



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 10:26 AM EDT

PDB ID : 9YP6 / pdb_00009yp6
EMDB ID : EMD-73285
Title : Structure of human VCP/p97 hexamer bound to ADP and UTE-156
Authors : Tamayo-Jaramillo, D.; Shen, P.S.
Deposited on : 2025-10-13
Resolution : 2.80 Å (reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

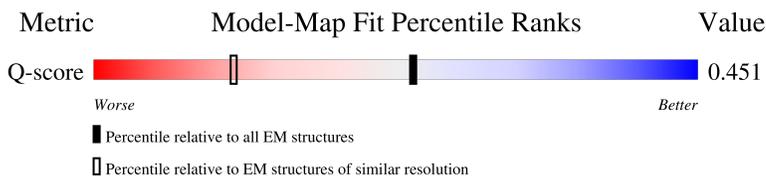
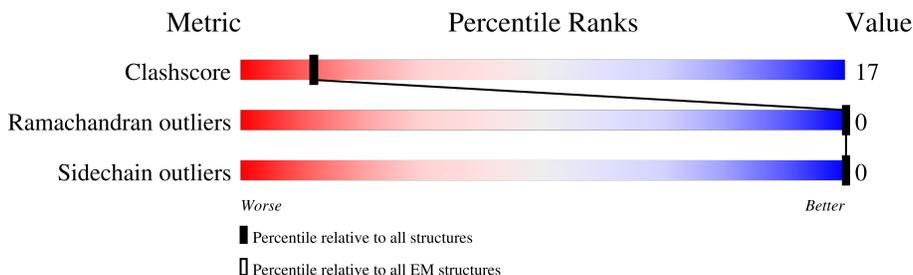
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
buster-report : 1.1.7 (2018)
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.48.1

1 Overall quality at a glance i

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

The reported resolution of this entry is 2.80 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	210492	15764	-
Ramachandran outliers	207382	16835	-
Sidechain outliers	206894	16415	-
Q-score	-	25397	11806 (2.30 - 3.30)

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	A	806	<p>16% 63% 28% 9%</p>
1	B	806	<p>16% 64% 28% 9%</p>
1	C	806	<p>16% 64% 28% 9%</p>
1	D	806	<p>16% 63% 28% 9%</p>

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Mol	Chain	Length	Quality of chain
1	E	806	
1	F	806	

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	A1CYL	A	808	-	X	-	-
3	A1CYL	B	808	-	X	-	-
3	A1CYL	C	808	-	X	-	-
3	A1CYL	D	808	-	X	-	-
3	A1CYL	E	808	-	X	-	-
3	A1CYL	F	808	-	X	-	-

2 Entry composition [i](#)

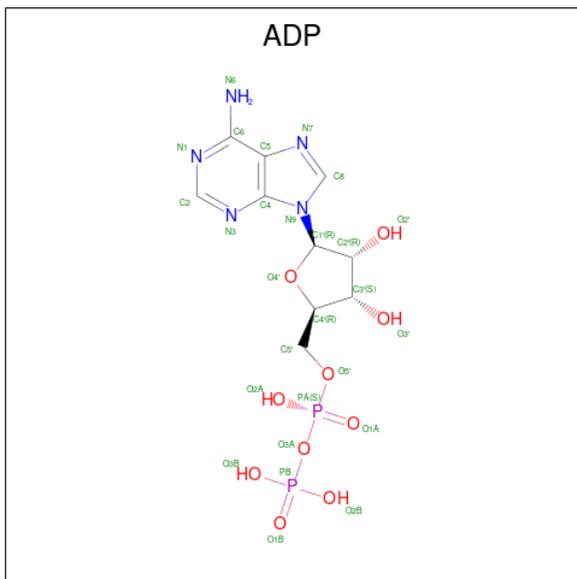
There are 4 unique types of molecules in this entry. The entry contains 34944 atoms, of which 102 are hydrogens and 0 are deuteriums.

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 Transitional endoplasmic reticulum ATPase.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	734	Total	C	N	O	S	0	0
			5750	3620	1014	1086	30		
1	B	734	Total	C	N	O	S	0	0
			5750	3620	1014	1086	30		
1	C	734	Total	C	N	O	S	0	0
			5750	3620	1014	1086	30		
1	D	734	Total	C	N	O	S	0	0
			5750	3620	1014	1086	30		
1	E	734	Total	C	N	O	S	0	0
			5750	3620	1014	1086	30		
1	F	734	Total	C	N	O	S	0	0
			5750	3620	1014	1086	30		

- Molecule 2 is ADENOSINE-5'-DIPHOSPHATE (CCD ID: ADP) (formula: $C_{10}H_{15}N_5O_{10}P_2$).



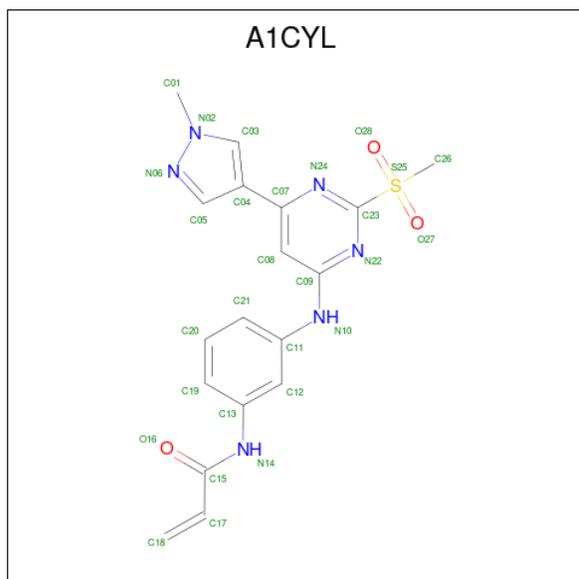
Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
2	A	1	Total	C	N	O	P	0
			27	10	5	10	2	

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
2	B	1	Total	C	N	O	P	0
			27	10	5	10	2	
2	C	1	Total	C	N	O	P	0
			27	10	5	10	2	
2	D	1	Total	C	N	O	P	0
			27	10	5	10	2	
2	E	1	Total	C	N	O	P	0
			27	10	5	10	2	
2	F	1	Total	C	N	O	P	0
			27	10	5	10	2	

- Molecule 3 is N-(3-{[(6P)-2-(methanesulfonyl)-6-(1-methyl-1H-pyrazol-4-yl)pyrimidin-4-yl]amino}phenyl)prop-2-enamide (CCD ID: A1CYL) (formula: C₁₈H₁₈N₆O₃S) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf	
			Total	C	H	N	O		S
3	A	1	Total	C	H	N	O	S	0
			45	18	17	6	3	1	
3	B	1	Total	C	H	N	O	S	0
			45	18	17	6	3	1	
3	C	1	Total	C	H	N	O	S	0
			45	18	17	6	3	1	
3	D	1	Total	C	H	N	O	S	0
			45	18	17	6	3	1	
3	E	1	Total	C	H	N	O	S	0
			45	18	17	6	3	1	

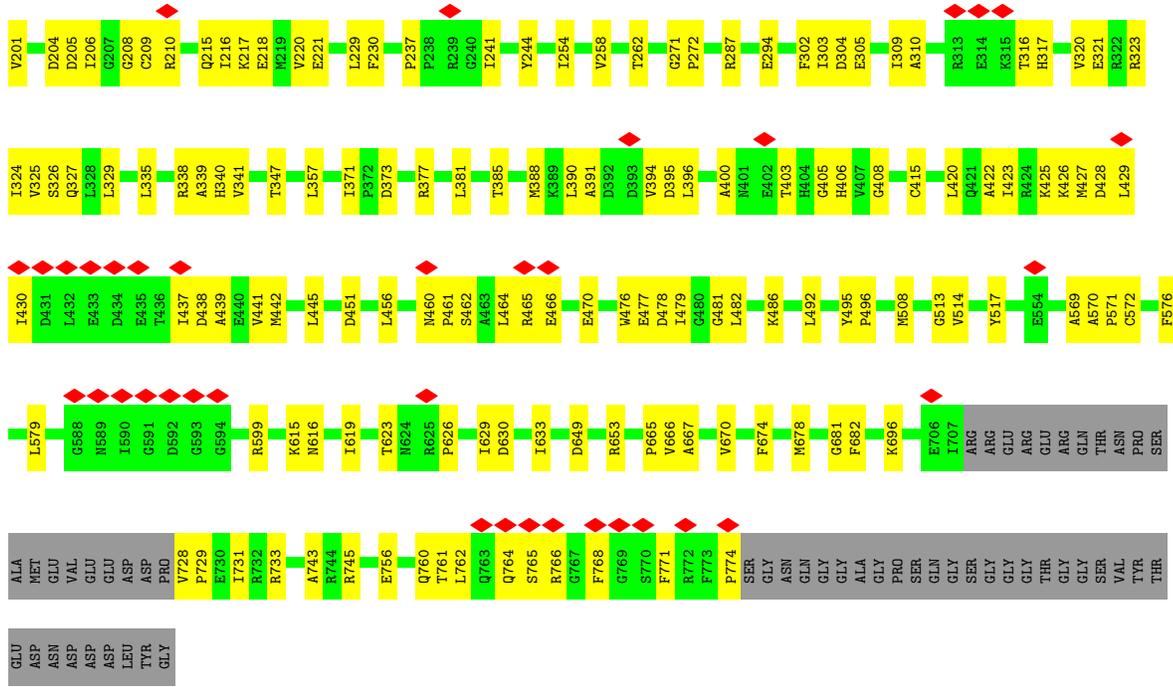
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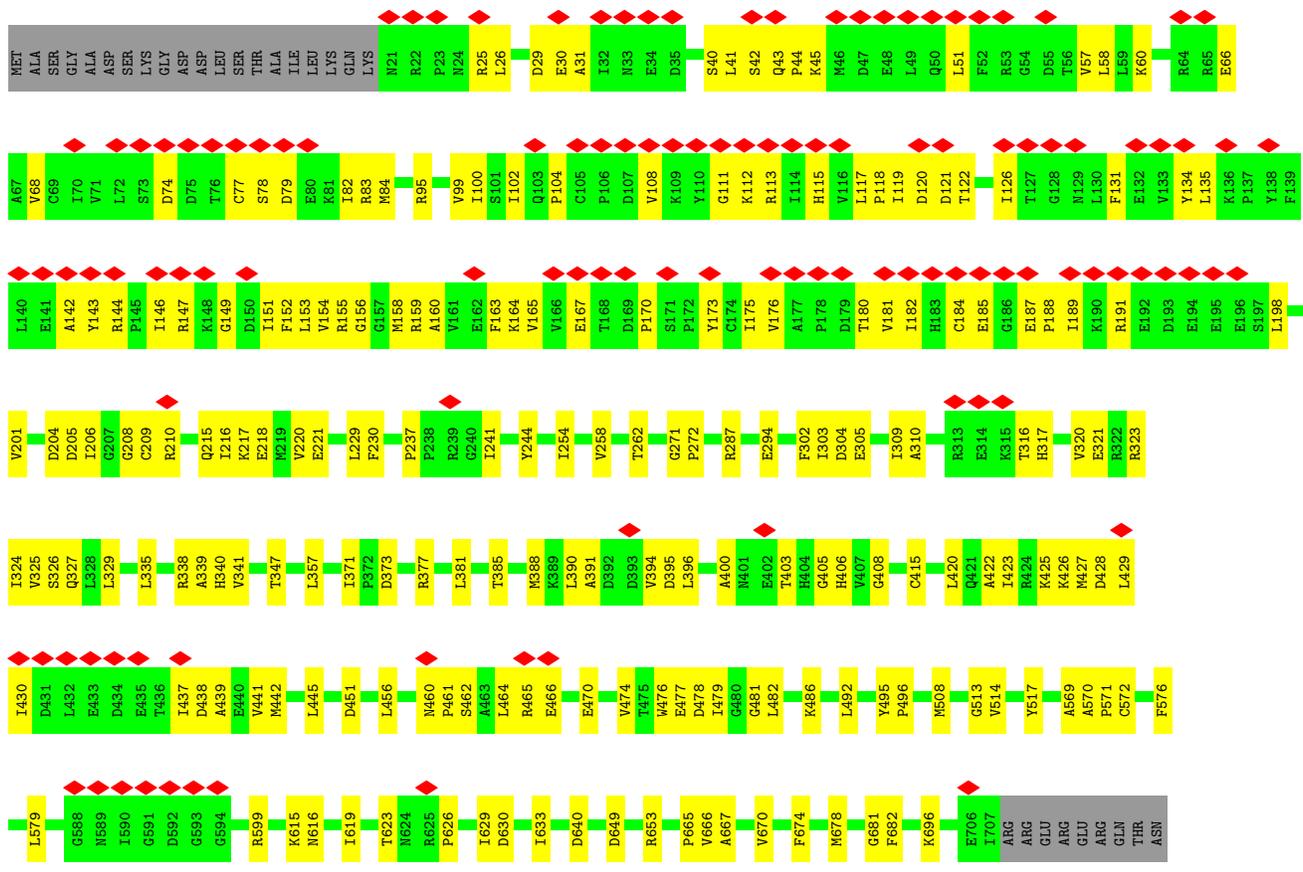
Mol	Chain	Residues	Atoms						AltConf
			Total	C	H	N	O	S	
3	F	1	45	18	17	6	3	1	0

- Molecule 4 is water.

Mol	Chain	Residues	Atoms		AltConf
4	A	2	Total 2	O 2	0
4	B	2	Total 2	O 2	0
4	C	2	Total 2	O 2	0
4	D	2	Total 2	O 2	0
4	E	2	Total 2	O 2	0
4	F	2	Total 2	O 2	0



• Molecule 1: Transitional endoplasmic reticulum ATPase



ALA	L579	L432	I324	V201	L140	A87
ASP	G588	E433	V325	D204	E141	V68
ASN	M589	D434	S326	D205	A142	C89
ASP	I590	E435	Q327	I206	Y143	I70
LEU	D591	T436	L328	G207	R144	V71
TYR	G592	I437	L329	G208	P145	L72
GLY	D593	D438	L335	C209	D146	S73
PRO	G594	A439	R338	R210	R147	D74
V728	G599	E440	A339	Q215	D75	D75
P729	K615	V441	H340	I216	T76	T76
E730	N616	M442	V341	K217	C77	C77
I731	I619	L445	T347	M219	D150	D150
K732	T623	D451	L357	F152	S78	S78
R733	R625	L456	L371	L153	E80	E80
A743	P626	M460	P372	R155	K81	K81
R745	I629	P461	D373	R158	I82	I82
E756	D630	S462	R377	G156	R83	R83
Q760	I633	A463	L381	M157	M84	M84
T761	D630	L464	T385	M158	R95	R95
L762	I633	R465	M388	A160	V99	V99
Q763	D630	E466	L390	F162	I100	I100
Q764	I633	E470	A391	F163	S101	S101
S765	D649	E474	L391	K164	I102	I102
R766	R653	V474	A392	V165	Q103	Q103
G767	P665	M475	D392	V166	P104	P104
F768	V666	T475	A391	E167	C105	C105
Q769	A667	W476	D393	T168	P106	P106
S770	V670	D477	V394	D169	D107	D107
F771	F674	D478	D395	P170	V108	V108
R772	M678	I479	L396	S171	K109	K109
F773	F682	G480	A400	P172	Y110	Y110
P774	K696	L482	N401	Y173	G111	G111
SER	E706	K486	E402	C174	K111	K111
GLY	I707	L492	T403	L175	K112	K112
ASN	ARG	L496	H404	V176	R113	R113
GLN	ARG	Y495	G405	A177	I114	I114
GLY	ARG	P496	H406	P178	H115	H115
ALA	ARG	M508	W407	D179	V116	V116
GLY	ARG	G513	G408	T180	L117	L117
PRO	ARG	V514	C415	V181	P118	P118
SER	ARG	Y517	A422	I182	I119	I119
GLN	ARG	E554	I423	H183	D120	D120
GLY	ARG	K425	R424	C184	D121	D121
GLY	ARG	M427	K425	E185	T122	T122
THR	ARG	D428	K426	G186	I126	I126
GLY	ARG	L429	M427	E187	T127	T127
GLY	ARG	I430	D428	P188	G128	G128
SER	ARG	D431	L429	I189	N129	N129
VAL	ASN	F571	I430	K190	L130	L130
ASN	ASN	C572	D431	R191	F131	F131
PRO	SER	F576		E192	E132	E132
THR	SER			D193	V133	V133
				E194	Y134	Y134
				E195	L135	L135
				S196	K136	K136
				L198	P137	P137
					Y138	Y138
					F139	F139

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	204722	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	52.015	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	1500	Depositor
Magnification	105000	Depositor
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.217	Depositor
Minimum map value	-0.072	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.006	Depositor
Recommended contour level	0.0402	Depositor
Map size (Å)	335.2, 335.2, 335.2	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.83800006, 0.83800006, 0.83800006	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: A1CYL, 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	A	0.22	0/5846	0.37	0/7893
1	B	0.22	0/5846	0.37	0/7893
1	C	0.22	0/5846	0.37	0/7893
1	D	0.22	0/5846	0.37	0/7893
1	E	0.22	0/5846	0.37	0/7893
1	F	0.22	0/5846	0.37	0/7893
All	All	0.22	0/35076	0.37	0/47358

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	5750	0	5814	208	0
1	B	5750	0	5814	205	0
1	C	5750	0	5814	207	0
1	D	5750	0	5814	207	0
1	E	5750	0	5814	204	0
1	F	5750	0	5814	208	0
2	A	27	0	12	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	27	0	12	2	0
2	C	27	0	12	2	0
2	D	27	0	12	2	0
2	E	27	0	12	2	0
2	F	27	0	12	2	0
3	A	28	17	0	0	0
3	B	28	17	0	0	0
3	C	28	17	0	0	0
3	D	28	17	0	0	0
3	E	28	17	0	0	0
3	F	28	17	0	0	0
4	A	2	0	0	0	0
4	B	2	0	0	0	0
4	C	2	0	0	0	0
4	D	2	0	0	0	0
4	E	2	0	0	0	0
4	F	2	0	0	0	0
All	All	34842	102	34956	1185	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 17.

