



Full wwPDB EM Validation Report ⓘ

Oct 6, 2024 – 06:46 am BST

PDB ID : 8P9Y
EMDB ID : EMD-17578
Title : SARS-CoV-2 S protein S:D614G mutant in 3-down with binding site of an entry inhibitor
Authors : Adhav, A.; Forcada-Nadal, A.; Marco-Marin, C.; Lopez-Redondo, M.L.; Llacer, J.L.
Deposited on : 2023-06-06
Resolution : 4.30 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.dev113
Mogul : 1.8.4, CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.39

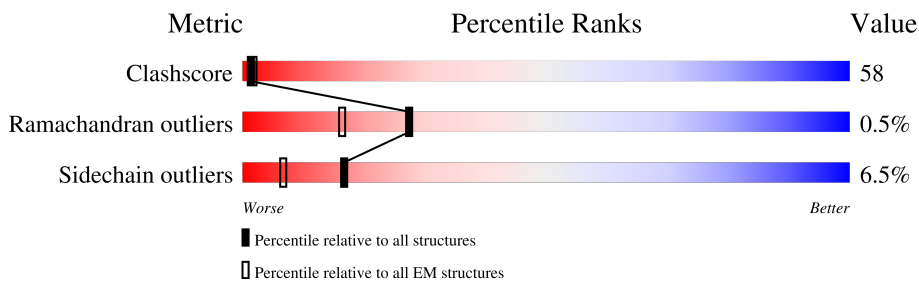
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.30 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)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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	1270	 9% 42% 39% 15%
1	B	1270	 41% 40% 15%
1	C	1270	 5% 41% 38% 5% 15%
2	D	2	 100%
2	E	2	 50% 50%
2	F	2	 50% 50%
2	G	2	 100%
2	H	2	 50% 50%

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Mol	Chain	Length	Quality of chain
2	I	2	 100%
2	J	2	 50% 100%
2	K	2	 100%
2	L	2	 100%
2	M	2	 100%

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
2	NAG	F	1	X	-	-	-
2	NAG	H	1	X	-	-	-
2	NAG	I	1	X	-	-	-
2	NAG	L	1	X	-	-	-

2 Entry composition i

There are 5 unique types of molecules in this entry. The entry contains 25937 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Spike protein S1,Spike glycoprotein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	1080	8425	5378	1403	1606	38	0	0
1	B	1081	8426	5379	1403	1606	38	0	0
1	C	1076	8374	5346	1395	1595	38	0	0

There are 234 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-5	MET	-	initiating methionine	UNP P0DTC2
A	-4	VAL	-	expression tag	UNP P0DTC2
A	-3	SER	-	expression tag	UNP P0DTC2
A	-2	ALA	-	expression tag	UNP P0DTC2
A	-1	ILE	-	expression tag	UNP P0DTC2
A	0	VAL	-	expression tag	UNP P0DTC2
A	1	LEU	-	expression tag	UNP P0DTC2
A	2	TYR	-	expression tag	UNP P0DTC2
A	3	VAL	-	expression tag	UNP P0DTC2
A	4	LEU	-	expression tag	UNP P0DTC2
A	5	LEU	-	expression tag	UNP P0DTC2
A	6	ALA	-	expression tag	UNP P0DTC2
A	7	ALA	-	expression tag	UNP P0DTC2
A	8	ALA	-	expression tag	UNP P0DTC2
A	9	ALA	-	expression tag	UNP P0DTC2
A	10	HIS	-	expression tag	UNP P0DTC2
A	11	SER	-	expression tag	UNP P0DTC2
A	12	ALA	-	expression tag	UNP P0DTC2
A	13	PHE	-	expression tag	UNP P0DTC2
A	14	ALA	-	expression tag	UNP P0DTC2
A	614	GLY	ASP	engineered mutation	UNP P0DTC2
A	685	ALA	ARG	engineered mutation	UNP P0DTC2
A	986	PRO	LYS	engineered mutation	UNP P0DTC2
A	987	PRO	VAL	engineered mutation	UNP P0DTC2

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Chain	Residue	Modelled	Actual	Comment	Reference
A	1214	LEU	-	expression tag	UNP P0DTC2
A	1215	VAL	-	expression tag	UNP P0DTC2
A	1216	PRO	-	expression tag	UNP P0DTC2
A	1217	ARG	-	expression tag	UNP P0DTC2
A	1218	GLY	-	expression tag	UNP P0DTC2
A	1219	SER	-	expression tag	UNP P0DTC2
A	1220	GLY	-	expression tag	UNP P0DTC2
A	1221	TYR	-	expression tag	UNP P0DTC2
A	1222	ILE	-	expression tag	UNP P0DTC2
A	1223	PRO	-	expression tag	UNP P0DTC2
A	1224	GLU	-	expression tag	UNP P0DTC2
A	1225	ALA	-	expression tag	UNP P0DTC2
A	1226	PRO	-	expression tag	UNP P0DTC2
A	1227	ARG	-	expression tag	UNP P0DTC2
A	1228	ASP	-	expression tag	UNP P0DTC2
A	1229	GLY	-	expression tag	UNP P0DTC2
A	1230	GLN	-	expression tag	UNP P0DTC2
A	1231	ALA	-	expression tag	UNP P0DTC2
A	1232	TYR	-	expression tag	UNP P0DTC2
A	1233	VAL	-	expression tag	UNP P0DTC2
A	1234	ARG	-	expression tag	UNP P0DTC2
A	1235	LYS	-	expression tag	UNP P0DTC2
A	1236	ASP	-	expression tag	UNP P0DTC2
A	1237	GLY	-	expression tag	UNP P0DTC2
A	1238	GLU	-	expression tag	UNP P0DTC2
A	1239	TRP	-	expression tag	UNP P0DTC2
A	1240	VAL	-	expression tag	UNP P0DTC2
A	1241	PHE	-	expression tag	UNP P0DTC2
A	1242	LEU	-	expression tag	UNP P0DTC2
A	1243	SER	-	expression tag	UNP P0DTC2
A	1244	THR	-	expression tag	UNP P0DTC2
A	1245	PHE	-	expression tag	UNP P0DTC2
A	1246	LEU	-	expression tag	UNP P0DTC2
A	1247	SER	-	expression tag	UNP P0DTC2
A	1248	PRO	-	expression tag	UNP P0DTC2
A	1249	HIS	-	expression tag	UNP P0DTC2
A	1250	HIS	-	expression tag	UNP P0DTC2
A	1251	HIS	-	expression tag	UNP P0DTC2
A	1252	HIS	-	expression tag	UNP P0DTC2
A	1253	HIS	-	expression tag	UNP P0DTC2
A	1254	HIS	-	expression tag	UNP P0DTC2
A	1255	HIS	-	expression tag	UNP P0DTC2

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Chain	Residue	Modelled	Actual	Comment	Reference
A	1256	HIS	-	expression tag	UNP P0DTC2
A	1257	HIS	-	expression tag	UNP P0DTC2
A	1258	GLU	-	expression tag	UNP P0DTC2
A	1259	GLN	-	expression tag	UNP P0DTC2
A	1260	LYS	-	expression tag	UNP P0DTC2
A	1261	LEU	-	expression tag	UNP P0DTC2
A	1262	ILE	-	expression tag	UNP P0DTC2
A	1263	SER	-	expression tag	UNP P0DTC2
A	1264	GLU	-	expression tag	UNP P0DTC2
A	1265	GLU	-	expression tag	UNP P0DTC2
A	1266	ASP	-	expression tag	UNP P0DTC2
A	1267	LEU	-	expression tag	UNP P0DTC2
B	-5	MET	-	initiating methionine	UNP P0DTC2
B	-4	VAL	-	expression tag	UNP P0DTC2
B	-3	SER	-	expression tag	UNP P0DTC2
B	-2	ALA	-	expression tag	UNP P0DTC2
B	-1	ILE	-	expression tag	UNP P0DTC2
B	0	VAL	-	expression tag	UNP P0DTC2
B	1	LEU	-	expression tag	UNP P0DTC2
B	2	TYR	-	expression tag	UNP P0DTC2
B	3	VAL	-	expression tag	UNP P0DTC2
B	4	LEU	-	expression tag	UNP P0DTC2
B	5	LEU	-	expression tag	UNP P0DTC2
B	6	ALA	-	expression tag	UNP P0DTC2
B	7	ALA	-	expression tag	UNP P0DTC2
B	8	ALA	-	expression tag	UNP P0DTC2
B	9	ALA	-	expression tag	UNP P0DTC2
B	10	HIS	-	expression tag	UNP P0DTC2
B	11	SER	-	expression tag	UNP P0DTC2
B	12	ALA	-	expression tag	UNP P0DTC2
B	13	PHE	-	expression tag	UNP P0DTC2
B	14	ALA	-	expression tag	UNP P0DTC2
B	614	GLY	ASP	engineered mutation	UNP P0DTC2
B	685	ALA	ARG	engineered mutation	UNP P0DTC2
B	986	PRO	LYS	engineered mutation	UNP P0DTC2
B	987	PRO	VAL	engineered mutation	UNP P0DTC2
B	1214	LEU	-	expression tag	UNP P0DTC2
B	1215	VAL	-	expression tag	UNP P0DTC2
B	1216	PRO	-	expression tag	UNP P0DTC2
B	1217	ARG	-	expression tag	UNP P0DTC2
B	1218	GLY	-	expression tag	UNP P0DTC2
B	1219	SER	-	expression tag	UNP P0DTC2

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Chain	Residue	Modelled	Actual	Comment	Reference
B	1220	GLY	-	expression tag	UNP P0DTC2
B	1221	TYR	-	expression tag	UNP P0DTC2
B	1222	ILE	-	expression tag	UNP P0DTC2
B	1223	PRO	-	expression tag	UNP P0DTC2
B	1224	GLU	-	expression tag	UNP P0DTC2
B	1225	ALA	-	expression tag	UNP P0DTC2
B	1226	PRO	-	expression tag	UNP P0DTC2
B	1227	ARG	-	expression tag	UNP P0DTC2
B	1228	ASP	-	expression tag	UNP P0DTC2
B	1229	GLY	-	expression tag	UNP P0DTC2
B	1230	GLN	-	expression tag	UNP P0DTC2
B	1231	ALA	-	expression tag	UNP P0DTC2
B	1232	TYR	-	expression tag	UNP P0DTC2
B	1233	VAL	-	expression tag	UNP P0DTC2
B	1234	ARG	-	expression tag	UNP P0DTC2
B	1235	LYS	-	expression tag	UNP P0DTC2
B	1236	ASP	-	expression tag	UNP P0DTC2
B	1237	GLY	-	expression tag	UNP P0DTC2
B	1238	GLU	-	expression tag	UNP P0DTC2
B	1239	TRP	-	expression tag	UNP P0DTC2
B	1240	VAL	-	expression tag	UNP P0DTC2
B	1241	PHE	-	expression tag	UNP P0DTC2
B	1242	LEU	-	expression tag	UNP P0DTC2
B	1243	SER	-	expression tag	UNP P0DTC2
B	1244	THR	-	expression tag	UNP P0DTC2
B	1245	PHE	-	expression tag	UNP P0DTC2
B	1246	LEU	-	expression tag	UNP P0DTC2
B	1247	SER	-	expression tag	UNP P0DTC2
B	1248	PRO	-	expression tag	UNP P0DTC2
B	1249	HIS	-	expression tag	UNP P0DTC2
B	1250	HIS	-	expression tag	UNP P0DTC2
B	1251	HIS	-	expression tag	UNP P0DTC2
B	1252	HIS	-	expression tag	UNP P0DTC2
B	1253	HIS	-	expression tag	UNP P0DTC2
B	1254	HIS	-	expression tag	UNP P0DTC2
B	1255	HIS	-	expression tag	UNP P0DTC2
B	1256	HIS	-	expression tag	UNP P0DTC2
B	1257	HIS	-	expression tag	UNP P0DTC2
B	1258	GLU	-	expression tag	UNP P0DTC2
B	1259	GLN	-	expression tag	UNP P0DTC2
B	1260	LYS	-	expression tag	UNP P0DTC2
B	1261	LEU	-	expression tag	UNP P0DTC2

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Chain	Residue	Modelled	Actual	Comment	Reference
B	1262	ILE	-	expression tag	UNP P0DTC2
B	1263	SER	-	expression tag	UNP P0DTC2
B	1264	GLU	-	expression tag	UNP P0DTC2
B	1265	GLU	-	expression tag	UNP P0DTC2
B	1266	ASP	-	expression tag	UNP P0DTC2
B	1267	LEU	-	expression tag	UNP P0DTC2
C	-5	MET	-	initiating methionine	UNP P0DTC2
C	-4	VAL	-	expression tag	UNP P0DTC2
C	-3	SER	-	expression tag	UNP P0DTC2
C	-2	ALA	-	expression tag	UNP P0DTC2
C	-1	ILE	-	expression tag	UNP P0DTC2
C	0	VAL	-	expression tag	UNP P0DTC2
C	1	LEU	-	expression tag	UNP P0DTC2
C	2	TYR	-	expression tag	UNP P0DTC2
C	3	VAL	-	expression tag	UNP P0DTC2
C	4	LEU	-	expression tag	UNP P0DTC2
C	5	LEU	-	expression tag	UNP P0DTC2
C	6	ALA	-	expression tag	UNP P0DTC2
C	7	ALA	-	expression tag	UNP P0DTC2
C	8	ALA	-	expression tag	UNP P0DTC2
C	9	ALA	-	expression tag	UNP P0DTC2
C	10	HIS	-	expression tag	UNP P0DTC2
C	11	SER	-	expression tag	UNP P0DTC2
C	12	ALA	-	expression tag	UNP P0DTC2
C	13	PHE	-	expression tag	UNP P0DTC2
C	14	ALA	-	expression tag	UNP P0DTC2
C	614	GLY	ASP	engineered mutation	UNP P0DTC2
C	685	ALA	ARG	engineered mutation	UNP P0DTC2
C	986	PRO	LYS	engineered mutation	UNP P0DTC2
C	987	PRO	VAL	engineered mutation	UNP P0DTC2
C	1214	LEU	-	expression tag	UNP P0DTC2
C	1215	VAL	-	expression tag	UNP P0DTC2
C	1216	PRO	-	expression tag	UNP P0DTC2
C	1217	ARG	-	expression tag	UNP P0DTC2
C	1218	GLY	-	expression tag	UNP P0DTC2
C	1219	SER	-	expression tag	UNP P0DTC2
C	1220	GLY	-	expression tag	UNP P0DTC2
C	1221	TYR	-	expression tag	UNP P0DTC2
C	1222	ILE	-	expression tag	UNP P0DTC2
C	1223	PRO	-	expression tag	UNP P0DTC2
C	1224	GLU	-	expression tag	UNP P0DTC2
C	1225	ALA	-	expression tag	UNP P0DTC2

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Chain	Residue	Modelled	Actual	Comment	Reference
C	1226	PRO	-	expression tag	UNP P0DTC2
C	1227	ARG	-	expression tag	UNP P0DTC2
C	1228	ASP	-	expression tag	UNP P0DTC2
C	1229	GLY	-	expression tag	UNP P0DTC2
C	1230	GLN	-	expression tag	UNP P0DTC2
C	1231	ALA	-	expression tag	UNP P0DTC2
C	1232	TYR	-	expression tag	UNP P0DTC2
C	1233	VAL	-	expression tag	UNP P0DTC2
C	1234	ARG	-	expression tag	UNP P0DTC2
C	1235	LYS	-	expression tag	UNP P0DTC2
C	1236	ASP	-	expression tag	UNP P0DTC2
C	1237	GLY	-	expression tag	UNP P0DTC2
C	1238	GLU	-	expression tag	UNP P0DTC2
C	1239	TRP	-	expression tag	UNP P0DTC2
C	1240	VAL	-	expression tag	UNP P0DTC2
C	1241	PHE	-	expression tag	UNP P0DTC2
C	1242	LEU	-	expression tag	UNP P0DTC2
C	1243	SER	-	expression tag	UNP P0DTC2
C	1244	THR	-	expression tag	UNP P0DTC2
C	1245	PHE	-	expression tag	UNP P0DTC2
C	1246	LEU	-	expression tag	UNP P0DTC2
C	1247	SER	-	expression tag	UNP P0DTC2
C	1248	PRO	-	expression tag	UNP P0DTC2
C	1249	HIS	-	expression tag	UNP P0DTC2
C	1250	HIS	-	expression tag	UNP P0DTC2
C	1251	HIS	-	expression tag	UNP P0DTC2
C	1252	HIS	-	expression tag	UNP P0DTC2
C	1253	HIS	-	expression tag	UNP P0DTC2
C	1254	HIS	-	expression tag	UNP P0DTC2
C	1255	HIS	-	expression tag	UNP P0DTC2
C	1256	HIS	-	expression tag	UNP P0DTC2
C	1257	HIS	-	expression tag	UNP P0DTC2
C	1258	GLU	-	expression tag	UNP P0DTC2
C	1259	GLN	-	expression tag	UNP P0DTC2
C	1260	LYS	-	expression tag	UNP P0DTC2
C	1261	LEU	-	expression tag	UNP P0DTC2
C	1262	ILE	-	expression tag	UNP P0DTC2
C	1263	SER	-	expression tag	UNP P0DTC2
C	1264	GLU	-	expression tag	UNP P0DTC2
C	1265	GLU	-	expression tag	UNP P0DTC2
C	1266	ASP	-	expression tag	UNP P0DTC2
C	1267	LEU	-	expression tag	UNP P0DTC2

- Molecule 2 is an oligosaccharide called 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
2	D	2	28	16	2	10	0	0
2	E	2	28	16	2	10	0	0
2	F	2	28	16	2	10	0	0
2	G	2	28	16	2	10	0	0
2	H	2	28	16	2	10	0	0
2	I	2	28	16	2	10	0	0
2	J	2	28	16	2	10	0	0
2	K	2	28	16	2	10	0	0
2	L	2	28	16	2	10	0	0
2	M	2	28	16	2	10	0	0

- Molecule 3 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: C₈H₁₅NO₆).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
3	A	1	Total	C	N	O	0
			14	8	1	5	
3	A	1	Total	C	N	O	0
			14	8	1	5	
3	A	1	Total	C	N	O	0
			14	8	1	5	
3	A	1	Total	C	N	O	0
			14	8	1	5	
3	A	1	Total	C	N	O	0
			14	8	1	5	
3	A	1	Total	C	N	O	0
			14	8	1	5	
3	A	1	Total	C	N	O	0
			14	8	1	5	
3	A	1	Total	C	N	O	0
			14	8	1	5	
3	B	1	Total	C	N	O	0
			14	8	1	5	
3	B	1	Total	C	N	O	0
			14	8	1	5	
3	B	1	Total	C	N	O	0
			14	8	1	5	
3	B	1	Total	C	N	O	0
			14	8	1	5	
3	B	1	Total	C	N	O	0
			14	8	1	5	

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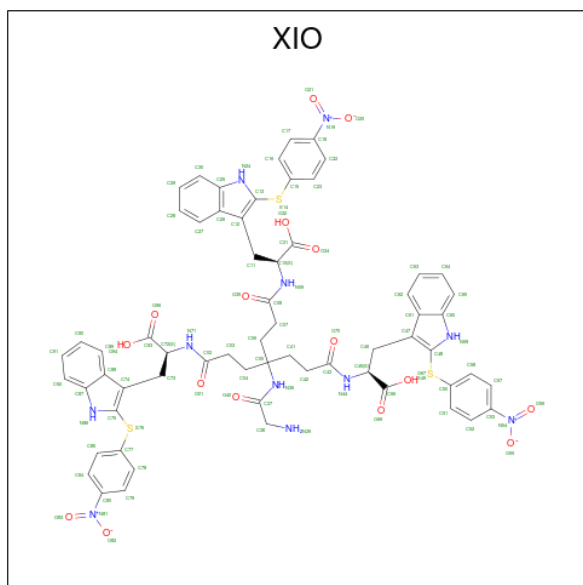
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Mol	Chain	Residues	Atoms				AltConf
3	B	1	Total	C	N	O	0
			14	8	1	5	
3	B	1	Total	C	N	O	0
			14	8	1	5	
3	B	1	Total	C	N	O	0
			14	8	1	5	
3	B	1	Total	C	N	O	0
			14	8	1	5	
3	C	1	Total	C	N	O	0
			14	8	1	5	
3	C	1	Total	C	N	O	0
			14	8	1	5	
3	C	1	Total	C	N	O	0
			14	8	1	5	
3	C	1	Total	C	N	O	0
			14	8	1	5	
3	C	1	Total	C	N	O	0
			14	8	1	5	

- Molecule 4 is SODIUM ION (three-letter code: NA) (formula: Na) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
4	A	2	Total	Na	0
			2	2	
4	C	1	Total	Na	0
			1	1	

- Molecule 5 is [(2 {S})-2-[[4-(2-azanylethanoylamino)-7-[[[(2 {S})-3-[2-(4-nitrophenyl)sulfanyl-1 {H}-indol-3-yl]-1-oxidanylidene-1-sodiooxy-propan-2-yl]amino]-4-[3-[[[(2 {S})-3-[2-(4-nitrophenyl)sulfanyl-1 {H}-indol-3-yl]-1-oxidanylidene-1-sodiooxy-propan-2-yl]amino]-3-oxidanylidene-propyl]-7-oxidanylidene-heptanoyl]amino]-3-[2-(4-nitrophenyl)sulfanyl-1 {H}-indol-3-yl]propanoyl]oxysodium (three-letter code: XIO) (formula: C₆₃H₅₉N₁₁O₁₆S₃) (labeled as "Ligand of Interest" by depositor).

