
1:Ad:7:LYS:HG3	1:Ad:66:PHE:CZ	2.22	0.74
1:Au:176:THR:O	1:Au:379:ILE:HG13	1.87	0.74
1:Bn:7:LYS:HD2	1:Bn:66:PHE:CE2	2.23	0.74
1:Ad:409:GLU:O	1:Ad:409:GLU:HG2	1.87	0.74
1:Aj:31:LEU:HD23	1:Aj:453:GLN:HB3	1.70	0.74
2:Ar:3:ILE:HG22	2:Bd:94:ILE:HG22	1.70	0.74
1:Au:7:LYS:CG	1:Au:66:PHE:CZ	2.71	0.74
1:Av:7:LYS:HG3	1:Av:66:PHE:CZ	2.22	0.74
1:Bb:134:LEU:HD11	1:Bb:425:LYS:NZ	2.00	0.74
1:Bm:479:ASN:HD22	1:Bm:491:MET:HE2	1.52	0.74
2:Ar:3:ILE:CG1	2:Bd:64:ILE:HG22	2.15	0.74
2:Ax:96:GLU:OE1	2:Bj:5:PRO:C	2.31	0.74
1:Bg:165:ALA:O	1:Bg:168:LYS:CB	2.31	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Bj:95:VAL:CG2	2:Bp:3:ILE:C	2.61	0.74
1:Aj:7:LYS:HG3	1:Aj:66:PHE:CZ	2.22	0.74
1:Aj:7:LYS:HD2	1:Aj:66:PHE:CE2	2.23	0.74
2:Al:94:ILE:HG22	2:Ax:3:ILE:HG22	1.70	0.74
1:Av:134:LEU:HD11	1:Av:425:LYS:NZ	2.00	0.74
1:Bg:7:LYS:CG	1:Bg:66:PHE:CZ	2.71	0.74
1:Av:31:LEU:HD23	1:Av:453:GLN:HB3	1.70	0.73
1:Bg:161:LEU:HA	1:Bg:164:GLU:OE2	1.87	0.73
1:Bh:409:GLU:O	1:Bh:409:GLU:HG2	1.87	0.73
1:Bm:7:LYS:CG	1:Bm:66:PHE:CZ	2.71	0.73
2:Af:74:LYS:HD2	2:Ar:92:LEU:HD12	1.69	0.73
1:Ap:209:GLU:O	1:Bb:351:GLN:NE2	2.21	0.73
1:Bb:7:LYS:HD2	1:Bb:66:PHE:CE2	2.23	0.73
1:Bb:7:LYS:HG3	1:Bb:66:PHE:CZ	2.22	0.73
1:Bn:7:LYS:HG3	1:Bn:66:PHE:CZ	2.22	0.73
1:Ai:381:VAL:CG2	1:Ai:393:LYS:NZ	2.47	0.73
2:Al:64:ILE:HG22	2:Ax:3:ILE:CG1	2.16	0.73
1:Ap:36:ARG:HB3	1:Bb:516:THR:O	1.89	0.73
1:Ap:205:ILE:HA	1:Ap:213:VAL:HG22	1.71	0.73
1:Bg:381:VAL:HB	1:Bg:393:LYS:HZ1	1.48	0.73
1:Bh:7:LYS:HG3	1:Bh:66:PHE:CZ	2.22	0.73
1:Au:47:PRO:HG3	1:Bg:69:MET:HG2	1.69	0.73
1:Av:13:ARG:NH1	1:Bh:36:ARG:HH12	1.82	0.73
1:Av:205:ILE:HA	1:Av:213:VAL:HG22	1.71	0.73
2:Bj:92:LEU:CD1	2:Bp:74:LYS:HD3	2.18	0.73
1:Bn:409:GLU:O	1:Bn:409:GLU:HG2	1.87	0.73
1:Ba:385:THR:CB	1:Ba:388:GLU:HG2	2.12	0.73
1:Bg:421:ARG:O	1:Bg:425:LYS:HG3	1.89	0.73
1:Bh:351:GLN:NE2	1:Bn:209:GLU:O	2.22	0.73
1:Ad:31:LEU:HD23	1:Ad:453:GLN:HB3	1.70	0.73
2:Af:92:LEU:CD1	2:Al:74:LYS:HD2	2.17	0.73
1:Ai:23:LEU:CD2	1:Ai:75:LYS:HG3	2.17	0.73
1:Ap:409:GLU:HG2	1:Ap:409:GLU:O	1.87	0.73
1:Au:479:ASN:HD22	1:Au:491:MET:HE2	1.51	0.73
1:Bb:205:ILE:HA	1:Bb:213:VAL:HG22	1.71	0.73
1:Bh:205:ILE:HA	1:Bh:213:VAL:HG22	1.71	0.73
1:Bm:385:THR:CB	1:Bm:388:GLU:HG2	2.12	0.73
1:Aj:205:ILE:HA	1:Aj:213:VAL:HG22	1.71	0.73
2:Al:96:GLU:OE1	2:Ax:5:PRO:C	2.32	0.73
1:Bn:134:LEU:HD11	1:Bn:425:LYS:NZ	1.99	0.73
1:Ad:7:LYS:HD2	1:Ad:66:PHE:CE2	2.22	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ai:7:LYS:CG	1:Ai:66:PHE:CZ	2.71	0.73
1:Ai:176:THR:O	1:Ai:379:ILE:HG13	1.87	0.73
1:Ai:421:ARG:O	1:Ai:425:LYS:HG3	1.89	0.73
1:Ao:7:LYS:CG	1:Ao:66:PHE:CZ	2.71	0.73
2:Ar:3:ILE:C	2:Bd:95:VAL:CG2	2.60	0.73
1:Bm:421:ARG:O	1:Bm:425:LYS:HG3	1.89	0.73
1:Ac:2:ALA:N	1:Ao:61:GLU:OE1	2.21	0.73
1:Ac:7:LYS:CG	1:Ac:66:PHE:CZ	2.71	0.73
1:Ac:176:THR:O	1:Ac:379:ILE:HG13	1.87	0.73
1:Ad:205:ILE:HA	1:Ad:213:VAL:HG22	1.71	0.73
2:Af:65:VAL:N	2:Al:3:ILE:HD13	2.04	0.73
1:Ba:7:LYS:CG	1:Ba:66:PHE:CZ	2.71	0.73
1:Ai:47:PRO:HG3	1:Au:69:MET:HG2	1.69	0.73
1:Bb:36:ARG:HB3	1:Bn:516:THR:O	1.89	0.73
1:Bm:176:THR:O	1:Bm:379:ILE:HG13	1.87	0.73
2:Af:74:LYS:NZ	2:Af:76:GLU:CB	2.51	0.72
1:Au:421:ARG:O	1:Au:425:LYS:HG3	1.89	0.72
1:Bb:409:GLU:HG2	1:Bb:409:GLU:O	1.87	0.72
1:Bn:31:LEU:HD23	1:Bn:453:GLN:HB3	1.70	0.72
1:Ac:421:ARG:O	1:Ac:425:LYS:HG3	1.89	0.72
1:Ad:488:MET:CE	1:Ad:493:ILE:CB	2.60	0.72
1:Ba:69:MET:HG2	1:Bm:47:PRO:HG3	1.71	0.72
1:Bn:205:ILE:HA	1:Bn:213:VAL:HG22	1.71	0.72
1:Ba:421:ARG:O	1:Ba:425:LYS:HG3	1.89	0.72
1:Bg:385:THR:CB	1:Bg:388:GLU:HG2	2.12	0.72
1:Bh:31:LEU:HD23	1:Bh:453:GLN:HB3	1.70	0.72
1:Bm:381:VAL:CG2	1:Bm:393:LYS:NZ	2.47	0.72
1:Ao:73:MET:HE1	1:Ba:39:VAL:HG21	1.71	0.72
1:Ap:49:ILE:HD11	1:Bb:73:MET:SD	2.30	0.72
1:Bb:49:ILE:HD11	1:Bn:73:MET:SD	2.30	0.72
1:Bh:73:MET:SD	1:Bn:49:ILE:HD11	2.29	0.72
1:Ao:69:MET:CE	1:Ba:41:ASP:OD1	2.34	0.72
1:Ao:69:MET:HG2	1:Ba:47:PRO:HG3	1.71	0.72
1:Bb:31:LEU:HD23	1:Bb:453:GLN:HB3	1.70	0.72
2:Bd:5:PRO:C	2:Bp:96:GLU:OE1	2.31	0.72
1:Ad:13:ARG:NH1	1:Aj:36:ARG:HH12	1.85	0.72
1:Ai:41:ASP:OD1	1:Au:69:MET:CE	2.34	0.72
1:Ba:165:ALA:O	1:Ba:168:LYS:CB	2.31	0.72
1:Bn:488:MET:CE	1:Bn:493:ILE:CB	2.60	0.72
1:Ap:31:LEU:HD23	1:Ap:453:GLN:HB3	1.70	0.72
1:Av:351:GLN:NE2	1:Bh:209:GLU:O	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ba:69:MET:CE	1:Bm:41:ASP:OD1	2.34	0.72
1:Bb:209:GLU:O	1:Bn:351:GLN:NE2	2.23	0.72
2:Bj:64:ILE:HG22	2:Bp:3:ILE:CG1	2.16	0.72
1:Ac:39:VAL:HG21	1:Ai:73:MET:HE1	1.72	0.72
1:Au:168:LYS:NZ	1:Au:187:LEU:CD1	2.53	0.72
2:Bd:74:LYS:HZ1	2:Bd:76:GLU:CA	2.01	0.72
1:Ac:69:MET:HG2	1:Ao:47:PRO:HG3	1.72	0.71
1:Ai:168:LYS:NZ	1:Ai:187:LEU:CD1	2.53	0.71
1:Ao:421:ARG:O	1:Ao:425:LYS:HG3	1.89	0.71
1:Ba:73:MET:HE1	1:Bm:39:VAL:HG21	1.72	0.71
1:Bh:488:MET:CE	1:Bh:493:ILE:CB	2.60	0.71
1:Ad:36:ARG:HH11	1:Ap:13:ARG:NH1	1.88	0.71
2:Af:74:LYS:CD	2:Ar:92:LEU:CD1	2.67	0.71
1:Ao:165:ALA:O	1:Ao:168:LYS:CB	2.31	0.71
1:Au:191:GLU:HA	1:Au:375:GLY:HA3	1.72	0.71
1:Bb:488:MET:CE	1:Bb:493:ILE:CB	2.60	0.71
1:Bg:191:GLU:HA	1:Bg:375:GLY:HA3	1.72	0.71
1:Bg:381:VAL:CG2	1:Bg:393:LYS:NZ	2.47	0.71
1:Bh:516:THR:O	1:Bn:36:ARG:HB3	1.90	0.71
1:Au:39:VAL:HG21	1:Bg:73:MET:HE1	1.72	0.71
1:Au:381:VAL:CG2	1:Au:393:LYS:NZ	2.47	0.71
1:Av:516:THR:O	1:Bh:36:ARG:HB3	1.90	0.71
1:Ba:168:LYS:NZ	1:Ba:187:LEU:CD1	2.53	0.71
1:Ad:13:ARG:NH1	1:Aj:36:ARG:HH11	1.88	0.71
1:Ai:39:VAL:HG21	1:Au:73:MET:HE1	1.72	0.71
2:Bd:74:LYS:NZ	2:Bd:76:GLU:CB	2.51	0.71
1:Ac:168:LYS:NZ	1:Ac:187:LEU:CD1	2.53	0.71
2:Ar:5:PRO:C	2:Bd:96:GLU:OE1	2.33	0.71
2:Ax:64:ILE:HG22	2:Bj:3:ILE:CG1	2.17	0.71
1:Ba:191:GLU:HA	1:Ba:375:GLY:HA3	1.72	0.71
2:Bd:3:ILE:C	2:Bp:95:VAL:CG2	2.59	0.71
2:Bj:96:GLU:CG	2:Bp:5:PRO:CG	2.69	0.71
1:Ac:381:VAL:CG2	1:Ac:393:LYS:NZ	2.47	0.71
2:Af:55:LYS:HE3	2:Al:51:ASN:HD22	1.55	0.71
1:Aj:13:ARG:NH1	1:Av:36:ARG:HH11	1.87	0.71
1:Bg:39:VAL:HG21	1:Bm:73:MET:HE1	1.73	0.71
2:Bj:74:LYS:HZ1	2:Bj:76:GLU:CB	2.03	0.71
2:Af:51:ASN:ND2	2:Ar:55:LYS:HE3	2.05	0.71
2:Af:92:LEU:HB3	2:Al:85:ILE:HG21	1.73	0.71
1:Ap:36:ARG:HH11	1:Bb:13:ARG:NH1	1.86	0.71
2:Ax:92:LEU:CD1	2:Bj:74:LYS:HD3	2.19	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:36:ARG:HH11	1:Bn:13:ARG:HH12	1.38	0.71
1:Bm:191:GLU:HA	1:Bm:375:GLY:HA3	1.72	0.71
2:Af:96:GLU:HA	2:Al:5:PRO:CD	2.20	0.71
1:Ad:61:GLU:CG	1:Ap:2:ALA:O	2.39	0.71
1:Aj:516:THR:O	1:Av:36:ARG:HB3	1.90	0.71
2:Bj:96:GLU:CA	2:Bp:5:PRO:CD	2.69	0.71
2:Al:96:GLU:CA	2:Ax:5:PRO:CD	2.69	0.70
1:Ac:61:GLU:OE1	1:Ai:2:ALA:N	2.24	0.70
1:Ac:381:VAL:HB	1:Ac:393:LYS:HZ1	1.52	0.70
1:Ba:168:LYS:HE3	1:Ba:189:VAL:CG2	2.15	0.70
2:Bd:3:ILE:CG1	2:Bp:64:ILE:HG22	2.17	0.70
1:Ac:168:LYS:CE	1:Ac:189:VAL:HG22	2.08	0.70
1:Aj:351:GLN:NE2	1:Av:209:GLU:O	2.23	0.70
1:Bb:36:ARG:HD2	1:Bn:518:GLU:HB2	1.73	0.70
2:Bj:96:GLU:OE1	2:Bp:5:PRO:C	2.33	0.70
1:Bm:165:ALA:O	1:Bm:168:LYS:CB	2.31	0.70
1:Ao:168:LYS:NZ	1:Ao:187:LEU:HD11	2.01	0.70
2:Ar:5:PRO:CG	2:Bd:96:GLU:CG	2.69	0.70
1:Au:168:LYS:CE	1:Au:189:VAL:HG22	2.08	0.70
2:Bd:3:ILE:H	2:Bp:94:ILE:C	1.99	0.70
2:Bj:92:LEU:HB3	2:Bp:85:ILE:HG21	1.73	0.70
1:Ad:73:MET:SD	1:Aj:49:ILE:HD11	2.31	0.70
1:Av:73:MET:SD	1:Bh:49:ILE:HD11	2.30	0.70
2:Bd:3:ILE:CB	2:Bp:94:ILE:HG22	2.22	0.70
1:Bg:166:MET:CE	1:Bg:175:ILE:HD12	2.22	0.70
1:Ai:61:GLU:OE1	1:Au:2:ALA:N	2.25	0.70
1:Ao:191:GLU:HA	1:Ao:375:GLY:HA3	1.72	0.70
1:Av:488:MET:CE	1:Av:493:ILE:CB	2.60	0.70
1:Ba:2:ALA:N	1:Bm:61:GLU:OE1	2.25	0.70
2:Af:96:GLU:CD	2:Al:5:PRO:CA	2.63	0.70
2:Al:95:VAL:HG22	2:Ax:3:ILE:O	1.92	0.70
1:Ao:166:MET:CE	1:Ao:175:ILE:HD12	2.22	0.70
1:Ap:36:ARG:HD2	1:Bb:518:GLU:HB2	1.74	0.70
2:Ax:95:VAL:HG22	2:Bj:3:ILE:O	1.92	0.70
2:Ax:96:GLU:CA	2:Bj:5:PRO:CD	2.70	0.70
1:Aj:134:LEU:CD1	1:Aj:425:LYS:HZ3	2.00	0.70
1:Bg:455:VAL:CG1	1:Bg:460:GLU:HB2	2.22	0.70
1:Ac:191:GLU:HA	1:Ac:375:GLY:HA3	1.72	0.70
2:Af:95:VAL:O	2:Al:4:ARG:HA	1.92	0.70
1:Aj:489:ILE:CD1	1:Aj:494:LEU:CD2	2.70	0.70
1:Au:61:GLU:OE1	1:Bg:2:ALA:N	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:186:GLU:CD	1:Bb:380:LYS:HB2	2.17	0.70
2:Af:76:GLU:OE2	2:Ar:37:ARG:NH2	2.23	0.70
1:Aj:73:MET:SD	1:Av:49:ILE:HD11	2.30	0.70
1:Ao:54:VAL:HG22	1:Ao:89:THR:HG21	1.73	0.70
1:Au:54:VAL:HG22	1:Au:89:THR:HG21	1.73	0.70
1:Bg:54:VAL:HG22	1:Bg:89:THR:HG21	1.73	0.70
2:Bj:94:ILE:C	2:Bp:3:ILE:H	2.00	0.70
1:Bm:455:VAL:CG1	1:Bm:460:GLU:HB2	2.22	0.70
1:Bn:489:ILE:CD1	1:Bn:494:LEU:CD2	2.70	0.70
1:Ac:166:MET:CE	1:Ac:175:ILE:HD12	2.22	0.69
1:Ai:191:GLU:HA	1:Ai:375:GLY:HA3	1.72	0.69
1:Aj:7:LYS:CD	1:Aj:66:PHE:CE2	2.75	0.69
2:Al:92:LEU:CD1	2:Ax:74:LYS:HD3	2.19	0.69
1:Au:166:MET:CE	1:Au:175:ILE:HD12	2.22	0.69
1:Bn:186:GLU:CD	1:Bn:380:LYS:HB2	2.17	0.69
1:Ac:455:VAL:CG1	1:Ac:460:GLU:HB2	2.22	0.69
1:Ad:13:ARG:HH12	1:Aj:36:ARG:HH11	1.39	0.69
1:Ba:161:LEU:HD11	1:Ba:396:VAL:HG13	1.74	0.69
1:Bh:381:VAL:HG11	1:Bh:393:LYS:HG3	1.75	0.69
1:Bm:7:LYS:HG3	1:Bm:66:PHE:CE1	2.28	0.69
1:Bn:3:ALA:O	1:Bn:524:LEU:HD13	1.92	0.69
1:Ac:54:VAL:HG22	1:Ac:89:THR:HG21	1.73	0.69
1:Ad:186:GLU:CD	1:Ad:380:LYS:HB2	2.17	0.69
1:Ai:166:MET:CE	1:Ai:175:ILE:HD12	2.22	0.69
1:Ai:455:VAL:CG1	1:Ai:460:GLU:HB2	2.22	0.69
2:Al:96:GLU:CG	2:Ax:5:PRO:CG	2.70	0.69
1:Ap:489:ILE:CD1	1:Ap:494:LEU:CD2	2.70	0.69
1:Au:7:LYS:HG3	1:Au:66:PHE:CE1	2.28	0.69
1:Av:489:ILE:CD1	1:Av:494:LEU:CD2	2.70	0.69
2:Ax:96:GLU:CG	2:Bj:5:PRO:CG	2.71	0.69
2:Bd:5:PRO:CG	2:Bp:96:GLU:CG	2.69	0.69
1:Bh:7:LYS:CD	1:Bh:66:PHE:CE2	2.75	0.69
1:Bm:166:MET:CE	1:Bm:175:ILE:HD12	2.22	0.69
1:Ap:186:GLU:CD	1:Ap:380:LYS:HB2	2.17	0.69
1:Av:7:LYS:CD	1:Av:66:PHE:CE2	2.75	0.69
1:Bh:134:LEU:HD11	1:Bh:425:LYS:NZ	2.00	0.69
2:Al:92:LEU:HB3	2:Ax:85:ILE:HG21	1.75	0.69
1:Ao:2:ALA:N	1:Ba:61:GLU:OE1	2.25	0.69
1:Ba:455:VAL:CG1	1:Ba:460:GLU:HB2	2.22	0.69
1:Bb:3:ALA:O	1:Bb:524:LEU:HD13	1.92	0.69
1:Bh:13:ARG:NH1	1:Bn:36:ARG:HH11	1.87	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bh:186:GLU:CD	1:Bh:380:LYS:HB2	2.17	0.69
1:Bn:381:VAL:HG11	1:Bn:393:LYS:HG3	1.75	0.69
1:Ad:134:LEU:HD11	1:Ad:425:LYS:NZ	2.00	0.69
1:Ad:169:VAL:HB	1:Ad:173:GLY:HA3	1.74	0.69
1:Ad:209:GLU:O	1:Ap:351:GLN:NE2	2.26	0.69
1:Ad:489:ILE:CD1	1:Ad:494:LEU:CD2	2.70	0.69
2:Ar:3:ILE:CB	2:Bd:94:ILE:HG22	2.23	0.69
2:Ar:51:ASN:ND2	2:Bd:55:LYS:HE3	2.07	0.69
2:Ar:85:ILE:HG21	2:Bd:92:LEU:HB3	1.73	0.69
1:Av:381:VAL:HG11	1:Av:393:LYS:HG3	1.75	0.69
1:Ba:54:VAL:HG22	1:Ba:89:THR:HG21	1.73	0.69
1:Ba:166:MET:CE	1:Ba:175:ILE:HD12	2.22	0.69
1:Bh:3:ALA:O	1:Bh:524:LEU:HD13	1.92	0.69
1:Bh:69:MET:HE2	1:Bn:39:VAL:CG1	2.23	0.69
1:Ad:3:ALA:O	1:Ad:524:LEU:HD13	1.92	0.69
2:Af:3:ILE:CG2	2:Ar:94:ILE:HG22	2.23	0.69
1:Aj:2:ALA:O	1:Av:61:GLU:CG	2.41	0.69
1:Aj:5:ASP:N	1:Aj:524:LEU:CD1	2.56	0.69
1:Aj:381:VAL:HG11	1:Aj:393:LYS:HG3	1.75	0.69
1:Ao:161:LEU:O	1:Ao:164:GLU:HG2	1.93	0.69
1:Ac:161:LEU:O	1:Ac:164:GLU:HG2	1.93	0.69
1:Ac:455:VAL:HG13	1:Ac:460:GLU:HB2	1.75	0.69
1:Ad:49:ILE:HD11	1:Ap:73:MET:SD	2.32	0.69
1:Ai:54:VAL:HG22	1:Ai:89:THR:HG21	1.73	0.69
1:Ai:455:VAL:HG13	1:Ai:460:GLU:HB2	1.75	0.69
1:Aj:3:ALA:O	1:Aj:524:LEU:HD13	1.92	0.69
1:Aj:169:VAL:HB	1:Aj:173:GLY:HA3	1.74	0.69
2:Al:55:LYS:HE3	2:Ax:51:ASN:ND2	2.07	0.69
1:Ao:161:LEU:HD11	1:Ao:396:VAL:HG13	1.74	0.69
1:Ao:455:VAL:HG13	1:Ao:460:GLU:HB2	1.75	0.69
1:Ap:3:ALA:O	1:Ap:524:LEU:HD13	1.92	0.69
1:Ap:61:GLU:CG	1:Bb:2:ALA:O	2.40	0.69
2:Ar:7:HIS:NE2	2:Bd:58:ASP:OD2	2.26	0.69
1:Av:5:ASP:N	1:Av:524:LEU:CD1	2.56	0.69
1:Av:186:GLU:CD	1:Av:380:LYS:HB2	2.17	0.69
2:Ax:94:ILE:C	2:Bj:3:ILE:H	2.00	0.69
1:Bb:36:ARG:HH11	1:Bn:13:ARG:NH1	1.87	0.69
1:Bg:61:GLU:OE1	1:Bm:2:ALA:N	2.26	0.69
1:Bh:489:ILE:CD1	1:Bh:494:LEU:CD2	2.70	0.69
1:Bm:161:LEU:HD11	1:Bm:396:VAL:HG13	1.74	0.69
1:Bm:161:LEU:O	1:Bm:164:GLU:HG2	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:183:LEU:HD21	1:Ai:284:ARG:NH1	2.07	0.69
1:Aj:186:GLU:CD	1:Aj:380:LYS:HB2	2.17	0.69
1:Bg:161:LEU:O	1:Bg:164:GLU:HG2	1.93	0.69
1:Bh:5:ASP:N	1:Bh:524:LEU:CD1	2.56	0.69
1:Ai:7:LYS:HG3	1:Ai:66:PHE:CE1	2.28	0.69
1:Aj:13:ARG:HH12	1:Av:36:ARG:HH11	1.39	0.69
1:Ao:455:VAL:CG1	1:Ao:460:GLU:HB2	2.22	0.69
2:Ar:3:ILE:HD13	2:Bd:65:VAL:N	2.08	0.69
1:Au:455:VAL:CG1	1:Au:460:GLU:HB2	2.22	0.69
1:Ba:161:LEU:O	1:Ba:164:GLU:HG2	1.93	0.69
1:Bm:168:LYS:HE3	1:Bm:189:VAL:CG2	2.15	0.69
1:Bn:7:LYS:CD	1:Bn:66:PHE:CE2	2.75	0.69
1:Ad:351:GLN:NE2	1:Aj:209:GLU:O	2.26	0.68
1:Ad:381:VAL:HG11	1:Ad:393:LYS:HG3	1.75	0.68
1:Ai:161:LEU:HD11	1:Ai:396:VAL:HG13	1.74	0.68
1:Ai:385:THR:CG2	1:Ai:387:VAL:HG12	2.23	0.68
1:Ba:76:GLU:OE1	1:Bm:46:ALA:CB	2.41	0.68
1:Bb:7:LYS:CD	1:Bb:66:PHE:CE2	2.75	0.68
1:Bm:54:VAL:HG22	1:Bm:89:THR:HG21	1.73	0.68
1:Bm:385:THR:CG2	1:Bm:387:VAL:HG12	2.24	0.68
1:Ac:76:GLU:OE1	1:Ao:46:ALA:CB	2.41	0.68
1:Ac:385:THR:CG2	1:Ac:387:VAL:HG12	2.24	0.68
1:Ad:7:LYS:CD	1:Ad:66:PHE:CE2	2.75	0.68
2:Af:6:LEU:HD23	2:Ar:93:ALA:HA	1.74	0.68
2:Al:94:ILE:C	2:Ax:3:ILE:H	2.01	0.68
1:Ao:400:LEU:HD12	1:Ao:401:HIS:N	2.09	0.68
1:Ap:7:LYS:CD	1:Ap:66:PHE:CE2	2.75	0.68
1:Au:161:LEU:HD11	1:Au:396:VAL:HG13	1.74	0.68
1:Bb:61:GLU:CG	1:Bn:2:ALA:O	2.40	0.68
2:Al:74:LYS:NZ	2:Al:76:GLU:CB	2.51	0.68
2:Ar:5:PRO:CD	2:Bd:96:GLU:CA	2.71	0.68
2:Ar:74:LYS:NZ	2:Ar:76:GLU:CB	2.51	0.68
1:Au:385:THR:CG2	1:Au:387:VAL:HG12	2.23	0.68
1:Au:455:VAL:HG13	1:Au:460:GLU:HB2	1.75	0.68
1:Ba:171:LYS:CD	1:Ba:407:VAL:CG2	2.72	0.68
1:Ba:455:VAL:HG13	1:Ba:460:GLU:HB2	1.75	0.68
1:Bn:169:VAL:HB	1:Bn:173:GLY:HA3	1.74	0.68
1:Ac:171:LYS:CD	1:Ac:407:VAL:CG2	2.72	0.68
1:Ad:5:ASP:N	1:Ad:524:LEU:CD1	2.56	0.68
1:Ai:161:LEU:O	1:Ai:164:GLU:HG2	1.93	0.68
1:Ap:169:VAL:HB	1:Ap:173:GLY:HA3	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ba:400:LEU:HD12	1:Ba:401:HIS:N	2.09	0.68
1:Bb:39:VAL:CG1	1:Bn:69:MET:HE2	2.23	0.68
2:Bj:94:ILE:HG22	2:Bp:3:ILE:CB	2.23	0.68
1:Ac:8:PHE:CZ	1:Ao:25:ASP:HB3	2.29	0.68
1:Ai:171:LYS:CD	1:Ai:407:VAL:CG2	2.72	0.68
1:Ao:171:LYS:CD	1:Ao:407:VAL:CG2	2.72	0.68
1:Ap:381:VAL:HG11	1:Ap:393:LYS:HG3	1.75	0.68
1:Au:161:LEU:O	1:Au:164:GLU:HG2	1.93	0.68
2:Ax:94:ILE:HG22	2:Bj:3:ILE:CB	2.24	0.68
1:Bb:381:VAL:HG11	1:Bb:393:LYS:HG3	1.75	0.68
1:Bb:489:ILE:CD1	1:Bb:494:LEU:CD2	2.70	0.68
2:Bd:85:ILE:HG21	2:Bp:92:LEU:HB3	1.75	0.68
1:Bm:171:LYS:CD	1:Bm:407:VAL:CG2	2.72	0.68
1:Av:3:ALA:O	1:Av:524:LEU:HD13	1.92	0.68
1:Ba:385:THR:CG2	1:Ba:387:VAL:HG12	2.24	0.68
1:Bg:385:THR:CG2	1:Bg:387:VAL:HG12	2.24	0.68
1:Bm:400:LEU:HD12	1:Bm:401:HIS:N	2.09	0.68
1:Ac:69:MET:CE	1:Ao:41:ASP:OD1	2.38	0.68
1:Au:400:LEU:HD12	1:Au:401:HIS:N	2.09	0.68
2:Bd:3:ILE:HD13	2:Bp:65:VAL:N	2.09	0.68
1:Bg:7:LYS:HG3	1:Bg:66:PHE:CE1	2.28	0.68
1:Bh:169:VAL:HB	1:Bh:173:GLY:HA3	1.74	0.68
1:Bm:139:SER:HA	1:Bm:171:LYS:HZ1	1.56	0.68
1:Ao:385:THR:CG2	1:Ao:387:VAL:HG12	2.24	0.68
1:Av:2:ALA:O	1:Bh:61:GLU:CG	2.41	0.68
2:Ax:92:LEU:HB3	2:Bj:85:ILE:HG21	1.76	0.68
1:Ba:7:LYS:HG3	1:Ba:66:PHE:CE1	2.27	0.68
1:Bb:5:ASP:N	1:Bb:524:LEU:CD1	2.56	0.68
1:Bh:518:GLU:HB2	1:Bn:36:ARG:HD2	1.75	0.68
1:Bm:455:VAL:HG13	1:Bm:460:GLU:HB2	1.75	0.68
1:Bn:5:ASP:N	1:Bn:524:LEU:CD1	2.56	0.68
2:Ar:3:ILE:H	2:Bd:94:ILE:C	2.00	0.68
2:Ar:3:ILE:O	2:Bd:95:VAL:HG22	1.93	0.68
2:Bd:7:HIS:NE2	2:Bp:58:ASP:OD2	2.27	0.68
2:Bd:74:LYS:HD2	2:Bp:92:LEU:CD1	2.21	0.68
1:Bg:171:LYS:HD3	1:Bg:407:VAL:HB	1.74	0.68
2:Bj:65:VAL:N	2:Bp:3:ILE:HD13	2.09	0.68
1:Ac:400:LEU:HD12	1:Ac:401:HIS:N	2.09	0.68
1:Au:171:LYS:CD	1:Au:407:VAL:CG2	2.72	0.68
1:Au:381:VAL:HG23	1:Au:393:LYS:NZ	2.09	0.68
2:Bd:5:PRO:CD	2:Bp:96:GLU:CA	2.72	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:161:LEU:HD11	1:Ac:396:VAL:HG13	1.74	0.67
1:Ai:400:LEU:HD12	1:Ai:401:HIS:N	2.09	0.67
1:Ao:284:ARG:NH1	1:Ba:183:LEU:HD21	2.09	0.67
1:Ap:134:LEU:HD13	1:Ap:425:LYS:HZ1	1.59	0.67
1:Av:40:LEU:HD22	1:Av:59:GLU:HG2	1.76	0.67
1:Av:69:MET:HE2	1:Bh:39:VAL:CG1	2.24	0.67
2:Ax:92:LEU:CD1	2:Bj:74:LYS:HD2	2.22	0.67
1:Ba:171:LYS:HD3	1:Ba:407:VAL:HB	1.74	0.67
1:Ba:284:ARG:NH1	1:Bm:183:LEU:HD21	2.09	0.67
1:Bb:169:VAL:HB	1:Bb:173:GLY:HA3	1.74	0.67
1:Bg:171:LYS:CD	1:Bg:407:VAL:CG2	2.72	0.67
1:Bg:455:VAL:HG13	1:Bg:460:GLU:HB2	1.75	0.67
1:Ad:36:ARG:HD2	1:Ap:518:GLU:HB2	1.77	0.67
1:Ad:428:ASP:O	1:Ad:430:ARG:HG2	1.94	0.67
2:Al:94:ILE:HG22	2:Ax:3:ILE:CB	2.24	0.67
1:Ao:168:LYS:NZ	1:Ao:187:LEU:CD1	2.53	0.67
1:Ap:39:VAL:CG1	1:Bb:69:MET:HE2	2.23	0.67
1:Ap:428:ASP:O	1:Ap:430:ARG:HG2	1.94	0.67
1:Av:428:ASP:O	1:Av:430:ARG:HG2	1.94	0.67
1:Ba:381:VAL:HG23	1:Ba:393:LYS:NZ	2.10	0.67
2:Bd:3:ILE:O	2:Bp:95:VAL:HG22	1.93	0.67
1:Bg:161:LEU:HD11	1:Bg:396:VAL:HG13	1.74	0.67
1:Ad:36:ARG:HH11	1:Ap:13:ARG:HH12	1.41	0.67
1:Ai:183:LEU:HD21	1:Au:284:ARG:NH1	2.10	0.67
1:Aj:40:LEU:HD22	1:Aj:59:GLU:HG2	1.76	0.67
1:Aj:518:GLU:HB2	1:Av:36:ARG:HD2	1.75	0.67
1:Bb:428:ASP:O	1:Bb:430:ARG:HG2	1.94	0.67
2:Bd:5:PRO:CG	2:Bp:96:GLU:HG2	2.24	0.67
1:Bm:171:LYS:HD3	1:Bm:407:VAL:HB	1.74	0.67
1:Ad:516:THR:O	1:Aj:36:ARG:HB3	1.93	0.67
2:Al:58:ASP:OD2	2:Ax:7:HIS:NE2	2.28	0.67
1:Av:169:VAL:HB	1:Av:173:GLY:HA3	1.74	0.67
1:Av:518:GLU:HB2	1:Bh:36:ARG:HD2	1.75	0.67
1:Ba:488:MET:HE3	1:Ba:493:ILE:CB	2.23	0.67
1:Bn:428:ASP:O	1:Bn:430:ARG:HG2	1.94	0.67
1:Ao:76:GLU:OE1	1:Ba:46:ALA:CB	2.42	0.67
1:Bh:2:ALA:O	1:Bn:61:GLU:CG	2.41	0.67
1:Bh:40:LEU:HD22	1:Bh:59:GLU:HG2	1.76	0.67
2:Bj:92:LEU:CD1	2:Bp:74:LYS:HD2	2.23	0.67
2:Bj:95:VAL:HG22	2:Bp:3:ILE:O	1.94	0.67
2:Bp:74:LYS:NZ	2:Bp:76:GLU:CB	2.51	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:488:MET:HE3	1:Au:493:ILE:CB	2.22	0.67
1:Aj:428:ASP:O	1:Aj:430:ARG:HG2	1.94	0.67
2:Bd:5:PRO:CA	2:Bp:96:GLU:CD	2.67	0.67
1:Bg:400:LEU:HD12	1:Bg:401:HIS:N	2.09	0.67
1:Bm:381:VAL:HG23	1:Bm:393:LYS:NZ	2.09	0.67
1:Ac:7:LYS:HG3	1:Ac:66:PHE:CE1	2.28	0.67
1:Aj:69:MET:HE2	1:Av:39:VAL:CG1	2.24	0.67
2:Ar:5:PRO:HB3	2:Bd:96:GLU:HB3	1.74	0.67
1:Bg:139:SER:HA	1:Bg:171:LYS:HZ1	1.59	0.67
1:Ad:69:MET:HE2	1:Aj:39:VAL:CG1	2.24	0.67
2:Ax:96:GLU:CG	2:Bj:5:PRO:O	2.43	0.67
2:Bj:96:GLU:HG2	2:Bp:5:PRO:CG	2.25	0.67
1:Bm:488:MET:HE3	1:Bm:493:ILE:CB	2.23	0.67
1:Ad:517:THR:HG23	1:Aj:39:VAL:HG23	1.75	0.67
1:Ap:36:ARG:HH11	1:Bb:13:ARG:HH12	1.38	0.67
2:Al:96:GLU:HB3	2:Ax:5:PRO:HB3	1.75	0.66
1:Ao:7:LYS:HG3	1:Ao:66:PHE:CE1	2.27	0.66
1:Ap:5:ASP:N	1:Ap:524:LEU:CD1	2.56	0.66
2:Ar:5:PRO:CG	2:Bd:96:GLU:HG2	2.25	0.66
1:Bb:40:LEU:HD22	1:Bb:59:GLU:HG2	1.76	0.66
1:Bg:381:VAL:HG23	1:Bg:393:LYS:NZ	2.10	0.66
2:Bj:94:ILE:CD1	2:Bp:4:ARG:HB3	2.20	0.66
1:Bn:40:LEU:HD22	1:Bn:59:GLU:HG2	1.76	0.66
1:Ao:186:GLU:HB2	1:Ao:380:LYS:HB2	1.77	0.66
1:Au:139:SER:HA	1:Au:171:LYS:HZ1	1.57	0.66
1:Ba:186:GLU:HB2	1:Ba:380:LYS:HB2	1.77	0.66
1:Bg:488:MET:HE3	1:Bg:493:ILE:CB	2.22	0.66
1:Ac:284:ARG:NH1	1:Ao:183:LEU:HD21	2.10	0.66
2:Ax:65:VAL:N	2:Bj:3:ILE:HD13	2.10	0.66
1:Bg:41:ASP:N	1:Bm:69:MET:HE1	2.10	0.66
2:Al:96:GLU:HG2	2:Ax:5:PRO:CG	2.26	0.66
1:Ap:40:LEU:HD22	1:Ap:59:GLU:HG2	1.76	0.66
2:Ar:74:LYS:HD2	2:Bd:92:LEU:CD1	2.22	0.66
1:Au:183:LEU:HD21	1:Bg:284:ARG:NH1	2.10	0.66
1:Ad:518:GLU:HB2	1:Aj:36:ARG:HD2	1.77	0.66
2:Al:92:LEU:CD1	2:Ax:74:LYS:HD2	2.23	0.66
1:Au:171:LYS:HD3	1:Au:407:VAL:HB	1.73	0.66
1:Bg:168:LYS:HE3	1:Bg:189:VAL:CG2	2.15	0.66
1:Bm:186:GLU:HB2	1:Bm:380:LYS:HB2	1.77	0.66
1:Ac:385:THR:O	1:Ac:388:GLU:HG2	1.96	0.66
1:Ad:40:LEU:HD22	1:Ad:59:GLU:HG2	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ao:488:MET:HE3	1:Ao:493:ILE:CB	2.23	0.66
1:Bm:168:LYS:NZ	1:Bm:187:LEU:HD11	2.01	0.66
1:Ac:41:ASP:N	1:Ai:69:MET:HE1	2.08	0.66
2:Af:4:ARG:N	2:Ar:95:VAL:CG2	2.59	0.66
2:Al:96:GLU:CG	2:Ax:5:PRO:O	2.43	0.66
1:Ap:36:ARG:HE	1:Bb:113:PRO:HG2	1.60	0.66
1:Bh:13:ARG:HH12	1:Bn:36:ARG:HH11	1.38	0.66
1:Ai:488:MET:HE3	1:Ai:493:ILE:CB	2.23	0.66
2:Ax:55:LYS:HE3	2:Bj:51:ASN:ND2	2.09	0.66
2:Ax:58:ASP:OD2	2:Bj:7:HIS:NE2	2.29	0.66
2:Bj:55:LYS:HE3	2:Bp:51:ASN:ND2	2.09	0.66
1:Av:172:GLU:OE2	1:Av:369:VAL:HG11	1.96	0.66
2:Ax:96:GLU:CD	2:Bj:5:PRO:CA	2.69	0.66
2:Bd:51:ASN:ND2	2:Bp:55:LYS:HE3	2.09	0.66
1:Bg:183:LEU:HD21	1:Bm:284:ARG:NH1	2.11	0.66
2:Bj:96:GLU:HB3	2:Bp:5:PRO:HB3	1.75	0.66
1:Ac:186:GLU:HB2	1:Ac:380:LYS:HB2	1.77	0.66
2:Af:3:ILE:CG1	2:Ar:64:ILE:HG22	2.22	0.66
1:Ai:166:MET:HE2	1:Ai:175:ILE:HD12	1.78	0.66
1:Ai:510:VAL:O	1:Ai:514:MET:HG2	1.96	0.66
2:Al:65:VAL:N	2:Ax:3:ILE:HD13	2.10	0.66
1:Ao:171:LYS:HD3	1:Ao:407:VAL:HB	1.74	0.66
1:Ac:161:LEU:CD1	1:Ac:162:ILE:HG12	2.27	0.65
2:Af:96:GLU:CG	2:Al:5:PRO:C	2.65	0.65
1:Ao:381:VAL:HG23	1:Ao:393:LYS:HZ3	1.56	0.65
1:Au:186:GLU:HB2	1:Au:380:LYS:HB2	1.77	0.65
1:Bb:36:ARG:HH12	1:Bn:13:ARG:HH12	1.41	0.65
1:Bh:428:ASP:O	1:Bh:430:ARG:HG2	1.95	0.65
1:Bh:517:THR:HG23	1:Bn:39:VAL:HG23	1.78	0.65
2:Bj:58:ASP:OD2	2:Bp:7:HIS:NE2	2.28	0.65
1:Ap:134:LEU:HD11	1:Ap:425:LYS:NZ	2.00	0.65
1:Au:510:VAL:O	1:Au:514:MET:HG2	1.96	0.65
2:Ax:96:GLU:HG2	2:Bj:5:PRO:CG	2.26	0.65
1:Ba:385:THR:O	1:Ba:388:GLU:HG2	1.96	0.65
2:Bd:5:PRO:O	2:Bp:96:GLU:CG	2.44	0.65
1:Au:41:ASP:N	1:Bg:69:MET:HE1	2.11	0.65
1:Au:46:ALA:CB	1:Bg:76:GLU:OE1	2.42	0.65
1:Au:385:THR:O	1:Au:388:GLU:HG2	1.96	0.65
1:Bm:510:VAL:O	1:Bm:514:MET:HG2	1.96	0.65
1:Ac:166:MET:HE2	1:Ac:175:ILE:HD12	1.78	0.65
1:Ad:172:GLU:OE2	1:Ad:369:VAL:HG11	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ai:186:GLU:HB2	1:Ai:380:LYS:HB2	1.77	0.65
1:Ao:510:VAL:O	1:Ao:514:MET:HG2	1.96	0.65
1:Bg:510:VAL:O	1:Bg:514:MET:HG2	1.96	0.65
1:Bm:161:LEU:HD11	1:Bm:162:ILE:HG12	1.78	0.65
1:Bn:24:ALA:HB3	1:Bn:97:GLN:CD	2.22	0.65
2:Af:5:PRO:HB3	2:Ar:96:GLU:HB3	1.76	0.65
1:Ai:168:LYS:HZ2	1:Ai:187:LEU:HG	1.61	0.65
1:Ba:510:VAL:O	1:Ba:514:MET:HG2	1.96	0.65
1:Bg:161:LEU:HD11	1:Bg:162:ILE:HG12	1.78	0.65
1:Bm:385:THR:O	1:Bm:388:GLU:HG2	1.96	0.65
1:Ad:24:ALA:HB3	1:Ad:97:GLN:CD	2.22	0.65
1:Ad:36:ARG:HE	1:Ap:113:PRO:HG2	1.58	0.65
2:Af:96:GLU:CA	2:Al:5:PRO:CD	2.74	0.65
1:Aj:172:GLU:OE2	1:Aj:369:VAL:HG11	1.96	0.65
1:Ap:172:GLU:OE2	1:Ap:369:VAL:HG11	1.96	0.65
1:Au:166:MET:HE2	1:Au:175:ILE:HD12	1.78	0.65
1:Bb:80:LYS:HG3	1:Bb:506:TYR:CZ	2.32	0.65
1:Bb:172:GLU:OE2	1:Bb:369:VAL:HG11	1.96	0.65
1:Bg:161:LEU:CD1	1:Bg:162:ILE:HG12	2.26	0.65
1:Bg:385:THR:O	1:Bg:388:GLU:HG2	1.96	0.65
1:Ac:183:LEU:HD21	1:Ai:284:ARG:CZ	2.27	0.65
1:Ai:161:LEU:CD1	1:Ai:162:ILE:HG12	2.27	0.65
1:Ao:381:VAL:HG23	1:Ao:393:LYS:NZ	2.10	0.65
1:Ba:161:LEU:CD1	1:Ba:162:ILE:HG12	2.26	0.65
1:Ap:80:LYS:HG3	1:Ap:506:TYR:CZ	2.32	0.65
1:Bb:24:ALA:HB3	1:Bb:97:GLN:CD	2.22	0.65
1:Bb:36:ARG:HE	1:Bn:113:PRO:HG2	1.61	0.65
1:Bh:172:GLU:OE2	1:Bh:369:VAL:HG11	1.96	0.65
2:Bj:74:LYS:HZ2	2:Bj:76:GLU:N	1.95	0.65
1:Bn:172:GLU:OE2	1:Bn:369:VAL:HG11	1.96	0.65
1:Ac:69:MET:HE1	1:Ao:41:ASP:N	2.11	0.65
1:Ac:488:MET:HE3	1:Ac:493:ILE:CB	2.23	0.65
2:Ax:96:GLU:HB3	2:Bj:5:PRO:HB3	1.76	0.65
1:Ac:161:LEU:HA	1:Ac:164:GLU:HG2	1.79	0.65
1:Ad:2:ALA:O	1:Aj:61:GLU:CG	2.45	0.65
2:Af:95:VAL:CG2	2:Al:3:ILE:C	2.70	0.65
2:Af:96:GLU:HB2	2:Al:5:PRO:CA	2.24	0.65
1:Aj:80:LYS:HG3	1:Aj:506:TYR:CZ	2.32	0.65
1:Au:87:ASP:OD1	3:Au:601:ADP:O3B	2.15	0.65
1:Av:80:LYS:HG3	1:Av:506:TYR:CZ	2.32	0.65
1:Ba:161:LEU:HD11	1:Ba:162:ILE:HG12	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bg:87:ASP:OD1	3:Bg:601:ADP:O3B	2.15	0.65
1:Bg:186:GLU:HB2	1:Bg:380:LYS:HB2	1.77	0.65
1:Bn:80:LYS:HG3	1:Bn:506:TYR:CZ	2.32	0.65
2:Af:5:PRO:HA	2:Ar:96:GLU:CB	2.23	0.64
1:Ao:161:LEU:HA	1:Ao:164:GLU:HG2	1.79	0.64
1:Ao:168:LYS:HE3	1:Ao:189:VAL:CG2	2.15	0.64
2:Ar:5:PRO:O	2:Bd:96:GLU:CG	2.44	0.64
1:Ba:69:MET:HE1	1:Bm:41:ASP:N	2.12	0.64
2:Bd:74:LYS:NZ	2:Bd:75:SER:O	2.30	0.64
1:Ac:161:LEU:HD11	1:Ac:162:ILE:HG12	1.78	0.64
1:Ai:385:THR:O	1:Ai:388:GLU:HG2	1.96	0.64
1:Aj:113:PRO:HG2	1:Av:36:ARG:HE	1.62	0.64
1:Ao:8:PHE:CZ	1:Ba:25:ASP:HB3	2.32	0.64
1:Ao:385:THR:O	1:Ao:388:GLU:HG2	1.96	0.64
1:Au:161:LEU:HD11	1:Au:162:ILE:HG12	1.78	0.64
1:Av:24:ALA:HB3	1:Av:97:GLN:CD	2.22	0.64
1:Av:517:THR:HG23	1:Bh:39:VAL:HG23	1.79	0.64
1:Ba:516:THR:O	1:Bm:36:ARG:HB3	1.97	0.64
1:Ai:25:ASP:HB3	1:Au:8:PHE:CZ	2.33	0.64
1:Ao:467:ASN:ND2	1:Ap:464:VAL:HG11	2.13	0.64
2:Ar:74:LYS:NZ	2:Ar:75:SER:O	2.30	0.64
1:Ac:37:ASN:HB2	1:Ac:49:ILE:HG23	1.80	0.64
1:Ac:467:ASN:ND2	1:Ad:464:VAL:HG11	2.13	0.64
1:Ac:516:THR:O	1:Ao:36:ARG:HB3	1.95	0.64
2:Af:5:PRO:N	2:Ar:96:GLU:HB2	2.09	0.64
1:Ao:161:LEU:CD1	1:Ao:162:ILE:HG12	2.27	0.64
1:Av:113:PRO:HG2	1:Bh:36:ARG:HE	1.62	0.64
1:Ac:510:VAL:O	1:Ac:514:MET:HG2	1.96	0.64
1:Ai:41:ASP:N	1:Au:69:MET:HE1	2.11	0.64
1:Ba:37:ASN:HB2	1:Ba:49:ILE:HG23	1.80	0.64
1:Bm:166:MET:HE2	1:Bm:175:ILE:HD12	1.78	0.64
1:Ad:39:VAL:CG1	1:Ap:69:MET:HE2	2.27	0.64
1:Ai:161:LEU:HA	1:Ai:164:GLU:HG2	1.80	0.64
2:Al:96:GLU:CD	2:Ax:5:PRO:CA	2.70	0.64
1:Ao:395:ARG:HA	1:Ao:398:ASP:HB2	1.79	0.64
1:Ap:24:ALA:HB3	1:Ap:97:GLN:CD	2.22	0.64
1:Au:171:LYS:HD3	1:Au:407:VAL:CB	2.27	0.64
1:Av:13:ARG:NH1	1:Bh:36:ARG:HH11	1.87	0.64
1:Ba:161:LEU:HA	1:Ba:164:GLU:HG2	1.79	0.64
2:Bd:5:PRO:HB3	2:Bp:96:GLU:HB3	1.76	0.64
1:Bh:113:PRO:HG2	1:Bn:36:ARG:HE	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:47:PRO:HG2	1:Ai:69:MET:HG2	1.80	0.64
1:Ac:395:ARG:HA	1:Ac:398:ASP:HB2	1.79	0.64
1:Ai:37:ASN:HB2	1:Ai:49:ILE:HG23	1.80	0.64
1:Bm:161:LEU:CD1	1:Bm:162:ILE:HG12	2.27	0.64
1:Bm:467:ASN:ND2	1:Bn:464:VAL:HG11	2.13	0.64
1:Ad:80:LYS:HG3	1:Ad:506:TYR:CZ	2.32	0.64
2:Af:74:LYS:NZ	2:Af:75:SER:O	2.30	0.64
1:Ai:161:LEU:HD11	1:Ai:162:ILE:HG12	1.78	0.64
2:Al:74:LYS:NZ	2:Al:75:SER:O	2.30	0.64
1:Ba:166:MET:HE2	1:Ba:175:ILE:HD12	1.78	0.64
1:Bg:467:ASN:ND2	1:Bh:464:VAL:HG11	2.13	0.64
1:Ao:37:ASN:HB2	1:Ao:49:ILE:HG23	1.80	0.64
1:Ao:69:MET:HE1	1:Ba:41:ASP:N	2.11	0.64
1:Ac:25:ASP:HB3	1:Ai:8:PHE:CZ	2.33	0.64
2:Af:3:ILE:HG22	2:Ar:94:ILE:HG22	1.79	0.64
1:Bg:171:LYS:HD3	1:Bg:407:VAL:CB	2.27	0.64
1:Bh:24:ALA:HB3	1:Bh:97:GLN:CD	2.22	0.64
1:Bh:80:LYS:HG3	1:Bh:506:TYR:CZ	2.32	0.64
1:Bm:37:ASN:HB2	1:Bm:49:ILE:HG23	1.80	0.64
2:Bp:74:LYS:NZ	2:Bp:75:SER:O	2.30	0.64
1:Ac:87:ASP:OD1	3:Ac:601:ADP:O3B	2.15	0.63
2:Af:74:LYS:HD3	2:Ar:92:LEU:CD1	2.29	0.63
1:Ai:87:ASP:OD1	3:Ai:601:ADP:O3B	2.15	0.63
1:Aj:517:THR:HG23	1:Av:39:VAL:HG23	1.79	0.63
1:Ba:87:ASP:OD1	3:Ba:601:ADP:O3B	2.15	0.63
1:Bg:166:MET:HE2	1:Bg:175:ILE:HD12	1.78	0.63
1:Bg:395:ARG:HA	1:Bg:398:ASP:HB2	1.79	0.63
1:Bm:87:ASP:OD1	3:Bm:601:ADP:O3B	2.15	0.63
1:Ac:171:LYS:HD3	1:Ac:407:VAL:HB	1.74	0.63
1:Ac:183:LEU:HD23	1:Ai:281:PHE:CZ	2.33	0.63
1:Ad:186:GLU:OE2	1:Ad:380:LYS:HG2	1.99	0.63
1:Ai:171:LYS:HD3	1:Ai:407:VAL:HB	1.74	0.63
1:Ai:395:ARG:HA	1:Ai:398:ASP:HB2	1.79	0.63
1:Ao:161:LEU:HD11	1:Ao:162:ILE:HG12	1.78	0.63
2:Ax:74:LYS:NZ	2:Ax:75:SER:O	2.30	0.63
1:Bb:39:VAL:HG23	1:Bn:517:THR:HG23	1.81	0.63
2:Bj:74:LYS:NZ	2:Bj:75:SER:O	2.30	0.63
1:Ao:516:THR:O	1:Ba:36:ARG:HB3	1.97	0.63
1:Au:479:ASN:ND2	1:Au:491:MET:HE2	2.13	0.63
1:Ba:395:ARG:HA	1:Ba:398:ASP:HB2	1.79	0.63
1:Bb:39:VAL:HG12	1:Bn:69:MET:HE3	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bg:479:ASN:ND2	1:Bg:491:MET:HE2	2.13	0.63
1:Bm:395:ARG:HA	1:Bm:398:ASP:HB2	1.79	0.63
1:Ai:467:ASN:ND2	1:Aj:464:VAL:HG11	2.13	0.63
1:Ap:39:VAL:HG23	1:Bb:517:THR:HG23	1.81	0.63
1:Au:37:ASN:HB2	1:Au:49:ILE:HG23	1.80	0.63
1:Ba:8:PHE:CZ	1:Bm:25:ASP:HB3	2.32	0.63
1:Bb:186:GLU:OE2	1:Bb:380:LYS:HG2	1.98	0.63
1:Bg:37:ASN:HB2	1:Bg:49:ILE:HG23	1.80	0.63
1:Ac:381:VAL:HG23	1:Ac:393:LYS:NZ	2.09	0.63
1:Ap:186:GLU:OE2	1:Ap:380:LYS:HG2	1.99	0.63
1:Au:25:ASP:HB3	1:Bg:8:PHE:CZ	2.33	0.63
1:Au:36:ARG:HB3	1:Bg:516:THR:O	1.98	0.63
1:Au:161:LEU:HA	1:Au:164:GLU:HG2	1.80	0.63
1:Au:467:ASN:ND2	1:Av:464:VAL:HG11	2.13	0.63
1:Bg:36:ARG:HB3	1:Bm:516:THR:O	1.98	0.63
1:Bm:161:LEU:HA	1:Bm:164:GLU:HG2	1.79	0.63
1:Ao:166:MET:HE2	1:Ao:175:ILE:HD12	1.78	0.63
1:Au:161:LEU:CD1	1:Au:162:ILE:HG12	2.26	0.63
2:Af:7:HIS:NE2	2:Ar:58:ASP:OD2	2.31	0.63
1:Au:168:LYS:HZ2	1:Au:187:LEU:HG	1.63	0.63
1:Bn:186:GLU:OE2	1:Bn:380:LYS:HG2	1.99	0.63
1:Ao:87:ASP:OD1	3:Ao:601:ADP:O3B	2.15	0.63
1:Au:395:ARG:HA	1:Au:398:ASP:HB2	1.79	0.63
1:Ba:168:LYS:HZ2	1:Ba:187:LEU:HG	1.61	0.63
1:Ba:467:ASN:ND2	1:Bb:464:VAL:HG11	2.13	0.63
2:Bd:5:PRO:N	2:Bp:96:GLU:HB2	2.14	0.63
2:Af:74:LYS:HD2	2:Ar:92:LEU:CD1	2.27	0.62
1:Ai:46:ALA:CB	1:Au:76:GLU:OE1	2.43	0.62
1:Ai:171:LYS:HD3	1:Ai:407:VAL:CB	2.27	0.62
1:Ao:479:ASN:ND2	1:Ao:491:MET:HE2	2.13	0.62
2:Ar:5:PRO:N	2:Bd:96:GLU:HB2	2.14	0.62
1:Bm:479:ASN:ND2	1:Bm:491:MET:HE2	2.13	0.62
1:Ai:46:ALA:HB3	1:Au:76:GLU:CD	2.21	0.62
2:Al:94:ILE:CD1	2:Ax:4:ARG:HB3	2.21	0.62
1:Bb:127:ALA:HA	1:Bb:426:LEU:HD11	1.82	0.62
1:Bg:46:ALA:CB	1:Bm:76:GLU:OE1	2.44	0.62
1:Bg:161:LEU:HA	1:Bg:164:GLU:HG2	1.79	0.62
2:Bj:96:GLU:CG	2:Bp:5:PRO:O	2.46	0.62
1:Ac:479:ASN:ND2	1:Ac:491:MET:HE2	2.13	0.62
1:Ai:479:ASN:ND2	1:Ai:491:MET:HE2	2.13	0.62
1:Aj:24:ALA:HB3	1:Aj:97:GLN:CD	2.22	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Aj:186:GLU:OE2	1:Aj:380:LYS:HG2	1.99	0.62
1:Ap:39:VAL:HG12	1:Bb:69:MET:HE3	1.79	0.62
1:Ba:139:SER:HA	1:Ba:171:LYS:HZ1	1.63	0.62
1:Bh:127:ALA:HA	1:Bh:426:LEU:HD11	1.82	0.62
1:Bh:186:GLU:OE2	1:Bh:380:LYS:HG2	1.99	0.62
2:Bj:96:GLU:CD	2:Bp:5:PRO:CA	2.70	0.62
1:Bn:7:LYS:HE2	1:Bn:15:LYS:CD	2.29	0.62
1:Ap:127:ALA:HA	1:Ap:426:LEU:HD11	1.82	0.62
1:Bm:171:LYS:HD3	1:Bm:407:VAL:CB	2.27	0.62
1:Ac:169:VAL:HG23	1:Ac:169:VAL:O	2.00	0.62
1:Aj:177:VAL:HG13	1:Aj:400:LEU:CD1	2.28	0.62
1:Ap:488:MET:CE	1:Ap:493:ILE:CG2	2.78	0.62
1:Au:46:ALA:HB3	1:Bg:76:GLU:CD	2.21	0.62
1:Av:186:GLU:OE2	1:Av:380:LYS:HG2	1.99	0.62
1:Ad:177:VAL:HG13	1:Ad:400:LEU:CD1	2.28	0.62
2:Af:3:ILE:N	2:Ar:95:VAL:CA	2.60	0.62
2:Af:58:ASP:OD2	2:Al:7:HIS:NE2	2.32	0.62
1:Ai:36:ARG:HB3	1:Au:516:THR:O	1.98	0.62
1:Ba:479:ASN:ND2	1:Ba:491:MET:HE2	2.13	0.62
1:Bh:7:LYS:HE2	1:Bh:15:LYS:CD	2.29	0.62
1:Bm:169:VAL:HG23	1:Bm:169:VAL:O	2.00	0.62
1:Bn:488:MET:CE	1:Bn:493:ILE:CG2	2.78	0.62
1:Ao:171:LYS:HD2	1:Ao:407:VAL:CG2	2.30	0.62
1:Bb:7:LYS:HE2	1:Bb:15:LYS:CD	2.29	0.62
1:Bg:171:LYS:HD2	1:Bg:407:VAL:CG2	2.30	0.62
1:Bn:127:ALA:HA	1:Bn:426:LEU:HD11	1.82	0.62
1:Ai:169:VAL:O	1:Ai:169:VAL:HG23	2.00	0.62
1:Ao:169:VAL:HG23	1:Ao:169:VAL:O	2.00	0.62
2:Ar:44:GLY:HA2	2:Bd:96:GLU:CD	2.25	0.62
1:Av:186:GLU:OE2	1:Av:380:LYS:CG	2.48	0.62
1:Ba:169:VAL:HG23	1:Ba:169:VAL:O	2.00	0.62
1:Ap:7:LYS:HE2	1:Ap:15:LYS:CD	2.29	0.62
1:Au:40:LEU:HG	1:Au:59:GLU:HG2	1.82	0.62
1:Av:127:ALA:HA	1:Av:426:LEU:HD11	1.82	0.62
1:Bg:25:ASP:HB3	1:Bm:8:PHE:CZ	2.34	0.62
1:Ac:40:LEU:HG	1:Ac:59:GLU:HG2	1.82	0.62
1:Ad:39:VAL:HG23	1:Ap:517:THR:HG23	1.81	0.62
1:Aj:7:LYS:HE2	1:Aj:15:LYS:CD	2.29	0.62
1:Ba:284:ARG:CZ	1:Bm:183:LEU:HD21	2.30	0.62
1:Bm:498:LYS:HD2	1:Bm:501:ARG:NH2	2.15	0.62
1:Ad:186:GLU:OE2	1:Ad:380:LYS:CG	2.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ap:186:GLU:OE2	1:Ap:380:LYS:CG	2.48	0.61
1:Bh:186:GLU:OE2	1:Bh:380:LYS:CG	2.48	0.61
2:Bj:93:ALA:HA	2:Bp:6:LEU:HD23	1.82	0.61
1:Ad:113:PRO:HG2	1:Aj:36:ARG:HE	1.64	0.61
2:Ar:51:ASN:HD22	2:Bd:55:LYS:CE	2.13	0.61
2:Ax:93:ALA:HA	2:Bj:6:LEU:HD23	1.81	0.61
1:Ba:69:MET:HE3	1:Bm:41:ASP:HB2	1.43	0.61
1:Bb:488:MET:CE	1:Bb:493:ILE:CG2	2.78	0.61
1:Ad:127:ALA:HA	1:Ad:426:LEU:HD11	1.82	0.61
2:Af:96:GLU:HB2	2:Al:5:PRO:N	2.15	0.61
1:Ai:40:LEU:HG	1:Ai:59:GLU:HG2	1.82	0.61
1:Ao:171:LYS:HD3	1:Ao:407:VAL:CB	2.27	0.61
1:Au:386:GLU:CG	1:Au:389:MET:HE3	2.30	0.61
1:Bb:186:GLU:OE2	1:Bb:380:LYS:CG	2.48	0.61
1:Bg:169:VAL:HG23	1:Bg:169:VAL:O	2.00	0.61
2:Bj:96:GLU:CD	2:Bp:44:GLY:HA2	2.26	0.61
1:Bn:186:GLU:OE2	1:Bn:380:LYS:CG	2.48	0.61
1:Aj:127:ALA:HA	1:Aj:426:LEU:HD11	1.82	0.61
2:Ax:96:GLU:HB2	2:Bj:5:PRO:N	2.13	0.61
1:Bg:386:GLU:CG	1:Bg:389:MET:HE3	2.30	0.61
1:Bm:171:LYS:HD2	1:Bm:407:VAL:CG2	2.30	0.61
1:Ac:46:ALA:CB	1:Ai:76:GLU:OE1	2.48	0.61
1:Ac:284:ARG:CZ	1:Ao:183:LEU:HD21	2.31	0.61
2:Af:94:ILE:CD1	2:Al:4:ARG:HB3	2.20	0.61
2:Al:55:LYS:CE	2:Ax:51:ASN:HD22	2.13	0.61
1:Bg:40:LEU:HG	1:Bg:59:GLU:HG2	1.82	0.61
1:Bh:488:MET:CE	1:Bh:493:ILE:CG2	2.78	0.61
1:Bm:31:LEU:HG	1:Bm:454:ILE:HG12	1.83	0.61
1:Ac:36:ARG:HB3	1:Ai:516:THR:O	1.99	0.61
1:Ao:40:LEU:HG	1:Ao:59:GLU:HG2	1.82	0.61
1:Ba:171:LYS:HD2	1:Ba:407:VAL:CG2	2.30	0.61
1:Ac:383:ALA:HB3	1:Ac:389:MET:HB3	1.83	0.61
2:Af:95:VAL:HG22	2:Al:3:ILE:O	2.01	0.61
2:Al:93:ALA:HA	2:Ax:6:LEU:HD23	1.82	0.61
1:Ao:383:ALA:HB3	1:Ao:389:MET:HB3	1.83	0.61
1:Ao:386:GLU:CG	1:Ao:389:MET:HE3	2.30	0.61
1:Ao:498:LYS:HD2	1:Ao:501:ARG:NH2	2.15	0.61
1:Av:31:LEU:HD22	1:Av:94:VAL:HG21	1.82	0.61
1:Av:178:GLU:HG2	1:Av:378:VAL:CG1	2.31	0.61
1:Bh:31:LEU:HD22	1:Bh:94:VAL:HG21	1.82	0.61
1:Ad:178:GLU:HG2	1:Ad:378:VAL:CG1	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ai:383:ALA:HB3	1:Ai:389:MET:HB3	1.83	0.61
2:Bd:3:ILE:HB	2:Bp:94:ILE:HG22	1.82	0.61
1:Bh:178:GLU:HG2	1:Bh:378:VAL:CG1	2.31	0.61
1:Ad:7:LYS:HE2	1:Ad:15:LYS:CD	2.29	0.61
1:Aj:178:GLU:HG2	1:Aj:378:VAL:CG1	2.31	0.61
1:Ao:171:LYS:HD3	1:Ao:407:VAL:CG2	2.31	0.61
1:Ao:284:ARG:CZ	1:Ba:183:LEU:HD21	2.30	0.61
1:Au:171:LYS:HD2	1:Au:407:VAL:CG2	2.30	0.61
1:Av:488:MET:CE	1:Av:493:ILE:CG2	2.78	0.61
1:Ba:31:LEU:HG	1:Ba:454:ILE:HG12	1.83	0.61
1:Ba:171:LYS:HD3	1:Ba:407:VAL:CG2	2.31	0.61
1:Bm:479:ASN:CB	1:Bm:491:MET:CE	2.76	0.61
1:Ac:479:ASN:CB	1:Ac:491:MET:CE	2.76	0.61
1:Ai:386:GLU:CG	1:Ai:389:MET:HE3	2.30	0.61
1:Aj:186:GLU:OE2	1:Aj:380:LYS:CG	2.48	0.61
1:Bh:7:LYS:HD2	1:Bh:66:PHE:CD2	2.36	0.61
1:Bm:386:GLU:CG	1:Bm:389:MET:HE3	2.30	0.61
1:Ad:488:MET:CE	1:Ad:493:ILE:CG2	2.78	0.60
2:Af:96:GLU:HG3	2:Al:5:PRO:CD	2.28	0.60
1:Ai:171:LYS:HD2	1:Ai:407:VAL:CG2	2.30	0.60
1:Ap:31:LEU:HD22	1:Ap:94:VAL:HG21	1.82	0.60
1:Ba:498:LYS:HD2	1:Ba:501:ARG:NH2	2.15	0.60
1:Bg:383:ALA:HB3	1:Bg:389:MET:HB3	1.83	0.60
1:Ac:171:LYS:HD2	1:Ac:407:VAL:CG2	2.30	0.60
2:Al:96:GLU:CD	2:Ax:44:GLY:HA2	2.25	0.60
1:Ap:15:LYS:HE2	1:Ap:66:PHE:HB2	1.83	0.60
2:Ar:3:ILE:HB	2:Bd:94:ILE:HG22	1.83	0.60
2:Ar:6:LEU:HD23	2:Bd:93:ALA:HA	1.83	0.60
1:Au:383:ALA:HB3	1:Au:389:MET:HB3	1.83	0.60
1:Au:498:LYS:HD2	1:Au:501:ARG:NH2	2.15	0.60
1:Bb:178:GLU:HG2	1:Bb:378:VAL:CG1	2.31	0.60
2:Bd:6:LEU:HD23	2:Bp:93:ALA:HA	1.83	0.60
1:Bg:31:LEU:HG	1:Bg:454:ILE:HG12	1.83	0.60
1:Bm:383:ALA:HB3	1:Bm:389:MET:HB3	1.83	0.60
1:Ac:171:LYS:HD3	1:Ac:407:VAL:CG2	2.31	0.60
1:Ad:31:LEU:HD22	1:Ad:94:VAL:HG21	1.83	0.60
1:Aj:488:MET:CE	1:Aj:493:ILE:CG2	2.78	0.60
1:Bg:498:LYS:HD2	1:Bg:501:ARG:NH2	2.15	0.60
1:Bm:171:LYS:HD3	1:Bm:407:VAL:CG2	2.31	0.60
2:Af:96:GLU:CA	2:Al:5:PRO:HD3	2.31	0.60
1:Ai:47:PRO:HG2	1:Au:69:MET:HG2	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ai:183:LEU:HD21	1:Au:284:ARG:CZ	2.31	0.60
1:Ap:178:GLU:HG2	1:Ap:378:VAL:CG1	2.31	0.60
1:Au:169:VAL:HG23	1:Au:169:VAL:O	2.00	0.60
1:Au:183:LEU:HD21	1:Bg:284:ARG:CZ	2.31	0.60
1:Ad:186:GLU:CD	1:Ad:380:LYS:CB	2.75	0.60
1:Ap:186:GLU:CD	1:Ap:380:LYS:CB	2.75	0.60
2:Bd:44:GLY:HA2	2:Bp:96:GLU:CD	2.27	0.60
1:Bn:7:LYS:HD2	1:Bn:66:PHE:CD2	2.36	0.60
1:Bn:31:LEU:HD22	1:Bn:94:VAL:HG21	1.82	0.60
2:Af:64:ILE:HG22	2:Al:3:ILE:CG1	2.22	0.60
1:Ai:479:ASN:CB	1:Ai:491:MET:CE	2.76	0.60
1:Av:7:LYS:HE2	1:Av:15:LYS:CD	2.29	0.60
1:Ba:171:LYS:HD3	1:Ba:407:VAL:CB	2.27	0.60
1:Bb:15:LYS:HE2	1:Bb:66:PHE:HB2	1.83	0.60
1:Bg:46:ALA:HB3	1:Bm:76:GLU:CD	2.21	0.60
2:Bj:96:GLU:HB2	2:Bp:5:PRO:N	2.12	0.60
2:Af:3:ILE:H	2:Ar:94:ILE:C	2.09	0.60
2:Af:94:ILE:HG22	2:Al:3:ILE:HB	1.81	0.60
1:Au:171:LYS:HD3	1:Au:407:VAL:CG2	2.31	0.60
1:Av:261:THR:HG23	2:Ax:29:GLY:H	1.67	0.60
1:Ba:40:LEU:HG	1:Ba:59:GLU:HG2	1.82	0.60
1:Ba:383:ALA:HB3	1:Ba:389:MET:HB3	1.83	0.60
2:Bj:55:LYS:CE	2:Bp:51:ASN:HD22	2.14	0.60
2:Bj:96:GLU:CA	2:Bp:5:PRO:HD3	2.30	0.60
1:Bn:178:GLU:HG2	1:Bn:378:VAL:CG1	2.31	0.60
1:Ac:8:PHE:CZ	1:Ao:25:ASP:CB	2.85	0.60
1:Ac:46:ALA:HB3	1:Ai:76:GLU:CD	2.24	0.60
1:Ac:428:ASP:O	1:Ac:430:ARG:HG2	2.02	0.60
1:Ad:7:LYS:HD2	1:Ad:66:PHE:CD2	2.36	0.60
2:Ax:96:GLU:CD	2:Bj:44:GLY:HA2	2.27	0.60
1:Bm:40:LEU:HG	1:Bm:59:GLU:HG2	1.82	0.60
1:Ac:31:LEU:HG	1:Ac:454:ILE:HG12	1.83	0.60
1:Ai:171:LYS:HD3	1:Ai:407:VAL:CG2	2.31	0.60
1:Ai:498:LYS:HD2	1:Ai:501:ARG:NH2	2.15	0.60
1:Aj:31:LEU:HD22	1:Aj:94:VAL:HG21	1.83	0.60
1:Aj:186:GLU:CD	1:Aj:380:LYS:CB	2.75	0.60
2:Al:96:GLU:HB2	2:Ax:5:PRO:N	2.13	0.60
1:Au:428:ASP:O	1:Au:430:ARG:HG2	2.02	0.60
1:Bb:31:LEU:HD22	1:Bb:94:VAL:HG21	1.82	0.60
1:Bm:428:ASP:O	1:Bm:430:ARG:HG2	2.02	0.60
1:Ac:171:LYS:HD2	1:Ac:407:VAL:HB	1.80	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ao:37:ASN:HB3	1:Ao:51:LYS:HE2	1.84	0.59
1:Ba:37:ASN:HB3	1:Ba:51:LYS:HE2	1.84	0.59
1:Ba:428:ASP:O	1:Ba:430:ARG:HG2	2.02	0.59
1:Bg:41:ASP:CG	1:Bm:69:MET:CE	2.43	0.59
2:Af:44:GLY:HA2	2:Ar:96:GLU:CD	2.27	0.59
1:Aj:261:THR:HG23	2:Al:29:GLY:H	1.67	0.59
1:Ao:161:LEU:HD12	1:Ao:161:LEU:C	2.27	0.59
1:Ap:7:LYS:HD2	1:Ap:66:PHE:CD2	2.36	0.59
1:Au:47:PRO:HG2	1:Bg:69:MET:HG2	1.84	0.59
1:Av:7:LYS:HD2	1:Av:66:PHE:CD2	2.36	0.59
2:Bd:74:LYS:CD	2:Bp:92:LEU:HD12	2.28	0.59
1:Ac:161:LEU:HD12	1:Ac:161:LEU:C	2.27	0.59
2:Af:3:ILE:HA	2:Ar:95:VAL:CB	2.32	0.59
1:Ao:31:LEU:HG	1:Ao:454:ILE:HG12	1.83	0.59
1:Ap:261:THR:HG23	2:Ar:29:GLY:H	1.67	0.59
1:Ba:381:VAL:O	1:Ba:389:MET:SD	2.61	0.59
1:Ba:386:GLU:CG	1:Ba:389:MET:HE3	2.30	0.59
1:Bb:7:LYS:HD2	1:Bb:66:PHE:CD2	2.36	0.59
1:Bm:168:LYS:NZ	1:Bm:187:LEU:CD1	2.53	0.59
1:Ac:386:GLU:CG	1:Ac:389:MET:HE3	2.30	0.59
1:Ai:31:LEU:HG	1:Ai:454:ILE:HG12	1.83	0.59
1:Au:31:LEU:HG	1:Au:454:ILE:HG12	1.83	0.59
1:Au:37:ASN:HB3	1:Au:51:LYS:HE2	1.84	0.59
2:Ax:74:LYS:NZ	2:Ax:76:GLU:CB	2.51	0.59
1:Ac:381:VAL:O	1:Ac:389:MET:SD	2.61	0.59
1:Ai:381:VAL:O	1:Ai:389:MET:SD	2.61	0.59
1:Av:115:ASP:HB3	1:Av:435:ASP:HB2	1.85	0.59
1:Bg:479:ASN:HD22	1:Bg:491:MET:CE	2.15	0.59
1:Bh:186:GLU:CD	1:Bh:380:LYS:CB	2.75	0.59
1:Bm:37:ASN:HB3	1:Bm:51:LYS:HE2	1.84	0.59
1:Bn:186:GLU:CD	1:Bn:380:LYS:CB	2.75	0.59
1:Ac:73:MET:HE2	1:Ao:39:VAL:CG1	2.28	0.59
1:Ao:381:VAL:O	1:Ao:389:MET:SD	2.60	0.59
1:Ba:73:MET:HE2	1:Bm:39:VAL:CG1	2.30	0.59
1:Ba:161:LEU:HD12	1:Ba:161:LEU:C	2.27	0.59
1:Bg:171:LYS:HD3	1:Bg:407:VAL:CG2	2.31	0.59
1:Bg:428:ASP:O	1:Bg:430:ARG:HG2	2.02	0.59
1:Bh:27:VAL:HG12	1:Bh:90:THR:HG23	1.85	0.59
1:Bh:115:ASP:HB3	1:Bh:435:ASP:HB2	1.85	0.59
1:Bb:261:THR:HG23	2:Bd:29:GLY:H	1.67	0.59
1:Bg:381:VAL:O	1:Bg:389:MET:SD	2.60	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bh:15:LYS:HE2	1:Bh:66:PHE:HB2	1.83	0.59
1:Bn:115:ASP:HB3	1:Bn:435:ASP:HB2	1.85	0.59
1:Ac:498:LYS:HD2	1:Ac:501:ARG:NH2	2.15	0.59
1:Ad:261:THR:HG23	2:Af:29:GLY:H	1.67	0.59
2:Af:6:LEU:HD23	2:Ar:93:ALA:CA	2.33	0.59
1:Ai:381:VAL:HG23	1:Ai:393:LYS:NZ	2.09	0.59
1:Aj:7:LYS:HD2	1:Aj:66:PHE:CD2	2.36	0.59
1:Aj:15:LYS:HE2	1:Aj:66:PHE:HB2	1.83	0.59
1:Aj:115:ASP:HB3	1:Aj:435:ASP:HB2	1.85	0.59
1:Bb:186:GLU:CD	1:Bb:380:LYS:CB	2.75	0.59
1:Bn:177:VAL:HG13	1:Bn:400:LEU:CD1	2.28	0.59
1:Ac:171:LYS:HD3	1:Ac:407:VAL:CB	2.27	0.59
1:Ai:139:SER:HA	1:Ai:171:LYS:HZ1	1.66	0.59
1:Ao:466:ALA:O	1:Ao:470:LYS:HG3	2.03	0.59
1:Bg:41:ASP:HB2	1:Bm:69:MET:HE3	1.45	0.59
1:Bn:27:VAL:HG12	1:Bn:90:THR:HG23	1.85	0.59
1:Ac:37:ASN:HB3	1:Ac:51:LYS:HE2	1.84	0.59
1:Ac:466:ALA:O	1:Ac:470:LYS:HG3	2.03	0.59
1:Ad:36:ARG:HH12	1:Ap:13:ARG:HH12	1.44	0.59
1:Ad:517:THR:CG2	1:Aj:39:VAL:HG23	2.33	0.59
1:Ai:161:LEU:HD12	1:Ai:161:LEU:C	2.27	0.59
1:Ai:183:LEU:HD23	1:Au:281:PHE:CZ	2.37	0.59
1:Ai:466:ALA:O	1:Ai:470:LYS:HG3	2.03	0.59
1:Aj:27:VAL:HG12	1:Aj:90:THR:HG23	1.85	0.59
1:Aj:488:MET:HE1	1:Aj:493:ILE:HG21	1.85	0.59
1:Ao:281:PHE:CZ	1:Ba:183:LEU:HD23	2.38	0.59
1:Au:381:VAL:O	1:Au:389:MET:SD	2.61	0.59