All (1185) 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)
1:A:405:GLY:HA2	1:A:464:LEU:HD22	1.22	1.20
1:B:761:THR:O	1:B:765:SER:HB2	1.44	1.17
1:F:405:GLY:HA2	1:F:464:LEU:HD22	1.22	1.17
1:E:761:THR:O	1:E:765:SER:HB2	1.44	1.16
1:C:761:THR:O	1:C:765:SER:HB2	1.44	1.15
1:D:761:THR:O	1:D:765:SER:HB2	1.44	1.15
1:E:405:GLY:HA2	1:E:464:LEU:HD22	1.22	1.15
1:A:761:THR:O	1:A:765:SER:HB2	1.44	1.14
1:B:405:GLY:HA2	1:B:464:LEU:HD22	1.22	1.14
1:F:761:THR:O	1:F:765:SER:HB2	1.44	1.13
1:D:405:GLY:HA2	1:D:464:LEU:HD22	1.22	1.10
1:E:335:LEU:HD12	1:E:338:ARG:HD2	1.33	1.10
1:C:405:GLY:HA2	1:C:464:LEU:HD22	1.22	1.10
1:D:335:LEU:HD12	1:D:338:ARG:HD2	1.33	1.08
1:F:761:THR:O	1:F:765:SER:CB	2.01	1.08
1:C:761:THR:O	1:C:765:SER:CB	2.01	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:335:LEU:HD12	1:F:338:ARG:HD2	1.33	1.08
1:B:761:THR:O	1:B:765:SER:CB	2.01	1.08
1:A:761:THR:O	1:A:765:SER:CB	2.01	1.07
1:E:761:THR:O	1:E:765:SER:CB	2.01	1.07
1:D:761:THR:O	1:D:765:SER:CB	2.01	1.07
1:C:335:LEU:HD12	1:C:338:ARG:HD2	1.33	1.05
1:A:465:ARG:O	1:A:466:GLU:HG3	1.57	1.05
1:C:465:ARG:O	1:C:466:GLU:HG3	1.57	1.05
1:F:465:ARG:O	1:F:466:GLU:HG3	1.57	1.05
1:A:335:LEU:HD12	1:A:338:ARG:HD2	1.33	1.04
1:E:465:ARG:O	1:E:466:GLU:HG3	1.57	1.04
1:B:465:ARG:O	1:B:466:GLU:HG3	1.57	1.04
1:B:335:LEU:HD12	1:B:338:ARG:HD2	1.33	1.03
1:D:465:ARG:O	1:D:466:GLU:HG3	1.57	1.03
1:F:131:PHE:HA	1:F:135:LEU:HD23	1.45	0.99
1:E:131:PHE:HA	1:E:135:LEU:HD23	1.45	0.98
1:F:111:GLY:HA2	1:F:170:PRO:HG3	1.44	0.98
1:C:131:PHE:HA	1:C:135:LEU:HD23	1.45	0.98
1:A:405:GLY:HA2	1:A:464:LEU:CD2	1.94	0.98
1:A:111:GLY:HA2	1:A:170:PRO:HG3	1.45	0.97
1:F:405:GLY:HA2	1:F:464:LEU:CD2	1.94	0.97
1:A:131:PHE:HA	1:A:135:LEU:HD23	1.45	0.97
1:B:131:PHE:HA	1:B:135:LEU:HD23	1.45	0.97
1:B:390:LEU:HB3	1:B:394:VAL:HG11	1.46	0.97
1:D:111:GLY:HA2	1:D:170:PRO:HG3	1.45	0.97
1:D:405:GLY:HA2	1:D:464:LEU:CD2	1.94	0.97
1:E:405:GLY:HA2	1:E:464:LEU:CD2	1.94	0.97
1:E:111:GLY:HA2	1:E:170:PRO:HG3	1.44	0.96
1:A:390:LEU:HB3	1:A:394:VAL:HG11	1.46	0.96
1:C:405:GLY:HA2	1:C:464:LEU:CD2	1.94	0.96
1:D:131:PHE:HA	1:D:135:LEU:HD23	1.45	0.96
1:C:390:LEU:HB3	1:C:394:VAL:HG11	1.46	0.95
1:B:405:GLY:HA2	1:B:464:LEU:CD2	1.94	0.95
1:E:390:LEU:HB3	1:E:394:VAL:HG11	1.46	0.95
1:B:111:GLY:HA2	1:B:170:PRO:HG3	1.44	0.95
1:C:111:GLY:HA2	1:C:170:PRO:HG3	1.44	0.95
1:D:390:LEU:HB3	1:D:394:VAL:HG11	1.46	0.94
1:F:390:LEU:HB3	1:F:394:VAL:HG11	1.46	0.94
1:E:119:ILE:HD11	1:E:164:LYS:HB2	1.54	0.89
1:B:119:ILE:HD11	1:B:164:LYS:HB2	1.54	0.88
1:A:119:ILE:HD11	1:A:164:LYS:HB2	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:119:ILE:HD11	1:F:164:LYS:HB2	1.54	0.88
1:B:728:VAL:HB	1:B:729:PRO:HD3	1.57	0.86
1:C:119:ILE:HD11	1:C:164:LYS:HB2	1.54	0.86
1:D:119:ILE:HD11	1:D:164:LYS:HB2	1.54	0.86
1:A:728:VAL:HB	1:A:729:PRO:HD3	1.57	0.86
1:A:437:ILE:HD11	1:F:229:LEU:HD12	1.58	0.86
1:B:51:LEU:HD21	1:B:104:PRO:HB3	1.58	0.86
1:A:229:LEU:HD12	1:B:437:ILE:HD11	1.58	0.85
1:C:229:LEU:HD12	1:D:437:ILE:HD11	1.58	0.85
1:B:229:LEU:HD12	1:C:437:ILE:HD11	1.58	0.85
1:E:728:VAL:HB	1:E:729:PRO:HD3	1.57	0.85
1:A:51:LEU:HD21	1:A:104:PRO:HB3	1.58	0.85
1:E:51:LEU:HD21	1:E:104:PRO:HB3	1.58	0.85
1:C:51:LEU:HD21	1:C:104:PRO:HB3	1.58	0.85
1:E:229:LEU:HD12	1:F:437:ILE:HD11	1.58	0.85
1:C:728:VAL:HB	1:C:729:PRO:HD3	1.57	0.84
1:D:229:LEU:HD12	1:E:437:ILE:HD11	1.58	0.84
1:F:728:VAL:HB	1:F:729:PRO:HD3	1.57	0.84
1:D:728:VAL:HB	1:D:729:PRO:HD3	1.57	0.84
1:D:377:ARG:HD2	1:D:403:THR:HG23	1.60	0.83
1:D:51:LEU:HD21	1:D:104:PRO:HB3	1.58	0.83
1:C:377:ARG:HD2	1:C:403:THR:HG23	1.60	0.83
1:A:377:ARG:HD2	1:A:403:THR:HG23	1.60	0.83
1:F:377:ARG:HD2	1:F:403:THR:HG23	1.60	0.82
1:B:377:ARG:HD2	1:B:403:THR:HG23	1.60	0.82
1:F:51:LEU:HD21	1:F:104:PRO:HB3	1.58	0.82
1:A:626:PRO:O	1:A:629:ILE:HG22	1.80	0.81
1:B:626:PRO:O	1:B:629:ILE:HG22	1.80	0.81
1:E:377:ARG:HD2	1:E:403:THR:HG23	1.60	0.81
1:D:465:ARG:O	1:D:466:GLU:CG	2.29	0.81
1:C:465:ARG:O	1:C:466:GLU:CG	2.29	0.81
1:D:626:PRO:O	1:D:629:ILE:HG22	1.80	0.81
1:E:465:ARG:O	1:E:466:GLU:CG	2.29	0.81
1:E:626:PRO:O	1:E:629:ILE:HG22	1.80	0.80
1:F:626:PRO:O	1:F:629:ILE:HG22	1.80	0.80
1:B:465:ARG:O	1:B:466:GLU:CG	2.29	0.80
1:C:626:PRO:O	1:C:629:ILE:HG22	1.80	0.80
1:B:113:ARG:HA	1:B:181:VAL:O	1.83	0.79
1:F:465:ARG:O	1:F:466:GLU:CG	2.29	0.79
1:F:68:VAL:HG21	1:F:173:TYR:HB2	1.64	0.79
1:D:113:ARG:HA	1:D:181:VAL:O	1.83	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:113:ARG:HA	1:A:181:VAL:O	1.83	0.79
1:E:113:ARG:HA	1:E:181:VAL:O	1.83	0.78
1:F:113:ARG:HA	1:F:181:VAL:O	1.83	0.78
1:D:68:VAL:HG21	1:D:173:TYR:HB2	1.64	0.78
1:A:465:ARG:O	1:A:466:GLU:CG	2.29	0.78
1:A:68:VAL:HG21	1:A:173:TYR:HB2	1.64	0.78
1:A:153:LEU:HD12	1:A:153:LEU:O	1.84	0.78
1:C:68:VAL:HG21	1:C:173:TYR:HB2	1.64	0.78
1:E:68:VAL:HG21	1:E:173:TYR:HB2	1.64	0.78
1:C:113:ARG:HA	1:C:181:VAL:O	1.83	0.77
1:C:153:LEU:HD12	1:C:153:LEU:O	1.84	0.77
1:B:153:LEU:HD12	1:B:153:LEU:O	1.84	0.77
1:B:68:VAL:HG21	1:B:173:TYR:HB2	1.64	0.77
1:D:153:LEU:O	1:D:153:LEU:HD12	1.84	0.77
1:A:41:LEU:HD11	1:A:45:LYS:HD3	1.67	0.76
1:D:142:ALA:HB1	1:D:144:ARG:HG2	1.67	0.76
1:F:153:LEU:HD12	1:F:153:LEU:O	1.84	0.76
1:B:142:ALA:HB1	1:B:144:ARG:HG2	1.67	0.76
1:E:153:LEU:HD12	1:E:153:LEU:O	1.84	0.76
1:D:229:LEU:CD1	1:E:437:ILE:HD11	2.16	0.76
1:B:761:THR:O	1:B:765:SER:HB3	1.86	0.76
1:A:229:LEU:CD1	1:B:437:ILE:HD11	2.16	0.76
1:C:229:LEU:CD1	1:D:437:ILE:HD11	2.16	0.76
1:E:142:ALA:HB1	1:E:144:ARG:HG2	1.67	0.76
1:F:41:LEU:HD11	1:F:45:LYS:HD3	1.67	0.76
1:D:41:LEU:HD11	1:D:45:LYS:HD3	1.67	0.75
1:D:390:LEU:HB3	1:D:394:VAL:CG1	2.16	0.75
1:B:41:LEU:HD11	1:B:45:LYS:HD3	1.67	0.75
1:A:320:VAL:HA	1:A:323:ARG:HG2	1.69	0.75
1:C:142:ALA:HB1	1:C:144:ARG:HG2	1.67	0.75
1:A:437:ILE:HD11	1:F:229:LEU:CD1	2.16	0.75
1:E:41:LEU:HD11	1:E:45:LYS:HD3	1.67	0.75
1:A:761:THR:O	1:A:765:SER:HB3	1.86	0.75
1:E:390:LEU:HB3	1:E:394:VAL:CG1	2.16	0.75
1:B:320:VAL:HA	1:B:323:ARG:HG2	1.69	0.75
1:C:390:LEU:HB3	1:C:394:VAL:CG1	2.16	0.75
1:C:761:THR:O	1:C:765:SER:HB3	1.86	0.75
1:E:229:LEU:CD1	1:F:437:ILE:HD11	2.16	0.75
1:F:320:VAL:HA	1:F:323:ARG:HG2	1.69	0.75
1:C:320:VAL:HA	1:C:323:ARG:HG2	1.69	0.75
1:E:198:LEU:HD13	1:E:198:LEU:O	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:142:ALA:HB1	1:A:144:ARG:HG2	1.67	0.74
1:E:761:THR:O	1:E:765:SER:HB3	1.86	0.74
1:F:761:THR:O	1:F:765:SER:HB3	1.86	0.74
1:B:229:LEU:CD1	1:C:437:ILE:HD11	2.16	0.74
1:B:390:LEU:HB3	1:B:394:VAL:CG1	2.16	0.74
1:F:390:LEU:HB3	1:F:394:VAL:CG1	2.16	0.74
1:A:390:LEU:HB3	1:A:394:VAL:CG1	2.16	0.74
1:D:761:THR:O	1:D:765:SER:HB3	1.86	0.74
1:D:198:LEU:HD13	1:D:198:LEU:O	1.87	0.74
1:F:198:LEU:HD13	1:F:198:LEU:O	1.87	0.74
1:A:456:LEU:O	1:A:460:ASN:HB2	1.88	0.74
1:C:41:LEU:HD11	1:C:45:LYS:HD3	1.67	0.74
1:C:198:LEU:HD13	1:C:198:LEU:O	1.87	0.73
1:D:320:VAL:HA	1:D:323:ARG:HG2	1.69	0.73
1:F:456:LEU:O	1:F:460:ASN:HB2	1.88	0.73
1:F:142:ALA:HB1	1:F:144:ARG:HG2	1.67	0.73
1:E:117:LEU:HD22	1:E:189:ILE:HG22	1.71	0.73
1:E:456:LEU:O	1:E:460:ASN:HB2	1.88	0.73
1:B:198:LEU:HD13	1:B:198:LEU:O	1.87	0.73
1:E:320:VAL:HA	1:E:323:ARG:HG2	1.69	0.73
1:D:456:LEU:O	1:D:460:ASN:HB2	1.88	0.73
1:E:391:ALA:O	1:E:394:VAL:HG12	1.88	0.73
1:D:335:LEU:HA	1:D:338:ARG:HH11	1.54	0.73
1:A:335:LEU:HA	1:A:338:ARG:HH11	1.54	0.73
1:B:335:LEU:HA	1:B:338:ARG:HH11	1.54	0.73
1:A:198:LEU:HD13	1:A:198:LEU:O	1.87	0.73
1:B:456:LEU:O	1:B:460:ASN:HB2	1.88	0.73
1:F:117:LEU:HD22	1:F:189:ILE:HG22	1.71	0.73
1:B:391:ALA:O	1:B:394:VAL:HG12	1.88	0.73
1:C:571:PRO:HB3	1:C:616:ASN:HB3	1.71	0.73
1:E:302:PHE:CE2	1:E:304:ASP:HB3	2.24	0.73
1:F:391:ALA:O	1:F:394:VAL:HG12	1.88	0.73
1:F:335:LEU:HA	1:F:338:ARG:HH11	1.54	0.72
1:A:117:LEU:HD22	1:A:189:ILE:HG22	1.71	0.72
1:A:302:PHE:CE2	1:A:304:ASP:HB3	2.24	0.72
1:B:111:GLY:CA	1:B:170:PRO:HG3	2.19	0.72
1:B:571:PRO:HB3	1:B:616:ASN:HB3	1.71	0.72
1:C:391:ALA:O	1:C:394:VAL:HG12	1.88	0.72
1:D:302:PHE:CE2	1:D:304:ASP:HB3	2.24	0.72
1:B:302:PHE:CE2	1:B:304:ASP:HB3	2.24	0.72
1:D:391:ALA:O	1:D:394:VAL:HG12	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:571:PRO:HB3	1:D:616:ASN:HB3	1.71	0.72
1:C:335:LEU:HA	1:C:338:ARG:HH11	1.54	0.72
1:D:117:LEU:HD22	1:D:189:ILE:HG22	1.71	0.72
1:F:302:PHE:CE2	1:F:304:ASP:HB3	2.24	0.72
1:C:302:PHE:CE2	1:C:304:ASP:HB3	2.24	0.72
1:A:571:PRO:HB3	1:A:616:ASN:HB3	1.71	0.72
1:A:391:ALA:O	1:A:394:VAL:HG12	1.88	0.71
1:E:111:GLY:CA	1:E:170:PRO:HG3	2.19	0.71
1:F:111:GLY:CA	1:F:170:PRO:HG3	2.19	0.71
1:C:456:LEU:O	1:C:460:ASN:HB2	1.88	0.71
1:E:571:PRO:HB3	1:E:616:ASN:HB3	1.71	0.71
1:B:117:LEU:HD22	1:B:189:ILE:HG22	1.71	0.71
1:C:117:LEU:HD22	1:C:189:ILE:HG22	1.71	0.71
1:A:111:GLY:CA	1:A:170:PRO:HG3	2.19	0.71
1:F:571:PRO:HB3	1:F:616:ASN:HB3	1.71	0.71
1:F:630:ASP:O	1:F:633:ILE:HG22	1.91	0.71
1:B:630:ASP:O	1:B:633:ILE:HG22	1.91	0.71
1:C:630:ASP:O	1:C:633:ILE:HG22	1.91	0.71
1:E:335:LEU:HA	1:E:338:ARG:HH11	1.54	0.71
1:E:40:SER:HB2	1:E:83:ARG:HB2	1.73	0.70
1:D:630:ASP:O	1:D:633:ILE:HG22	1.91	0.70
1:E:117:LEU:HD21	1:E:187:GLU:O	1.92	0.70
1:A:40:SER:HB2	1:A:83:ARG:HB2	1.73	0.70
1:C:40:SER:HB2	1:C:83:ARG:HB2	1.73	0.70
1:D:111:GLY:CA	1:D:170:PRO:HG3	2.19	0.70
1:F:40:SER:HB2	1:F:83:ARG:HB2	1.73	0.70
1:A:630:ASP:O	1:A:633:ILE:HG22	1.91	0.70
1:D:40:SER:HB2	1:D:83:ARG:HB2	1.73	0.70
1:D:117:LEU:HD21	1:D:187:GLU:O	1.91	0.70
1:E:437:ILE:HG22	1:E:442:MET:HG3	1.74	0.70
1:C:437:ILE:HG22	1:C:442:MET:HG3	1.74	0.70
1:B:40:SER:HB2	1:B:83:ARG:HB2	1.73	0.70
1:E:630:ASP:O	1:E:633:ILE:HG22	1.91	0.69
1:B:126:ILE:HG21	1:B:439:ALA:N	2.07	0.69
1:D:437:ILE:HG22	1:D:442:MET:HG3	1.74	0.69
1:F:117:LEU:HD21	1:F:187:GLU:O	1.92	0.69
1:F:437:ILE:HG22	1:F:442:MET:HG3	1.74	0.69
1:C:126:ILE:HG21	1:C:439:ALA:N	2.08	0.69
1:D:126:ILE:HG21	1:D:439:ALA:N	2.07	0.69
1:C:117:LEU:HD21	1:C:187:GLU:O	1.92	0.69
1:A:117:LEU:HD21	1:A:187:GLU:O	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:117:LEU:HD21	1:B:187:GLU:O	1.92	0.69
1:B:437:ILE:HG22	1:B:442:MET:HG3	1.74	0.69
1:D:316:THR:HA	1:D:321:GLU:OE1	1.93	0.69
1:A:126:ILE:HG21	1:A:439:ALA:N	2.07	0.69
1:C:42:SER:OG	1:C:79:ASP:HA	1.93	0.69
1:C:111:GLY:CA	1:C:170:PRO:HG3	2.19	0.69
1:F:316:THR:HA	1:F:321:GLU:OE1	1.93	0.69
1:E:126:ILE:HG21	1:E:439:ALA:N	2.07	0.69
1:A:437:ILE:HG22	1:A:442:MET:HG3	1.74	0.69
1:A:316:THR:HA	1:A:321:GLU:OE1	1.93	0.68
1:B:316:THR:HA	1:B:321:GLU:OE1	1.93	0.68
1:D:42:SER:OG	1:D:79:ASP:HA	1.93	0.68
1:F:42:SER:OG	1:F:79:ASP:HA	1.93	0.68
1:E:316:THR:HA	1:E:321:GLU:OE1	1.93	0.68
1:E:42:SER:OG	1:E:79:ASP:HA	1.93	0.68
1:A:271:GLY:HA2	1:A:309:ILE:HD11	1.75	0.68
1:C:316:THR:HA	1:C:321:GLU:OE1	1.93	0.68
1:A:131:PHE:HD1	1:A:135:LEU:HD23	1.59	0.68
1:C:131:PHE:HD1	1:C:135:LEU:HD23	1.59	0.68
1:F:131:PHE:HD1	1:F:135:LEU:HD23	1.59	0.68
1:F:126:ILE:HG21	1:F:439:ALA:N	2.08	0.67
1:A:42:SER:OG	1:A:79:ASP:HA	1.93	0.67
1:B:131:PHE:HD1	1:B:135:LEU:HD23	1.59	0.67
1:D:131:PHE:HD1	1:D:135:LEU:HD23	1.59	0.67
1:A:151:ILE:HG22	1:A:151:ILE:O	1.94	0.67
1:C:151:ILE:HG22	1:C:151:ILE:O	1.94	0.67
1:D:151:ILE:HG22	1:D:151:ILE:O	1.94	0.67
1:F:30:GLU:O	1:F:83:ARG:NH1	2.28	0.67
1:A:30:GLU:O	1:A:83:ARG:NH1	2.28	0.67
1:E:131:PHE:HD1	1:E:135:LEU:HD23	1.59	0.67
1:F:271:GLY:HA2	1:F:309:ILE:HD11	1.76	0.67
1:B:42:SER:OG	1:B:79:ASP:HA	1.93	0.67
1:D:271:GLY:HA2	1:D:309:ILE:HD11	1.75	0.67
1:E:271:GLY:HA2	1:E:309:ILE:HD11	1.75	0.67
1:E:151:ILE:O	1:E:151:ILE:HG22	1.94	0.67
1:F:151:ILE:HG22	1:F:151:ILE:O	1.94	0.67
1:B:271:GLY:HA2	1:B:309:ILE:HD11	1.75	0.67
1:C:271:GLY:HA2	1:C:309:ILE:HD11	1.76	0.67
1:E:30:GLU:O	1:E:83:ARG:NH1	2.28	0.66
1:B:30:GLU:O	1:B:83:ARG:NH1	2.28	0.66
1:B:151:ILE:O	1:B:151:ILE:HG22	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:329:LEU:HD21	1:F:357:LEU:HD12	1.78	0.66
1:E:126:ILE:HG12	1:E:438:ASP:HA	1.78	0.66
1:D:126:ILE:HG12	1:D:438:ASP:HA	1.78	0.66
1:E:329:LEU:HD21	1:E:357:LEU:HD12	1.78	0.66
1:F:438:ASP:HB2	1:F:441:VAL:HG22	1.78	0.66
1:C:30:GLU:O	1:C:83:ARG:NH1	2.28	0.65
1:C:126:ILE:HG12	1:C:438:ASP:HA	1.78	0.65
1:D:30:GLU:O	1:D:83:ARG:NH1	2.28	0.65
1:A:439:ALA:HA	1:A:442:MET:HE3	1.79	0.65
1:D:439:ALA:HA	1:D:442:MET:HE3	1.79	0.65
1:E:438:ASP:HB2	1:E:441:VAL:HG22	1.78	0.65
1:E:439:ALA:HA	1:E:442:MET:HE3	1.79	0.65
1:A:438:ASP:HB2	1:A:441:VAL:HG22	1.78	0.65
1:F:126:ILE:HG12	1:F:438:ASP:HA	1.78	0.65
1:A:329:LEU:HD21	1:A:357:LEU:HD12	1.78	0.65
1:B:439:ALA:HA	1:B:442:MET:HE3	1.79	0.65
1:B:126:ILE:HG12	1:B:438:ASP:HA	1.78	0.65
1:C:649:ASP:O	1:C:653:ARG:HG3	1.97	0.65
1:B:438:ASP:HB2	1:B:441:VAL:HG22	1.78	0.65
1:F:439:ALA:HA	1:F:442:MET:HE3	1.79	0.65
1:B:329:LEU:HD21	1:B:357:LEU:HD12	1.78	0.65
1:F:649:ASP:O	1:F:653:ARG:HG3	1.97	0.65
1:C:329:LEU:HD21	1:C:357:LEU:HD12	1.78	0.65
1:D:438:ASP:HB2	1:D:441:VAL:HG22	1.78	0.65
1:A:126:ILE:HG12	1:A:438:ASP:HA	1.78	0.64
1:C:439:ALA:HA	1:C:442:MET:HE3	1.79	0.64
1:F:321:GLU:O	1:F:324:ILE:HG22	1.97	0.64
1:B:649:ASP:O	1:B:653:ARG:HG3	1.97	0.64
1:E:649:ASP:O	1:E:653:ARG:HG3	1.97	0.64
1:F:126:ILE:HB	1:F:437:ILE:O	1.98	0.64
1:A:649:ASP:O	1:A:653:ARG:HG3	1.97	0.64
1:C:438:ASP:HB2	1:C:441:VAL:HG22	1.78	0.64
1:D:126:ILE:HB	1:D:437:ILE:O	1.98	0.64
1:E:321:GLU:O	1:E:324:ILE:HG22	1.97	0.64
1:C:126:ILE:HB	1:C:437:ILE:O	1.98	0.64
1:C:321:GLU:O	1:C:324:ILE:HG22	1.97	0.64
1:D:649:ASP:O	1:D:653:ARG:HG3	1.97	0.64
1:E:126:ILE:HB	1:E:437:ILE:O	1.98	0.64
1:A:321:GLU:O	1:A:324:ILE:HG22	1.97	0.63
1:D:329:LEU:HD21	1:D:357:LEU:HD12	1.78	0.63
1:F:405:GLY:CA	1:F:464:LEU:HD22	2.15	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:321:GLU:O	1:B:324:ILE:HG22	1.97	0.63
1:E:60:LYS:HA	1:E:66:GLU:HG3	1.80	0.63
1:C:60:LYS:HA	1:C:66:GLU:HG3	1.80	0.63
1:D:60:LYS:HA	1:D:66:GLU:HG3	1.80	0.63
1:A:126:ILE:HB	1:A:437:ILE:O	1.98	0.63
1:B:60:LYS:HA	1:B:66:GLU:HG3	1.80	0.63
1:D:321:GLU:O	1:D:324:ILE:HG22	1.97	0.63
1:A:60:LYS:HA	1:A:66:GLU:HG3	1.80	0.63
1:B:126:ILE:HB	1:B:437:ILE:O	1.98	0.63
1:B:271:GLY:HA2	1:B:309:ILE:CD1	2.30	0.62
1:C:271:GLY:HA2	1:C:309:ILE:CD1	2.30	0.62
1:F:60:LYS:HA	1:F:66:GLU:HG3	1.80	0.62
1:D:271:GLY:HA2	1:D:309:ILE:CD1	2.30	0.62
1:A:271:GLY:HA2	1:A:309:ILE:CD1	2.30	0.62
1:C:117:LEU:CD2	1:C:189:ILE:HG22	2.29	0.62
1:D:117:LEU:CD2	1:D:189:ILE:HG22	2.29	0.62
1:B:117:LEU:CD2	1:B:189:ILE:HG22	2.29	0.61
1:E:326:SER:O	1:E:327:GLN:HB3	2.00	0.61
1:E:117:LEU:CD2	1:E:189:ILE:HG22	2.29	0.61
1:F:271:GLY:HA2	1:F:309:ILE:CD1	2.30	0.61
1:B:371:ILE:HG12	1:B:464:LEU:CD1	2.31	0.61
1:E:271:GLY:HA2	1:E:309:ILE:CD1	2.30	0.61
1:E:371:ILE:HG12	1:E:464:LEU:CD1	2.31	0.61
1:A:119:ILE:HD11	1:A:164:LYS:CB	2.30	0.61
1:D:326:SER:O	1:D:327:GLN:HB3	2.00	0.61
1:A:117:LEU:CD2	1:A:189:ILE:HG22	2.29	0.61
1:C:371:ILE:HG12	1:C:464:LEU:CD1	2.31	0.61
1:D:371:ILE:HG12	1:D:464:LEU:CD1	2.31	0.61
1:F:117:LEU:CD2	1:F:189:ILE:HG22	2.29	0.60
1:A:371:ILE:HG12	1:A:464:LEU:CD1	2.31	0.60
1:B:230:PHE:CE2	1:B:237:PRO:HB3	2.37	0.60
1:B:111:GLY:O	1:B:112:LYS:HG3	2.02	0.60
1:C:230:PHE:CE2	1:C:237:PRO:HB3	2.37	0.60
1:A:111:GLY:O	1:A:112:LYS:HG3	2.02	0.60
1:A:271:GLY:HA2	1:A:309:ILE:CG1	2.32	0.60
1:A:230:PHE:CE2	1:A:237:PRO:HB3	2.37	0.60
1:A:405:GLY:CA	1:A:464:LEU:HD22	2.15	0.60
1:C:326:SER:O	1:C:327:GLN:HB3	2.00	0.60
1:E:111:GLY:O	1:E:112:LYS:HG3	2.02	0.60
1:F:326:SER:O	1:F:327:GLN:HB3	2.00	0.60
1:C:111:GLY:O	1:C:112:LYS:HG3	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:371:ILE:HG12	1:F:464:LEU:CD1	2.31	0.60
1:A:287:ARG:HB2	1:A:327:GLN:HE22	1.66	0.60
1:B:326:SER:O	1:B:327:GLN:HB3	2.00	0.60
1:E:385:THR:OG1	1:E:396:LEU:HD11	2.02	0.60
1:C:26:LEU:O	1:C:99:VAL:HA	2.02	0.60
1:F:119:ILE:HD11	1:F:164:LYS:CB	2.30	0.60
1:F:271:GLY:HA2	1:F:309:ILE:CG1	2.32	0.60
1:A:385:THR:OG1	1:A:396:LEU:HD11	2.02	0.59
1:B:271:GLY:HA2	1:B:309:ILE:CG1	2.32	0.59
1:B:385:THR:OG1	1:B:396:LEU:HD11	2.02	0.59
1:D:26:LEU:O	1:D:99:VAL:HA	2.02	0.59
1:D:230:PHE:CE2	1:D:237:PRO:HB3	2.37	0.59
1:B:287:ARG:HB2	1:B:327:GLN:HE22	1.67	0.59
1:C:385:THR:OG1	1:C:396:LEU:HD11	2.02	0.59
1:D:385:THR:OG1	1:D:396:LEU:HD11	2.02	0.59
1:F:385:THR:OG1	1:F:396:LEU:HD11	2.02	0.59
1:A:326:SER:O	1:A:327:GLN:HB3	2.00	0.59
1:B:26:LEU:O	1:B:99:VAL:HA	2.02	0.59
1:E:26:LEU:O	1:E:99:VAL:HA	2.02	0.59
1:F:26:LEU:O	1:F:99:VAL:HA	2.02	0.59
1:F:111:GLY:O	1:F:112:LYS:HG3	2.02	0.59
1:C:119:ILE:HD11	1:C:164:LYS:CB	2.30	0.59
1:D:271:GLY:HA2	1:D:309:ILE:CG1	2.32	0.59
1:D:287:ARG:HB2	1:D:327:GLN:HE22	1.66	0.59
1:E:230:PHE:CE2	1:E:237:PRO:HB3	2.37	0.59
1:F:287:ARG:HB2	1:F:327:GLN:HE22	1.67	0.59
1:F:230:PHE:CE2	1:F:237:PRO:HB3	2.37	0.59
1:C:405:GLY:O	1:C:462:SER:HB3	2.03	0.59
1:D:111:GLY:O	1:D:112:LYS:HG3	2.02	0.59
1:D:244:TYR:HA	1:D:347:THR:O	2.03	0.59
1:D:405:GLY:O	1:D:462:SER:HB3	2.03	0.59
1:E:405:GLY:CA	1:E:464:LEU:HD22	2.15	0.59
1:B:517:TYR:HA	1:B:623:THR:O	2.03	0.59
1:D:119:ILE:HD11	1:D:164:LYS:CB	2.30	0.59
1:E:271:GLY:HA2	1:E:309:ILE:CG1	2.32	0.59
1:F:244:TYR:HA	1:F:347:THR:O	2.03	0.59
1:B:244:TYR:HA	1:B:347:THR:O	2.03	0.59
1:C:271:GLY:HA2	1:C:309:ILE:CG1	2.32	0.59
1:E:287:ARG:HB2	1:E:327:GLN:HE22	1.67	0.59
1:A:517:TYR:HA	1:A:623:THR:O	2.03	0.59
1:F:68:VAL:HG21	1:F:173:TYR:CB	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:244:TYR:HA	1:A:347:THR:O	2.03	0.58
1:B:119:ILE:HD11	1:B:164:LYS:CB	2.30	0.58
1:E:119:ILE:HD11	1:E:164:LYS:CB	2.30	0.58
1:C:244:TYR:HA	1:C:347:THR:O	2.03	0.58
1:D:517:TYR:HA	1:D:623:THR:O	2.03	0.58
1:F:517:TYR:HA	1:F:623:THR:O	2.03	0.58
1:A:68:VAL:HG21	1:A:173:TYR:CB	2.33	0.58
1:E:25:ARG:HA	1:E:100:ILE:O	2.04	0.58
1:E:244:TYR:HA	1:E:347:THR:O	2.03	0.58
1:F:25:ARG:HA	1:F:100:ILE:O	2.04	0.58
1:F:113:ARG:H	1:F:180:THR:HG23	1.68	0.58