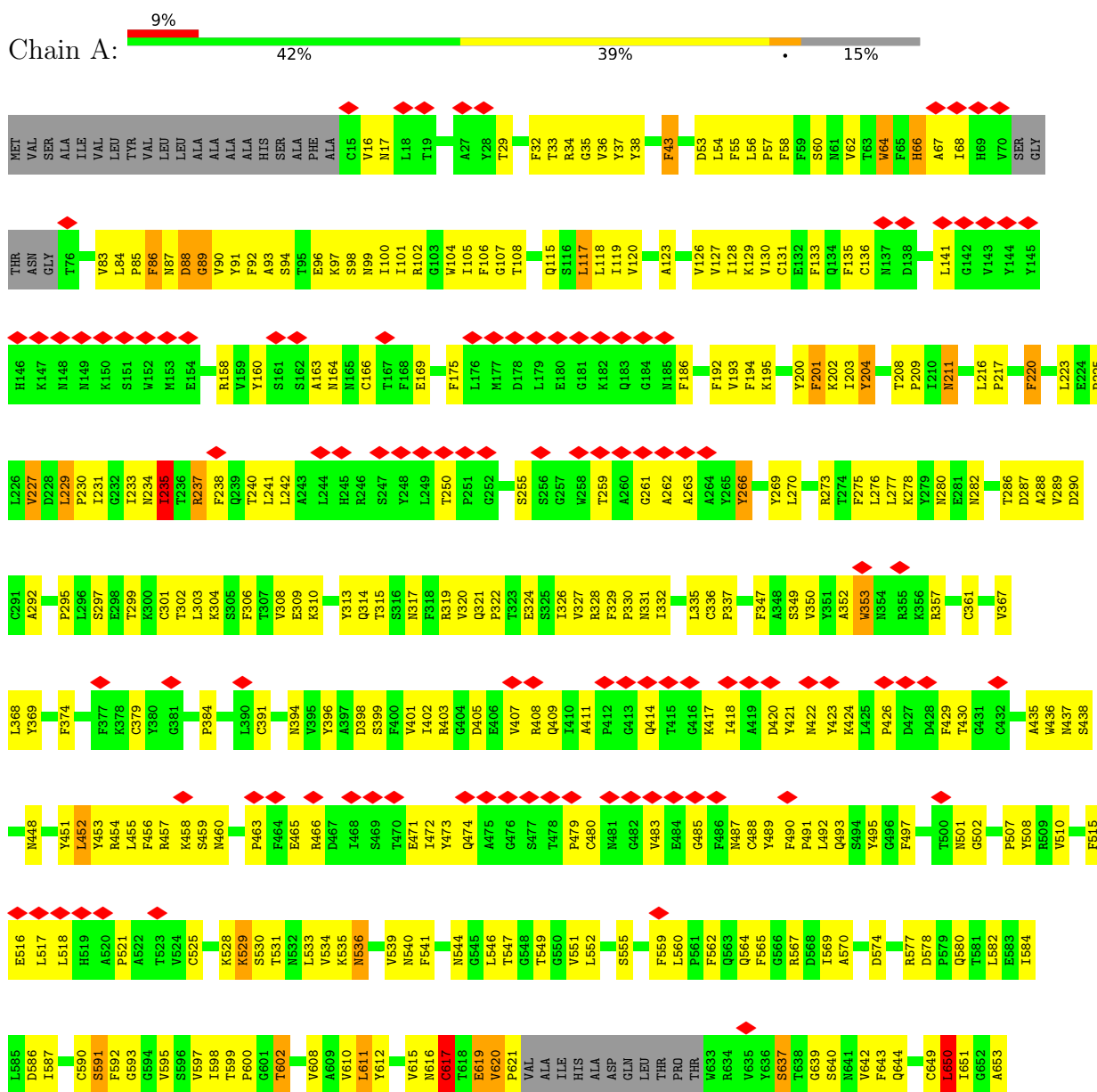


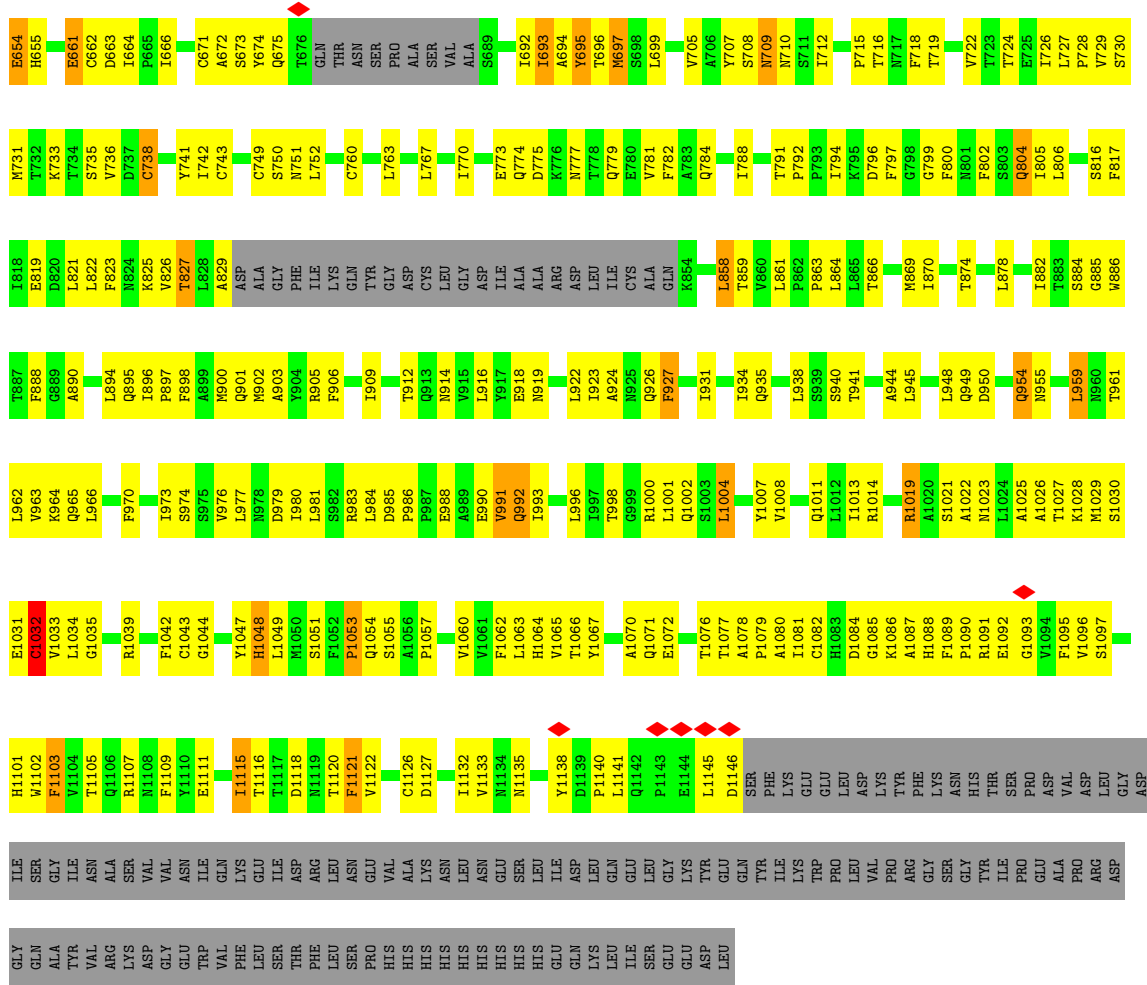
Mol	Chain	Residues	Atoms				AltConf	
			Total	C	N	O		S
5	C	1	93	63	11	16	3	0

3 Residue-property plots

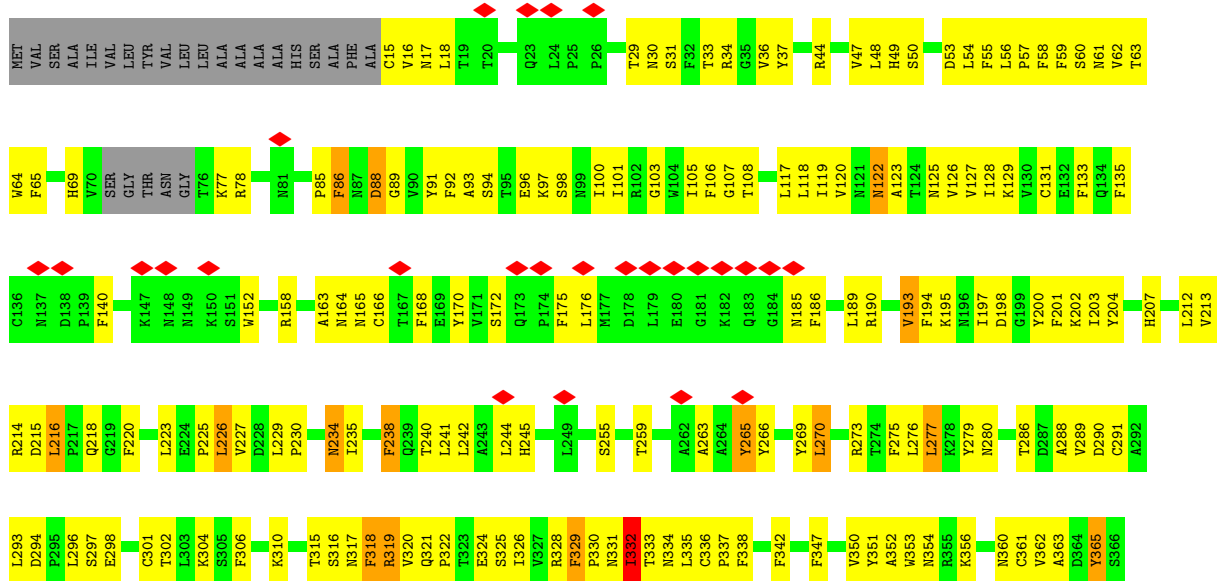
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

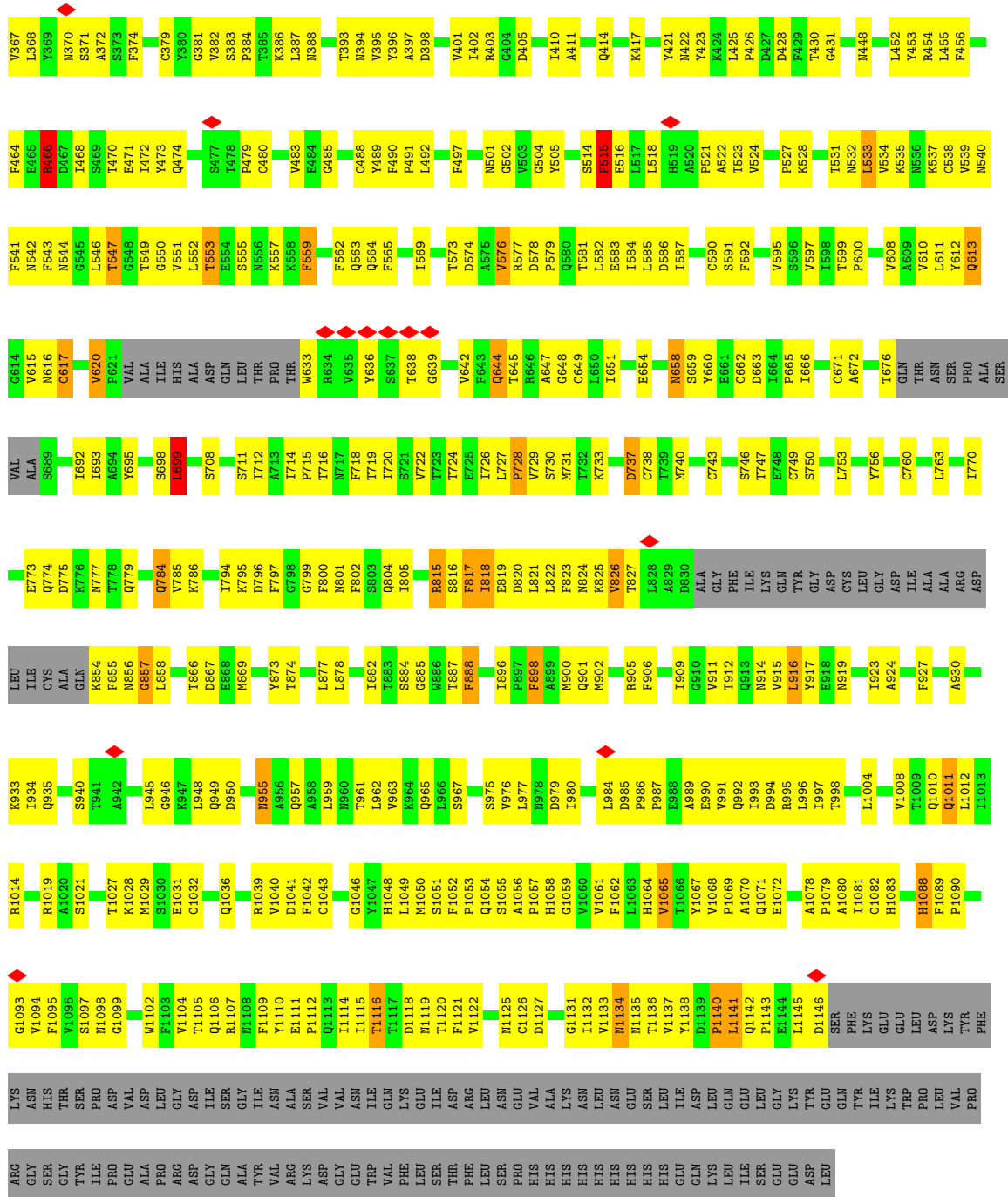
• Molecule 1: Spike protein S1,Spike glycoprotein



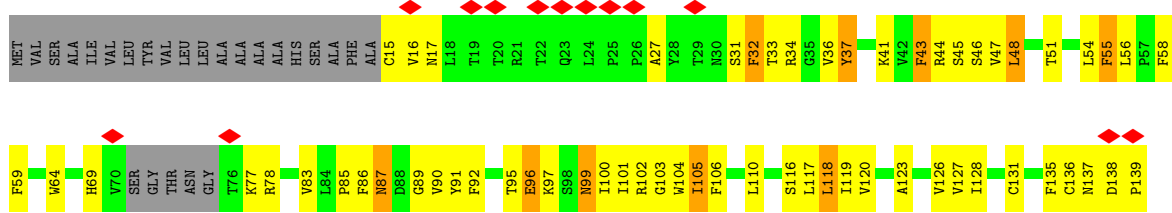


• Molecule 1: Spike protein S1,Spike glycoprotein






Molecule 1: Spike protein S1,Spike glycoprotein



VAL	G1124	M1050	S975	M886	P809	S730	H655	L587	G502	N360	D290	P225	F140
ALA	M125	P1053	V976	A890	S910	M731	N658	L588	V503	C361	C291	L226	L141
ASN	C1126	Q1054	L977	A890	K811	T732	S659	P589	P503	V362	A292	V227	Y145
ASN	I1132	G1059	I980	Q895	S813	K733	S658	C590	Q606	D364	L293	L229	H146
SER	M1135	V1060	S982	T896	S813	T734	E661	S591	P507	D364	D294	P230	K147
LEU	T1136	V1060	P897	F898	F817	W736	C662	F592	Y508	Y365	P295	L231	
LEU	F1137	F1062	F898	L818	L818	D737	P665	G594	R509	L296	L296	I231	
ILE	D1138	F1062	L821	L821	W595	C738	I666	G594	V510	V367	G232	G232	
ASP	D1139	Q901	L822	G667	V511	I742	I666	S596	V511	C301	C301	N234	K150
LEU	P1140	M902	C743	G667	V512	C743	G667	S596	V512	M152	M152	N235	S151
GLN	Q1142	R905			S514			N448	S514	L303	L303	T236	M152
GLU	P1143	T912	E748	A672	F515	E748	A672	Y451	F515	F374	F374	R237	F157
GLU	E1144	T912	C749	S673	E516	C749	S673	Y452	E516	F306	F306	F238	R158
LEU	L1145	L828	L753	Y674	L517	L753	Y674	Y453	L517	T307	T307	Q239	
SER	D1146	A629	L753	Q675	L518	L753	Q675	Y454	L518	V308	V308	T240	M164
GLN		D830	G1N	T676	H519	Q608	T676	L455	H519	E309	E309	L241	M165
GLU		ALA	THR	ALA	Q607	G607	ALA	F456	Q607	G881	G881	A243	C166
LYS		GLY	THR	ALA	Q608	G608	THR	K457	Q608	I312	I312	L244	T167
LYS		PHE	ASN	ALA	A609	G609	ASN	K458	A609	Q131	Q131	H245	F168
GLU		PHE	SER	PRO	V610	V610	SER	K459	V610	Q115	Q115	R246	F176
LEU		GLN	PRO	PRO	L611	L611	PRO	N460	L611	T315	T315	S247	L176
LEU		LYS	ALA	ALA	Y612	Y612	ALA	L461	Y612	L387	L387	Y248	M177
LEU		LYS	SER	SER	V615	V615	SER	K462	V615	N317	N317	Y248	M177
LEU		VAL	VAL	VAL	H616	H616	VAL	P463	H616	F318	F318	L249	M177
VAL		ALA	ALA	ALA	C617	C617	ALA	F464	C617	R319	R319	T250	M177
PRO		GLY	ALA	GLN	K529	K529	GLY	E465	K529	C391	C391	P251	L179
PRO		GLY	VAL	VAL	E619	E619	VAL	R466	E619	V320	V320	P251	E180
PRO		ILE	VAL	VAL	V620	V620	VAL	D467	V620	E324	E324	G252	G181
PRO		ILE	ALA	ALA	P621	P621	ALA	I468	P621	S395	S395	G252	G181
PRO		ALA	ALA	ALA	VAL	VAL	ALA	A469	VAL	I326	I326	S254	K182
PRO		ALA	ALA	ALA	ALA	ALA	ALA	S469	ALA	R328	R328	S254	K182
PRO		ALA	ALA	ALA	ALA	ALA	ALA	T470	ALA	F329	F329	S255	Q183
PRO		ALA	ALA	ALA	ALA	ALA	ALA	I472	ALA	P330	P330	W258	G184
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Y473	ALA	M334	M334	T259	F186
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q474	ALA	L335	L335	A262	F192
PRO		ALA	ALA	ALA	ALA	ALA	ALA	G475	ALA	C336	C336	A263	V193
PRO		ALA	ALA	ALA	ALA	ALA	ALA	G476	ALA	P337	P337	A264	F194
PRO		ALA	ALA	ALA	ALA	ALA	ALA	S477	ALA	E340	E340	Y265	K195
PRO		ALA	ALA	ALA	ALA	ALA	ALA	C480	ALA	V341	V341	Y266	N196
PRO		ALA	ALA	ALA	ALA	ALA	ALA	M481	ALA	F342	F342	V267	I197
PRO		ALA	ALA	ALA	ALA	ALA	ALA	G482	ALA	G404	G404	G268	Y200
PRO		ALA	ALA	ALA	ALA	ALA	ALA	V483	ALA	D405	D405	L270	F201
PRO		ALA	ALA	ALA	ALA	ALA	ALA	F486	ALA	E406	E406	T274	K202
PRO		ALA	ALA	ALA	ALA	ALA	ALA	C488	ALA	Q409	Q409	R273	Y204
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Y489	ALA	I410	I410	T274	Y204
PRO		ALA	ALA	ALA	ALA	ALA	ALA	F490	ALA	A411	A411	G274	K202
PRO		ALA	ALA	ALA	ALA	ALA	ALA	D578	ALA	A412	A412	T275	I203
PRO		ALA	ALA	ALA	ALA	ALA	ALA	P643	ALA	G414	G414	F275	Y204
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	Q414	Q414	L276	Y204
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	T415	T415	G276	Y204
PRO		ALA	ALA	ALA	ALA	ALA	ALA	F645	ALA	G416	G416	F276	I210
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	K417	K417	L276	N211
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	D420	D420	Y279	L212
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	Y421	Y421	N280	V213
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	N354	N354	E281	L216
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	R355	R355	E281	L216
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	K356	K356	E281	L216
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	N382	N382	E281	L216
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	R357	R357	E281	L216
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	K424	K424	E281	L216
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	L425	L425	E281	L216
PRO		ALA	ALA	ALA	ALA	ALA	ALA	Q644	ALA	S359	S359	E281	L216