2:Ax:96:GLU:CA	2:Bj:5:PRO:HD3	2.30	0.59
1:Ba:479:ASN:CB	1:Ba:491:MET:CE	2.76	0.59
1:Bg:183:LEU:HD21	1:Bm:284:ARG:CZ	2.32	0.59
1:Bh:261:THR:HG23	2:Bj:29:GLY:H	1.67	0.59
1:Ao:428:ASP:O	1:Ao:430:ARG:HG2	2.02	0.58
1:Au:395:ARG:O	1:Au:398:ASP:HB2	2.03	0.58
1:Bg:37:ASN:HB3	1:Bg:51:LYS:HE2	1.84	0.58
1:Bg:183:LEU:HD23	1:Bm:281:PHE:CZ	2.37	0.58
1:Bm:381:VAL:O	1:Bm:389:MET:SD	2.60	0.58
1:Bn:4:LYS:CE	1:Bn:523:ASP:OD1	2.50	0.58
1:Ac:53:GLY:HA3	1:Ac:90:THR:HG22	1.85	0.58
2:Af:51:ASN:HD22	2:Ar:55:LYS:CE	2.15	0.58
1:Ai:39:VAL:CG1	1:Au:73:MET:HE2	2.31	0.58
1:Ai:428:ASP:O	1:Ai:430:ARG:HG2	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ao:53:GLY:HA3	1:Ao:90:THR:HG22	1.85	0.58
1:Av:27:VAL:HG12	1:Av:90:THR:HG23	1.85	0.58
1:Av:186:GLU:CD	1:Av:380:LYS:CB	2.75	0.58
2:Bd:5:PRO:HD3	2:Bp:96:GLU:CA	2.32	0.58
2:Bj:37:ARG:HH22	2:Bp:76:GLU:CD	1.87	0.58
1:Ad:27:VAL:HG12	1:Ad:90:THR:HG23	1.85	0.58
1:Ao:27:VAL:HG12	1:Ao:90:THR:HB	1.86	0.58
1:Ao:395:ARG:O	1:Ao:398:ASP:HB2	2.03	0.58
1:Ao:479:ASN:CB	1:Ao:491:MET:CE	2.76	0.58
1:Au:171:LYS:HD2	1:Au:407:VAL:HB	1.80	0.58
1:Av:15:LYS:HE2	1:Av:66:PHE:HB2	1.83	0.58
2:Ax:55:LYS:CE	2:Bj:51:ASN:HD22	2.15	0.58
1:Ba:395:ARG:O	1:Ba:398:ASP:HB2	2.04	0.58
1:Ba:466:ALA:O	1:Ba:470:LYS:HG3	2.03	0.58
1:Bm:395:ARG:O	1:Bm:398:ASP:HB2	2.03	0.58
1:Bn:179:ASP:OD1	1:Bn:393:LYS:NZ	2.36	0.58
1:Ad:179:ASP:OD1	1:Ad:393:LYS:CE	2.52	0.58
1:Ad:488:MET:HE1	1:Ad:493:ILE:HG21	1.85	0.58
1:Aj:179:ASP:OD1	1:Aj:393:LYS:CE	2.52	0.58
1:Av:488:MET:HE1	1:Av:493:ILE:HG21	1.85	0.58
1:Ba:27:VAL:HG12	1:Ba:90:THR:HB	1.86	0.58
1:Bb:115:ASP:HB3	1:Bb:435:ASP:HB2	1.85	0.58
1:Bm:161:LEU:HD12	1:Bm:161:LEU:C	2.27	0.58
1:Ad:15:LYS:HE2	1:Ad:66:PHE:HB2	1.83	0.58
1:Ad:39:VAL:HG12	1:Ap:69:MET:HE3	1.82	0.58
1:Ai:37:ASN:HB3	1:Ai:51:LYS:HE2	1.84	0.58
1:Ai:479:ASN:HB3	1:Ai:491:MET:HE1	1.86	0.58
1:Au:466:ALA:O	1:Au:470:LYS:HG3	2.03	0.58
1:Bb:179:ASP:OD1	1:Bb:393:LYS:NZ	2.36	0.58
1:Bh:4:LYS:CE	1:Bh:523:ASP:OD1	2.50	0.58
1:Bn:261:THR:HG23	2:Bp:29:GLY:H	1.67	0.58
2:Ar:5:PRO:CA	2:Bd:96:GLU:CD	2.69	0.58
1:Bm:27:VAL:HG12	1:Bm:90:THR:HB	1.86	0.58
1:Au:161:LEU:HD12	1:Au:161:LEU:C	2.27	0.58
1:Au:183:LEU:HD23	1:Bg:281:PHE:CZ	2.38	0.58
1:Ba:53:GLY:HA3	1:Ba:90:THR:HG22	1.85	0.58
1:Bb:27:VAL:HG12	1:Bb:90:THR:HG23	1.85	0.58
1:Bg:161:LEU:HD12	1:Bg:161:LEU:C	2.27	0.58
2:Bj:74:LYS:HZ1	2:Bj:76:GLU:CA	2.16	0.58
1:Ac:27:VAL:HG12	1:Ac:90:THR:HB	1.86	0.58
1:Ac:139:SER:HA	1:Ac:171:LYS:HZ1	1.65	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:479:ASN:HB3	1:Ac:491:MET:HE1	1.86	0.58
1:Au:479:ASN:HD22	1:Au:491:MET:CE	2.15	0.58
1:Bg:395:ARG:O	1:Bg:398:ASP:HB2	2.03	0.58
1:Bm:479:ASN:HB3	1:Bm:491:MET:HE1	1.86	0.58
1:Ac:479:ASN:HD22	1:Ac:491:MET:CE	2.15	0.58
1:Ai:53:GLY:HA3	1:Ai:90:THR:HG22	1.85	0.58
1:Ao:73:MET:HE2	1:Ba:39:VAL:CG1	2.30	0.58
1:Av:4:LYS:CE	1:Av:523:ASP:OD1	2.50	0.58
1:Bh:179:ASP:OD1	1:Bh:393:LYS:NZ	2.36	0.58
1:Bm:466:ALA:O	1:Bm:470:LYS:HG3	2.03	0.58
1:Ac:69:MET:HG2	1:Ao:47:PRO:HG2	1.85	0.58
1:Ac:168:LYS:HZ2	1:Ac:187:LEU:HG	1.67	0.58
2:Af:3:ILE:CB	2:Ar:94:ILE:HG22	2.33	0.58
1:Ai:395:ARG:O	1:Ai:398:ASP:HB2	2.03	0.58
1:Ao:69:MET:HE3	1:Ba:41:ASP:HB2	1.43	0.58
1:Au:479:ASN:HB3	1:Au:491:MET:HE1	1.86	0.58
2:Ax:92:LEU:HD12	2:Bj:74:LYS:CD	2.29	0.58
1:Bg:466:ALA:O	1:Bg:470:LYS:HG3	2.03	0.58
1:Bg:479:ASN:HB3	1:Bg:491:MET:HE1	1.86	0.58
1:Bm:7:LYS:HE3	1:Bm:11:ASP:CG	2.29	0.58
1:Ac:395:ARG:O	1:Ac:398:ASP:HB2	2.04	0.57
1:Ad:115:ASP:HB3	1:Ad:435:ASP:HB2	1.85	0.57
1:Ai:7:LYS:HE3	1:Ai:11:ASP:CG	2.29	0.57
2:Al:94:ILE:HG22	2:Ax:3:ILE:HB	1.84	0.57
1:Ao:479:ASN:HD22	1:Ao:491:MET:CE	2.15	0.57
1:Ap:488:MET:HE1	1:Ap:493:ILE:HG21	1.85	0.57
1:Bb:179:ASP:OD1	1:Bb:393:LYS:CE	2.52	0.57
2:Af:93:ALA:HA	2:Al:6:LEU:HD23	1.86	0.57
1:Ao:139:SER:HA	1:Ao:171:LYS:HZ1	1.68	0.57
1:Ao:421:ARG:NE	1:Ao:474:GLY:O	2.37	0.57
1:Ao:479:ASN:HB3	1:Ao:491:MET:HE1	1.86	0.57
1:Ap:27:VAL:HG12	1:Ap:90:THR:HG23	1.85	0.57
1:Ap:179:ASP:OD1	1:Ap:393:LYS:CE	2.52	0.57
1:Av:179:ASP:OD1	1:Av:393:LYS:CE	2.52	0.57
1:Ba:281:PHE:CZ	1:Bm:183:LEU:HD23	2.39	0.57
1:Ap:179:ASP:OD1	1:Ap:393:LYS:NZ	2.36	0.57
1:Au:41:ASP:HB2	1:Bg:69:MET:HE3	1.44	0.57
2:Bd:3:ILE:N	2:Bp:95:VAL:CA	2.67	0.57
2:Bd:51:ASN:ND2	2:Bp:50:GLU:HB2	2.03	0.57
1:Bh:177:VAL:HG13	1:Bh:400:LEU:CD1	2.29	0.57
2:Bj:94:ILE:HG22	2:Bp:3:ILE:HB	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:29:VAL:HB	1:Ap:518:GLU:OE1	2.05	0.57
1:Ad:179:ASP:OD1	1:Ad:393:LYS:NZ	2.36	0.57
1:Aj:179:ASP:OD1	1:Aj:393:LYS:NZ	2.36	0.57
2:Al:96:GLU:CA	2:Ax:5:PRO:HD3	2.30	0.57
1:Au:421:ARG:NE	1:Au:474:GLY:O	2.37	0.57
1:Ba:479:ASN:HB3	1:Ba:491:MET:HE1	1.86	0.57
2:Bd:51:ASN:HD22	2:Bp:55:LYS:CE	2.15	0.57
1:Bg:7:LYS:HE3	1:Bg:11:ASP:CG	2.29	0.57
1:Bg:27:VAL:HG12	1:Bg:90:THR:HB	1.86	0.57
1:Bn:15:LYS:HE2	1:Bn:66:PHE:HB2	1.83	0.57
1:Bn:179:ASP:OD1	1:Bn:393:LYS:CE	2.52	0.57
2:Af:96:GLU:HB3	2:Al:5:PRO:HB3	1.84	0.57
1:Ao:7:LYS:HE3	1:Ao:11:ASP:CG	2.29	0.57
1:Ao:400:LEU:O	1:Ao:404:ARG:HG3	2.05	0.57
1:Au:479:ASN:CB	1:Au:491:MET:CE	2.76	0.57
1:Ba:7:LYS:HE3	1:Ba:11:ASP:CG	2.29	0.57
1:Bg:39:VAL:CG1	1:Bm:73:MET:HE2	2.31	0.57
1:Bg:421:ARG:NE	1:Bg:474:GLY:O	2.37	0.57
1:Bh:179:ASP:OD1	1:Bh:393:LYS:CE	2.52	0.57
1:Bm:53:GLY:HA3	1:Bm:90:THR:HG22	1.85	0.57
1:Bn:488:MET:HE1	1:Bn:493:ILE:HG21	1.86	0.57
1:Ac:421:ARG:NE	1:Ac:474:GLY:O	2.37	0.57
1:Ai:27:VAL:HG12	1:Ai:90:THR:HB	1.86	0.57
1:Ai:479:ASN:HD22	1:Ai:491:MET:CE	2.15	0.57
1:Ao:8:PHE:CZ	1:Ba:25:ASP:CB	2.88	0.57
1:Av:179:ASP:OD1	1:Av:393:LYS:NZ	2.36	0.57
1:Bb:488:MET:HE1	1:Bb:493:ILE:HG21	1.85	0.57
1:Bg:47:PRO:HG2	1:Bm:69:MET:HG2	1.83	0.57
1:Bg:400:LEU:O	1:Bg:404:ARG:HG3	2.05	0.57
1:Bm:166:MET:SD	1:Bm:175:ILE:CD1	2.93	0.57
2:Af:95:VAL:HG12	2:Al:1:MET:CB	2.34	0.57
1:Au:7:LYS:HE3	1:Au:11:ASP:CG	2.29	0.57
2:Ax:94:ILE:HG22	2:Bj:3:ILE:HB	1.84	0.57
1:Ba:421:ARG:NE	1:Ba:474:GLY:O	2.37	0.57
1:Ba:479:ASN:HD22	1:Ba:491:MET:CE	2.15	0.57
1:Bb:5:ASP:HB2	1:Bb:524:LEU:HG	1.87	0.57
1:Bh:488:MET:HE1	1:Bh:493:ILE:HG21	1.85	0.57
1:Ac:400:LEU:O	1:Ac:404:ARG:HG3	2.05	0.57
1:Ap:5:ASP:HB2	1:Ap:524:LEU:HG	1.87	0.57
2:Af:85:ILE:HG21	2:Ar:92:LEU:HB3	1.86	0.57
2:Ar:4:ARG:HB3	2:Bd:94:ILE:CD1	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1: Au:27: VAL:HG12	1: Au:90: THR:HB	1.86	0.57
1: Av:13: ARG:HH12	1: Bh:36: ARG:HH11	1.38	0.57
1: Ba:400: LEU:HD12	1: Ba:400: LEU:C	2.30	0.57
1: Bg:53: GLY:HA3	1: Bg:90: THR:HG22	1.85	0.57
1: Bh:517: THR:CG2	1: Bn:39: VAL:HG23	2.34	0.57
1: Ai:385: THR:HG22	1: Ai:387: VAL:HG12	1.86	0.57
1: Aj:4: LYS:CE	1: Aj:523: ASP:OD1	2.50	0.57
1: Au:53: GLY:HA3	1: Au:90: THR:HG22	1.86	0.57
1: Ba:400: LEU:O	1: Ba:404: ARG:HG3	2.05	0.57
1: Ac:165: ALA:HA	1: Ac:168: LYS:HD3	1.87	0.56
1: Ac:281: PHE:CZ	1: Ao:183: LEU:HD23	2.40	0.56
1: Ao:400: LEU:HD12	1: Ao:400: LEU:C	2.30	0.56
1: Ap:115: ASP:HB3	1: Ap:435: ASP:HB2	1.85	0.56
1: Au:39: VAL:CG1	1: Bg:73: MET:HE2	2.31	0.56
1: Au:385: THR:HG22	1: Au:387: VAL:HG12	1.86	0.56
1: Au:400: LEU:HD12	1: Au:400: LEU:C	2.30	0.56
1: Bm:165: ALA:HA	1: Bm:168: LYS:HD3	1.87	0.56
1: Bn:5: ASP:HB2	1: Bn:524: LEU:HG	1.87	0.56
1: Ac:7: LYS:HE3	1: Ac:11: ASP:CG	2.29	0.56
1: Ao:165: ALA:HA	1: Ao:168: LYS:HD3	1.87	0.56
1: Ap:488: MET:CE	1: Ap:493: ILE:HG21	2.36	0.56
1: Ac:166: MET:SD	1: Ac:175: ILE:CD1	2.93	0.56
1: Ac:400: LEU:HD12	1: Ac:400: LEU:C	2.30	0.56
2: Af:49: LEU:O	2: Al:51: ASN:ND2	2.39	0.56
2: Af:96: GLU:CG	2: Al:5: PRO:O	2.52	0.56
1: Ai:400: LEU:HD12	1: Ai:400: LEU:C	2.30	0.56
1: Ai:400: LEU:O	1: Ai:404: ARG:HG3	2.05	0.56
1: Ai:421: ARG:NE	1: Ai:474: GLY:O	2.37	0.56
1: Au:389: MET:HB2	1: Au:393: LYS:HE2	1.87	0.56
1: Av:518: GLU:HB2	1: Bh:36: ARG:HB2	1.88	0.56
1: Ba:8: PHE:CZ	1: Bm:25: ASP:CB	2.88	0.56
1: Ba:165: ALA:HA	1: Ba:168: LYS:HD3	1.87	0.56
1: Bb:488: MET:CE	1: Bb:493: ILE:HG21	2.36	0.56
1: Bg:165: ALA:HA	1: Bg:168: LYS:HD3	1.87	0.56
1: Bg:166: MET:SD	1: Bg:175: ILE:CD1	2.93	0.56
1: Bg:400: LEU:HD12	1: Bg:400: LEU:C	2.30	0.56
1: Bh:488: MET:CE	1: Bh:493: ILE:CD1	2.80	0.56
1: Bm:381: VAL:HB	1: Bm:393: LYS:CE	2.35	0.56
1: Bm:400: LEU:HD12	1: Bm:400: LEU:C	2.30	0.56
1: Bm:400: LEU:O	1: Bm:404: ARG:HG3	2.05	0.56
1: Bm:421: ARG:NE	1: Bm:474: GLY:O	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bn:488:MET:CE	1:Bn:493:ILE:HG21	2.36	0.56
1:Ac:115:ASP:HB2	1:Ac:436:GLN:HG3	1.88	0.56
1:Ai:171:LYS:HD2	1:Ai:407:VAL:HB	1.80	0.56
1:Ao:115:ASP:HB2	1:Ao:436:GLN:HG3	1.88	0.56
1:Bh:518:GLU:HB2	1:Bn:36:ARG:HB2	1.87	0.56
1:Ac:69:MET:HE3	1:Ao:41:ASP:HB2	1.41	0.56
1:Ai:389:MET:HB2	1:Ai:393:LYS:HE2	1.88	0.56
1:Av:177:VAL:HG12	1:Av:379:ILE:HB	1.87	0.56
1:Ba:115:ASP:HB2	1:Ba:436:GLN:HG3	1.88	0.56
1:Bg:171:LYS:HD2	1:Bg:407:VAL:HB	1.80	0.56
1:Bg:385:THR:HG22	1:Bg:387:VAL:HG12	1.86	0.56
1:Ac:385:THR:HG22	1:Ac:387:VAL:HG12	1.86	0.56
1:Ac:389:MET:HB2	1:Ac:393:LYS:HE2	1.87	0.56
1:Ad:5:ASP:HB2	1:Ad:524:LEU:HG	1.87	0.56
1:Au:400:LEU:O	1:Au:404:ARG:HG3	2.05	0.56
1:Bg:115:ASP:HB2	1:Bg:436:GLN:HG3	1.88	0.56
1:Bg:389:MET:HB2	1:Bg:393:LYS:HE2	1.88	0.56
1:Aj:518:GLU:HB2	1:Av:36:ARG:HB2	1.88	0.56
1:Au:115:ASP:HB2	1:Au:436:GLN:HG3	1.88	0.56
1:Av:517:THR:CG2	1:Bh:39:VAL:HG23	2.35	0.56
1:Bg:157:THR:CA	1:Bg:160:LYS:NZ	2.56	0.56
1:Bh:177:VAL:HG12	1:Bh:379:ILE:HB	1.87	0.56
1:Bm:115:ASP:HB2	1:Bm:436:GLN:HG3	1.88	0.56
1:Ai:115:ASP:HB2	1:Ai:436:GLN:HG3	1.88	0.56
1:Au:41:ASP:CG	1:Bg:69:MET:CE	2.44	0.56
2:Ax:95:VAL:CA	2:Bj:3:ILE:N	2.67	0.56
1:Bm:479:ASN:HD22	1:Bm:491:MET:CE	2.15	0.56
2:Af:5:PRO:CG	2:Ar:96:GLU:CG	2.84	0.56
1:Ai:165:ALA:HA	1:Ai:168:LYS:HD3	1.87	0.56
1:Av:488:MET:CE	1:Av:493:ILE:HG21	2.36	0.56
2:Bd:4:ARG:HB3	2:Bp:94:ILE:CD1	2.21	0.56
1:Bh:5:ASP:HB2	1:Bh:524:LEU:HG	1.87	0.56
1:Ai:25:ASP:CB	1:Au:8:PHE:CZ	2.89	0.56
1:Aj:177:VAL:HG12	1:Aj:379:ILE:HB	1.88	0.56
1:Ao:69:MET:HG2	1:Ba:47:PRO:HG2	1.85	0.56
1:Ba:171:LYS:HD2	1:Ba:407:VAL:HB	1.80	0.56
1:Bm:385:THR:HG22	1:Bm:387:VAL:HG12	1.86	0.56
1:Bn:177:VAL:HG12	1:Bn:379:ILE:HB	1.88	0.56
1:Ac:39:VAL:CG1	1:Ai:73:MET:HE2	2.32	0.55
1:Ac:161:LEU:CA	1:Ac:164:GLU:HG2	2.36	0.55
1:Ad:518:GLU:HB2	1:Aj:36:ARG:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Af:39:GLU:HA	2:Af:64:ILE:HA	1.88	0.55
2:Af:55:LYS:HE3	2:Al:51:ASN:ND2	2.21	0.55
1:Aj:5:ASP:HB2	1:Aj:524:LEU:HG	1.87	0.55
1:Aj:488:MET:CE	1:Aj:493:ILE:HG21	2.36	0.55
2:Al:39:GLU:HA	2:Al:64:ILE:HA	1.88	0.55
1:Ao:166:MET:SD	1:Ao:175:ILE:CD1	2.93	0.55
1:Ao:389:MET:HB2	1:Ao:393:LYS:HE2	1.88	0.55
1:Ap:36:ARG:HB2	1:Bb:518:GLU:HB2	1.88	0.55
1:Ba:161:LEU:CA	1:Ba:164:GLU:HG2	2.36	0.55
1:Ba:381:VAL:HB	1:Ba:393:LYS:CE	2.35	0.55
1:Bh:39:VAL:HG22	1:Bh:49:ILE:HG13	1.88	0.55
1:Ai:161:LEU:HA	1:Ai:164:GLU:CD	2.31	0.55
1:Ai:166:MET:SD	1:Ai:175:ILE:CD1	2.93	0.55
1:Aj:517:THR:CG2	1:Av:39:VAL:HG23	2.35	0.55
1:Ao:171:LYS:HD3	1:Ao:407:VAL:HG21	1.88	0.55
1:Au:381:VAL:HB	1:Au:393:LYS:CE	2.35	0.55
1:Ba:69:MET:HG2	1:Bm:47:PRO:HG2	1.85	0.55
1:Ba:161:LEU:HA	1:Ba:164:GLU:CD	2.31	0.55
1:Bn:39:VAL:HG22	1:Bn:49:ILE:HG13	1.88	0.55
1:Ac:183:LEU:CD2	1:Ai:284:ARG:NH1	2.69	0.55
1:Ao:161:LEU:HA	1:Ao:164:GLU:CD	2.31	0.55
1:Ao:385:THR:HG22	1:Ao:387:VAL:HG12	1.86	0.55
1:Av:5:ASP:HB2	1:Av:524:LEU:HG	1.87	0.55
1:Av:39:VAL:HG22	1:Av:49:ILE:HG13	1.88	0.55
1:Ba:171:LYS:HD3	1:Ba:407:VAL:HG21	1.88	0.55
1:Bm:389:MET:HB2	1:Bm:393:LYS:HE2	1.88	0.55
1:Ai:381:VAL:HB	1:Ai:393:LYS:CE	2.34	0.55
1:Au:25:ASP:CB	1:Bg:8:PHE:CZ	2.89	0.55
1:Ba:389:MET:HB2	1:Ba:393:LYS:HE2	1.87	0.55
1:Bb:177:VAL:HG12	1:Bb:379:ILE:HB	1.88	0.55
1:Bg:168:LYS:NZ	1:Bg:187:LEU:CD1	2.53	0.55
1:Ad:4:LYS:CE	1:Ad:523:ASP:OD1	2.50	0.55
1:Ad:177:VAL:HG12	1:Ad:379:ILE:HB	1.87	0.55
2:Ar:5:PRO:HD3	2:Bd:96:GLU:CA	2.32	0.55
2:Ax:39:GLU:HA	2:Ax:64:ILE:HA	1.88	0.55
1:Bm:161:LEU:HA	1:Bm:164:GLU:CD	2.31	0.55
1:Ad:63:GLU:HB3	1:Ap:3:ALA:HB1	1.89	0.55
1:Ad:488:MET:CE	1:Ad:493:ILE:HG21	2.36	0.55
1:Aj:39:VAL:HG22	1:Aj:49:ILE:HG13	1.88	0.55
1:Ap:177:VAL:HG12	1:Ap:379:ILE:HB	1.87	0.55
2:Ar:39:GLU:HA	2:Ar:64:ILE:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Bj:39:GLU:HA	2:Bj:64:ILE:HA	1.88	0.55
1:Ac:521:VAL:HG11	1:Ao:60:ILE:CD1	2.32	0.55
2:Af:3:ILE:HD13	2:Ar:65:VAL:N	2.22	0.55
1:Au:165:ALA:HA	1:Au:168:LYS:HD3	1.87	0.55
1:Au:166:MET:SD	1:Au:175:ILE:CD1	2.93	0.55
1:Bg:161:LEU:HA	1:Bg:164:GLU:CD	2.31	0.55
1:Bg:161:LEU:CA	1:Bg:164:GLU:HG2	2.36	0.55
1:Bh:488:MET:CE	1:Bh:493:ILE:HG21	2.36	0.55
1:Ai:115:ASP:OD1	1:Ai:115:ASP:C	2.50	0.55
1:Ao:161:LEU:CA	1:Ao:164:GLU:HG2	2.36	0.55
1:Av:177:VAL:HG13	1:Av:400:LEU:CD1	2.28	0.55
1:Ba:385:THR:HG22	1:Ba:387:VAL:HG12	1.86	0.55
1:Bg:479:ASN:CB	1:Bg:491:MET:CE	2.76	0.55
2:Bj:50:GLU:HB2	2:Bp:51:ASN:ND2	2.04	0.55
1:Ac:161:LEU:HA	1:Ac:164:GLU:CD	2.31	0.55
1:Ai:381:VAL:CA	1:Ai:393:LYS:HZ3	2.17	0.55
2:Al:92:LEU:HD12	2:Ax:74:LYS:CD	2.29	0.55
1:Ap:39:VAL:HG23	1:Bb:517:THR:CG2	2.37	0.55
2:Ar:3:ILE:N	2:Bd:95:VAL:CA	2.69	0.55
1:Bg:25:ASP:CB	1:Bm:8:PHE:CZ	2.90	0.55
1:Ad:383:ALA:HB1	1:Ad:388:GLU:HB3	1.89	0.55
2:Al:93:ALA:CA	2:Ax:6:LEU:HD23	2.37	0.55
1:Ap:383:ALA:HB1	1:Ap:388:GLU:HB3	1.89	0.55
1:Bm:115:ASP:OD1	1:Bm:115:ASP:C	2.50	0.55
1:Bm:178:GLU:HB3	1:Bm:380:LYS:NZ	2.22	0.55
1:Ac:25:ASP:CB	1:Ai:8:PHE:CZ	2.90	0.54
1:Ac:171:LYS:CE	1:Ac:407:VAL:CB	2.59	0.54
1:Ap:39:VAL:HG22	1:Ap:49:ILE:HG13	1.88	0.54
1:Au:115:ASP:OD1	1:Au:115:ASP:C	2.50	0.54
2:Ax:74:LYS:NZ	2:Ax:76:GLU:CA	2.70	0.54
2:Bd:74:LYS:NZ	2:Bd:76:GLU:CA	2.70	0.54
2:Bj:74:LYS:NZ	2:Bj:76:GLU:CA	2.70	0.54
2:Bp:39:GLU:HA	2:Bp:64:ILE:HA	1.88	0.54
2:Af:95:VAL:CA	2:Al:3:ILE:N	2.67	0.54
1:Aj:69:MET:HE3	1:Av:39:VAL:HG12	1.80	0.54
2:Al:95:VAL:CG2	2:Ax:4:ARG:N	2.70	0.54
1:Ao:115:ASP:OD1	1:Ao:115:ASP:C	2.50	0.54
1:Bb:36:ARG:HB2	1:Bn:518:GLU:HB2	1.88	0.54
2:Bd:39:GLU:HA	2:Bd:64:ILE:HA	1.88	0.54
1:Bg:178:GLU:HB3	1:Bg:380:LYS:NZ	2.22	0.54
2:Bj:93:ALA:CA	2:Bp:6:LEU:HD23	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bm:161:LEU:CA	1:Bm:164:GLU:HG2	2.36	0.54
1:Ac:183:LEU:HD23	1:Ai:281:PHE:HZ	1.72	0.54
1:Ac:434:GLU:HA	1:Ac:437:ASN:HB2	1.88	0.54
1:Ad:36:ARG:HB2	1:Ap:518:GLU:HB2	1.90	0.54
1:Ap:4:LYS:CE	1:Ap:523:ASP:OD1	2.50	0.54
1:Av:488:MET:CE	1:Av:493:ILE:CD1	2.80	0.54
1:Ba:178:GLU:HB3	1:Ba:380:LYS:NZ	2.22	0.54
1:Bb:383:ALA:HB1	1:Bb:388:GLU:HB3	1.89	0.54
1:Ac:171:LYS:HD3	1:Ac:407:VAL:HG21	1.89	0.54
1:Ad:39:VAL:HG22	1:Ad:49:ILE:HG13	1.88	0.54
1:Ai:434:GLU:HA	1:Ai:437:ASN:HB2	1.88	0.54
1:Ao:381:VAL:HB	1:Ao:393:LYS:CE	2.35	0.54
1:Ba:76:GLU:CD	1:Bm:46:ALA:HB3	2.20	0.54
1:Bg:381:VAL:HB	1:Bg:393:LYS:CE	2.35	0.54
1:Bn:383:ALA:HB1	1:Bn:388:GLU:HB3	1.89	0.54
2:Af:4:ARG:N	2:Ar:95:VAL:HG22	2.22	0.54
1:Aj:383:ALA:HB1	1:Aj:388:GLU:HB3	1.89	0.54
1:Aj:518:GLU:OE1	1:Av:29:VAL:HB	2.07	0.54
1:Ao:386:GLU:CB	1:Ao:389:MET:HE3	2.37	0.54
1:Au:178:GLU:HB3	1:Au:380:LYS:NZ	2.22	0.54
1:Ba:166:MET:SD	1:Ba:175:ILE:CD1	2.93	0.54
1:Bb:39:VAL:HG23	1:Bn:517:THR:CG2	2.37	0.54
1:Bb:39:VAL:HG11	1:Bn:69:MET:HE2	1.90	0.54
1:Bh:69:MET:HE2	1:Bn:39:VAL:HG11	1.90	0.54
1:Ad:518:GLU:OE1	1:Aj:29:VAL:HB	2.08	0.54
2:Af:5:PRO:CG	2:Ar:96:GLU:HG2	2.37	0.54
1:Ai:161:LEU:CA	1:Ai:164:GLU:HG2	2.36	0.54
1:Ai:178:GLU:HB3	1:Ai:380:LYS:NZ	2.22	0.54
1:Ao:171:LYS:HD2	1:Ao:407:VAL:HB	1.80	0.54
1:Au:161:LEU:CA	1:Au:164:GLU:HG2	2.36	0.54
1:Ba:386:GLU:CB	1:Ba:389:MET:HE3	2.37	0.54
1:Bb:4:LYS:CE	1:Bb:523:ASP:OD1	2.50	0.54
1:Bh:518:GLU:OE1	1:Bn:29:VAL:HB	2.07	0.54
2:Ar:4:ARG:N	2:Bd:95:VAL:CG2	2.71	0.54
1:Au:161:LEU:HA	1:Au:164:GLU:CD	2.31	0.54
1:Au:171:LYS:HD3	1:Au:407:VAL:HG21	1.89	0.54
2:Ax:93:ALA:CA	2:Bj:6:LEU:HD23	2.37	0.54
1:Bm:434:GLU:HA	1:Bm:437:ASN:HB2	1.89	0.54
1:Ao:178:GLU:HB3	1:Ao:380:LYS:NZ	2.22	0.54
1:Ao:434:GLU:HA	1:Ao:437:ASN:HB2	1.88	0.54
1:Ap:488:MET:CE	1:Ap:493:ILE:CD1	2.80	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bg:171:LYS:HD3	1:Bg:407:VAL:HG21	1.88	0.54
1:Ac:178:GLU:HB3	1:Ac:380:LYS:NZ	2.22	0.54
1:Ac:381:VAL:HB	1:Ac:393:LYS:CE	2.35	0.54
1:Ad:69:MET:HE2	1:Aj:39:VAL:HG11	1.90	0.54
2:Af:59:VAL:HG21	2:Af:94:ILE:HD11	1.90	0.54
1:Ai:171:LYS:HD3	1:Ai:407:VAL:HG21	1.89	0.54
1:Ai:482:THR:C	1:Ai:484:GLU:OE1	2.51	0.54
1:Ao:157:THR:CA	1:Ao:160:LYS:NZ	2.55	0.54
1:Ap:177:VAL:HG13	1:Ap:400:LEU:CD1	2.29	0.54
2:Ar:59:VAL:HG21	2:Ar:94:ILE:HD11	1.90	0.54
1:Av:69:MET:HE3	1:Bh:39:VAL:HG12	1.80	0.54
1:Av:518:GLU:OE1	1:Bh:29:VAL:HB	2.08	0.54
2:Bd:59:VAL:HG21	2:Bd:94:ILE:HD11	1.90	0.54
1:Ad:39:VAL:HG23	1:Ap:517:THR:CG2	2.37	0.54
1:Ap:39:VAL:HG11	1:Bb:69:MET:HE2	1.90	0.54
1:Au:434:GLU:HA	1:Au:437:ASN:HB2	1.88	0.54
2:Bj:95:VAL:CA	2:Bp:3:ILE:N	2.70	0.54
1:Bm:171:LYS:HD3	1:Bm:407:VAL:HG21	1.89	0.54
1:Ap:29:VAL:HB	1:Bb:518:GLU:OE1	2.07	0.53
1:Bb:29:VAL:HB	1:Bn:518:GLU:OE1	2.08	0.53
1:Bg:467:ASN:HD22	1:Bh:464:VAL:CG1	2.16	0.53
1:Ac:386:GLU:CB	1:Ac:389:MET:HE3	2.38	0.53
2:Ax:95:VAL:CG2	2:Bj:4:ARG:N	2.71	0.53
1:Ba:434:GLU:HA	1:Ba:437:ASN:HB2	1.88	0.53
1:Bb:39:VAL:HG22	1:Bb:49:ILE:HG13	1.88	0.53
1:Bg:115:ASP:OD1	1:Bg:115:ASP:C	2.50	0.53
1:Bg:434:GLU:HA	1:Bg:437:ASN:HB2	1.88	0.53
1:Bh:383:ALA:HB1	1:Bh:388:GLU:HB3	1.89	0.53
2:Bj:59:VAL:HG21	2:Bj:94:ILE:HD11	1.90	0.53
1:Bm:157:THR:CA	1:Bm:160:LYS:NZ	2.56	0.53
1:Bm:386:GLU:CB	1:Bm:389:MET:HE3	2.37	0.53
1:Ac:37:ASN:HB2	1:Ac:49:ILE:CG2	2.39	0.53
2:Af:95:VAL:HG12	2:Al:1:MET:CG	2.39	0.53
1:Ap:7:LYS:CD	1:Ap:66:PHE:CD2	2.92	0.53
1:Au:482:THR:C	1:Au:484:GLU:OE1	2.51	0.53
1:Av:428:ASP:OD1	1:Av:429:LEU:N	2.42	0.53
2:Ax:59:VAL:HG21	2:Ax:94:ILE:HD11	1.90	0.53
1:Bb:58:ARG:HA	1:Bb:75:LYS:HD3	1.91	0.53
1:Bh:58:ARG:HA	1:Bh:75:LYS:HD3	1.90	0.53
1:Bm:171:LYS:HD2	1:Bm:407:VAL:HB	1.80	0.53
1:Bn:58:ARG:HA	1:Bn:75:LYS:HD3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Bp:59:VAL:HG21	2:Bp:94:ILE:HD11	1.90	0.53
1:Ac:76:GLU:CD	1:Ao:46:ALA:HB3	2.20	0.53
2:Af:94:ILE:C	2:Al:3:ILE:N	2.62	0.53
1:Aj:69:MET:HE2	1:Av:39:VAL:HG11	1.90	0.53
2:Al:59:VAL:HG21	2:Al:94:ILE:HD11	1.90	0.53
2:Al:95:VAL:CA	2:Ax:3:ILE:N	2.68	0.53
2:Ar:4:ARG:CB	2:Bd:94:ILE:HD12	2.22	0.53
1:Av:58:ARG:HA	1:Av:75:LYS:HD3	1.91	0.53
1:Av:69:MET:HE2	1:Bh:39:VAL:HG11	1.90	0.53
1:Ba:284:ARG:NH1	1:Bm:183:LEU:CD2	2.72	0.53
1:Ad:201:SER:HB3	1:Ad:259:LEU:HD23	1.91	0.53
1:Ap:201:SER:HB3	1:Ap:259:LEU:HD23	1.91	0.53
1:Bb:7:LYS:CD	1:Bb:66:PHE:CD2	2.92	0.53
1:Bm:171:LYS:CE	1:Bm:407:VAL:CB	2.59	0.53
1:Bm:177:VAL:HG13	1:Bm:379:ILE:CD1	2.32	0.53
1:Ac:482:THR:C	1:Ac:484:GLU:OE1	2.51	0.53
1:Ad:7:LYS:CD	1:Ad:66:PHE:CD2	2.92	0.53
2:Af:3:ILE:HB	2:Ar:94:ILE:HG22	1.90	0.53
2:Af:65:VAL:O	2:Al:3:ILE:CD1	2.56	0.53
1:Ai:37:ASN:HB2	1:Ai:49:ILE:CG2	2.39	0.53
1:Ao:177:VAL:HG13	1:Ao:379:ILE:CD1	2.32	0.53
1:Bm:161:LEU:CD1	1:Bm:162:ILE:N	2.68	0.53
1:Ac:461:GLU:O	1:Ac:461:GLU:HG2	2.09	0.53
1:Ad:69:MET:HE3	1:Aj:39:VAL:HG12	1.82	0.53
2:Af:74:LYS:NZ	2:Af:76:GLU:CA	2.70	0.53
1:Ai:41:ASP:HB2	1:Au:69:MET:HE3	1.45	0.53
1:Ai:139:SER:HA	1:Ai:171:LYS:HZ3	1.73	0.53
1:Ao:37:ASN:HB2	1:Ao:49:ILE:CG2	2.39	0.53
1:Ap:58:ARG:HA	1:Ap:75:LYS:HD3	1.90	0.53
1:Bh:428:ASP:OD1	1:Bh:429:LEU:N	2.42	0.53
2:Bj:96:GLU:CA	2:Bp:5:PRO:CG	2.87	0.53
1:Ac:115:ASP:OD1	1:Ac:115:ASP:C	2.50	0.53
1:Aj:7:LYS:CD	1:Aj:66:PHE:CD2	2.92	0.53
1:Ao:76:GLU:CD	1:Ba:46:ALA:HB3	2.20	0.53
1:Av:383:ALA:HB1	1:Av:388:GLU:HB3	1.90	0.53
2:Bd:4:ARG:N	2:Bp:95:VAL:CG2	2.72	0.53
1:Bg:168:LYS:HZ3	1:Bg:187:LEU:CG	2.22	0.53
1:Ao:419:LEU:HA	1:Ao:422:VAL:HG22	1.91	0.53
1:Ao:461:GLU:O	1:Ao:461:GLU:HG2	2.09	0.53
2:Ar:5:PRO:HD3	2:Bd:95:VAL:O	2.09	0.53
2:Af:95:VAL:HG11	2:Al:1:MET:SD	2.49	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ai:386:GLU:CB	1:Ai:389:MET:HE3	2.38	0.53
1:Ao:139:SER:HA	1:Ao:171:LYS:HZ3	1.72	0.53
1:Au:37:ASN:HB2	1:Au:49:ILE:CG2	2.39	0.53
1:Ba:161:LEU:C	1:Ba:164:GLU:HG2	2.34	0.53
1:Bb:177:VAL:HG13	1:Bb:400:LEU:CD1	2.28	0.53
1:Bb:428:ASP:OD1	1:Bb:429:LEU:N	2.42	0.53
1:Bg:157:THR:CA	1:Bg:160:LYS:HZ3	2.16	0.53
1:Bh:7:LYS:CD	1:Bh:66:PHE:CD2	2.92	0.53
1:Bm:185:ASP:HA	1:Bm:382:GLY:H	1.74	0.53
1:Bm:482:THR:C	1:Bm:484:GLU:OE1	2.51	0.53
1:Ai:419:LEU:HA	1:Ai:422:VAL:HG22	1.91	0.52
1:Aj:201:SER:HB3	1:Aj:259:LEU:HD23	1.91	0.52
1:Ap:428:ASP:OD1	1:Ap:429:LEU:N	2.42	0.52
1:Av:428:ASP:OD1	1:Av:428:ASP:C	2.52	0.52
1:Bb:201:SER:HB3	1:Bb:259:LEU:HD23	1.91	0.52
1:Bg:482:THR:C	1:Bg:484:GLU:OE1	2.51	0.52
1:Ac:284:ARG:NH1	1:Ao:183:LEU:CD2	2.72	0.52
1:Ao:284:ARG:NH1	1:Ba:183:LEU:CD2	2.72	0.52
2:Ar:6:LEU:HD23	2:Bd:93:ALA:CA	2.39	0.52
1:Ba:37:ASN:HB2	1:Ba:49:ILE:CG2	2.39	0.52
1:Bg:386:GLU:CB	1:Bg:389:MET:HE3	2.38	0.52
1:Bn:7:LYS:CD	1:Bn:66:PHE:CD2	2.92	0.52
1:Ac:419:LEU:HA	1:Ac:422:VAL:HG22	1.91	0.52
2:Af:5:PRO:O	2:Ar:96:GLU:OE2	2.26	0.52
1:Ai:461:GLU:O	1:Ai:461:GLU:HG2	2.09	0.52
1:Aj:58:ARG:HA	1:Aj:75:LYS:HD3	1.91	0.52
1:Ao:185:ASP:HA	1:Ao:382:GLY:H	1.74	0.52
1:Ao:482:THR:C	1:Ao:484:GLU:OE1	2.51	0.52
1:Au:46:ALA:HB1	1:Bg:76:GLU:CD	2.34	0.52
1:Au:185:ASP:HA	1:Au:382:GLY:H	1.74	0.52
1:Ba:157:THR:CA	1:Ba:160:LYS:HZ3	2.13	0.52
1:Ba:419:LEU:HA	1:Ba:422:VAL:HG22	1.91	0.52
2:Bj:96:GLU:HG3	2:Bp:5:PRO:CD	2.40	0.52
1:Ai:185:ASP:HA	1:Ai:382:GLY:H	1.74	0.52
1:Aj:428:ASP:OD1	1:Aj:429:LEU:N	2.42	0.52
2:Al:96:GLU:CA	2:Ax:5:PRO:CG	2.87	0.52
1:Av:7:LYS:CD	1:Av:66:PHE:CD2	2.92	0.52
1:Ba:482:THR:C	1:Ba:484:GLU:OE1	2.51	0.52
2:Bj:43:VAL:HG13	2:Bj:45:ASN:H	1.75	0.52
2:Af:5:PRO:HD3	2:Ar:96:GLU:CA	2.29	0.52
1:Ai:46:ALA:HB1	1:Au:76:GLU:CD	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bg:37:ASN:HB2	1:Bg:49:ILE:CG2	2.39	0.52
1:Bn:201:SER:HB3	1:Bn:259:LEU:HD23	1.91	0.52
1:Ac:161:LEU:C	1:Ac:164:GLU:HG2	2.35	0.52
2:Af:5:PRO:O	2:Ar:96:GLU:HG3	2.06	0.52
2:Ar:5:PRO:HA	2:Bd:96:GLU:CB	2.36	0.52
2:Ar:74:LYS:NZ	2:Ar:76:GLU:CA	2.70	0.52
1:Au:34:LYS:NZ	1:Au:483:GLU:OE2	2.43	0.52
1:Au:386:GLU:CB	1:Au:389:MET:HE3	2.37	0.52
2:Ax:94:ILE:CD1	2:Bj:4:ARG:HB3	2.22	0.52
1:Ba:461:GLU:HG2	1:Ba:461:GLU:O	2.09	0.52
1:Bh:428:ASP:OD1	1:Bh:428:ASP:C	2.52	0.52
2:Bj:95:VAL:CG2	2:Bp:4:ARG:N	2.72	0.52
1:Bm:37:ASN:HB2	1:Bm:49:ILE:CG2	2.39	0.52
2:Bp:43:VAL:HG13	2:Bp:45:ASN:H	1.75	0.52
1:Ad:428:ASP:OD1	1:Ad:429:LEU:N	2.42	0.52
1:Au:419:LEU:HA	1:Au:422:VAL:HG22	1.91	0.52
1:Au:488:MET:CE	1:Au:493:ILE:HB	2.31	0.52
1:Bg:161:LEU:C	1:Bg:164:GLU:HG2	2.34	0.52
2:Bj:92:LEU:HD12	2:Bp:74:LYS:CD	2.29	0.52
2:Bj:95:VAL:O	2:Bp:5:PRO:HD3	2.08	0.52
1:Bn:428:ASP:OD1	1:Bn:429:LEU:N	2.42	0.52
1:Ad:58:ARG:HA	1:Ad:75:LYS:HD3	1.91	0.52
1:Aj:428:ASP:OD1	1:Aj:428:ASP:C	2.52	0.52
2:Al:95:VAL:O	2:Ax:5:PRO:HD3	2.09	0.52
1:Ap:40:LEU:HD22	1:Ap:59:GLU:CB	2.40	0.52
2:Bd:5:PRO:CD	2:Bp:96:GLU:HG3	2.39	0.52
1:Bg:488:MET:CE	1:Bg:493:ILE:HB	2.31	0.52
1:Bh:69:MET:HE3	1:Bn:39:VAL:HG12	1.79	0.52
2:Af:5:PRO:CA	2:Ar:96:GLU:CD	2.71	0.52
1:Ai:183:LEU:HD23	1:Au:281:PHE:HZ	1.75	0.52
1:Aj:40:LEU:HD22	1:Aj:59:GLU:CB	2.40	0.52
1:Au:183:LEU:CD2	1:Bg:284:ARG:NH1	2.73	0.52
1:Ba:115:ASP:OD1	1:Ba:115:ASP:C	2.50	0.52
2:Al:43:VAL:HG13	2:Al:45:ASN:H	1.75	0.52
1:Bg:34:LYS:NZ	1:Bg:483:GLU:OE2	2.43	0.52
1:Bh:163:ALA:O	1:Bh:166:MET:HB3	2.10	0.52
1:Bh:201:SER:HB3	1:Bh:259:LEU:HD23	1.91	0.52
1:Ac:185:ASP:HA	1:Ac:382:GLY:H	1.74	0.51
1:Ad:163:ALA:O	1:Ad:166:MET:HB3	2.10	0.51
1:Au:46:ALA:HB1	1:Bg:76:GLU:OE2	2.10	0.51
1:Au:461:GLU:HG2	1:Au:461:GLU:O	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Bd:43:VAL:HG13	2:Bd:45:ASN:H	1.75	0.51
2:Bj:49:LEU:O	2:Bp:51:ASN:ND2	2.43	0.51
1:Ad:488:MET:CE	1:Ad:493:ILE:CD1	2.80	0.51
1:Ai:34:LYS:NZ	1:Ai:483:GLU:OE2	2.43	0.51
1:Av:201:SER:HB3	1:Av:259:LEU:HD23	1.91	0.51
1:Ba:76:GLU:OE2	1:Bm:46:ALA:HB1	2.09	0.51
1:Bg:183:LEU:CD2	1:Bm:284:ARG:NH1	2.73	0.51
1:Bm:419:LEU:HA	1:Bm:422:VAL:HG22	1.91	0.51
1:Bn:428:ASP:OD1	1:Bn:428:ASP:C	2.52	0.51
2:Af:43:VAL:HG13	2:Af:45:ASN:H	1.75	0.51
1:Ba:161:LEU:CD1	1:Ba:162:ILE:N	2.68	0.51
1:Bb:36:ARG:CD	1:Bn:518:GLU:HB2	2.39	0.51
1:Bg:419:LEU:HA	1:Bg:422:VAL:HG22	1.91	0.51
1:Bm:161:LEU:C	1:Bm:164:GLU:HG2	2.34	0.51
2:Af:2:ASN:C	2:Ar:95:VAL:HG13	2.36	0.51
1:Aj:488:MET:CE	1:Aj:493:ILE:CD1	2.80	0.51
1:Ao:161:LEU:C	1:Ao:164:GLU:HG2	2.35	0.51
1:Bg:185:ASP:HA	1:Bg:382:GLY:H	1.74	0.51
1:Bm:461:GLU:O	1:Bm:461:GLU:HG2	2.09	0.51
1:Bn:163:ALA:O	1:Bn:166:MET:HB3	2.10	0.51
1:Ai:46:ALA:HB1	1:Au:76:GLU:OE2	2.11	0.51
1:Ai:161:LEU:HA	1:Ai:164:GLU:CG	2.40	0.51
1:Aj:518:GLU:HB2	1:Av:36:ARG:CD	2.40	0.51
1:Ap:163:ALA:O	1:Ap:166:MET:HB3	2.10	0.51
1:Au:161:LEU:HA	1:Au:164:GLU:CG	2.40	0.51
1:Av:40:LEU:HD22	1:Av:59:GLU:CB	2.40	0.51
2:Ax:43:VAL:HG13	2:Ax:45:ASN:H	1.75	0.51
2:Ax:95:VAL:O	2:Bj:5:PRO:HD3	2.11	0.51
2:Ax:96:GLU:CA	2:Bj:5:PRO:CG	2.88	0.51
1:Ba:34:LYS:NZ	1:Ba:483:GLU:OE2	2.43	0.51
2:Bd:6:LEU:HD23	2:Bp:93:ALA:CA	2.39	0.51
1:Bm:161:LEU:HA	1:Bm:164:GLU:CG	2.40	0.51
1:Ad:40:LEU:HD22	1:Ad:59:GLU:CB	2.40	0.51
1:Ai:60:ILE:CD1	1:Au:521:VAL:HG11	2.36	0.51
1:Ai:183:LEU:CD2	1:Au:284:ARG:NH1	2.73	0.51
1:Ao:381:VAL:HB	1:Ao:393:LYS:HZ1	1.63	0.51
1:Ao:521:VAL:HG11	1:Ba:60:ILE:CD1	2.35	0.51
2:Ar:5:PRO:CG	2:Bd:96:GLU:CA	2.87	0.51
1:Av:163:ALA:O	1:Av:166:MET:HB3	2.10	0.51
1:Av:518:GLU:HB2	1:Bh:36:ARG:CD	2.40	0.51
1:Ba:185:ASP:HA	1:Ba:382:GLY:H	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:428:ASP:OD1	1:Bb:428:ASP:C	2.52	0.51
1:Bg:46:ALA:HB1	1:Bm:76:GLU:OE2	2.10	0.51
1:Bg:389:MET:HG3	1:Bg:393:LYS:HE2	1.92	0.51
1:Bg:461:GLU:O	1:Bg:461:GLU:HG2	2.09	0.51
1:Bn:40:LEU:HD22	1:Bn:59:GLU:CB	2.40	0.51
1:Ai:161:LEU:C	1:Ai:164:GLU:HG2	2.35	0.51
2:Ar:43:VAL:HG13	2:Ar:45:ASN:H	1.75	0.51
1:Bg:171:LYS:HE3	1:Bg:407:VAL:CA	2.41	0.51
1:Bg:183:LEU:HD23	1:Bm:281:PHE:HZ	1.75	0.51
1:Bm:389:MET:HG3	1:Bm:393:LYS:HE2	1.92	0.51
1:Aj:163:ALA:O	1:Aj:166:MET:HB3	2.10	0.51
1:Bh:40:LEU:HD22	1:Bh:59:GLU:CB	2.40	0.51
2:Bj:94:ILE:HD12	2:Bp:4:ARG:CB	2.22	0.51
1:Ac:76:GLU:CD	1:Ao:46:ALA:HB1	2.32	0.51
2:Af:94:ILE:C	2:Al:3:ILE:CA	2.84	0.51
1:Ao:76:GLU:OE2	1:Ba:46:ALA:HB1	2.10	0.51
1:Bh:518:GLU:HB2	1:Bn:36:ARG:CD	2.40	0.51
1:Ad:428:ASP:OD1	1:Ad:428:ASP:C	2.52	0.51
2:Af:74:LYS:NZ	2:Af:76:GLU:N	2.59	0.51
1:Ap:36:ARG:CD	1:Bb:518:GLU:HB2	2.39	0.51
1:Au:389:MET:HG3	1:Au:393:LYS:HE2	1.92	0.51
1:Ba:171:LYS:HE3	1:Ba:407:VAL:CA	2.41	0.51
1:Bg:161:LEU:HA	1:Bg:164:GLU:CG	2.40	0.51
1:Ac:34:LYS:NZ	1:Ac:483:GLU:OE2	2.43	0.50
1:Ac:146:GLN:HG2	1:Ac:147:VAL:N	2.26	0.50
2:Af:95:VAL:HA	2:Al:2:ASN:C	2.36	0.50
1:Ai:434:GLU:HA	1:Ai:437:ASN:ND2	2.23	0.50
2:Ar:74:LYS:NZ	2:Ar:76:GLU:N	2.59	0.50
1:Au:161:LEU:C	1:Au:164:GLU:HG2	2.35	0.50
1:Au:183:LEU:HD23	1:Bg:281:PHE:HZ	1.76	0.50
1:Ba:161:LEU:HA	1:Ba:164:GLU:CG	2.40	0.50
1:Ac:157:THR:CA	1:Ac:160:LYS:HZ3	2.14	0.50
1:Ac:161:LEU:HA	1:Ac:164:GLU:CG	2.40	0.50
1:Ac:171:LYS:HD2	1:Ac:407:VAL:HG23	1.92	0.50
1:Ac:389:MET:HG3	1:Ac:393:LYS:HE2	1.92	0.50
2:Af:5:PRO:CG	2:Ar:96:GLU:CA	2.89	0.50
1:Ao:161:LEU:HA	1:Ao:164:GLU:CG	2.40	0.50
1:Ap:63:GLU:HB3	1:Bb:3:ALA:HB1	1.93	0.50
1:Au:171:LYS:HE3	1:Au:407:VAL:CA	2.41	0.50
1:Ba:171:LYS:HD2	1:Ba:407:VAL:HG23	1.92	0.50
1:Ba:521:VAL:HG11	1:Bm:60:ILE:CD1	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bg:54:VAL:CG2	1:Bg:89:THR:HG21	2.41	0.50
1:Bm:171:LYS:HD2	1:Bm:407:VAL:HG23	1.92	0.50
1:Bn:172:GLU:HB3	1:Bn:369:VAL:HG12	1.93	0.50
1:Ai:146:GLN:HG2	1:Ai:147:VAL:N	2.27	0.50
1:Ap:428:ASP:OD1	1:Ap:428:ASP:C	2.52	0.50
1:Au:60:ILE:CD1	1:Bg:521:VAL:HG11	2.36	0.50
2:Ax:74:LYS:NZ	2:Ax:76:GLU:N	2.59	0.50
1:Bb:40:LEU:HD22	1:Bb:59:GLU:CB	2.40	0.50
1:Bh:172:GLU:HB3	1:Bh:369:VAL:HG12	1.93	0.50
2:Bj:74:LYS:NZ	2:Bj:76:GLU:N	2.59	0.50
1:Bm:146:GLN:HG2	1:Bm:147:VAL:N	2.26	0.50
2:Bp:74:LYS:NZ	2:Bp:76:GLU:CA	2.70	0.50
1:Ac:177:VAL:HG13	1:Ac:379:ILE:CD1	2.32	0.50
1:Ai:171:LYS:HD2	1:Ai:407:VAL:HG23	1.92	0.50
1:Aj:40:LEU:HD22	1:Aj:59:GLU:CG	2.42	0.50
1:Ao:389:MET:HG3	1:Ao:393:LYS:HE2	1.92	0.50
2:Ar:51:ASN:ND2	2:Bd:49:LEU:O	2.44	0.50
1:Au:54:VAL:CG2	1:Au:89:THR:HG21	2.41	0.50
1:Av:13:ARG:HH12	1:Bh:36:ARG:HH12	1.42	0.50
1:Bb:61:GLU:CD	1:Bn:2:ALA:N	2.64	0.50
1:Bb:163:ALA:O	1:Bb:166:MET:HB3	2.10	0.50
2:Bj:64:ILE:CG2	2:Bp:3:ILE:HG12	2.24	0.50
1:Bm:34:LYS:NZ	1:Bm:483:GLU:OE2	2.43	0.50
1:Bm:171:LYS:HE3	1:Bm:407:VAL:CA	2.41	0.50
1:Ac:76:GLU:OE2	1:Ao:46:ALA:HB1	2.10	0.50
1:Ao:171:LYS:HD2	1:Ao:407:VAL:HG23	1.92	0.50
1:Ap:7:LYS:HG3	1:Ap:66:PHE:CE2	2.47	0.50
1:Bg:146:GLN:HG2	1:Bg:147:VAL:N	2.26	0.50
2:Af:3:ILE:C	2:Ar:95:VAL:CB	2.85	0.50
2:Af:4:ARG:HE	2:Ar:96:GLU:HG3	1.76	0.50
1:Ai:389:MET:HG3	1:Ai:393:LYS:HE2	1.92	0.50
1:Aj:7:LYS:HG3	1:Aj:66:PHE:CE2	2.47	0.50
1:Ao:385:THR:HG22	1:Ao:388:GLU:H	1.77	0.50
1:Ba:76:GLU:CD	1:Bm:46:ALA:HB1	2.33	0.50
1:Bb:172:GLU:HB3	1:Bb:369:VAL:HG12	1.93	0.50
2:Bd:5:PRO:HD3	2:Bp:95:VAL:O	2.11	0.50
1:Bg:171:LYS:HD2	1:Bg:407:VAL:HG23	1.92	0.50
1:Ai:385:THR:HG22	1:Ai:388:GLU:H	1.77	0.50
1:Ao:54:VAL:CG2	1:Ao:89:THR:HG21	2.41	0.50
1:Ac:60:ILE:CD1	1:Ai:521:VAL:HG11	2.37	0.50
1:Ai:287:ALA:HA	1:Ai:290:GLN:HE21	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ao:34:LYS:NZ	1:Ao:483:GLU:OE2	2.43	0.50
1:Ao:146:GLN:HG2	1:Ao:147:VAL:N	2.26	0.50
1:Ao:281:PHE:HZ	1:Ba:183:LEU:HD23	1.76	0.50
2:Ar:74:LYS:CD	2:Bd:92:LEU:HD12	2.27	0.50
1:Av:7:LYS:HG3	1:Av:66:PHE:CE2	2.47	0.50
1:Ba:139:SER:HA	1:Ba:171:LYS:HZ3	1.76	0.50
1:Ba:146:GLN:HG2	1:Ba:147:VAL:N	2.26	0.50
1:Ba:389:MET:HG3	1:Ba:393:LYS:HE2	1.92	0.50
1:Bg:287:ALA:HA	1:Bg:290:GLN:HE21	1.77	0.50
1:Ac:34:LYS:HG3	1:Ac:458:CYS:HA	1.94	0.50
1:Ad:172:GLU:HB3	1:Ad:369:VAL:HG12	1.93	0.50
1:Ad:518:GLU:HB2	1:Aj:36:ARG:CD	2.41	0.50
1:Ai:54:VAL:CG2	1:Ai:89:THR:HG21	2.41	0.50
1:Ai:161:LEU:CD1	1:Ai:162:ILE:N	2.68	0.50
1:Ao:157:THR:CA	1:Ao:160:LYS:HZ3	2.15	0.50
1:Ap:172:GLU:HB3	1:Ap:369:VAL:HG12	1.94	0.50
1:Av:40:LEU:HD22	1:Av:59:GLU:CG	2.42	0.50
1:Ba:287:ALA:HA	1:Ba:290:GLN:HE21	1.77	0.50
1:Bg:46:ALA:HB1	1:Bm:76:GLU:CD	2.35	0.50
2:Bp:74:LYS:NZ	2:Bp:76:GLU:N	2.59	0.50
2:Af:95:VAL:HG12	2:Al:1:MET:HG2	1.92	0.49
2:Al:49:LEU:O	2:Ax:51:ASN:ND2	2.45	0.49
1:Ao:34:LYS:HG3	1:Ao:458:CYS:HA	1.94	0.49
1:Ao:171:LYS:HE3	1:Ao:407:VAL:CA	2.41	0.49
2:Bd:5:PRO:CG	2:Bp:96:GLU:CA	2.89	0.49
1:Bm:287:ALA:HA	1:Bm:290:GLN:HE21	1.77	0.49
1:Ai:171:LYS:HE3	1:Ai:407:VAL:CA	2.41	0.49
1:Au:161:LEU:CD1	1:Au:162:ILE:N	2.68	0.49
1:Au:385:THR:HG22	1:Au:388:GLU:H	1.77	0.49
1:Av:172:GLU:HB3	1:Av:369:VAL:HG12	1.94	0.49
1:Ba:389:MET:HA	1:Ba:392:LYS:HG2	1.94	0.49
2:Bd:74:LYS:NZ	2:Bd:76:GLU:N	2.59	0.49
1:Bm:157:THR:CA	1:Bm:160:LYS:HZ3	2.14	0.49
1:Bn:7:LYS:HG3	1:Bn:66:PHE:CE2	2.47	0.49
1:Ac:385:THR:HG22	1:Ac:388:GLU:H	1.77	0.49
2:Af:55:LYS:CE	2:Al:51:ASN:HD22	2.25	0.49
1:Ap:409:GLU:O	1:Ap:409:GLU:CG	2.59	0.49
2:Ar:3:ILE:HG12	2:Bd:64:ILE:CG2	2.24	0.49
1:Au:171:LYS:HD2	1:Au:407:VAL:HG23	1.92	0.49
1:Au:389:MET:HA	1:Au:392:LYS:HG2	1.94	0.49
1:Bb:7:LYS:HG3	1:Bb:66:PHE:CE2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bg:34:LYS:HG3	1:Bg:458:CYS:HA	1.94	0.49
1:Bg:389:MET:HA	1:Bg:392:LYS:HG2	1.94	0.49
1:Ac:287:ALA:HA	1:Ac:290:GLN:HE21	1.77	0.49
2:Af:4:ARG:H	2:Ar:95:VAL:CG2	2.25	0.49
1:Ai:168:LYS:HZ1	1:Ai:188:ASP:C	2.20	0.49
1:Ai:389:MET:HA	1:Ai:392:LYS:HG2	1.94	0.49
1:Aj:409:GLU:O	1:Aj:409:GLU:CG	2.59	0.49
2:Al:74:LYS:NZ	2:Al:76:GLU:N	2.59	0.49
1:Ao:287:ALA:HA	1:Ao:290:GLN:HE21	1.77	0.49
1:Au:177:VAL:HG13	1:Au:379:ILE:CD1	2.32	0.49
1:Au:287:ALA:HA	1:Au:290:GLN:HE21	1.77	0.49
2:Ax:50:GLU:HB2	2:Bj:51:ASN:ND2	2.04	0.49
1:Ba:168:LYS:HZ1	1:Ba:188:ASP:C	2.20	0.49
2:Bd:5:PRO:HA	2:Bp:96:GLU:CB	2.36	0.49
1:Bh:7:LYS:HG3	1:Bh:66:PHE:CE2	2.47	0.49
1:Bm:389:MET:HA	1:Bm:392:LYS:HG2	1.94	0.49
1:Ac:171:LYS:HE3	1:Ac:407:VAL:CA	2.41	0.49
2:Af:96:GLU:CD	2:Al:44:GLY:HA2	2.35	0.49
2:Af:96:GLU:OE2	2:Al:5:PRO:O	2.30	0.49
1:Aj:13:ARG:HH12	1:Av:36:ARG:HH12	1.42	0.49
1:Aj:172:GLU:HB3	1:Aj:369:VAL:HG12	1.93	0.49
2:Al:96:GLU:CB	2:Ax:5:PRO:HA	2.35	0.49
1:Ba:381:VAL:HG23	1:Ba:393:LYS:HZ2	1.77	0.49
1:Bb:409:GLU:O	1:Bb:409:GLU:CG	2.59	0.49
1:Bh:40:LEU:HD22	1:Bh:59:GLU:CG	2.42	0.49
1:Bm:385:THR:HG22	1:Bm:388:GLU:H	1.77	0.49
1:Bm:434:GLU:HA	1:Bm:437:ASN:ND2	2.23	0.49
1:Ac:389:MET:HA	1:Ac:392:LYS:HG2	1.94	0.49
1:Ad:39:VAL:HG11	1:Ap:69:MET:HE2	1.95	0.49
1:Ai:34:LYS:HG3	1:Ai:458:CYS:HA	1.94	0.49
1:Ao:389:MET:HA	1:Ao:392:LYS:HG2	1.94	0.49
1:Au:146:GLN:HG2	1:Au:147:VAL:N	2.26	0.49
2:Ax:49:LEU:O	2:Bj:51:ASN:ND2	2.46	0.49
1:Ba:488:MET:CE	1:Ba:493:ILE:HB	2.31	0.49
1:Bn:40:LEU:HD22	1:Bn:59:GLU:CG	2.42	0.49
1:Aj:63:GLU:HG2	1:Aj:64:ASP:N	2.28	0.49
1:Ao:161:LEU:CD1	1:Ao:162:ILE:N	2.68	0.49
2:Ar:5:PRO:CD	2:Bd:96:GLU:HG3	2.40	0.49
1:Bb:63:GLU:HB3	1:Bn:3:ALA:HB1	1.94	0.49
1:Bg:7:LYS:NZ	1:Bg:11:ASP:OD2	2.43	0.49
1:Bm:34:LYS:HG3	1:Bm:458:CYS:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ai:161:LEU:HD12	1:Ai:162:ILE:CA	2.43	0.49
1:Au:386:GLU:O	1:Au:389:MET:HG2	2.13	0.49
2:Ax:96:GLU:OE2	2:Bj:5:PRO:O	2.31	0.49
1:Ba:161:LEU:HD12	1:Ba:162:ILE:CA	2.43	0.49
1:Bh:13:ARG:HH12	1:Bn:36:ARG:HH12	1.42	0.49
1:Ac:161:LEU:HD12	1:Ac:162:ILE:CA	2.43	0.49
1:Ac:161:LEU:CD1	1:Ac:162:ILE:N	2.68	0.49
1:Ac:434:GLU:HA	1:Ac:437:ASN:ND2	2.23	0.49
1:Ad:7:LYS:HG3	1:Ad:66:PHE:CE2	2.47	0.49
1:Au:161:LEU:HD12	1:Au:162:ILE:CA	2.43	0.49
1:Bb:419:LEU:HD12	1:Bb:450:PRO:HG3	1.95	0.49
1:Bm:161:LEU:HD12	1:Bm:162:ILE:CA	2.43	0.49
1:Aj:381:VAL:HG11	1:Aj:393:LYS:CG	2.43	0.49
1:Ao:161:LEU:HD12	1:Ao:162:ILE:CA	2.43	0.49
1:Ba:385:THR:HG22	1:Ba:388:GLU:H	1.77	0.49
2:Bd:51:ASN:ND2	2:Bp:49:LEU:O	2.45	0.49
1:Bg:161:LEU:HD12	1:Bg:162:ILE:CA	2.43	0.49
1:Bg:386:GLU:O	1:Bg:389:MET:HG2	2.13	0.49
1:Bh:80:LYS:HZ3	1:Bh:506:TYR:HE1	1.59	0.49
1:Aj:3:ALA:HB1	1:Av:63:GLU:HB3	1.94	0.48
1:Ao:7:LYS:NZ	1:Ao:11:ASP:OD2	2.43	0.48
1:Ao:76:GLU:CD	1:Ba:46:ALA:HB1	2.34	0.48
1:Bg:60:ILE:CD1	1:Bm:521:VAL:HG11	2.37	0.48
1:Bm:386:GLU:O	1:Bm:389:MET:HG2	2.13	0.48
1:Ad:63:GLU:HG2	1:Ad:64:ASP:N	2.28	0.48
2:Af:51:ASN:ND2	2:Ar:50:GLU:HB2	2.15	0.48
1:Ba:177:VAL:HG13	1:Ba:379:ILE:CD1	2.32	0.48
1:Ai:386:GLU:O	1:Ai:389:MET:HG2	2.13	0.48
1:Ap:419:LEU:HD12	1:Ap:450:PRO:HG3	1.95	0.48
1:Ba:54:VAL:CG2	1:Ba:89:THR:HG21	2.41	0.48
1:Bb:40:LEU:HD22	1:Bb:59:GLU:CG	2.42	0.48
1:Bb:63:GLU:HG2	1:Bb:64:ASP:N	2.28	0.48
1:Bb:381:VAL:HG11	1:Bb:393:LYS:CG	2.43	0.48
1:Ac:521:VAL:CG1	1:Ao:60:ILE:HD13	2.37	0.48
1:Ad:186:GLU:OE2	1:Ad:380:LYS:HB3	2.12	0.48
1:Ad:381:VAL:HG11	1:Ad:393:LYS:CG	2.43	0.48
2:Af:93:ALA:CA	2:Al:6:LEU:HD23	2.42	0.48
1:Ap:381:VAL:HG11	1:Ap:393:LYS:CG	2.43	0.48
1:Au:34:LYS:HG3	1:Au:458:CYS:HA	1.94	0.48
1:Bg:385:THR:HG22	1:Bg:388:GLU:H	1.77	0.48
1:Ac:386:GLU:O	1:Ac:389:MET:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Af:2:ASN:C	2:Ar:95:VAL:HA	2.39	0.48
1:Ac:167:ASP:OD1	1:Ac:167:ASP:C	2.57	0.48
2:Af:3:ILE:HA	2:Ar:95:VAL:HG22	1.94	0.48
2:Af:95:VAL:N	2:Al:3:ILE:CA	2.76	0.48
1:Aj:186:GLU:OE2	1:Aj:380:LYS:HB3	2.12	0.48
1:Av:63:GLU:HG2	1:Av:64:ASP:N	2.28	0.48
1:Ba:381:VAL:CA	1:Ba:393:LYS:NZ	2.77	0.48
1:Ac:281:PHE:HZ	1:Ao:183:LEU:HD23	1.79	0.48
2:Af:5:PRO:CG	2:Ar:96:GLU:HA	2.44	0.48
2:Af:96:GLU:HG2	2:Al:5:PRO:CD	2.36	0.48
1:Ao:167:ASP:OD1	1:Ao:167:ASP:C	2.57	0.48
1:Av:3:ALA:HB1	1:Bh:63:GLU:HB3	1.94	0.48
1:Bm:54:VAL:CG2	1:Bm:89:THR:HG21	2.41	0.48
1:Ai:114:MET:HG3	1:Ai:118:ARG:HE	1.79	0.48
2:Al:74:LYS:HZ1	2:Al:76:GLU:N	2.12	0.48
1:Ap:61:GLU:CD	1:Bb:2:ALA:N	2.64	0.48
2:Ar:5:PRO:O	2:Bd:96:GLU:OE2	2.32	0.48
1:Au:157:THR:CA	1:Au:160:LYS:NZ	2.55	0.48
1:Au:168:LYS:HZ1	1:Au:188:ASP:C	2.21	0.48
1:Av:419:LEU:HD12	1:Av:450:PRO:HG3	1.95	0.48
1:Bn:186:GLU:OE2	1:Bn:380:LYS:HB2	2.11	0.48
1:Ad:261:THR:HG23	2:Af:29:GLY:N	2.29	0.48
1:Aj:261:THR:HG23	2:Al:29:GLY:N	2.29	0.48
1:Ao:381:VAL:CA	1:Ao:393:LYS:NZ	2.77	0.48
1:Au:114:MET:HG3	1:Au:118:ARG:HE	1.79	0.48
1:Bm:114:MET:HG3	1:Bm:118:ARG:HE	1.79	0.48
1:Bn:419:LEU:HD12	1:Bn:450:PRO:HG3	1.95	0.48
1:Ac:157:THR:CA	1:Ac:160:LYS:NZ	2.56	0.48
1:Ad:36:ARG:CD	1:Ap:518:GLU:HB2	2.43	0.48
1:Aj:419:LEU:HD12	1:Aj:450:PRO:HG3	1.95	0.48
1:Ap:186:GLU:OE2	1:Ap:380:LYS:HB3	2.12	0.48
1:Au:157:THR:CA	1:Au:160:LYS:HZ3	2.21	0.48
1:Bh:3:ALA:C	1:Bh:524:LEU:CD1	2.81	0.48
1:Bm:381:VAL:CA	1:Bm:393:LYS:NZ	2.77	0.48
2:Al:53:GLU:H	2:Al:53:GLU:HG3	1.47	0.47
1:Ba:281:PHE:HZ	1:Bm:183:LEU:HD23	1.77	0.47
1:Ba:434:GLU:HA	1:Ba:437:ASN:ND2	2.23	0.47
2:Bd:3:ILE:HA	2:Bp:95:VAL:CB	2.44	0.47
1:Bh:63:GLU:HG2	1:Bh:64:ASP:N	2.28	0.47
1:Bh:186:GLU:OE2	1:Bh:380:LYS:HB3	2.12	0.47
1:Ac:114:MET:HG3	1:Ac:118:ARG:HE	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:389:MET:CB	1:Ac:393:LYS:HE2	2.45	0.47
1:Ao:386:GLU:O	1:Ao:389:MET:HG2	2.13	0.47
1:Ao:389:MET:CB	1:Ao:393:LYS:HE2	2.45	0.47
1:Ap:40:LEU:HD22	1:Ap:59:GLU:CG	2.42	0.47
1:Au:389:MET:CB	1:Au:393:LYS:HE2	2.45	0.47
1:Bb:261:THR:HG23	2:Bd:29:GLY:N	2.29	0.47
1:Ai:167:ASP:OD1	1:Ai:167:ASP:C	2.57	0.47
1:Ai:389:MET:CB	1:Ai:393:LYS:HE2	2.45	0.47
1:Aj:80:LYS:HG2	1:Aj:506:TYR:CE1	2.49	0.47
1:Ao:114:MET:HG3	1:Ao:118:ARG:HE	1.79	0.47
1:Ao:171:LYS:CE	1:Ao:407:VAL:CB	2.59	0.47
1:Ao:434:GLU:HA	1:Ao:437:ASN:ND2	2.23	0.47
2:Ar:5:PRO:CG	2:Bd:96:GLU:HA	2.44	0.47
1:Av:80:LYS:HG2	1:Av:506:TYR:CE1	2.49	0.47
2:Bd:5:PRO:O	2:Bp:96:GLU:OE2	2.30	0.47
1:Bg:114:MET:HG3	1:Bg:118:ARG:HE	1.79	0.47
1:Bg:168:LYS:CD	1:Bg:187:LEU:HD11	2.45	0.47
1:Bg:171:LYS:CE	1:Bg:407:VAL:CB	2.59	0.47
1:Bn:63:GLU:HG2	1:Bn:64:ASP:N	2.28	0.47
2:Af:5:PRO:HD3	2:Ar:95:VAL:O	2.15	0.47
1:Ai:157:THR:CA	1:Ai:160:LYS:NZ	2.55	0.47
1:Au:168:LYS:CD	1:Au:187:LEU:HD11	2.45	0.47
1:Ba:34:LYS:HG3	1:Ba:458:CYS:HA	1.94	0.47
1:Ba:389:MET:CB	1:Ba:393:LYS:HE2	2.45	0.47
1:Bg:389:MET:CB	1:Bg:393:LYS:HE2	2.45	0.47
1:Ac:168:LYS:CD	1:Ac:187:LEU:HD11	2.45	0.47
2:Af:94:ILE:HA	2:Al:3:ILE:HB	1.95	0.47
1:Aj:417:VAL:O	1:Aj:421:ARG:HG2	2.15	0.47
1:Bg:161:LEU:CD1	1:Bg:162:ILE:N	2.68	0.47
2:Bj:96:GLU:HA	2:Bp:5:PRO:CG	2.44	0.47
1:Bm:168:LYS:CD	1:Bm:187:LEU:HD11	2.45	0.47
1:Bm:389:MET:CB	1:Bm:393:LYS:HE2	2.45	0.47
1:Ac:139:SER:HA	1:Ac:171:LYS:HZ3	1.75	0.47
1:Ac:389:MET:O	1:Ac:393:LYS:N	2.48	0.47
1:Ad:47:PRO:HG2	1:Ap:73:MET:CG	2.45	0.47
1:Aj:441:LYS:HA	1:Aj:441:LYS:HD2	1.64	0.47
1:Au:167:ASP:OD1	1:Au:167:ASP:C	2.57	0.47
1:Av:2:ALA:N	1:Bh:61:GLU:CD	2.65	0.47
1:Ba:168:LYS:CD	1:Ba:187:LEU:HD11	2.45	0.47
1:Ba:452:ARG:HH12	1:Ba:463:SER:HA	1.80	0.47
1:Bg:389:MET:O	1:Bg:393:LYS:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bh:419:LEU:HD12	1:Bh:450:PRO:HG3	1.95	0.47
1:Ac:54:VAL:CG2	1:Ac:89:THR:HG21	2.41	0.47
1:Ad:419:LEU:HD12	1:Ad:450:PRO:HG3	1.95	0.47
1:Ai:168:LYS:CD	1:Ai:187:LEU:HD11	2.45	0.47
2:Al:95:VAL:CB	2:Ax:3:ILE:HA	2.44	0.47
1:Ao:168:LYS:CD	1:Ao:187:LEU:HD11	2.45	0.47
1:Ap:63:GLU:HG2	1:Ap:64:ASP:N	2.28	0.47
1:Ap:261:THR:HG23	2:Ar:29:GLY:N	2.29	0.47
2:Ar:1:MET:CB	2:Bd:95:VAL:HG12	2.45	0.47
2:Ar:4:ARG:N	2:Bd:95:VAL:HG22	2.29	0.47
2:Ax:95:VAL:CB	2:Bj:3:ILE:HA	2.43	0.47
1:Ba:167:ASP:OD1	1:Ba:167:ASP:C	2.57	0.47
1:Ba:386:GLU:O	1:Ba:389:MET:HG2	2.13	0.47
1:Bb:186:GLU:OE2	1:Bb:380:LYS:HB3	2.12	0.47
2:Bd:1:MET:CB	2:Bp:95:VAL:HG12	2.44	0.47
2:Bd:74:LYS:HZ2	2:Bd:76:GLU:N	2.10	0.47
1:Bg:452:ARG:HH12	1:Bg:463:SER:HA	1.80	0.47
1:Bh:261:THR:HG23	2:Bj:29:GLY:N	2.29	0.47
1:Bh:518:GLU:HB2	1:Bn:36:ARG:CB	2.44	0.47
1:Ac:46:ALA:HB1	1:Ai:76:GLU:OE2	2.14	0.47
1:Ad:13:ARG:HH12	1:Aj:36:ARG:HH12	1.44	0.47
1:Aj:15:LYS:HE3	1:Aj:64:ASP:OD1	2.15	0.47
1:Ap:80:LYS:HG3	1:Ap:506:TYR:CE2	2.50	0.47