1:A:26:LEU:O	1:A:99:VAL:HA	2.02	0.58
1:A:405:GLY:O	1:A:462:SER:HB3	2.03	0.58
1:E:517:TYR:HA	1:E:623:THR:O	2.03	0.58
1:A:25:ARG:HA	1:A:100:ILE:O	2.04	0.58
1:A:113:ARG:H	1:A:180:THR:HG23	1.69	0.58
1:C:25:ARG:HA	1:C:100:ILE:O	2.04	0.58
1:D:271:GLY:HA2	1:D:309:ILE:HG13	1.86	0.58
1:E:405:GLY:O	1:E:462:SER:HB3	2.03	0.58
1:B:271:GLY:HA2	1:B:309:ILE:HG13	1.86	0.58
1:C:517:TYR:HA	1:C:623:THR:O	2.03	0.58
1:E:31:ALA:HA	1:E:83:ARG:HB3	1.86	0.58
1:B:405:GLY:O	1:B:462:SER:HB3	2.03	0.58
1:C:113:ARG:H	1:C:180:THR:HG23	1.68	0.58
1:D:25:ARG:HA	1:D:100:ILE:O	2.04	0.58
1:E:68:VAL:HG21	1:E:173:TYR:CB	2.33	0.58
1:C:143:TYR:HA	1:C:176:VAL:O	2.04	0.58
1:C:287:ARG:HB2	1:C:327:GLN:HE22	1.67	0.58
1:D:31:ALA:HA	1:D:83:ARG:HB3	1.86	0.58
1:D:143:TYR:HA	1:D:176:VAL:O	2.04	0.58
1:A:271:GLY:HA2	1:A:309:ILE:HG13	1.86	0.57
1:B:143:TYR:HA	1:B:176:VAL:O	2.04	0.57
1:D:113:ARG:H	1:D:180:THR:HG23	1.69	0.57
1:E:271:GLY:HA2	1:E:309:ILE:HG13	1.86	0.57
1:F:381:LEU:O	1:F:385:THR:HG23	2.04	0.57
1:C:271:GLY:HA2	1:C:309:ILE:HG13	1.86	0.57
1:E:143:TYR:HA	1:E:176:VAL:O	2.04	0.57
1:E:381:LEU:O	1:E:385:THR:HG23	2.04	0.57
1:A:381:LEU:O	1:A:385:THR:HG23	2.04	0.57
1:C:381:LEU:O	1:C:385:THR:HG23	2.04	0.57
1:B:31:ALA:HA	1:B:83:ARG:HB3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:113:ARG:H	1:B:180:THR:HG23	1.69	0.57
1:C:68:VAL:HG21	1:C:173:TYR:CB	2.33	0.57
1:F:31:ALA:HA	1:F:83:ARG:HB3	1.86	0.57
1:F:143:TYR:HA	1:F:176:VAL:O	2.04	0.57
1:B:68:VAL:HG21	1:B:173:TYR:CB	2.33	0.57
1:C:31:ALA:HA	1:C:83:ARG:HB3	1.86	0.57
1:C:405:GLY:CA	1:C:464:LEU:HD22	2.15	0.57
1:F:271:GLY:HA2	1:F:309:ILE:HG13	1.86	0.57
1:B:381:LEU:O	1:B:385:THR:HG23	2.04	0.57
1:F:405:GLY:O	1:F:462:SER:HB3	2.03	0.57
1:A:31:ALA:HA	1:A:83:ARG:HB3	1.86	0.57
1:B:25:ARG:HA	1:B:100:ILE:O	2.04	0.57
1:D:381:LEU:O	1:D:385:THR:HG23	2.04	0.57
1:B:425:LYS:O	1:B:429:LEU:HD22	2.05	0.57
1:E:113:ARG:H	1:E:180:THR:HG23	1.69	0.57
1:A:143:TYR:HA	1:A:176:VAL:O	2.04	0.56
1:B:405:GLY:CA	1:B:464:LEU:HD22	2.15	0.56
1:A:425:LYS:O	1:A:429:LEU:HD22	2.05	0.56
1:E:425:LYS:O	1:E:429:LEU:HD22	2.05	0.56
1:C:666:VAL:CG1	1:C:670:VAL:HG21	2.36	0.56
1:F:425:LYS:O	1:F:429:LEU:HD22	2.05	0.56
1:A:774:PRO:HD3	1:B:674:PHE:CD2	2.41	0.56
1:B:666:VAL:CG1	1:B:670:VAL:HG21	2.36	0.56
1:B:120:ASP:HA	1:B:188:PRO:HB2	1.87	0.56
1:C:425:LYS:O	1:C:429:LEU:HD22	2.05	0.56
1:D:68:VAL:HG21	1:D:173:TYR:CB	2.33	0.56
1:D:666:VAL:CG1	1:D:670:VAL:HG21	2.36	0.56
1:E:217:LYS:O	1:E:221:GLU:HB2	2.06	0.56
1:A:666:VAL:CG1	1:A:670:VAL:HG21	2.36	0.56
1:E:774:PRO:HD3	1:F:674:PHE:CD2	2.41	0.56
1:B:774:PRO:HD3	1:C:674:PHE:CD2	2.41	0.55
1:A:674:PHE:CD2	1:F:774:PRO:HD3	2.41	0.55
1:D:120:ASP:HA	1:D:188:PRO:HB2	1.87	0.55
1:D:774:PRO:HD3	1:E:674:PHE:CD2	2.41	0.55
1:F:120:ASP:HA	1:F:188:PRO:HB2	1.87	0.55
1:C:120:ASP:HA	1:C:188:PRO:HB2	1.87	0.55
1:D:425:LYS:O	1:D:429:LEU:HD22	2.05	0.55
1:E:666:VAL:CG1	1:E:670:VAL:HG21	2.36	0.55
1:F:422:ALA:HB2	1:F:451:ASP:OD2	2.07	0.55
1:A:217:LYS:O	1:A:221:GLU:HB2	2.06	0.55
1:E:422:ALA:HB2	1:E:451:ASP:OD2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:666:VAL:CG1	1:F:670:VAL:HG21	2.36	0.55
1:A:120:ASP:HA	1:A:188:PRO:HB2	1.87	0.55
1:A:147:ARG:O	1:A:165:VAL:HG11	2.07	0.55
1:B:147:ARG:O	1:B:165:VAL:HG11	2.07	0.55
1:B:217:LYS:O	1:B:221:GLU:HB2	2.06	0.55
1:C:217:LYS:O	1:C:221:GLU:HB2	2.06	0.55
1:E:120:ASP:HA	1:E:188:PRO:HB2	1.87	0.55
1:F:118:PRO:O	1:F:188:PRO:HA	2.07	0.55
1:C:147:ARG:O	1:C:165:VAL:HG11	2.07	0.55
1:C:774:PRO:HD3	1:D:674:PHE:CD2	2.41	0.55
1:D:217:LYS:O	1:D:221:GLU:HB2	2.06	0.55
1:E:42:SER:HB2	1:E:78:SER:O	2.07	0.55
1:A:422:ALA:HB2	1:A:451:ASP:OD2	2.07	0.55
1:B:131:PHE:CD1	1:B:135:LEU:HD23	2.42	0.55
1:E:147:ARG:O	1:E:165:VAL:HG11	2.07	0.55
1:D:147:ARG:O	1:D:165:VAL:HG11	2.07	0.54
1:D:422:ALA:HB2	1:D:451:ASP:OD2	2.07	0.54
1:C:118:PRO:O	1:C:188:PRO:HA	2.07	0.54
1:F:147:ARG:O	1:F:165:VAL:HG11	2.07	0.54
1:F:42:SER:HB2	1:F:78:SER:O	2.08	0.54
1:F:217:LYS:O	1:F:221:GLU:HB2	2.06	0.54
1:A:118:PRO:O	1:A:188:PRO:HA	2.07	0.54
1:A:204:ASP:N	1:A:204:ASP:OD2	2.40	0.54
1:C:569:ALA:O	1:C:572:CYS:HB2	2.08	0.54
1:A:131:PHE:CD1	1:A:135:LEU:HD23	2.42	0.54
1:B:118:PRO:O	1:B:188:PRO:HA	2.07	0.54
1:B:422:ALA:HB2	1:B:451:ASP:OD2	2.07	0.54
1:C:422:ALA:HB2	1:C:451:ASP:OD2	2.07	0.54
1:D:42:SER:HB2	1:D:78:SER:O	2.08	0.54
1:F:569:ALA:O	1:F:572:CYS:HB2	2.08	0.54
1:A:158:MET:HE1	1:A:423:ILE:HD11	1.90	0.54
1:A:569:ALA:O	1:A:572:CYS:HB2	2.08	0.54
1:B:569:ALA:O	1:B:572:CYS:HB2	2.08	0.54
1:D:569:ALA:O	1:D:572:CYS:HB2	2.08	0.54
1:E:118:PRO:O	1:E:188:PRO:HA	2.07	0.54
1:F:303:ILE:O	1:F:303:ILE:HG22	2.08	0.54
1:B:303:ILE:HG22	1:B:303:ILE:O	2.08	0.54
1:D:118:PRO:O	1:D:188:PRO:HA	2.07	0.54
1:D:158:MET:HE1	1:D:423:ILE:HD11	1.90	0.54
1:E:569:ALA:O	1:E:572:CYS:HB2	2.08	0.54
1:B:158:MET:HE1	1:B:423:ILE:HD11	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:665:PRO:O	1:E:731:ILE:HD12	2.09	0.53
1:E:303:ILE:HG22	1:E:303:ILE:O	2.08	0.53
1:B:122:THR:O	1:B:159:ARG:HD3	2.09	0.53
1:B:208:GLY:H	2:B:807:ADP:HN62	1.57	0.53
1:C:303:ILE:O	1:C:303:ILE:HG22	2.08	0.53
1:E:158:MET:HE1	1:E:423:ILE:HD11	1.90	0.53
1:E:204:ASP:OD2	1:E:204:ASP:N	2.40	0.53
1:B:762:LEU:O	1:B:766:ARG:HG3	2.09	0.53
1:A:42:SER:HB2	1:A:78:SER:O	2.08	0.53
1:A:208:GLY:H	2:A:807:ADP:HN62	1.57	0.53
1:B:42:SER:HB2	1:B:78:SER:O	2.07	0.53
1:C:122:THR:O	1:C:159:ARG:HD3	2.09	0.53
1:C:271:GLY:N	1:C:272:PRO:HD2	2.24	0.53
1:D:665:PRO:O	1:D:731:ILE:HD12	2.09	0.53
1:E:131:PHE:CD1	1:E:135:LEU:HD23	2.42	0.53
1:A:437:ILE:HG22	1:A:442:MET:CG	2.39	0.53
1:B:437:ILE:HG22	1:B:442:MET:CG	2.39	0.53
1:F:158:MET:HE1	1:F:423:ILE:HD11	1.90	0.53
1:C:208:GLY:H	2:C:807:ADP:HN62	1.57	0.53
1:D:303:ILE:HG22	1:D:303:ILE:O	2.08	0.53
1:A:303:ILE:O	1:A:303:ILE:HG22	2.08	0.53
1:C:762:LEU:O	1:C:766:ARG:HG3	2.09	0.53
1:E:762:LEU:O	1:E:766:ARG:HG3	2.09	0.53
1:F:437:ILE:HG22	1:F:442:MET:CG	2.39	0.53
1:B:95:ARG:HG2	1:B:95:ARG:HH11	1.73	0.53
1:C:665:PRO:O	1:C:731:ILE:HD12	2.09	0.53
1:D:271:GLY:N	1:D:272:PRO:HD2	2.24	0.53
1:A:95:ARG:HH11	1:A:95:ARG:HG2	1.73	0.53
1:A:108:VAL:HG21	1:A:175:ILE:HD11	1.91	0.53
1:A:271:GLY:N	1:A:272:PRO:HD2	2.24	0.53
1:A:762:LEU:O	1:A:766:ARG:HG3	2.09	0.53
1:C:144:ARG:N	1:C:176:VAL:HG12	2.24	0.53
1:F:204:ASP:N	1:F:204:ASP:OD2	2.40	0.53
1:F:271:GLY:N	1:F:272:PRO:HD2	2.24	0.53
1:A:122:THR:O	1:A:159:ARG:HD3	2.09	0.52
1:A:460:ASN:OD1	1:A:460:ASN:O	2.27	0.52
1:B:271:GLY:N	1:B:272:PRO:HD2	2.24	0.52
1:B:460:ASN:OD1	1:B:460:ASN:O	2.27	0.52
1:C:42:SER:HB2	1:C:78:SER:O	2.08	0.52
1:C:95:ARG:HG2	1:C:95:ARG:HH11	1.73	0.52
1:C:437:ILE:HG22	1:C:442:MET:CG	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:131:PHE:CD1	1:D:135:LEU:HD23	2.42	0.52
1:D:460:ASN:O	1:D:460:ASN:OD1	2.27	0.52
1:F:206:ILE:O	1:F:210:ARG:NE	2.30	0.52
1:F:665:PRO:O	1:F:731:ILE:HD12	2.09	0.52
1:C:158:MET:HE1	1:C:423:ILE:HD11	1.90	0.52
1:D:762:LEU:O	1:D:766:ARG:HG3	2.09	0.52
1:E:271:GLY:N	1:E:272:PRO:HD2	2.24	0.52
1:E:460:ASN:OD1	1:E:460:ASN:O	2.27	0.52
1:F:208:GLY:H	2:F:807:ADP:HN62	1.57	0.52
1:D:144:ARG:N	1:D:176:VAL:HG12	2.24	0.52
1:E:95:ARG:HG2	1:E:95:ARG:HH11	1.73	0.52
1:E:134:TYR:O	1:E:154:VAL:HG11	2.10	0.52
1:A:134:TYR:O	1:A:154:VAL:HG11	2.10	0.52
1:D:95:ARG:HH11	1:D:95:ARG:HG2	1.73	0.52
1:D:122:THR:O	1:D:159:ARG:HD3	2.09	0.52
1:F:762:LEU:O	1:F:766:ARG:HG3	2.09	0.52
1:D:206:ILE:O	1:D:210:ARG:NE	2.30	0.52
1:D:208:GLY:H	2:D:807:ADP:HN62	1.57	0.52
1:E:144:ARG:N	1:E:176:VAL:HG12	2.24	0.52
1:F:134:TYR:O	1:F:154:VAL:HG11	2.10	0.52
1:E:131:PHE:CZ	1:E:184:CYS:HA	2.45	0.52
1:F:131:PHE:CZ	1:F:184:CYS:HA	2.45	0.52
1:A:258:VAL:O	1:A:262:THR:HG23	2.10	0.52
1:B:144:ARG:N	1:B:176:VAL:HG12	2.24	0.52
1:B:317:HIS:CD2	1:C:317:HIS:CG	2.96	0.52
1:B:665:PRO:O	1:B:731:ILE:HD12	2.09	0.52
1:D:131:PHE:CZ	1:D:184:CYS:HA	2.45	0.52
1:E:208:GLY:H	2:E:807:ADP:HN62	1.57	0.52
1:F:460:ASN:OD1	1:F:460:ASN:O	2.27	0.52
1:A:665:PRO:O	1:A:731:ILE:HD12	2.09	0.52
1:C:460:ASN:OD1	1:C:460:ASN:O	2.27	0.52
1:D:108:VAL:HG21	1:D:175:ILE:HD11	1.91	0.52
1:E:117:LEU:HD21	1:E:189:ILE:H	1.75	0.52
1:F:43:GLN:HB3	1:F:44:PRO:HD3	1.92	0.52
1:F:95:ARG:HH11	1:F:95:ARG:HG2	1.73	0.52
1:A:131:PHE:CZ	1:A:184:CYS:HA	2.45	0.52
1:A:144:ARG:N	1:A:176:VAL:HG12	2.24	0.52
1:D:45:LYS:O	1:D:45:LYS:HG2	2.10	0.52
1:D:153:LEU:HD12	1:D:153:LEU:C	2.35	0.52
1:E:437:ILE:HG22	1:E:442:MET:CG	2.39	0.52
1:F:108:VAL:HG21	1:F:175:ILE:HD11	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:43:GLN:HB3	1:A:44:PRO:HD3	1.92	0.52
1:C:45:LYS:O	1:C:45:LYS:HG2	2.10	0.52
1:C:131:PHE:CD1	1:C:135:LEU:HD23	2.42	0.52
1:E:108:VAL:HG21	1:E:175:ILE:HD11	1.91	0.52
1:F:122:THR:O	1:F:159:ARG:HD3	2.09	0.52
1:B:134:TYR:O	1:B:154:VAL:HG11	2.10	0.51
1:C:131:PHE:CZ	1:C:184:CYS:HA	2.45	0.51
1:C:153:LEU:HD12	1:C:153:LEU:C	2.35	0.51
1:F:258:VAL:O	1:F:262:THR:HG23	2.10	0.51
1:B:108:VAL:HG21	1:B:175:ILE:HD11	1.91	0.51
1:B:131:PHE:CZ	1:B:184:CYS:HA	2.45	0.51
1:B:153:LEU:HD12	1:B:153:LEU:C	2.35	0.51
1:E:122:THR:O	1:E:159:ARG:HD3	2.09	0.51
1:F:131:PHE:CD1	1:F:135:LEU:HD23	2.42	0.51
1:A:45:LYS:O	1:A:45:LYS:HG2	2.10	0.51
1:E:45:LYS:HG2	1:E:45:LYS:O	2.10	0.51
1:E:153:LEU:HD12	1:E:153:LEU:C	2.35	0.51
1:A:60:LYS:O	1:A:100:ILE:HB	2.11	0.51
1:C:108:VAL:HG21	1:C:175:ILE:HD11	1.91	0.51
1:D:117:LEU:HD21	1:D:189:ILE:H	1.75	0.51
1:F:117:LEU:HD21	1:F:189:ILE:H	1.75	0.51
1:A:476:TRP:CD1	1:A:486:LYS:HZ3	2.28	0.51
1:B:45:LYS:O	1:B:45:LYS:HG2	2.10	0.51
1:B:258:VAL:O	1:B:262:THR:HG23	2.10	0.51
1:F:60:LYS:O	1:F:100:ILE:HB	2.11	0.51
1:F:144:ARG:N	1:F:176:VAL:HG12	2.24	0.51
1:C:134:TYR:O	1:C:154:VAL:HG11	2.10	0.51
1:B:476:TRP:CD1	1:B:486:LYS:HZ3	2.29	0.51
1:B:615:LYS:O	1:B:615:LYS:HG3	2.11	0.51
1:F:134:TYR:CE1	1:F:156:GLY:HA3	2.46	0.51
1:B:60:LYS:O	1:B:100:ILE:HB	2.11	0.51
1:C:476:TRP:CD1	1:C:486:LYS:HZ3	2.29	0.51
1:C:768:PHE:HB2	1:D:743:ALA:HB3	1.93	0.51
1:D:134:TYR:O	1:D:154:VAL:HG11	2.10	0.51
1:D:405:GLY:CA	1:D:464:LEU:HD22	2.15	0.51
1:A:134:TYR:CE1	1:A:156:GLY:HA3	2.46	0.51
1:B:134:TYR:CE1	1:B:156:GLY:HA3	2.46	0.51
1:C:111:GLY:HA2	1:C:170:PRO:CG	2.31	0.51
1:C:615:LYS:HG3	1:C:615:LYS:O	2.11	0.51
1:E:117:LEU:HD23	1:E:118:PRO:O	2.11	0.51
1:F:111:GLY:HA2	1:F:170:PRO:CG	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:476:TRP:CD1	1:F:486:LYS:HZ3	2.29	0.51
1:A:153:LEU:HD12	1:A:153:LEU:C	2.35	0.51
1:A:427:MET:HG2	1:A:445:LEU:HD12	1.93	0.51
1:E:60:LYS:O	1:E:100:ILE:HB	2.11	0.51
1:C:117:LEU:HD21	1:C:189:ILE:H	1.75	0.50
1:D:437:ILE:HG22	1:D:442:MET:CG	2.39	0.50
1:E:465:ARG:C	1:E:466:GLU:HG3	2.34	0.50
1:F:153:LEU:HD12	1:F:153:LEU:C	2.35	0.50
1:A:615:LYS:HG3	1:A:615:LYS:O	2.11	0.50
1:B:117:LEU:HD21	1:B:189:ILE:H	1.75	0.50
1:C:43:GLN:HB3	1:C:44:PRO:HD3	1.92	0.50
1:C:60:LYS:O	1:C:100:ILE:HB	2.11	0.50
1:D:60:LYS:O	1:D:100:ILE:HB	2.11	0.50
1:E:134:TYR:CE1	1:E:156:GLY:HA3	2.46	0.50
1:F:45:LYS:O	1:F:45:LYS:HG2	2.10	0.50
1:F:117:LEU:HD23	1:F:118:PRO:O	2.11	0.50
1:C:258:VAL:O	1:C:262:THR:HG23	2.10	0.50
1:D:615:LYS:O	1:D:615:LYS:HG3	2.11	0.50
1:D:768:PHE:HB2	1:E:743:ALA:HB3	1.93	0.50
1:E:258:VAL:O	1:E:262:THR:HG23	2.10	0.50
1:E:476:TRP:CD1	1:E:486:LYS:HZ3	2.28	0.50
1:C:117:LEU:HD23	1:C:118:PRO:O	2.11	0.50
1:E:43:GLN:HB3	1:E:44:PRO:HD3	1.92	0.50
1:D:476:TRP:CD1	1:D:486:LYS:HZ3	2.29	0.50
1:B:768:PHE:HB2	1:C:743:ALA:HB3	1.93	0.50
1:C:134:TYR:CE1	1:C:156:GLY:HA3	2.46	0.50
1:C:317:HIS:CD2	1:D:317:HIS:CG	2.96	0.50
1:D:117:LEU:HD23	1:D:118:PRO:O	2.11	0.50
1:D:258:VAL:O	1:D:262:THR:HG23	2.10	0.50
1:B:117:LEU:HD23	1:B:118:PRO:O	2.11	0.50
1:B:427:MET:HG2	1:B:445:LEU:HD12	1.93	0.50
1:D:43:GLN:HB3	1:D:44:PRO:HD3	1.92	0.50
1:D:134:TYR:CE1	1:D:156:GLY:HA3	2.46	0.50
1:A:117:LEU:HD23	1:A:118:PRO:O	2.11	0.50
1:B:43:GLN:HB3	1:B:44:PRO:HD3	1.92	0.50
1:E:427:MET:HG2	1:E:445:LEU:HD12	1.93	0.50
1:D:479:ILE:HG22	1:D:481:GLY:N	2.27	0.50
1:F:58:LEU:HD11	1:F:66:GLU:HB3	1.94	0.50
1:A:117:LEU:HD21	1:A:189:ILE:H	1.75	0.49
1:A:206:ILE:O	1:A:210:ARG:NE	2.30	0.49
1:D:406:HIS:CD2	1:D:462:SER:HG	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:479:ILE:HG22	1:E:481:GLY:N	2.27	0.49
1:C:479:ILE:HG22	1:C:481:GLY:N	2.27	0.49
1:D:317:HIS:CD2	1:E:317:HIS:CG	2.96	0.49
1:E:768:PHE:HB2	1:F:743:ALA:HB3	1.93	0.49
1:B:111:GLY:HA2	1:B:170:PRO:CG	2.31	0.49
1:A:768:PHE:HB2	1:B:743:ALA:HB3	1.93	0.49
1:F:427:MET:HG2	1:F:445:LEU:HD12	1.93	0.49
1:B:479:ILE:HG22	1:B:481:GLY:N	2.27	0.49
1:C:58:LEU:HD11	1:C:66:GLU:HB3	1.94	0.49
1:D:427:MET:HG2	1:D:445:LEU:HD12	1.93	0.49
1:E:58:LEU:HD11	1:E:66:GLU:HB3	1.94	0.49
1:B:58:LEU:HD11	1:B:66:GLU:HB3	1.94	0.49
1:F:615:LYS:HG3	1:F:615:LYS:O	2.11	0.49
1:E:615:LYS:O	1:E:615:LYS:HG3	2.11	0.49
1:A:743:ALA:HB3	1:F:768:PHE:HB2	1.93	0.48
1:D:58:LEU:HD11	1:D:66:GLU:HB3	1.94	0.48
1:E:317:HIS:CD2	1:F:317:HIS:CG	2.96	0.48
1:F:131:PHE:HA	1:F:135:LEU:CD2	2.32	0.48
1:F:406:HIS:CD2	1:F:462:SER:HG	2.31	0.48
1:F:465:ARG:C	1:F:466:GLU:HG3	2.34	0.48
1:A:479:ILE:HG22	1:A:481:GLY:N	2.27	0.48
1:C:465:ARG:C	1:C:466:GLU:HG3	2.34	0.48
1:E:395:ASP:O	1:E:396:LEU:HB2	2.14	0.48
1:F:479:ILE:HG22	1:F:481:GLY:N	2.27	0.48
1:B:206:ILE:O	1:B:210:ARG:NE	2.30	0.48
1:F:271:GLY:CA	1:F:309:ILE:HG13	2.43	0.48
1:A:111:GLY:HA2	1:A:170:PRO:CG	2.31	0.48
1:A:317:HIS:CG	1:F:317:HIS:CD2	2.96	0.48
1:C:395:ASP:O	1:C:396:LEU:HB2	2.14	0.48
1:C:427:MET:HG2	1:C:445:LEU:HD12	1.93	0.48
1:F:220:VAL:CG1	1:F:241:ILE:HD11	2.44	0.48
1:A:58:LEU:HD11	1:A:66:GLU:HB3	1.94	0.48
1:E:271:GLY:CA	1:E:309:ILE:HG13	2.43	0.48
1:B:271:GLY:CA	1:B:309:ILE:HG13	2.43	0.48
1:B:395:ASP:O	1:B:396:LEU:HB2	2.14	0.48
1:A:119:ILE:HG22	1:A:121:ASP:H	1.79	0.48
1:B:119:ILE:HG22	1:B:121:ASP:H	1.79	0.48
1:D:400:ALA:HA	1:D:403:THR:HG22	1.96	0.48
1:E:400:ALA:HA	1:E:403:THR:HG22	1.96	0.48
1:F:395:ASP:O	1:F:396:LEU:HB2	2.14	0.48
1:A:271:GLY:CA	1:A:309:ILE:HG13	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:400:ALA:HA	1:A:403:THR:HG22	1.96	0.48
1:B:42:SER:HA	1:B:77:CYS:SG	2.54	0.48
1:D:220:VAL:CG1	1:D:241:ILE:HD11	2.44	0.48
1:E:220:VAL:CG1	1:E:241:ILE:HD11	2.44	0.48
1:F:400:ALA:HA	1:F:403:THR:HG22	1.96	0.47
1:A:42:SER:HA	1:A:77:CYS:SG	2.54	0.47
1:A:220:VAL:CG1	1:A:241:ILE:HD11	2.44	0.47
1:C:206:ILE:O	1:C:210:ARG:NE	2.30	0.47
1:D:728:VAL:CB	1:D:729:PRO:HD3	2.36	0.47
1:A:406:HIS:CD2	1:A:462:SER:HG	2.31	0.47
1:B:400:ALA:HA	1:B:403:THR:HG22	1.96	0.47
1:C:113:ARG:N	1:C:180:THR:HG23	2.29	0.47
1:C:400:ALA:HA	1:C:403:THR:HG22	1.96	0.47
1:D:144:ARG:H	1:D:176:VAL:HG12	1.80	0.47
1:F:119:ILE:HG22	1:F:121:ASP:H	1.79	0.47
1:F:144:ARG:H	1:F:176:VAL:HG12	1.79	0.47
1:A:209:CYS:SG	1:A:254:ILE:HD11	2.55	0.47
1:A:317:HIS:CD2	1:B:317:HIS:CG	2.96	0.47
1:A:728:VAL:CB	1:A:729:PRO:HD3	2.36	0.47
1:B:220:VAL:CG1	1:B:241:ILE:HD11	2.44	0.47
1:D:113:ARG:N	1:D:180:THR:HG23	2.29	0.47
1:E:144:ARG:H	1:E:176:VAL:HG12	1.79	0.47
1:A:131:PHE:HA	1:A:135:LEU:CD2	2.32	0.47
1:C:42:SER:HA	1:C:77:CYS:SG	2.54	0.47
1:C:119:ILE:HG22	1:C:121:ASP:H	1.79	0.47
1:C:144:ARG:H	1:C:176:VAL:HG12	1.79	0.47
1:C:209:CYS:SG	1:C:254:ILE:HD11	2.55	0.47
1:D:271:GLY:CA	1:D:309:ILE:HG13	2.43	0.47
1:E:670:VAL:HG12	1:E:733:ARG:HA	1.97	0.47
1:A:29:ASP:OD1	1:A:83:ARG:HA	2.15	0.47
1:A:408:GLY:HA3	2:A:807:ADP:C8	2.50	0.47
1:B:113:ARG:N	1:B:180:THR:HG23	2.29	0.47
1:B:144:ARG:H	1:B:176:VAL:HG12	1.79	0.47
1:B:209:CYS:SG	1:B:254:ILE:HD11	2.55	0.47
1:C:408:GLY:HA3	2:C:807:ADP:C8	2.50	0.47
1:D:670:VAL:HG12	1:D:733:ARG:HA	1.97	0.47
1:E:42:SER:HA	1:E:77:CYS:SG	2.54	0.47
1:F:29:ASP:OD1	1:F:83:ARG:HA	2.15	0.47
1:B:408:GLY:HA3	2:B:807:ADP:C8	2.50	0.47
1:C:220:VAL:CG1	1:C:241:ILE:HD11	2.44	0.47
1:D:42:SER:HA	1:D:77:CYS:SG	2.54	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:465:ARG:C	1:D:466:GLU:HG3	2.34	0.47
1:F:42:SER:HA	1:F:77:CYS:SG	2.54	0.47
1:F:388:MET:HE1	1:F:415:CYS:HB3	1.97	0.47
1:A:388:MET:HE1	1:A:415:CYS:HB3	1.97	0.47
1:A:395:ASP:O	1:A:396:LEU:HB2	2.14	0.47
1:A:465:ARG:C	1:A:466:GLU:HG3	2.34	0.47
1:B:29:ASP:OD1	1:B:83:ARG:HA	2.15	0.47
1:C:40:SER:HB3	1:C:74:ASP:OD2	2.15	0.47
1:C:271:GLY:CA	1:C:309:ILE:HG13	2.43	0.47
1:D:216:ILE:O	1:D:220:VAL:HG22	2.15	0.47
1:F:408:GLY:HA3	2:F:807:ADP:C8	2.50	0.47
1:C:216:ILE:O	1:C:220:VAL:HG22	2.15	0.47
1:C:670:VAL:HG12	1:C:733:ARG:HA	1.97	0.47
1:D:111:GLY:HA2	1:D:170:PRO:CG	2.31	0.47
1:F:209:CYS:SG	1:F:254:ILE:HD11	2.55	0.47
1:B:204:ASP:OD2	1:B:204:ASP:N	2.40	0.46
1:D:40:SER:HB3	1:D:74:ASP:OD2	2.15	0.46
1:E:408:GLY:HA3	2:E:807:ADP:C8	2.50	0.46
1:B:40:SER:HB3	1:B:74:ASP:OD2	2.15	0.46
1:D:119:ILE:HG22	1:D:121:ASP:H	1.79	0.46
1:D:204:ASP:OD2	1:D:204:ASP:N	2.40	0.46
1:D:209:CYS:SG	1:D:254:ILE:HD11	2.55	0.46
1:D:395:ASP:O	1:D:396:LEU:HB2	2.14	0.46
1:E:216:ILE:O	1:E:220:VAL:HG22	2.15	0.46
1:F:31:ALA:HB2	1:F:84:MET:C	2.40	0.46
1:C:181:VAL:HG12	1:C:182:ILE:N	2.30	0.46
1:D:181:VAL:HG12	1:D:182:ILE:N	2.30	0.46
1:E:119:ILE:HG22	1:E:121:ASP:H	1.79	0.46
1:B:181:VAL:HG12	1:B:182:ILE:N	2.30	0.46
1:D:408:GLY:HA3	2:D:807:ADP:C8	2.50	0.46
1:E:113:ARG:N	1:E:180:THR:HG23	2.29	0.46
1:F:181:VAL:HG12	1:F:182:ILE:N	2.30	0.46
1:F:377:ARG:CD	1:F:403:THR:HG23	2.41	0.46
1:B:31:ALA:HB2	1:B:84:MET:C	2.41	0.46
1:B:216:ILE:O	1:B:220:VAL:HG22	2.15	0.46
1:C:29:ASP:OD1	1:C:83:ARG:HA	2.15	0.46
1:E:29:ASP:OD1	1:E:83:ARG:HA	2.15	0.46
1:E:40:SER:HB3	1:E:74:ASP:OD2	2.16	0.46
1:E:111:GLY:HA2	1:E:170:PRO:CG	2.31	0.46
1:E:209:CYS:SG	1:E:254:ILE:HD11	2.55	0.46
1:E:388:MET:HE1	1:E:415:CYS:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:439:ALA:HA	1:A:442:MET:CE	2.46	0.46
1:A:599:ARG:H	1:A:599:ARG:HG3	1.53	0.46
1:B:388:MET:HE1	1:B:415:CYS:HB3	1.97	0.46
1:D:29:ASP:OD1	1:D:83:ARG:HA	2.15	0.46