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LYS
LEU
ILE
SER
GLU
GLU
ASP
LEU

- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain D:  100%

MAG1
MAG2

- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain E:  50% 50%


MAG1
MAG2

- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain F:  50% 50% 50%


MAG1
MAG2

- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain G:  100%


MAG1
MAG2

- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain H:  50% 50% 50%


MAG1
MAG2

- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain I:  100%

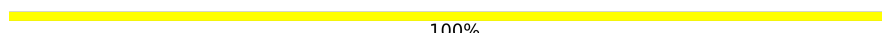
MAG1
MAG2

- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucofuranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucofuranose

Chain J:  50%
100%



- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucofuranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucofuranose

Chain K:  100%

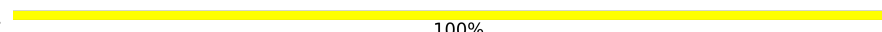


- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucofuranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucofuranose

Chain L:  100%



- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucofuranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucofuranose

Chain M:  100%



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	97094	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TALOS ARCTICA	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	1.867	Depositor
Minimum map value	-0.002	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.022	Depositor
Recommended contour level	0.01	Depositor
Map size (\AA)	420.66, 420.66, 420.66	wwPDB
Map dimensions	492, 492, 492	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	0.855, 0.855, 0.855	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: NAG, XIO, NA

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	0.55	7/8624 (0.1%)	0.72	9/11744 (0.1%)
1	B	0.57	4/8625 (0.0%)	0.72	13/11746 (0.1%)
1	C	0.58	11/8570 (0.1%)	0.72	14/11670 (0.1%)
All	All	0.57	22/25819 (0.1%)	0.72	36/35160 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	B	0	1
All	All	0	2

All (22) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	940	SER	C-O	-18.36	0.88	1.23
1	A	940	SER	C-O	-15.06	0.94	1.23
1	C	676	THR	C-O	-11.67	1.01	1.23
1	A	1146	ASP	C-O	8.43	1.39	1.23
1	A	617	CYS	C-O	7.76	1.38	1.23
1	C	423	TYR	CE1-CZ	-7.74	1.28	1.38
1	B	676	THR	C-O	-7.44	1.09	1.23
1	B	617	CYS	C-O	-7.34	1.09	1.23
1	C	495	TYR	CE1-CZ	-6.98	1.29	1.38
1	C	423	TYR	CG-CD1	6.66	1.47	1.39
1	A	89	GLY	N-CA	-6.55	1.36	1.46
1	C	590	CYS	CB-SG	-6.44	1.71	1.82
1	A	204	TYR	CG-CD1	-6.11	1.31	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	649	CYS	CB-SG	-6.00	1.72	1.82
1	A	204	TYR	CE1-CZ	-5.94	1.30	1.38
1	C	330	PRO	CA-C	5.93	1.64	1.52
1	C	423	TYR	CD1-CE1	-5.86	1.30	1.39
1	C	423	TYR	CB-CG	5.68	1.60	1.51
1	C	37	TYR	CE1-CZ	-5.41	1.31	1.38
1	B	1146	ASP	C-O	5.27	1.33	1.23
1	C	488	CYS	CA-CB	-5.24	1.42	1.53
1	C	269	TYR	CG-CD2	-5.13	1.32	1.39

All (36) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	515	PHE	O-C-N	-11.16	104.84	122.70
1	A	1146	ASP	CA-C-O	-8.92	101.37	120.10
1	A	1032	CYS	CA-CB-SG	8.58	129.45	114.00
1	B	590	CYS	CA-CB-SG	-7.69	100.15	114.00
1	A	650	LEU	CA-CB-CG	6.91	131.20	115.30
1	C	825	LYS	CD-CE-NZ	-6.82	96.02	111.70
1	B	319	ARG	O-C-N	-6.25	112.70	122.70
1	C	423	TYR	CB-CG-CD1	6.23	124.74	121.00
1	C	328	ARG	NE-CZ-NH1	6.15	123.38	120.30
1	A	529	LYS	CA-C-N	-6.13	103.70	117.20
1	A	617	CYS	O-C-N	6.11	132.47	122.70
1	A	235	ILE	CG1-CB-CG2	-6.06	98.06	111.40
1	C	526	GLY	C-N-CD	-5.91	107.59	120.60
1	B	617	CYS	CA-C-O	-5.91	107.69	120.10
1	B	617	CYS	O-C-N	5.89	132.12	122.70
1	A	617	CYS	CA-C-O	-5.81	107.90	120.10
1	A	858	LEU	CB-CG-CD2	5.75	120.78	111.00
1	C	328	ARG	NE-CZ-NH2	-5.73	117.44	120.30
1	C	1032	CYS	CA-CB-SG	-5.71	103.72	114.00
1	C	1000	ARG	NE-CZ-NH1	-5.59	117.50	120.30
1	A	529	LYS	C-N-CA	-5.56	107.80	121.70
1	B	320	VAL	N-CA-C	-5.55	96.02	111.00
1	B	466	ARG	NE-CZ-NH2	5.51	123.06	120.30
1	B	916	LEU	CB-CG-CD1	5.51	120.37	111.00
1	B	815	ARG	NE-CZ-NH1	5.51	123.05	120.30
1	C	578	ASP	CB-CG-OD2	-5.50	113.36	118.30
1	B	466	ARG	CA-CB-CG	5.42	125.33	113.40
1	C	288	ALA	N-CA-CB	5.35	117.58	110.10
1	B	699	LEU	CB-CG-CD2	5.33	120.07	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	330	PRO	O-C-N	-5.30	114.21	122.70
1	B	576	VAL	CG1-CB-CG2	5.29	119.36	110.90
1	C	118	LEU	CB-CG-CD2	5.24	119.91	111.00
1	C	1043	CYS	CA-CB-SG	-5.16	104.71	114.00
1	C	699	LEU	CB-CG-CD2	5.10	119.68	111.00
1	C	330	PRO	CA-C-N	5.03	128.27	117.20
1	B	1141	LEU	CA-CB-CG	5.01	126.82	115.30

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	617	CYS	Mainchain
1	B	515	PHE	Mainchain

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	8425	0	8181	937	0
1	B	8426	0	8179	1080	0
1	C	8374	0	8124	1031	0
2	D	28	0	25	0	0
2	E	28	0	25	1	0
2	F	28	0	25	1	0
2	G	28	0	25	0	0
2	H	28	0	25	1	0
2	I	28	0	25	0	0
2	J	28	0	25	0	0
2	K	28	0	25	0	0
2	L	28	0	25	0	0
2	M	28	0	25	0	0
3	A	126	0	117	2	0
3	B	126	0	117	2	0
3	C	84	0	78	1	0
4	A	2	0	0	0	0
4	C	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	C	93	0	0	0	0
All	All	25937	0	25046	2968	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 58.