2:Ar:53:GLU:H	2:Ar:53:GLU:HG3	1.47	0.47
1:Bb:80:LYS:HG3	1:Bb:506:TYR:CE2	2.50	0.47
1:Bb:179:ASP:CG	1:Bb:393:LYS:HZ2	2.23	0.47
1:Bh:186:GLU:OE2	1:Bh:380:LYS:HB2	2.11	0.47
1:Bm:452:ARG:HH12	1:Bm:463:SER:HA	1.80	0.47
2:Bp:53:GLU:H	2:Bp:53:GLU:HG3	1.47	0.47
1:Ac:46:ALA:HB1	1:Ai:76:GLU:CD	2.39	0.47
1:Ad:80:LYS:HG3	1:Ad:506:TYR:CE2	2.50	0.47
1:Ad:417:VAL:O	1:Ad:421:ARG:HG2	2.15	0.47
1:Ap:80:LYS:HG2	1:Ap:506:TYR:CE1	2.49	0.47
2:Ar:3:ILE:HA	2:Bd:95:VAL:CB	2.45	0.47
2:Ax:96:GLU:CB	2:Bj:5:PRO:HA	2.36	0.47
1:Bh:80:LYS:HG2	1:Bh:506:TYR:CE1	2.49	0.47
1:Bn:15:LYS:HE3	1:Bn:64:ASP:OD1	2.15	0.47
1:Bn:134:LEU:HD12	1:Bn:425:LYS:NZ	2.27	0.47
2:Bp:37:ARG:HG3	2:Bp:66:ILE:HG13	1.97	0.47
1:Ac:488:MET:CE	1:Ac:493:ILE:HB	2.31	0.47
1:Aj:80:LYS:HG3	1:Aj:506:TYR:CE2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:7:LYS:NZ	1:Au:11:ASP:OD2	2.43	0.47
1:Av:209:GLU:OE1	1:Av:209:GLU:N	2.42	0.47
1:Av:261:THR:HG23	2:Ax:29:GLY:N	2.29	0.47
1:Av:417:VAL:O	1:Av:421:ARG:HG2	2.15	0.47
1:Bb:36:ARG:CB	1:Bn:518:GLU:HB2	2.45	0.47
1:Bb:80:LYS:HG2	1:Bb:506:TYR:CE1	2.49	0.47
1:Bh:3:ALA:HB1	1:Bn:63:GLU:HB3	1.96	0.47
2:Bj:95:VAL:HG12	2:Bp:1:MET:CB	2.45	0.47
1:Bn:80:LYS:HG2	1:Bn:506:TYR:CE1	2.49	0.47
1:Ad:80:LYS:HG2	1:Ad:506:TYR:CE1	2.49	0.46
1:Ad:409:GLU:O	1:Ad:409:GLU:CG	2.59	0.46
2:Al:37:ARG:HG3	2:Al:66:ILE:HG13	1.97	0.46
1:Ao:69:MET:CE	1:Ba:41:ASP:CG	2.45	0.46
1:Au:389:MET:O	1:Au:393:LYS:N	2.48	0.46
1:Av:80:LYS:HZ3	1:Av:506:TYR:HE1	1.61	0.46
2:Bd:37:ARG:HG3	2:Bd:66:ILE:HG13	1.98	0.46
1:Bg:167:ASP:OD1	1:Bg:167:ASP:C	2.57	0.46
1:Bh:15:LYS:HE3	1:Bh:64:ASP:OD1	2.15	0.46
2:Bj:37:ARG:HG3	2:Bj:66:ILE:HG13	1.97	0.46
2:Bj:96:GLU:CB	2:Bp:5:PRO:HA	2.37	0.46
1:Ad:40:LEU:HD22	1:Ad:59:GLU:CG	2.42	0.46
2:Af:95:VAL:O	2:Al:5:PRO:HD3	2.15	0.46
1:Ai:381:VAL:CA	1:Ai:393:LYS:NZ	2.77	0.46
2:Al:96:GLU:HA	2:Ax:5:PRO:CG	2.44	0.46
1:Ap:36:ARG:CB	1:Bb:518:GLU:HB2	2.45	0.46
1:Au:452:ARG:HH12	1:Au:463:SER:HA	1.80	0.46
2:Ax:37:ARG:HG3	2:Ax:66:ILE:HG13	1.97	0.46
1:Bb:15:LYS:HE3	1:Bb:64:ASP:OD1	2.15	0.46
1:Bb:417:VAL:O	1:Bb:421:ARG:HG2	2.15	0.46
1:Bn:261:THR:HG23	2:Bp:29:GLY:N	2.29	0.46
1:Bn:417:VAL:O	1:Bn:421:ARG:HG2	2.15	0.46
1:Ac:452:ARG:HH12	1:Ac:463:SER:HA	1.80	0.46
1:Ao:389:MET:O	1:Ao:393:LYS:N	2.48	0.46
1:Ao:452:ARG:HH12	1:Ao:463:SER:HA	1.80	0.46
1:Ap:209:GLU:OE1	1:Ap:209:GLU:N	2.42	0.46
2:Ar:37:ARG:HG3	2:Ar:66:ILE:HG13	1.97	0.46
1:Av:80:LYS:HG3	1:Av:506:TYR:CE2	2.50	0.46
2:Ax:78:ILE:HD13	2:Ax:78:ILE:HA	1.71	0.46
1:Bb:420:ILE:HD11	1:Bb:451:LEU:HD23	1.97	0.46
1:Bh:80:LYS:HG3	1:Bh:506:TYR:CE2	2.50	0.46
2:Af:37:ARG:HG3	2:Af:66:ILE:HG13	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ai:169:VAL:HB	1:Ai:173:GLY:HA3	1.98	0.46
1:Ai:385:THR:HB	1:Ai:388:GLU:OE2	2.16	0.46
1:Ao:161:LEU:HD12	1:Ao:162:ILE:HG12	1.98	0.46
1:Au:381:VAL:CA	1:Au:393:LYS:NZ	2.77	0.46
2:Ax:96:GLU:HG3	2:Bj:5:PRO:CD	2.41	0.46
2:Bd:78:ILE:HD13	2:Bd:78:ILE:HA	1.72	0.46
1:Bg:177:VAL:HG13	1:Bg:379:ILE:CD1	2.32	0.46
1:Bn:80:LYS:HG3	1:Bn:506:TYR:CE2	2.50	0.46
1:Ad:396:VAL:O	1:Ad:400:LEU:HG	2.16	0.46
1:Ai:389:MET:O	1:Ai:393:LYS:N	2.48	0.46
2:Bj:96:GLU:OE2	2:Bp:5:PRO:O	2.33	0.46
1:Ac:161:LEU:HD12	1:Ac:162:ILE:HG12	1.98	0.46
1:Ad:518:GLU:HB2	1:Aj:36:ARG:CB	2.45	0.46
1:Ai:452:ARG:HH12	1:Ai:463:SER:HA	1.80	0.46
1:Ai:488:MET:CE	1:Ai:493:ILE:HB	2.31	0.46
1:Au:169:VAL:HB	1:Au:173:GLY:HA3	1.98	0.46
1:Au:385:THR:HB	1:Au:388:GLU:OE2	2.16	0.46
1:Ba:114:MET:HG3	1:Ba:118:ARG:HE	1.79	0.46
1:Bg:385:THR:HB	1:Bg:388:GLU:OE2	2.16	0.46
1:Bh:417:VAL:O	1:Bh:421:ARG:HG2	2.15	0.46
2:Bj:95:VAL:CB	2:Bp:3:ILE:HA	2.46	0.46
2:Bp:49:LEU:HD22	2:Bp:49:LEU:HA	1.75	0.46
1:Ac:169:VAL:HB	1:Ac:173:GLY:HA3	1.98	0.46
1:Ap:420:ILE:HD11	1:Ap:451:LEU:HD23	1.97	0.46
1:Av:61:GLU:C	1:Av:62:LEU:HD12	2.41	0.46
1:Av:396:VAL:O	1:Av:400:LEU:HG	2.16	0.46
2:Ax:95:VAL:HA	2:Bj:2:ASN:C	2.40	0.46
1:Ba:111:MET:HE3	1:Ba:111:MET:HB3	1.70	0.46
1:Ba:161:LEU:HD12	1:Ba:162:ILE:HG12	1.98	0.46
1:Bg:169:VAL:HB	1:Bg:173:GLY:HA3	1.98	0.46
1:Bh:61:GLU:C	1:Bh:62:LEU:HD12	2.41	0.46
1:Bm:161:LEU:HD12	1:Bm:162:ILE:HG12	1.98	0.46
1:Bn:3:ALA:C	1:Bn:524:LEU:CD1	2.81	0.46
1:Bn:420:ILE:HD11	1:Bn:451:LEU:HD23	1.97	0.46
1:Ac:385:THR:HB	1:Ac:388:GLU:OE2	2.16	0.46
1:Ac:455:VAL:HG12	1:Ac:460:GLU:HB2	1.98	0.46
1:Ad:15:LYS:HE3	1:Ad:64:ASP:OD1	2.15	0.46
1:Ad:47:PRO:HG2	1:Ap:73:MET:HG3	1.97	0.46
1:Ai:314:LEU:HA	1:Ai:317:LEU:HD12	1.98	0.46
1:Ap:15:LYS:HE3	1:Ap:64:ASP:OD1	2.15	0.46
1:Ap:417:VAL:O	1:Ap:421:ARG:HG2	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ax:95:VAL:HG12	2:Bj:1:MET:CB	2.45	0.46
1:Ba:389:MET:O	1:Ba:393:LYS:N	2.48	0.46
1:Bm:167:ASP:OD1	1:Bm:167:ASP:C	2.57	0.46
1:Bm:169:VAL:HB	1:Bm:173:GLY:HA3	1.98	0.46
1:Bn:44:PHE:O	1:Bn:44:PHE:CG	2.69	0.46
1:Av:15:LYS:HE3	1:Av:64:ASP:OD1	2.15	0.46
2:Ax:94:ILE:HD12	2:Bj:4:ARG:CB	2.25	0.46
1:Bm:389:MET:O	1:Bm:393:LYS:N	2.48	0.46
2:Af:4:ARG:H	2:Ar:95:VAL:HG23	1.82	0.46
2:Al:74:LYS:NZ	2:Al:76:GLU:CA	2.70	0.46
2:Al:95:VAL:HG12	2:Ax:1:MET:CB	2.46	0.46
1:Av:518:GLU:HB2	1:Bh:36:ARG:CB	2.45	0.46
2:Bd:2:ASN:C	2:Bp:95:VAL:HA	2.39	0.46
1:Bh:420:ILE:HD11	1:Bh:451:LEU:HD23	1.97	0.46
1:Bm:168:LYS:HZ3	1:Bm:187:LEU:CG	2.26	0.46
1:Ac:166:MET:HA	1:Ac:169:VAL:O	2.16	0.45
1:Ac:168:LYS:HZ1	1:Ac:188:ASP:C	2.24	0.45
1:Ai:385:THR:O	1:Ai:388:GLU:CG	2.63	0.45
1:Ao:111:MET:HE3	1:Ao:111:MET:HB3	1.71	0.45
1:Ao:166:MET:HA	1:Ao:169:VAL:O	2.16	0.45
1:Ap:396:VAL:O	1:Ap:400:LEU:HG	2.16	0.45
1:Au:166:MET:HA	1:Au:169:VAL:O	2.16	0.45
1:Bm:386:GLU:HA	1:Bm:389:MET:HG2	1.98	0.45
1:Bn:441:LYS:HA	1:Bn:441:LYS:HD2	1.64	0.45
1:Bn:489:ILE:HD13	1:Bn:494:LEU:CD2	2.46	0.45
2:Bp:74:LYS:HZ1	2:Bp:76:GLU:HA	1.79	0.45
1:Ac:114:MET:HG2	1:Ao:34:LYS:HD2	1.98	0.45
1:Ac:314:LEU:HA	1:Ac:317:LEU:HD12	1.98	0.45
1:Ad:420:ILE:HD11	1:Ad:451:LEU:HD23	1.97	0.45
2:Af:94:ILE:HB	2:Al:3:ILE:C	2.41	0.45
1:Ai:166:MET:HA	1:Ai:169:VAL:O	2.16	0.45
1:Ai:455:VAL:HG12	1:Ai:460:GLU:HB2	1.98	0.45
1:Aj:61:GLU:C	1:Aj:62:LEU:HD12	2.41	0.45
1:Aj:518:GLU:HB2	1:Av:36:ARG:CB	2.45	0.45
2:Al:96:GLU:HG3	2:Ax:5:PRO:CD	2.41	0.45
1:Ao:455:VAL:HG12	1:Ao:460:GLU:HB2	1.98	0.45
1:Ap:458:CYS:SG	1:Ap:480:ALA:HB1	2.57	0.45
1:Au:179:ASP:HA	1:Au:393:LYS:CE	2.41	0.45
1:Av:420:ILE:HD11	1:Av:451:LEU:HD23	1.97	0.45
2:Ax:96:GLU:HA	2:Bj:5:PRO:CG	2.46	0.45
1:Bb:458:CYS:SG	1:Bb:480:ALA:HB1	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bm:314:LEU:HA	1:Bm:317:LEU:HD12	1.98	0.45
1:Bn:488:MET:CE	1:Bn:493:ILE:CD1	2.80	0.45
1:Ac:7:LYS:NZ	1:Ac:11:ASP:OD2	2.43	0.45
1:Aj:420:ILE:HD11	1:Aj:451:LEU:HD23	1.97	0.45
2:Al:95:VAL:HA	2:Ax:2:ASN:C	2.41	0.45
1:Ap:3:ALA:C	1:Ap:524:LEU:CD1	2.81	0.45
1:Ap:61:GLU:C	1:Ap:62:LEU:HD12	2.41	0.45
1:Av:186:GLU:OE2	1:Av:380:LYS:HB3	2.12	0.45
1:Bg:314:LEU:HA	1:Bg:317:LEU:HD12	1.98	0.45
1:Bh:44:PHE:O	1:Bh:44:PHE:CG	2.69	0.45
1:Bh:178:GLU:HG2	1:Bh:378:VAL:HG12	1.99	0.45
1:Bh:396:VAL:O	1:Bh:400:LEU:HG	2.16	0.45
2:Bj:74:LYS:HE3	2:Bj:76:GLU:CB	2.46	0.45
1:Bn:61:GLU:C	1:Bn:62:LEU:HD12	2.41	0.45
1:Ac:381:VAL:CA	1:Ac:393:LYS:NZ	2.77	0.45
1:Ad:3:ALA:C	1:Ad:524:LEU:CD1	2.81	0.45
2:Ar:4:ARG:HG3	2:Ar:5:PRO:O	2.17	0.45
2:Bd:4:ARG:HG3	2:Bd:5:PRO:O	2.17	0.45
1:Bn:186:GLU:OE2	1:Bn:380:LYS:HB3	2.12	0.45
1:Ad:3:ALA:HB1	1:Aj:63:GLU:HB3	1.99	0.45
1:Ad:178:GLU:HG2	1:Ad:378:VAL:HG12	1.99	0.45
2:Af:5:PRO:CA	2:Ar:96:GLU:HB3	2.33	0.45
1:Aj:44:PHE:O	1:Aj:44:PHE:CG	2.69	0.45
2:Ar:3:ILE:HG22	2:Ar:3:ILE:O	2.17	0.45
1:Ba:169:VAL:HB	1:Ba:173:GLY:HA3	1.98	0.45
1:Ba:386:GLU:HA	1:Ba:389:MET:HG2	1.98	0.45
1:Bb:209:GLU:HG2	1:Bb:210:THR:N	2.32	0.45
1:Bm:166:MET:HA	1:Bm:169:VAL:O	2.16	0.45
1:Bn:178:GLU:HG2	1:Bn:378:VAL:HG12	1.99	0.45
1:Ad:166:MET:HE3	1:Ad:403:THR:HB	1.99	0.45
2:Af:3:ILE:O	2:Af:3:ILE:HG22	2.16	0.45
2:Af:5:PRO:HA	2:Ar:96:GLU:HB2	1.92	0.45
1:Ai:60:ILE:HD13	1:Au:521:VAL:CG1	2.40	0.45
1:Ai:161:LEU:HD12	1:Ai:162:ILE:HG12	1.98	0.45
1:Aj:178:GLU:HG2	1:Aj:378:VAL:HG12	1.99	0.45
1:Ao:169:VAL:HB	1:Ao:173:GLY:HA3	1.98	0.45
1:Ao:314:LEU:HA	1:Ao:317:LEU:HD12	1.98	0.45
2:Ar:2:ASN:C	2:Bd:95:VAL:HA	2.41	0.45
1:Av:178:GLU:HG2	1:Av:378:VAL:HG12	1.99	0.45
1:Av:458:CYS:SG	1:Av:480:ALA:HB1	2.57	0.45
3:Av:601:ADP:H1'	3:Av:601:ADP:H5'2	1.68	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Bd:3:ILE:HG22	2:Bd:3:ILE:O	2.16	0.45
1:Bg:166:MET:HA	1:Bg:169:VAL:O	2.16	0.45
1:Bg:386:GLU:HA	1:Bg:389:MET:HG2	1.98	0.45
1:Bh:114:MET:HE3	1:Bh:114:MET:HB3	1.87	0.45
1:Bm:385:THR:HB	1:Bm:388:GLU:OE2	2.16	0.45
2:Bp:4:ARG:HG3	2:Bp:5:PRO:O	2.17	0.45
1:Ac:386:GLU:HA	1:Ac:389:MET:HG2	1.98	0.45
2:Af:96:GLU:CA	2:Al:5:PRO:CG	2.94	0.45
1:Aj:209:GLU:HG2	1:Aj:210:THR:N	2.32	0.45
2:Al:96:GLU:OE2	2:Ax:5:PRO:O	2.32	0.45
1:Au:314:LEU:HA	1:Au:317:LEU:HD12	1.98	0.45
1:Ba:166:MET:HA	1:Ba:169:VAL:O	2.16	0.45
1:Bh:441:LYS:HA	1:Bh:441:LYS:HD2	1.64	0.45
2:Af:2:ASN:C	2:Af:3:ILE:HG13	2.42	0.45
1:Ai:494:LEU:C	1:Ai:494:LEU:HD12	2.42	0.45
1:Aj:166:MET:HE3	1:Aj:403:THR:HB	1.99	0.45
1:Aj:209:GLU:OE1	1:Aj:209:GLU:N	2.42	0.45
1:Ap:178:GLU:HG2	1:Ap:378:VAL:HG12	1.99	0.45
1:Ap:209:GLU:HG2	1:Ap:210:THR:N	2.32	0.45
1:Av:441:LYS:HD2	1:Av:441:LYS:HA	1.64	0.45
1:Bb:61:GLU:C	1:Bb:62:LEU:HD12	2.41	0.45
1:Bb:178:GLU:HG2	1:Bb:378:VAL:HG12	1.99	0.45
2:Bp:3:ILE:HG22	2:Bp:3:ILE:O	2.17	0.45
1:Ad:61:GLU:CD	1:Ap:2:ALA:N	2.64	0.45
1:Ad:61:GLU:C	1:Ad:62:LEU:HD12	2.41	0.45
1:Ad:458:CYS:SG	1:Ad:480:ALA:HB1	2.57	0.45
2:Af:74:LYS:CD	2:Ar:92:LEU:HD12	2.36	0.45
1:Aj:69:MET:HE1	1:Av:39:VAL:CG1	2.37	0.45
1:Aj:458:CYS:SG	1:Aj:480:ALA:HB1	2.57	0.45
1:Ao:385:THR:HB	1:Ao:388:GLU:OE2	2.16	0.45
2:Ax:3:ILE:HG22	2:Ax:3:ILE:O	2.16	0.45
1:Bb:396:VAL:O	1:Bb:400:LEU:HG	2.16	0.45
2:Bd:2:ASN:C	2:Bd:3:ILE:HG13	2.42	0.45
1:Bg:381:VAL:CA	1:Bg:393:LYS:NZ	2.77	0.45
1:Ac:473:ASP:OD1	1:Ac:473:ASP:C	2.60	0.45
1:Ad:69:MET:HE1	1:Aj:39:VAL:CG1	2.36	0.45
2:Af:3:ILE:HA	2:Ar:95:VAL:CG2	2.47	0.45
1:Ai:179:ASP:HA	1:Ai:393:LYS:CE	2.41	0.45
1:Aj:396:VAL:O	1:Aj:400:LEU:HG	2.16	0.45
2:Al:3:ILE:HG22	2:Al:3:ILE:O	2.16	0.45
1:Au:494:LEU:HD12	1:Au:494:LEU:C	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ba:455:VAL:HG12	1:Ba:460:GLU:HB2	1.98	0.45
1:Bb:4:LYS:CA	1:Bb:524:LEU:CD1	2.95	0.45
1:Bb:489:ILE:HD13	1:Bb:494:LEU:CD2	2.46	0.45
1:Bh:166:MET:HE3	1:Bh:403:THR:HB	1.99	0.45
1:Bn:458:CYS:SG	1:Bn:480:ALA:HB1	2.57	0.45
2:Af:4:ARG:HG3	2:Af:5:PRO:O	2.17	0.44
1:Aj:4:LYS:CA	1:Aj:524:LEU:CD1	2.95	0.44
1:Au:389:MET:CG	1:Au:393:LYS:HE2	2.48	0.44
1:Au:455:VAL:HG12	1:Au:460:GLU:HB2	1.98	0.44
1:Bg:389:MET:CG	1:Bg:393:LYS:HE2	2.48	0.44
1:Bg:494:LEU:C	1:Bg:494:LEU:HD12	2.42	0.44
1:Bh:73:MET:HG3	1:Bn:47:PRO:HG2	2.00	0.44
2:Bj:65:VAL:O	2:Bp:3:ILE:CD1	2.65	0.44
2:Bj:95:VAL:HG12	2:Bp:1:MET:HG2	1.99	0.44
2:Bp:2:ASN:C	2:Bp:3:ILE:HG13	2.42	0.44
1:Ac:8:PHE:HZ	1:Ao:25:ASP:CB	2.31	0.44
2:Af:58:ASP:OD2	2:Al:7:HIS:CD2	2.70	0.44
2:Af:78:ILE:HD13	2:Af:78:ILE:HA	1.71	0.44
1:Ai:473:ASP:OD1	1:Ai:473:ASP:C	2.60	0.44
1:Ao:386:GLU:HA	1:Ao:389:MET:HG2	1.98	0.44
1:Ap:134:LEU:HD12	1:Ap:425:LYS:NZ	2.27	0.44
1:Ap:166:MET:HE3	1:Ap:403:THR:HB	1.99	0.44
1:Au:386:GLU:HA	1:Au:389:MET:HG2	1.98	0.44
2:Ax:95:VAL:HG22	2:Bj:3:ILE:HA	1.99	0.44
1:Bb:134:LEU:HD12	1:Bb:425:LYS:NZ	2.27	0.44
1:Bg:139:SER:HA	1:Bg:171:LYS:HZ3	1.80	0.44
2:Bj:2:ASN:C	2:Bj:3:ILE:HG13	2.42	0.44
2:Bj:4:ARG:HG3	2:Bj:5:PRO:O	2.17	0.44
1:Bm:385:THR:O	1:Bm:388:GLU:CG	2.63	0.44
1:Bm:494:LEU:C	1:Bm:494:LEU:HD12	2.42	0.44
1:Bn:4:LYS:CA	1:Bn:524:LEU:CD1	2.95	0.44
1:Bn:396:VAL:O	1:Bn:400:LEU:HG	2.16	0.44
1:Ac:385:THR:O	1:Ac:388:GLU:CG	2.63	0.44
1:Ad:351:GLN:HE22	1:Aj:209:GLU:HA	1.82	0.44
2:Al:94:ILE:HD12	2:Ax:4:ARG:CB	2.23	0.44
2:Ar:2:ASN:C	2:Ar:3:ILE:HG13	2.42	0.44
2:Ar:7:HIS:CD2	2:Bd:58:ASP:OD2	2.71	0.44
1:Av:186:GLU:OE2	1:Av:380:LYS:HB2	2.11	0.44
1:Ba:168:LYS:HD3	1:Ba:187:LEU:HD11	1.99	0.44
2:Bd:3:ILE:HA	2:Bp:95:VAL:HG22	1.98	0.44
2:Bj:3:ILE:HG22	2:Bj:3:ILE:O	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bn:166:MET:HE3	1:Bn:403:THR:HB	1.99	0.44
1:Ad:209:GLU:HG2	1:Ad:210:THR:N	2.32	0.44
2:Af:66:ILE:HD12	2:Al:3:ILE:CD1	2.31	0.44
2:Af:95:VAL:CB	2:Al:3:ILE:HA	2.47	0.44
1:Ai:386:GLU:HA	1:Ai:389:MET:HG2	1.98	0.44
1:Ao:487:ASN:O	1:Ao:491:MET:HG3	2.18	0.44
1:Ap:44:PHE:O	1:Ap:44:PHE:CG	2.69	0.44
1:Av:209:GLU:HG2	1:Av:210:THR:N	2.32	0.44
1:Av:489:ILE:HD13	1:Av:494:LEU:CD2	2.46	0.44
2:Ax:2:ASN:C	2:Ax:3:ILE:HG13	2.42	0.44
1:Ba:314:LEU:HA	1:Ba:317:LEU:HD12	1.98	0.44
1:Bb:441:LYS:HA	1:Bb:441:LYS:HD2	1.64	0.44
1:Bg:179:ASP:HA	1:Bg:393:LYS:CE	2.41	0.44
1:Bh:381:VAL:HG11	1:Bh:393:LYS:CG	2.43	0.44
1:Bm:389:MET:CG	1:Bm:393:LYS:HE2	2.48	0.44
1:Ac:487:ASN:O	1:Ac:491:MET:HG3	2.18	0.44
1:Ai:389:MET:CG	1:Ai:393:LYS:HE2	2.47	0.44
1:Aj:134:LEU:HD12	1:Aj:425:LYS:NZ	2.27	0.44
1:Ao:488:MET:CE	1:Ao:493:ILE:HB	2.31	0.44
1:Ap:372:LEU:HD23	1:Ap:372:LEU:HA	1.78	0.44
1:Ap:489:ILE:HD13	1:Ap:494:LEU:CD2	2.46	0.44
2:Ar:74:LYS:HE3	2:Ar:76:GLU:CB	2.46	0.44
1:Bh:458:CYS:SG	1:Bh:480:ALA:HB1	2.57	0.44
1:Bn:80:LYS:HZ3	1:Bn:506:TYR:HE1	1.63	0.44
1:Ai:157:THR:CA	1:Ai:160:LYS:HZ3	2.24	0.44
1:Aj:2:ALA:N	1:Av:61:GLU:CD	2.65	0.44
1:Ao:168:LYS:HD3	1:Ao:187:LEU:HD11	1.99	0.44
1:Ao:494:LEU:C	1:Ao:494:LEU:HD12	2.42	0.44
1:Ap:4:LYS:CA	1:Ap:524:LEU:CD1	2.95	0.44
1:Au:385:THR:O	1:Au:388:GLU:CG	2.63	0.44
1:Ba:385:THR:O	1:Ba:388:GLU:CG	2.63	0.44
1:Bb:488:MET:CE	1:Bb:493:ILE:CD1	2.80	0.44
2:Bd:5:PRO:CG	2:Bp:96:GLU:HA	2.46	0.44
1:Bh:518:GLU:CD	1:Bn:29:VAL:HB	2.43	0.44
2:Bj:95:VAL:HA	2:Bp:2:ASN:C	2.42	0.44
1:Bn:5:ASP:H	1:Bn:524:LEU:HD12	1.81	0.44
1:Bn:209:GLU:HG2	1:Bn:210:THR:N	2.32	0.44
1:Ac:168:LYS:HD3	1:Ac:187:LEU:HD11	1.99	0.44
2:Al:2:ASN:C	2:Al:3:ILE:HG13	2.42	0.44
1:Ao:114:MET:HG2	1:Ba:34:LYS:HD2	1.99	0.44
1:Av:4:LYS:CA	1:Av:524:LEU:CD1	2.95	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Av:73:MET:HG3	1:Bh:47:PRO:HG2	2.00	0.44
1:Ba:385:THR:HB	1:Ba:388:GLU:OE2	2.16	0.44
1:Bb:5:ASP:H	1:Bb:524:LEU:HD12	1.81	0.44
1:Bb:166:MET:HE3	1:Bb:403:THR:HB	1.99	0.44
1:Bm:111:MET:HE3	1:Bm:111:MET:HB3	1.71	0.44
1:Bn:381:VAL:HG11	1:Bn:393:LYS:CG	2.43	0.44
1:Ac:389:MET:CG	1:Ac:393:LYS:HE2	2.47	0.44
1:Ai:169:VAL:HG21	1:Ai:173:GLY:HA3	2.00	0.44
1:Ai:487:ASN:O	1:Ai:491:MET:HG3	2.18	0.44
2:Al:74:LYS:HE3	2:Al:76:GLU:CB	2.46	0.44
1:Ao:169:VAL:O	1:Ao:169:VAL:CG2	2.66	0.44
1:Ap:188:ASP:OD1	1:Ap:188:ASP:C	2.61	0.44
1:Av:15:LYS:CE	1:Av:66:PHE:CB	2.90	0.44
1:Ba:389:MET:CG	1:Ba:393:LYS:HE2	2.48	0.44
3:Bh:601:ADP:H5'2	3:Bh:601:ADP:H1'	1.67	0.44
1:Bm:168:LYS:HD3	1:Bm:187:LEU:HD11	1.99	0.44
1:Ac:169:VAL:O	1:Ac:169:VAL:CG2	2.66	0.44
1:Ac:169:VAL:HG21	1:Ac:173:GLY:HA3	2.00	0.44
1:Ad:29:VAL:HB	1:Ap:518:GLU:CD	2.42	0.44
1:Ad:209:GLU:OE1	1:Ad:209:GLU:N	2.42	0.44
1:Aj:73:MET:HG3	1:Av:47:PRO:HG2	2.00	0.44
2:Al:4:ARG:HG3	2:Al:5:PRO:O	2.17	0.44
1:Ap:80:LYS:HE2	1:Ap:506:TYR:OH	2.18	0.44
1:Ba:494:LEU:C	1:Ba:494:LEU:HD12	2.42	0.44
1:Bh:51:LYS:O	1:Bh:51:LYS:HG2	2.18	0.44
1:Bh:409:GLU:O	1:Bh:409:GLU:CG	2.59	0.44
1:Bm:90:THR:O	1:Bm:94:VAL:HG23	2.18	0.44
1:Ac:69:MET:CE	1:Ao:41:ASP:N	2.74	0.43
1:Ad:36:ARG:CB	1:Ap:518:GLU:HB2	2.48	0.43
1:Ai:400:LEU:HD11	1:Ai:401:HIS:CD2	2.53	0.43
1:Ao:385:THR:O	1:Ao:388:GLU:CG	2.63	0.43
1:Au:400:LEU:HD11	1:Au:401:HIS:CD2	2.53	0.43
2:Ax:4:ARG:HG3	2:Ax:5:PRO:O	2.17	0.43
1:Bb:80:LYS:HE2	1:Bb:506:TYR:OH	2.18	0.43
2:Bd:53:GLU:H	2:Bd:53:GLU:HG3	1.47	0.43
2:Bd:74:LYS:HE3	2:Bd:76:GLU:CB	2.46	0.43
1:Bm:400:LEU:HD11	1:Bm:401:HIS:CD2	2.53	0.43
1:Ac:122:LYS:HB2	1:Ac:122:LYS:HE3	1.93	0.43
1:Ad:114:MET:HE3	1:Ad:114:MET:HB3	1.87	0.43
1:Ai:90:THR:O	1:Ai:94:VAL:HG23	2.18	0.43
2:Al:64:ILE:CG2	2:Ax:3:ILE:HG12	2.25	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:122:LYS:HB2	1:Au:122:LYS:HE3	1.93	0.43
1:Au:161:LEU:HD12	1:Au:162:ILE:HG12	1.98	0.43
1:Au:171:LYS:CE	1:Au:407:VAL:CB	2.59	0.43
1:Ba:31:LEU:CD2	1:Ba:454:ILE:HG13	2.48	0.43
1:Ba:90:THR:O	1:Ba:94:VAL:HG23	2.19	0.43
1:Ba:400:LEU:HD11	1:Ba:401:HIS:CD2	2.53	0.43
1:Bh:4:LYS:CA	1:Bh:524:LEU:CD1	2.95	0.43
1:Ac:31:LEU:CD2	1:Ac:454:ILE:HG13	2.49	0.43
1:Ac:150:ILE:HG21	1:Ac:494:LEU:HG	2.00	0.43
1:Ac:494:LEU:C	1:Ac:494:LEU:HD12	2.42	0.43
1:Ad:4:LYS:CA	1:Ad:524:LEU:CD1	2.95	0.43
1:Ad:80:LYS:HE2	1:Ad:506:TYR:OH	2.18	0.43
1:Ad:489:ILE:HD13	1:Ad:494:LEU:CD2	2.46	0.43
1:Ai:168:LYS:HD3	1:Ai:187:LEU:HD11	1.99	0.43
1:Ai:177:VAL:HG13	1:Ai:379:ILE:CD1	2.32	0.43
1:Aj:51:LYS:O	1:Aj:51:LYS:HG2	2.18	0.43
1:Ao:389:MET:CG	1:Ao:393:LYS:HE2	2.48	0.43
1:Ap:310:GLU:CD	1:Ap:310:GLU:H	2.27	0.43
2:Ar:51:ASN:ND2	2:Bd:50:GLU:HB2	2.05	0.43
1:Av:381:VAL:HG11	1:Av:393:LYS:CG	2.43	0.43
1:Ba:178:GLU:HB2	1:Ba:380:LYS:HD2	2.00	0.43
1:Ba:487:ASN:O	1:Ba:491:MET:HG3	2.18	0.43
1:Ba:516:THR:OG1	1:Bm:37:ASN:ND2	2.51	0.43
1:Bg:90:THR:O	1:Bg:94:VAL:HG23	2.18	0.43
1:Bm:31:LEU:CD2	1:Bm:454:ILE:HG13	2.48	0.43
1:Ad:421:ARG:NE	1:Ad:474:GLY:O	2.49	0.43
1:Aj:3:ALA:C	1:Aj:524:LEU:CD1	2.81	0.43
1:Aj:73:MET:CG	1:Av:47:PRO:HG2	2.48	0.43
1:Ao:400:LEU:HD11	1:Ao:401:HIS:CD2	2.53	0.43
1:Ap:47:PRO:HG2	1:Bb:73:MET:HG3	2.00	0.43
2:Ar:3:ILE:HA	2:Bd:95:VAL:HG22	1.99	0.43
1:Av:372:LEU:HD23	1:Av:372:LEU:HA	1.78	0.43
1:Ba:114:MET:HG2	1:Bm:34:LYS:HD2	1.99	0.43
1:Bb:47:PRO:HG2	1:Bn:73:MET:HG3	2.00	0.43
1:Bb:51:LYS:HG2	1:Bb:51:LYS:O	2.18	0.43
1:Bm:169:VAL:O	1:Bm:169:VAL:CG2	2.66	0.43
1:Ai:34:LYS:HD2	1:Au:114:MET:HG2	2.00	0.43
1:Ai:37:ASN:ND2	1:Au:516:THR:OG1	2.52	0.43
1:Ai:150:ILE:HG21	1:Ai:494:LEU:HG	2.00	0.43
1:Ao:516:THR:OG1	1:Ba:37:ASN:ND2	2.52	0.43
1:Ap:80:LYS:CG	1:Ap:506:TYR:CZ	3.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:487:ASN:O	1:Au:491:MET:HG3	2.18	0.43
1:Av:80:LYS:HE2	1:Av:506:TYR:OH	2.18	0.43
1:Av:518:GLU:CD	1:Bh:29:VAL:HB	2.44	0.43
1:Bb:310:GLU:CD	1:Bb:310:GLU:H	2.27	0.43
2:Bd:7:HIS:CD2	2:Bp:58:ASP:OD2	2.71	0.43
1:Bg:31:LEU:CD2	1:Bg:454:ILE:HG13	2.49	0.43
1:Bg:385:THR:O	1:Bg:388:GLU:CG	2.63	0.43
1:Bm:178:GLU:HB2	1:Bm:380:LYS:HD2	2.00	0.43
1:Bm:488:MET:CE	1:Bm:493:ILE:HB	2.31	0.43
1:Bn:39:VAL:HG12	1:Bn:39:VAL:O	2.19	0.43
1:Bn:80:LYS:CG	1:Bn:506:TYR:CZ	3.02	0.43
1:Ac:400:LEU:HD11	1:Ac:401:HIS:CD2	2.53	0.43
1:Ad:5:ASP:N	1:Ad:524:LEU:HD11	2.31	0.43
1:Ad:69:MET:HE2	1:Ad:69:MET:HB3	1.87	0.43
1:Ad:80:LYS:CG	1:Ad:506:TYR:CZ	3.02	0.43
1:Ao:169:VAL:HG21	1:Ao:173:GLY:HA3	2.00	0.43
1:Au:34:LYS:HD2	1:Bg:114:MET:HG2	2.00	0.43
1:Au:169:VAL:HG21	1:Au:173:GLY:HA3	2.00	0.43
2:Ax:95:VAL:HG13	2:Bj:2:ASN:C	2.44	0.43
1:Bb:80:LYS:CG	1:Bb:506:TYR:CZ	3.02	0.43
2:Bd:3:ILE:N	2:Bp:94:ILE:C	2.73	0.43
1:Bg:37:ASN:ND2	1:Bm:516:THR:OG1	2.51	0.43
1:Bg:111:MET:HE3	1:Bg:111:MET:HB3	1.71	0.43
1:Bg:124:VAL:HG21	1:Bg:508:ALA:HB2	2.00	0.43
1:Bh:39:VAL:HG12	1:Bh:39:VAL:O	2.19	0.43
1:Bh:73:MET:CG	1:Bn:47:PRO:HG2	2.49	0.43
1:Bn:310:GLU:H	1:Bn:310:GLU:CD	2.27	0.43
2:Af:3:ILE:CA	2:Ar:95:VAL:CB	2.96	0.43
2:Af:95:VAL:CG1	2:Al:1:MET:CG	2.96	0.43
2:Al:95:VAL:HG22	2:Ax:3:ILE:HA	2.00	0.43
1:Ao:90:THR:O	1:Ao:94:VAL:HG23	2.18	0.43
1:Ao:150:ILE:HG21	1:Ao:494:LEU:HG	2.00	0.43
1:Ap:61:GLU:HG2	1:Bb:2:ALA:O	2.18	0.43
1:Au:31:LEU:CD2	1:Au:454:ILE:HG13	2.49	0.43
1:Au:37:ASN:ND2	1:Bg:516:THR:OG1	2.51	0.43
1:Av:73:MET:CG	1:Bh:47:PRO:HG2	2.49	0.43
2:Ax:4:ARG:C	2:Ax:5:PRO:CA	2.87	0.43
1:Ba:7:LYS:NZ	1:Ba:11:ASP:OD2	2.43	0.43
1:Bh:5:ASP:H	1:Bh:524:LEU:HD12	1.81	0.43
1:Bn:80:LYS:HE2	1:Bn:506:TYR:OH	2.18	0.43
1:Ac:8:PHE:CE1	1:Ao:25:ASP:HB3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:34:LYS:HD2	1:Ai:114:MET:HG2	2.01	0.43
1:Ac:60:ILE:HD13	1:Ai:521:VAL:CG1	2.41	0.43
1:Ac:90:THR:O	1:Ac:94:VAL:HG23	2.18	0.43
1:Ac:111:MET:HE3	1:Ac:111:MET:HB3	1.70	0.43
1:Aj:310:GLU:H	1:Aj:310:GLU:CD	2.27	0.43
1:Ap:5:ASP:N	1:Ap:524:LEU:HD11	2.31	0.43
1:Ap:36:ARG:HH12	1:Bb:13:ARG:HH12	1.42	0.43
1:Ap:51:LYS:O	1:Ap:51:LYS:HG2	2.18	0.43
1:Ap:75:LYS:HE2	1:Ap:75:LYS:HB2	1.77	0.43
1:Bg:168:LYS:HD3	1:Bg:187:LEU:HD11	1.99	0.43
1:Bg:400:LEU:HD11	1:Bg:401:HIS:CD2	2.53	0.43
1:Bg:455:VAL:HG12	1:Bg:460:GLU:HB2	1.98	0.43
1:Bh:209:GLU:HG2	1:Bh:210:THR:N	2.32	0.43
1:Bn:62:LEU:HD23	1:Bn:67:GLU:OE1	2.19	0.43
1:Bn:184:GLN:OE1	1:Bn:184:GLN:N	2.52	0.43
1:Ac:8:PHE:CZ	1:Ao:25:ASP:HB2	2.53	0.43
1:Ad:310:GLU:H	1:Ad:310:GLU:CD	2.27	0.43
1:Ad:518:GLU:CD	1:Aj:29:VAL:HB	2.43	0.43
1:Ai:31:LEU:CD2	1:Ai:454:ILE:HG13	2.49	0.43
1:Ai:31:LEU:HD23	1:Ai:454:ILE:HG13	2.01	0.43
1:Aj:80:LYS:HE2	1:Aj:506:TYR:OH	2.18	0.43
1:Ap:15:LYS:CE	1:Ap:66:PHE:CB	2.90	0.43
1:Ap:62:LEU:HD23	1:Ap:67:GLU:OE1	2.19	0.43
2:Ar:2:ASN:C	2:Bd:95:VAL:HG13	2.43	0.43
1:Au:31:LEU:HD23	1:Au:454:ILE:HG13	2.01	0.43
1:Au:124:VAL:HG21	1:Au:508:ALA:HB2	2.00	0.43
1:Av:51:LYS:HG2	1:Av:51:LYS:O	2.18	0.43
1:Av:62:LEU:HD23	1:Av:67:GLU:OE1	2.19	0.43
1:Av:166:MET:HE3	1:Av:403:THR:HB	1.99	0.43
1:Ba:169:VAL:O	1:Ba:169:VAL:CG2	2.66	0.43
1:Bb:61:GLU:HG2	1:Bn:2:ALA:O	2.18	0.43
1:Bb:209:GLU:OE1	1:Bb:209:GLU:N	2.42	0.43
1:Bh:80:LYS:HE2	1:Bh:506:TYR:OH	2.18	0.43
1:Bh:80:LYS:CG	1:Bh:506:TYR:CZ	3.02	0.43
1:Bh:310:GLU:H	1:Bh:310:GLU:CD	2.27	0.43
1:Bh:351:GLN:HE22	1:Bn:209:GLU:HA	1.83	0.43
2:Af:2:ASN:OD1	2:Ar:96:GLU:N	2.52	0.43
1:Aj:518:GLU:CD	1:Av:29:VAL:HB	2.43	0.43
2:Al:50:GLU:HB2	2:Ax:51:ASN:ND2	2.05	0.43
1:Ao:167:ASP:OD1	1:Ao:168:LYS:HG3	2.19	0.43
1:Ap:5:ASP:H	1:Ap:524:LEU:HD12	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ap:29:VAL:HB	1:Bb:518:GLU:CD	2.43	0.43
1:Au:168:LYS:HD3	1:Au:187:LEU:HD11	1.99	0.43
1:Av:184:GLN:OE1	1:Av:184:GLN:N	2.52	0.43
1:Ba:69:MET:CE	1:Bm:41:ASP:CG	2.44	0.43
1:Bb:29:VAL:HB	1:Bn:518:GLU:CD	2.44	0.43
1:Bb:62:LEU:HD23	1:Bb:67:GLU:OE1	2.19	0.43
1:Bg:31:LEU:HD23	1:Bg:454:ILE:HG13	2.01	0.43
1:Bm:143:ALA:O	1:Bm:146:GLN:NE2	2.52	0.43
1:Ac:31:LEU:HD23	1:Ac:454:ILE:HG13	2.01	0.42
2:Af:3:ILE:CA	2:Ar:95:VAL:N	2.81	0.42
1:Ao:31:LEU:CD2	1:Ao:454:ILE:HG13	2.49	0.42
1:Ao:124:VAL:HG21	1:Ao:508:ALA:HB2	2.00	0.42
1:Ao:143:ALA:O	1:Ao:146:GLN:NE2	2.52	0.42
1:Ao:178:GLU:HB2	1:Ao:380:LYS:HD2	2.00	0.42
2:Ar:74:LYS:HZ1	2:Ar:76:GLU:HA	1.79	0.42
1:Av:28:LYS:HB3	1:Av:28:LYS:HE3	1.87	0.42
2:Ax:74:LYS:HZ1	2:Ax:76:GLU:HA	1.81	0.42
1:Bb:39:VAL:HG12	1:Bb:39:VAL:O	2.19	0.42
1:Bg:178:GLU:HB2	1:Bg:380:LYS:HD2	2.01	0.42
1:Bh:24:ALA:HB3	1:Bh:97:GLN:NE2	2.34	0.42
1:Bh:372:LEU:HA	1:Bh:372:LEU:HD23	1.78	0.42
1:Bm:124:VAL:HG21	1:Bm:508:ALA:HB2	2.00	0.42
1:Bm:167:ASP:OD1	1:Bm:168:LYS:HG3	2.19	0.42
1:Bm:169:VAL:HG21	1:Bm:173:GLY:HA3	2.00	0.42
1:Ac:143:ALA:O	1:Ac:146:GLN:NE2	2.52	0.42
1:Ac:386:GLU:HG3	1:Ac:389:MET:HE1	1.99	0.42
1:Ad:51:LYS:O	1:Ad:51:LYS:HG2	2.18	0.42
1:Aj:80:LYS:CG	1:Aj:506:TYR:CZ	3.02	0.42
1:Aj:421:ARG:NE	1:Aj:474:GLY:O	2.49	0.42
2:Al:95:VAL:HG12	2:Ax:1:MET:HG2	2.01	0.42
1:Au:150:ILE:HG21	1:Au:494:LEU:HG	2.00	0.42
2:Ax:74:LYS:HE3	2:Ax:76:GLU:CB	2.46	0.42
1:Ba:150:ILE:HG21	1:Ba:494:LEU:HG	2.00	0.42
1:Bb:44:PHE:O	1:Bb:44:PHE:CG	2.69	0.42
1:Bb:184:GLN:N	1:Bb:184:GLN:OE1	2.52	0.42
2:Bj:58:ASP:OD2	2:Bp:7:HIS:CD2	2.72	0.42
1:Bm:7:LYS:NZ	1:Bm:11:ASP:OD2	2.43	0.42
1:Bn:51:LYS:O	1:Bn:51:LYS:HG2	2.18	0.42
1:Bn:209:GLU:OE1	1:Bn:209:GLU:N	2.42	0.42
2:Af:3:ILE:CA	2:Ar:95:VAL:CA	2.97	0.42
2:Af:94:ILE:HD12	2:Al:4:ARG:CB	2.25	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Aj:24:ALA:HB3	1:Aj:97:GLN:NE2	2.35	0.42
1:Aj:390:LYS:HE2	1:Aj:390:LYS:HB2	1.79	0.42
1:Ap:24:ALA:HB3	1:Ap:97:GLN:NE2	2.34	0.42
1:Ap:47:PRO:HG2	1:Bb:73:MET:CG	2.49	0.42
1:Au:143:ALA:O	1:Au:146:GLN:NE2	2.52	0.42
1:Av:310:GLU:CD	1:Av:310:GLU:H	2.27	0.42
1:Ba:169:VAL:HG21	1:Ba:173:GLY:HA3	2.00	0.42
1:Bm:487:ASN:O	1:Bm:491:MET:HG3	2.18	0.42
1:Bn:7:LYS:CG	1:Bn:66:PHE:CZ	3.00	0.42
3:Bn:601:ADP:H5'2	3:Bn:601:ADP:H1'	1.67	0.42
1:Ac:167:ASP:OD1	1:Ac:168:LYS:HG3	2.19	0.42
1:Ad:61:GLU:CD	1:Ap:2:ALA:C	2.82	0.42
2:Ar:3:ILE:CD1	2:Bd:65:VAL:O	2.67	0.42
1:Bb:44:PHE:O	1:Bb:44:PHE:HD1	1.98	0.42
2:Bd:2:ASN:C	2:Bp:95:VAL:HG13	2.43	0.42
1:Bg:143:ALA:O	1:Bg:146:GLN:NE2	2.52	0.42
2:Bj:95:VAL:HG12	2:Bp:1:MET:CG	2.49	0.42
1:Bm:390:LYS:HA	1:Bm:393:LYS:CG	2.49	0.42
1:Ac:40:LEU:HD12	1:Ai:521:VAL:HG23	2.00	0.42
1:Ac:171:LYS:HD2	1:Ac:407:VAL:CB	2.42	0.42
1:Ac:420:ILE:CD1	1:Ac:448:GLU:HA	2.50	0.42
1:Ad:62:LEU:HD23	1:Ad:67:GLU:OE1	2.19	0.42
1:Ai:104:LEU:HD23	1:Ai:104:LEU:HA	1.93	0.42
1:Ai:124:VAL:HG21	1:Ai:508:ALA:HB2	2.00	0.42
2:Al:95:VAL:HG13	2:Ax:2:ASN:C	2.44	0.42
1:Ap:421:ARG:NE	1:Ap:474:GLY:O	2.49	0.42
1:Au:90:THR:O	1:Au:94:VAL:HG23	2.18	0.42
1:Au:169:VAL:O	1:Au:169:VAL:CG2	2.66	0.42
1:Av:80:LYS:CG	1:Av:506:TYR:CZ	3.02	0.42
1:Av:390:LYS:HE2	1:Av:390:LYS:HB2	1.79	0.42
2:Ax:65:VAL:O	2:Bj:3:ILE:CD1	2.67	0.42
1:Bb:201:SER:CB	1:Bb:259:LEU:HD23	2.50	0.42
1:Bg:34:LYS:HD2	1:Bm:114:MET:HG2	2.00	0.42
1:Bg:169:VAL:HG21	1:Bg:173:GLY:HA3	2.00	0.42
1:Bg:390:LYS:HA	1:Bg:393:LYS:CG	2.49	0.42
1:Bg:420:ILE:CD1	1:Bg:448:GLU:HA	2.50	0.42
1:Ac:179:ASP:HA	1:Ac:393:LYS:CE	2.41	0.42
1:Ad:15:LYS:CE	1:Ad:64:ASP:OD1	2.68	0.42
1:Aj:39:VAL:HG12	1:Aj:39:VAL:O	2.19	0.42
1:Aj:69:MET:HE2	1:Aj:69:MET:HB3	1.87	0.42
1:Aj:489:ILE:HD13	1:Aj:494:LEU:CD2	2.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ar:4:ARG:C	2:Ar:5:PRO:CA	2.87	0.42
1:Au:46:ALA:CB	1:Bg:76:GLU:OE2	2.67	0.42
1:Au:142:LYS:O	1:Au:146:GLN:OE1	2.38	0.42
2:Ax:95:VAL:HG12	2:Bj:1:MET:HG2	2.02	0.42
1:Ba:124:VAL:HG21	1:Ba:508:ALA:HB2	2.00	0.42
1:Bb:47:PRO:HG2	1:Bn:73:MET:CG	2.50	0.42
2:Bd:1:MET:CG	2:Bp:95:VAL:HG12	2.50	0.42
1:Bg:150:ILE:HG21	1:Bg:494:LEU:HG	2.00	0.42
1:Bg:178:GLU:HB3	1:Bg:380:LYS:HZ2	1.85	0.42
1:Bg:487:ASN:O	1:Bg:491:MET:HG3	2.18	0.42
1:Bh:184:GLN:OE1	1:Bh:184:GLN:N	2.52	0.42
2:Bj:95:VAL:HG11	2:Bp:1:MET:SD	2.60	0.42
1:Bm:420:ILE:CD1	1:Bm:448:GLU:HA	2.50	0.42
1:Bn:201:SER:CB	1:Bn:259:LEU:HD23	2.49	0.42
1:Ac:178:GLU:HB2	1:Ac:380:LYS:HD2	2.00	0.42
1:Ac:392:LYS:O	1:Ac:396:VAL:HG23	2.20	0.42
1:Ai:167:ASP:OD1	1:Ai:168:LYS:HG3	2.19	0.42
2:Al:49:LEU:HD22	2:Al:49:LEU:HA	1.75	0.42
1:Ao:420:ILE:CD1	1:Ao:448:GLU:HA	2.50	0.42
1:Au:104:LEU:HD23	1:Au:104:LEU:HA	1.93	0.42
1:Au:420:ILE:CD1	1:Au:448:GLU:HA	2.50	0.42
1:Ba:143:ALA:O	1:Ba:146:GLN:NE2	2.52	0.42
1:Bm:31:LEU:HD23	1:Bm:454:ILE:HG13	2.01	0.42
1:Bm:150:ILE:HG21	1:Bm:494:LEU:HG	2.00	0.42
1:Bn:15:LYS:CE	1:Bn:64:ASP:OD1	2.68	0.42
1:Ac:124:VAL:HG21	1:Ac:508:ALA:HB2	2.00	0.42
2:Af:74:LYS:HZ1	2:Af:76:GLU:HA	1.79	0.42
2:Af:92:LEU:HD12	2:Al:74:LYS:CD	2.28	0.42
2:Af:94:ILE:HB	2:Al:4:ARG:N	2.34	0.42
1:Aj:62:LEU:HD23	1:Aj:67:GLU:OE1	2.19	0.42
1:Aj:186:GLU:OE2	1:Aj:380:LYS:HB2	2.11	0.42
2:Al:65:VAL:O	2:Ax:3:ILE:CD1	2.68	0.42
1:Ao:390:LYS:HA	1:Ao:393:LYS:CG	2.49	0.42
1:Ap:176:THR:HG22	1:Ap:177:VAL:N	2.35	0.42
1:Ap:201:SER:CB	1:Ap:259:LEU:HD23	2.49	0.42
1:Au:167:ASP:OD1	1:Au:168:LYS:HG3	2.19	0.42
1:Au:178:GLU:HB2	1:Au:380:LYS:HD2	2.00	0.42
1:Av:24:ALA:HB3	1:Av:97:GLN:NE2	2.35	0.42
1:Av:39:VAL:HG12	1:Av:39:VAL:O	2.19	0.42
1:Av:188:ASP:OD1	1:Av:188:ASP:C	2.61	0.42
2:Ax:95:VAL:N	2:Bj:3:ILE:CA	2.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bg:161:LEU:HD12	1:Bg:162:ILE:HG12	1.98	0.42
1:Bh:166:MET:CE	1:Bh:403:THR:HB	2.50	0.42
1:Bh:201:SER:CB	1:Bh:259:LEU:HD23	2.49	0.42
2:Bj:95:VAL:HG22	2:Bp:3:ILE:HA	2.01	0.42
1:Bn:166:MET:CE	1:Bn:403:THR:HB	2.50	0.42
1:Ac:37:ASN:ND2	1:Ai:516:THR:OG1	2.53	0.42
1:Ad:80:LYS:HZ3	1:Ad:506:TYR:HE1	1.66	0.42
2:Af:53:GLU:H	2:Af:53:GLU:HG3	1.47	0.42
1:Aj:201:SER:CB	1:Aj:259:LEU:HD23	2.49	0.42
3:Aj:601:ADP:H1'	3:Aj:601:ADP:H5'2	1.67	0.42
1:Ap:209:GLU:HA	1:Bb:351:GLN:HE22	1.85	0.42
1:Av:15:LYS:CE	1:Av:64:ASP:OD1	2.68	0.42
1:Ba:167:ASP:OD1	1:Ba:168:LYS:HG3	2.19	0.42
1:Ba:392:LYS:O	1:Ba:396:VAL:HG23	2.20	0.42
1:Bb:114:MET:HE3	1:Bb:114:MET:HB3	1.87	0.42
1:Bg:142:LYS:O	1:Bg:146:GLN:OE1	2.38	0.42
1:Bh:62:LEU:HD23	1:Bh:67:GLU:OE1	2.19	0.42
1:Bn:390:LYS:HE2	1:Bn:390:LYS:HB2	1.79	0.42
1:Ac:385:THR:N	1:Ac:388:GLU:OE2	2.49	0.42
1:Ad:39:VAL:HG12	1:Ad:39:VAL:O	2.19	0.42
1:Ad:73:MET:CG	1:Aj:47:PRO:HG2	2.50	0.42
1:Ad:184:GLN:OE1	1:Ad:184:GLN:N	2.52	0.42
1:Ad:201:SER:CB	1:Ad:259:LEU:HD23	2.49	0.42
2:Af:4:ARG:C	2:Af:5:PRO:CA	2.87	0.42
1:Ai:169:VAL:O	1:Ai:169:VAL:CG2	2.66	0.42
1:Ai:390:LYS:HA	1:Ai:393:LYS:CG	2.49	0.42
1:Aj:15:LYS:CE	1:Aj:64:ASP:OD1	2.68	0.42
2:Al:58:ASP:OD2	2:Ax:7:HIS:CD2	2.72	0.42
1:Ao:31:LEU:HD23	1:Ao:454:ILE:HG13	2.01	0.42
1:Au:390:LYS:HA	1:Au:393:LYS:CG	2.49	0.42
1:Au:434:GLU:HA	1:Au:437:ASN:ND2	2.23	0.42
1:Av:201:SER:CB	1:Av:259:LEU:HD23	2.50	0.42
1:Bb:176:THR:HG22	1:Bb:177:VAL:N	2.35	0.42
1:Bg:169:VAL:O	1:Bg:169:VAL:CG2	2.66	0.42
1:Bh:15:LYS:CE	1:Bh:64:ASP:OD1	2.68	0.42
1:Bn:75:LYS:HE2	1:Bn:75:LYS:HB2	1.77	0.42
1:Ac:390:LYS:HA	1:Ac:393:LYS:CG	2.49	0.41
1:Ac:516:THR:OG1	1:Ao:37:ASN:ND2	2.53	0.41
1:Ai:420:ILE:CD1	1:Ai:448:GLU:HA	2.50	0.41
2:Al:4:ARG:C	2:Al:5:PRO:CA	2.87	0.41
1:Ap:80:LYS:HZ3	1:Ap:506:TYR:HE1	1.64	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ba:390:LYS:HA	1:Ba:393:LYS:CG	2.49	0.41
1:Bb:3:ALA:C	1:Bb:524:LEU:CD1	2.81	0.41
3:Bb:601:ADP:H5'2	3:Bb:601:ADP:H1'	1.67	0.41
2:Bd:3:ILE:CD1	2:Bp:65:VAL:O	2.67	0.41
1:Bg:167:ASP:OD1	1:Bg:168:LYS:HG3	2.19	0.41
1:Bm:179:ASP:HA	1:Bm:393:LYS:CE	2.41	0.41
1:Ad:176:THR:HG22	1:Ad:177:VAL:N	2.35	0.41
1:Ai:143:ALA:O	1:Ai:146:GLN:NE2	2.52	0.41
1:Ao:386:GLU:HG3	1:Ao:389:MET:HE1	1.99	0.41
1:Ap:15:LYS:CE	1:Ap:64:ASP:OD1	2.68	0.41
1:Ap:36:ARG:HH12	1:Bb:13:ARG:CZ	2.33	0.41
1:Av:7:LYS:CG	1:Av:66:PHE:CZ	3.00	0.41
1:Ba:420:ILE:CD1	1:Ba:448:GLU:HA	2.50	0.41
1:Bb:15:LYS:CE	1:Bb:64:ASP:OD1	2.68	0.41
2:Bd:3:ILE:C	2:Bd:3:ILE:CB	2.81	0.41
1:Bg:385:THR:CB	1:Bg:388:GLU:OE2	2.68	0.41
1:Bg:392:LYS:O	1:Bg:396:VAL:HG23	2.20	0.41
1:Bg:434:GLU:HA	1:Bg:437:ASN:ND2	2.23	0.41
1:Bh:77:VAL:HG22	1:Bh:92:ALA:HB1	2.03	0.41
1:Ad:24:ALA:HB3	1:Ad:97:GLN:NE2	2.35	0.41
2:Af:38:GLY:C	2:Af:65:VAL:HG23	2.46	0.41
1:Ai:178:GLU:HB2	1:Ai:380:LYS:HD2	2.00	0.41
1:Aj:5:ASP:N	1:Aj:524:LEU:HD11	2.31	0.41
1:Aj:199:TYR:HB3	1:Aj:325:ILE:HD12	2.02	0.41
1:Ap:69:MET:HE2	1:Ap:69:MET:HB3	1.87	0.41
1:Au:385:THR:CB	1:Au:388:GLU:OE2	2.69	0.41
1:Av:77:VAL:HG22	1:Av:92:ALA:HB1	2.03	0.41
1:Av:199:TYR:HB3	1:Av:325:ILE:HD12	2.02	0.41
1:Bb:166:MET:CE	1:Bb:403:THR:HB	2.50	0.41
2:Bd:38:GLY:C	2:Bd:65:VAL:HG23	2.46	0.41
1:Bg:104:LEU:HD23	1:Bg:104:LEU:HA	1.93	0.41
1:Bm:386:GLU:HG3	1:Bm:389:MET:HE1	1.99	0.41
2:Bp:38:GLY:C	2:Bp:65:VAL:HG23	2.46	0.41
1:Ad:441:LYS:HD2	1:Ad:441:LYS:HA	1.64	0.41
1:Ai:168:LYS:HZ2	1:Ai:187:LEU:CG	2.31	0.41
1:Ai:171:LYS:HD2	1:Ai:407:VAL:CB	2.42	0.41
1:Aj:2:ALA:C	1:Av:61:GLU:CD	2.82	0.41
2:Al:38:GLY:C	2:Al:65:VAL:HG23	2.46	0.41
1:Ao:385:THR:CB	1:Ao:388:GLU:OE2	2.68	0.41
2:Ar:1:MET:HG2	2:Bd:95:VAL:HG12	2.01	0.41
2:Ar:38:GLY:C	2:Ar:65:VAL:HG23	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:169:VAL:CG2	1:Au:173:GLY:HA3	2.51	0.41
1:Av:134:LEU:HD12	1:Av:425:LYS:NZ	2.27	0.41
1:Av:166:MET:CE	1:Av:403:THR:HB	2.50	0.41
2:Ax:58:ASP:OD2	2:Bj:7:HIS:CD2	2.73	0.41
1:Bb:24:ALA:HB3	1:Bb:97:GLN:NE2	2.35	0.41
2:Bj:96:GLU:HG2	2:Bp:5:PRO:CD	2.47	0.41
1:Bn:24:ALA:HB3	1:Bn:97:GLN:NE2	2.35	0.41
1:Bn:77:VAL:HG22	1:Bn:92:ALA:HB1	2.03	0.41
1:Ac:73:MET:HE1	1:Ao:39:VAL:HG11	1.99	0.41
1:Ac:169:VAL:CG2	1:Ac:173:GLY:HA3	2.51	0.41
1:Ac:385:THR:CB	1:Ac:388:GLU:OE2	2.68	0.41
1:Ac:525:PRO:O	1:Ac:525:PRO:C	2.61	0.41
1:Ai:169:VAL:CG2	1:Ai:173:GLY:HA3	2.51	0.41
1:Aj:166:MET:CE	1:Aj:403:THR:HB	2.50	0.41
1:Ao:169:VAL:CG2	1:Ao:173:GLY:HA3	2.51	0.41
1:Ao:169:VAL:CB	1:Ao:173:GLY:HA3	2.51	0.41
1:Ap:39:VAL:HG12	1:Ap:39:VAL:O	2.19	0.41
1:Au:392:LYS:O	1:Au:396:VAL:HG23	2.20	0.41
1:Av:113:PRO:CG	1:Bh:36:ARG:NE	2.78	0.41
1:Av:176:THR:HG22	1:Av:177:VAL:N	2.35	0.41
1:Bm:104:LEU:HD23	1:Bm:104:LEU:HA	1.93	0.41
1:Bm:169:VAL:CG2	1:Bm:173:GLY:HA3	2.51	0.41
1:Ad:166:MET:CE	1:Ad:403:THR:HB	2.50	0.41
1:Ai:178:GLU:O	1:Ai:393:LYS:NZ	2.53	0.41
1:Ai:186:GLU:O	1:Ai:380:LYS:N	2.45	0.41
1:Ai:392:LYS:O	1:Ai:396:VAL:HG23	2.20	0.41
1:Aj:77:VAL:HG22	1:Aj:92:ALA:HB1	2.03	0.41
1:Aj:114:MET:HE3	1:Aj:114:MET:HB3	1.88	0.41
1:Ao:392:LYS:O	1:Ao:396:VAL:HG23	2.20	0.41
1:Ao:434:GLU:HG2	1:Ao:435:ASP:N	2.36	0.41
1:Ba:31:LEU:HD23	1:Ba:454:ILE:HG13	2.01	0.41
1:Ba:142:LYS:O	1:Ba:146:GLN:OE1	2.38	0.41
1:Bb:209:GLU:HA	1:Bn:351:GLN:HE22	1.85	0.41
2:Bd:1:MET:HG2	2:Bp:95:VAL:HG12	2.01	0.41
2:Bd:5:PRO:O	2:Bp:96:GLU:HG3	2.20	0.41
1:Bg:169:VAL:CG2	1:Bg:173:GLY:HA3	2.51	0.41
2:Bj:38:GLY:C	2:Bj:65:VAL:HG23	2.46	0.41
1:Bm:455:VAL:HG12	1:Bm:460:GLU:HB2	1.98	0.41
1:Ac:69:MET:CE	1:Ao:41:ASP:CG	2.47	0.41
1:Ad:77:VAL:HG22	1:Ad:92:ALA:HB1	2.03	0.41
1:Aj:372:LEU:HD23	1:Aj:372:LEU:HA	1.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ao:104:LEU:HD23	1:Ao:104:LEU:HA	1.93	0.41
1:Ao:142:LYS:O	1:Ao:146:GLN:OE1	2.38	0.41
1:Ao:385:THR:N	1:Ao:388:GLU:OE2	2.49	0.41
1:Ap:166:MET:CE	1:Ap:403:THR:HB	2.50	0.41
1:Au:111:MET:HE3	1:Au:111:MET:HB3	1.71	0.41
1:Av:114:MET:HE3	1:Av:114:MET:HB3	1.87	0.41
1:Av:351:GLN:HE22	1:Bh:209:GLU:HA	1.85	0.41
2:Ax:96:GLU:HG3	2:Bj:5:PRO:O	2.20	0.41
1:Ba:169:VAL:CB	1:Ba:173:GLY:HA3	2.51	0.41
1:Ba:386:GLU:HG3	1:Ba:389:MET:HE1	1.99	0.41
1:Bb:75:LYS:HE2	1:Bb:75:LYS:HB2	1.77	0.41
1:Bn:176:THR:HG22	1:Bn:177:VAL:N	2.35	0.41
1:Ac:169:VAL:CB	1:Ac:173:GLY:HA3	2.51	0.41
1:Ad:73:MET:HG3	1:Aj:47:PRO:HG2	2.01	0.41
2:Af:5:PRO:HB3	2:Af:42:ALA:HB1	2.03	0.41
2:Af:64:ILE:CG2	2:Al:3:ILE:HG12	2.28	0.41
2:Af:74:LYS:HE3	2:Af:76:GLU:CB	2.46	0.41
2:Al:95:VAL:N	2:Ax:3:ILE:CA	2.84	0.41
1:Ao:8:PHE:CE1	1:Ba:25:ASP:HB3	2.55	0.41
1:Ao:171:LYS:HD2	1:Ao:407:VAL:CB	2.42	0.41
1:Au:25:ASP:HB2	1:Bg:8:PHE:CZ	2.56	0.41
1:Au:139:SER:HA	1:Au:171:LYS:HZ3	1.82	0.41
1:Ba:169:VAL:CG2	1:Ba:173:GLY:HA3	2.51	0.41
2:Bd:1:MET:SD	2:Bp:95:VAL:HG11	2.61	0.41
2:Bd:5:PRO:HB3	2:Bd:42:ALA:HB1	2.03	0.41
1:Bg:25:ASP:HB2	1:Bm:8:PHE:CZ	2.56	0.41
1:Bg:169:VAL:CB	1:Bg:173:GLY:HA3	2.51	0.41
1:Bh:489:ILE:HD13	1:Bh:494:LEU:CD2	2.46	0.41
1:Bm:385:THR:CB	1:Bm:388:GLU:OE2	2.69	0.41
1:Ac:142:LYS:O	1:Ac:146:GLN:OE1	2.38	0.41
1:Ad:75:LYS:HB2	1:Ad:75:LYS:HE2	1.77	0.41
1:Ad:179:ASP:CG	1:Ad:393:LYS:HZ2	2.27	0.41
1:Ad:199:TYR:HB3	1:Ad:325:ILE:HD12	2.02	0.41
1:Ai:41:ASP:N	1:Au:69:MET:CE	2.76	0.41
1:Ai:467:ASN:HD22	1:Aj:464:VAL:CG1	2.16	0.41
1:Aj:15:LYS:CE	1:Aj:66:PHE:CB	2.90	0.41
1:Aj:351:GLN:HE22	1:Av:209:GLU:HA	1.85	0.41
1:Ao:467:ASN:HD22	1:Ap:464:VAL:CG1	2.16	0.41
2:Ar:1:MET:CG	2:Bd:95:VAL:HG12	2.50	0.41
1:Au:169:VAL:CB	1:Au:173:GLY:HA3	2.51	0.41
1:Au:366:GLN:HE21	1:Au:366:GLN:HB3	1.77	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ba:161:LEU:O	1:Ba:164:GLU:CG	2.67	0.41
1:Ba:186:GLU:O	1:Ba:380:LYS:N	2.45	0.41
1:Bb:36:ARG:HH12	1:Bn:13:ARG:CZ	2.33	0.41
1:Bb:77:VAL:HG22	1:Bb:92:ALA:HB1	2.03	0.41
1:Bh:209:GLU:OE1	1:Bh:209:GLU:N	2.42	0.41
2:Bj:95:VAL:HG13	2:Bp:2:ASN:C	2.46	0.41
1:Bm:142:LYS:O	1:Bm:146:GLN:OE1	2.38	0.41
1:Bm:392:LYS:O	1:Bm:396:VAL:HG23	2.20	0.41
1:Bn:114:MET:H	1:Bn:114:MET:HG2	1.74	0.41
2:Bp:5:PRO:HB3	2:Bp:42:ALA:HB1	2.03	0.41
2:Bp:74:LYS:HE3	2:Bp:76:GLU:CB	2.46	0.41
1:Ac:8:PHE:HZ	1:Ao:25:ASP:HB2	1.85	0.41
1:Ad:15:LYS:CE	1:Ad:66:PHE:CB	2.90	0.41
1:Ad:134:LEU:HD12	1:Ad:425:LYS:NZ	2.27	0.41
2:Af:95:VAL:HG22	2:Al:3:ILE:HA	2.02	0.41
2:Af:95:VAL:CG2	2:Al:4:ARG:N	2.84	0.41
1:Ai:175:ILE:O	1:Ai:404:ARG:NH2	2.54	0.41
1:Ao:136:VAL:HB	1:Ao:411:VAL:HG23	2.03	0.41
1:Ao:179:ASP:HA	1:Ao:393:LYS:CE	2.41	0.41
1:Ap:28:LYS:HB3	1:Ap:28:LYS:HE3	1.87	0.41
1:Ap:77:VAL:HG22	1:Ap:92:ALA:HB1	2.03	0.41
1:Ap:441:LYS:HA	1:Ap:441:LYS:HD2	1.64	0.41
2:Ax:96:GLU:HG3	2:Bj:4:ARG:HE	1.86	0.41
1:Ba:8:PHE:CE1	1:Bm:25:ASP:HB3	2.56	0.41
1:Ba:385:THR:CB	1:Ba:388:GLU:OE2	2.68	0.41
1:Ba:434:GLU:HG2	1:Ba:435:ASP:N	2.36	0.41
1:Bb:421:ARG:NE	1:Bb:474:GLY:O	2.49	0.41
1:Bg:40:LEU:HD12	1:Bm:521:VAL:HG23	2.02	0.41
1:Bg:186:GLU:O	1:Bg:380:LYS:N	2.45	0.41
1:Bm:131:LEU:HD23	1:Bm:131:LEU:HA	1.89	0.41
1:Bm:175:ILE:O	1:Bm:404:ARG:NH2	2.54	0.41
1:Bm:381:VAL:HG23	1:Bm:393:LYS:HZ2	1.83	0.41
1:Ac:175:ILE:O	1:Ac:404:ARG:NH2	2.54	0.40
1:Ad:390:LYS:HE2	1:Ad:390:LYS:HB2	1.79	0.40
3:Ad:601:ADP:H5'2	3:Ad:601:ADP:H1'	1.67	0.40
1:Ai:169:VAL:CB	1:Ai:173:GLY:HA3	2.51	0.40
1:Ai:385:THR:CB	1:Ai:388:GLU:OE2	2.68	0.40
1:Aj:113:PRO:CG	1:Av:36:ARG:NE	2.77	0.40
2:Al:5:PRO:HB3	2:Al:42:ALA:HB1	2.03	0.40
2:Ar:4:ARG:O	2:Ar:5:PRO:CA	2.69	0.40
2:Ar:5:PRO:HB3	2:Ar:42:ALA:HB1	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:168:LYS:HZ2	1:Au:187:LEU:CG	2.34	0.40
1:Ba:112:ASN:HA	1:Ba:113:PRO:HD3	1.94	0.40
1:Ba:136:VAL:HB	1:Ba:411:VAL:HG23	2.03	0.40
1:Ba:157:THR:CA	1:Ba:160:LYS:NZ	2.56	0.40
2:Bd:2:ASN:O	2:Bd:3:ILE:HG13	2.22	0.40
2:Bd:4:ARG:O	2:Bd:5:PRO:CA	2.69	0.40
2:Bd:5:PRO:CD	2:Bp:96:GLU:HG2	2.46	0.40
1:Bh:2:ALA:O	1:Bn:61:GLU:HG2	2.19	0.40
1:Bh:15:LYS:CE	1:Bh:66:PHE:CB	2.90	0.40
1:Bm:169:VAL:CB	1:Bm:173:GLY:HA3	2.51	0.40
1:Ac:136:VAL:HB	1:Ac:411:VAL:HG23	2.03	0.40
1:Av:467:ASN:HD22	1:Av:464:VAL:CG1	2.16	0.40
1:Av:2:ALA:O	1:Bh:61:GLU:HG2	2.19	0.40
1:Av:5:ASP:N	1:Av:524:LEU:HD11	2.31	0.40
2:Ax:95:VAL:HG12	2:Bj:1:MET:CG	2.51	0.40
2:Ax:95:VAL:HG11	2:Bj:1:MET:SD	2.62	0.40
1:Ba:131:LEU:HD23	1:Ba:131:LEU:HA	1.89	0.40
1:Ba:168:LYS:HZ2	1:Ba:187:LEU:CG	2.31	0.40
2:Bd:3:ILE:CA	2:Bp:95:VAL:N	2.83	0.40
1:Bm:434:GLU:HG2	1:Bm:435:ASP:N	2.36	0.40
2:Af:2:ASN:O	2:Af:3:ILE:HG13	2.22	0.40
2:Af:94:ILE:CG2	2:Al:3:ILE:HB	2.50	0.40
1:Ai:25:ASP:HB3	1:Av:8:PHE:CE1	2.56	0.40
1:Ai:142:LYS:O	1:Ai:146:GLN:OE1	2.38	0.40
1:Ao:8:PHE:CZ	1:Ba:25:ASP:HB2	2.55	0.40
1:Ao:175:ILE:O	1:Ao:404:ARG:NH2	2.54	0.40
2:Ar:2:ASN:O	2:Ar:3:ILE:HG13	2.22	0.40
1:Av:25:ASP:HB3	1:Bg:8:PHE:CE1	2.56	0.40
2:Ax:94:ILE:C	2:Bj:3:ILE:CA	2.95	0.40
1:Ba:171:LYS:CE	1:Ba:407:VAL:CB	2.59	0.40
1:Bb:199:TYR:HB3	1:Bb:325:ILE:HD12	2.02	0.40
1:Bg:112:ASN:HA	1:Bg:113:PRO:HD3	1.94	0.40
1:Bh:176:THR:HG22	1:Bh:177:VAL:N	2.35	0.40
1:Bh:199:TYR:HB3	1:Bh:325:ILE:HD12	2.03	0.40
1:Bh:421:ARG:NH2	1:Bh:476:TYR:O	2.55	0.40
1:Bn:421:ARG:NH2	1:Bn:476:TYR:O	2.55	0.40
1:Ac:461:GLU:OE2	1:Ac:464:VAL:CG2	2.70	0.40
1:Ad:5:ASP:H	1:Ad:524:LEU:HD12	1.81	0.40
1:Ai:40:LEU:HD12	1:Av:521:VAL:HG23	2.03	0.40
1:Av:176:THR:HG22	1:Av:177:VAL:N	2.35	0.40
1:Av:175:ILE:O	1:Av:404:ARG:NH2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Au:461:GLU:OE2	1:Au:464:VAL:CG2	2.70	0.40
2:Ax:38:GLY:C	2:Ax:65:VAL:HG23	2.46	0.40
1:Ba:175:ILE:O	1:Ba:404:ARG:NH2	2.55	0.40
1:Ba:179:ASP:HA	1:Ba:393:LYS:CE	2.41	0.40
1:Bg:39:VAL:HG23	1:Bm:517:THR:CG2	2.52	0.40
1:Bg:179:ASP:OD1	1:Bg:393:LYS:HE3	2.22	0.40
1:Bg:434:GLU:HG2	1:Bg:435:ASP:N	2.36	0.40
1:Bh:13:ARG:CZ	1:Bn:36:ARG:HH12	2.33	0.40
2:Bp:4:ARG:O	2:Bp:5:PRO:CA	2.69	0.40
2:Bp:78:ILE:HD13	2:Bp:78:ILE:HA	1.72	0.40
2:Af:37:ARG:HH22	2:Al:76:GLU:CD	1.89	0.40
1:Ai:25:ASP:HB2	1:Au:8:PHE:CZ	2.56	0.40
1:Aj:184:GLN:OE1	1:Aj:184:GLN:N	2.52	0.40
2:Al:2:ASN:O	2:Al:3:ILE:HG13	2.22	0.40
1:Au:179:ASP:OD1	1:Au:393:LYS:HE3	2.22	0.40
2:Bd:3:ILE:CA	2:Bp:94:ILE:C	2.95	0.40
1:Bm:122:LYS:HB2	1:Bm:122:LYS:HE3	1.93	0.40
1:Bm:461:GLU:OE2	1:Bm:464:VAL:CG2	2.70	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	Ac	522/524 (100%)	494 (95%)	22 (4%)	6 (1%)	11	40
1	Ad	522/524 (100%)	510 (98%)	7 (1%)	5 (1%)	12	42
1	Ai	522/524 (100%)	494 (95%)	22 (4%)	6 (1%)	11	40
1	Aj	522/524 (100%)	510 (98%)	7 (1%)	5 (1%)	12	42
1	Ao	522/524 (100%)	493 (94%)	23 (4%)	6 (1%)	11	40
1	Ap	522/524 (100%)	510 (98%)	7 (1%)	5 (1%)	12	42