1:E:31:ALA:HB2	1:E:84:MET:C	2.41	0.46
1:F:670:VAL:HG12	1:F:733:ARG:HA	1.97	0.46
1:A:181:VAL:HG12	1:A:182:ILE:N	2.30	0.46
1:E:181:VAL:HG12	1:E:182:ILE:N	2.30	0.46
1:A:339:ALA:HB1	1:A:340:HIS:CE1	2.51	0.46
1:A:377:ARG:CD	1:A:403:THR:HG23	2.41	0.46
1:A:670:VAL:HG12	1:A:733:ARG:HA	1.97	0.46
1:B:465:ARG:C	1:B:466:GLU:HG3	2.34	0.46
1:C:294:GLU:HG3	1:C:338:ARG:HG2	1.98	0.46
1:D:339:ALA:HB1	1:D:340:HIS:CE1	2.51	0.46
1:F:681:GLY:O	1:F:745:ARG:HD2	2.16	0.46
1:A:31:ALA:HB2	1:A:84:MET:C	2.41	0.46
1:A:144:ARG:H	1:A:176:VAL:HG12	1.80	0.46
1:A:216:ILE:O	1:A:220:VAL:HG22	2.15	0.46
1:B:670:VAL:HG12	1:B:733:ARG:HA	1.97	0.46
1:C:159:ARG:HG3	1:C:160:ALA:N	2.31	0.46
1:D:294:GLU:HG3	1:D:338:ARG:HG2	1.98	0.46
1:E:159:ARG:HG3	1:E:160:ALA:N	2.31	0.46
1:F:216:ILE:O	1:F:220:VAL:HG22	2.15	0.46
1:A:40:SER:HB3	1:A:74:ASP:OD2	2.15	0.46
1:B:146:ILE:O	1:B:173:TYR:HA	2.16	0.46
1:B:159:ARG:HG3	1:B:160:ALA:N	2.31	0.46
1:C:131:PHE:HA	1:C:135:LEU:CD2	2.32	0.46
1:D:131:PHE:HA	1:D:135:LEU:CD2	2.32	0.46
1:D:159:ARG:HG3	1:D:160:ALA:N	2.31	0.46
1:E:339:ALA:HB1	1:E:340:HIS:CE1	2.51	0.46
1:F:215:GLN:O	1:F:218:GLU:HG2	2.16	0.46
1:F:728:VAL:CB	1:F:729:PRO:HD3	2.37	0.46
1:A:215:GLN:O	1:A:218:GLU:HG2	2.16	0.45
1:C:31:ALA:HB2	1:C:84:MET:C	2.40	0.45
1:C:146:ILE:O	1:C:173:TYR:HA	2.16	0.45
1:C:201:VAL:HA	1:C:205:ASP:OD2	2.17	0.45
1:C:339:ALA:HB1	1:C:340:HIS:CE1	2.51	0.45
1:C:681:GLY:O	1:C:745:ARG:HD2	2.16	0.45
1:D:31:ALA:HB2	1:D:84:MET:C	2.41	0.45
1:E:146:ILE:O	1:E:173:TYR:HA	2.17	0.45
1:F:40:SER:HB3	1:F:74:ASP:OD2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:339:ALA:HB1	1:F:340:HIS:CE1	2.51	0.45
1:B:406:HIS:NE2	1:B:462:SER:OG	2.49	0.45
1:C:121:ASP:OD1	1:C:191:ARG:NH1	2.49	0.45
1:C:204:ASP:OD2	1:C:204:ASP:N	2.40	0.45
1:D:388:MET:HE1	1:D:415:CYS:HB3	1.97	0.45
1:E:95:ARG:HG2	1:E:95:ARG:NH1	2.31	0.45
1:F:95:ARG:HG2	1:F:95:ARG:NH1	2.31	0.45
1:A:113:ARG:N	1:A:180:THR:HG23	2.29	0.45
1:A:201:VAL:HA	1:A:205:ASP:OD2	2.17	0.45
1:B:339:ALA:HB1	1:B:340:HIS:CE1	2.51	0.45
1:C:406:HIS:NE2	1:C:462:SER:OG	2.49	0.45
1:E:215:GLN:O	1:E:218:GLU:HG2	2.16	0.45
1:F:113:ARG:N	1:F:180:THR:HG23	2.29	0.45
1:F:570:ALA:HA	1:F:571:PRO:C	2.42	0.45
1:B:115:HIS:NE2	1:B:185:GLU:HG3	2.32	0.45
1:B:215:GLN:O	1:B:218:GLU:HG2	2.16	0.45
1:B:439:ALA:HA	1:B:442:MET:CE	2.46	0.45
1:D:215:GLN:O	1:D:218:GLU:HG2	2.16	0.45
1:E:570:ALA:HA	1:E:571:PRO:C	2.42	0.45
1:F:146:ILE:O	1:F:173:TYR:HA	2.16	0.45
1:F:201:VAL:HA	1:F:205:ASP:OD2	2.17	0.45
1:A:146:ILE:O	1:A:173:TYR:HA	2.16	0.45
1:A:460:ASN:N	1:A:461:PRO:CD	2.80	0.45
1:B:201:VAL:HA	1:B:205:ASP:OD2	2.17	0.45
1:B:294:GLU:HG3	1:B:338:ARG:HG2	1.98	0.45
1:B:681:GLY:O	1:B:745:ARG:HD2	2.16	0.45
1:C:599:ARG:H	1:C:599:ARG:HG3	1.53	0.45
1:D:460:ASN:N	1:D:461:PRO:CD	2.80	0.45
1:D:681:GLY:C	1:D:682:PHE:HD1	2.25	0.45
1:E:115:HIS:NE2	1:E:185:GLU:HG3	2.32	0.45
1:E:423:ILE:HA	1:E:445:LEU:HD11	1.99	0.45
1:A:681:GLY:O	1:A:745:ARG:HD2	2.16	0.45
1:B:460:ASN:N	1:B:461:PRO:CD	2.80	0.45
1:C:388:MET:HE1	1:C:415:CYS:HB3	1.97	0.45
1:C:681:GLY:C	1:C:682:PHE:HD1	2.25	0.45
1:D:423:ILE:HA	1:D:445:LEU:HD11	1.99	0.45
1:D:570:ALA:HA	1:D:571:PRO:C	2.42	0.45
1:D:681:GLY:O	1:D:745:ARG:HD2	2.16	0.45
1:F:406:HIS:NE2	1:F:462:SER:OG	2.49	0.45
1:F:423:ILE:HA	1:F:445:LEU:HD11	1.99	0.45
1:A:121:ASP:OD1	1:A:191:ARG:NH1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:460:ASN:N	1:C:461:PRO:CD	2.80	0.45
1:D:26:LEU:HD13	1:D:82:ILE:HG23	1.99	0.45
1:D:121:ASP:OD1	1:D:191:ARG:NH1	2.49	0.45
1:D:146:ILE:O	1:D:173:TYR:HA	2.16	0.45
1:E:294:GLU:HG3	1:E:338:ARG:HG2	1.98	0.45
1:F:121:ASP:OD1	1:F:191:ARG:NH1	2.49	0.45
1:D:115:HIS:NE2	1:D:185:GLU:HG3	2.32	0.45
1:E:599:ARG:H	1:E:599:ARG:HG3	1.53	0.45
1:A:406:HIS:NE2	1:A:462:SER:OG	2.49	0.45
1:B:95:ARG:HG2	1:B:95:ARG:NH1	2.31	0.45
1:C:423:ILE:HA	1:C:445:LEU:HD11	1.99	0.45
1:D:201:VAL:HA	1:D:205:ASP:OD2	2.17	0.45
1:E:26:LEU:HD13	1:E:82:ILE:HG23	1.99	0.45
1:A:159:ARG:HG3	1:A:160:ALA:N	2.31	0.45
1:A:570:ALA:HA	1:A:571:PRO:C	2.42	0.45
1:B:681:GLY:C	1:B:682:PHE:HD1	2.25	0.45
1:C:115:HIS:NE2	1:C:185:GLU:HG3	2.32	0.45
1:E:121:ASP:OD1	1:E:191:ARG:NH1	2.49	0.45
1:E:406:HIS:NE2	1:E:462:SER:OG	2.49	0.45
1:E:406:HIS:CD2	1:E:462:SER:HG	2.35	0.45
1:E:681:GLY:O	1:E:745:ARG:HD2	2.16	0.45
1:E:681:GLY:C	1:E:682:PHE:HD1	2.25	0.45
1:A:115:HIS:NE2	1:A:185:GLU:HG3	2.32	0.44
1:C:215:GLN:O	1:C:218:GLU:HG2	2.16	0.44
1:F:26:LEU:HD13	1:F:82:ILE:HG23	1.99	0.44
1:F:681:GLY:C	1:F:682:PHE:HD1	2.25	0.44
1:B:121:ASP:OD1	1:B:191:ARG:NH1	2.49	0.44
1:C:95:ARG:HG2	1:C:95:ARG:NH1	2.31	0.44
1:C:155:ARG:HA	1:C:160:ALA:HA	2.00	0.44
1:F:294:GLU:HG3	1:F:338:ARG:HG2	1.98	0.44
1:B:155:ARG:HA	1:B:160:ALA:HA	2.00	0.44
1:C:26:LEU:HD13	1:C:82:ILE:HG23	1.99	0.44
1:D:95:ARG:HG2	1:D:95:ARG:NH1	2.31	0.44
1:E:201:VAL:HA	1:E:205:ASP:OD2	2.17	0.44
1:F:159:ARG:HG3	1:F:160:ALA:N	2.31	0.44
1:A:155:ARG:HA	1:A:160:ALA:HA	2.00	0.44
1:A:294:GLU:HG3	1:A:338:ARG:HG2	1.98	0.44
1:B:570:ALA:HA	1:B:571:PRO:C	2.42	0.44
1:D:155:ARG:HA	1:D:160:ALA:HA	2.00	0.44
1:A:95:ARG:HG2	1:A:95:ARG:NH1	2.31	0.44
1:A:681:GLY:C	1:A:682:PHE:HD1	2.25	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:427:MET:CG	1:C:445:LEU:HD12	2.48	0.44
1:C:439:ALA:HA	1:C:442:MET:CE	2.46	0.44
1:D:427:MET:CG	1:D:445:LEU:HD12	2.48	0.44
1:E:57:VAL:HG21	1:E:102:ILE:CG1	2.48	0.44
1:E:427:MET:CG	1:E:445:LEU:HD12	2.48	0.44
1:F:115:HIS:NE2	1:F:185:GLU:HG3	2.32	0.44
1:F:155:ARG:HA	1:F:160:ALA:HA	2.00	0.44
1:F:460:ASN:N	1:F:461:PRO:CD	2.80	0.44
1:A:423:ILE:HA	1:A:445:LEU:HD11	1.99	0.44
1:A:427:MET:CG	1:A:445:LEU:HD12	2.48	0.44
1:C:406:HIS:CD2	1:C:462:SER:HG	2.35	0.44
1:C:570:ALA:HA	1:C:571:PRO:C	2.42	0.44
1:D:57:VAL:HG21	1:D:102:ILE:CG1	2.48	0.44
1:D:406:HIS:NE2	1:D:462:SER:OG	2.49	0.44
1:A:26:LEU:HD13	1:A:82:ILE:HG23	1.99	0.44
1:A:149:GLY:H	1:A:165:VAL:HG13	1.83	0.44
1:B:427:MET:CG	1:B:445:LEU:HD12	2.48	0.44
1:C:310:ALA:HA	1:C:325:VAL:HG22	2.00	0.44
1:D:149:GLY:H	1:D:165:VAL:HG13	1.83	0.44
1:F:57:VAL:HG21	1:F:102:ILE:CG1	2.48	0.44
1:A:430:ILE:O	1:A:430:ILE:HG22	2.18	0.44
1:B:149:GLY:H	1:B:165:VAL:HG13	1.83	0.44
1:B:423:ILE:HA	1:B:445:LEU:HD11	1.99	0.44
1:C:316:THR:HA	1:C:321:GLU:CD	2.43	0.44
1:D:316:THR:HG22	1:D:321:GLU:CD	2.43	0.44
1:E:155:ARG:HA	1:E:160:ALA:HA	2.00	0.44
1:B:26:LEU:HD13	1:B:82:ILE:HG23	1.99	0.44
1:B:406:HIS:CD2	1:B:462:SER:HG	2.35	0.44
1:C:430:ILE:HG22	1:C:430:ILE:O	2.18	0.44
1:D:513:GLY:HA2	1:D:619:ILE:O	2.18	0.44
1:E:82:ILE:HD11	1:E:100:ILE:HD11	2.00	0.44
1:A:151:ILE:O	1:A:151:ILE:CG2	2.66	0.43
1:E:460:ASN:N	1:E:461:PRO:CD	2.80	0.43
1:C:57:VAL:HG21	1:C:102:ILE:CG1	2.48	0.43
1:C:771:PHE:CE1	1:D:674:PHE:HE2	2.37	0.43
1:D:599:ARG:H	1:D:599:ARG:HG3	1.53	0.43
1:E:335:LEU:HD11	1:E:341:VAL:HG23	2.00	0.43
1:A:57:VAL:HG21	1:A:102:ILE:CG1	2.48	0.43
1:A:316:THR:HG22	1:A:321:GLU:CD	2.43	0.43
1:C:508:MET:HE1	1:D:696:LYS:HB2	2.00	0.43
1:C:513:GLY:HA2	1:C:619:ILE:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:82:ILE:HD11	1:D:100:ILE:HD11	2.00	0.43
1:D:316:THR:HA	1:D:321:GLU:CD	2.43	0.43
1:E:513:GLY:HA2	1:E:619:ILE:O	2.18	0.43
1:A:771:PHE:CE1	1:B:674:PHE:HE2	2.37	0.43
1:B:51:LEU:CD2	1:B:104:PRO:HB3	2.40	0.43
1:B:310:ALA:HA	1:B:325:VAL:HG22	2.00	0.43
1:B:508:MET:HE1	1:C:696:LYS:HB2	2.00	0.43
1:C:51:LEU:CD2	1:C:104:PRO:HB3	2.40	0.43
1:C:316:THR:HG22	1:C:321:GLU:CD	2.43	0.43
1:F:149:GLY:H	1:F:165:VAL:HG13	1.83	0.43
1:F:316:THR:HG22	1:F:321:GLU:CD	2.43	0.43
1:F:335:LEU:HD11	1:F:341:VAL:HG23	2.00	0.43
1:A:696:LYS:HB2	1:F:508:MET:HE1	2.00	0.43
1:E:316:THR:HG22	1:E:321:GLU:CD	2.43	0.43
1:F:310:ALA:HA	1:F:325:VAL:HG22	2.00	0.43
1:F:385:THR:OG1	1:F:385:THR:O	2.34	0.43
1:F:427:MET:CG	1:F:445:LEU:HD12	2.48	0.43
1:A:51:LEU:CD2	1:A:104:PRO:HB3	2.40	0.43
1:A:373:ASP:CB	1:A:470:GLU:HB2	2.49	0.43
1:B:316:THR:HG22	1:B:321:GLU:CD	2.43	0.43
1:B:513:GLY:HA2	1:B:619:ILE:O	2.18	0.43
1:E:206:ILE:O	1:E:210:ARG:NE	2.30	0.43
1:F:439:ALA:HA	1:F:442:MET:CE	2.46	0.43
1:A:508:MET:HE1	1:B:696:LYS:HB2	2.00	0.43
1:A:674:PHE:HE2	1:F:771:PHE:CE1	2.37	0.43
1:B:152:PHE:CE1	1:B:163:PHE:HB2	2.54	0.43
1:D:771:PHE:CE1	1:E:674:PHE:HE2	2.37	0.43
1:F:82:ILE:HD11	1:F:100:ILE:HD11	2.00	0.43
1:F:152:PHE:CE1	1:F:163:PHE:HB2	2.54	0.43
1:A:152:PHE:CE1	1:A:163:PHE:HB2	2.54	0.43
1:A:438:ASP:O	1:A:441:VAL:HG22	2.19	0.43
1:B:316:THR:HA	1:B:321:GLU:CD	2.43	0.43
1:B:430:ILE:O	1:B:430:ILE:HG22	2.18	0.43
1:B:771:PHE:CE1	1:C:674:PHE:HE2	2.37	0.43
1:D:335:LEU:HD11	1:D:341:VAL:HG23	2.00	0.43
1:E:373:ASP:CB	1:E:470:GLU:HB2	2.49	0.43
1:E:771:PHE:CE1	1:F:674:PHE:HE2	2.37	0.43
1:B:57:VAL:HG21	1:B:102:ILE:CG1	2.48	0.43
1:D:439:ALA:HA	1:D:442:MET:CE	2.46	0.43
1:E:152:PHE:CE1	1:E:163:PHE:HB2	2.54	0.43
1:E:439:ALA:HA	1:E:442:MET:CE	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:513:GLY:HA2	1:F:619:ILE:O	2.18	0.43
1:A:438:ASP:O	1:A:442:MET:HG3	2.19	0.43
1:A:495:TYR:HB2	1:A:496:PRO:HD3	2.01	0.43
1:B:131:PHE:HA	1:B:135:LEU:CD2	2.32	0.43
1:B:438:ASP:O	1:B:441:VAL:HG22	2.19	0.43
1:C:149:GLY:H	1:C:165:VAL:HG13	1.83	0.43
1:C:152:PHE:CE1	1:C:163:PHE:HB2	2.54	0.43
1:D:373:ASP:CB	1:D:470:GLU:HB2	2.49	0.43
1:F:373:ASP:CB	1:F:470:GLU:HB2	2.49	0.43
1:B:495:TYR:HB2	1:B:496:PRO:HD3	2.01	0.42
1:C:373:ASP:CB	1:C:470:GLU:HB2	2.49	0.42
1:D:438:ASP:O	1:D:442:MET:HG3	2.19	0.42
1:E:310:ALA:HA	1:E:325:VAL:HG22	2.00	0.42
1:E:438:ASP:O	1:E:442:MET:HG3	2.19	0.42
1:E:508:MET:HE1	1:F:696:LYS:HB2	2.00	0.42
1:F:438:ASP:O	1:F:441:VAL:HG22	2.19	0.42
1:F:438:ASP:O	1:F:442:MET:HG3	2.19	0.42
1:B:151:ILE:O	1:B:151:ILE:CG2	2.66	0.42
1:B:373:ASP:CB	1:B:470:GLU:HB2	2.49	0.42
1:D:152:PHE:CE1	1:D:163:PHE:HB2	2.54	0.42
1:D:310:ALA:HA	1:D:325:VAL:HG22	2.00	0.42
1:D:438:ASP:O	1:D:441:VAL:HG22	2.19	0.42
1:E:430:ILE:HG22	1:E:430:ILE:O	2.18	0.42
1:F:316:THR:HA	1:F:321:GLU:CD	2.43	0.42
1:A:310:ALA:HA	1:A:325:VAL:HG22	2.00	0.42
1:B:82:ILE:HD11	1:B:100:ILE:HD11	2.00	0.42
1:C:82:ILE:HD11	1:C:100:ILE:HD11	2.00	0.42
1:C:495:TYR:HB2	1:C:496:PRO:HD3	2.01	0.42
1:E:316:THR:HA	1:E:321:GLU:CD	2.43	0.42
1:A:82:ILE:HD11	1:A:100:ILE:HD11	2.00	0.42
1:A:335:LEU:HD11	1:A:341:VAL:HG23	2.00	0.42
1:C:335:LEU:HD11	1:C:341:VAL:HG23	2.00	0.42
1:E:149:GLY:H	1:E:165:VAL:HG13	1.83	0.42
1:A:513:GLY:HA2	1:A:619:ILE:O	2.18	0.42
1:B:734:ASP:OD1	1:B:734:ASP:N	2.51	0.42
1:C:151:ILE:O	1:C:151:ILE:CG2	2.66	0.42
1:D:320:VAL:CA	1:D:323:ARG:HG2	2.45	0.42
1:D:508:MET:HE1	1:E:696:LYS:HB2	2.00	0.42
1:F:495:TYR:HB2	1:F:496:PRO:HD3	2.01	0.42
1:D:304:ASP:O	1:D:305:GLU:HB2	2.19	0.42
1:D:495:TYR:HB2	1:D:496:PRO:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:771:PHE:CZ	1:E:674:PHE:HE2	2.38	0.42
1:E:304:ASP:O	1:E:305:GLU:HB2	2.19	0.42
1:A:481:GLY:O	1:A:482:LEU:C	2.63	0.42
1:B:438:ASP:O	1:B:442:MET:HG3	2.19	0.42
1:C:771:PHE:CZ	1:D:674:PHE:HE2	2.38	0.42
1:E:470:GLU:OE2	1:E:470:GLU:N	2.53	0.42
1:F:26:LEU:HD13	1:F:82:ILE:CG2	2.50	0.42
1:A:304:ASP:O	1:A:305:GLU:HB2	2.19	0.42
1:B:304:ASP:O	1:B:305:GLU:HB2	2.19	0.42
1:B:335:LEU:HD11	1:B:341:VAL:HG23	2.00	0.42
1:B:771:PHE:HE1	1:C:678:MET:HG3	1.85	0.42
1:D:492:LEU:HD13	1:D:514:VAL:CG2	2.50	0.42
1:D:571:PRO:HA	1:D:616:ASN:O	2.20	0.42
1:F:304:ASP:O	1:F:305:GLU:HB2	2.19	0.42
1:F:481:GLY:O	1:F:482:LEU:C	2.63	0.42
1:A:426:LYS:O	1:A:428:ASP:N	2.53	0.42
1:C:304:ASP:O	1:C:305:GLU:HB2	2.19	0.42
1:C:438:ASP:O	1:C:441:VAL:HG22	2.19	0.42
1:D:438:ASP:HB2	1:D:441:VAL:CG2	2.49	0.42
1:E:481:GLY:O	1:E:482:LEU:C	2.63	0.42
1:E:495:TYR:HB2	1:E:496:PRO:HD3	2.01	0.42
1:F:320:VAL:CA	1:F:323:ARG:HG2	2.45	0.42
1:F:430:ILE:HG22	1:F:430:ILE:O	2.18	0.42
1:A:26:LEU:HD13	1:A:82:ILE:CG2	2.50	0.42
1:A:771:PHE:HE1	1:B:678:MET:HG3	1.85	0.42
1:B:26:LEU:HD13	1:B:82:ILE:CG2	2.50	0.42
1:B:320:VAL:CA	1:B:323:ARG:HG2	2.45	0.42
1:B:571:PRO:HA	1:B:616:ASN:O	2.20	0.42
1:C:470:GLU:OE2	1:C:470:GLU:N	2.53	0.42
1:C:771:PHE:HE1	1:D:678:MET:HG3	1.85	0.42
1:D:115:HIS:HB3	1:D:167:GLU:O	2.20	0.42
1:E:438:ASP:O	1:E:441:VAL:HG22	2.19	0.42
1:E:771:PHE:CZ	1:F:674:PHE:HE2	2.38	0.42
1:A:492:LEU:HD13	1:A:514:VAL:CG2	2.50	0.41
1:B:492:LEU:HD13	1:B:514:VAL:CG2	2.50	0.41
1:D:430:ILE:O	1:D:430:ILE:HG22	2.18	0.41
1:E:26:LEU:HD13	1:E:82:ILE:CG2	2.50	0.41
1:E:131:PHE:HA	1:E:135:LEU:CD2	2.32	0.41
1:E:492:LEU:HD13	1:E:514:VAL:CG2	2.50	0.41
1:E:571:PRO:HA	1:E:616:ASN:O	2.20	0.41
1:A:316:THR:HA	1:A:321:GLU:CD	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:571:PRO:HA	1:A:616:ASN:O	2.20	0.41
1:B:426:LYS:O	1:B:428:ASP:N	2.53	0.41
1:B:481:GLY:O	1:B:482:LEU:C	2.63	0.41
1:C:438:ASP:O	1:C:442:MET:HG3	2.19	0.41
1:C:571:PRO:HA	1:C:616:ASN:O	2.20	0.41
1:D:771:PHE:HE1	1:E:678:MET:HG3	1.85	0.41
1:E:115:HIS:HB3	1:E:167:GLU:O	2.20	0.41
1:E:756:GLU:O	1:E:760:GLN:HG3	2.20	0.41
1:F:599:ARG:H	1:F:599:ARG:HG3	1.53	0.41
1:F:426:LYS:O	1:F:428:ASP:N	2.53	0.41
1:F:756:GLU:O	1:F:760:GLN:HG3	2.20	0.41
1:A:667:ALA:O	1:A:670:VAL:HG22	2.21	0.41
1:C:115:HIS:HB3	1:C:167:GLU:O	2.20	0.41
1:C:403:THR:HG23	1:C:403:THR:O	2.21	0.41
1:C:728:VAL:CB	1:C:729:PRO:HD3	2.37	0.41
1:E:438:ASP:HB2	1:E:441:VAL:CG2	2.49	0.41
1:E:576:PHE:HB3	1:E:579:LEU:HD13	2.02	0.41
1:F:326:SER:O	1:F:327:GLN:CB	2.68	0.41
1:F:576:PHE:HB3	1:F:579:LEU:HD13	2.02	0.41
1:A:734:ASP:OD1	1:A:734:ASP:N	2.51	0.41
1:B:667:ALA:O	1:B:670:VAL:HG22	2.21	0.41
1:E:667:ALA:O	1:E:670:VAL:HG22	2.21	0.41
1:F:760:GLN:O	1:F:764:GLN:N	2.51	0.41
1:A:470:GLU:N	1:A:470:GLU:OE2	2.53	0.41
1:A:674:PHE:HE2	1:F:771:PHE:CZ	2.38	0.41
1:A:678:MET:HG3	1:F:771:PHE:HE1	1.85	0.41
1:B:470:GLU:OE2	1:B:470:GLU:N	2.53	0.41
1:D:26:LEU:HD13	1:D:82:ILE:CG2	2.50	0.41
1:D:377:ARG:HD2	1:D:403:THR:CG2	2.43	0.41
1:D:470:GLU:N	1:D:470:GLU:OE2	2.53	0.41
1:E:326:SER:O	1:E:327:GLN:CB	2.68	0.41
1:F:470:GLU:N	1:F:470:GLU:OE2	2.53	0.41
1:A:403:THR:HG23	1:A:403:THR:O	2.21	0.41
1:A:576:PHE:HB3	1:A:579:LEU:HD13	2.02	0.41
1:B:474:VAL:HA	1:B:478:ASP:OD2	2.21	0.41
1:C:26:LEU:HD13	1:C:82:ILE:CG2	2.50	0.41
1:C:420:LEU:HD23	1:C:420:LEU:HA	1.86	0.41
1:C:667:ALA:O	1:C:670:VAL:HG22	2.21	0.41
1:D:481:GLY:O	1:D:482:LEU:C	2.63	0.41
1:D:756:GLU:O	1:D:760:GLN:HG3	2.20	0.41
1:A:320:VAL:CA	1:A:323:ARG:HG2	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:426:LYS:O	1:C:428:ASP:N	2.53	0.41
1:C:438:ASP:HB2	1:C:441:VAL:CG2	2.49	0.41
1:C:492:LEU:HD13	1:C:514:VAL:CG2	2.50	0.41
1:D:51:LEU:CD2	1:D:104:PRO:HB3	2.40	0.41
1:D:576:PHE:HB3	1:D:579:LEU:HD13	2.02	0.41
1:E:771:PHE:HE1	1:F:678:MET:HG3	1.85	0.41
1:F:667:ALA:O	1:F:670:VAL:HG22	2.21	0.41
1:A:760:GLN:O	1:A:764:GLN:N	2.51	0.41
1:B:438:ASP:HB2	1:B:441:VAL:CG2	2.49	0.41
1:B:604:ILE:O	1:B:608:MET:HG3	2.21	0.41
1:C:756:GLU:O	1:C:760:GLN:HG3	2.20	0.41
1:D:474:VAL:HA	1:D:478:ASP:OD2	2.21	0.41
1:D:640:ASP:OD1	1:D:640:ASP:N	2.42	0.41
1:E:426:LYS:O	1:E:428:ASP:N	2.53	0.41
1:A:437:ILE:CG2	1:A:442:MET:CG	2.99	0.41
1:A:604:ILE:O	1:A:608:MET:HG3	2.21	0.41
1:C:111:GLY:C	1:C:112:LYS:HG3	2.46	0.41
1:E:385:THR:OG1	1:E:385:THR:O	2.34	0.41
1:E:728:VAL:CB	1:E:729:PRO:HD3	2.37	0.41
1:F:571:PRO:HA	1:F:616:ASN:O	2.20	0.41
1:A:474:VAL:HA	1:A:478:ASP:OD2	2.21	0.40
1:A:756:GLU:O	1:A:760:GLN:HG3	2.20	0.40
1:A:771:PHE:CZ	1:B:674:PHE:HE2	2.38	0.40
1:B:771:PHE:CZ	1:C:674:PHE:HE2	2.38	0.40
1:C:760:GLN:O	1:C:764:GLN:N	2.51	0.40
1:D:420:LEU:HD23	1:D:420:LEU:HA	1.86	0.40
1:D:426:LYS:O	1:D:428:ASP:N	2.53	0.40
1:F:57:VAL:O	1:F:68:VAL:HA	2.21	0.40
1:F:115:HIS:HB3	1:F:167:GLU:O	2.20	0.40
1:F:437:ILE:CG2	1:F:442:MET:CG	2.99	0.40
1:F:492:LEU:HD13	1:F:514:VAL:CG2	2.50	0.40
1:A:347:THR:HG22	1:A:348:ASN:H	1.86	0.40
1:C:481:GLY:O	1:C:482:LEU:C	2.63	0.40
1:F:477:GLU:O	1:F:478:ASP:C	2.65	0.40
1:A:326:SER:O	1:A:327:GLN:CB	2.68	0.40
1:B:756:GLU:O	1:B:760:GLN:HG3	2.20	0.40
1:D:667:ALA:O	1:D:670:VAL:HG22	2.21	0.40
1:E:111:GLY:C	1:E:112:LYS:HG3	2.46	0.40
1:E:474:VAL:HA	1:E:478:ASP:OD2	2.21	0.40
1:F:51:LEU:CD2	1:F:104:PRO:HB3	2.40	0.40
1:F:111:GLY:C	1:F:112:LYS:HG3	2.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:115:HIS:HB3	1:A:167:GLU:O	2.20	0.40
1:B:115:HIS:HB3	1:B:167:GLU:O	2.20	0.40
1:B:403:THR:HG23	1:B:403:THR:O	2.21	0.40
1:B:437:ILE:CG2	1:B:442:MET:CG	2.99	0.40
1:C:320:VAL:CA	1:C:323:ARG:HG2	2.45	0.40
1:C:437:ILE:CG2	1:C:442:MET:CG	2.99	0.40
1:C:576:PHE:HB3	1:C:579:LEU:HD13	2.02	0.40
1:D:326:SER:O	1:D:327:GLN:CB	2.68	0.40
1:E:347:THR:HG22	1:E:348:ASN:H	1.86	0.40
1:E:377:ARG:HD2	1:E:403:THR:CG2	2.43	0.40
1:F:159:ARG:HE	1:F:159:ARG:HB2	1.78	0.40
1:F:474:VAL:HA	1:F:478:ASP:OD2	2.21	0.40
1:B:111:GLY:C	1:B:112:LYS:HG3	2.46	0.40
1:B:479:ILE:HG22	1:B:481:GLY:H	1.86	0.40
1:B:576:PHE:HB3	1:B:579:LEU:HD13	2.02	0.40
1:C:57:VAL:O	1:C:68:VAL:HA	2.21	0.40
1:C:477:GLU:O	1:C:478:ASP:C	2.65	0.40
1:D:108:VAL:HG12	1:D:173:TYR:HD2	1.86	0.40
1:D:477:GLU:O	1:D:478:ASP:C	2.65	0.40
1:D:760:GLN:O	1:D:764:GLN:N	2.51	0.40
1:E:108:VAL:HG12	1:E:173:TYR:HD2	1.86	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	A	730/806 (91%)	685 (94%)	45 (6%)	0	100	100
1	B	730/806 (91%)	686 (94%)	44 (6%)	0	100	100
1	C	730/806 (91%)	686 (94%)	44 (6%)	0	100	100
1	D	730/806 (91%)	685 (94%)	45 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	E	730/806 (91%)	686 (94%)	44 (6%)	0	100	100
1	F	730/806 (91%)	686 (94%)	44 (6%)	0	100	100
All	All	4380/4836 (91%)	4114 (94%)	266 (6%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	624/678 (92%)	624 (100%)	0	100	100
1	B	624/678 (92%)	624 (100%)	0	100	100
1	C	624/678 (92%)	624 (100%)	0	100	100
1	D	624/678 (92%)	624 (100%)	0	100	100
1	E	624/678 (92%)	624 (100%)	0	100	100
1	F	624/678 (92%)	624 (100%)	0	100	100
All	All	3744/4068 (92%)	3744 (100%)	0	100	100