All (2968) 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:C:33:THR:HA	1:C:58:PHE:CE1	1.28	1.65
1:C:541:PHE:CZ	1:C:587:ILE:HD13	1.31	1.61
1:B:543:PHE:CB	1:B:576:VAL:HG21	1.17	1.60
1:A:317:ASN:HB3	1:A:592:PHE:CZ	1.36	1.56
1:B:543:PHE:HB3	1:B:576:VAL:CG2	1.31	1.55
1:B:426:PRO:HG2	1:B:464:PHE:CZ	1.50	1.47
1:B:718:PHE:HB2	1:B:1067:TYR:CE1	1.50	1.43
1:C:516:GLU:HG3	1:C:519:HIS:NE2	1.28	1.43
1:C:33:THR:CA	1:C:58:PHE:HE1	1.34	1.41
1:B:353:TRP:CZ3	1:B:466:ARG:HB2	1.55	1.40
1:B:353:TRP:CH2	1:B:466:ARG:HB3	1.57	1.36
1:C:598:ILE:HD11	1:C:666:ILE:CD1	1.56	1.35
1:B:426:PRO:HG2	1:B:464:PHE:CE1	1.61	1.35
1:A:621:PRO:CB	1:A:637:SER:OG	1.72	1.35
1:B:985:ASP:O	1:B:989:ALA:HB2	1.24	1.35
1:B:195:LYS:HG3	1:B:197:ILE:CD1	1.57	1.34
1:A:317:ASN:HB3	1:A:592:PHE:CE2	1.62	1.33
1:C:87:ASN:OD1	1:C:269:TYR:CE2	1.81	1.33
1:B:195:LYS:CG	1:B:197:ILE:HD11	1.58	1.32
1:C:541:PHE:CE2	1:C:587:ILE:HD13	1.64	1.32
1:A:33:THR:HG22	1:A:58:PHE:CD2	1.63	1.31
1:A:823:PHE:O	1:A:827:THR:HG22	1.27	1.31
1:B:543:PHE:CB	1:B:576:VAL:CG2	1.95	1.31
1:A:107:GLY:CA	1:A:235:ILE:HG22	1.61	1.31
1:A:726:ILE:CG2	1:A:948:LEU:HG	1.62	1.30
1:B:426:PRO:CG	1:B:464:PHE:CE1	2.14	1.30
1:B:1104:VAL:CG1	1:B:1119:ASN:ND2	1.94	1.30
1:C:551:VAL:CG1	1:C:590:CYS:SG	2.18	1.30
1:A:64:TRP:CD1	1:A:266:TYR:CD2	2.19	1.29
1:B:1141:LEU:O	1:B:1145:LEU:CD2	1.80	1.29
1:B:1010:GLN:HB3	1:B:1014:ARG:NH1	1.46	1.29
1:C:119:ILE:CG1	1:C:128:ILE:HA	1.60	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:490:PHE:CD1	1:C:491:PRO:HD2	1.65	1.29
1:C:541:PHE:CD2	1:C:552:LEU:HD21	1.66	1.29
1:A:784:GLN:OE1	1:A:1030:SER:HB2	1.33	1.28
1:C:118:LEU:HD22	1:C:135:PHE:CZ	1.68	1.26
1:B:1028:LYS:HD3	1:B:1032:CYS:SG	1.74	1.26
1:C:34:ARG:NH1	1:C:221:SER:OG	1.69	1.26
1:A:885:GLY:HA2	1:A:901:GLN:NE2	1.50	1.25
1:B:726:ILE:HG21	1:B:948:LEU:CD1	1.67	1.25
1:C:453:TYR:HD1	1:C:495:TYR:CE1	1.54	1.24
1:A:621:PRO:HB2	1:A:637:SER:OG	1.15	1.24
1:C:541:PHE:CZ	1:C:587:ILE:CD1	2.21	1.24
1:C:330:PRO:HD3	1:C:544:ASN:ND2	1.50	1.24
1:A:204:TYR:CE1	1:A:225:PRO:HB3	1.73	1.23
1:B:353:TRP:CZ3	1:B:466:ARG:CB	2.20	1.23
1:A:1102:TRP:HB2	1:A:1135:ASN:ND2	1.53	1.23
1:B:856:ASN:O	1:B:858:LEU:N	1.71	1.23
1:A:743:CYS:SG	1:A:749:CYS:C	2.15	1.23
1:B:521:PRO:HB2	1:B:544:ASN:ND2	1.52	1.23
1:C:453:TYR:CD1	1:C:495:TYR:HE1	1.57	1.22
1:A:310:LYS:HB2	1:A:600:PRO:O	1.12	1.21
1:C:37:TYR:CE1	1:C:55:PHE:CE1	2.27	1.21
1:A:1021:SER:O	1:A:1025:ALA:N	1.72	1.21
1:B:543:PHE:CD2	1:B:576:VAL:HG13	1.74	1.21
1:B:331:ASN:O	1:B:333:THR:HG23	1.39	1.20
1:A:1029:MET:SD	1:A:1060:VAL:HG11	1.81	1.20
1:C:105:ILE:HG13	1:C:118:LEU:CD1	1.70	1.20
1:A:64:TRP:NE1	1:A:266:TYR:CE2	2.09	1.20
1:B:1088:HIS:CD2	1:B:1137:VAL:HG11	1.76	1.20
1:B:329:PHE:CA	1:B:579:PRO:HG2	1.72	1.20
1:A:823:PHE:O	1:A:827:THR:CG2	1.88	1.19
1:B:726:ILE:CG2	1:B:948:LEU:HD11	1.70	1.19
1:C:119:ILE:HD11	1:C:128:ILE:CG2	1.72	1.19
1:C:607:GLN:NE2	1:C:674:TYR:OH	1.75	1.19
1:B:394:ASN:ND2	1:C:200:TYR:OH	1.73	1.18
1:A:317:ASN:CB	1:A:592:PHE:CZ	2.24	1.18
1:A:726:ILE:HG22	1:A:948:LEU:CG	1.73	1.18
1:C:289:VAL:HG23	1:C:306:PHE:CE2	1.77	1.18
1:B:515:PHE:C	1:B:516:GLU:OE1	1.81	1.17
1:C:392:PHE:HE2	1:C:395:VAL:CG2	1.58	1.17
1:B:470:THR:O	1:B:490:PHE:CE1	1.95	1.17
1:A:89:GLY:HA3	1:A:270:LEU:N	1.59	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:420:ASP:O	1:C:460:ASN:OD1	1.62	1.17
1:B:119:ILE:CG1	1:B:128:ILE:HG12	1.75	1.16
1:B:353:TRP:CH2	1:B:466:ARG:CB	2.28	1.16
1:A:905:ARG:HD3	1:A:1049:LEU:O	1.42	1.16
1:A:497:PHE:CE2	1:A:507:PRO:HB3	1.79	1.16
1:B:718:PHE:CB	1:B:1067:TYR:HE1	1.57	1.15
1:C:365:TYR:OH	1:C:392:PHE:HZ	1.23	1.15
1:B:1104:VAL:HG11	1:B:1119:ASN:ND2	1.54	1.15
1:C:735:SER:HB3	1:C:861:LEU:HD21	1.23	1.15
1:C:972:ALA:CB	1:C:996:LEU:HD11	1.76	1.15
1:A:621:PRO:CG	1:A:637:SER:OG	1.93	1.15
1:B:1141:LEU:CD2	1:B:1145:LEU:HD21	1.77	1.15
1:B:329:PHE:HA	1:B:579:PRO:HG2	1.28	1.14
1:B:541:PHE:HZ	1:B:587:ILE:HG21	1.11	1.14
1:C:119:ILE:HG12	1:C:128:ILE:HG12	1.28	1.14
1:C:220:PHE:CZ	1:C:288:ALA:N	2.14	1.14
1:A:133:PHE:CE1	1:A:160:TYR:CE1	2.34	1.14
1:A:552:LEU:HD22	1:A:587:ILE:HD13	1.17	1.14
1:C:83:VAL:HG21	1:C:237:ARG:CZ	1.76	1.14
1:C:462:LYS:HA	1:C:462:LYS:HE2	1.30	1.13
1:C:541:PHE:CE2	1:C:552:LEU:HD21	1.84	1.13
1:C:289:VAL:HG23	1:C:306:PHE:CZ	1.82	1.13
1:C:33:THR:CA	1:C:58:PHE:CE1	2.15	1.13
1:B:1104:VAL:HG13	1:B:1119:ASN:HD21	1.00	1.12
1:A:317:ASN:CB	1:A:592:PHE:HZ	1.58	1.12
1:B:372:ALA:HB1	1:B:374:PHE:CE2	1.84	1.12
1:B:816:SER:O	1:B:820:ASP:N	1.82	1.12
1:A:1022:ALA:HA	1:A:1025:ALA:HB3	1.14	1.12
1:A:1022:ALA:O	1:A:1026:ALA:N	1.81	1.12
1:B:546:LEU:CD1	1:B:573:THR:HG21	1.78	1.12
1:C:392:PHE:CE2	1:C:395:VAL:CG2	2.31	1.12
1:A:620:VAL:HB	1:A:621:PRO:HD3	1.13	1.11
1:C:552:LEU:CD2	1:C:587:ILE:HG12	1.80	1.11
1:A:984:LEU:HD13	1:A:988:GLU:HG3	1.20	1.11
1:C:615:VAL:HG21	1:C:649:CYS:HB3	1.30	1.11
1:A:53:ASP:O	1:A:55:PHE:CD2	2.04	1.11
1:A:620:VAL:HB	1:A:621:PRO:CD	1.79	1.11
1:B:822:LEU:HD21	1:B:1056:ALA:HB2	1.32	1.11
1:C:552:LEU:HD23	1:C:587:ILE:HG12	1.17	1.11
1:A:33:THR:HG22	1:A:58:PHE:CE2	1.85	1.11
1:A:83:VAL:HG21	1:A:237:ARG:CD	1.80	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:89:GLY:CA	1:A:270:LEU:HD13	1.80	1.11
1:A:118:LEU:HD22	1:A:135:PHE:CZ	1.86	1.11
1:B:470:THR:O	1:B:490:PHE:HE1	1.27	1.11
1:B:823:PHE:O	1:B:827:THR:HG23	1.51	1.11
1:C:87:ASN:OD1	1:C:269:TYR:CD2	2.03	1.11
1:C:119:ILE:CG1	1:C:127:VAL:O	1.99	1.10
1:C:392:PHE:HE2	1:C:395:VAL:HG21	1.10	1.10
1:C:598:ILE:HD11	1:C:666:ILE:HD11	1.18	1.10
1:B:521:PRO:CB	1:B:544:ASN:ND2	2.14	1.10
1:B:564:GLN:HE22	1:B:577:ARG:HD2	1.05	1.10
1:C:1090:PRO:HA	1:C:1120:THR:HG22	1.15	1.10
1:B:821:LEU:HD12	1:B:824:ASN:HB3	1.26	1.10
1:B:1039:ARG:CZ	1:B:1042:PHE:CE2	2.34	1.10
1:B:578:ASP:OD1	1:B:581:THR:OG1	1.70	1.09
1:C:516:GLU:CG	1:C:519:HIS:NE2	2.14	1.09
1:B:543:PHE:CG	1:B:576:VAL:CG1	2.34	1.09
1:B:615:VAL:HG11	1:B:620:VAL:HG12	1.13	1.09
1:B:1141:LEU:O	1:B:1145:LEU:HD23	1.36	1.09
1:C:902:MET:HB3	1:C:916:LEU:HD21	1.25	1.09
1:B:119:ILE:HG12	1:B:128:ILE:HG12	1.11	1.09
1:C:119:ILE:HG13	1:C:128:ILE:HA	1.14	1.09
1:C:119:ILE:HD11	1:C:128:ILE:HG23	1.13	1.09
1:B:394:ASN:ND2	1:C:200:TYR:CE2	2.21	1.09
1:B:394:ASN:ND2	1:C:200:TYR:CZ	2.21	1.09
1:B:541:PHE:O	1:B:547:THR:HG23	1.50	1.09
1:B:322:PRO:HG3	1:B:540:ASN:OD1	1.53	1.08
1:B:382:VAL:HG23	1:C:983:ARG:O	1.53	1.08
1:C:551:VAL:HG12	1:C:590:CYS:SG	1.91	1.08
1:B:329:PHE:HA	1:B:579:PRO:CG	1.83	1.08
1:A:64:TRP:CD1	1:A:266:TYR:CE2	2.40	1.08
1:B:743:CYS:SG	1:B:750:SER:N	2.26	1.08
1:C:763:LEU:HD22	1:C:1008:VAL:HG21	1.35	1.08
1:A:308:VAL:O	1:A:602:THR:HG22	1.51	1.08
1:A:453:TYR:CE2	1:A:493:GLN:HG2	1.88	1.08
1:B:329:PHE:C	1:B:579:PRO:HG2	1.72	1.08
1:B:795:LYS:O	1:B:797:PHE:CD2	2.05	1.08
1:C:544:ASN:HD21	1:C:579:PRO:HG3	1.18	1.08
1:A:1088:HIS:ND1	1:A:1122:VAL:HG13	1.67	1.07
1:B:119:ILE:HD11	1:B:128:ILE:HG23	1.31	1.07
1:B:334:ASN:O	1:B:362:VAL:N	1.86	1.07
1:B:543:PHE:HB3	1:B:576:VAL:HG22	1.30	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:902:MET:HB3	1:C:916:LEU:CD2	1.84	1.07
1:A:826:VAL:CG2	1:A:945:LEU:HD13	1.84	1.06
1:B:613:GLN:O	1:B:647:ALA:O	1.72	1.06
1:B:718:PHE:CB	1:B:1067:TYR:CE1	2.32	1.06
1:C:105:ILE:HD11	1:C:241:LEU:CD1	1.84	1.06
1:A:89:GLY:C	1:A:270:LEU:HD13	1.74	1.06
1:A:37:TYR:OH	1:A:195:LYS:NZ	1.88	1.06
1:A:83:VAL:HG21	1:A:237:ARG:HD2	1.08	1.06
1:A:105:ILE:HG13	1:A:118:LEU:HD13	1.31	1.06
1:B:1028:LYS:CD	1:B:1032:CYS:SG	2.41	1.06
1:C:210:ILE:HB	1:C:212:LEU:HD21	1.36	1.06
1:C:825:LYS:NZ	1:C:942:ALA:HB2	1.70	1.06
1:B:329:PHE:CD2	1:B:330:PRO:HD2	1.88	1.06
1:B:521:PRO:HB2	1:B:544:ASN:HD21	0.89	1.06
1:C:662:CYS:SG	1:C:697:MET:HB3	1.96	1.06
1:B:543:PHE:HB2	1:B:576:VAL:HG21	1.08	1.05
1:C:598:ILE:CD1	1:C:666:ILE:HD11	1.87	1.05
1:B:57:PRO:HB3	1:B:273:ARG:HH12	1.04	1.05
1:B:322:PRO:HG3	1:B:549:THR:HG21	1.31	1.05
1:B:336:CYS:HG	1:B:362:VAL:C	1.60	1.05
1:C:781:VAL:HG22	1:C:1026:ALA:HB2	1.31	1.05
1:A:726:ILE:HD12	1:A:944:ALA:O	1.55	1.05
1:B:298:GLU:HG2	1:B:315:THR:HG21	1.39	1.05
1:C:37:TYR:HE1	1:C:55:PHE:CE1	1.70	1.05
1:C:972:ALA:HB2	1:C:996:LEU:HD11	1.34	1.05
1:C:55:PHE:HD2	1:C:275:PHE:CD1	1.75	1.05
1:A:639:GLY:HA3	1:A:642:VAL:CG2	1.86	1.04
1:B:106:PHE:HB3	1:B:235:ILE:HD13	1.39	1.04
1:B:197:ILE:HB	1:B:202:LYS:HE3	1.34	1.04
1:B:1141:LEU:HD23	1:B:1145:LEU:HD21	1.38	1.04
1:C:1102:TRP:HB2	1:C:1135:ASN:OD1	1.57	1.04
1:A:90:VAL:HG23	1:A:238:PHE:CE2	1.91	1.04
1:B:546:LEU:HD13	1:B:573:THR:HG21	1.04	1.04
1:B:985:ASP:O	1:B:989:ALA:CB	2.05	1.04
1:C:200:TYR:HD2	1:C:230:PRO:HA	1.17	1.04
1:C:350:VAL:HG12	1:C:422:ASN:HB3	1.36	1.04
1:A:319:ARG:HG2	1:A:592:PHE:HD2	1.19	1.04
1:B:576:VAL:HG12	1:B:587:ILE:HD11	1.37	1.04
1:B:638:THR:O	1:B:642:VAL:HG12	1.57	1.04
1:C:615:VAL:HG23	1:C:649:CYS:HB2	1.39	1.04
1:C:1089:PHE:O	1:C:1120:THR:HB	1.56	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:89:GLY:O	1:A:269:TYR:HA	1.59	1.03
1:A:89:GLY:HA2	1:A:270:LEU:HD13	1.40	1.03
1:A:299:THR:OG1	1:A:597:VAL:HG21	1.57	1.03
1:B:197:ILE:HD13	1:B:202:LYS:HD2	1.37	1.03
1:C:87:ASN:CG	1:C:269:TYR:CD2	2.31	1.03
1:C:551:VAL:HG11	1:C:590:CYS:SG	1.98	1.03
1:A:620:VAL:HG23	1:A:621:PRO:HD2	1.37	1.03
1:C:763:LEU:HD13	1:C:1004:LEU:CD2	1.87	1.03
1:B:541:PHE:CZ	1:B:587:ILE:HD13	1.93	1.03
1:A:278:LYS:HB2	1:A:306:PHE:CE2	1.94	1.03
1:B:815:ARG:NH1	1:B:823:PHE:CD2	2.27	1.03
1:B:1010:GLN:HB3	1:B:1014:ARG:HH12	0.90	1.03
1:B:118:LEU:HD22	1:B:135:PHE:CE1	1.94	1.02
1:C:200:TYR:CD2	1:C:230:PRO:HA	1.92	1.02
1:C:337:PRO:HD2	1:C:358:ILE:HD11	1.36	1.02
1:C:736:VAL:CG2	1:C:858:LEU:HD12	1.90	1.02
1:A:83:VAL:CG2	1:A:237:ARG:HD2	1.89	1.02
1:A:310:LYS:CB	1:A:600:PRO:O	2.06	1.02
1:B:118:LEU:HD22	1:B:135:PHE:CZ	1.95	1.02
1:B:537:LYS:C	1:B:551:VAL:HG12	1.79	1.02
1:C:392:PHE:CE2	1:C:395:VAL:HG21	1.91	1.02
1:B:1102:TRP:HB2	1:B:1135:ASN:HD22	1.23	1.02
1:A:1088:HIS:ND1	1:A:1122:VAL:CG1	2.23	1.01
1:A:278:LYS:HB2	1:A:306:PHE:HE2	1.24	1.01
1:A:559:PHE:HE1	1:A:584:ILE:HB	1.24	1.01
1:C:472:ILE:HG22	1:C:490:PHE:HA	1.39	1.01
1:C:735:SER:CB	1:C:861:LEU:HD21	1.89	1.01
1:C:1087:ALA:O	1:C:1122:VAL:HG23	1.60	1.01
1:C:502:GLY:O	1:C:506:GLN:HG3	1.59	1.01
1:B:543:PHE:CD2	1:B:576:VAL:CG1	2.44	1.00
1:C:392:PHE:CE2	1:C:395:VAL:HG22	1.95	1.00
1:C:119:ILE:CG1	1:C:128:ILE:CA	2.39	1.00
1:A:89:GLY:CA	1:A:270:LEU:CD1	2.38	1.00
1:B:56:LEU:HD12	1:B:57:PRO:HD2	1.43	1.00
1:B:328:ARG:CZ	1:B:578:ASP:OD2	2.10	1.00
1:B:393:THR:HG23	1:B:522:ALA:HB2	1.41	1.00
1:A:784:GLN:OE1	1:A:1030:SER:CB	2.10	1.00
1:B:543:PHE:CG	1:B:576:VAL:HG11	1.94	1.00
1:B:201:PHE:HE1	1:B:203:ILE:HG13	1.26	1.00
1:C:118:LEU:CD2	1:C:135:PHE:CZ	2.43	1.00
1:C:763:LEU:HD13	1:C:1004:LEU:HD22	1.42	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1104:VAL:HG13	1:B:1119:ASN:ND2	1.67	1.00
1:B:699:LEU:HD23	1:C:788:ILE:HG13	1.44	0.99
1:C:36:VAL:O	1:C:223:LEU:CD2	2.10	0.99
1:C:119:ILE:HD11	1:C:128:ILE:CB	1.92	0.99
1:A:83:VAL:CG2	1:A:237:ARG:CD	2.40	0.99
1:B:336:CYS:SG	1:B:362:VAL:C	2.40	0.99
1:B:1010:GLN:CB	1:B:1014:ARG:HH12	1.75	0.99
1:C:736:VAL:HG23	1:C:858:LEU:HD12	1.44	0.99
1:C:85:PRO:HG2	1:C:269:TYR:OH	1.63	0.99
1:A:353:TRP:CG	1:A:466:ARG:HD3	1.95	0.99
1:B:126:VAL:HG13	1:B:175:PHE:CE1	1.96	0.99
1:B:718:PHE:CD2	1:B:1067:TYR:CE1	2.50	0.99
1:B:328:ARG:NH1	1:B:578:ASP:OD2	1.96	0.99
1:B:322:PRO:CG	1:B:549:THR:HG21	1.92	0.98
1:C:105:ILE:CG1	1:C:118:LEU:HD13	1.92	0.98
1:A:621:PRO:CB	1:A:637:SER:HG	1.61	0.98
1:B:541:PHE:CZ	1:B:587:ILE:HG21	1.98	0.98