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	Au	522/524 (100%)	494 (95%)	22 (4%)	6 (1%)	11	40
1	Av	522/524 (100%)	510 (98%)	7 (1%)	5 (1%)	12	42
1	Ba	522/524 (100%)	493 (94%)	23 (4%)	6 (1%)	11	40
1	Bb	522/524 (100%)	510 (98%)	7 (1%)	5 (1%)	12	42
1	Bg	522/524 (100%)	493 (94%)	23 (4%)	6 (1%)	11	40
1	Bh	522/524 (100%)	510 (98%)	7 (1%)	5 (1%)	12	42
1	Bm	522/524 (100%)	494 (95%)	22 (4%)	6 (1%)	11	40
1	Bn	522/524 (100%)	510 (98%)	7 (1%)	5 (1%)	12	42
2	Af	95/97 (98%)	82 (86%)	6 (6%)	7 (7%)	1	7
2	Al	95/97 (98%)	82 (86%)	6 (6%)	7 (7%)	1	7
2	Ar	95/97 (98%)	82 (86%)	6 (6%)	7 (7%)	1	7
2	Ax	95/97 (98%)	82 (86%)	6 (6%)	7 (7%)	1	7
2	Bd	95/97 (98%)	82 (86%)	6 (6%)	7 (7%)	1	7
2	Bj	95/97 (98%)	82 (86%)	6 (6%)	7 (7%)	1	7
2	Bp	95/97 (98%)	82 (86%)	6 (6%)	7 (7%)	1	7
All	All	7973/8015 (100%)	7599 (95%)	248 (3%)	126 (2%)	10	33