There are no protein residues with a non-rotameric sidechain to report.

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (51) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	43	GLN
1	A	90	ASN
1	A	215	GLN
1	A	285	ASN
1	A	327	GLN
1	A	340	HIS
1	A	458	GLN
1	A	490	GLN
1	B	43	GLN

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Mol	Chain	Res	Type
1	B	90	ASN
1	B	183	HIS
1	B	215	GLN
1	B	285	ASN
1	B	327	GLN
1	B	458	GLN
1	B	490	GLN
1	C	43	GLN
1	C	90	ASN
1	C	183	HIS
1	C	215	GLN
1	C	285	ASN
1	C	327	GLN
1	C	340	HIS
1	C	458	GLN
1	C	490	GLN
1	D	43	GLN
1	D	90	ASN
1	D	215	GLN
1	D	285	ASN
1	D	327	GLN
1	D	340	HIS
1	D	458	GLN
1	D	490	GLN
1	D	602	ASN
1	E	43	GLN
1	E	90	ASN
1	E	183	HIS
1	E	215	GLN
1	E	285	ASN
1	E	327	GLN
1	E	458	GLN
1	E	490	GLN
1	F	43	GLN
1	F	90	ASN
1	F	183	HIS
1	F	215	GLN
1	F	285	ASN
1	F	327	GLN
1	F	340	HIS
1	F	458	GLN
1	F	490	GLN

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](#)

12 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	ADP	C	807	-	24,29,29	0.74	0	29,45,45	0.71	1 (3%)
2	ADP	D	807	-	24,29,29	0.74	0	29,45,45	0.71	1 (3%)
2	ADP	B	807	-	24,29,29	0.74	0	29,45,45	0.71	1 (3%)
3	A1CYL	F	808	1	27,30,30	5.58	25 (92%)	34,43,43	3.57	14 (41%)
2	ADP	A	807	-	24,29,29	0.74	0	29,45,45	0.71	1 (3%)
3	A1CYL	C	808	1	27,30,30	5.58	25 (92%)	34,43,43	3.57	14 (41%)
2	ADP	E	807	-	24,29,29	0.74	0	29,45,45	0.71	1 (3%)
3	A1CYL	A	808	1	27,30,30	5.58	25 (92%)	34,43,43	3.57	14 (41%)
3	A1CYL	E	808	1	27,30,30	5.58	25 (92%)	34,43,43	3.57	14 (41%)
3	A1CYL	B	808	1	27,30,30	5.58	25 (92%)	34,43,43	3.56	14 (41%)
3	A1CYL	D	808	1	27,30,30	5.58	25 (92%)	34,43,43	3.57	14 (41%)
2	ADP	F	807	-	24,29,29	0.74	0	29,45,45	0.71	1 (3%)

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
2	ADP	C	807	-	-	0/12/32/32	0/3/3/3
2	ADP	D	807	-	-	0/12/32/32	0/3/3/3
2	ADP	B	807	-	-	0/12/32/32	0/3/3/3
3	A1CYL	F	808	1	-	6/18/20/20	0/3/3/3
2	ADP	A	807	-	-	0/12/32/32	0/3/3/3
3	A1CYL	C	808	1	-	6/18/20/20	0/3/3/3
2	ADP	E	807	-	-	0/12/32/32	0/3/3/3
3	A1CYL	A	808	1	-	6/18/20/20	0/3/3/3
3	A1CYL	E	808	1	-	6/18/20/20	0/3/3/3
3	A1CYL	B	808	1	-	6/18/20/20	0/3/3/3
3	A1CYL	D	808	1	-	6/18/20/20	0/3/3/3
2	ADP	F	807	-	-	0/12/32/32	0/3/3/3

All (150) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	808	A1CYL	C23-S25	14.43	1.91	1.80
3	E	808	A1CYL	C23-S25	14.43	1.91	1.80
3	A	808	A1CYL	C23-S25	14.42	1.91	1.80
3	D	808	A1CYL	C23-S25	14.42	1.91	1.80
3	C	808	A1CYL	C23-S25	14.40	1.91	1.80
3	F	808	A1CYL	C23-S25	14.40	1.91	1.80
3	A	808	A1CYL	C15-N14	8.94	1.52	1.35
3	D	808	A1CYL	C15-N14	8.94	1.52	1.35
3	B	808	A1CYL	C15-N14	8.93	1.52	1.35
3	E	808	A1CYL	C15-N14	8.93	1.52	1.35
3	C	808	A1CYL	C15-N14	8.93	1.52	1.35
3	F	808	A1CYL	C15-N14	8.93	1.52	1.35
3	C	808	A1CYL	C17-C15	7.97	1.60	1.48
3	F	808	A1CYL	C17-C15	7.97	1.60	1.48
3	A	808	A1CYL	C17-C15	7.96	1.60	1.48
3	D	808	A1CYL	C17-C15	7.96	1.60	1.48
3	B	808	A1CYL	C17-C15	7.94	1.60	1.48
3	E	808	A1CYL	C17-C15	7.94	1.60	1.48
3	B	808	A1CYL	C09-N10	7.86	1.52	1.38
3	E	808	A1CYL	C09-N10	7.86	1.52	1.38
3	C	808	A1CYL	C09-N10	7.86	1.52	1.38
3	F	808	A1CYL	C09-N10	7.86	1.52	1.38
3	A	808	A1CYL	C09-N10	7.84	1.52	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	808	A1CYL	C09-N10	7.84	1.52	1.38
3	B	808	A1CYL	C04-C07	7.57	1.60	1.49
3	A	808	A1CYL	C04-C07	7.57	1.60	1.49
3	D	808	A1CYL	C04-C07	7.57	1.60	1.49
3	C	808	A1CYL	C04-C07	7.57	1.60	1.49
3	F	808	A1CYL	C04-C07	7.57	1.60	1.49
3	E	808	A1CYL	C04-C07	7.55	1.60	1.49
3	A	808	A1CYL	C01-N02	7.33	1.53	1.47
3	D	808	A1CYL	C01-N02	7.33	1.53	1.47
3	B	808	A1CYL	C01-N02	7.33	1.53	1.47
3	E	808	A1CYL	C01-N02	7.33	1.53	1.47
3	C	808	A1CYL	C01-N02	7.31	1.53	1.47
3	F	808	A1CYL	C01-N02	7.31	1.53	1.47
3	A	808	A1CYL	C23-N22	5.98	1.39	1.32
3	D	808	A1CYL	C23-N22	5.98	1.39	1.32
3	C	808	A1CYL	C23-N22	5.96	1.39	1.32
3	F	808	A1CYL	C23-N22	5.96	1.39	1.32
3	B	808	A1CYL	C23-N22	5.93	1.39	1.32
3	E	808	A1CYL	C23-N22	5.93	1.39	1.32
3	A	808	A1CYL	C23-N24	5.70	1.38	1.32
3	D	808	A1CYL	C23-N24	5.70	1.38	1.32
3	B	808	A1CYL	C23-N24	5.69	1.38	1.32
3	E	808	A1CYL	C23-N24	5.69	1.38	1.32
3	C	808	A1CYL	C23-N24	5.69	1.38	1.32
3	F	808	A1CYL	C23-N24	5.69	1.38	1.32
3	A	808	A1CYL	C11-N10	5.43	1.52	1.40
3	D	808	A1CYL	C11-N10	5.43	1.52	1.40
3	B	808	A1CYL	C11-N10	5.42	1.52	1.40
3	C	808	A1CYL	C11-N10	5.42	1.52	1.40
3	E	808	A1CYL	C11-N10	5.42	1.52	1.40
3	F	808	A1CYL	C11-N10	5.42	1.52	1.40
3	B	808	A1CYL	C13-N14	5.36	1.52	1.41
3	E	808	A1CYL	C13-N14	5.36	1.52	1.41
3	C	808	A1CYL	C13-N14	5.36	1.52	1.41
3	F	808	A1CYL	C13-N14	5.36	1.52	1.41
3	A	808	A1CYL	C13-N14	5.35	1.52	1.41
3	D	808	A1CYL	C13-N14	5.35	1.52	1.41
3	C	808	A1CYL	C26-S25	4.65	1.91	1.75
3	F	808	A1CYL	C26-S25	4.65	1.91	1.75
3	B	808	A1CYL	C26-S25	4.64	1.91	1.75
3	E	808	A1CYL	C26-S25	4.64	1.91	1.75
3	A	808	A1CYL	C26-S25	4.63	1.91	1.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	808	A1CYL	C26-S25	4.63	1.91	1.75
3	B	808	A1CYL	C12-C13	4.29	1.46	1.39
3	E	808	A1CYL	C12-C13	4.29	1.46	1.39
3	C	808	A1CYL	C12-C13	4.29	1.46	1.39
3	F	808	A1CYL	C12-C13	4.29	1.46	1.39
3	A	808	A1CYL	C12-C13	4.28	1.46	1.39
3	D	808	A1CYL	C12-C13	4.28	1.46	1.39
3	C	808	A1CYL	O28-S25	4.10	1.54	1.44
3	F	808	A1CYL	O28-S25	4.10	1.54	1.44
3	B	808	A1CYL	O28-S25	4.10	1.54	1.44
3	E	808	A1CYL	O28-S25	4.10	1.54	1.44
3	A	808	A1CYL	O28-S25	4.09	1.54	1.44
3	D	808	A1CYL	O28-S25	4.09	1.54	1.44
3	B	808	A1CYL	O27-S25	4.09	1.54	1.44
3	E	808	A1CYL	O27-S25	4.09	1.54	1.44
3	C	808	A1CYL	O27-S25	4.09	1.54	1.44
3	F	808	A1CYL	O27-S25	4.09	1.54	1.44
3	A	808	A1CYL	O27-S25	4.08	1.54	1.44
3	D	808	A1CYL	O27-S25	4.08	1.54	1.44
3	A	808	A1CYL	C12-C11	4.05	1.46	1.39
3	D	808	A1CYL	C12-C11	4.05	1.46	1.39
3	C	808	A1CYL	C12-C11	4.05	1.46	1.39
3	F	808	A1CYL	C12-C11	4.05	1.46	1.39
3	B	808	A1CYL	C12-C11	4.04	1.46	1.39
3	E	808	A1CYL	C12-C11	4.04	1.46	1.39
3	A	808	A1CYL	C19-C13	3.78	1.45	1.39
3	D	808	A1CYL	C19-C13	3.78	1.45	1.39
3	B	808	A1CYL	C19-C13	3.76	1.45	1.39
3	E	808	A1CYL	C19-C13	3.76	1.45	1.39
3	C	808	A1CYL	C19-C13	3.75	1.45	1.39
3	F	808	A1CYL	C19-C13	3.75	1.45	1.39
3	B	808	A1CYL	C20-C21	3.70	1.45	1.38
3	E	808	A1CYL	C20-C21	3.70	1.45	1.38
3	A	808	A1CYL	C20-C21	3.70	1.45	1.38
3	D	808	A1CYL	C20-C21	3.70	1.45	1.38
3	C	808	A1CYL	C20-C21	3.70	1.45	1.38
3	F	808	A1CYL	C20-C21	3.70	1.45	1.38
3	F	808	A1CYL	C08-C07	3.69	1.45	1.39
3	E	808	A1CYL	C08-C07	3.68	1.45	1.39
3	A	808	A1CYL	C21-C11	3.67	1.45	1.39
3	D	808	A1CYL	C21-C11	3.67	1.45	1.39
3	A	808	A1CYL	C08-C07	3.67	1.45	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	808	A1CYL	C08-C07	3.67	1.45	1.39
3	C	808	A1CYL	C21-C11	3.66	1.45	1.39
3	F	808	A1CYL	C21-C11	3.66	1.45	1.39
3	B	808	A1CYL	C08-C07	3.65	1.45	1.39
3	C	808	A1CYL	C08-C07	3.64	1.45	1.39
3	B	808	A1CYL	C21-C11	3.64	1.45	1.39
3	E	808	A1CYL	C21-C11	3.64	1.45	1.39
3	A	808	A1CYL	C20-C19	3.61	1.45	1.38
3	D	808	A1CYL	C20-C19	3.61	1.45	1.38
3	C	808	A1CYL	C20-C19	3.60	1.45	1.38
3	F	808	A1CYL	C20-C19	3.60	1.45	1.38
3	B	808	A1CYL	C20-C19	3.59	1.45	1.38
3	E	808	A1CYL	C20-C19	3.59	1.45	1.38
3	C	808	A1CYL	C03-C04	2.69	1.44	1.38
3	F	808	A1CYL	C03-C04	2.69	1.44	1.38
3	A	808	A1CYL	C03-C04	2.67	1.44	1.38
3	D	808	A1CYL	C03-C04	2.67	1.44	1.38
3	B	808	A1CYL	C03-C04	2.66	1.43	1.38
3	E	808	A1CYL	C03-C04	2.66	1.43	1.38
3	C	808	A1CYL	C05-N06	2.57	1.40	1.33
3	F	808	A1CYL	C05-N06	2.57	1.40	1.33
3	B	808	A1CYL	C05-N06	2.57	1.40	1.33
3	E	808	A1CYL	C05-N06	2.57	1.40	1.33
3	A	808	A1CYL	C05-N06	2.57	1.40	1.33
3	D	808	A1CYL	C05-N06	2.57	1.40	1.33
3	C	808	A1CYL	C07-N24	2.55	1.38	1.34
3	A	808	A1CYL	C07-N24	2.52	1.38	1.34
3	D	808	A1CYL	C07-N24	2.52	1.38	1.34
3	B	808	A1CYL	C07-N24	2.51	1.38	1.34
3	E	808	A1CYL	C07-N24	2.50	1.38	1.34
3	F	808	A1CYL	C07-N24	2.49	1.38	1.34
3	A	808	A1CYL	C08-C09	2.34	1.45	1.39
3	C	808	A1CYL	C08-C09	2.34	1.45	1.39
3	D	808	A1CYL	C08-C09	2.34	1.45	1.39
3	F	808	A1CYL	C08-C09	2.34	1.45	1.39
3	B	808	A1CYL	C08-C09	2.34	1.45	1.39
3	E	808	A1CYL	C08-C09	2.34	1.45	1.39
3	A	808	A1CYL	C09-N22	2.19	1.38	1.34
3	D	808	A1CYL	C09-N22	2.19	1.38	1.34
3	C	808	A1CYL	C09-N22	2.18	1.38	1.34
3	F	808	A1CYL	C09-N22	2.18	1.38	1.34
3	B	808	A1CYL	C09-N22	2.18	1.38	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	808	A1CYL	C09-N22	2.18	1.38	1.34

All (90) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	808	A1CYL	N24-C23-N22	-10.93	121.42	130.48
3	D	808	A1CYL	N24-C23-N22	-10.93	121.42	130.48
3	C	808	A1CYL	N24-C23-N22	-10.92	121.43	130.48
3	F	808	A1CYL	N24-C23-N22	-10.92	121.43	130.48
3	B	808	A1CYL	N24-C23-N22	-10.90	121.44	130.48
3	E	808	A1CYL	N24-C23-N22	-10.90	121.44	130.48
3	A	808	A1CYL	O28-S25-O27	-9.95	101.12	117.99
3	D	808	A1CYL	O28-S25-O27	-9.95	101.12	117.99
3	B	808	A1CYL	O28-S25-O27	-9.94	101.13	117.99
3	E	808	A1CYL	O28-S25-O27	-9.94	101.13	117.99
3	C	808	A1CYL	O28-S25-O27	-9.94	101.14	117.99
3	F	808	A1CYL	O28-S25-O27	-9.94	101.14	117.99
3	B	808	A1CYL	C26-S25-C23	7.10	109.79	104.39
3	E	808	A1CYL	C26-S25-C23	7.10	109.79	104.39
3	C	808	A1CYL	C26-S25-C23	7.08	109.78	104.39
3	F	808	A1CYL	C26-S25-C23	7.08	109.78	104.39
3	A	808	A1CYL	C26-S25-C23	7.07	109.77	104.39
3	D	808	A1CYL	C26-S25-C23	7.07	109.77	104.39
3	B	808	A1CYL	C17-C15-N14	5.85	117.81	113.84
3	C	808	A1CYL	C17-C15-N14	5.85	117.81	113.84
3	E	808	A1CYL	C17-C15-N14	5.85	117.81	113.84
3	F	808	A1CYL	C17-C15-N14	5.85	117.81	113.84
3	A	808	A1CYL	C17-C15-N14	5.83	117.80	113.84
3	D	808	A1CYL	C17-C15-N14	5.83	117.80	113.84
3	B	808	A1CYL	O28-S25-C23	4.78	111.76	107.42
3	E	808	A1CYL	O28-S25-C23	4.78	111.76	107.42
3	C	808	A1CYL	O28-S25-C23	4.77	111.74	107.42
3	F	808	A1CYL	O28-S25-C23	4.77	111.74	107.42
3	A	808	A1CYL	O28-S25-C23	4.76	111.74	107.42
3	D	808	A1CYL	O28-S25-C23	4.76	111.74	107.42
3	A	808	A1CYL	O27-S25-C23	4.44	111.45	107.42
3	C	808	A1CYL	O27-S25-C23	4.44	111.45	107.42
3	D	808	A1CYL	O27-S25-C23	4.44	111.45	107.42
3	F	808	A1CYL	O27-S25-C23	4.44	111.45	107.42
3	B	808	A1CYL	O27-S25-C23	4.44	111.44	107.42
3	E	808	A1CYL	O27-S25-C23	4.44	111.44	107.42
3	F	808	A1CYL	C04-C07-N24	3.49	121.08	116.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	808	A1CYL	C04-C07-N24	3.47	121.05	116.04
3	A	808	A1CYL	C04-C07-N24	3.46	121.04	116.04
3	D	808	A1CYL	C04-C07-N24	3.46	121.04	116.04
3	B	808	A1CYL	C04-C07-N24	3.45	121.03	116.04
3	C	808	A1CYL	C04-C07-N24	3.45	121.02	116.04
3	A	808	A1CYL	C05-N06-N02	2.99	107.34	104.23
3	D	808	A1CYL	C05-N06-N02	2.99	107.34	104.23
3	C	808	A1CYL	C05-N06-N02	2.98	107.34	104.23
3	F	808	A1CYL	C05-N06-N02	2.98	107.34	104.23
3	A	808	A1CYL	S25-C23-N22	2.98	119.78	115.07
3	D	808	A1CYL	S25-C23-N22	2.98	119.78	115.07
3	B	808	A1CYL	S25-C23-N22	2.97	119.76	115.07
3	E	808	A1CYL	S25-C23-N22	2.97	119.76	115.07
3	C	808	A1CYL	S25-C23-N22	2.97	119.76	115.07
3	F	808	A1CYL	S25-C23-N22	2.97	119.76	115.07
3	B	808	A1CYL	C05-N06-N02	2.96	107.31	104.23
3	E	808	A1CYL	C05-N06-N02	2.96	107.31	104.23
3	E	808	A1CYL	C08-C07-N24	-2.60	119.32	122.34
3	A	808	A1CYL	C08-C07-N24	-2.59	119.34	122.34
3	D	808	A1CYL	C08-C07-N24	-2.59	119.34	122.34
3	F	808	A1CYL	C08-C07-N24	-2.59	119.34	122.34
3	C	808	A1CYL	C08-C07-N24	-2.59	119.34	122.34
3	B	808	A1CYL	C08-C07-N24	-2.58	119.34	122.34
3	C	808	A1CYL	C13-N14-C15	-2.49	123.39	128.07
3	F	808	A1CYL	C13-N14-C15	-2.49	123.39	128.07
3	A	808	A1CYL	C13-N14-C15	-2.48	123.40	128.07
3	D	808	A1CYL	C13-N14-C15	-2.48	123.40	128.07
3	B	808	A1CYL	C13-N14-C15	-2.48	123.41	128.07
3	E	808	A1CYL	C13-N14-C15	-2.48	123.41	128.07
3	C	808	A1CYL	S25-C23-N24	2.37	118.81	115.07
3	F	808	A1CYL	S25-C23-N24	2.37	118.81	115.07
3	A	808	A1CYL	S25-C23-N24	2.36	118.81	115.07
3	D	808	A1CYL	S25-C23-N24	2.36	118.81	115.07
3	B	808	A1CYL	S25-C23-N24	2.36	118.80	115.07
3	E	808	A1CYL	S25-C23-N24	2.36	118.80	115.07
2	B	807	ADP	C5-C6-N6	2.25	123.74	120.31
2	C	807	ADP	C5-C6-N6	2.25	123.74	120.31
2	E	807	ADP	C5-C6-N6	2.25	123.74	120.31
2	F	807	ADP	C5-C6-N6	2.25	123.74	120.31
2	A	807	ADP	C5-C6-N6	2.25	123.74	120.31
2	D	807	ADP	C5-C6-N6	2.25	123.74	120.31
3	C	808	A1CYL	N10-C09-N22	2.04	122.79	116.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	808	A1CYL	N10-C09-N22	2.04	122.79	116.83
3	B	808	A1CYL	N10-C09-N22	2.04	122.78	116.83
3	E	808	A1CYL	N10-C09-N22	2.04	122.78	116.83
3	A	808	A1CYL	N10-C09-N22	2.04	122.78	116.83
3	D	808	A1CYL	N10-C09-N22	2.04	122.78	116.83
3	C	808	A1CYL	C03-N02-N06	-2.03	109.79	111.56
3	F	808	A1CYL	C03-N02-N06	-2.03	109.79	111.56
3	A	808	A1CYL	C03-N02-N06	-2.03	109.79	111.56
3	D	808	A1CYL	C03-N02-N06	-2.03	109.79	111.56
3	B	808	A1CYL	C03-N02-N06	-2.02	109.80	111.56
3	E	808	A1CYL	C03-N02-N06	-2.02	109.80	111.56

There are no chirality outliers.