1:C:977:LEU:HD11	1:C:1000:ARG:HH12	1.27	0.98
1:C:1010:GLN:OE1	1:C:1014:ARG:NH1	1.97	0.98
1:B:342:PHE:HE2	1:B:368:LEU:CD1	1.76	0.98
1:B:577:ARG:HD3	1:B:582:LEU:HD23	1.43	0.98
1:B:1088:HIS:CE1	1:B:1122:VAL:HG23	1.99	0.97
1:C:453:TYR:CD1	1:C:495:TYR:CE1	2.40	0.97
1:B:85:PRO:O	1:B:269:TYR:OH	1.80	0.97
1:C:119:ILE:CD1	1:C:128:ILE:HG23	1.93	0.97
1:B:726:ILE:HG21	1:B:948:LEU:HD11	1.33	0.97
1:B:1081:ILE:O	1:B:1088:HIS:HB2	1.64	0.97
1:C:615:VAL:CG2	1:C:649:CYS:CB	2.41	0.97
1:B:119:ILE:HG12	1:B:128:ILE:CG1	1.94	0.97
1:A:310:LYS:HG3	1:A:664:ILE:HD11	1.46	0.97
1:A:726:ILE:CG2	1:A:948:LEU:CG	2.36	0.97
1:B:718:PHE:CG	1:B:1067:TYR:HE1	1.82	0.97
1:A:353:TRP:H	1:A:466:ARG:HD2	1.29	0.97
1:B:543:PHE:CD1	1:B:576:VAL:HG11	1.99	0.97
1:C:825:LYS:HZ1	1:C:942:ALA:HB2	1.22	0.97
1:A:1102:TRP:HB2	1:A:1135:ASN:HD21	1.05	0.97
1:B:126:VAL:HG22	1:B:172:SER:HB3	1.43	0.97
1:B:322:PRO:HG3	1:B:549:THR:CG2	1.94	0.97
1:C:612:TYR:O	1:C:615:VAL:HG22	1.65	0.97
1:A:592:PHE:CD1	1:A:593:GLY:N	2.32	0.97
1:A:784:GLN:CD	1:A:1030:SER:HB2	1.84	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:33:THR:HA	1:C:58:PHE:CD1	1.98	0.97
1:A:715:PRO:HA	1:A:1071:GLN:O	1.65	0.97
1:A:781:VAL:CG1	1:A:1029:MET:HG3	1.94	0.97
1:B:201:PHE:CE1	1:B:203:ILE:HG13	2.00	0.96
1:B:638:THR:O	1:B:642:VAL:CG1	2.13	0.96
1:C:37:TYR:CD1	1:C:55:PHE:HE1	1.82	0.96
1:A:33:THR:CG2	1:A:58:PHE:CE2	2.47	0.96
1:A:521:PRO:HG3	1:A:564:GLN:HG3	1.47	0.96
1:A:797:PHE:CE1	1:A:882:ILE:HG21	1.99	0.96
1:B:106:PHE:HB3	1:B:235:ILE:CD1	1.96	0.96
1:B:1039:ARG:NH1	1:B:1042:PHE:CE2	2.33	0.96
1:B:92:PHE:CZ	1:B:265:TYR:HD2	1.83	0.96
1:A:303:LEU:HD23	1:A:308:VAL:HG12	1.46	0.96
1:C:220:PHE:CE2	1:C:288:ALA:N	2.33	0.96
1:C:377:PHE:CD1	1:C:434:ILE:HG13	2.00	0.96
1:B:961:THR:O	1:B:965:GLN:HG2	1.66	0.96
1:A:781:VAL:HG12	1:A:1029:MET:HG3	1.43	0.96
1:C:186:PHE:O	1:C:211:ASN:HB3	1.65	0.96
1:C:318:PHE:CD1	1:C:593:GLY:HA3	2.00	0.96
1:C:429:PHE:HE1	1:C:431:GLY:O	1.48	0.96
1:C:426:PRO:HG2	1:C:464:PHE:CE2	2.00	0.96
1:C:87:ASN:CG	1:C:269:TYR:HD2	1.68	0.95
1:A:87:ASN:ND2	1:A:269:TYR:CD1	2.34	0.95
1:A:107:GLY:N	1:A:235:ILE:HG22	1.79	0.95
1:B:615:VAL:CG1	1:B:620:VAL:HG12	1.96	0.95
1:C:220:PHE:CE2	1:C:287:ASP:HA	2.01	0.95
1:B:521:PRO:CB	1:B:544:ASN:HD21	1.77	0.95
1:C:544:ASN:ND2	1:C:579:PRO:HG3	1.80	0.95
1:B:615:VAL:HG11	1:B:620:VAL:CG1	1.96	0.95
1:C:598:ILE:HD11	1:C:666:ILE:HD12	1.48	0.95
1:C:825:LYS:CE	1:C:942:ALA:HB2	1.97	0.95
1:A:620:VAL:CG2	1:A:621:PRO:HD2	1.95	0.95
1:B:1028:LYS:NZ	1:B:1042:PHE:O	1.98	0.95
1:C:615:VAL:CG2	1:C:649:CYS:HB3	1.96	0.95
1:B:823:PHE:HA	1:B:826:VAL:CG1	1.97	0.94
1:B:1104:VAL:CG1	1:B:1119:ASN:HD21	1.63	0.94
1:C:727:LEU:HD11	1:C:1028:LYS:HZ2	1.29	0.94
1:C:1095:PHE:CZ	1:C:1120:THR:HG21	2.02	0.94
1:A:1084:ASP:HB2	1:A:1086:LYS:NZ	1.83	0.94
1:B:1102:TRP:HB2	1:B:1135:ASN:ND2	1.80	0.94
1:B:1141:LEU:HD23	1:B:1145:LEU:CD2	1.97	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:89:GLY:C	1:C:270:LEU:HD13	1.87	0.94
1:A:620:VAL:CB	1:A:621:PRO:CD	2.44	0.94
1:A:133:PHE:CD1	1:A:160:TYR:CD1	2.55	0.94
1:A:353:TRP:CD1	1:A:466:ARG:HD3	2.01	0.94
1:B:57:PRO:CB	1:B:273:ARG:HH12	1.80	0.94
1:C:37:TYR:CE1	1:C:55:PHE:HE1	1.73	0.94
1:C:289:VAL:CG2	1:C:306:PHE:CE2	2.50	0.94
1:C:725:GLU:OE2	1:C:1028:LYS:NZ	2.00	0.94
1:C:429:PHE:CZ	1:C:431:GLY:HA3	2.01	0.94
1:A:541:PHE:CE2	1:A:587:ILE:HD12	2.01	0.94
1:B:544:ASN:O	1:B:565:PHE:CZ	2.20	0.94
1:C:119:ILE:CD1	1:C:128:ILE:HA	1.97	0.94
1:C:119:ILE:HG23	1:C:127:VAL:O	1.68	0.94
1:C:615:VAL:HG23	1:C:649:CYS:CB	1.97	0.94
1:B:1039:ARG:CZ	1:B:1042:PHE:CD2	2.51	0.94
1:A:743:CYS:SG	1:A:750:SER:N	2.41	0.93
1:A:204:TYR:HE1	1:A:225:PRO:HB3	1.14	0.93
1:B:360:ASN:OD1	1:B:523:THR:CG2	2.17	0.93
1:A:89:GLY:C	1:A:270:LEU:CD1	2.37	0.93
1:B:1088:HIS:HD2	1:B:1137:VAL:HG11	1.23	0.93
1:C:330:PRO:CD	1:C:544:ASN:ND2	2.31	0.93
1:A:204:TYR:CD1	1:A:225:PRO:HA	2.04	0.93
1:A:639:GLY:HA3	1:A:642:VAL:HG23	1.49	0.93
1:B:342:PHE:HE2	1:B:368:LEU:HD12	1.34	0.93
1:B:617:CYS:N	1:B:649:CYS:SG	2.41	0.93
1:A:1081:ILE:HG21	1:A:1135:ASN:HB3	1.49	0.93
1:B:543:PHE:CE2	1:B:576:VAL:HG13	2.02	0.93
1:B:544:ASN:O	1:B:565:PHE:HZ	1.50	0.93
1:B:1028:LYS:HZ3	1:B:1042:PHE:HD1	1.09	0.93
1:C:671:CYS:SG	1:C:697:MET:HB3	2.09	0.93
1:B:472:ILE:HG23	1:B:489:TYR:O	1.69	0.93
1:B:541:PHE:CE1	1:B:587:ILE:HD13	2.03	0.93
1:B:784:GLN:HA	1:B:784:GLN:HE21	1.29	0.93
1:C:83:VAL:HG21	1:C:237:ARG:NH2	1.84	0.93
1:B:599:THR:HG22	1:B:608:VAL:CG1	1.99	0.93
1:C:392:PHE:CD2	1:C:395:VAL:HG22	2.02	0.92
1:A:89:GLY:CA	1:A:270:LEU:HB2	1.99	0.92
1:A:85:PRO:HG2	1:A:269:TYR:OH	1.69	0.92
1:B:331:ASN:O	1:B:332:ILE:C	2.04	0.92
1:C:374:PHE:HD2	1:C:436:TRP:CD1	1.88	0.92
1:C:905:ARG:HD2	1:C:1049:LEU:O	1.69	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:621:PRO:HG2	1:A:637:SER:OG	1.67	0.92
1:A:724:THR:HG22	1:A:1063:LEU:HD23	1.51	0.92
1:C:392:PHE:CE2	1:C:524:VAL:HG11	2.05	0.92
1:B:546:LEU:HD13	1:B:573:THR:CG2	1.98	0.92
1:C:36:VAL:O	1:C:223:LEU:HD21	1.69	0.92
1:A:107:GLY:HA2	1:A:235:ILE:HG22	1.46	0.92
1:B:426:PRO:HG3	1:B:464:PHE:CE1	2.04	0.92
1:C:105:ILE:CG1	1:C:118:LEU:CD1	2.46	0.92
1:A:324:GLU:O	1:A:539:VAL:HB	1.68	0.92
1:B:298:GLU:CG	1:B:315:THR:HG21	1.99	0.92
1:B:342:PHE:CE2	1:B:368:LEU:CD1	2.53	0.92
1:A:826:VAL:HG22	1:A:945:LEU:HD13	1.49	0.91
1:B:1090:PRO:CB	1:B:1093:GLY:O	2.17	0.91
1:C:119:ILE:CG1	1:C:128:ILE:HG12	2.00	0.91
1:C:734:THR:O	1:C:767:LEU:HD12	1.70	0.91
1:A:107:GLY:N	1:A:235:ILE:CG2	2.33	0.91
1:B:718:PHE:CD2	1:B:1067:TYR:HE1	1.86	0.91
1:A:552:LEU:HD22	1:A:587:ILE:CD1	2.01	0.91
1:C:105:ILE:HG13	1:C:118:LEU:HD13	1.51	0.91
1:A:96:GLU:OE1	1:A:101:ILE:N	2.03	0.91
1:A:328:ARG:HH22	1:A:533:LEU:HB2	1.31	0.91
1:B:480:CYS:O	1:B:483:VAL:HG12	1.70	0.91
1:B:331:ASN:O	1:B:333:THR:N	2.04	0.91
1:C:131:CYS:HG	1:C:166:CYS:HG	1.02	0.91
1:C:186:PHE:O	1:C:211:ASN:CB	2.18	0.91
1:C:87:ASN:OD1	1:C:269:TYR:HE2	1.33	0.91
1:C:516:GLU:HG3	1:C:519:HIS:CD2	2.05	0.91
1:C:763:LEU:CD1	1:C:1004:LEU:HD22	2.00	0.91
1:A:133:PHE:CE1	1:A:160:TYR:CD1	2.58	0.90
1:B:826:VAL:HG21	1:B:1057:PRO:HG3	1.52	0.90
1:C:655:HIS:HB2	1:C:694:ALA:O	1.70	0.90
1:A:64:TRP:HD1	1:A:266:TYR:CD2	1.74	0.90
1:A:353:TRP:H	1:A:466:ARG:CD	1.84	0.90
1:B:540:ASN:HA	1:B:549:THR:HA	1.54	0.90
1:B:96:GLU:OE1	1:B:101:ILE:N	2.03	0.90
1:C:541:PHE:CE1	1:C:587:ILE:HD13	2.07	0.90
1:B:564:GLN:NE2	1:B:577:ARG:HD2	1.87	0.90
1:B:1039:ARG:CZ	1:B:1042:PHE:HE2	1.85	0.90
1:C:969:ASN:OD1	1:C:975:SER:HB3	1.70	0.90
1:A:53:ASP:O	1:A:55:PHE:CE2	2.24	0.90
1:A:328:ARG:HD3	1:A:531:THR:O	1.71	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:662:CYS:HG	1:B:671:CYS:HG	0.98	0.90
1:B:1141:LEU:O	1:B:1145:LEU:HD22	1.72	0.89
1:C:392:PHE:O	1:C:524:VAL:HB	1.72	0.89
1:B:57:PRO:HB3	1:B:273:ARG:NH1	1.86	0.89
1:B:1079:PRO:HG2	1:B:1131:GLY:O	1.72	0.89
1:C:977:LEU:HG	1:C:1000:ARG:HH22	1.35	0.89
1:A:1096:VAL:HG21	1:A:1105:THR:HG22	1.53	0.89
1:C:119:ILE:HG12	1:C:128:ILE:CG1	2.01	0.89
1:B:56:LEU:HD12	1:B:57:PRO:CD	2.02	0.89
1:A:34:ARG:NH1	1:A:217:PRO:HG2	1.88	0.89
1:A:452:LEU:HD13	1:A:493:GLN:O	1.72	0.89
1:B:1011:GLN:HE21	1:B:1011:GLN:HA	1.34	0.89
1:C:273:ARG:NH1	1:C:292:ALA:HB3	1.88	0.89
1:A:90:VAL:CG1	1:A:194:PHE:HB2	2.02	0.89
1:A:322:PRO:HG2	1:A:540:ASN:OD1	1.72	0.89
1:B:516:GLU:OE1	1:B:516:GLU:N	2.04	0.89
1:B:119:ILE:HG13	1:B:128:ILE:HA	1.54	0.89
1:B:454:ARG:HA	1:B:491:PRO:O	1.73	0.89
1:B:726:ILE:HD12	1:B:1061:VAL:HG22	1.54	0.89
1:C:612:TYR:HB2	1:C:615:VAL:CG1	2.03	0.89
1:A:984:LEU:CD1	1:A:988:GLU:HG3	2.02	0.88
1:B:365:TYR:HB3	1:B:387:LEU:HD12	1.53	0.88
1:B:722:VAL:CG1	1:B:934:ILE:HG13	2.03	0.88
1:C:342:PHE:HE1	1:C:511:VAL:HG11	1.34	0.88
1:C:350:VAL:CG1	1:C:422:ASN:HB3	2.02	0.88
1:B:1140:PRO:O	1:B:1143:PRO:HD2	1.73	0.88
1:C:102:ARG:HD2	1:C:141:LEU:HD13	1.55	0.88
1:C:977:LEU:CD1	1:C:1000:ARG:HH12	1.85	0.88
1:A:906:PHE:O	1:A:909:ILE:HG12	1.73	0.88
1:C:220:PHE:HZ	1:C:288:ALA:N	1.70	0.88
1:A:204:TYR:CE1	1:A:225:PRO:CB	2.56	0.88
1:B:85:PRO:HG2	1:B:269:TYR:OH	1.74	0.88
1:B:152:TRP:CH2	1:B:245:HIS:CE1	2.61	0.88
1:B:201:PHE:HE1	1:B:203:ILE:CG1	1.87	0.88
1:A:1087:ALA:HB2	1:A:1126:CYS:HB3	1.52	0.88
1:B:821:LEU:HD12	1:B:824:ASN:CB	2.03	0.88
1:B:1095:PHE:CZ	1:B:1120:THR:HG21	2.09	0.88
1:C:404:GLY:HA2	1:C:508:TYR:HD2	1.38	0.88
1:C:617:CYS:SG	1:C:644:GLN:NE2	2.47	0.88
1:A:105:ILE:HG13	1:A:118:LEU:CD1	2.03	0.88
1:B:317:ASN:HD22	1:C:737:ASP:CG	1.77	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:541:PHE:O	1:B:547:THR:CG2	2.20	0.88
1:A:83:VAL:HG22	1:A:237:ARG:HD3	1.55	0.88
1:A:729:VAL:HG21	1:A:1060:VAL:HG23	1.56	0.88
1:B:298:GLU:HG2	1:B:315:THR:CG2	2.03	0.88
1:B:718:PHE:HD2	1:B:1067:TYR:CE1	1.88	0.88
1:A:985:ASP:OD1	1:A:986:PRO:HD2	1.73	0.88
1:B:322:PRO:CG	1:B:540:ASN:OD1	2.22	0.88
1:B:538:CYS:N	1:B:551:VAL:HG12	1.87	0.88
1:A:598:ILE:HG23	1:A:664:ILE:HG21	1.56	0.87
1:B:1080:ALA:HB2	1:B:1089:PHE:CE1	2.09	0.87
1:C:429:PHE:CE1	1:C:431:GLY:N	2.42	0.87
1:A:101:ILE:HD11	1:A:263:ALA:HB1	1.55	0.87
1:B:353:TRP:HZ3	1:B:466:ARG:HB2	1.35	0.87
1:C:360:ASN:HD22	1:C:523:THR:HG21	1.35	0.87
1:C:490:PHE:CG	1:C:491:PRO:HD2	2.09	0.87
1:A:559:PHE:CE1	1:A:584:ILE:HB	2.09	0.87
1:B:200:TYR:OH	1:B:202:LYS:HE2	1.74	0.87
1:B:533:LEU:HD12	1:B:534:VAL:N	1.88	0.87
1:C:541:PHE:CE2	1:C:587:ILE:HG21	2.10	0.87
1:C:1095:PHE:HZ	1:C:1120:THR:HG21	1.35	0.87
1:B:726:ILE:CG2	1:B:948:LEU:CD1	2.38	0.87
1:A:204:TYR:HD1	1:A:225:PRO:HA	1.39	0.87
1:B:195:LYS:HG3	1:B:197:ILE:HD11	0.87	0.87
1:B:329:PHE:HD2	1:B:330:PRO:HD2	1.39	0.87
1:C:55:PHE:CD2	1:C:275:PHE:CD1	2.61	0.87
1:C:366:SER:O	1:C:370:ASN:N	2.06	0.87
1:B:37:TYR:OH	1:B:195:LYS:NZ	2.08	0.86
1:B:328:ARG:O	1:B:579:PRO:HD2	1.75	0.86
1:B:959:LEU:O	1:B:963:VAL:HG23	1.75	0.86
1:C:119:ILE:CG2	1:C:127:VAL:O	2.22	0.86
1:A:67:ALA:HB3	1:A:263:ALA:HB3	1.57	0.86
1:B:541:PHE:CZ	1:B:587:ILE:CG2	2.58	0.86
1:C:119:ILE:HG13	1:C:128:ILE:CA	2.01	0.86
1:C:541:PHE:CE2	1:C:587:ILE:CD1	2.50	0.86
1:A:976:VAL:HG13	1:A:979:ASP:HB3	1.54	0.86
1:C:972:ALA:HB1	1:C:996:LEU:HD11	1.55	0.86
1:A:726:ILE:HG22	1:A:948:LEU:HG	0.87	0.86
1:C:972:ALA:HB2	1:C:996:LEU:CD1	2.05	0.86
1:A:89:GLY:HA3	1:A:270:LEU:CA	2.05	0.86
1:A:731:MET:HG2	1:A:774:GLN:OE1	1.76	0.86
1:B:197:ILE:HD13	1:B:202:LYS:CD	2.05	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:336:CYS:SG	1:B:362:VAL:O	2.33	0.86
1:C:471:GLU:O	1:C:491:PRO:HB3	1.76	0.86
1:B:200:TYR:CZ	1:B:202:LYS:HE2	2.11	0.86
1:B:733:LYS:HD3	1:B:775:ASP:OD1	1.76	0.86
1:B:119:ILE:HD11	1:B:128:ILE:CG2	2.06	0.85
1:C:821:LEU:HD21	1:C:939:SER:HB3	1.57	0.85
1:B:540:ASN:OD1	1:B:549:THR:CG2	2.24	0.85
1:B:543:PHE:CZ	1:B:585:LEU:HD12	2.10	0.85
1:B:541:PHE:HZ	1:B:587:ILE:CG2	1.90	0.85
1:C:105:ILE:HG21	1:C:135:PHE:HE2	1.40	0.85
1:A:89:GLY:HA3	1:A:270:LEU:CB	2.06	0.85
1:A:104:TRP:O	1:A:118:LEU:HD12	1.76	0.85
1:A:805:ILE:O	1:A:816:SER:OG	1.93	0.85
1:B:718:PHE:HB2	1:B:1067:TYR:CZ	2.11	0.85
1:B:722:VAL:O	1:B:934:ILE:HD11	1.77	0.85
1:A:826:VAL:HG11	1:A:1057:PRO:HG2	1.59	0.85
1:A:1102:TRP:CB	1:A:1135:ASN:ND2	2.39	0.85
1:B:91:TYR:CE1	1:B:93:ALA:HB2	2.10	0.85
1:B:1141:LEU:CG	1:B:1145:LEU:HD21	2.07	0.85
1:C:220:PHE:HZ	1:C:288:ALA:CA	1.89	0.85
1:A:391:CYS:HA	1:A:525:CYS:HB3	1.57	0.85
1:A:639:GLY:HA3	1:A:642:VAL:HG22	1.56	0.85
1:B:906:PHE:CD2	1:B:916:LEU:HB2	2.12	0.85
1:C:429:PHE:CZ	1:C:431:GLY:CA	2.59	0.85
1:A:89:GLY:HA3	1:A:270:LEU:H	1.33	0.85
1:A:726:ILE:CG2	1:A:948:LEU:CD1	2.54	0.85
1:A:1080:ALA:O	1:A:1132:ILE:HG13	1.76	0.85
1:B:190:ARG:HE	1:B:207:HIS:HE1	1.20	0.85