All (126) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	Ac	171	LYS
2	Af	4	ARG
2	Af	95	VAL
1	Ai	171	LYS
2	Al	4	ARG
2	Al	95	VAL
1	Ao	171	LYS
2	Ar	4	ARG
2	Ar	95	VAL
1	Au	171	LYS
2	Ax	4	ARG
2	Ax	95	VAL
1	Ba	171	LYS
2	Bd	4	ARG
2	Bd	95	VAL
1	Bg	171	LYS
2	Bj	4	ARG

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Mol	Chain	Res	Type
2	Bj	95	VAL
1	Bm	171	LYS
2	Bp	4	ARG
2	Bp	95	VAL
1	Ac	205	ILE
1	Ad	231	ARG
2	Af	18	GLU
2	Af	54	VAL
2	Af	64	ILE
2	Af	94	ILE
1	Ai	205	ILE
1	Aj	231	ARG
2	Al	18	GLU
2	Al	54	VAL
2	Al	64	ILE
2	Al	94	ILE
1	Ao	205	ILE
1	Ap	231	ARG
2	Ar	18	GLU
2	Ar	54	VAL
2	Ar	64	ILE
2	Ar	94	ILE
1	Au	205	ILE
1	Av	231	ARG
2	Ax	18	GLU
2	Ax	54	VAL
2	Ax	64	ILE
2	Ax	94	ILE
1	Ba	205	ILE
1	Bb	231	ARG
2	Bd	18	GLU
2	Bd	54	VAL
2	Bd	64	ILE
2	Bd	94	ILE
1	Bg	205	ILE
1	Bh	231	ARG
2	Bj	18	GLU
2	Bj	54	VAL
2	Bj	64	ILE
2	Bj	94	ILE
1	Bm	205	ILE
1	Bn	231	ARG