All (36) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	808	A1CYL	N22-C23-S25-O28
3	B	808	A1CYL	N22-C23-S25-O28
3	C	808	A1CYL	N22-C23-S25-O28
3	D	808	A1CYL	N22-C23-S25-O28
3	E	808	A1CYL	N22-C23-S25-O28
3	F	808	A1CYL	N22-C23-S25-O28
3	A	808	A1CYL	O16-C15-C17-C18
3	B	808	A1CYL	O16-C15-C17-C18
3	C	808	A1CYL	O16-C15-C17-C18
3	D	808	A1CYL	O16-C15-C17-C18
3	E	808	A1CYL	O16-C15-C17-C18
3	F	808	A1CYL	O16-C15-C17-C18
3	A	808	A1CYL	N24-C23-S25-C26
3	A	808	A1CYL	N24-C23-S25-O28
3	B	808	A1CYL	N24-C23-S25-C26
3	B	808	A1CYL	N24-C23-S25-O28
3	C	808	A1CYL	N24-C23-S25-C26
3	C	808	A1CYL	N24-C23-S25-O28
3	D	808	A1CYL	N24-C23-S25-C26
3	D	808	A1CYL	N24-C23-S25-O28
3	E	808	A1CYL	N24-C23-S25-C26
3	E	808	A1CYL	N24-C23-S25-O28
3	F	808	A1CYL	N24-C23-S25-C26
3	F	808	A1CYL	N24-C23-S25-O28
3	A	808	A1CYL	N14-C15-C17-C18
3	B	808	A1CYL	N14-C15-C17-C18

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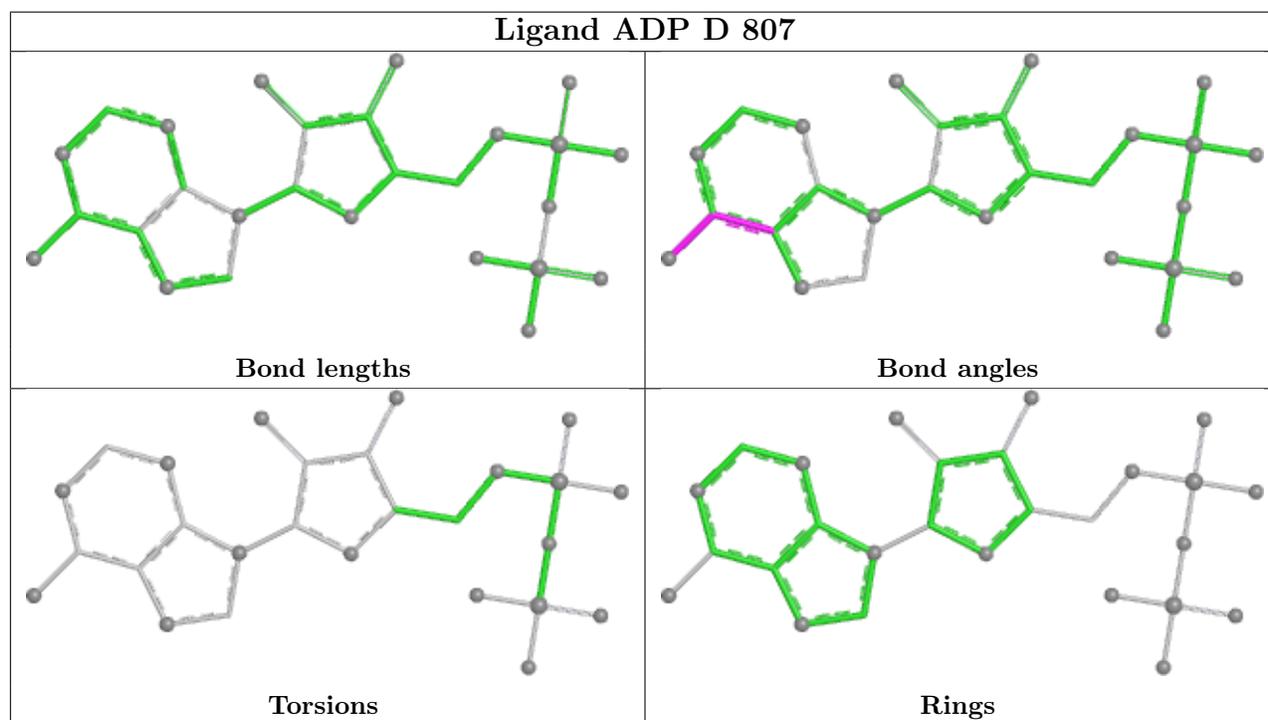
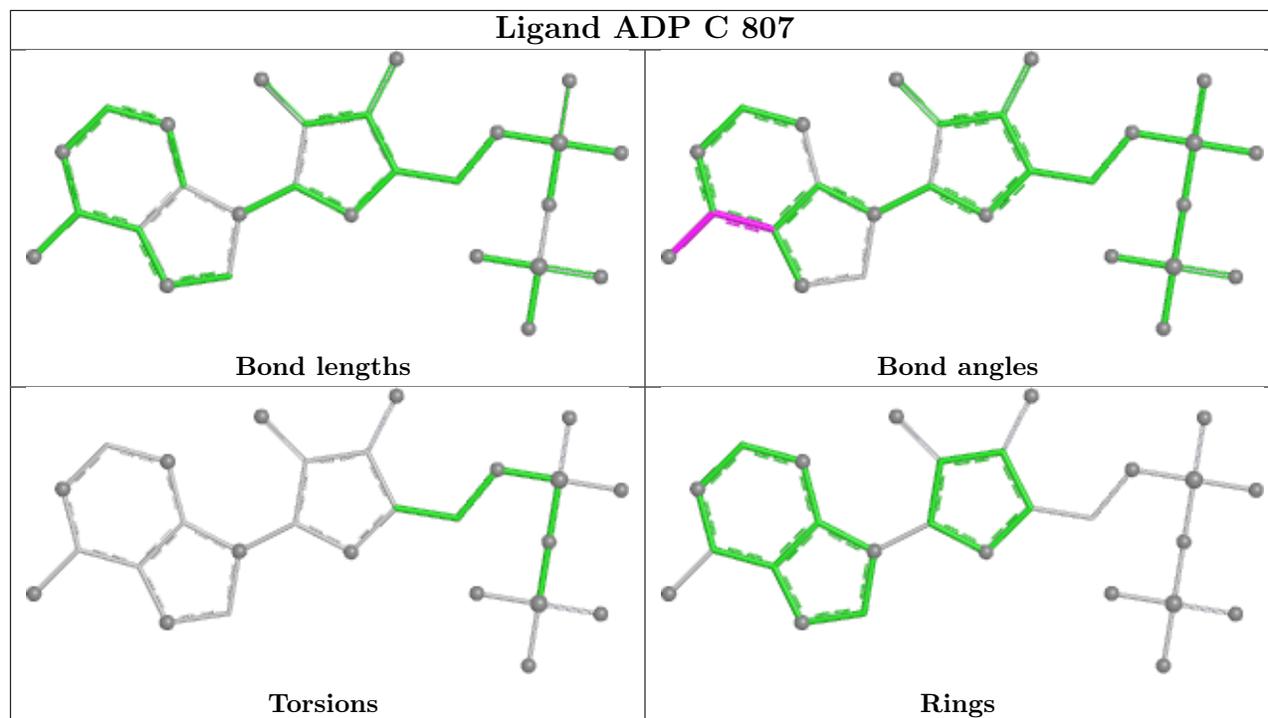
Mol	Chain	Res	Type	Atoms
3	C	808	A1CYL	N14-C15-C17-C18
3	D	808	A1CYL	N14-C15-C17-C18
3	E	808	A1CYL	N14-C15-C17-C18
3	F	808	A1CYL	N14-C15-C17-C18
3	A	808	A1CYL	N22-C23-S25-C26
3	B	808	A1CYL	N22-C23-S25-C26
3	C	808	A1CYL	N22-C23-S25-C26
3	D	808	A1CYL	N22-C23-S25-C26
3	E	808	A1CYL	N22-C23-S25-C26
3	F	808	A1CYL	N22-C23-S25-C26

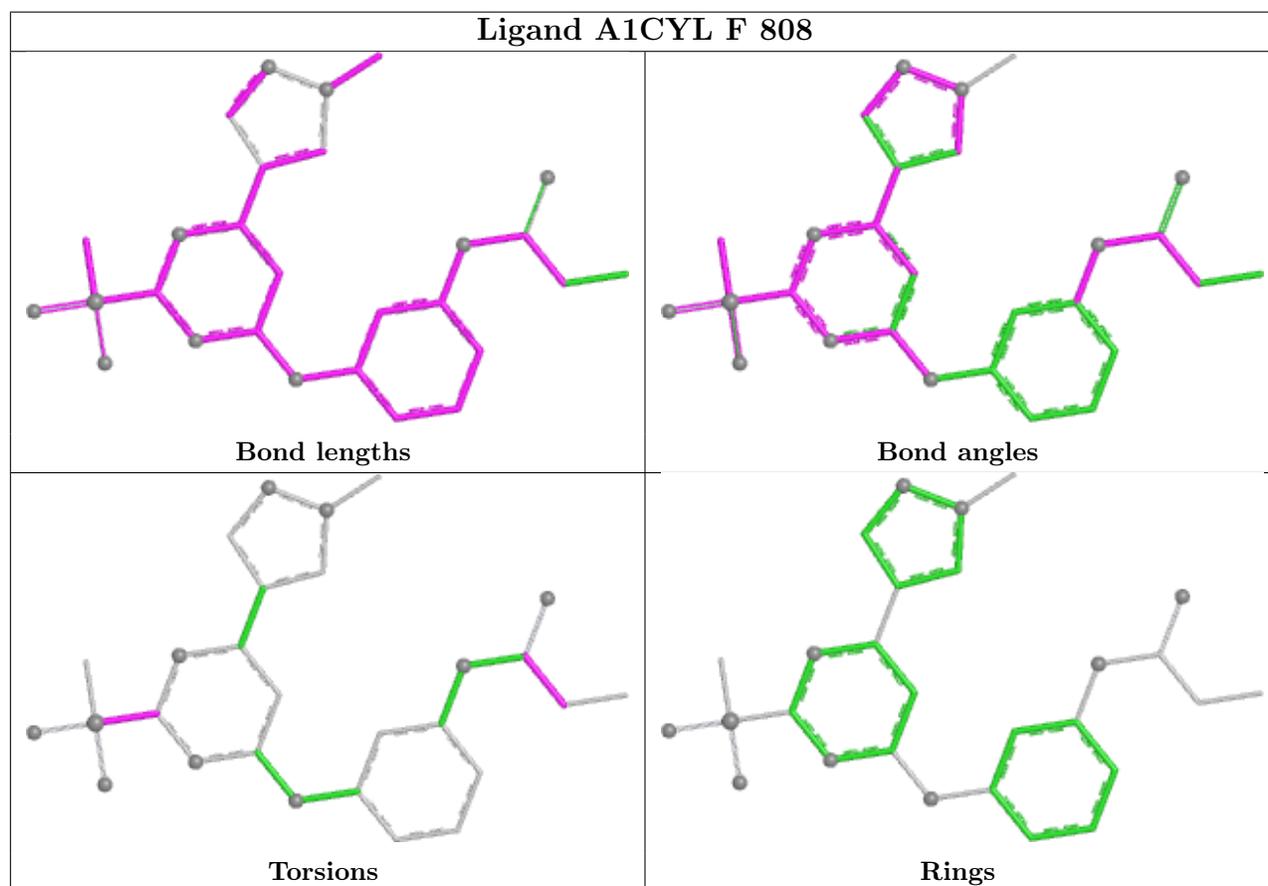
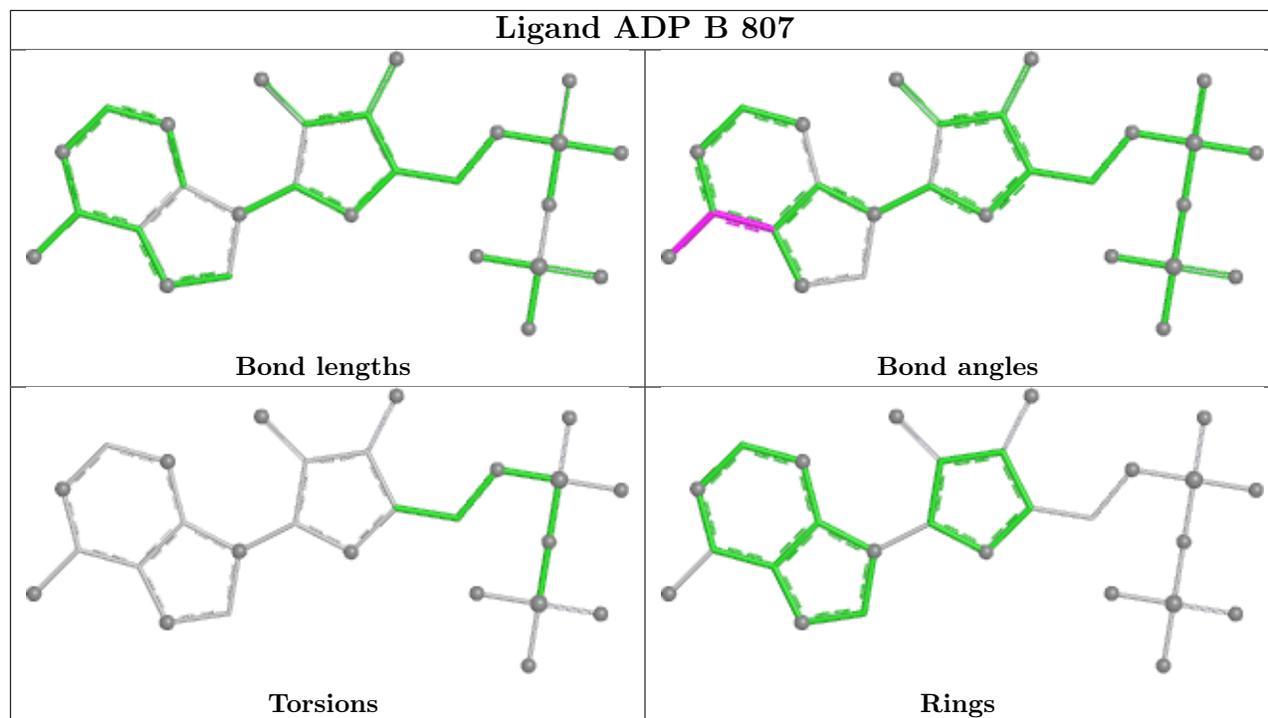
There are no ring outliers.

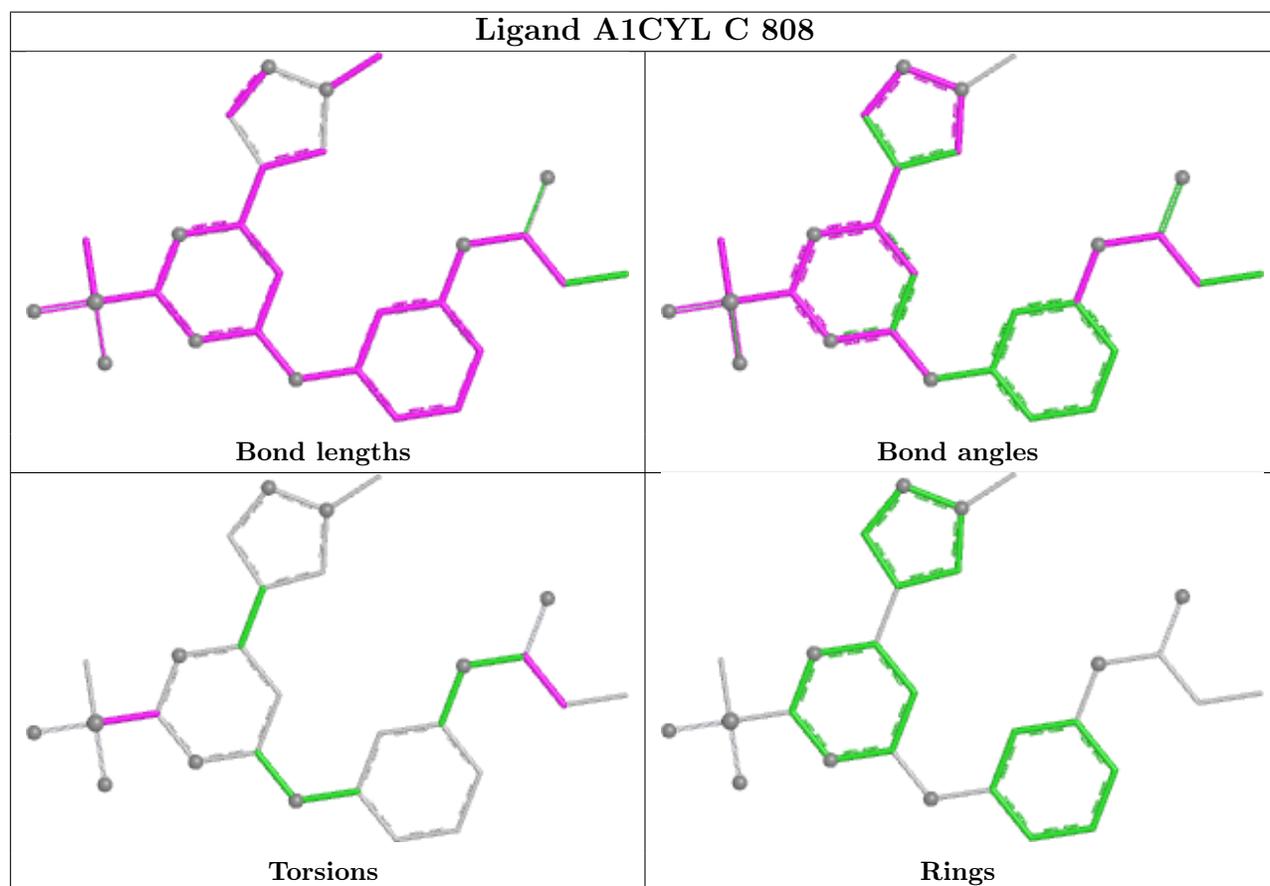
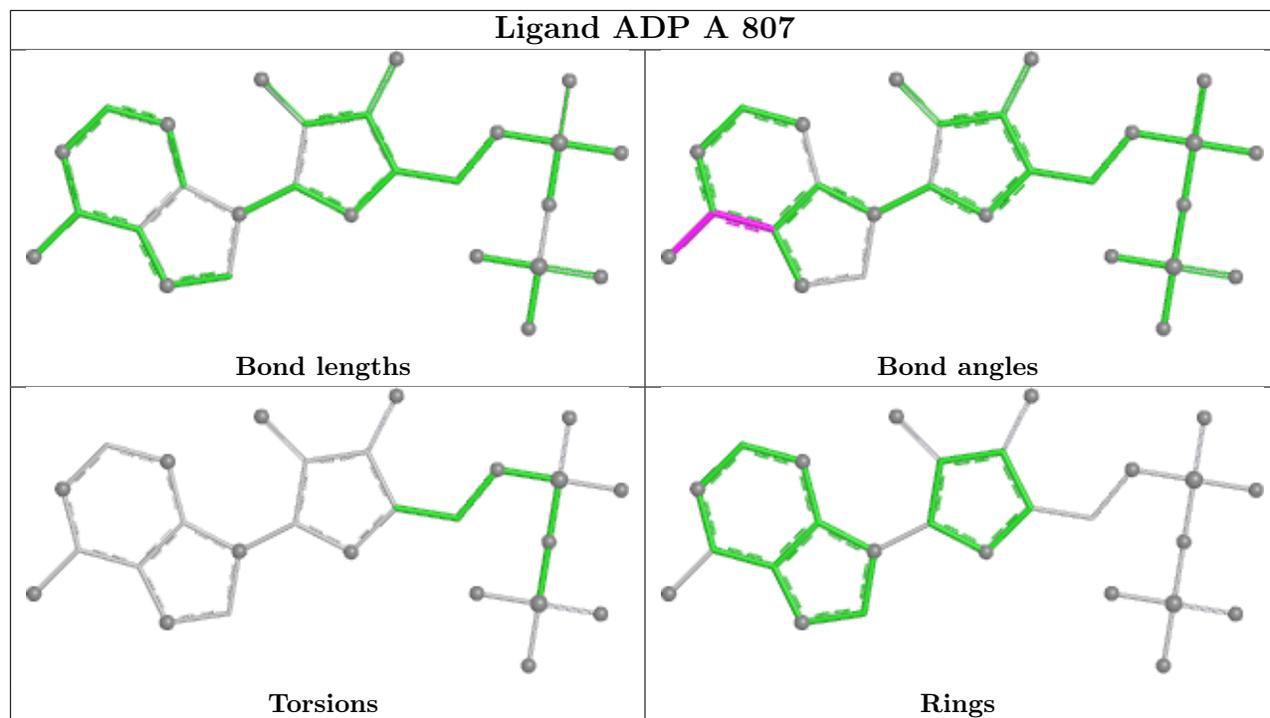
6 monomers are involved in 12 short contacts:

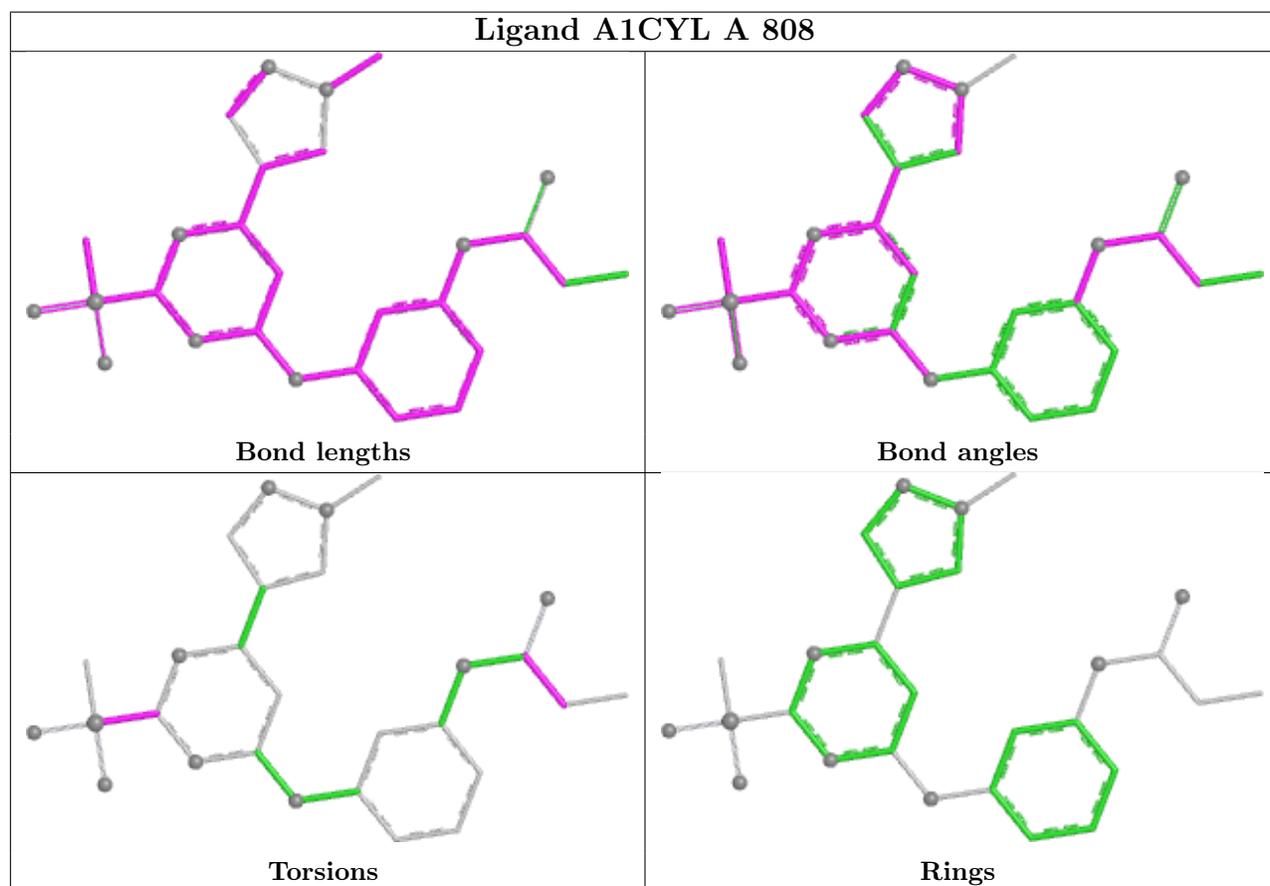
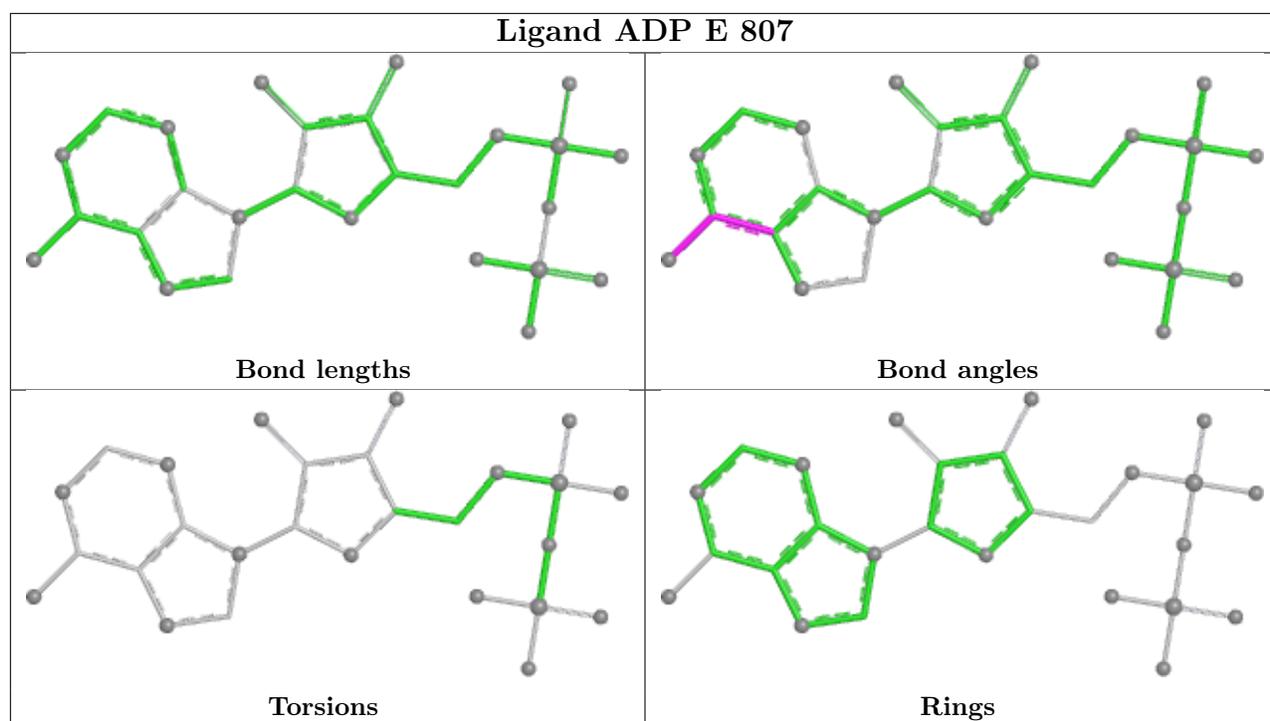
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	C	807	ADP	2	0
2	D	807	ADP	2	0
2	B	807	ADP	2	0
2	A	807	ADP	2	0
2	E	807	ADP	2	0
2	F	807	ADP	2	0

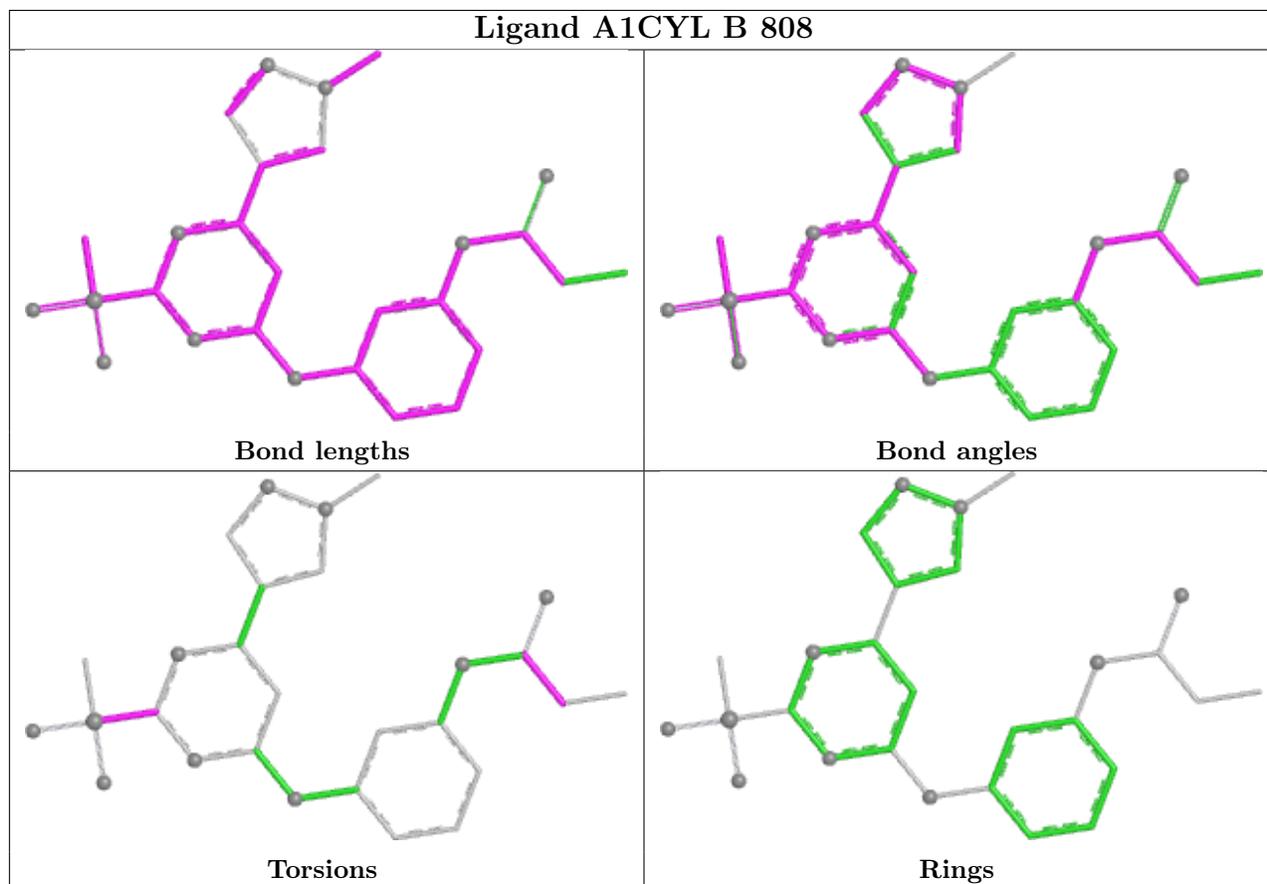
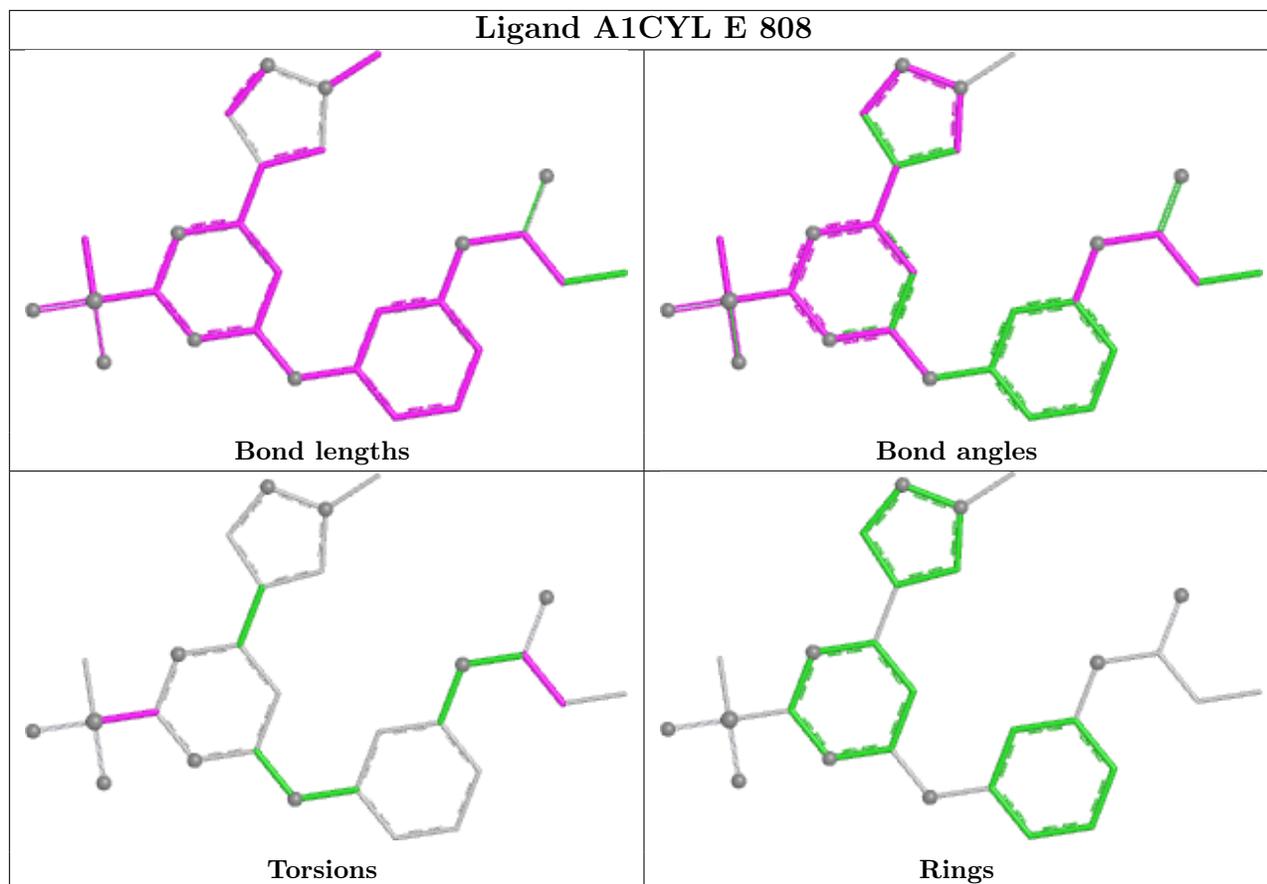
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

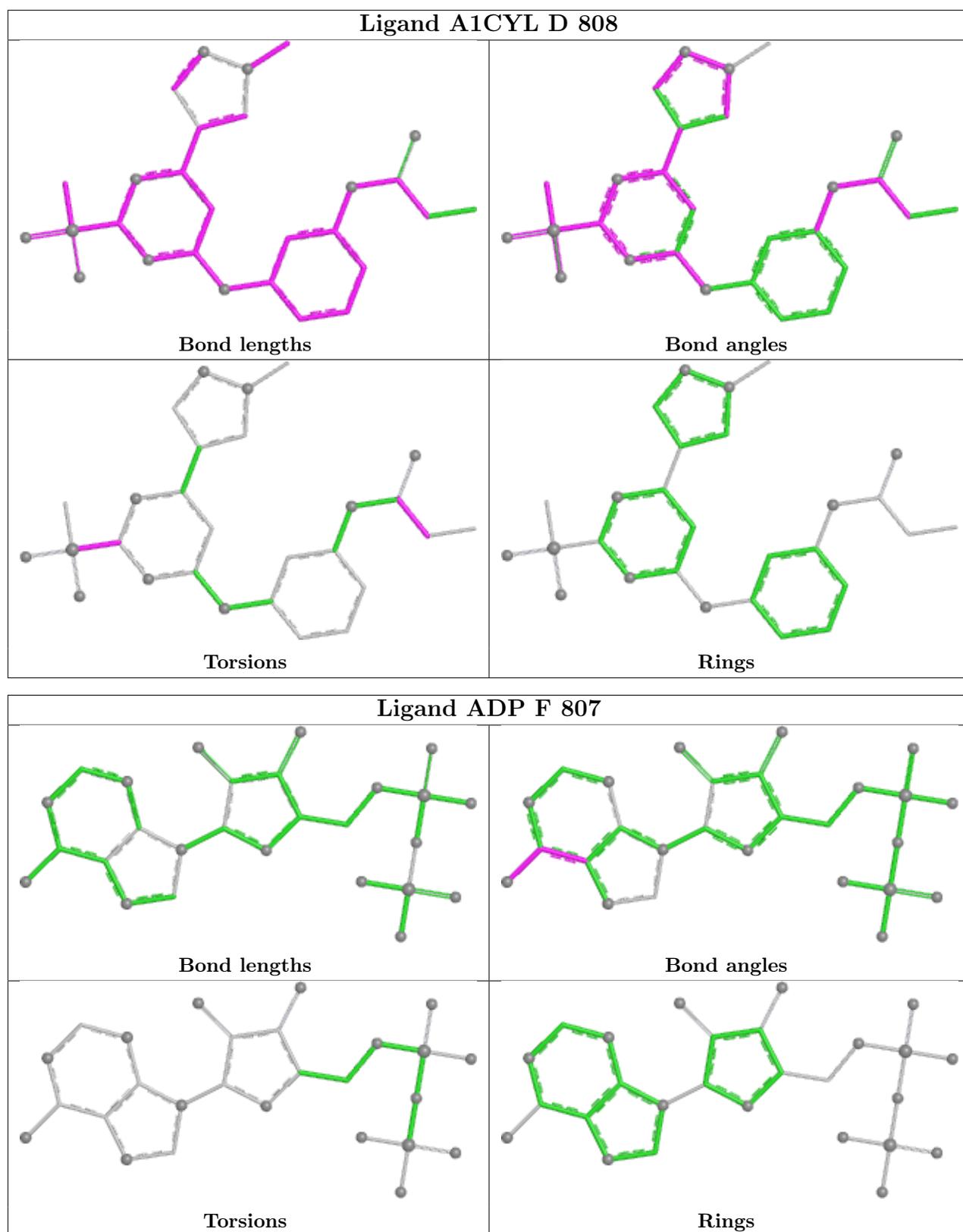












5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-73285. These allow visual inspection of the internal detail of the map and identification of artifacts.

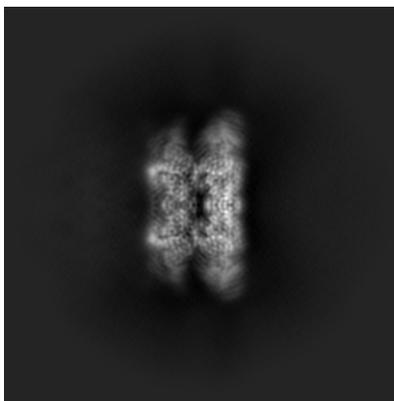
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

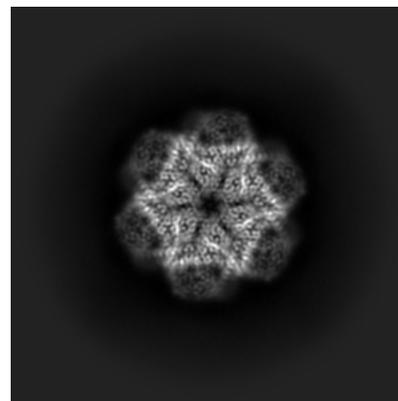
6.1.1 Primary map



X



Y

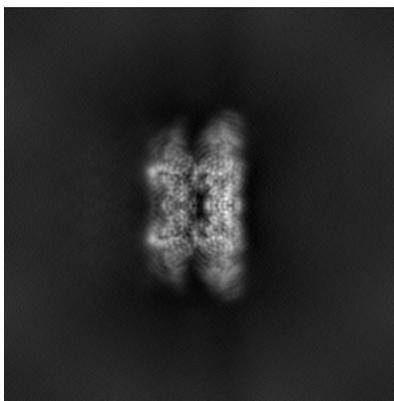


Z

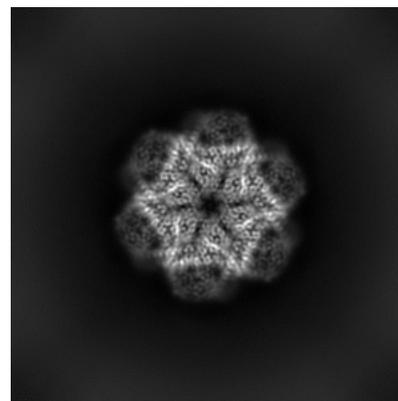
6.1.2 Raw map



X



Y

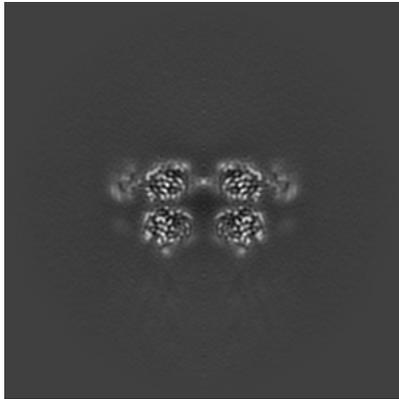


Z

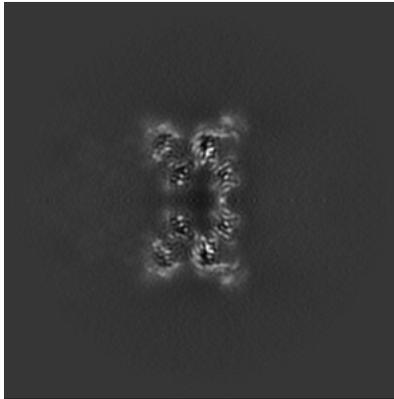
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

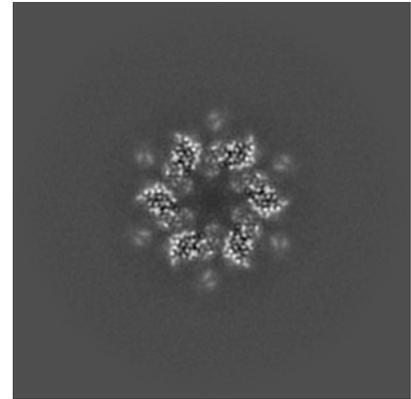
6.2.1 Primary map



X Index: 200

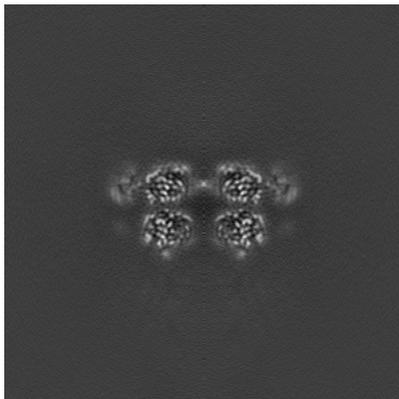


Y Index: 200

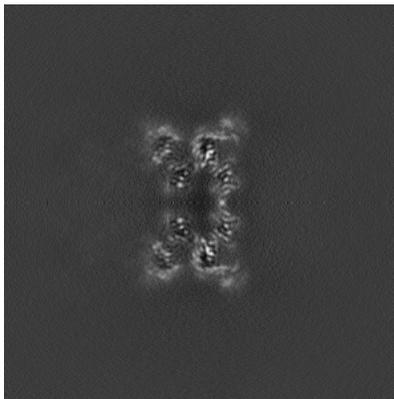


Z Index: 200

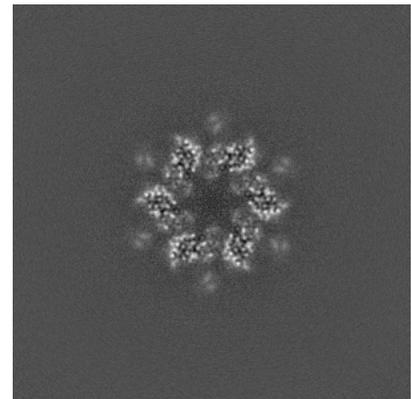
6.2.2 Raw map



X Index: 200



Y Index: 200

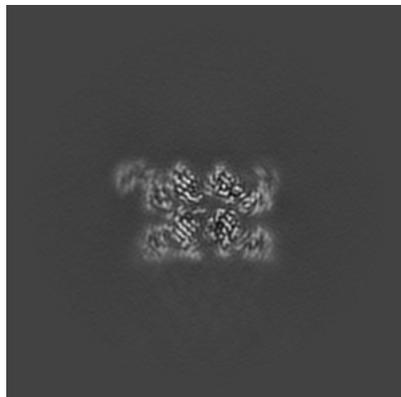


Z Index: 200

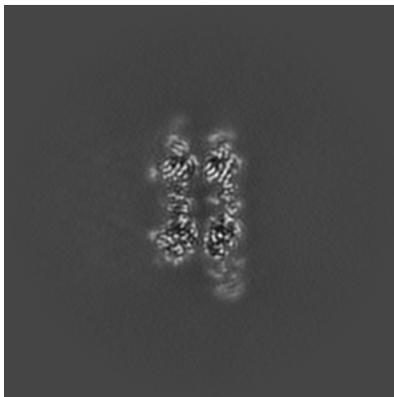
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

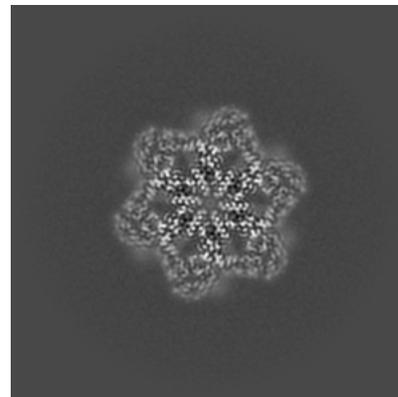
6.3.1 Primary map



X Index: 166

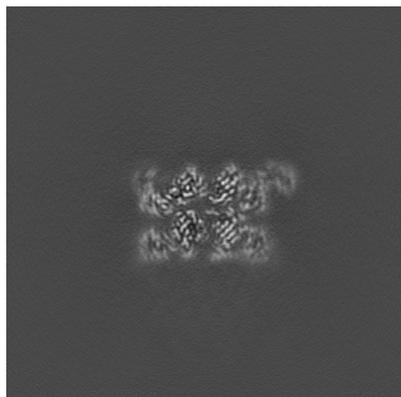


Y Index: 180

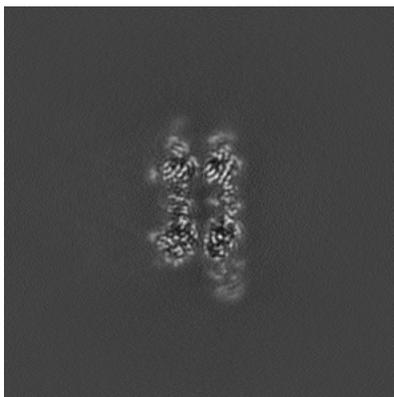


Z Index: 223

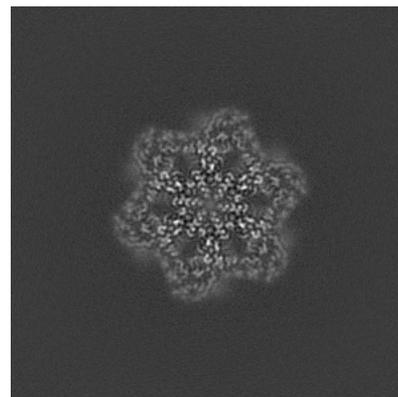
6.3.2 Raw map



X Index: 234



Y Index: 180

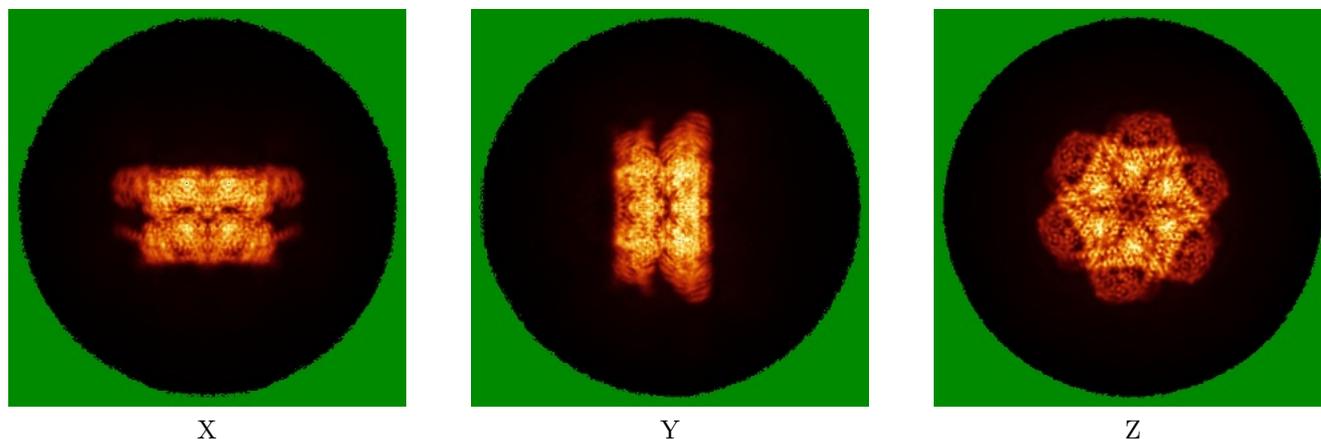


Z Index: 222

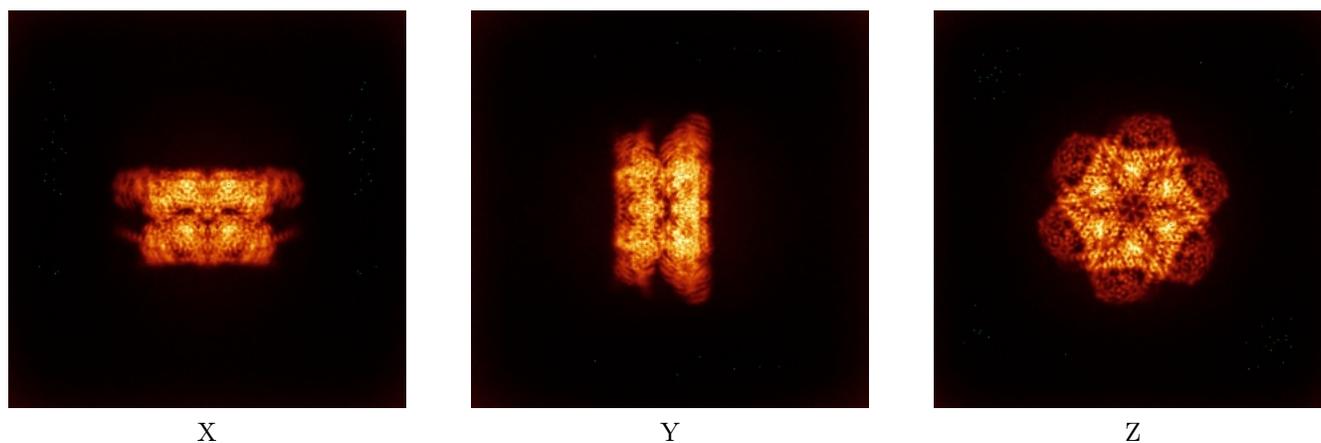
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map



6.4.2 Raw map



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.