1:A:480:CYS:HG	1:A:488:CYS:HG	1.17	0.85
1:B:365:TYR:CE1	1:B:387:LEU:HB3	2.12	0.85
1:B:426:PRO:CG	1:B:464:PHE:CZ	2.44	0.85
1:A:55:PHE:HB3	1:A:275:PHE:CE2	2.12	0.84
1:A:119:ILE:HG12	1:A:128:ILE:HG12	1.57	0.84
1:C:102:ARG:CD	1:C:141:LEU:HD13	2.07	0.84
1:A:621:PRO:HB2	1:A:637:SER:HG	0.75	0.84
1:C:366:SER:O	1:C:370:ASN:CB	2.25	0.84
1:A:826:VAL:HG23	1:A:945:LEU:HD13	1.57	0.84
1:B:578:ASP:CG	1:B:581:THR:OG1	2.15	0.84
1:B:1104:VAL:HG11	1:B:1119:ASN:HD22	1.36	0.84
1:C:220:PHE:HZ	1:C:288:ALA:CB	1.89	0.84
1:C:490:PHE:CD1	1:C:491:PRO:CD	2.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:317:ASN:CB	1:A:592:PHE:CE2	2.54	0.84
1:A:331:ASN:H	1:A:580:GLN:NE2	1.75	0.84
1:C:429:PHE:CE1	1:C:431:GLY:CA	2.60	0.84
1:C:33:THR:HG22	1:C:58:PHE:CE1	2.13	0.84
1:C:986:PRO:O	1:C:990:GLU:HG2	1.76	0.84
1:B:294:ASP:HB2	1:B:297:SER:OG	1.76	0.84
1:B:822:LEU:O	1:B:826:VAL:HG12	1.77	0.84
1:B:335:LEU:O	1:B:361:CYS:HB2	1.76	0.84
1:B:1114:ILE:HG23	1:B:1138:TYR:CE1	2.12	0.84
1:C:598:ILE:CD1	1:C:666:ILE:CD1	2.48	0.84
1:A:89:GLY:CA	1:A:270:LEU:CB	2.56	0.84
1:B:44:ARG:HB3	1:B:47:VAL:CG2	2.06	0.84
1:B:718:PHE:HZ	1:B:923:ILE:HD11	1.42	0.84
1:B:726:ILE:HG23	1:B:1061:VAL:HG22	1.59	0.84
1:C:105:ILE:HD11	1:C:241:LEU:HD11	1.58	0.84
1:C:383:SER:HB3	1:C:386:LYS:HB2	1.59	0.84
1:C:552:LEU:CD2	1:C:587:ILE:CG1	2.55	0.84
1:C:290:ASP:O	1:C:297:SER:HB3	1.78	0.84
1:C:731:MET:O	1:C:774:GLN:HG3	1.78	0.84
1:C:342:PHE:CE1	1:C:511:VAL:HG11	2.13	0.83
1:C:1090:PRO:CA	1:C:1120:THR:HG22	2.06	0.83
1:A:107:GLY:C	1:A:235:ILE:HG22	1.98	0.83
1:A:420:ASP:HB3	1:A:460:ASN:OD1	1.78	0.83
1:C:33:THR:CB	1:C:58:PHE:HE1	1.91	0.83
1:C:87:ASN:ND2	1:C:269:TYR:CD2	2.45	0.83
1:B:576:VAL:CG1	1:B:587:ILE:HD11	2.07	0.83
1:C:210:ILE:HB	1:C:212:LEU:CD2	2.07	0.83
1:C:32:PHE:CE1	1:C:218:GLN:HB3	2.13	0.83
1:B:1090:PRO:HB2	1:B:1093:GLY:O	1.78	0.83
1:C:119:ILE:HG13	1:C:127:VAL:O	1.76	0.83
1:A:1022:ALA:CA	1:A:1025:ALA:HB3	2.03	0.83
1:B:126:VAL:CG2	1:B:172:SER:CB	2.56	0.83
1:A:241:LEU:HD12	1:A:242:LEU:N	1.94	0.83
1:A:331:ASN:H	1:A:580:GLN:HE22	1.22	0.83
1:A:897:PRO:HG2	1:A:900:MET:SD	2.19	0.83
1:B:200:TYR:HB2	1:B:230:PRO:HA	1.59	0.83
1:B:331:ASN:O	1:B:333:THR:CG2	2.25	0.83
1:B:426:PRO:HG3	1:B:464:PHE:CD1	2.12	0.83
1:B:485:GLY:O	1:B:488:CYS:HB2	1.77	0.83
1:B:770:ILE:HD11	1:B:1012:LEU:HD12	1.61	0.83
1:C:756:TYR:HB3	1:C:759:PHE:CD2	2.13	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:89:GLY:HA2	1:A:270:LEU:CD1	2.05	0.83
1:B:726:ILE:HG22	1:B:948:LEU:HD11	1.61	0.83
1:C:727:LEU:HD11	1:C:1028:LYS:NZ	1.94	0.83
1:C:1081:ILE:O	1:C:1088:HIS:HB2	1.79	0.83
1:A:204:TYR:HD1	1:A:225:PRO:CA	1.92	0.83
1:B:324:GLU:O	1:B:539:VAL:CG2	2.27	0.83
1:A:204:TYR:CD1	1:A:225:PRO:CA	2.62	0.82
1:A:611:LEU:HB2	1:A:650:LEU:HD22	1.58	0.82
1:B:342:PHE:CE2	1:B:368:LEU:HD11	2.14	0.82
1:B:540:ASN:OD1	1:B:549:THR:OG1	1.97	0.82
1:A:91:TYR:HD1	1:A:193:VAL:HG22	1.43	0.82
1:A:453:TYR:CE2	1:A:493:GLN:CG	2.62	0.82
1:B:107:GLY:N	1:B:235:ILE:HD13	1.95	0.82
1:B:472:ILE:CD1	1:B:490:PHE:HB2	2.09	0.82
1:B:1090:PRO:HA	1:B:1120:THR:HG22	1.61	0.82
1:A:319:ARG:CG	1:A:592:PHE:HD2	1.91	0.82
1:B:396:TYR:HE2	1:C:200:TYR:HH	1.28	0.82
1:B:1039:ARG:NH2	1:B:1042:PHE:HE2	1.77	0.82
1:A:317:ASN:HB3	1:A:592:PHE:HZ	1.02	0.82
1:C:350:VAL:HG12	1:C:422:ASN:CB	2.09	0.82
1:C:503:VAL:HA	1:C:506:GLN:CD	1.99	0.82
1:A:797:PHE:CE1	1:A:882:ILE:CG2	2.62	0.82
1:A:673:SER:O	1:A:693:ILE:HD13	1.79	0.82
1:C:347:PHE:CD1	1:C:509:ARG:NH1	2.47	0.82
1:A:43:PHE:HE2	1:A:282:ASN:O	1.62	0.82
1:B:44:ARG:HB2	1:B:279:TYR:CD2	2.15	0.82
1:B:574:ASP:O	1:B:587:ILE:HB	1.79	0.82
1:B:546:LEU:CD1	1:B:573:THR:CG2	2.58	0.82
1:C:380:TYR:CE2	1:C:412:PRO:CD	2.63	0.82
1:C:662:CYS:SG	1:C:697:MET:CB	2.68	0.81
1:B:715:PRO:HA	1:B:1071:GLN:O	1.80	0.81
1:B:1090:PRO:HD3	1:B:1095:PHE:HE1	1.44	0.81
1:A:204:TYR:HE1	1:A:225:PRO:CB	1.91	0.81
1:C:105:ILE:CG2	1:C:118:LEU:HD13	2.10	0.81
1:C:119:ILE:CB	1:C:127:VAL:O	2.27	0.81
1:C:957:GLN:O	1:C:961:THR:OG1	1.96	0.81
1:A:89:GLY:HA2	1:A:270:LEU:HB2	1.62	0.81
1:A:516:GLU:N	1:A:516:GLU:OE1	2.14	0.81
1:B:541:PHE:C	1:B:547:THR:HG23	1.99	0.81
1:B:797:PHE:HB2	1:B:800:PHE:O	1.81	0.81
1:C:458:LYS:N	1:C:473:TYR:HE1	1.79	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:495:TYR:HD2	1:C:497:PHE:HE2	1.25	0.81
1:A:107:GLY:CA	1:A:235:ILE:CG2	2.52	0.81
1:C:119:ILE:HG12	1:C:127:VAL:O	1.81	0.81
1:A:33:THR:CB	1:A:58:PHE:CE2	2.64	0.81
1:A:319:ARG:HG2	1:A:592:PHE:CD2	2.11	0.81
1:B:564:GLN:HE22	1:B:577:ARG:CD	1.91	0.81
1:B:1116:THR:HG22	1:B:1140:PRO:HD3	1.63	0.81
1:C:105:ILE:HG23	1:C:118:LEU:HD13	1.62	0.81
1:A:817:PHE:HE2	1:A:935:GLN:HG3	1.46	0.81
1:A:1090:PRO:CB	1:A:1093:GLY:O	2.28	0.81
1:B:394:ASN:ND2	1:C:200:TYR:HE2	1.78	0.81
1:B:1104:VAL:CG1	1:B:1119:ASN:HD22	1.85	0.81
1:C:856:ASN:OD1	1:C:966:LEU:HD13	1.80	0.81
1:B:902:MET:HB3	1:B:916:LEU:HD21	1.63	0.81
1:C:220:PHE:CZ	1:C:288:ALA:CB	2.64	0.81
1:C:581:THR:HG22	1:C:583:GLU:HG3	1.63	0.81
1:C:1014:ARG:O	1:C:1018:ILE:HG12	1.81	0.81
1:B:168:PHE:CE2	1:B:170:TYR:HB2	2.16	0.80
1:B:275:PHE:CD1	1:B:290:ASP:HA	2.15	0.80
1:A:350:VAL:HG12	1:A:452:LEU:O	1.81	0.80
1:B:204:TYR:CE1	1:B:225:PRO:HB3	2.16	0.80
1:B:795:LYS:O	1:B:797:PHE:CE2	2.34	0.80
1:C:1031:GLU:O	1:C:1035:GLY:O	1.98	0.80
1:A:1022:ALA:HA	1:A:1025:ALA:CB	2.05	0.80
1:B:1082:CYS:SG	1:B:1126:CYS:HB2	2.20	0.80
1:C:781:VAL:CG2	1:C:1026:ALA:HB2	2.08	0.80
1:C:984:LEU:HG	1:C:988:GLU:HG2	1.64	0.80
1:A:726:ILE:HG23	1:A:948:LEU:CD1	2.11	0.80
1:B:353:TRP:CE3	1:B:466:ARG:HD3	2.16	0.80
1:C:429:PHE:CE1	1:C:431:GLY:O	2.34	0.80
1:B:126:VAL:HG22	1:B:172:SER:CB	2.11	0.80
1:B:342:PHE:CE2	1:B:368:LEU:HD12	2.16	0.80
1:B:1039:ARG:NH2	1:B:1042:PHE:CE2	2.49	0.80
1:A:308:VAL:HG22	1:A:602:THR:HB	1.63	0.80
1:A:453:TYR:CZ	1:A:493:GLN:HG3	2.17	0.80
1:A:1084:ASP:HB2	1:A:1086:LYS:HZ3	1.42	0.80
1:B:328:ARG:C	1:B:579:PRO:HD2	2.02	0.80
1:B:365:TYR:CG	1:B:387:LEU:HB2	2.16	0.80
1:B:546:LEU:HD11	1:B:573:THR:OG1	1.82	0.80
1:C:37:TYR:HE1	1:C:55:PHE:CD1	1.99	0.80
1:A:332:ILE:H	1:A:332:ILE:HD12	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:53:ASP:HB3	1:B:55:PHE:CE2	2.16	0.80
1:B:204:TYR:CD1	1:B:225:PRO:HA	2.16	0.80
1:B:539:VAL:HG12	1:B:550:GLY:O	1.81	0.80
1:B:599:THR:HG22	1:B:608:VAL:HG11	1.62	0.80
1:C:977:LEU:HD11	1:C:1000:ARG:NH1	1.95	0.80
1:A:299:THR:OG1	1:A:597:VAL:CG2	2.29	0.80
1:A:331:ASN:CG	1:A:580:GLN:NE2	2.35	0.80
1:B:190:ARG:HE	1:B:207:HIS:CE1	1.98	0.80
1:C:220:PHE:CZ	1:C:288:ALA:HB3	2.17	0.80
1:A:617:CYS:SG	1:A:644:GLN:HA	2.21	0.79
1:B:540:ASN:OD1	1:B:549:THR:HG23	1.82	0.79
1:B:615:VAL:CG1	1:B:620:VAL:CG1	2.57	0.79
1:C:374:PHE:CD2	1:C:436:TRP:CD1	2.70	0.79
1:B:289:VAL:HG23	1:B:306:PHE:CE2	2.17	0.79
1:C:83:VAL:HG21	1:C:237:ARG:NE	1.96	0.79
1:C:718:PHE:HZ	1:C:923:ILE:HG12	1.47	0.79
1:C:735:SER:HB3	1:C:861:LEU:CD2	2.10	0.79
1:A:435:ALA:CB	1:A:510:VAL:HG22	2.13	0.79
1:A:559:PHE:CD1	1:A:584:ILE:HD12	2.16	0.79
1:C:611:LEU:HB2	1:C:650:LEU:HD13	1.64	0.79
1:B:126:VAL:HG13	1:B:175:PHE:HE1	1.48	0.79
1:C:203:ILE:CG2	1:C:227:VAL:HG22	2.11	0.79
1:C:1089:PHE:O	1:C:1120:THR:CB	2.30	0.79
1:C:555:SER:OG	1:C:584:ILE:HG22	1.81	0.79
1:C:718:PHE:HZ	1:C:923:ILE:CG1	1.95	0.79
1:A:600:PRO:HD3	1:A:692:ILE:HD11	1.63	0.79
1:B:823:PHE:CZ	1:B:867:ASP:OD2	2.35	0.79
1:C:725:GLU:CD	1:C:1028:LYS:HZ1	1.86	0.79
1:B:543:PHE:CG	1:B:576:VAL:CG2	2.65	0.79
1:C:612:TYR:CB	1:C:615:VAL:CG1	2.61	0.79
1:B:821:LEU:O	1:B:824:ASN:HB3	1.83	0.79
1:B:597:VAL:HG22	1:B:610:VAL:HG12	1.64	0.79
1:A:639:GLY:CA	1:A:642:VAL:HG23	2.14	0.79
1:B:329:PHE:CD2	1:B:330:PRO:CD	2.66	0.78
1:C:365:TYR:HA	1:C:368:LEU:HD13	1.64	0.78
1:C:781:VAL:HG22	1:C:1026:ALA:CB	2.12	0.78
1:B:800:PHE:HD2	1:B:927:PHE:CD2	2.01	0.78
1:C:377:PHE:HD1	1:C:434:ILE:HG13	1.48	0.78
1:C:495:TYR:HD2	1:C:497:PHE:CE2	2.01	0.78
1:A:308:VAL:N	1:A:602:THR:HG21	1.99	0.78
1:C:552:LEU:CD2	1:C:587:ILE:CD1	2.62	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:105:ILE:HG13	1:C:118:LEU:HD11	1.66	0.78
1:C:350:VAL:CG1	1:C:422:ASN:CB	2.62	0.78
1:C:495:TYR:CD2	1:C:497:PHE:CE2	2.72	0.78
1:A:781:VAL:HA	1:A:1026:ALA:HA	1.64	0.78
1:A:1029:MET:SD	1:A:1060:VAL:CG1	2.69	0.78
1:C:36:VAL:O	1:C:223:LEU:HD23	1.83	0.78
1:A:353:TRP:HZ2	1:A:465:GLU:O	1.66	0.78
1:A:973:ILE:HG22	1:A:983:ARG:HH21	1.44	0.78
1:B:119:ILE:CD1	1:B:128:ILE:HG12	2.14	0.78
1:B:365:TYR:CD2	1:B:387:LEU:HB2	2.18	0.78
1:A:353:TRP:HZ2	1:A:465:GLU:C	1.87	0.78
1:B:856:ASN:C	1:B:858:LEU:H	1.88	0.78
1:B:1095:PHE:HZ	1:B:1120:THR:HG21	1.46	0.78
1:C:105:ILE:HG21	1:C:135:PHE:CE2	2.17	0.78
1:C:612:TYR:CB	1:C:615:VAL:HG13	2.14	0.78
1:C:718:PHE:CZ	1:C:923:ILE:HG12	2.18	0.78
1:B:546:LEU:HD11	1:B:573:THR:CB	2.13	0.78
1:C:32:PHE:HB3	1:C:59:PHE:CD1	2.19	0.78
1:C:210:ILE:HD13	1:C:210:ILE:H	1.49	0.78
1:B:724:THR:HG23	1:B:934:ILE:HD12	1.64	0.77
1:C:231:ILE:H	1:C:231:ILE:HD12	1.49	0.77
1:C:119:ILE:HD11	1:C:128:ILE:CA	2.12	0.77
1:C:552:LEU:HD22	1:C:587:ILE:HD11	1.66	0.77
1:A:552:LEU:CD2	1:A:587:ILE:HD13	2.06	0.77
1:A:743:CYS:SG	1:A:749:CYS:O	2.42	0.77
1:C:118:LEU:HD22	1:C:135:PHE:CE2	2.19	0.77
1:A:83:VAL:CG2	1:A:237:ARG:HD3	2.09	0.77
1:C:965:GLN:HG3	1:C:970:PHE:HZ	1.50	0.77
1:B:1090:PRO:CD	1:B:1095:PHE:HE1	1.98	0.77
1:C:615:VAL:HG21	1:C:649:CYS:CB	2.06	0.77
1:C:736:VAL:HG21	1:C:858:LEU:HD12	1.67	0.77
1:A:829:ALA:CB	1:A:949:GLN:OE1	2.32	0.77
1:C:226:LEU:HG	1:C:227:VAL:HG13	1.67	0.77
1:C:921:LYS:HA	1:C:921:LYS:CE	2.15	0.77
1:B:799:GLY:O	1:B:924:ALA:HB1	1.84	0.77
1:C:34:ARG:NH2	1:C:217:PRO:O	2.17	0.77
1:C:1103:PHE:HE1	1:C:1114:ILE:CD1	1.98	0.77
1:A:592:PHE:CG	1:A:593:GLY:N	2.46	0.77
1:B:89:GLY:C	1:B:270:LEU:CD1	2.53	0.76
1:C:654:GLU:OE1	1:C:654:GLU:N	2.18	0.76
1:C:931:ILE:O	1:C:934:ILE:HG23	1.84	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:984:LEU:HG	1:C:988:GLU:CG	2.15	0.76
1:A:976:VAL:HG13	1:A:979:ASP:CB	2.16	0.76
1:B:44:ARG:NH1	1:B:49:HIS:CD2	2.52	0.76
1:A:90:VAL:HG13	1:A:194:PHE:HB2	1.64	0.76
1:A:1088:HIS:CE1	1:A:1122:VAL:CG1	2.67	0.76
1:B:718:PHE:CZ	1:B:923:ILE:HD11	2.20	0.76
1:B:854:LYS:CB	1:B:858:LEU:O	2.34	0.76
1:C:398:ASP:HB2	1:C:512:VAL:HB	1.66	0.76
1:A:34:ARG:HH12	1:A:217:PRO:HG2	1.48	0.76
1:C:977:LEU:CG	1:C:1000:ARG:HH12	1.96	0.76
1:A:1078:ALA:N	1:A:1102:TRP:HH2	1.83	0.76
1:B:426:PRO:CG	1:B:464:PHE:CD1	2.69	0.76
1:B:906:PHE:CE2	1:B:916:LEU:HB2	2.20	0.76
1:A:68:ILE:HA	1:A:261:GLY:O	1.85	0.76
1:A:945:LEU:O	1:A:949:GLN:N	2.17	0.76
1:A:1096:VAL:CG2	1:A:1105:THR:HG22	2.16	0.76
1:B:106:PHE:HZ	1:B:194:PHE:CD2	2.03	0.76
1:B:204:TYR:HD1	1:B:225:PRO:HA	1.51	0.76
1:B:472:ILE:CG2	1:B:489:TYR:O	2.34	0.76
1:B:200:TYR:HE1	1:B:202:LYS:HG2	1.51	0.76
1:A:106:PHE:HZ	1:A:194:PHE:CD2	2.04	0.76
1:A:426:PRO:HG3	1:A:463:PRO:HB3	1.67	0.76
1:B:546:LEU:HD21	1:B:573:THR:HB	1.67	0.76
1:C:220:PHE:HE2	1:C:288:ALA:H	1.32	0.76
1:A:33:THR:HB	1:A:58:PHE:CE2	2.21	0.75
1:A:435:ALA:HB2	1:A:510:VAL:HG22	1.69	0.75
1:B:204:TYR:HE1	1:B:225:PRO:HB3	1.49	0.75
1:C:203:ILE:CG2	1:C:227:VAL:CG2	2.63	0.75
1:C:353:TRP:NE1	1:C:466:ARG:HB3	2.01	0.75
1:C:472:ILE:CG2	1:C:490:PHE:HA	2.15	0.75
1:A:91:TYR:CD1	1:A:193:VAL:HG22	2.21	0.75
1:C:541:PHE:HE2	1:C:587:ILE:CG2	1.99	0.75
1:C:905:ARG:CD	1:C:1049:LEU:O	2.34	0.75
1:C:1090:PRO:HB2	1:C:1093:GLY:O	1.86	0.75
1:C:736:VAL:HG23	1:C:857:GLY:O	1.85	0.75
1:A:327:VAL:HG23	1:A:529:LYS:O	1.86	0.75
1:A:331:ASN:CB	1:A:580:GLN:NE2	2.50	0.75
1:A:797:PHE:HE1	1:A:882:ILE:CG2	1.97	0.75
1:C:324:GLU:O	1:C:539:VAL:HB	1.86	0.75