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Mol	Chain	Res	Type
2	Bp	18	GLU
2	Bp	54	VAL
2	Bp	64	ILE
2	Bp	94	ILE
1	Ac	87	ASP
1	Ac	306	GLY
1	Ac	308	GLU
1	Ad	225	LYS
1	Ad	334	ASP
1	Ai	87	ASP
1	Ai	306	GLY
1	Ai	308	GLU
1	Aj	225	LYS
1	Aj	334	ASP
1	Ao	87	ASP
1	Ao	306	GLY
1	Ao	308	GLU
1	Ap	225	LYS
1	Ap	334	ASP
1	Au	87	ASP
1	Au	306	GLY
1	Au	308	GLU
1	Av	225	LYS
1	Av	334	ASP
1	Ba	87	ASP
1	Ba	306	GLY
1	Ba	308	GLU
1	Bb	225	LYS
1	Bb	334	ASP
1	Bg	87	ASP
1	Bg	306	GLY
1	Bg	308	GLU
1	Bh	225	LYS
1	Bh	334	ASP
1	Bm	87	ASP
1	Bm	306	GLY
1	Bm	308	GLU
1	Bn	225	LYS
1	Bn	334	ASP
1	Ac	210	THR
1	Ai	210	THR
1	Ao	210	THR

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Mol	Chain	Res	Type
1	Au	210	THR
1	Ba	210	THR
1	Bg	210	THR
1	Bm	210	THR
1	Ad	322	ARG
1	Aj	322	ARG
1	Ap	322	ARG
1	Av	322	ARG
1	Bb	322	ARG
1	Bh	322	ARG
1	Bn	322	ARG
2	Af	59	VAL
2	Al	59	VAL
2	Ar	59	VAL
2	Ax	59	VAL
2	Bd	59	VAL
2	Bj	59	VAL
2	Bp	59	VAL
1	Ad	217	SER
1	Aj	217	SER
1	Ap	217	SER
1	Av	217	SER
1	Bb	217	SER
1	Bh	217	SER
1	Bn	217	SER

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	Ac	404/404 (100%)	365 (90%)	39 (10%)	8	30
1	Ad	404/404 (100%)	366 (91%)	38 (9%)	8	30
1	Ai	404/404 (100%)	365 (90%)	39 (10%)	8	30
1	Aj	404/404 (100%)	366 (91%)	38 (9%)	8	30
1	Ao	404/404 (100%)	365 (90%)	39 (10%)	8	30

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	Ap	404/404 (100%)	366 (91%)	38 (9%)	8	30
1	Au	404/404 (100%)	365 (90%)	39 (10%)	8	30
1	Av	404/404 (100%)	366 (91%)	38 (9%)	8	30
1	Ba	404/404 (100%)	365 (90%)	39 (10%)	8	30
1	Bb	404/404 (100%)	366 (91%)	38 (9%)	8	30
1	Bg	404/404 (100%)	365 (90%)	39 (10%)	8	30
1	Bh	404/404 (100%)	366 (91%)	38 (9%)	8	30
1	Bm	404/404 (100%)	365 (90%)	39 (10%)	8	30
1	Bn	404/404 (100%)	366 (91%)	38 (9%)	8	30
2	Af	80/80 (100%)	53 (66%)	27 (34%)	0	1
2	Al	80/80 (100%)	53 (66%)	27 (34%)	0	1
2	Ar	80/80 (100%)	53 (66%)	27 (34%)	0	1
2	Ax	80/80 (100%)	53 (66%)	27 (34%)	0	1
2	Bd	80/80 (100%)	53 (66%)	27 (34%)	0	1
2	Bj	80/80 (100%)	53 (66%)	27 (34%)	0	1
2	Bp	80/80 (100%)	53 (66%)	27 (34%)	0	1
All	All	6216/6216 (100%)	5488 (88%)	728 (12%)	7	23

All (728) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Ac	14	VAL
1	Ac	16	MET
1	Ac	40	LEU
1	Ac	55	SER
1	Ac	77	VAL
1	Ac	79	SER
1	Ac	80	LYS
1	Ac	82	ASN
1	Ac	89	THR
1	Ac	90	THR
1	Ac	111	MET
1	Ac	116	LEU
1	Ac	122	LYS
1	Ac	128	VAL
1	Ac	139	SER

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Mol	Chain	Res	Type
1	Ac	157	THR
1	Ac	177	VAL
1	Ac	184	GLN
1	Ac	196	ASP
1	Ac	199	TYR
1	Ac	215	LEU
1	Ac	231	ARG
1	Ac	252	GLU
1	Ac	283	ASP
1	Ac	289	LEU
1	Ac	310	GLU
1	Ac	325	ILE
1	Ac	358	SER
1	Ac	366	GLN
1	Ac	420	ILE
1	Ac	432	GLN
1	Ac	440	ILE
1	Ac	456	LEU
1	Ac	489	ILE
1	Ac	515	ILE
1	Ac	518	GLU
1	Ac	521	VAL
1	Ac	523	ASP
1	Ac	524	LEU
1	Ad	4	LYS
1	Ad	6	VAL
1	Ad	10	ASN
1	Ad	23	LEU
1	Ad	42	LYS
1	Ad	87	ASP
1	Ad	105	LYS
1	Ad	144	ILE
1	Ad	157	THR
1	Ad	175	ILE
1	Ad	190	VAL
1	Ad	193	MET
1	Ad	194	GLN
1	Ad	201	SER
1	Ad	214	GLU
1	Ad	273	VAL
1	Ad	284	ARG
1	Ad	286	LYS

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Mol	Chain	Res	Type
1	Ad	305	ILE
1	Ad	307	MET
1	Ad	308	GLU
1	Ad	313	THR
1	Ad	326	ASN
1	Ad	328	ASP
1	Ad	379	ILE
1	Ad	380	LYS
1	Ad	385	THR
1	Ad	397	GLU
1	Ad	417	VAL
1	Ad	420	ILE
1	Ad	435	ASP
1	Ad	441	LYS
1	Ad	453	GLN
1	Ad	460	GLU
1	Ad	483	GLU
1	Ad	498	LYS
1	Ad	509	SER
1	Ad	510	VAL
2	Af	1	MET
2	Af	2	ASN
2	Af	3	ILE
2	Af	4	ARG
2	Af	6	LEU
2	Af	13	LYS
2	Af	34	LYS
2	Af	36	THR
2	Af	37	ARG
2	Af	43	VAL
2	Af	48	ILE
2	Af	49	LEU
2	Af	53	GLU
2	Af	54	VAL
2	Af	64	ILE
2	Af	65	VAL
2	Af	66	ILE
2	Af	69	ASP
2	Af	74	LYS
2	Af	75	SER
2	Af	77	LYS
2	Af	78	ILE

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Mol	Chain	Res	Type
2	Af	80	ASN
2	Af	81	GLU
2	Af	85	ILE
2	Af	94	ILE
2	Af	96	GLU
1	Ai	14	VAL
1	Ai	16	MET
1	Ai	40	LEU
1	Ai	55	SER
1	Ai	77	VAL
1	Ai	79	SER
1	Ai	80	LYS
1	Ai	82	ASN
1	Ai	89	THR
1	Ai	90	THR
1	Ai	111	MET
1	Ai	116	LEU
1	Ai	122	LYS
1	Ai	128	VAL
1	Ai	139	SER
1	Ai	157	THR
1	Ai	177	VAL
1	Ai	184	GLN
1	Ai	196	ASP
1	Ai	199	TYR
1	Ai	215	LEU
1	Ai	231	ARG
1	Ai	252	GLU
1	Ai	283	ASP
1	Ai	289	LEU
1	Ai	310	GLU
1	Ai	325	ILE
1	Ai	358	SER
1	Ai	366	GLN
1	Ai	420	ILE
1	Ai	432	GLN
1	Ai	440	ILE
1	Ai	456	LEU
1	Ai	489	ILE
1	Ai	515	ILE
1	Ai	518	GLU
1	Ai	521	VAL

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Mol	Chain	Res	Type
1	Ai	523	ASP
1	Ai	524	LEU
1	Aj	4	LYS
1	Aj	6	VAL
1	Aj	10	ASN
1	Aj	23	LEU
1	Aj	42	LYS
1	Aj	87	ASP
1	Aj	105	LYS
1	Aj	144	ILE
1	Aj	157	THR
1	Aj	175	ILE
1	Aj	190	VAL
1	Aj	193	MET
1	Aj	194	GLN
1	Aj	201	SER
1	Aj	214	GLU
1	Aj	273	VAL
1	Aj	284	ARG
1	Aj	286	LYS
1	Aj	305	ILE
1	Aj	307	MET
1	Aj	308	GLU
1	Aj	313	THR
1	Aj	326	ASN
1	Aj	328	ASP
1	Aj	379	ILE
1	Aj	380	LYS
1	Aj	385	THR
1	Aj	397	GLU
1	Aj	417	VAL
1	Aj	420	ILE
1	Aj	435	ASP
1	Aj	441	LYS
1	Aj	453	GLN
1	Aj	460	GLU
1	Aj	483	GLU
1	Aj	498	LYS
1	Aj	509	SER
1	Aj	510	VAL
2	Al	1	MET
2	Al	2	ASN

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Mol	Chain	Res	Type
2	Al	3	ILE
2	Al	4	ARG
2	Al	6	LEU
2	Al	13	LYS
2	Al	34	LYS
2	Al	36	THR
2	Al	37	ARG
2	Al	43	VAL
2	Al	48	ILE
2	Al	49	LEU
2	Al	53	GLU
2	Al	54	VAL
2	Al	64	ILE
2	Al	65	VAL
2	Al	66	ILE
2	Al	69	ASP
2	Al	74	LYS
2	Al	75	SER
2	Al	77	LYS
2	Al	78	ILE
2	Al	80	ASN
2	Al	81	GLU
2	Al	85	ILE
2	Al	94	ILE
2	Al	96	GLU
1	Ao	14	VAL
1	Ao	16	MET
1	Ao	40	LEU
1	Ao	55	SER
1	Ao	77	VAL
1	Ao	79	SER
1	Ao	80	LYS
1	Ao	82	ASN
1	Ao	89	THR
1	Ao	90	THR
1	Ao	111	MET
1	Ao	116	LEU
1	Ao	122	LYS
1	Ao	128	VAL
1	Ao	139	SER
1	Ao	157	THR
1	Ao	177	VAL

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Mol	Chain	Res	Type
1	Ao	184	GLN
1	Ao	196	ASP
1	Ao	199	TYR
1	Ao	215	LEU
1	Ao	231	ARG
1	Ao	252	GLU
1	Ao	283	ASP
1	Ao	289	LEU
1	Ao	310	GLU
1	Ao	325	ILE
1	Ao	358	SER
1	Ao	366	GLN
1	Ao	420	ILE
1	Ao	432	GLN
1	Ao	440	ILE
1	Ao	456	LEU
1	Ao	489	ILE
1	Ao	515	ILE
1	Ao	518	GLU
1	Ao	521	VAL
1	Ao	523	ASP
1	Ao	524	LEU
1	Ap	4	LYS
1	Ap	6	VAL
1	Ap	10	ASN
1	Ap	23	LEU
1	Ap	42	LYS
1	Ap	87	ASP
1	Ap	105	LYS
1	Ap	144	ILE
1	Ap	157	THR
1	Ap	175	ILE
1	Ap	190	VAL
1	Ap	193	MET
1	Ap	194	GLN
1	Ap	201	SER
1	Ap	214	GLU
1	Ap	273	VAL
1	Ap	284	ARG
1	Ap	286	LYS
1	Ap	305	ILE
1	Ap	307	MET

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Mol	Chain	Res	Type
1	Ap	308	GLU
1	Ap	313	THR
1	Ap	326	ASN
1	Ap	328	ASP
1	Ap	379	ILE
1	Ap	380	LYS
1	Ap	385	THR
1	Ap	397	GLU
1	Ap	417	VAL
1	Ap	420	ILE
1	Ap	435	ASP
1	Ap	441	LYS
1	Ap	453	GLN
1	Ap	460	GLU
1	Ap	483	GLU
1	Ap	498	LYS
1	Ap	509	SER
1	Ap	510	VAL
2	Ar	1	MET
2	Ar	2	ASN
2	Ar	3	ILE
2	Ar	4	ARG
2	Ar	6	LEU
2	Ar	13	LYS
2	Ar	34	LYS
2	Ar	36	THR
2	Ar	37	ARG
2	Ar	43	VAL
2	Ar	48	ILE
2	Ar	49	LEU
2	Ar	53	GLU
2	Ar	54	VAL
2	Ar	64	ILE
2	Ar	65	VAL
2	Ar	66	ILE
2	Ar	69	ASP
2	Ar	74	LYS
2	Ar	75	SER
2	Ar	77	LYS
2	Ar	78	ILE
2	Ar	80	ASN
2	Ar	81	GLU

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Mol	Chain	Res	Type
2	Ar	85	ILE
2	Ar	94	ILE
2	Ar	96	GLU
1	Au	14	VAL
1	Au	16	MET
1	Au	40	LEU
1	Au	55	SER
1	Au	77	VAL
1	Au	79	SER
1	Au	80	LYS
1	Au	82	ASN
1	Au	89	THR
1	Au	90	THR
1	Au	111	MET
1	Au	116	LEU
1	Au	122	LYS
1	Au	128	VAL
1	Au	139	SER
1	Au	157	THR
1	Au	177	VAL
1	Au	184	GLN
1	Au	196	ASP
1	Au	199	TYR
1	Au	215	LEU
1	Au	231	ARG
1	Au	252	GLU
1	Au	283	ASP
1	Au	289	LEU
1	Au	310	GLU
1	Au	325	ILE
1	Au	358	SER
1	Au	366	GLN
1	Au	420	ILE
1	Au	432	GLN
1	Au	440	ILE
1	Au	456	LEU
1	Au	489	ILE
1	Au	515	ILE
1	Au	518	GLU
1	Au	521	VAL
1	Au	523	ASP
1	Au	524	LEU

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Mol	Chain	Res	Type
1	Av	4	LYS
1	Av	6	VAL
1	Av	10	ASN
1	Av	23	LEU
1	Av	42	LYS
1	Av	87	ASP
1	Av	105	LYS
1	Av	144	ILE
1	Av	157	THR
1	Av	175	ILE
1	Av	190	VAL
1	Av	193	MET
1	Av	194	GLN
1	Av	201	SER
1	Av	214	GLU
1	Av	273	VAL
1	Av	284	ARG
1	Av	286	LYS
1	Av	305	ILE
1	Av	307	MET
1	Av	308	GLU
1	Av	313	THR
1	Av	326	ASN
1	Av	328	ASP
1	Av	379	ILE
1	Av	380	LYS
1	Av	385	THR
1	Av	397	GLU
1	Av	417	VAL
1	Av	420	ILE
1	Av	435	ASP
1	Av	441	LYS
1	Av	453	GLN
1	Av	460	GLU
1	Av	483	GLU
1	Av	498	LYS
1	Av	509	SER
1	Av	510	VAL
2	Ax	1	MET
2	Ax	2	ASN
2	Ax	3	ILE
2	Ax	4	ARG

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Mol	Chain	Res	Type
2	Ax	6	LEU
2	Ax	13	LYS
2	Ax	34	LYS
2	Ax	36	THR
2	Ax	37	ARG
2	Ax	43	VAL
2	Ax	48	ILE
2	Ax	49	LEU
2	Ax	53	GLU
2	Ax	54	VAL
2	Ax	64	ILE
2	Ax	65	VAL
2	Ax	66	ILE
2	Ax	69	ASP
2	Ax	74	LYS
2	Ax	75	SER
2	Ax	77	LYS
2	Ax	78	ILE
2	Ax	80	ASN
2	Ax	81	GLU
2	Ax	85	ILE
2	Ax	94	ILE
2	Ax	96	GLU
1	Ba	14	VAL
1	Ba	16	MET
1	Ba	40	LEU
1	Ba	55	SER
1	Ba	77	VAL
1	Ba	79	SER
1	Ba	80	LYS
1	Ba	82	ASN
1	Ba	89	THR
1	Ba	90	THR
1	Ba	111	MET
1	Ba	116	LEU
1	Ba	122	LYS
1	Ba	128	VAL
1	Ba	139	SER
1	Ba	157	THR
1	Ba	177	VAL
1	Ba	184	GLN
1	Ba	196	ASP

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Mol	Chain	Res	Type
1	Ba	199	TYR
1	Ba	215	LEU
1	Ba	231	ARG
1	Ba	252	GLU
1	Ba	283	ASP
1	Ba	289	LEU
1	Ba	310	GLU
1	Ba	325	ILE
1	Ba	358	SER
1	Ba	366	GLN
1	Ba	420	ILE
1	Ba	432	GLN
1	Ba	440	ILE
1	Ba	456	LEU
1	Ba	489	ILE
1	Ba	515	ILE
1	Ba	518	GLU
1	Ba	521	VAL
1	Ba	523	ASP
1	Ba	524	LEU
1	Bb	4	LYS
1	Bb	6	VAL
1	Bb	10	ASN
1	Bb	23	LEU
1	Bb	42	LYS
1	Bb	87	ASP
1	Bb	105	LYS
1	Bb	144	ILE
1	Bb	157	THR
1	Bb	175	ILE
1	Bb	190	VAL
1	Bb	193	MET
1	Bb	194	GLN
1	Bb	201	SER
1	Bb	214	GLU
1	Bb	273	VAL
1	Bb	284	ARG
1	Bb	286	LYS
1	Bb	305	ILE
1	Bb	307	MET
1	Bb	308	GLU
1	Bb	313	THR

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Mol	Chain	Res	Type
1	Bb	326	ASN
1	Bb	328	ASP
1	Bb	379	ILE
1	Bb	380	LYS
1	Bb	385	THR
1	Bb	397	GLU
1	Bb	417	VAL
1	Bb	420	ILE
1	Bb	435	ASP
1	Bb	441	LYS
1	Bb	453	GLN
1	Bb	460	GLU
1	Bb	483	GLU
1	Bb	498	LYS
1	Bb	509	SER
1	Bb	510	VAL
2	Bd	1	MET
2	Bd	2	ASN
2	Bd	3	ILE
2	Bd	4	ARG
2	Bd	6	LEU
2	Bd	13	LYS
2	Bd	34	LYS
2	Bd	36	THR
2	Bd	37	ARG
2	Bd	43	VAL
2	Bd	48	ILE
2	Bd	49	LEU
2	Bd	53	GLU
2	Bd	54	VAL
2	Bd	64	ILE
2	Bd	65	VAL
2	Bd	66	ILE
2	Bd	69	ASP
2	Bd	74	LYS
2	Bd	75	SER
2	Bd	77	LYS
2	Bd	78	ILE
2	Bd	80	ASN
2	Bd	81	GLU
2	Bd	85	ILE
2	Bd	94	ILE

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Mol	Chain	Res	Type
2	Bd	96	GLU
1	Bg	14	VAL
1	Bg	16	MET
1	Bg	40	LEU
1	Bg	55	SER
1	Bg	77	VAL
1	Bg	79	SER
1	Bg	80	LYS
1	Bg	82	ASN
1	Bg	89	THR
1	Bg	90	THR
1	Bg	111	MET
1	Bg	116	LEU
1	Bg	122	LYS
1	Bg	128	VAL
1	Bg	139	SER
1	Bg	157	THR
1	Bg	177	VAL
1	Bg	184	GLN
1	Bg	196	ASP
1	Bg	199	TYR
1	Bg	215	LEU
1	Bg	231	ARG
1	Bg	252	GLU
1	Bg	283	ASP
1	Bg	289	LEU
1	Bg	310	GLU
1	Bg	325	ILE
1	Bg	358	SER
1	Bg	366	GLN
1	Bg	420	ILE
1	Bg	432	GLN
1	Bg	440	ILE
1	Bg	456	LEU
1	Bg	489	ILE
1	Bg	515	ILE
1	Bg	518	GLU
1	Bg	521	VAL
1	Bg	523	ASP
1	Bg	524	LEU
1	Bh	4	LYS
1	Bh	6	VAL

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Mol	Chain	Res	Type
1	Bh	10	ASN
1	Bh	23	LEU
1	Bh	42	LYS
1	Bh	87	ASP
1	Bh	105	LYS
1	Bh	144	ILE
1	Bh	157	THR
1	Bh	175	ILE
1	Bh	190	VAL
1	Bh	193	MET
1	Bh	194	GLN
1	Bh	201	SER
1	Bh	214	GLU
1	Bh	273	VAL
1	Bh	284	ARG
1	Bh	286	LYS
1	Bh	305	ILE
1	Bh	307	MET
1	Bh	308	GLU
1	Bh	313	THR
1	Bh	326	ASN
1	Bh	328	ASP
1	Bh	379	ILE
1	Bh	380	LYS
1	Bh	385	THR
1	Bh	397	GLU
1	Bh	417	VAL
1	Bh	420	ILE
1	Bh	435	ASP
1	Bh	441	LYS
1	Bh	453	GLN
1	Bh	460	GLU
1	Bh	483	GLU
1	Bh	498	LYS
1	Bh	509	SER
1	Bh	510	VAL
2	Bj	1	MET
2	Bj	2	ASN
2	Bj	3	ILE
2	Bj	4	ARG
2	Bj	6	LEU
2	Bj	13	LYS

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Mol	Chain	Res	Type
2	Bj	34	LYS
2	Bj	36	THR
2	Bj	37	ARG
2	Bj	43	VAL
2	Bj	48	ILE
2	Bj	49	LEU
2	Bj	53	GLU
2	Bj	54	VAL
2	Bj	64	ILE
2	Bj	65	VAL
2	Bj	66	ILE
2	Bj	69	ASP
2	Bj	74	LYS
2	Bj	75	SER
2	Bj	77	LYS
2	Bj	78	ILE
2	Bj	80	ASN
2	Bj	81	GLU
2	Bj	85	ILE
2	Bj	94	ILE
2	Bj	96	GLU
1	Bm	14	VAL
1	Bm	16	MET
1	Bm	40	LEU
1	Bm	55	SER
1	Bm	77	VAL
1	Bm	79	SER
1	Bm	80	LYS
1	Bm	82	ASN
1	Bm	89	THR
1	Bm	90	THR
1	Bm	111	MET
1	Bm	116	LEU
1	Bm	122	LYS
1	Bm	128	VAL
1	Bm	139	SER
1	Bm	157	THR
1	Bm	177	VAL
1	Bm	184	GLN
1	Bm	196	ASP
1	Bm	199	TYR
1	Bm	215	LEU

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Mol	Chain	Res	Type
1	Bm	231	ARG
1	Bm	252	GLU
1	Bm	283	ASP
1	Bm	289	LEU
1	Bm	310	GLU
1	Bm	325	ILE
1	Bm	358	SER
1	Bm	366	GLN
1	Bm	420	ILE
1	Bm	432	GLN
1	Bm	440	ILE
1	Bm	456	LEU
1	Bm	489	ILE
1	Bm	515	ILE
1	Bm	518	GLU
1	Bm	521	VAL
1	Bm	523	ASP
1	Bm	524	LEU
1	Bn	4	LYS
1	Bn	6	VAL
1	Bn	10	ASN
1	Bn	23	LEU
1	Bn	42	LYS
1	Bn	87	ASP
1	Bn	105	LYS
1	Bn	144	ILE
1	Bn	157	THR
1	Bn	175	ILE
1	Bn	190	VAL
1	Bn	193	MET
1	Bn	194	GLN
1	Bn	201	SER
1	Bn	214	GLU
1	Bn	273	VAL
1	Bn	284	ARG
1	Bn	286	LYS
1	Bn	305	ILE
1	Bn	307	MET
1	Bn	308	GLU
1	Bn	313	THR
1	Bn	326	ASN
1	Bn	328	ASP

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Mol	Chain	Res	Type
1	Bn	379	ILE
1	Bn	380	LYS
1	Bn	385	THR
1	Bn	397	GLU
1	Bn	417	VAL
1	Bn	420	ILE
1	Bn	435	ASP
1	Bn	441	LYS
1	Bn	453	GLN
1	Bn	460	GLU
1	Bn	483	GLU
1	Bn	498	LYS
1	Bn	509	SER
1	Bn	510	VAL
2	Bp	1	MET
2	Bp	2	ASN
2	Bp	3	ILE
2	Bp	4	ARG
2	Bp	6	LEU
2	Bp	13	LYS
2	Bp	34	LYS
2	Bp	36	THR
2	Bp	37	ARG
2	Bp	43	VAL
2	Bp	48	ILE
2	Bp	49	LEU
2	Bp	53	GLU
2	Bp	54	VAL
2	Bp	64	ILE
2	Bp	65	VAL
2	Bp	66	ILE
2	Bp	69	ASP
2	Bp	74	LYS
2	Bp	75	SER
2	Bp	77	LYS
2	Bp	78	ILE
2	Bp	80	ASN
2	Bp	81	GLU
2	Bp	85	ILE
2	Bp	94	ILE
2	Bp	96	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (130)

such sidechains are listed below:

Mol	Chain	Res	Type
1	Ac	21	ASN
1	Ac	72	GLN
1	Ac	319	GLN
1	Ac	326	ASN
1	Ac	348	GLN
1	Ac	352	GLN
1	Ac	366	GLN
1	Ac	401	HIS
1	Ac	437	ASN
1	Ac	453	GLN
1	Ac	467	ASN
1	Ac	479	ASN
1	Ad	21	ASN
1	Ad	37	ASN
1	Ad	82	ASN
1	Ad	146	GLN
1	Ad	229	ASN
1	Ad	351	GLN
1	Ad	366	GLN
1	Ai	21	ASN
1	Ai	319	GLN
1	Ai	326	ASN
1	Ai	348	GLN
1	Ai	352	GLN
1	Ai	366	GLN
1	Ai	401	HIS
1	Ai	437	ASN
1	Ai	453	GLN
1	Ai	467	ASN
1	Ai	479	ASN
1	Aj	21	ASN
1	Aj	37	ASN
1	Aj	82	ASN
1	Aj	146	GLN
1	Aj	229	ASN
1	Aj	351	GLN
1	Ao	21	ASN
1	Ao	72	GLN
1	Ao	319	GLN
1	Ao	326	ASN
1	Ao	348	GLN
1	Ao	352	GLN

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Mol	Chain	Res	Type
1	Ao	366	GLN
1	Ao	401	HIS
1	Ao	437	ASN
1	Ao	453	GLN
1	Ao	467	ASN
1	Ao	479	ASN
1	Ap	21	ASN
1	Ap	37	ASN
1	Ap	82	ASN
1	Ap	146	GLN
1	Ap	351	GLN
1	Ap	457	ASN
1	Au	21	ASN
1	Au	72	GLN
1	Au	319	GLN
1	Au	326	ASN
1	Au	348	GLN
1	Au	352	GLN
1	Au	366	GLN
1	Au	401	HIS
1	Au	437	ASN
1	Au	453	GLN
1	Au	467	ASN
1	Au	479	ASN
1	Av	21	ASN
1	Av	37	ASN
1	Av	82	ASN
1	Av	146	GLN
1	Av	229	ASN
1	Av	351	GLN
1	Av	457	ASN
1	Ba	21	ASN
1	Ba	72	GLN
1	Ba	319	GLN
1	Ba	326	ASN
1	Ba	348	GLN
1	Ba	352	GLN
1	Ba	366	GLN
1	Ba	401	HIS
1	Ba	437	ASN
1	Ba	453	GLN
1	Ba	467	ASN

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Continued from previous page...

Mol	Chain	Res	Type
1	Ba	479	ASN
1	Bb	21	ASN
1	Bb	37	ASN
1	Bb	82	ASN
1	Bb	146	GLN
1	Bb	229	ASN
1	Bb	351	GLN
1	Bb	457	ASN
1	Bg	21	ASN
1	Bg	72	GLN
1	Bg	319	GLN
1	Bg	326	ASN
1	Bg	348	GLN
1	Bg	352	GLN
1	Bg	366	GLN
1	Bg	401	HIS
1	Bg	437	ASN
1	Bg	453	GLN
1	Bg	467	ASN
1	Bg	479	ASN
1	Bh	21	ASN
1	Bh	37	ASN
1	Bh	82	ASN
1	Bh	146	GLN
1	Bh	229	ASN
1	Bh	351	GLN
2	Bj	7	HIS
1	Bm	21	ASN
1	Bm	72	GLN
1	Bm	319	GLN
1	Bm	326	ASN
1	Bm	348	GLN
1	Bm	352	GLN
1	Bm	366	GLN
1	Bm	401	HIS
1	Bm	437	ASN
1	Bm	453	GLN
1	Bm	467	ASN
1	Bm	479	ASN
1	Bn	21	ASN
1	Bn	37	ASN
1	Bn	82	ASN

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Mol	Chain	Res	Type
1	Bn	146	GLN
1	Bn	229	ASN
1	Bn	351	GLN
1	Bn	457	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](#)

Of 28 ligands modelled in this entry, 14 are monoatomic - leaving 14 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	ADP	Ba	601	4	28,29,29	2.95	8 (28%)	43,45,45	1.92	8 (18%)
3	ADP	Bb	601	4	28,29,29	2.92	8 (28%)	43,45,45	2.12	11 (25%)
3	ADP	Bh	601	4	28,29,29	2.92	8 (28%)	43,45,45	2.12	11 (25%)
3	ADP	Ad	601	4	28,29,29	2.92	8 (28%)	43,45,45	2.12	11 (25%)
3	ADP	Bn	601	4	28,29,29	2.92	8 (28%)	43,45,45	2.12	11 (25%)
3	ADP	Au	601	4	28,29,29	2.95	8 (28%)	43,45,45	1.91	8 (18%)
3	ADP	Ai	601	4	28,29,29	2.95	8 (28%)	43,45,45	1.91	8 (18%)
3	ADP	Ac	601	4	28,29,29	2.95	8 (28%)	43,45,45	1.91	8 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	ADP	Bm	601	4	28,29,29	2.94	8 (28%)	43,45,45	1.91	8 (18%)
3	ADP	Aj	601	4	28,29,29	2.92	8 (28%)	43,45,45	2.12	11 (25%)
3	ADP	Ao	601	4	28,29,29	2.94	8 (28%)	43,45,45	1.91	8 (18%)
3	ADP	Ap	601	4	28,29,29	2.92	8 (28%)	43,45,45	2.12	11 (25%)
3	ADP	Bg	601	4	28,29,29	2.94	8 (28%)	43,45,45	1.91	8 (18%)
3	ADP	Av	601	4	28,29,29	2.92	8 (28%)	43,45,45	2.13	11 (25%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	ADP	Ba	601	4	-	6/16/32/32	0/3/3/3
3	ADP	Bb	601	4	1/1/6/6	8/16/32/32	0/3/3/3
3	ADP	Bh	601	4	1/1/6/6	8/16/32/32	0/3/3/3
3	ADP	Ad	601	4	1/1/6/6	8/16/32/32	0/3/3/3
3	ADP	Bn	601	4	1/1/6/6	8/16/32/32	0/3/3/3
3	ADP	Au	601	4	-	6/16/32/32	0/3/3/3
3	ADP	Ai	601	4	-	6/16/32/32	0/3/3/3
3	ADP	Ac	601	4	-	6/16/32/32	0/3/3/3
3	ADP	Bm	601	4	-	6/16/32/32	0/3/3/3
3	ADP	Ap	601	4	1/1/6/6	8/16/32/32	0/3/3/3
3	ADP	Aj	601	4	1/1/6/6	8/16/32/32	0/3/3/3
3	ADP	Ao	601	4	-	6/16/32/32	0/3/3/3
3	ADP	Bg	601	4	-	6/16/32/32	0/3/3/3
3	ADP	Av	601	4	1/1/6/6	8/16/32/32	0/3/3/3

All (112) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	Bh	601	ADP	C3'-C4'	-8.05	1.32	1.53
3	Aj	601	ADP	C3'-C4'	-8.03	1.32	1.53
3	Av	601	ADP	C3'-C4'	-8.03	1.32	1.53
3	Ad	601	ADP	C3'-C4'	-8.03	1.32	1.53
3	Bn	601	ADP	C3'-C4'	-8.02	1.32	1.53
3	Ai	601	ADP	O4'-C4'	8.01	1.62	1.45
3	Bb	601	ADP	C3'-C4'	-8.01	1.32	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	Ap	601	ADP	C3'-C4'	-8.01	1.32	1.53
3	Ba	601	ADP	O4'-C4'	7.99	1.62	1.45
3	Bm	601	ADP	O4'-C4'	7.98	1.62	1.45
3	Ac	601	ADP	O4'-C4'	7.97	1.62	1.45
3	Ai	601	ADP	C3'-C4'	-7.97	1.32	1.53
3	Ao	601	ADP	C3'-C4'	-7.97	1.32	1.53
3	Ba	601	ADP	C3'-C4'	-7.97	1.32	1.53
3	Bg	601	ADP	O4'-C4'	7.97	1.62	1.45
3	Ao	601	ADP	O4'-C4'	7.96	1.62	1.45
3	Ac	601	ADP	C3'-C4'	-7.96	1.32	1.53
3	Au	601	ADP	C3'-C4'	-7.96	1.32	1.53
3	Bg	601	ADP	C3'-C4'	-7.96	1.32	1.53
3	Au	601	ADP	O4'-C4'	7.96	1.62	1.45
3	Bm	601	ADP	C3'-C4'	-7.95	1.32	1.53
3	Bn	601	ADP	O4'-C4'	7.64	1.62	1.45
3	Ap	601	ADP	O4'-C4'	7.63	1.62	1.45
3	Ad	601	ADP	O4'-C4'	7.62	1.61	1.45
3	Bb	601	ADP	O4'-C4'	7.62	1.61	1.45
3	Aj	601	ADP	O4'-C4'	7.62	1.61	1.45
3	Av	601	ADP	O4'-C4'	7.62	1.61	1.45
3	Bh	601	ADP	O4'-C4'	7.60	1.61	1.45
3	Au	601	ADP	PA-O3A	5.53	1.65	1.59
3	Ba	601	ADP	PA-O3A	5.50	1.65	1.59
3	Ac	601	ADP	PA-O3A	5.46	1.65	1.59
3	Bm	601	ADP	PA-O3A	5.45	1.65	1.59
3	Ai	601	ADP	PA-O3A	5.42	1.65	1.59
3	Ao	601	ADP	PA-O3A	5.41	1.65	1.59
3	Bg	601	ADP	PA-O3A	5.40	1.65	1.59
3	Bh	601	ADP	PA-O3A	5.08	1.65	1.59
3	Ap	601	ADP	PA-O3A	5.05	1.65	1.59
3	Ad	601	ADP	PA-O3A	5.05	1.64	1.59
3	Aj	601	ADP	PA-O3A	5.05	1.64	1.59
3	Bb	601	ADP	PA-O3A	5.03	1.64	1.59
3	Bn	601	ADP	PA-O3A	5.01	1.64	1.59
3	Av	601	ADP	PA-O3A	5.00	1.64	1.59
3	Ad	601	ADP	C6-N6	4.75	1.46	1.34
3	Av	601	ADP	C6-N6	4.74	1.46	1.34
3	Bn	601	ADP	C6-N6	4.74	1.46	1.34
3	Bb	601	ADP	C6-N6	4.74	1.46	1.34
3	Ap	601	ADP	C6-N6	4.74	1.46	1.34
3	Bh	601	ADP	C6-N6	4.74	1.46	1.34
3	Aj	601	ADP	C6-N6	4.72	1.46	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	Bm	601	ADP	C6-N6	4.69	1.46	1.34
3	Ac	601	ADP	C6-N6	4.68	1.46	1.34
3	Au	601	ADP	C6-N6	4.67	1.46	1.34
3	Ao	601	ADP	C6-N6	4.67	1.46	1.34
3	Bg	601	ADP	C6-N6	4.67	1.46	1.34
3	Ai	601	ADP	C6-N6	4.66	1.46	1.34
3	Ba	601	ADP	C6-N6	4.65	1.46	1.34
3	Bn	601	ADP	O4'-C1'	-4.49	1.31	1.42
3	Ad	601	ADP	O4'-C1'	-4.49	1.31	1.42
3	Ap	601	ADP	O4'-C1'	-4.48	1.31	1.42
3	Av	601	ADP	O4'-C1'	-4.48	1.31	1.42
3	Bh	601	ADP	O4'-C1'	-4.47	1.31	1.42
3	Aj	601	ADP	O4'-C1'	-4.47	1.31	1.42
3	Bb	601	ADP	O4'-C1'	-4.47	1.31	1.42
3	Aj	601	ADP	O2'-C2'	-4.39	1.32	1.43
3	Bh	601	ADP	O2'-C2'	-4.38	1.32	1.43
3	Bn	601	ADP	O2'-C2'	-4.37	1.32	1.43
3	Ap	601	ADP	O2'-C2'	-4.36	1.32	1.43
3	Av	601	ADP	O2'-C2'	-4.36	1.32	1.43
3	Ad	601	ADP	O2'-C2'	-4.35	1.32	1.43
3	Au	601	ADP	O2'-C2'	-4.35	1.32	1.43
3	Bb	601	ADP	O2'-C2'	-4.34	1.32	1.43
3	Bg	601	ADP	O2'-C2'	-4.33	1.32	1.43
3	Ac	601	ADP	O2'-C2'	-4.33	1.32	1.43
3	Ai	601	ADP	O2'-C2'	-4.32	1.32	1.43
3	Ao	601	ADP	O2'-C2'	-4.32	1.32	1.43
3	Bm	601	ADP	O2'-C2'	-4.32	1.32	1.43
3	Ba	601	ADP	O2'-C2'	-4.30	1.32	1.43
3	Ao	601	ADP	O4'-C1'	-4.13	1.32	1.42
3	Ba	601	ADP	O4'-C1'	-4.10	1.32	1.42
3	Au	601	ADP	O4'-C1'	-4.09	1.32	1.42
3	Ac	601	ADP	O4'-C1'	-4.09	1.32	1.42
3	Ai	601	ADP	O4'-C1'	-4.09	1.32	1.42
3	Bm	601	ADP	O4'-C1'	-4.08	1.32	1.42
3	Bg	601	ADP	O4'-C1'	-4.08	1.32	1.42
3	Bh	601	ADP	C5-N7	-2.21	1.35	1.39
3	Bn	601	ADP	C5-N7	-2.21	1.35	1.39
3	Bb	601	ADP	C5-N7	-2.19	1.35	1.39
3	Ac	601	ADP	O3'-C3'	2.19	1.48	1.43
3	Bg	601	ADP	O3'-C3'	2.18	1.48	1.43
3	Ao	601	ADP	O3'-C3'	2.18	1.48	1.43
3	Ad	601	ADP	C5-N7	-2.18	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	Av	601	ADP	C5-N7	-2.18	1.35	1.39
3	Ba	601	ADP	O3'-C3'	2.18	1.48	1.43
3	Ai	601	ADP	O3'-C3'	2.18	1.48	1.43
3	Au	601	ADP	O3'-C3'	2.17	1.48	1.43
3	Bm	601	ADP	O3'-C3'	2.17	1.48	1.43
3	Aj	601	ADP	C5-N7	-2.17	1.35	1.39
3	Ap	601	ADP	C5-N7	-2.16	1.35	1.39
3	Bg	601	ADP	C5-N7	-2.15	1.35	1.39
3	Bh	601	ADP	O3'-C3'	2.15	1.48	1.43
3	Av	601	ADP	O3'-C3'	2.14	1.48	1.43
3	Aj	601	ADP	O3'-C3'	2.14	1.48	1.43
3	Bm	601	ADP	C5-N7	-2.13	1.35	1.39
3	Ad	601	ADP	O3'-C3'	2.13	1.48	1.43
3	Bb	601	ADP	O3'-C3'	2.12	1.48	1.43
3	Bn	601	ADP	O3'-C3'	2.12	1.48	1.43
3	Ac	601	ADP	C5-N7	-2.11	1.35	1.39
3	Ap	601	ADP	O3'-C3'	2.11	1.48	1.43
3	Ao	601	ADP	C5-N7	-2.09	1.35	1.39
3	Au	601	ADP	C5-N7	-2.09	1.35	1.39
3	Ai	601	ADP	C5-N7	-2.09	1.35	1.39
3	Ba	601	ADP	C5-N7	-2.07	1.35	1.39