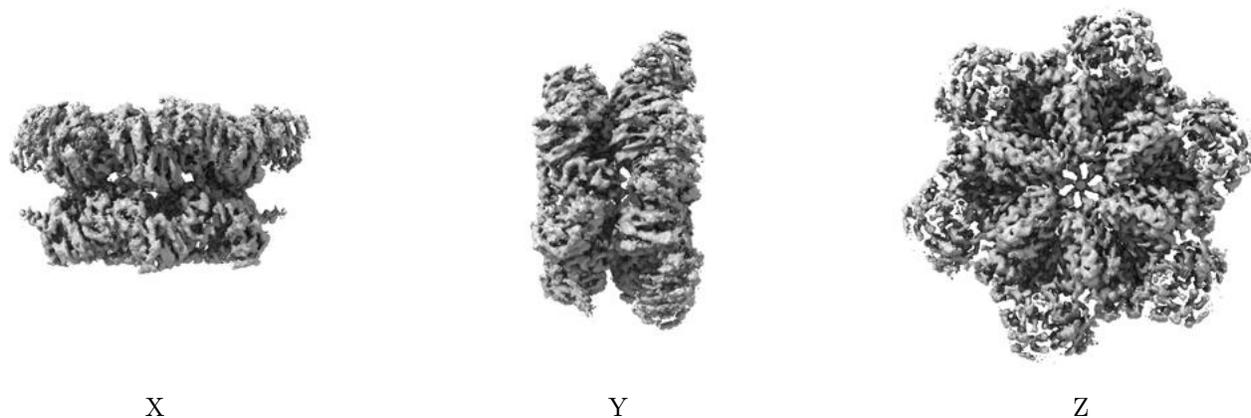
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.0402. 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



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.

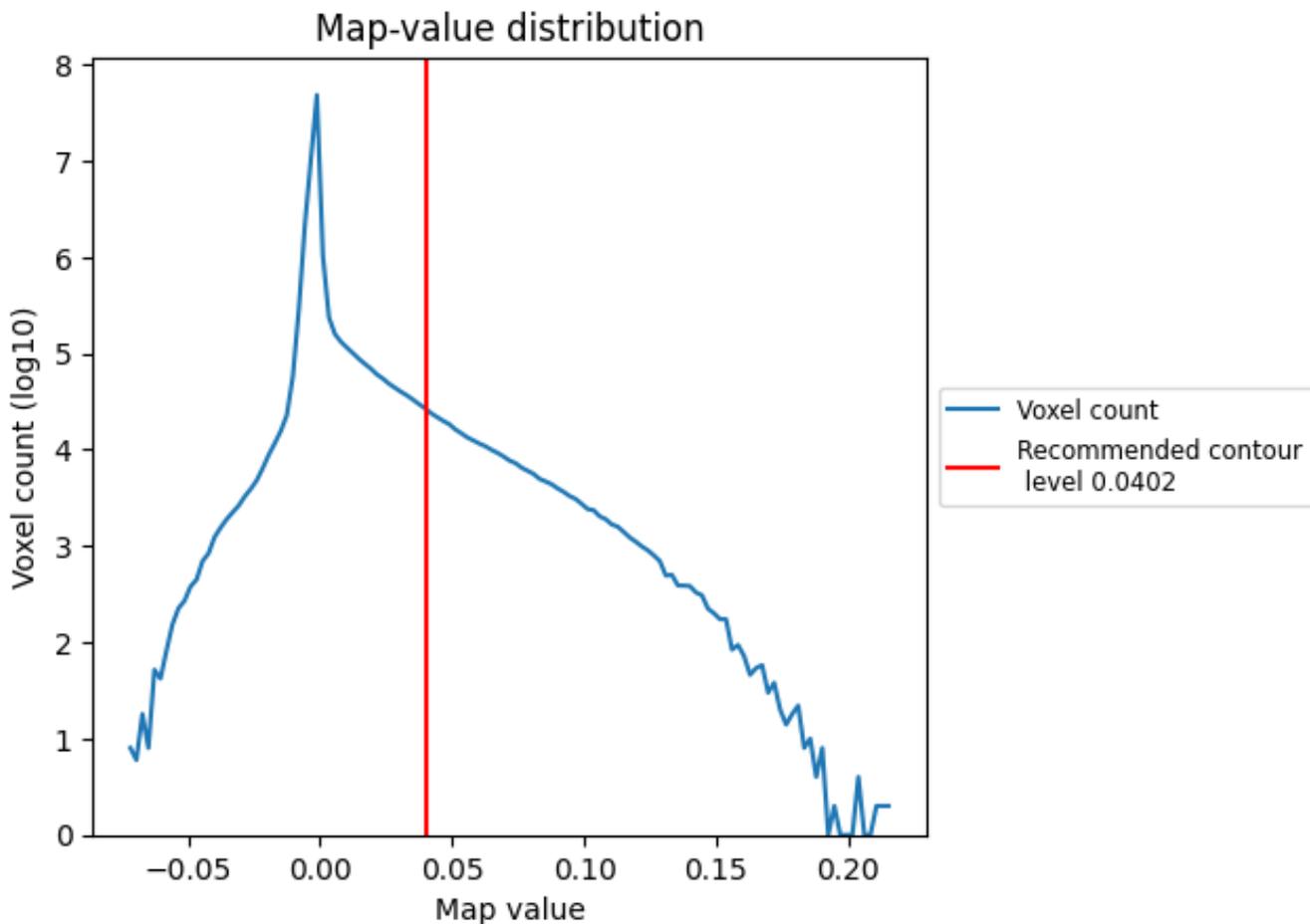
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

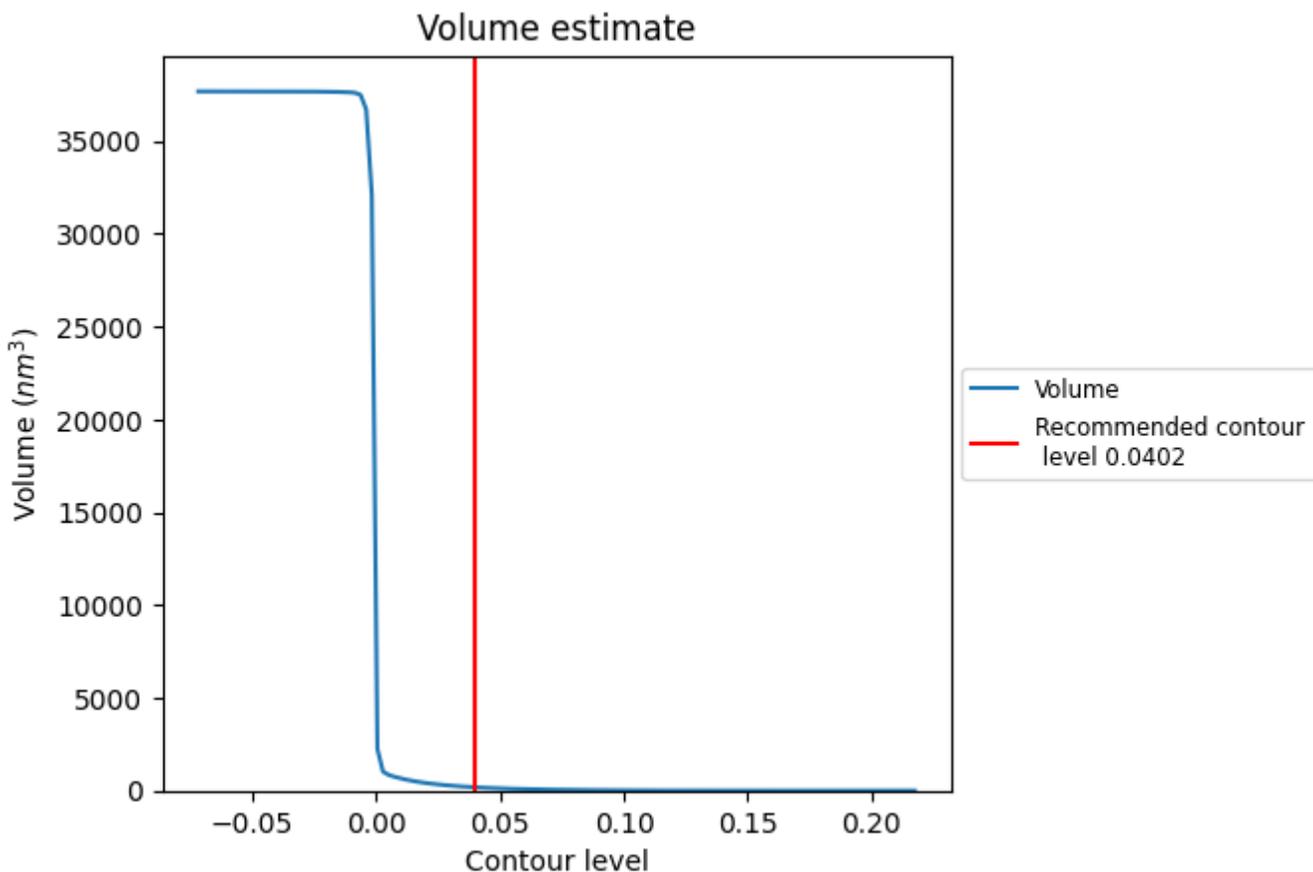
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

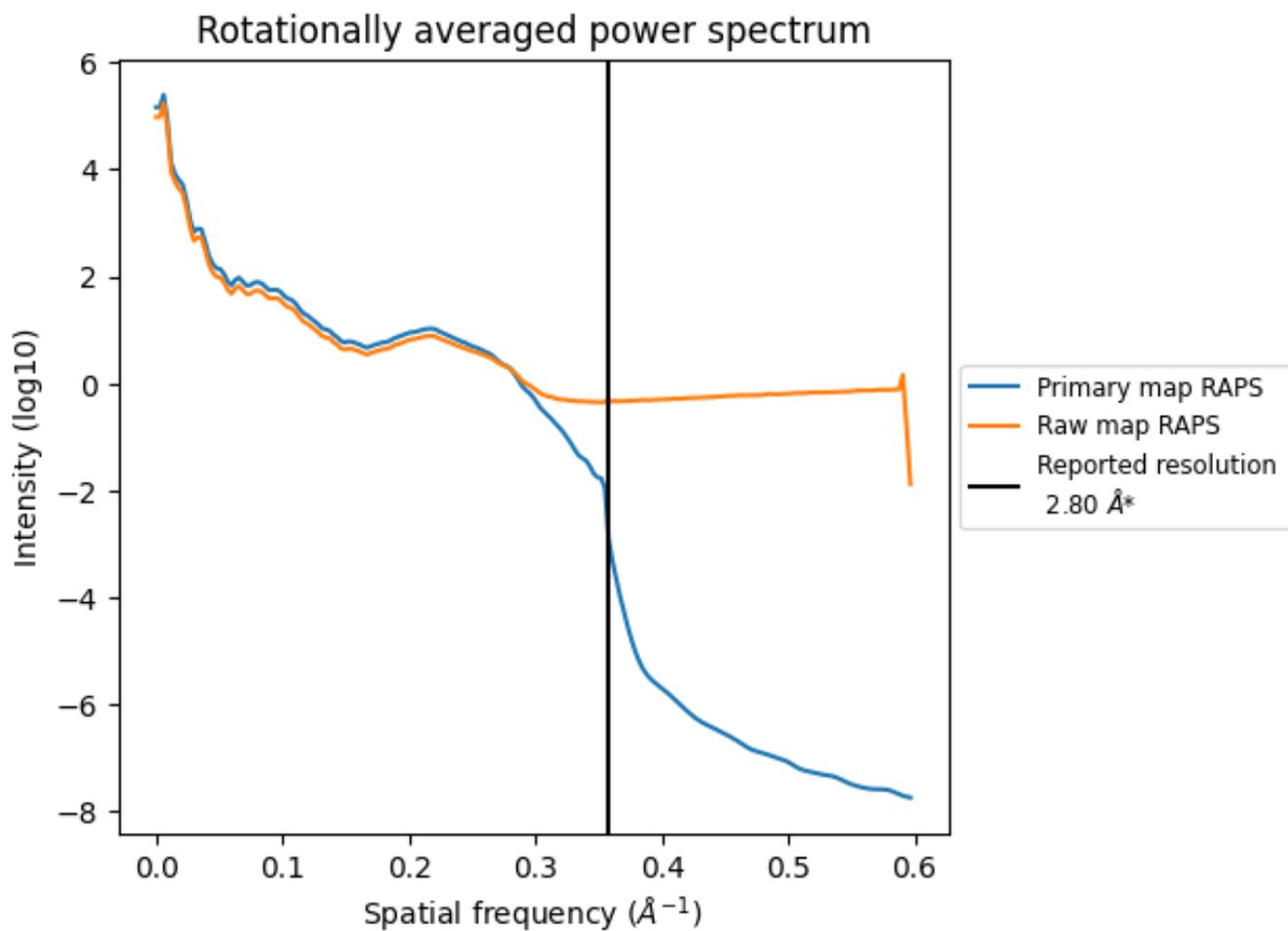
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 177 nm^3 ; this corresponds to an approximate mass of 160 kDa.

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

7.3 Rotationally averaged power spectrum i

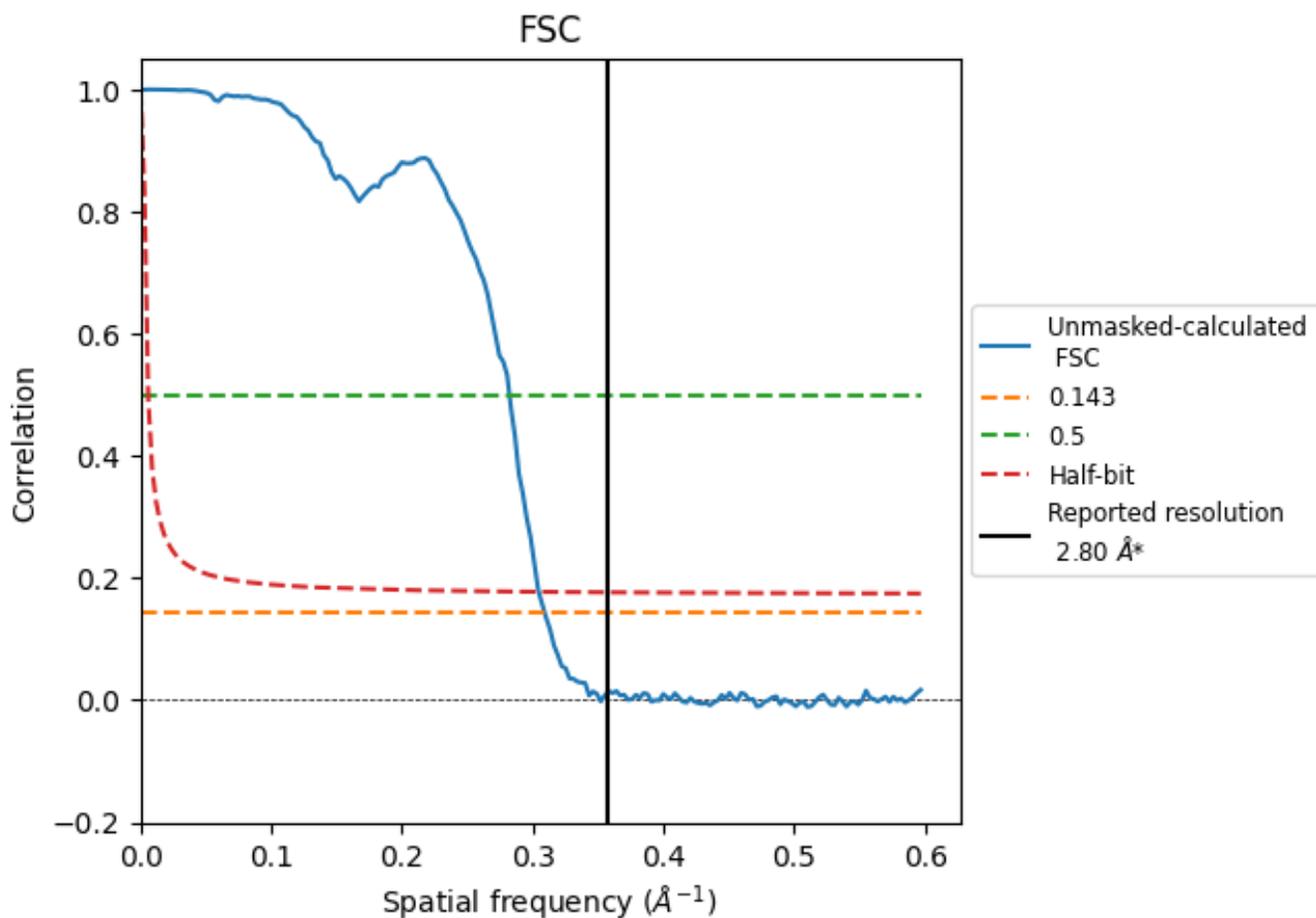


*Reported resolution corresponds to spatial frequency of 0.357 Å⁻¹

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 0.357 Å⁻¹

8.2 Resolution estimates [i](#)

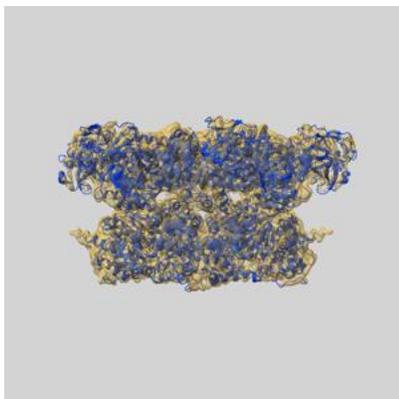
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.80	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	3.24	3.54	3.28

*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 3.24 differs from the reported value 2.8 by more than 10 %

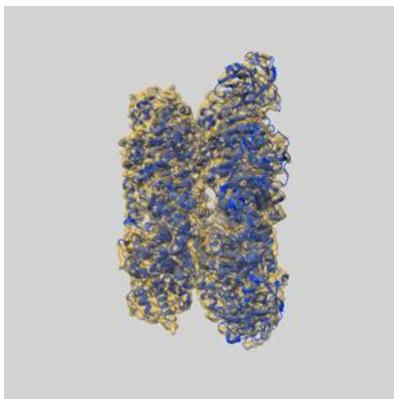
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-73285 and PDB model 9YP6. Per-residue inclusion information can be found in section 3 on page 7.

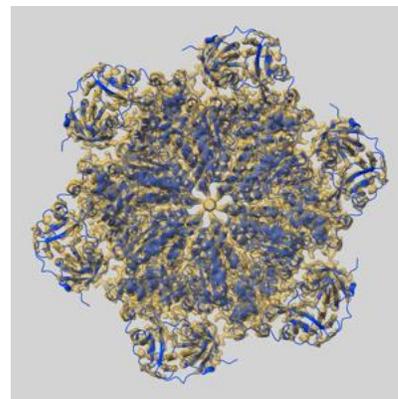
9.1 Map-model overlay [i](#)



X



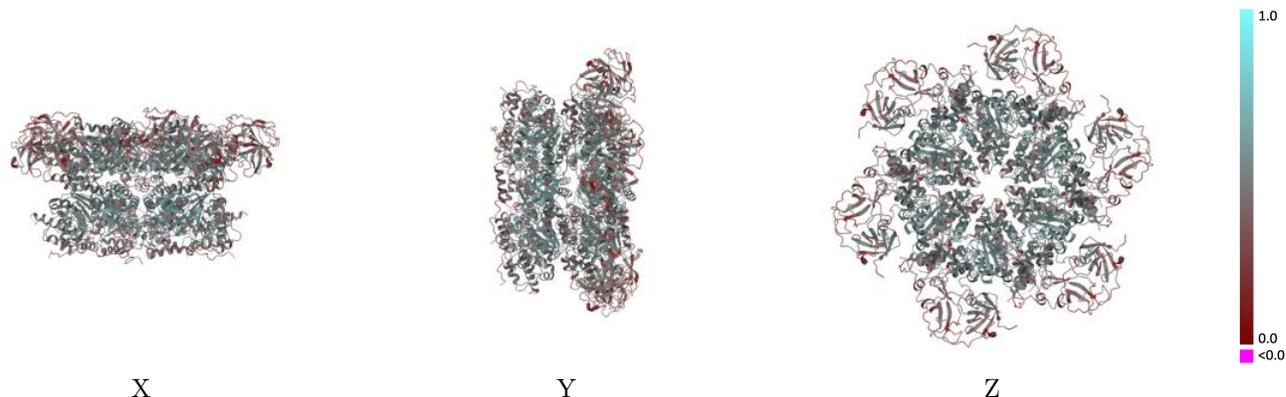
Y



Z

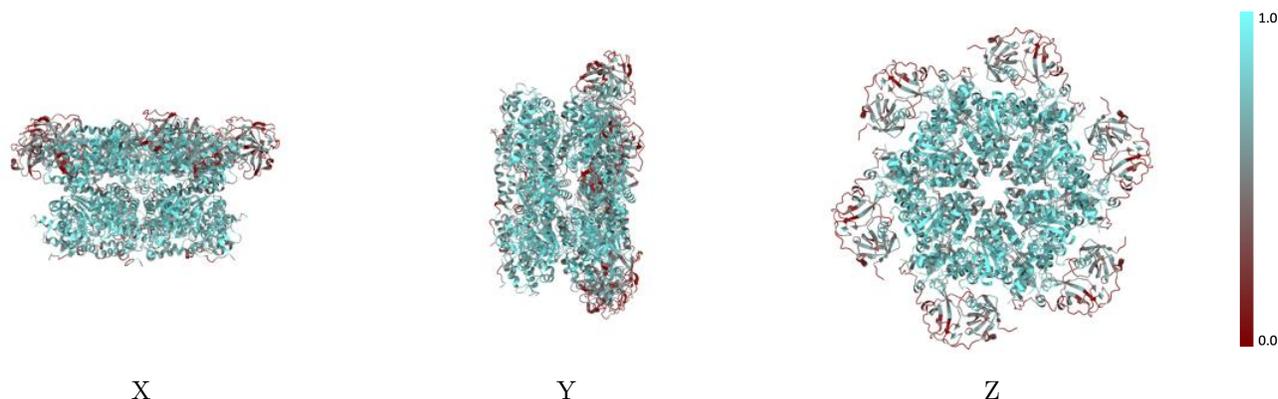
The images above show the 3D surface view of the map at the recommended contour level 0.0402 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



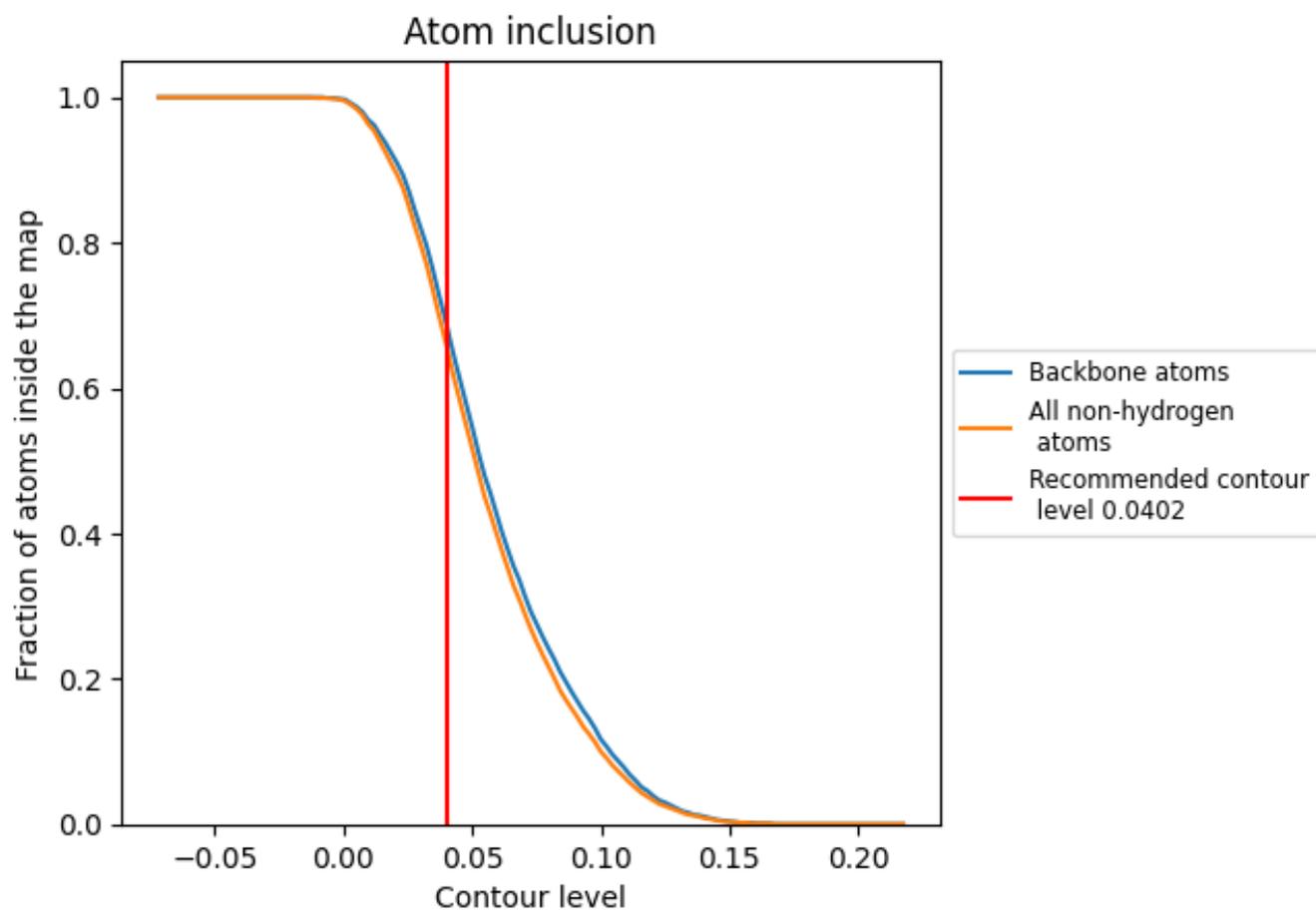
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.0402).

9.4 Atom inclusion [i](#)



At the recommended contour level, 68% of all backbone atoms, 66% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (0.0402) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6560	 0.4510
A	 0.6640	 0.4510
B	 0.6630	 0.4510
C	 0.6620	 0.4530
D	 0.6640	 0.4510
E	 0.6630	 0.4510
F	 0.6620	 0.4510