1:C:727:LEU:CD1	1:C:1028:LYS:HZ2	2.00	0.75
1:A:119:ILE:CG1	1:A:128:ILE:HG12	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:726:ILE:HG21	1:B:948:LEU:HD12	1.68	0.75
1:A:317:ASN:CG	1:A:592:PHE:HZ	1.90	0.75
1:A:403:ARG:HG3	1:A:495:TYR:OH	1.87	0.75
1:B:521:PRO:HB3	1:B:544:ASN:ND2	2.00	0.75
1:C:204:TYR:CD1	1:C:225:PRO:HB3	2.21	0.75
1:C:773:GLU:OE2	1:C:1019:ARG:CD	2.34	0.75
1:A:108:THR:OG1	1:A:234:ASN:O	2.04	0.74
1:B:1089:PHE:O	1:B:1120:THR:HB	1.87	0.74
1:C:83:VAL:CG2	1:C:237:ARG:NH2	2.50	0.74
1:C:725:GLU:CD	1:C:1028:LYS:NZ	2.41	0.74
1:A:88:ASP:OD1	1:A:88:ASP:N	2.20	0.74
1:A:559:PHE:HD1	1:A:584:ILE:HD12	1.51	0.74
1:B:1140:PRO:C	1:B:1143:PRO:HD2	2.06	0.74
1:C:33:THR:CB	1:C:58:PHE:CE1	2.68	0.74
1:A:885:GLY:HA2	1:A:901:GLN:CD	2.08	0.74
1:B:1141:LEU:C	1:B:1145:LEU:HD23	2.06	0.74
1:A:55:PHE:CB	1:A:275:PHE:CE2	2.69	0.74
1:A:885:GLY:HA2	1:A:901:GLN:HE22	1.48	0.74
1:C:32:PHE:HE1	1:C:218:GLN:HB3	1.52	0.74
1:C:763:LEU:HD22	1:C:1008:VAL:CG2	2.15	0.74
1:B:370:ASN:O	1:B:372:ALA:N	2.19	0.74
1:B:501:ASN:HB3	1:B:505:TYR:HB3	1.70	0.74
1:A:453:TYR:CZ	1:A:493:GLN:CG	2.71	0.74
1:B:543:PHE:CE2	1:B:585:LEU:HD12	2.22	0.74
1:C:429:PHE:CE1	1:C:431:GLY:C	2.60	0.74
1:C:490:PHE:CE1	1:C:491:PRO:HD2	2.20	0.74
1:A:231:ILE:HG22	1:A:233:ILE:H	1.51	0.74
1:A:326:ILE:HG21	1:A:534:VAL:HG22	1.68	0.74
1:B:152:TRP:HH2	1:B:245:HIS:CE1	2.06	0.74
1:A:55:PHE:CG	1:A:275:PHE:CE2	2.76	0.74
1:B:541:PHE:CE2	1:B:587:ILE:HG23	2.22	0.74
1:C:37:TYR:CD1	1:C:55:PHE:CE1	2.69	0.74
1:C:727:LEU:HD11	1:C:1028:LYS:CE	2.17	0.74
1:B:763:LEU:HD22	1:B:1008:VAL:HG21	1.70	0.74
1:C:404:GLY:HA2	1:C:508:TYR:CD2	2.22	0.74
1:A:90:VAL:HG11	1:A:194:PHE:HB2	1.69	0.73
1:B:986:PRO:HA	1:B:989:ALA:HB3	1.70	0.73
1:C:452:LEU:HD23	1:C:492:LEU:HB3	1.69	0.73
1:C:612:TYR:HB3	1:C:615:VAL:HG13	1.70	0.73
1:A:1048:HIS:ND1	1:A:1048:HIS:O	2.20	0.73
1:C:858:LEU:HD23	1:C:959:LEU:HD11	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:119:ILE:CD1	1:C:128:ILE:CB	2.67	0.73
1:C:715:PRO:HA	1:C:1071:GLN:O	1.87	0.73
1:C:763:LEU:HD13	1:C:1004:LEU:HD21	1.69	0.73
1:B:351:TYR:HB3	1:B:422:ASN:ND2	2.03	0.73
1:B:1080:ALA:HB2	1:B:1089:PHE:HE1	1.53	0.73
1:C:605:SER:OG	1:C:607:GLN:HG2	1.88	0.73
1:B:107:GLY:O	1:B:235:ILE:HG23	1.87	0.73
1:B:722:VAL:HG23	1:B:930:ALA:HB1	1.69	0.73
1:C:472:ILE:HG22	1:C:490:PHE:HD1	1.54	0.73
1:C:1080:ALA:O	1:C:1132:ILE:HG13	1.89	0.73
1:C:97:LYS:HB2	1:C:186:PHE:HA	1.71	0.73
1:C:902:MET:CB	1:C:916:LEU:HD21	2.11	0.73
1:B:817:PHE:CZ	1:B:935:GLN:NE2	2.57	0.73
1:B:1141:LEU:HG	1:B:1145:LEU:HD21	1.68	0.73
1:C:360:ASN:H	1:C:523:THR:HG23	1.54	0.73
1:A:90:VAL:CG1	1:A:194:PHE:O	2.37	0.73
1:A:1089:PHE:HB2	1:A:1121:PHE:CE1	2.23	0.73
1:B:902:MET:HB3	1:B:916:LEU:CD2	2.19	0.73
1:C:33:THR:H	1:C:58:PHE:HD1	1.36	0.73
1:C:989:ALA:O	1:C:993:ILE:CB	2.37	0.73
1:A:328:ARG:HH22	1:A:533:LEU:CB	2.02	0.73
1:C:328:ARG:HB3	1:C:578:ASP:OD1	1.88	0.73
1:C:612:TYR:HB2	1:C:615:VAL:HG11	1.69	0.73
1:A:829:ALA:HB3	1:A:949:GLN:OE1	1.89	0.72
1:B:126:VAL:CG2	1:B:172:SER:HB3	2.16	0.72
1:C:69:HIS:HA	1:C:78:ARG:O	1.88	0.72
1:C:644:GLN:NE2	1:C:644:GLN:HA	2.02	0.72
1:C:989:ALA:O	1:C:993:ILE:HB	1.89	0.72
1:A:1088:HIS:CE1	1:A:1122:VAL:HG11	2.24	0.72
1:C:462:LYS:HA	1:C:462:LYS:CE	2.16	0.72
1:C:712:ILE:CD1	1:C:1094:VAL:HG11	2.18	0.72
1:A:620:VAL:CG2	1:A:621:PRO:CD	2.68	0.72
1:B:316:SER:O	1:B:595:VAL:HG22	1.89	0.72
1:B:318:PHE:HE2	1:B:615:VAL:HG21	1.54	0.72
1:B:426:PRO:HG2	1:B:464:PHE:CE2	2.21	0.72
1:B:743:CYS:SG	1:B:750:SER:CA	2.78	0.72
1:C:326:ILE:HD11	1:C:552:LEU:CD1	2.19	0.72
1:A:331:ASN:N	1:A:580:GLN:NE2	2.37	0.72
1:B:195:LYS:CD	1:B:197:ILE:HD11	2.19	0.72
1:B:324:GLU:O	1:B:539:VAL:HG23	1.88	0.72
1:B:805:ILE:HA	1:B:818:ILE:CD1	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:87:ASN:CG	1:C:269:TYR:CE2	2.55	0.72
1:A:321:GLN:HA	1:A:321:GLN:HE21	1.53	0.72
1:B:539:VAL:O	1:B:550:GLY:N	2.22	0.72
1:C:1083:HIS:HB2	1:C:1137:VAL:CG2	2.19	0.72
1:B:386:LYS:CE	1:C:982:SER:O	2.37	0.72
1:B:743:CYS:SG	1:B:749:CYS:C	2.67	0.72
1:B:746:SER:O	1:B:749:CYS:SG	2.47	0.72
1:A:1090:PRO:HB2	1:A:1093:GLY:O	1.89	0.72
1:A:1138:TYR:HE2	1:A:1140:PRO:HB3	1.55	0.72
1:B:1088:HIS:ND1	1:B:1122:VAL:HG23	2.04	0.72
1:C:611:LEU:HB2	1:C:650:LEU:CD1	2.19	0.72
1:B:730:SER:O	1:B:1058:HIS:HB3	1.89	0.72
1:B:738:CYS:SG	1:B:760:CYS:O	2.48	0.72
1:C:33:THR:CG2	1:C:58:PHE:CE1	2.73	0.72
1:C:105:ILE:CG2	1:C:135:PHE:HE2	2.03	0.72
1:C:1089:PHE:C	1:C:1120:THR:HB	2.10	0.72
1:C:203:ILE:HG22	1:C:227:VAL:HG23	1.70	0.72
1:A:403:ARG:CG	1:A:495:TYR:CE1	2.73	0.71
1:B:351:TYR:HB3	1:B:422:ASN:HD22	1.54	0.71
1:C:541:PHE:CD2	1:C:552:LEU:CD2	2.61	0.71
1:C:327:VAL:CG1	1:C:329:PHE:CE2	2.72	0.71
1:A:357:ARG:HG2	1:A:357:ARG:HH11	1.55	0.71
1:B:322:PRO:HB3	1:B:549:THR:CG2	2.21	0.71
1:B:815:ARG:NH1	1:B:823:PHE:CG	2.59	0.71
1:C:90:VAL:N	1:C:270:LEU:HD13	2.05	0.71
1:C:897:PRO:HG2	1:C:900:MET:SD	2.30	0.71
1:C:912:THR:HG23	1:C:1106:GLN:OE1	1.91	0.71
1:B:617:CYS:SG	1:B:644:GLN:HG2	2.30	0.71
1:C:414:GLN:HE21	1:C:414:GLN:HA	1.55	0.71
1:C:615:VAL:CG2	1:C:649:CYS:HB2	2.12	0.71
1:B:197:ILE:HB	1:B:202:LYS:CE	2.15	0.71
1:A:736:VAL:CG2	1:A:858:LEU:HD22	2.19	0.71
1:A:784:GLN:NE2	1:A:1030:SER:HB2	2.06	0.71
1:A:970:PHE:HE1	1:B:756:TYR:O	1.73	0.71
1:B:577:ARG:HB2	1:B:584:ILE:HG13	1.70	0.71
1:A:724:THR:HG22	1:A:1063:LEU:CD2	2.19	0.71
1:B:200:TYR:CE1	1:B:202:LYS:HE2	2.25	0.71
1:B:800:PHE:CD2	1:B:927:PHE:CD2	2.79	0.71
1:B:1072:GLU:OE1	1:B:1072:GLU:N	2.23	0.71
1:B:1090:PRO:HD3	1:B:1095:PHE:CE1	2.24	0.71
1:C:599:THR:HB	1:C:608:VAL:HG12	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:726:ILE:HG22	1:C:948:LEU:HG	1.71	0.71
1:C:878:LEU:HD23	1:C:1053:PRO:HD2	1.71	0.71
1:C:1090:PRO:HA	1:C:1120:THR:CG2	2.07	0.71
1:A:712:ILE:HB	1:A:1077:THR:CG2	2.21	0.71
1:A:727:LEU:C	1:A:948:LEU:HD21	2.11	0.71
1:A:985:ASP:OD1	1:A:986:PRO:CD	2.38	0.71
1:B:365:TYR:CD1	1:B:387:LEU:HD13	2.26	0.71
1:B:394:ASN:ND2	1:C:200:TYR:HH	1.88	0.71
1:C:101:ILE:HD11	1:C:263:ALA:HB1	1.73	0.71
1:C:294:ASP:OD1	1:C:297:SER:OG	2.08	0.71
1:A:86:PHE:HE2	1:A:90:VAL:HG11	1.55	0.71
1:A:959:LEU:O	1:A:963:VAL:HG23	1.91	0.71
1:B:985:ASP:CG	1:B:987:PRO:HD2	2.11	0.71
1:A:885:GLY:CA	1:A:901:GLN:NE2	2.43	0.71
1:C:55:PHE:CB	1:C:275:PHE:CE1	2.73	0.71
1:C:89:GLY:C	1:C:270:LEU:CD1	2.58	0.71
1:C:203:ILE:HG22	1:C:227:VAL:CG2	2.21	0.71
1:C:607:GLN:NE2	1:C:674:TYR:CZ	2.57	0.71
1:C:773:GLU:OE2	1:C:1019:ARG:CG	2.39	0.71
1:A:64:TRP:NE1	1:A:266:TYR:CZ	2.59	0.70
1:A:92:PHE:CE1	1:A:94:SER:HB3	2.26	0.70
1:A:118:LEU:HD22	1:A:135:PHE:CE1	2.25	0.70
1:A:1091:ARG:CZ	1:A:1118:ASP:O	2.39	0.70
1:B:324:GLU:O	1:B:539:VAL:HG22	1.89	0.70
1:B:662:CYS:CB	1:B:671:CYS:HG	2.04	0.70
1:B:722:VAL:HG12	1:B:934:ILE:HG13	1.71	0.70
1:B:1028:LYS:NZ	1:B:1042:PHE:HD1	1.86	0.70
1:C:878:LEU:CD2	1:C:1053:PRO:HD2	2.21	0.70
1:A:742:ILE:HD13	1:A:1001:LEU:HD23	1.72	0.70
1:A:357:ARG:HG3	1:A:396:TYR:CE1	2.26	0.70
1:C:541:PHE:CE2	1:C:552:LEU:CD2	2.70	0.70
1:C:736:VAL:HG21	1:C:858:LEU:CD1	2.21	0.70
1:A:826:VAL:CG2	1:A:945:LEU:CD1	2.68	0.70
1:B:823:PHE:HA	1:B:826:VAL:HG12	1.71	0.70
1:A:331:ASN:CG	1:A:580:GLN:HE21	1.95	0.70
1:A:570:ALA:HB1	1:B:963:VAL:HG11	1.73	0.70
1:B:993:ILE:O	1:B:997:ILE:HG12	1.91	0.70
1:B:105:ILE:HG13	1:B:118:LEU:HD13	1.72	0.70
1:C:495:TYR:CD2	1:C:497:PHE:HE2	2.06	0.70
1:C:1072:GLU:OE1	1:C:1072:GLU:N	2.24	0.70
1:A:826:VAL:HG23	1:A:945:LEU:CD1	2.20	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:92:PHE:CZ	1:B:265:TYR:CD2	2.74	0.70
1:B:905:ARG:HD2	1:B:1049:LEU:O	1.92	0.70
1:B:1088:HIS:CE1	1:B:1122:VAL:CG2	2.74	0.70
1:C:87:ASN:OD1	1:C:87:ASN:N	2.25	0.70
1:C:282:ASN:OD1	1:C:282:ASN:N	2.23	0.70
1:A:1081:ILE:CG2	1:A:1135:ASN:HB3	2.21	0.70
1:B:53:ASP:O	1:B:55:PHE:CD2	2.45	0.70
1:B:1105:THR:HB	1:B:1111:GLU:O	1.92	0.70
1:C:289:VAL:CG2	1:C:306:PHE:CZ	2.67	0.70
1:B:276:LEU:HD11	1:B:304:LYS:HA	1.73	0.70
1:B:726:ILE:HG21	1:B:948:LEU:CG	2.22	0.70
1:B:821:LEU:CD1	1:B:824:ASN:HD22	2.05	0.70
1:C:204:TYR:CE1	1:C:225:PRO:HB3	2.27	0.70
1:A:56:LEU:HD12	1:A:57:PRO:HD2	1.74	0.70
1:A:90:VAL:CG2	1:A:238:PHE:CE2	2.74	0.70
1:A:133:PHE:CE1	1:A:163:ALA:HB2	2.26	0.70
1:B:821:LEU:CD1	1:B:824:ASN:ND2	2.54	0.70
1:C:326:ILE:HG21	1:C:534:VAL:HG12	1.74	0.70
1:A:93:ALA:O	1:A:266:TYR:HD1	1.75	0.69
1:C:100:ILE:HA	1:C:243:ALA:HB3	1.74	0.69
1:C:660:TYR:HB2	1:C:695:TYR:CE2	2.27	0.69
1:A:96:GLU:C	1:A:186:PHE:HD2	1.95	0.69
1:A:781:VAL:CG1	1:A:1029:MET:CG	2.69	0.69
1:C:86:PHE:CD2	1:C:90:VAL:HG21	2.27	0.69
1:C:426:PRO:HG2	1:C:464:PHE:CD2	2.27	0.69
1:C:503:VAL:HA	1:C:506:GLN:OE1	1.92	0.69
1:C:643:PHE:CE1	1:C:655:HIS:CG	2.80	0.69
1:C:654:GLU:OE1	1:C:692:ILE:O	2.09	0.69
1:A:203:ILE:HG22	1:A:227:VAL:HG23	1.73	0.69
1:B:957:GLN:O	1:B:961:THR:OG1	2.09	0.69
1:C:46:SER:HA	1:C:279:TYR:O	1.92	0.69
1:B:654:GLU:O	1:B:693:ILE:HA	1.93	0.69
1:B:666:ILE:HD11	1:B:672:ALA:HB2	1.72	0.69
1:B:819:GLU:CG	1:B:1054:GLN:OE1	2.39	0.69
1:A:68:ILE:HB	1:A:262:ALA:HA	1.74	0.69
1:C:1103:PHE:HE1	1:C:1114:ILE:HD13	1.58	0.69
1:A:220:PHE:HZ	1:A:288:ALA:HB3	1.56	0.69
1:A:329:PHE:CE2	1:A:528:LYS:HG3	2.26	0.69
1:B:543:PHE:HB3	1:B:576:VAL:HG21	0.88	0.69
1:B:800:PHE:CD2	1:B:927:PHE:HD2	2.11	0.69
1:B:1028:LYS:HD2	1:B:1032:CYS:SG	2.29	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:956:ALA:O	1:C:960:ASN:CB	2.41	0.69
1:A:773:GLU:OE2	1:A:1019:ARG:HB2	1.93	0.69
1:A:1138:TYR:CE2	1:A:1140:PRO:HA	2.26	0.69
1:B:322:PRO:CG	1:B:549:THR:CG2	2.62	0.69
1:B:470:THR:HG22	1:B:492:LEU:HD12	1.73	0.69
1:B:472:ILE:HG23	1:B:489:TYR:C	2.12	0.69
1:C:360:ASN:HA	1:C:523:THR:HG21	1.75	0.69
1:C:551:VAL:HG13	1:C:590:CYS:SG	2.32	0.69
1:C:588:THR:HG22	1:C:589:PRO:HD2	1.75	0.69
1:A:68:ILE:HD12	1:A:262:ALA:HB2	1.74	0.69
1:A:1033:VAL:HG12	1:A:1034:LEU:HD23	1.75	0.69
1:A:1089:PHE:HB2	1:A:1121:PHE:HE1	1.58	0.69
1:B:718:PHE:HD2	1:B:1067:TYR:CD1	2.10	0.69
1:C:551:VAL:O	1:C:587:ILE:HA	1.92	0.69
1:C:1140:PRO:O	1:C:1143:PRO:HD2	1.93	0.69
1:A:1138:TYR:CE2	1:A:1140:PRO:HB3	2.27	0.69
1:B:55:PHE:CB	1:B:275:PHE:HE2	2.06	0.69
1:B:106:PHE:CB	1:B:235:ILE:HD13	2.20	0.69
1:B:658:ASN:OD1	1:B:658:ASN:N	2.25	0.69
1:B:985:ASP:C	1:B:989:ALA:HB2	2.11	0.69
1:B:1011:GLN:HA	1:B:1011:GLN:NE2	2.06	0.69
1:C:48:LEU:HD12	1:C:48:LEU:H	1.57	0.69
1:C:458:LYS:CA	1:C:473:TYR:HE1	2.06	0.69
1:C:340:GLU:OE2	1:C:356:LYS:NZ	2.26	0.68
1:C:380:TYR:HE2	1:C:412:PRO:CD	2.04	0.68
1:C:541:PHE:CZ	1:C:587:ILE:HG21	2.27	0.68
1:C:736:VAL:CG2	1:C:858:LEU:CD1	2.71	0.68
1:B:396:TYR:CE2	1:C:200:TYR:OH	2.43	0.68
1:B:1031:GLU:OE2	1:B:1039:ARG:HD3	1.92	0.68
1:C:119:ILE:HG12	1:C:128:ILE:CA	2.22	0.68
1:C:220:PHE:HE2	1:C:287:ASP:OD1	1.75	0.68
1:C:973:ILE:HG13	1:C:980:ILE:HD12	1.73	0.68
1:A:379:CYS:HB2	1:A:384:PRO:HD3	1.74	0.68
1:A:895:GLN:OE1	1:A:895:GLN:N	2.24	0.68
1:B:89:GLY:O	1:B:270:LEU:CD1	2.41	0.68
1:B:89:GLY:O	1:B:270:LEU:HD12	1.94	0.68
1:C:119:ILE:CD1	1:C:128:ILE:HG12	2.22	0.68
1:C:643:PHE:CZ	1:C:655:HIS:CG	2.82	0.68
1:C:726:ILE:CG2	1:C:948:LEU:HG	2.22	0.68
1:C:989:ALA:O	1:C:993:ILE:HG12	1.93	0.68
1:A:353:TRP:CZ2	1:A:466:ARG:HB2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:497:PHE:CD2	1:A:507:PRO:HB3	2.27	0.68
1:A:826:VAL:CG1	1:A:1057:PRO:HG2	2.24	0.68
1:C:555:SER:OG	1:C:584:ILE:C	2.32	0.68
1:A:781:VAL:HG13	1:A:1029:MET:HG3	1.75	0.68
1:A:1096:VAL:HG21	1:A:1105:THR:CG2	2.22	0.68
1:B:722:VAL:HG23	1:B:930:ALA:CB	2.24	0.68
1:B:1142:GLN:HA	1:B:1142:GLN:HE21	1.56	0.68
1:C:273:ARG:NH1	1:C:292:ALA:CB	2.56	0.68