All (133) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Ba	601	ADP	C5-C4-N3	-5.98	118.49	126.72
3	Ac	601	ADP	C5-C4-N3	-5.96	118.51	126.72
3	Bm	601	ADP	C5-C4-N3	-5.96	118.51	126.72
3	Au	601	ADP	C5-C4-N3	-5.95	118.52	126.72
3	Ao	601	ADP	C5-C4-N3	-5.95	118.52	126.72
3	Bg	601	ADP	C5-C4-N3	-5.94	118.53	126.72
3	Ai	601	ADP	C5-C4-N3	-5.92	118.56	126.72
3	Av	601	ADP	C5-C4-N3	-5.86	118.65	126.72
3	Ad	601	ADP	C5-C4-N3	-5.82	118.70	126.72
3	Aj	601	ADP	C5-C4-N3	-5.82	118.70	126.72
3	Bh	601	ADP	C5-C4-N3	-5.82	118.70	126.72
3	Ap	601	ADP	C5-C4-N3	-5.82	118.70	126.72
3	Bb	601	ADP	C5-C4-N3	-5.81	118.72	126.72
3	Bn	601	ADP	C5-C4-N3	-5.81	118.72	126.72
3	Ao	601	ADP	N3-C2-N1	-5.24	120.65	128.58
3	Au	601	ADP	N3-C2-N1	-5.24	120.65	128.58
3	Ac	601	ADP	N3-C2-N1	-5.22	120.67	128.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Ba	601	ADP	N3-C2-N1	-5.22	120.68	128.58
3	Ai	601	ADP	N3-C2-N1	-5.21	120.69	128.58
3	Bm	601	ADP	N3-C2-N1	-5.18	120.74	128.58
3	Bg	601	ADP	N3-C2-N1	-5.18	120.75	128.58
3	Ap	601	ADP	N3-C2-N1	-5.06	120.93	128.58
3	Av	601	ADP	N3-C2-N1	-5.05	120.94	128.58
3	Aj	601	ADP	N3-C2-N1	-5.03	120.96	128.58
3	Bb	601	ADP	N3-C2-N1	-5.03	120.97	128.58
3	Bh	601	ADP	N3-C2-N1	-5.03	120.97	128.58
3	Ad	601	ADP	N3-C2-N1	-5.03	120.97	128.58
3	Bn	601	ADP	N3-C2-N1	-5.02	120.98	128.58
3	Bh	601	ADP	N3-C4-N9	4.93	135.56	127.17
3	Ad	601	ADP	N3-C4-N9	4.92	135.54	127.17
3	Av	601	ADP	N3-C4-N9	4.92	135.53	127.17
3	Aj	601	ADP	N3-C4-N9	4.91	135.52	127.17
3	Bb	601	ADP	N3-C4-N9	4.91	135.51	127.17
3	Ap	601	ADP	N3-C4-N9	4.90	135.50	127.17
3	Ba	601	ADP	N3-C4-N9	4.89	135.49	127.17
3	Bn	601	ADP	N3-C4-N9	4.89	135.48	127.17
3	Ac	601	ADP	N3-C4-N9	4.86	135.44	127.17
3	Au	601	ADP	N3-C4-N9	4.86	135.44	127.17
3	Bg	601	ADP	N3-C4-N9	4.86	135.43	127.17
3	Bm	601	ADP	N3-C4-N9	4.85	135.42	127.17
3	Ai	601	ADP	N3-C4-N9	4.85	135.42	127.17
3	Ao	601	ADP	N3-C4-N9	4.82	135.37	127.17
3	Bn	601	ADP	C4'-O4'-C1'	-4.68	99.14	109.47
3	Bh	601	ADP	C4'-O4'-C1'	-4.68	99.14	109.47
3	Ap	601	ADP	C4'-O4'-C1'	-4.67	99.15	109.47
3	Aj	601	ADP	C4'-O4'-C1'	-4.67	99.15	109.47
3	Ad	601	ADP	C4'-O4'-C1'	-4.67	99.16	109.47
3	Bb	601	ADP	C4'-O4'-C1'	-4.67	99.16	109.47
3	Av	601	ADP	C4'-O4'-C1'	-4.65	99.21	109.47
3	Bm	601	ADP	N9-C8-N7	-3.52	108.95	113.94
3	Bg	601	ADP	N9-C8-N7	-3.50	108.97	113.94
3	Ac	601	ADP	N9-C8-N7	-3.50	108.98	113.94
3	Ba	601	ADP	N9-C8-N7	-3.48	108.99	113.94
3	Ai	601	ADP	N9-C8-N7	-3.48	109.00	113.94
3	Au	601	ADP	N9-C8-N7	-3.48	109.00	113.94
3	Ao	601	ADP	N9-C8-N7	-3.48	109.00	113.94
3	Av	601	ADP	O4'-C1'-N9	3.47	114.75	108.09
3	Av	601	ADP	C2-N3-C4	3.45	120.26	111.83
3	Bb	601	ADP	C2-N3-C4	3.44	120.23	111.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Bh	601	ADP	C2-N3-C4	3.44	120.23	111.83
3	Aj	601	ADP	C2-N3-C4	3.43	120.22	111.83
3	Ad	601	ADP	C2-N3-C4	3.43	120.22	111.83
3	Ap	601	ADP	C2-N3-C4	3.43	120.21	111.83
3	Ad	601	ADP	O4'-C1'-N9	3.43	114.67	108.09
3	Aj	601	ADP	O4'-C1'-N9	3.42	114.66	108.09
3	Bh	601	ADP	O4'-C1'-N9	3.42	114.66	108.09
3	Bb	601	ADP	O4'-C1'-N9	3.42	114.66	108.09
3	Bn	601	ADP	C2-N3-C4	3.42	120.17	111.83
3	Ap	601	ADP	O4'-C1'-N9	3.41	114.64	108.09
3	Bn	601	ADP	O4'-C1'-N9	3.41	114.64	108.09
3	Ba	601	ADP	C4-N9-C8	3.24	109.14	105.74
3	Bg	601	ADP	C4-N9-C8	3.23	109.13	105.74
3	Bm	601	ADP	C4-N9-C8	3.22	109.12	105.74
3	Bn	601	ADP	N9-C8-N7	-3.22	109.37	113.94
3	Au	601	ADP	C4-N9-C8	3.22	109.12	105.74
3	Ac	601	ADP	C4-N9-C8	3.22	109.11	105.74
3	Ai	601	ADP	C4-N9-C8	3.22	109.11	105.74
3	Aj	601	ADP	N9-C8-N7	-3.21	109.38	113.94
3	Ap	601	ADP	N9-C8-N7	-3.21	109.38	113.94
3	Bb	601	ADP	N9-C8-N7	-3.21	109.38	113.94
3	Ad	601	ADP	N9-C8-N7	-3.20	109.39	113.94
3	Av	601	ADP	N9-C8-N7	-3.20	109.39	113.94
3	Bh	601	ADP	N9-C8-N7	-3.20	109.40	113.94
3	Ao	601	ADP	C4-N9-C8	3.17	109.07	105.74
3	Bh	601	ADP	C4-N9-C8	3.03	108.92	105.74
3	Ad	601	ADP	C4-N9-C8	3.02	108.91	105.74
3	Aj	601	ADP	C4-N9-C8	3.01	108.90	105.74
3	Ap	601	ADP	C4-N9-C8	3.00	108.89	105.74
3	Bm	601	ADP	C5-N7-C8	2.99	108.16	103.45
3	Av	601	ADP	C4-N9-C8	2.99	108.88	105.74
3	Bn	601	ADP	C5-N7-C8	2.98	108.14	103.45
3	Ba	601	ADP	C5-N7-C8	2.98	108.14	103.45
3	Bb	601	ADP	C4-N9-C8	2.98	108.87	105.74
3	Bn	601	ADP	C4-N9-C8	2.98	108.87	105.74
3	Ac	601	ADP	C5-N7-C8	2.98	108.13	103.45
3	Au	601	ADP	C5-N7-C8	2.98	108.13	103.45
3	Av	601	ADP	C5-N7-C8	2.97	108.12	103.45
3	Ap	601	ADP	C5-N7-C8	2.97	108.12	103.45
3	Ai	601	ADP	C5-N7-C8	2.97	108.11	103.45
3	Bb	601	ADP	C5-N7-C8	2.97	108.11	103.45
3	Bg	601	ADP	C5-N7-C8	2.96	108.10	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Ad	601	ADP	C5-N7-C8	2.95	108.09	103.45
3	Ao	601	ADP	C5-N7-C8	2.95	108.08	103.45
3	Bh	601	ADP	C5-N7-C8	2.94	108.07	103.45
3	Aj	601	ADP	C5-N7-C8	2.94	108.07	103.45
3	Ba	601	ADP	C2-N3-C4	2.93	118.98	111.83
3	Ac	601	ADP	C2-N3-C4	2.91	118.94	111.83
3	Au	601	ADP	C2-N3-C4	2.91	118.94	111.83
3	Ai	601	ADP	C2-N3-C4	2.90	118.92	111.83
3	Ao	601	ADP	C2-N3-C4	2.90	118.92	111.83
3	Bg	601	ADP	C2-N3-C4	2.89	118.90	111.83
3	Bm	601	ADP	C2-N3-C4	2.89	118.89	111.83
3	Ba	601	ADP	C4-C5-N7	-2.51	107.71	110.58
3	Bm	601	ADP	C4-C5-N7	-2.51	107.71	110.58
3	Au	601	ADP	C4-C5-N7	-2.51	107.72	110.58
3	Ac	601	ADP	C4-C5-N7	-2.49	107.73	110.58
3	Ao	601	ADP	C4-C5-N7	-2.49	107.74	110.58
3	Ai	601	ADP	C4-C5-N7	-2.47	107.76	110.58
3	Ap	601	ADP	C5'-C4'-C3'	-2.47	106.33	115.21
3	Bg	601	ADP	C4-C5-N7	-2.46	107.77	110.58
3	Bh	601	ADP	C5'-C4'-C3'	-2.46	106.35	115.21
3	Bb	601	ADP	C5'-C4'-C3'	-2.46	106.36	115.21
3	Av	601	ADP	C5'-C4'-C3'	-2.46	106.36	115.21
3	Aj	601	ADP	C5'-C4'-C3'	-2.46	106.36	115.21
3	Ad	601	ADP	C5'-C4'-C3'	-2.46	106.37	115.21
3	Bn	601	ADP	C5'-C4'-C3'	-2.46	106.37	115.21
3	Av	601	ADP	C4-C5-N7	-2.44	107.79	110.58
3	Bn	601	ADP	C4-C5-N7	-2.42	107.81	110.58
3	Ap	601	ADP	C4-C5-N7	-2.42	107.82	110.58
3	Ad	601	ADP	C4-C5-N7	-2.39	107.85	110.58
3	Bb	601	ADP	C4-C5-N7	-2.38	107.86	110.58
3	Aj	601	ADP	C4-C5-N7	-2.37	107.87	110.58
3	Bh	601	ADP	C4-C5-N7	-2.37	107.87	110.58

All (7) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
3	Ad	601	ADP	C1'
3	Aj	601	ADP	C1'
3	Ap	601	ADP	C1'
3	Av	601	ADP	C1'
3	Bb	601	ADP	C1'
3	Bh	601	ADP	C1'

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Mol	Chain	Res	Type	Atom
3	Bn	601	ADP	C1'

All (98) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	Ad	601	ADP	C5'-O5'-PA-O1A
3	Ad	601	ADP	C5'-O5'-PA-O2A
3	Ad	601	ADP	C5'-O5'-PA-O3A
3	Ad	601	ADP	O4'-C4'-C5'-O5'
3	Ad	601	ADP	C3'-C4'-C5'-O5'
3	Aj	601	ADP	C5'-O5'-PA-O1A
3	Aj	601	ADP	C5'-O5'-PA-O2A
3	Aj	601	ADP	C5'-O5'-PA-O3A
3	Aj	601	ADP	O4'-C4'-C5'-O5'
3	Aj	601	ADP	C3'-C4'-C5'-O5'
3	Ap	601	ADP	C5'-O5'-PA-O1A
3	Ap	601	ADP	C5'-O5'-PA-O2A
3	Ap	601	ADP	C5'-O5'-PA-O3A
3	Ap	601	ADP	O4'-C4'-C5'-O5'
3	Ap	601	ADP	C3'-C4'-C5'-O5'
3	Av	601	ADP	C5'-O5'-PA-O1A
3	Av	601	ADP	C5'-O5'-PA-O2A
3	Av	601	ADP	C5'-O5'-PA-O3A
3	Av	601	ADP	O4'-C4'-C5'-O5'
3	Av	601	ADP	C3'-C4'-C5'-O5'
3	Bb	601	ADP	C5'-O5'-PA-O1A
3	Bb	601	ADP	C5'-O5'-PA-O2A
3	Bb	601	ADP	C5'-O5'-PA-O3A
3	Bb	601	ADP	O4'-C4'-C5'-O5'
3	Bb	601	ADP	C3'-C4'-C5'-O5'
3	Bh	601	ADP	C5'-O5'-PA-O1A
3	Bh	601	ADP	C5'-O5'-PA-O2A
3	Bh	601	ADP	C5'-O5'-PA-O3A
3	Bh	601	ADP	O4'-C4'-C5'-O5'
3	Bh	601	ADP	C3'-C4'-C5'-O5'
3	Bn	601	ADP	C5'-O5'-PA-O1A
3	Bn	601	ADP	C5'-O5'-PA-O2A
3	Bn	601	ADP	C5'-O5'-PA-O3A
3	Bn	601	ADP	O4'-C4'-C5'-O5'
3	Bn	601	ADP	C3'-C4'-C5'-O5'
3	Ac	601	ADP	C3'-C4'-C5'-O5'
3	Ai	601	ADP	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
3	Ao	601	ADP	C3'-C4'-C5'-O5'
3	Au	601	ADP	C3'-C4'-C5'-O5'
3	Ba	601	ADP	C3'-C4'-C5'-O5'
3	Bg	601	ADP	C3'-C4'-C5'-O5'
3	Bm	601	ADP	C3'-C4'-C5'-O5'
3	Ac	601	ADP	PB-O3A-PA-O1A
3	Ai	601	ADP	PB-O3A-PA-O1A
3	Ao	601	ADP	PB-O3A-PA-O1A
3	Au	601	ADP	PB-O3A-PA-O1A
3	Ba	601	ADP	PB-O3A-PA-O1A
3	Bg	601	ADP	PB-O3A-PA-O1A
3	Bm	601	ADP	PB-O3A-PA-O1A
3	Ad	601	ADP	PB-O3A-PA-O5'
3	Aj	601	ADP	PB-O3A-PA-O5'
3	Ap	601	ADP	PB-O3A-PA-O5'
3	Av	601	ADP	PB-O3A-PA-O5'
3	Bb	601	ADP	PB-O3A-PA-O5'
3	Bh	601	ADP	PB-O3A-PA-O5'
3	Bn	601	ADP	PB-O3A-PA-O5'
3	Ac	601	ADP	O4'-C4'-C5'-O5'
3	Ai	601	ADP	O4'-C4'-C5'-O5'
3	Ao	601	ADP	O4'-C4'-C5'-O5'
3	Au	601	ADP	O4'-C4'-C5'-O5'
3	Ba	601	ADP	O4'-C4'-C5'-O5'
3	Bg	601	ADP	O4'-C4'-C5'-O5'
3	Bm	601	ADP	O4'-C4'-C5'-O5'
3	Ac	601	ADP	C5'-O5'-PA-O1A
3	Ac	601	ADP	C5'-O5'-PA-O3A
3	Ai	601	ADP	C5'-O5'-PA-O1A
3	Ai	601	ADP	C5'-O5'-PA-O3A
3	Ao	601	ADP	C5'-O5'-PA-O1A
3	Ao	601	ADP	C5'-O5'-PA-O3A
3	Au	601	ADP	C5'-O5'-PA-O1A
3	Au	601	ADP	C5'-O5'-PA-O3A
3	Ba	601	ADP	C5'-O5'-PA-O1A
3	Ba	601	ADP	C5'-O5'-PA-O3A
3	Bg	601	ADP	C5'-O5'-PA-O1A
3	Bg	601	ADP	C5'-O5'-PA-O3A
3	Bm	601	ADP	C5'-O5'-PA-O1A
3	Bm	601	ADP	C5'-O5'-PA-O3A
3	Ad	601	ADP	O4'-C1'-N9-C8
3	Aj	601	ADP	O4'-C1'-N9-C8

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Mol	Chain	Res	Type	Atoms
3	Ap	601	ADP	O4'-C1'-N9-C8
3	Av	601	ADP	O4'-C1'-N9-C8
3	Bb	601	ADP	O4'-C1'-N9-C8
3	Bh	601	ADP	O4'-C1'-N9-C8
3	Bn	601	ADP	O4'-C1'-N9-C8
3	Ad	601	ADP	O4'-C1'-N9-C4
3	Aj	601	ADP	O4'-C1'-N9-C4
3	Ap	601	ADP	O4'-C1'-N9-C4
3	Av	601	ADP	O4'-C1'-N9-C4
3	Bb	601	ADP	O4'-C1'-N9-C4
3	Bh	601	ADP	O4'-C1'-N9-C4
3	Bn	601	ADP	O4'-C1'-N9-C4
3	Ac	601	ADP	C2'-C1'-N9-C8
3	Ai	601	ADP	C2'-C1'-N9-C8
3	Ao	601	ADP	C2'-C1'-N9-C8
3	Au	601	ADP	C2'-C1'-N9-C8
3	Ba	601	ADP	C2'-C1'-N9-C8
3	Bg	601	ADP	C2'-C1'-N9-C8
3	Bm	601	ADP	C2'-C1'-N9-C8

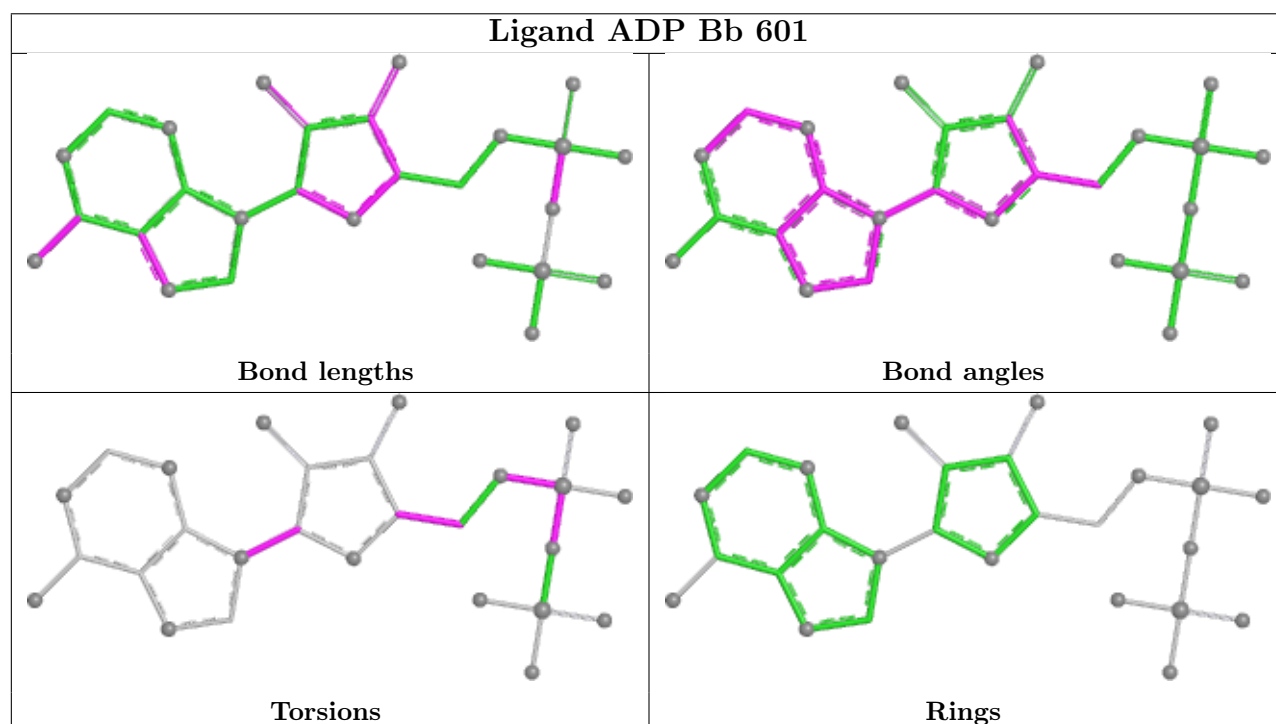
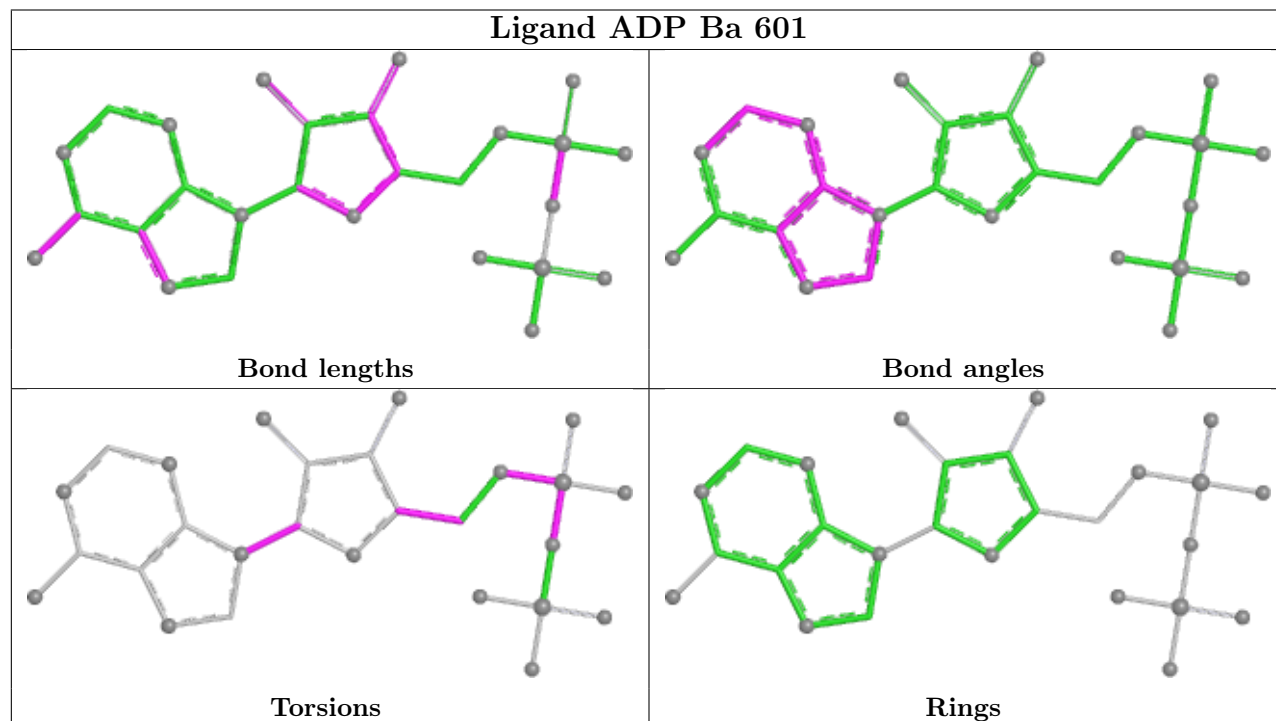
There are no ring outliers.

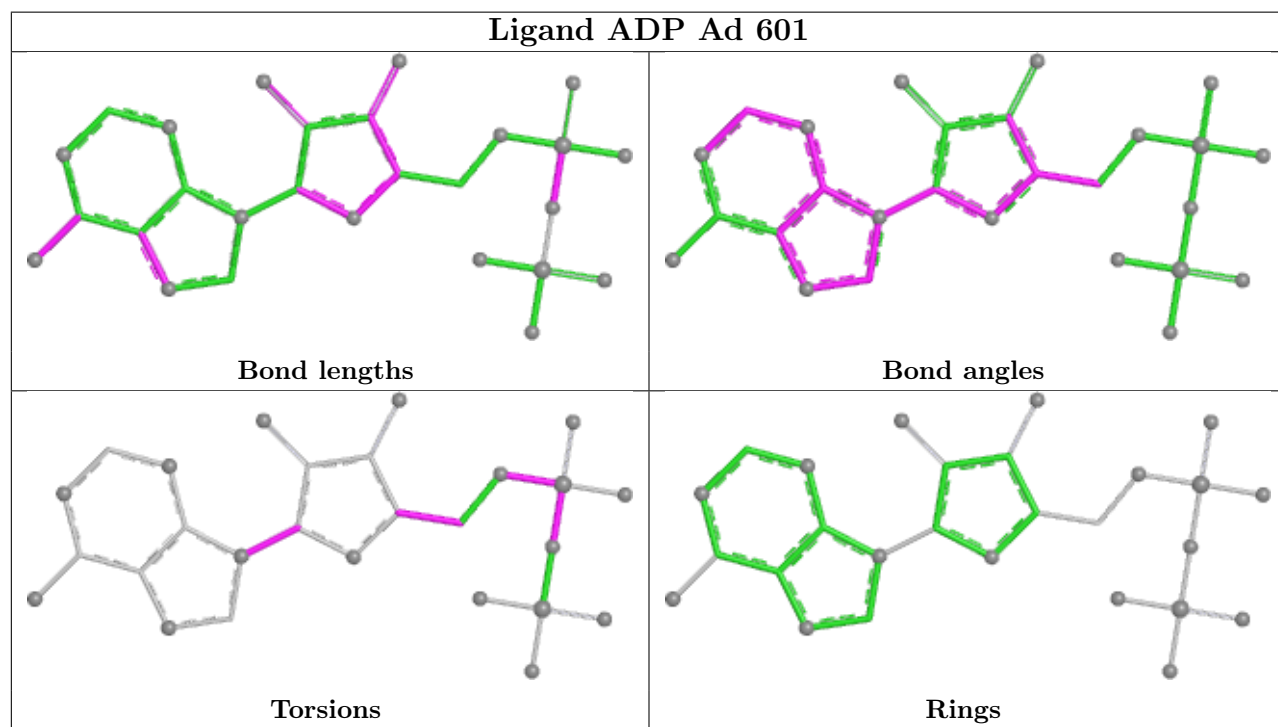
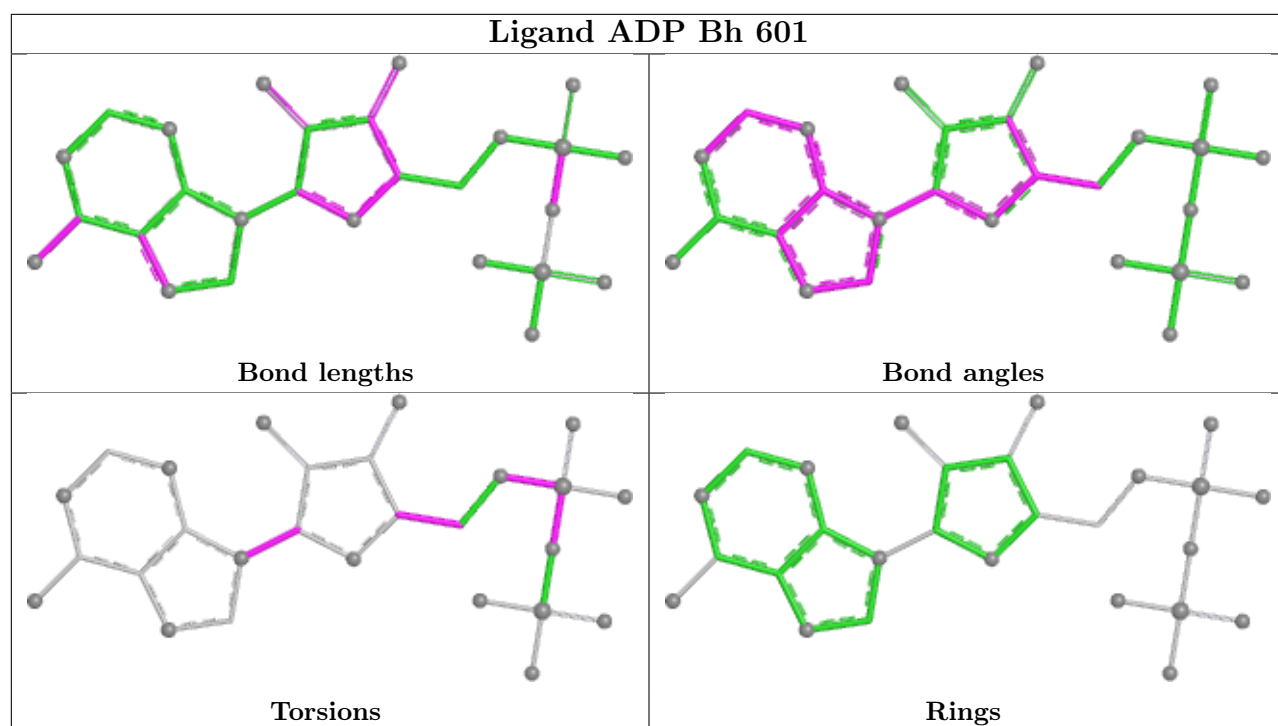
13 monomers are involved in 13 short contacts:

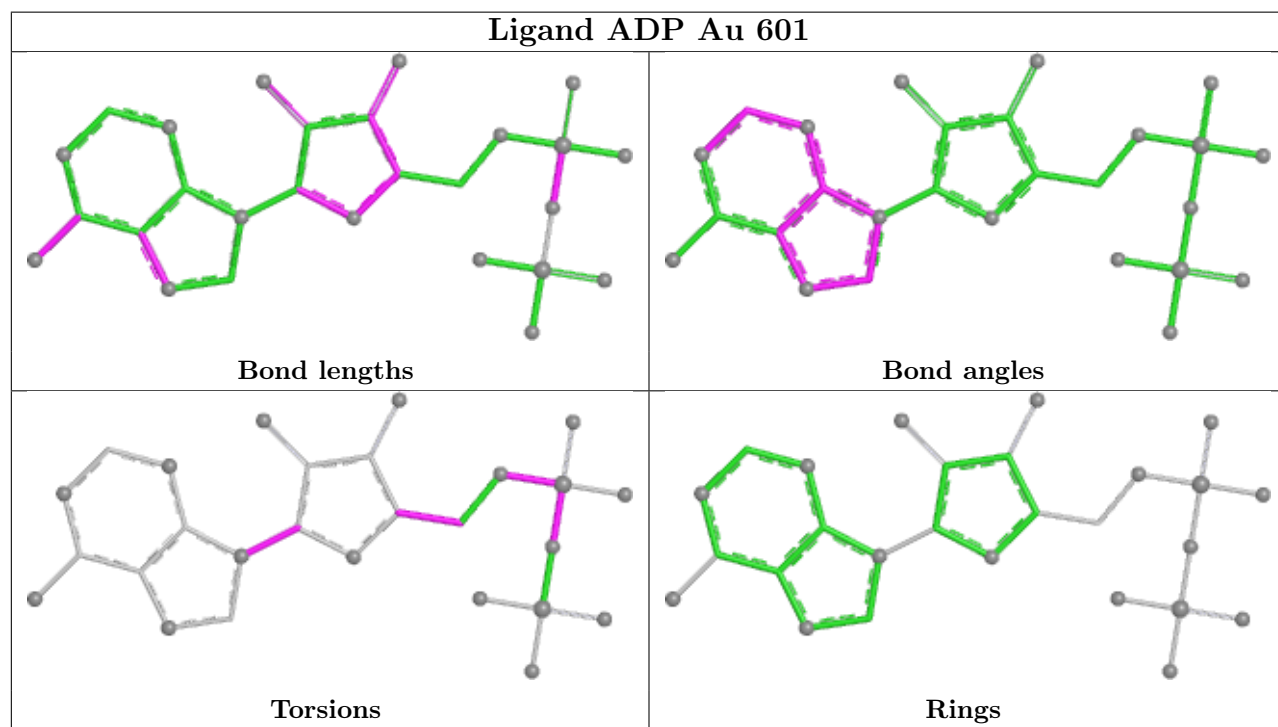
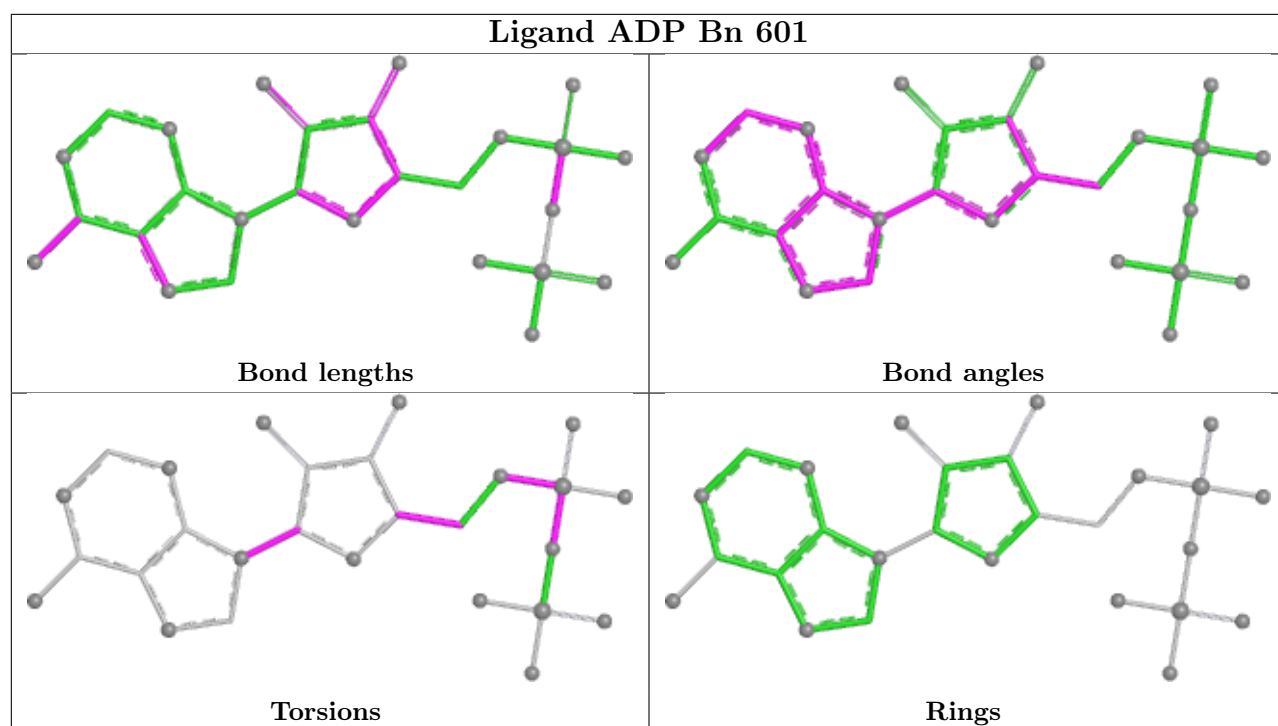
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	Ba	601	ADP	1	0
3	Bb	601	ADP	1	0
3	Bh	601	ADP	1	0
3	Ad	601	ADP	1	0
3	Bn	601	ADP	1	0
3	Au	601	ADP	1	0
3	Ai	601	ADP	1	0
3	Ac	601	ADP	1	0
3	Bm	601	ADP	1	0
3	Aj	601	ADP	1	0
3	Ao	601	ADP	1	0
3	Bg	601	ADP	1	0
3	Av	601	ADP	1	0

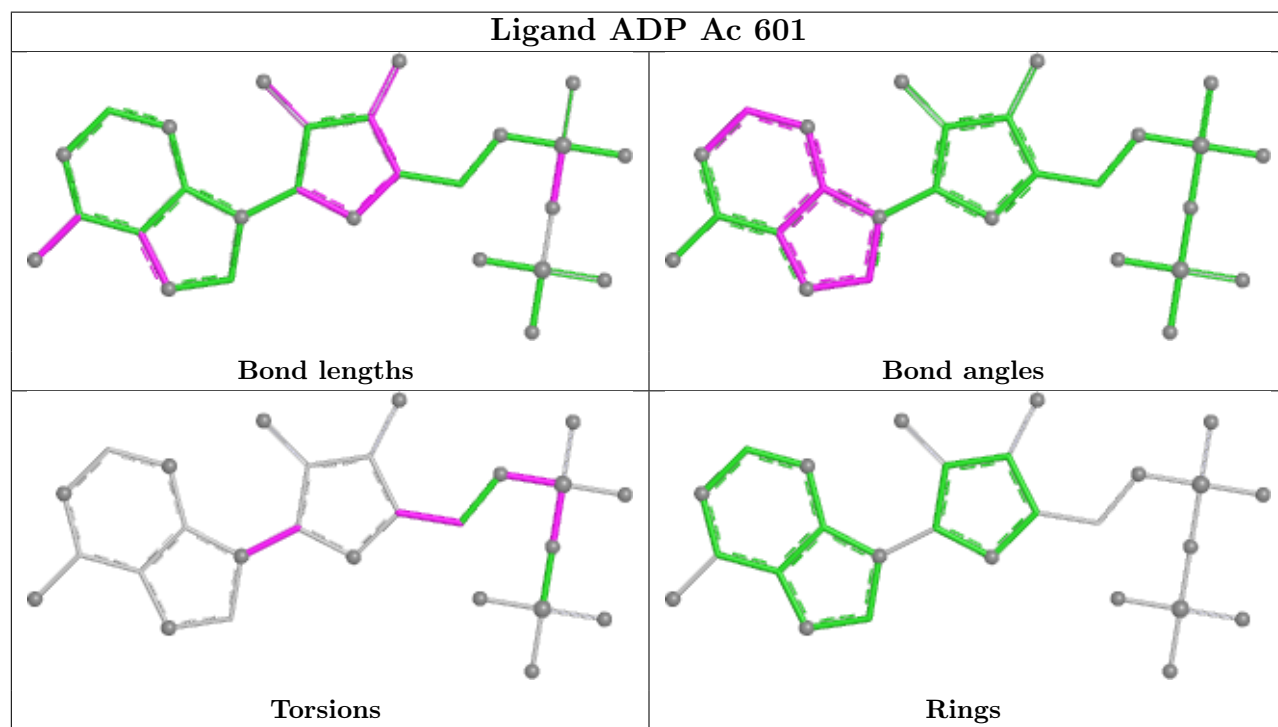
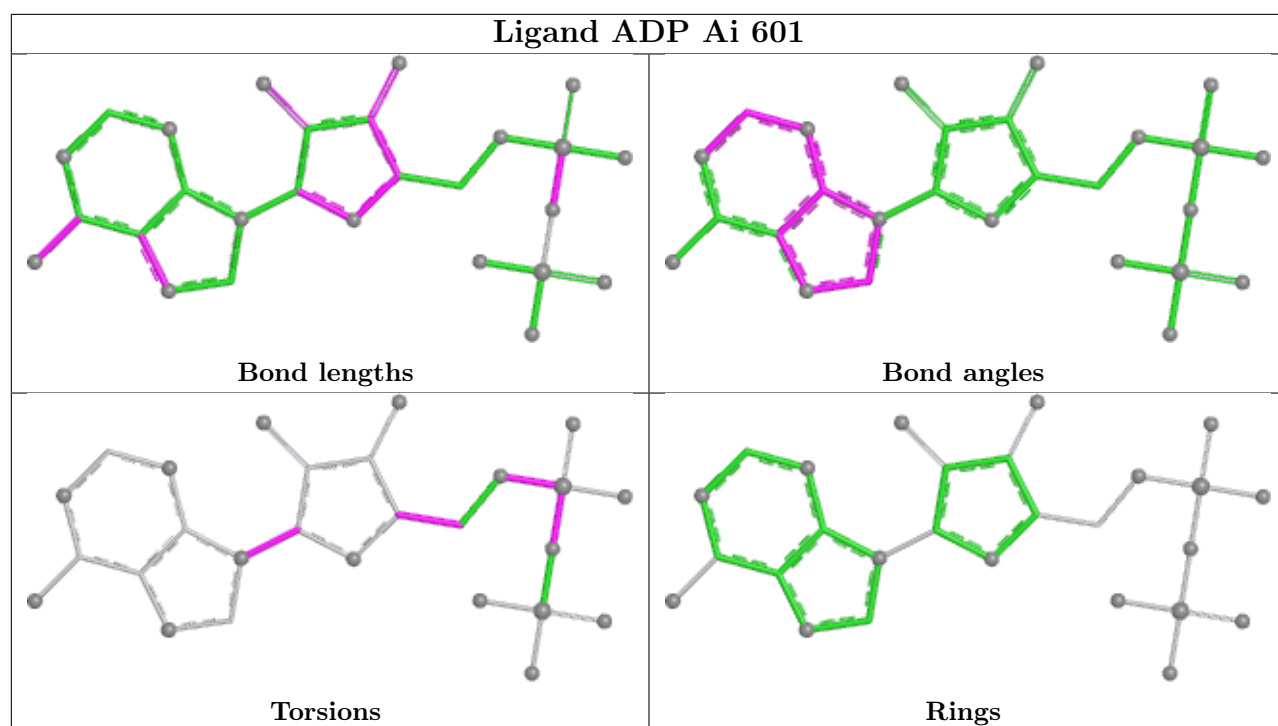
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is

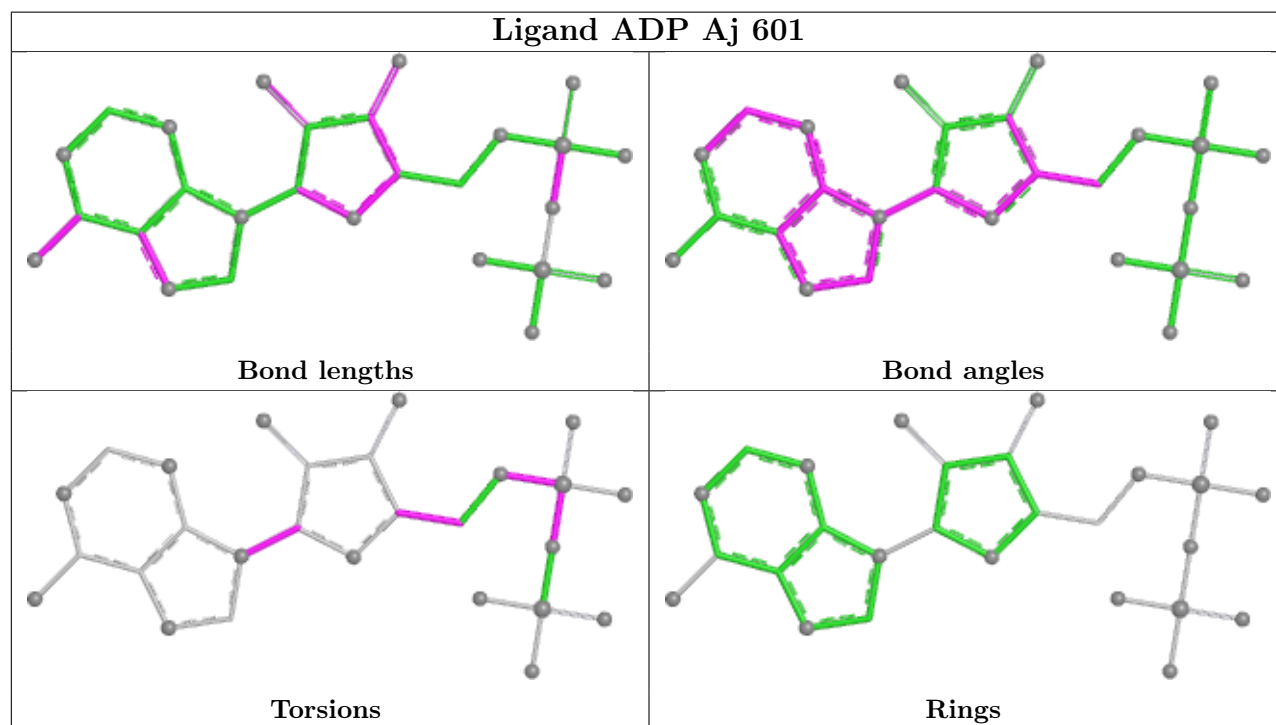
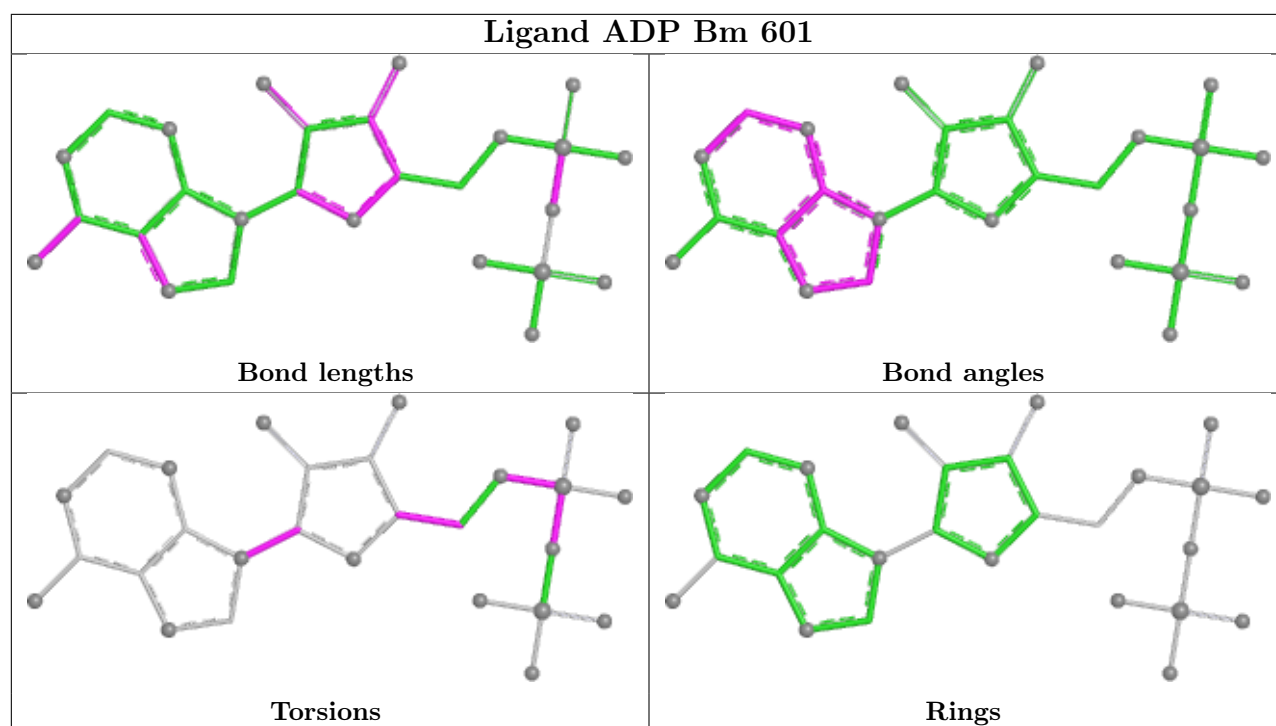
within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

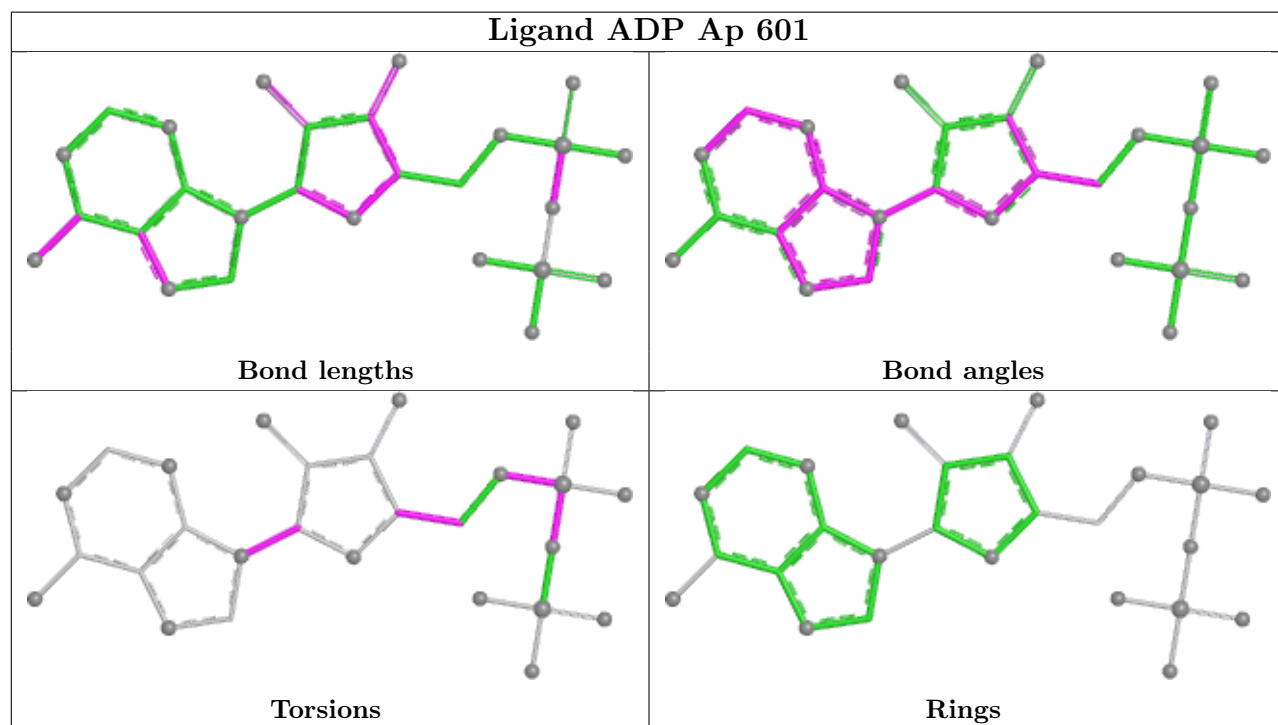
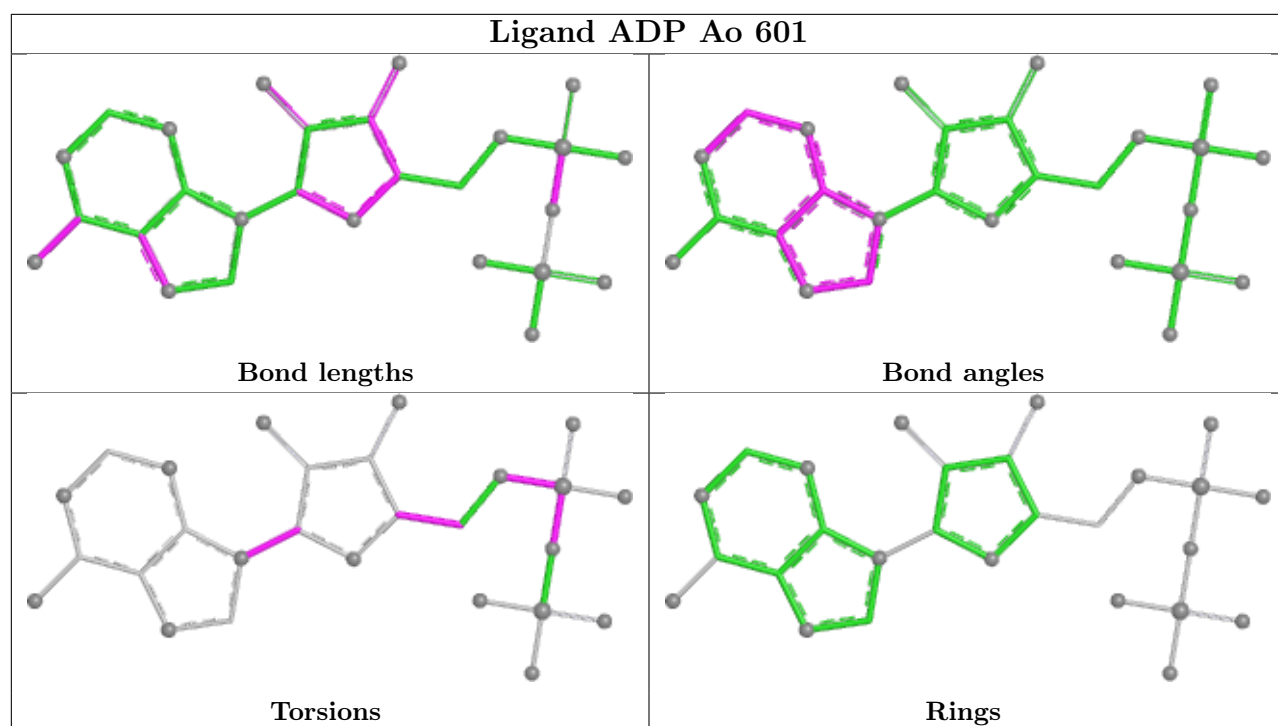


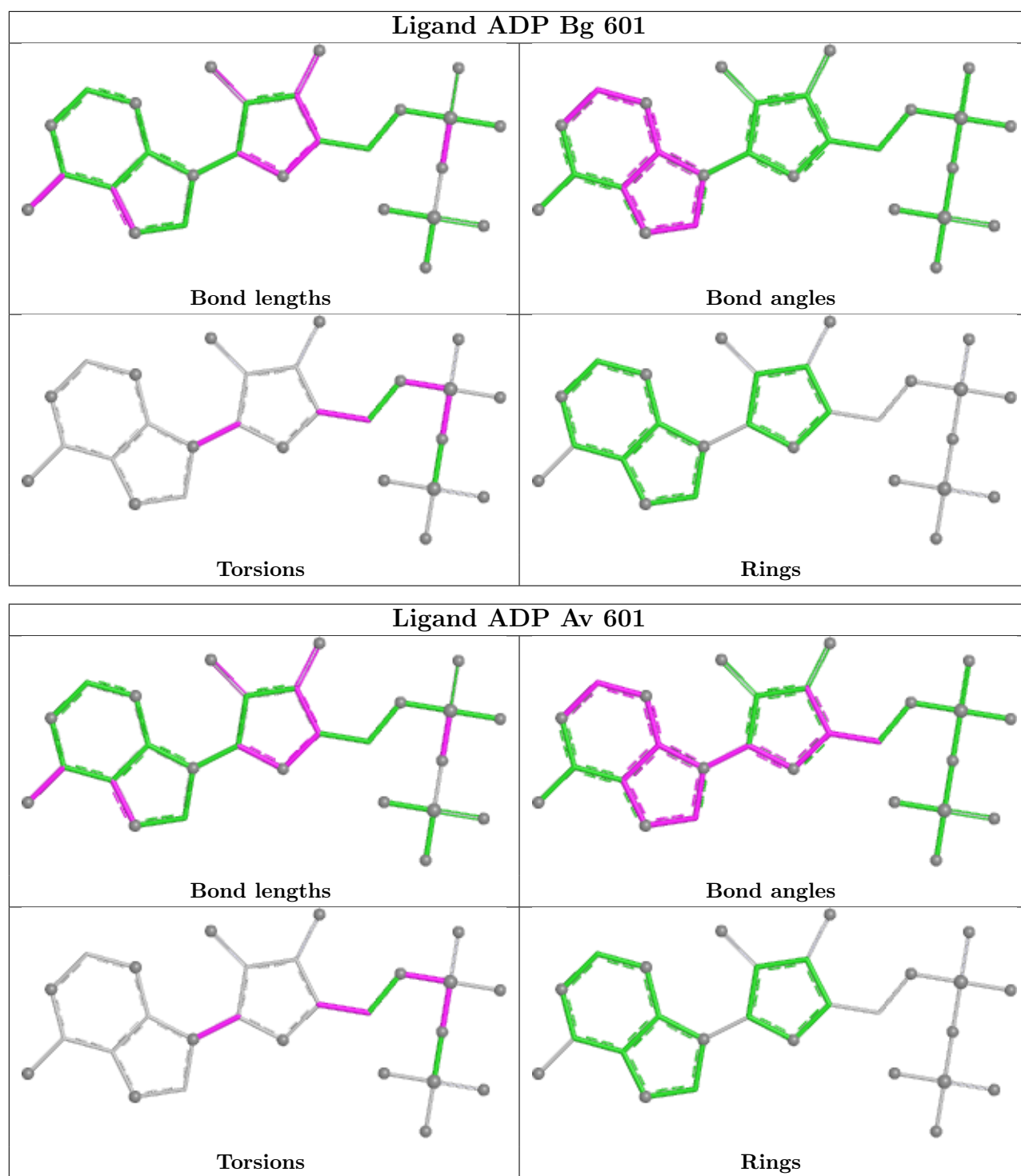












5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

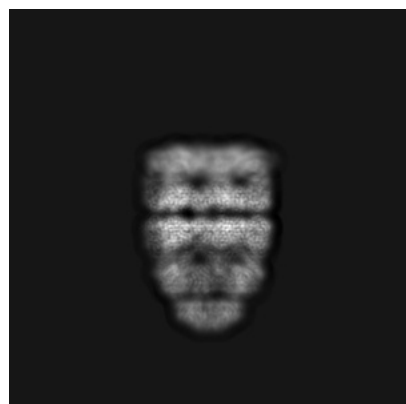
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-13308. These allow visual inspection of the internal detail of the map and identification of artifacts.

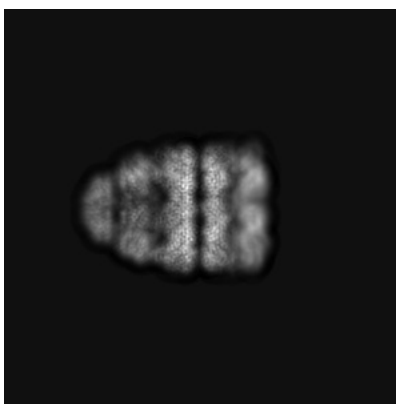
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

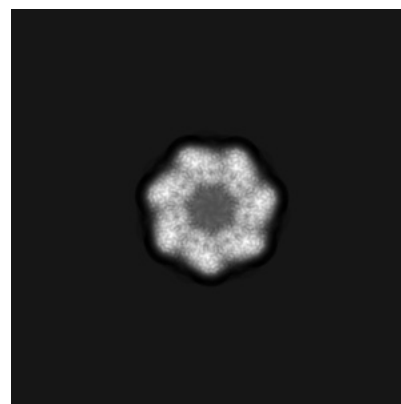
6.1.1 Primary map



X



Y

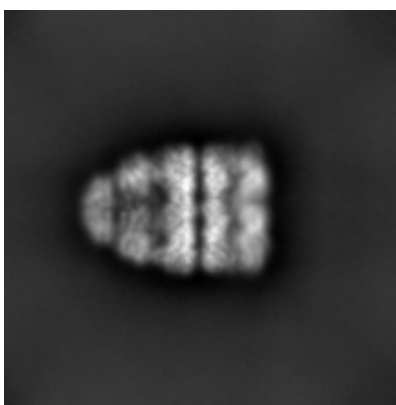


Z

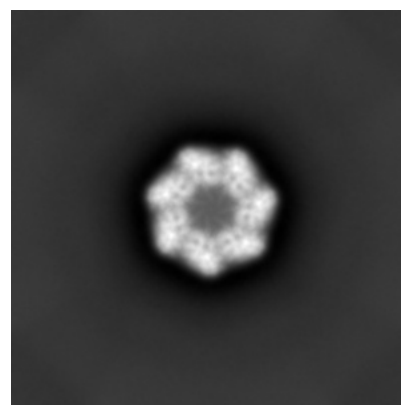
6.1.2 Raw map



X



Y

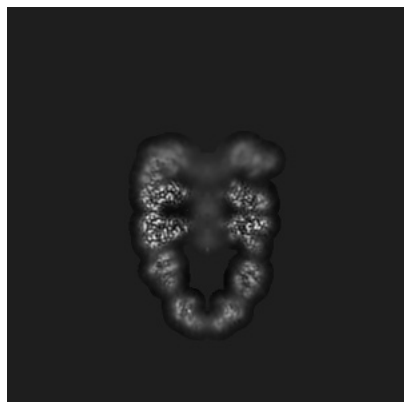


Z

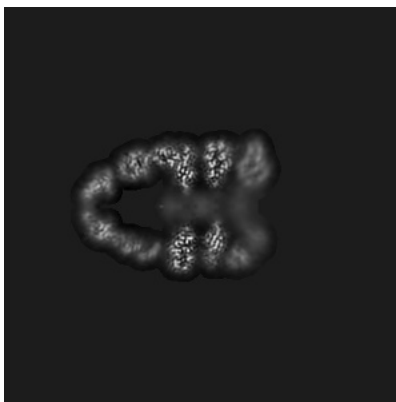
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

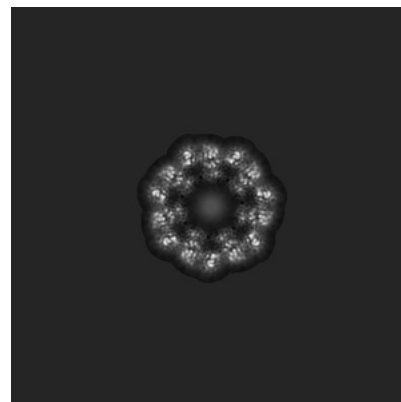
6.2.1 Primary map



X Index: 192

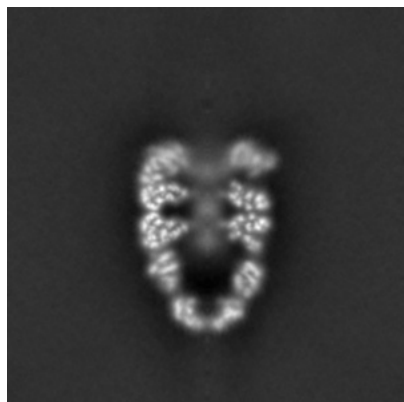


Y Index: 192

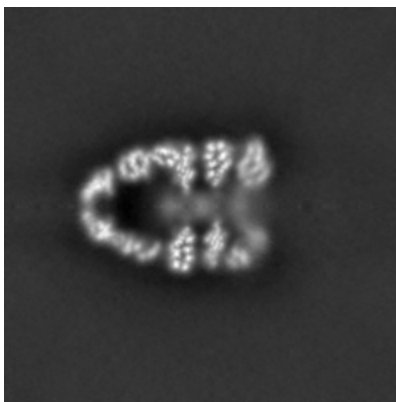


Z Index: 192

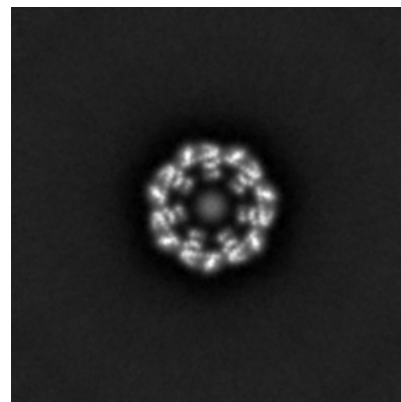
6.2.2 Raw map



X Index: 192



Y Index: 192



Z Index: 192

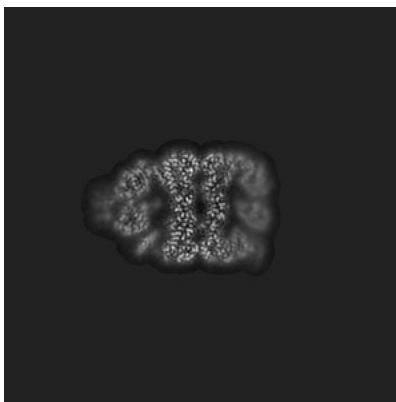
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

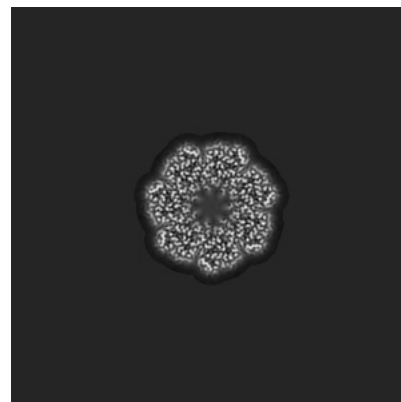
6.3.1 Primary map



X Index: 215



Y Index: 159

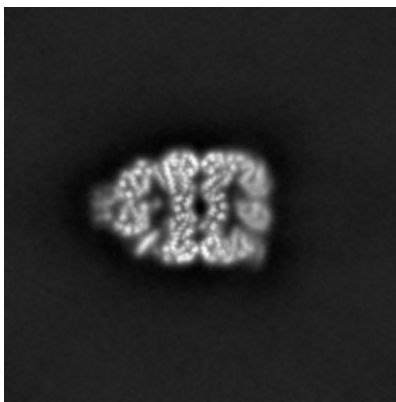


Z Index: 175

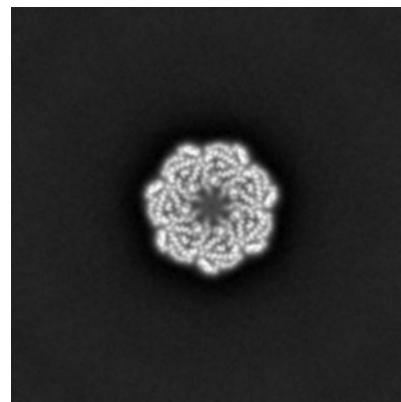
6.3.2 Raw map



X Index: 222



Y Index: 159

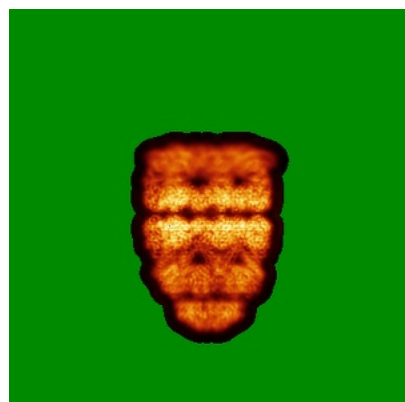


Z Index: 175

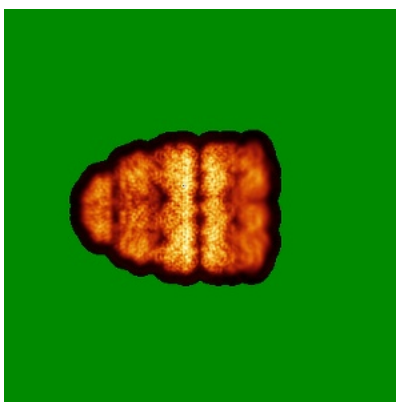
The images above show the largest variance slices of the map in three orthogonal directions.

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

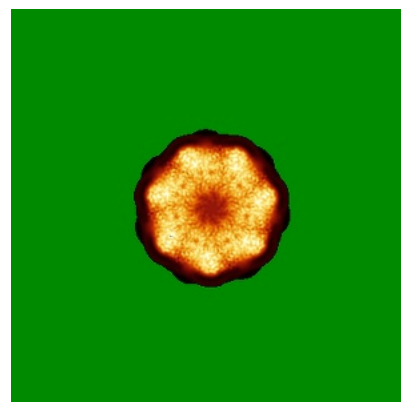
6.4.1 Primary map



X

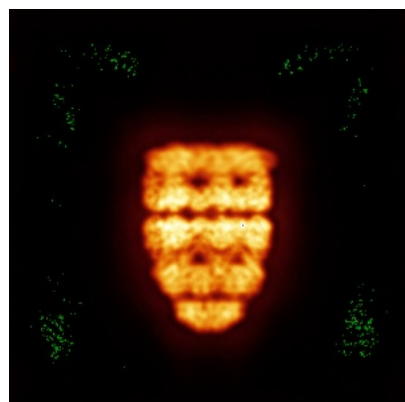


Y

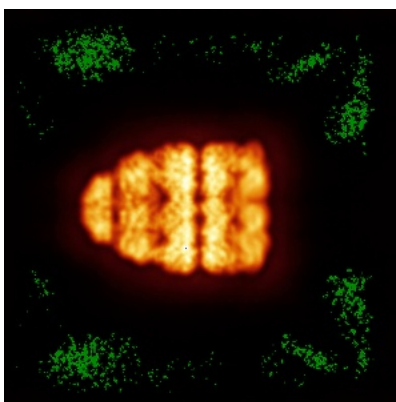


Z

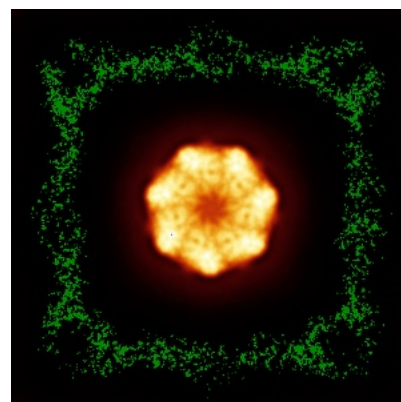
6.4.2 Raw map



X



Y

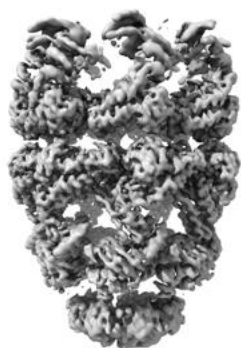


Z

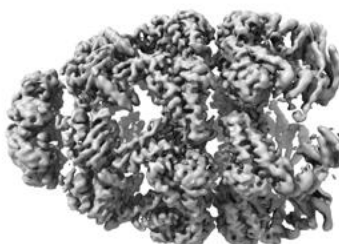
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

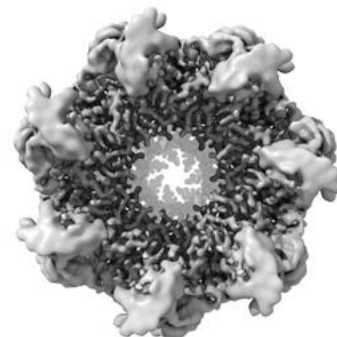
6.5.1 Primary map



X



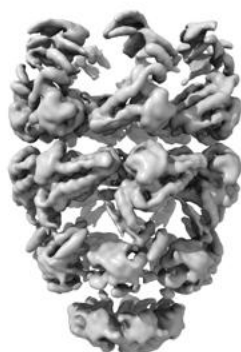
Y



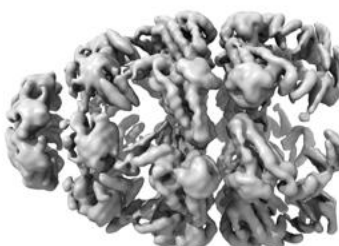
Z

The images above show the 3D surface view of the map at the recommended contour level 1.5. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

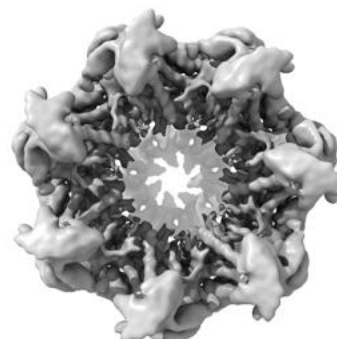
6.5.2 Raw map



X



Y



Z

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

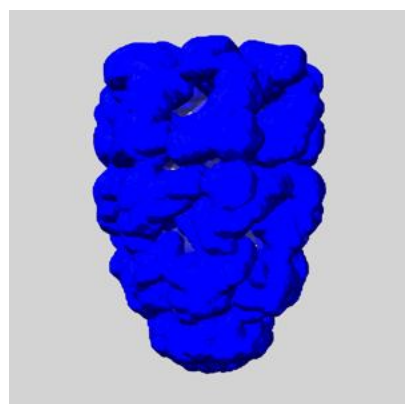
6.6 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

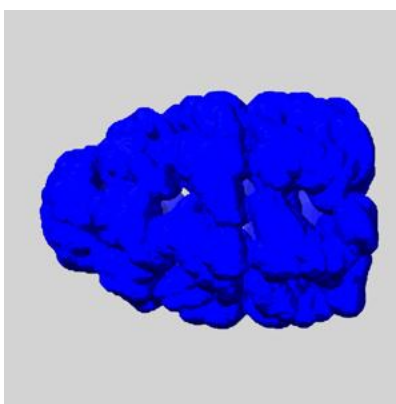
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

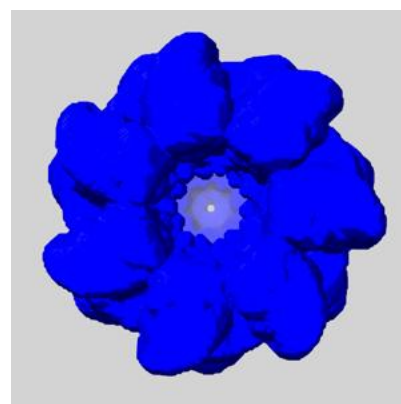
6.6.1 emd_13308_msk_1.map [i](#)



X



Y

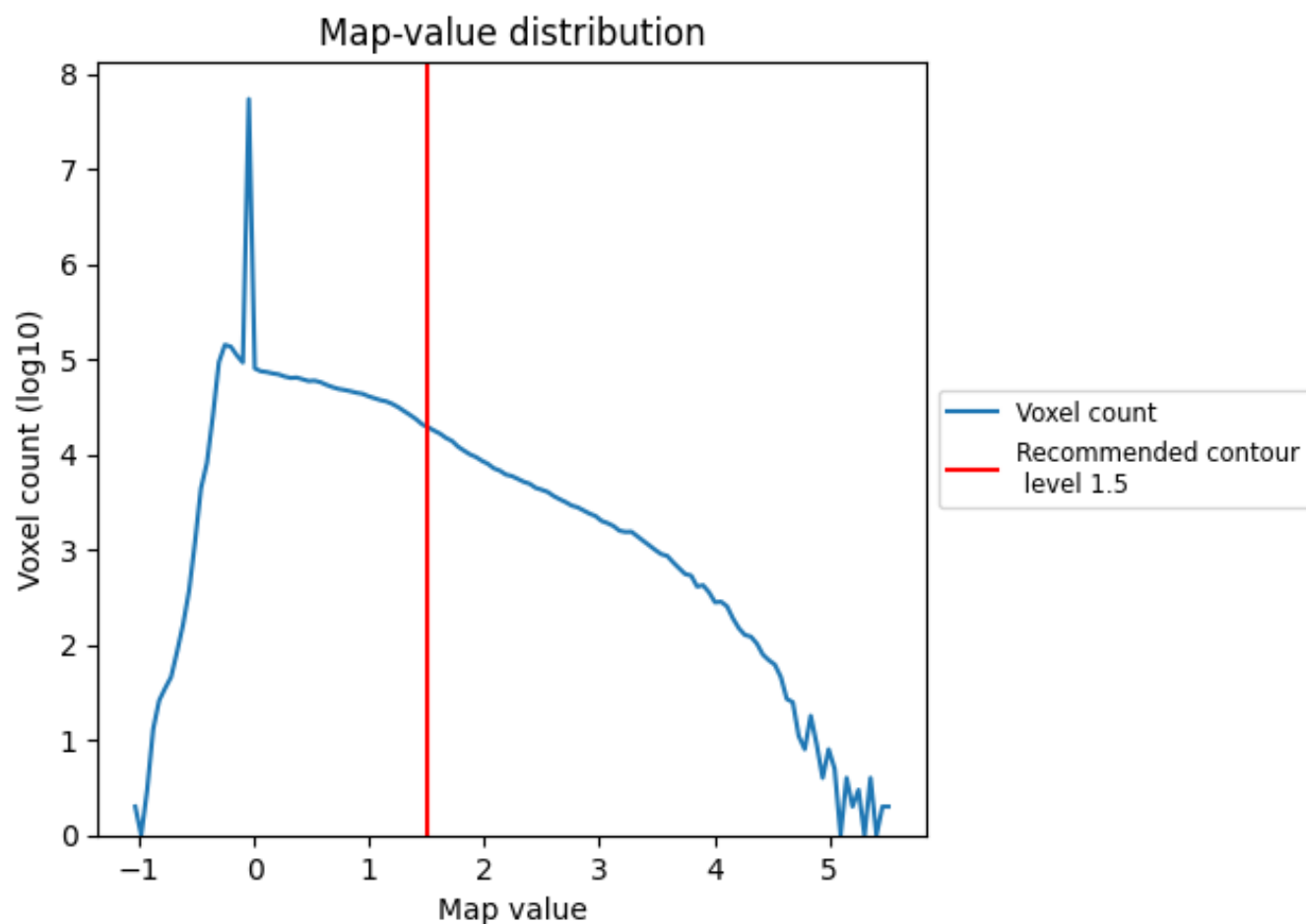


Z

7 Map analysis [i](#)

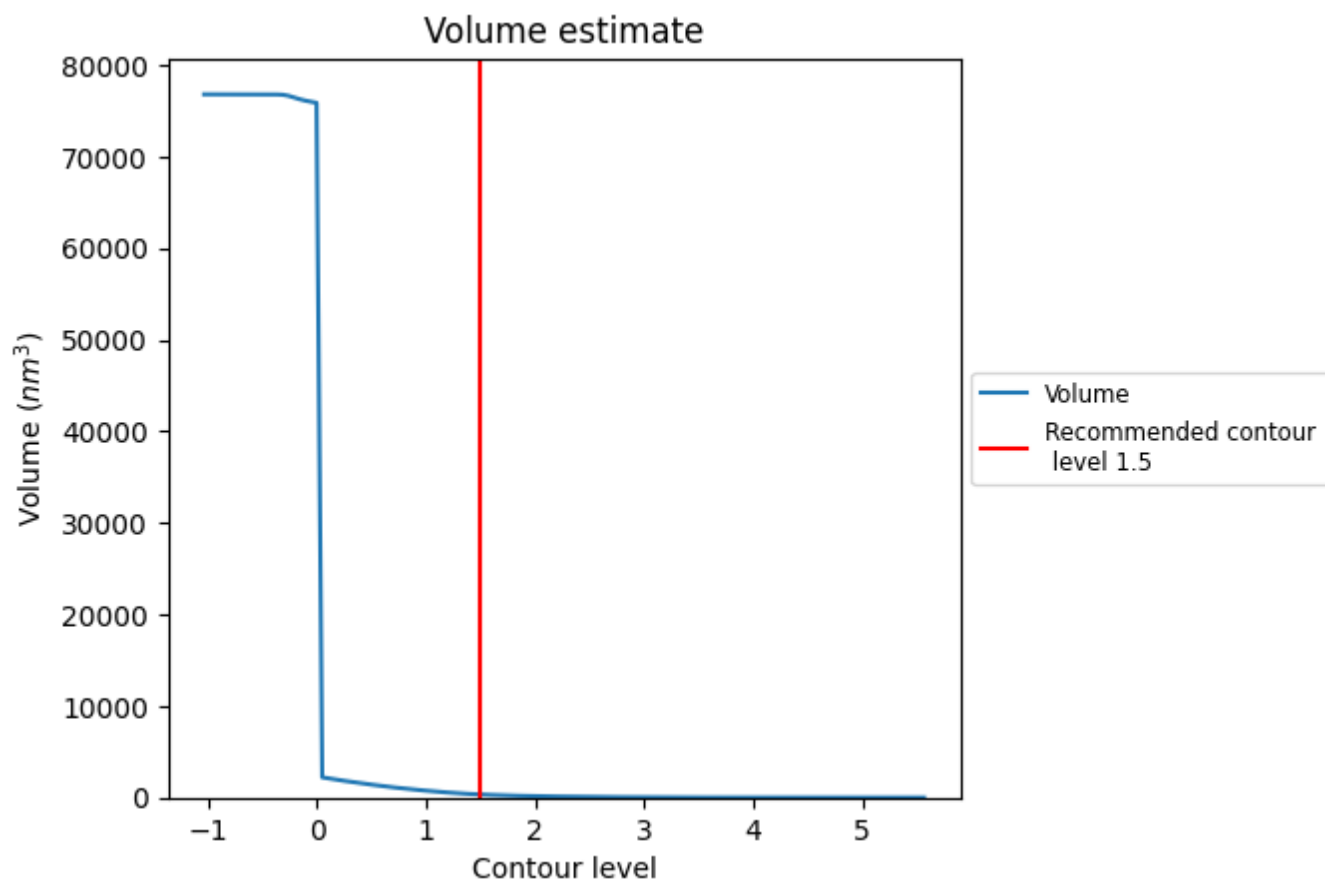
This section contains the results of statistical analysis of the map.

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.

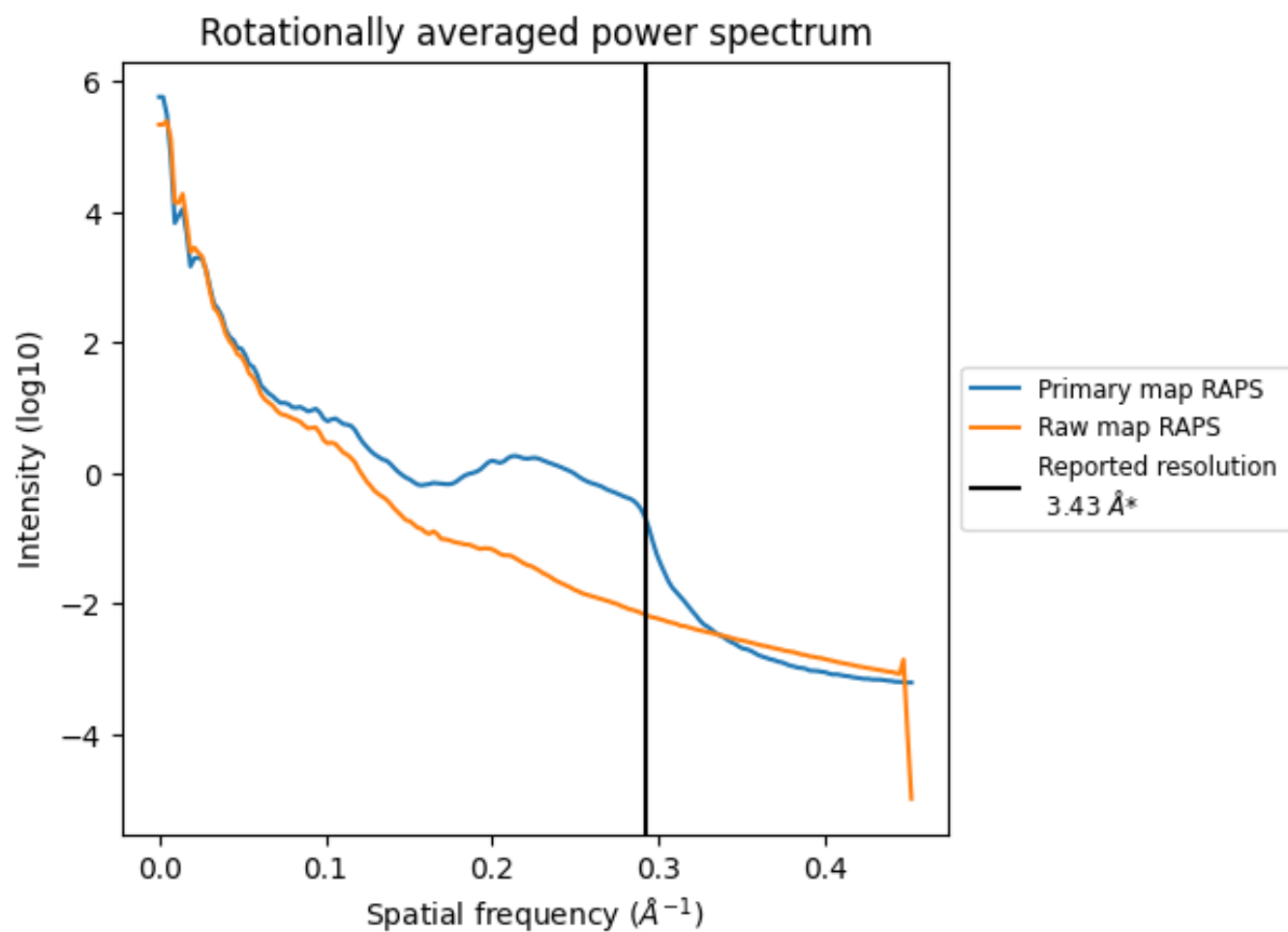
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 334 nm³; this corresponds to an approximate mass of 302 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 ⓘ

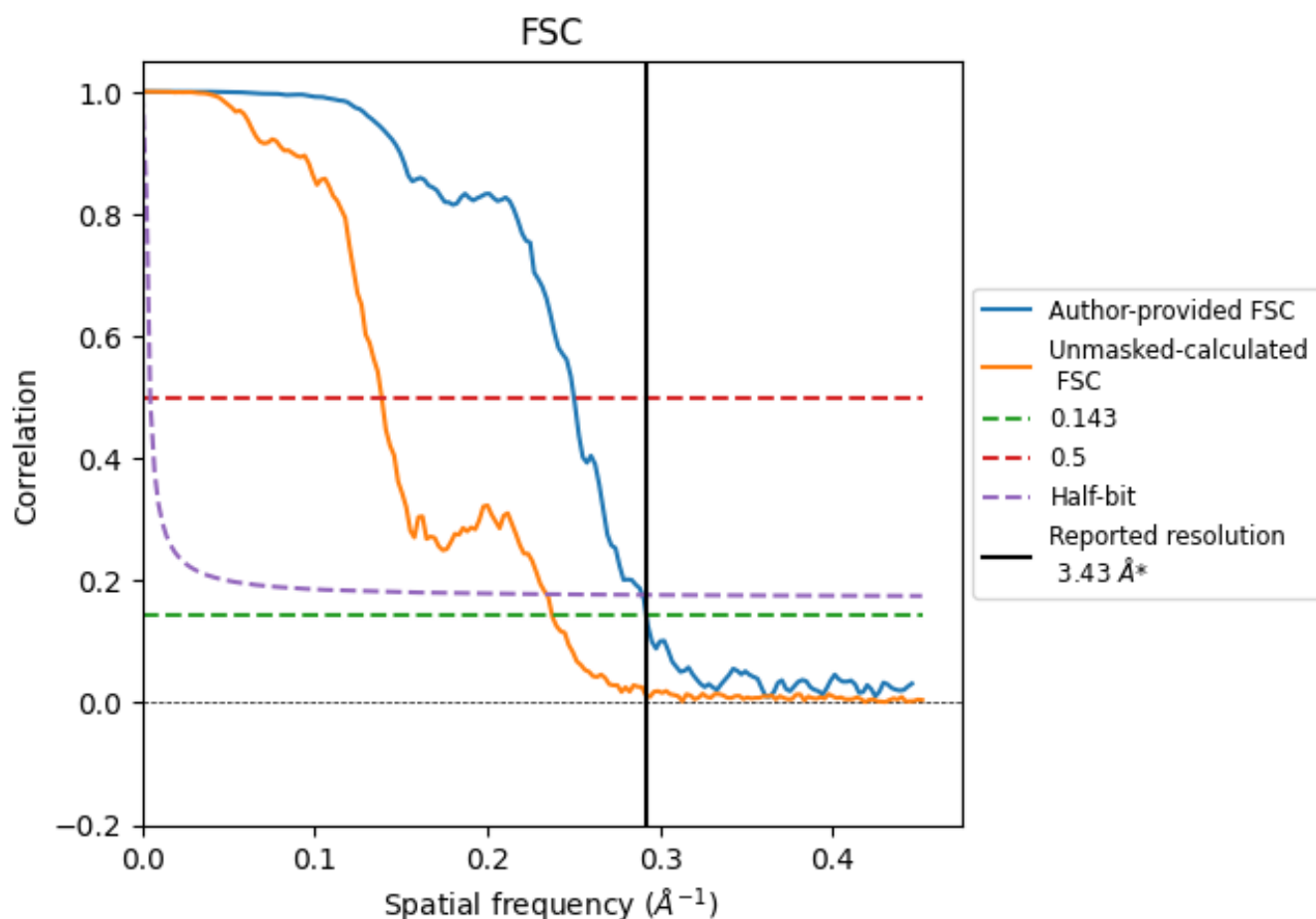


*Reported resolution corresponds to spatial frequency of 0.292 Å⁻¹

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 0.292 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

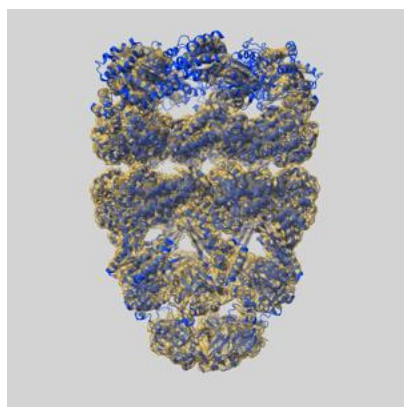
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.43	-	-
Author-provided FSC curve	3.43	4.00	3.45
Unmasked-calculated*	4.21	7.21	4.27

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.21 differs from the reported value 3.43 by more than 10 %

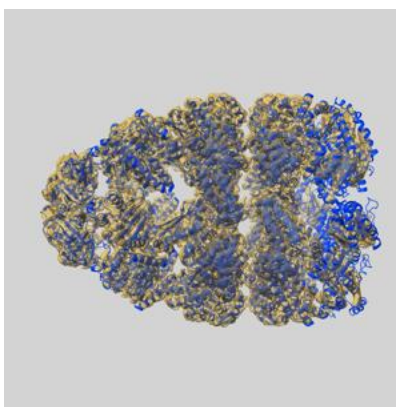
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-13308 and PDB model 7PBX. Per-residue inclusion information can be found in section 3 on page 8.

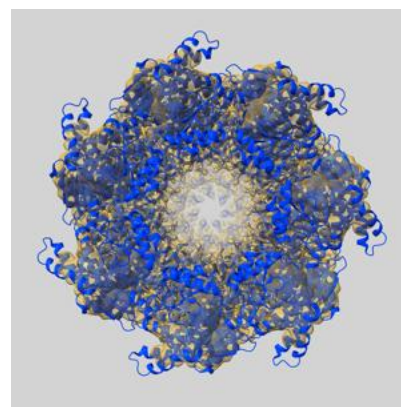
9.1 Map-model overlay [i](#)



X



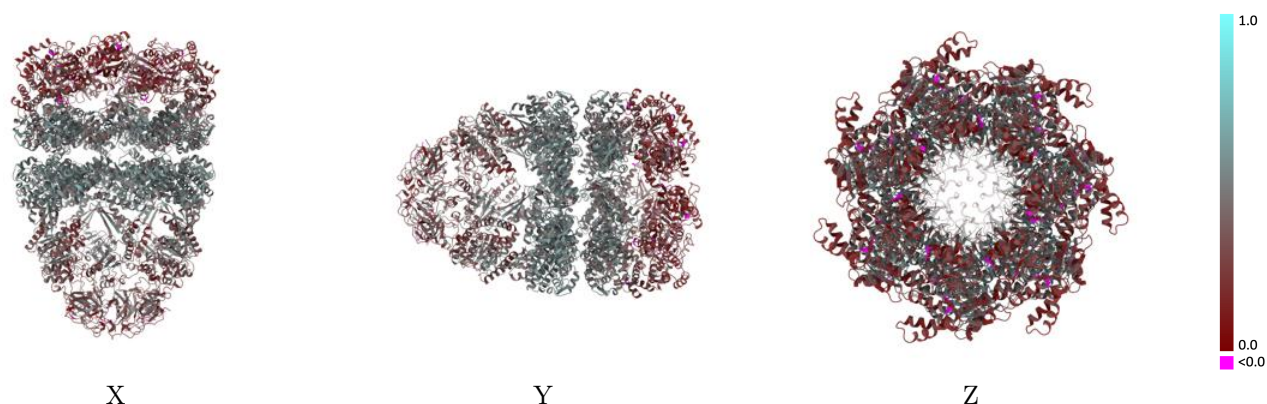
Y



Z

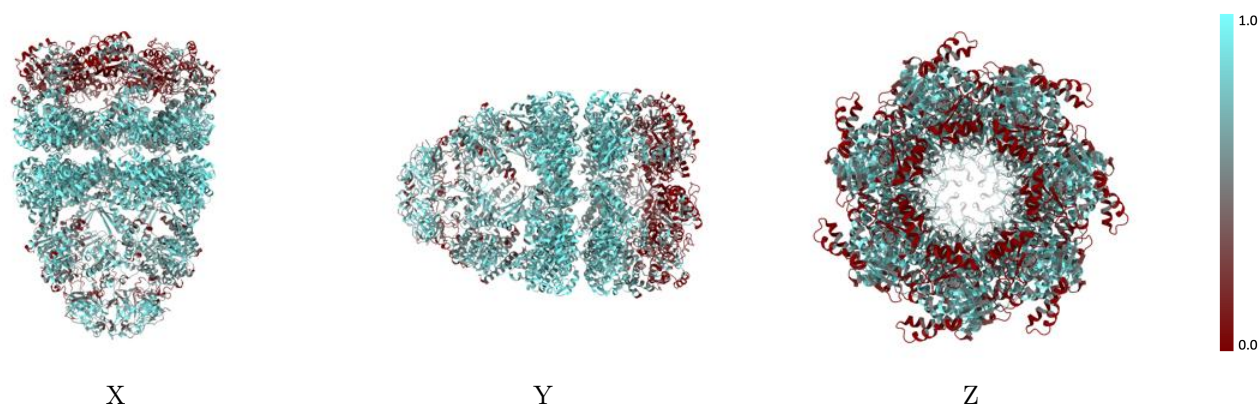
The images above show the 3D surface view of the map at the recommended contour level 1.5 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



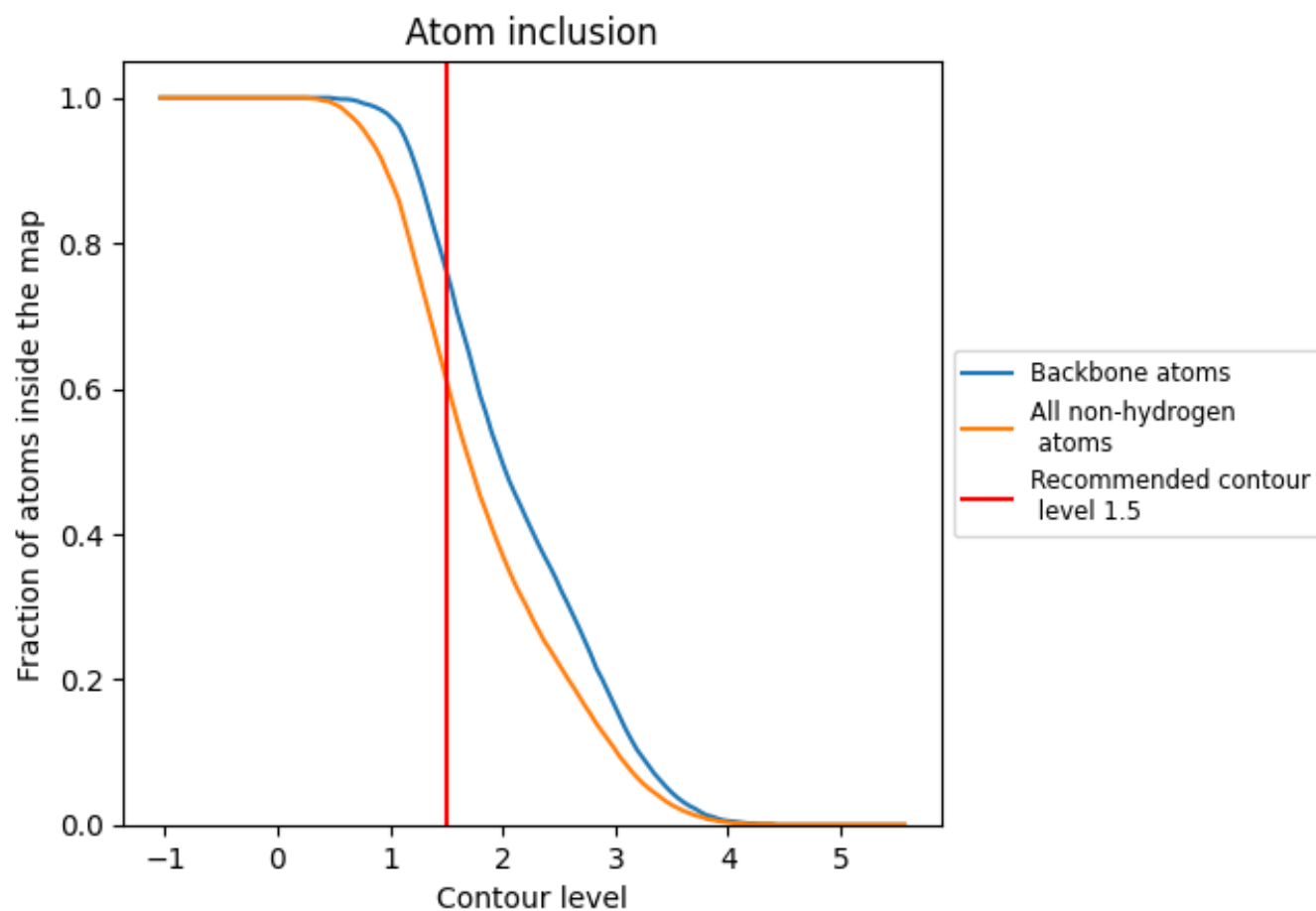
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (1.5).

9.4 Atom inclusion [i](#)



At the recommended contour level, 76% of all backbone atoms, 61% 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 (1.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6120	 0.3810
Ac	 0.5040	 0.3360
Ad	 0.7350	 0.4450
Af	 0.5410	 0.2880
Ai	 0.5030	 0.3340
Aj	 0.7330	 0.4460
Al	 0.5510	 0.2900
Ao	 0.5010	 0.3350
Ap	 0.7340	 0.4460
Ar	 0.5540	 0.2910
Au	 0.5020	 0.3340
Av	 0.7350	 0.4450
Ax	 0.5470	 0.2890
Ba	 0.5030	 0.3350
Bb	 0.7330	 0.4450
Bd	 0.5510	 0.2900
Bg	 0.5030	 0.3330
Bh	 0.7340	 0.4460
Bj	 0.5470	 0.2880
Bm	 0.5020	 0.3340
Bn	 0.7330	 0.4450
Bp	 0.5510	 0.2900