1:A:90:VAL:HG12	1:A:194:PHE:O	1.92	0.68
1:A:193:VAL:HG23	1:A:223:LEU:CD1	2.24	0.68
1:A:555:SER:HB2	1:A:586:ASP:HB2	1.73	0.68
1:A:673:SER:O	1:A:693:ILE:CD1	2.42	0.68
1:C:390:LEU:HD12	1:C:390:LEU:O	1.93	0.68
1:C:977:LEU:HG	1:C:1000:ARG:NH2	2.07	0.68
1:A:726:ILE:HG23	1:A:948:LEU:HD11	1.76	0.68
1:A:782:PHE:CZ	1:A:1060:VAL:HG22	2.28	0.68
1:B:815:ARG:CZ	1:B:823:PHE:CD2	2.76	0.68
1:B:818:ILE:HD12	1:B:1054:GLN:NE2	2.08	0.68
1:C:392:PHE:CD2	1:C:395:VAL:CG2	2.70	0.68
1:A:55:PHE:CG	1:A:275:PHE:CD2	2.81	0.68
1:B:317:ASN:ND2	1:C:737:ASP:CG	2.45	0.68
1:B:718:PHE:HZ	1:B:923:ILE:CD1	2.05	0.68
1:C:729:VAL:H	1:C:1059:GLY:HA2	1.59	0.68
1:A:675:GLN:HA	1:A:675:GLN:HE21	1.58	0.68
1:B:126:VAL:HG13	1:B:175:PHE:CZ	2.29	0.68
1:C:203:ILE:HG21	1:C:227:VAL:HG22	1.74	0.68
1:C:348:ALA:O	1:C:400:PHE:HA	1.93	0.68
1:C:748:GLU:HG3	1:C:981:LEU:HD21	1.76	0.68
1:C:318:PHE:CE1	1:C:593:GLY:HA3	2.29	0.68
1:C:643:PHE:HZ	1:C:655:HIS:ND1	1.92	0.68
1:C:921:LYS:HA	1:C:921:LYS:HE2	1.76	0.68
1:C:1030:SER:O	1:C:1034:LEU:HB2	1.94	0.68
1:B:44:ARG:HB3	1:B:47:VAL:HG21	1.75	0.67
1:B:275:PHE:HD1	1:B:290:ASP:HA	1.59	0.67
1:B:393:THR:CG2	1:B:522:ALA:HB2	2.21	0.67
1:C:347:PHE:CZ	1:C:509:ARG:HD3	2.29	0.67
1:C:471:GLU:O	1:C:491:PRO:CB	2.42	0.67
1:A:331:ASN:CB	1:A:580:GLN:HE21	2.06	0.67
1:A:521:PRO:CG	1:A:564:GLN:HG3	2.23	0.67
1:A:597:VAL:HG12	1:A:610:VAL:HG22	1.77	0.67
1:A:992:GLN:HA	1:A:992:GLN:NE2	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:386:LYS:HE3	1:C:982:SER:O	1.94	0.67
1:C:374:PHE:HA	1:C:436:TRP:HB3	1.77	0.67
1:B:540:ASN:CG	1:B:549:THR:OG1	2.33	0.67
1:A:394:ASN:HD21	1:B:230:PRO:CB	2.07	0.67
1:B:126:VAL:HG23	1:B:172:SER:HB2	1.75	0.67
1:C:734:THR:HG23	1:C:767:LEU:CD1	2.24	0.67
1:C:756:TYR:HB3	1:C:759:PHE:HD2	1.58	0.67
1:B:50:SER:HA	1:B:275:PHE:O	1.94	0.67
1:C:276:LEU:HB3	1:C:289:VAL:HB	1.77	0.67
1:A:327:VAL:HB	1:A:329:PHE:CE2	2.30	0.67
1:B:564:GLN:HE21	1:B:564:GLN:HA	1.59	0.67
1:B:615:VAL:O	1:B:649:CYS:SG	2.52	0.67
1:B:878:LEU:HD21	1:B:1052:PHE:HB3	1.77	0.67
1:C:119:ILE:HD11	1:C:128:ILE:HA	1.71	0.67
1:A:90:VAL:HG23	1:A:238:PHE:HE2	1.56	0.67
1:B:501:ASN:HB3	1:B:505:TYR:CB	2.25	0.67
1:B:534:VAL:O	1:B:552:LEU:HB2	1.94	0.67
1:B:816:SER:OG	1:B:819:GLU:HG3	1.95	0.67
1:C:497:PHE:CD1	1:C:507:PRO:HD3	2.30	0.67
1:C:729:VAL:HG23	1:C:1059:GLY:HA2	1.77	0.67
1:A:97:LYS:HD3	1:A:98:SER:OG	1.95	0.67
1:A:735:SER:HB2	1:A:859:THR:HG23	1.76	0.67
1:A:896:ILE:HG22	1:A:897:PRO:HD2	1.77	0.67
1:C:294:ASP:OD1	1:C:297:SER:N	2.23	0.67
1:B:728:PRO:HD2	1:B:1021:SER:OG	1.93	0.66
1:B:856:ASN:OD1	1:B:857:GLY:N	2.28	0.66
1:B:1118:ASP:OD1	1:B:1119:ASN:N	2.28	0.66
1:C:959:LEU:O	1:C:963:VAL:HG23	1.95	0.66
1:B:69:HIS:CE1	1:B:77:LYS:H	2.14	0.66
1:B:118:LEU:HB2	1:B:135:PHE:HZ	1.60	0.66
1:B:616:ASN:C	1:B:649:CYS:SG	2.73	0.66
1:B:584:ILE:H	1:B:584:ILE:HD12	1.61	0.66
1:C:327:VAL:HG11	1:C:329:PHE:CE2	2.30	0.66
1:C:692:ILE:HD12	1:C:692:ILE:H	1.61	0.66
1:A:166:CYS:HB2	1:A:169:GLU:OE2	1.95	0.66
1:A:1095:PHE:HB3	1:A:1102:TRP:CZ3	2.30	0.66
1:B:89:GLY:C	1:B:270:LEU:HD13	2.16	0.66
1:B:396:TYR:HE2	1:C:200:TYR:OH	1.78	0.66
1:B:914:ASN:OD1	1:B:915:VAL:N	2.28	0.66
1:C:411:ALA:C	1:C:425:LEU:HD12	2.15	0.66
1:C:1092:GLU:OE2	1:C:1106:GLN:HB3	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:308:VAL:H	1:A:602:THR:HG21	1.58	0.66
1:A:497:PHE:CZ	1:A:507:PRO:HB3	2.28	0.66
1:B:322:PRO:HB3	1:B:549:THR:HG23	1.76	0.66
1:B:822:LEU:HD21	1:B:1056:ALA:CB	2.18	0.66
1:C:105:ILE:CB	1:C:118:LEU:HD13	2.25	0.66
1:C:119:ILE:CD1	1:C:128:ILE:CA	2.67	0.66
1:C:414:GLN:HA	1:C:414:GLN:NE2	2.11	0.66
1:A:90:VAL:N	1:A:270:LEU:HD13	2.11	0.66
1:B:815:ARG:NH1	1:B:823:PHE:CE2	2.64	0.66
1:B:1105:THR:CB	1:B:1111:GLU:O	2.44	0.66
1:C:379:CYS:SG	1:C:382:VAL:O	2.53	0.66
1:A:308:VAL:C	1:A:602:THR:HG22	2.16	0.66
1:A:612:TYR:HE1	1:A:651:ILE:HD12	1.59	0.66
1:A:617:CYS:SG	1:A:644:GLN:OE1	2.54	0.66
1:B:659:SER:CB	1:B:698:SER:HB3	2.25	0.66
1:C:220:PHE:HZ	1:C:288:ALA:HB3	1.51	0.66
1:C:334:ASN:N	1:C:334:ASN:OD1	2.29	0.66
1:C:458:LYS:N	1:C:473:TYR:CE1	2.62	0.66
1:C:541:PHE:CE2	1:C:587:ILE:CG2	2.75	0.66
1:B:365:TYR:CD1	1:B:387:LEU:CD1	2.79	0.66
1:C:973:ILE:HD11	1:C:980:ILE:HG23	1.78	0.66
1:A:988:GLU:O	1:A:991:VAL:HG13	1.96	0.66
1:A:308:VAL:H	1:A:602:THR:CG2	2.09	0.65
1:A:319:ARG:CG	1:A:592:PHE:CD2	2.75	0.65
1:C:387:LEU:HD23	1:C:390:LEU:HD11	1.78	0.65
1:C:729:VAL:O	1:C:1022:ALA:HB2	1.96	0.65
1:C:773:GLU:OE2	1:C:1019:ARG:HD2	1.95	0.65
1:B:69:HIS:HA	1:B:78:ARG:O	1.95	0.65
1:B:204:TYR:HD1	1:B:225:PRO:CA	2.08	0.65
1:B:317:ASN:ND2	1:C:737:ASP:HB2	2.11	0.65
1:B:909:ILE:HG23	1:B:1036:GLN:NE2	2.11	0.65
1:C:105:ILE:HD11	1:C:241:LEU:HD13	1.76	0.65
1:C:524:VAL:O	1:C:524:VAL:HG12	1.97	0.65
1:C:659:SER:CB	1:C:698:SER:HB3	2.26	0.65
1:A:741:TYR:CZ	1:A:966:LEU:HD21	2.30	0.65
1:B:543:PHE:HB2	1:B:576:VAL:CG2	1.96	0.65
1:A:89:GLY:HA2	1:A:270:LEU:CB	2.23	0.65
1:A:1084:ASP:HB2	1:A:1086:LYS:HZ2	1.61	0.65
1:B:97:LYS:HD3	1:B:98:SER:OG	1.96	0.65
1:C:327:VAL:HG12	1:C:329:PHE:CE2	2.31	0.65
1:A:220:PHE:HE2	1:A:288:ALA:H	1.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:330:PRO:HA	1:A:580:GLN:OE1	1.97	0.65
1:C:395:VAL:HG21	1:C:524:VAL:HG11	1.78	0.65
1:B:543:PHE:CD1	1:B:576:VAL:CG1	2.71	0.65
1:B:743:CYS:O	1:B:749:CYS:SG	2.54	0.65
1:C:100:ILE:HD12	1:C:243:ALA:O	1.97	0.65
1:A:729:VAL:CG2	1:A:1060:VAL:HG23	2.25	0.65
1:B:123:ALA:O	1:B:175:PHE:O	2.15	0.65
1:B:310:LYS:NZ	1:B:663:ASP:OD1	2.28	0.65
1:B:393:THR:HG23	1:B:522:ALA:CB	2.22	0.65
1:B:797:PHE:CB	1:B:800:PHE:O	2.45	0.65
1:A:712:ILE:HB	1:A:1077:THR:HG21	1.77	0.65
1:B:204:TYR:CD1	1:B:225:PRO:CA	2.80	0.65
1:B:365:TYR:HE2	1:B:388:ASN:HA	1.61	0.65
1:B:502:GLY:O	1:B:505:TYR:N	2.30	0.65
1:B:708:SER:HB2	1:B:711:SER:OG	1.97	0.65
1:C:360:ASN:ND2	1:C:523:THR:HG21	2.09	0.65
1:A:1043:CYS:C	1:A:1064:HIS:HD1	1.99	0.65
1:C:296:LEU:HD13	1:C:608:VAL:HG11	1.79	0.65
1:C:360:ASN:H	1:C:523:THR:CG2	2.10	0.65
1:A:86:PHE:HB3	1:A:237:ARG:HA	1.78	0.64
1:A:235:ILE:H	1:A:235:ILE:HD12	1.62	0.64
1:A:529:LYS:O	1:A:530:SER:C	2.30	0.64
1:B:119:ILE:CD1	1:B:128:ILE:HG23	2.17	0.64
1:C:126:VAL:HG13	1:C:175:PHE:CZ	2.32	0.64
1:C:380:TYR:CE2	1:C:412:PRO:HD2	2.32	0.64
1:A:220:PHE:CZ	1:A:288:ALA:HB3	2.32	0.64
1:A:308:VAL:N	1:A:602:THR:CG2	2.60	0.64
1:A:403:ARG:HD3	1:A:495:TYR:HE1	1.62	0.64
1:A:1030:SER:O	1:A:1034:LEU:HG	1.97	0.64
1:B:382:VAL:CG2	1:C:983:ARG:O	2.39	0.64
1:B:538:CYS:CA	1:B:551:VAL:HG12	2.26	0.64
1:B:816:SER:N	1:B:819:GLU:HB2	2.11	0.64
1:A:480:CYS:SG	1:A:488:CYS:HA	2.37	0.64
1:A:551:VAL:C	1:A:552:LEU:HD23	2.18	0.64
1:B:559:PHE:CD1	1:B:584:ILE:HG12	2.31	0.64
1:A:781:VAL:HG22	1:A:1026:ALA:N	2.12	0.64
1:A:1028:LYS:C	1:A:1062:PHE:CE2	2.71	0.64
1:B:784:GLN:HA	1:B:784:GLN:NE2	2.08	0.64
1:B:985:ASP:OD1	1:B:987:PRO:HD2	1.96	0.64
1:C:69:HIS:CE1	1:C:77:LYS:H	2.14	0.64
1:C:590:CYS:HB3	1:C:619:GLU:OE2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:660:TYR:O	1:C:695:TYR:HE2	1.80	0.64
1:A:92:PHE:CZ	1:A:94:SER:HB3	2.33	0.64
1:A:133:PHE:CZ	1:A:160:TYR:CE1	2.86	0.64
1:A:353:TRP:CD2	1:A:466:ARG:HD3	2.31	0.64
1:B:275:PHE:CE1	1:B:290:ASP:HA	2.32	0.64
1:B:360:ASN:OD1	1:B:523:THR:HG21	1.95	0.64
1:A:650:LEU:HD21	1:A:666:ILE:HD13	1.80	0.64
1:A:781:VAL:HG22	1:A:1022:ALA:O	1.98	0.64
1:A:782:PHE:CE2	1:A:870:ILE:HG23	2.33	0.64
1:B:543:PHE:HZ	1:B:585:LEU:HD12	1.60	0.64
1:C:43:PHE:HE1	1:C:45:SER:HB3	1.61	0.64
1:C:203:ILE:HG21	1:C:227:VAL:CG2	2.27	0.64
1:C:472:ILE:HG22	1:C:490:PHE:CD1	2.32	0.64
1:A:699:LEU:HD22	1:B:873:TYR:CE2	2.33	0.64
1:A:781:VAL:HG13	1:A:1029:MET:CG	2.26	0.64
1:C:273:ARG:HH11	1:C:292:ALA:HB3	1.60	0.64
1:C:336:CYS:SG	1:C:361:CYS:C	2.76	0.64
1:A:1105:THR:CB	1:A:1111:GLU:O	2.46	0.64
1:C:34:ARG:O	1:C:56:LEU:HD23	1.98	0.64
1:C:989:ALA:O	1:C:993:ILE:N	2.26	0.64
1:A:474:GLN:OE1	1:A:479:PRO:HB3	1.98	0.64
1:A:521:PRO:HG3	1:A:564:GLN:CG	2.24	0.64
1:A:590:CYS:O	1:A:591:SER:O	2.14	0.64
1:A:970:PHE:CE1	1:B:756:TYR:O	2.50	0.64
1:A:1082:CYS:HB2	1:A:1132:ILE:CD1	2.28	0.64
1:A:1127:ASP:OD1	1:A:1127:ASP:N	2.28	0.64
1:B:1102:TRP:CB	1:B:1135:ASN:HD22	2.06	0.64
1:A:29:THR:O	1:A:62:VAL:CG1	2.47	0.64
1:A:280:ASN:ND2	1:A:286:THR:HG21	2.13	0.64
1:A:329:PHE:CZ	1:A:528:LYS:HG3	2.32	0.63
1:B:298:GLU:CD	1:B:315:THR:HG21	2.17	0.63
1:B:334:ASN:HB2	1:B:361:CYS:HA	1.81	0.63
1:B:546:LEU:HB3	1:B:565:PHE:CE1	2.32	0.63
1:B:1122:VAL:O	1:B:1122:VAL:HG22	1.99	0.63
1:C:55:PHE:HB2	1:C:275:PHE:CE1	2.33	0.63
1:C:730:SER:HB2	1:C:774:GLN:HB3	1.80	0.63
1:C:973:ILE:HG23	1:C:992:GLN:HE22	1.61	0.63
1:A:220:PHE:CE2	1:A:288:ALA:N	2.66	0.63
1:A:421:TYR:CD1	1:A:457:ARG:HB3	2.34	0.63
1:A:718:PHE:HD2	1:A:1109:PHE:HE2	1.44	0.63
1:B:638:THR:O	1:B:642:VAL:HG11	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1114:ILE:CG2	1:B:1138:TYR:CD1	2.81	0.63
1:B:474:GLN:OE1	1:B:479:PRO:HB3	1.98	0.63
1:C:91:TYR:N	1:C:268:GLY:O	2.29	0.63
1:C:118:LEU:HD22	1:C:135:PHE:CE1	2.31	0.63
1:A:763:LEU:HD13	1:A:1004:LEU:HD13	1.80	0.63
1:A:823:PHE:O	1:A:827:THR:HG23	1.94	0.63
1:A:962:LEU:HD12	1:A:962:LEU:O	1.99	0.63
1:B:612:TYR:O	1:B:648:GLY:HA3	1.98	0.63
1:B:44:ARG:CZ	1:B:49:HIS:CD2	2.82	0.63
1:B:1145:LEU:HD22	1:B:1145:LEU:N	2.13	0.63
1:C:916:LEU:HD12	1:C:923:ILE:HD12	1.80	0.63
1:B:372:ALA:CB	1:B:374:PHE:CE2	2.73	0.63
1:C:95:THR:HG23	1:C:186:PHE:CD2	2.33	0.63
1:A:1032:CYS:SG	1:A:1064:HIS:CE1	2.92	0.63
1:B:119:ILE:CG1	1:B:128:ILE:CG1	2.62	0.63
1:B:885:GLY:HA2	1:B:901:GLN:NE2	2.14	0.63
1:C:110:LEU:HD12	1:C:237:ARG:HH12	1.63	0.63
1:C:200:TYR:CD2	1:C:230:PRO:CA	2.78	0.63
1:A:332:ILE:HD12	1:A:332:ILE:N	2.12	0.63
1:A:890:ALA:HA	1:C:1046:GLY:HA3	1.80	0.63
1:A:1021:SER:O	1:A:1025:ALA:CA	2.47	0.63
1:B:200:TYR:HE1	1:B:202:LYS:CG	2.11	0.63
1:B:472:ILE:HA	1:B:489:TYR:O	1.99	0.63
1:B:1082:CYS:SG	1:B:1126:CYS:CB	2.87	0.63
1:C:229:LEU:HB3	1:C:231:ILE:HD13	1.80	0.63
1:C:337:PRO:CD	1:C:358:ILE:HD11	2.22	0.63
1:C:37:TYR:HB3	1:C:223:LEU:CD1	2.28	0.63
1:C:643:PHE:CZ	1:C:655:HIS:ND1	2.66	0.63
1:B:270:LEU:HD12	1:B:270:LEU:H	1.64	0.62
1:B:365:TYR:CE2	1:B:387:LEU:C	2.72	0.62
1:B:473:TYR:N	1:B:489:TYR:O	2.29	0.62
1:B:537:LYS:O	1:B:551:VAL:HG12	1.97	0.62
1:C:758:SER:HB2	1:C:761:THR:HB	1.80	0.62
1:C:822:LEU:HD11	1:C:1061:VAL:HG21	1.81	0.62
1:A:403:ARG:HG3	1:A:495:TYR:CZ	2.34	0.62
1:A:825:LYS:HE2	1:A:941:THR:O	1.99	0.62
1:B:559:PHE:HB3	1:B:577:ARG:HH21	1.64	0.62
1:B:919:ASN:N	1:B:919:ASN:OD1	2.33	0.62
1:B:986:PRO:N	1:B:987:PRO:CD	2.62	0.62
1:B:119:ILE:HG23	1:B:127:VAL:O	2.00	0.62
1:A:107:GLY:HA2	1:A:235:ILE:CG2	2.23	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:96:GLU:OE2	1:B:101:ILE:O	2.17	0.62
1:C:231:ILE:HD12	1:C:231:ILE:N	2.13	0.62
1:C:380:TYR:CE2	1:C:412:PRO:HD3	2.33	0.62
1:C:498:GLN:CG	1:C:499:PRO:HD2	2.29	0.62
1:A:203:ILE:CG2	1:A:227:VAL:HG23	2.29	0.62
1:A:1044:GLY:N	1:A:1064:HIS:ND1	2.47	0.62
1:A:1088:HIS:HB3	1:A:1120:THR:HB	1.82	0.62
1:B:726:ILE:CG2	1:B:948:LEU:CG	2.77	0.62
1:B:1039:ARG:NE	1:B:1042:PHE:CD2	2.68	0.62
1:B:1141:LEU:C	1:B:1145:LEU:CD2	2.63	0.62
1:C:105:ILE:HD12	1:C:105:ILE:N	2.15	0.62
1:C:541:PHE:HB3	1:C:552:LEU:HD11	1.80	0.62
1:C:599:THR:CB	1:C:608:VAL:HG12	2.28	0.62
1:A:89:GLY:HA2	1:A:270:LEU:CG	2.29	0.62
1:A:1138:TYR:CE2	1:A:1140:PRO:CA	2.82	0.62
1:B:720:ILE:HD13	1:B:1067:TYR:HA	1.81	0.62
1:C:457:ARG:C	1:C:473:TYR:CE1	2.73	0.62
1:C:497:PHE:HD1	1:C:507:PRO:HD3	1.64	0.62
1:A:424:LYS:O	1:A:463:PRO:HA	1.98	0.62
1:B:731:MET:HG2	1:B:774:GLN:NE2	2.15	0.62
1:B:1094:VAL:HG21	1:C:900:MET:HE1	1.81	0.62
1:C:552:LEU:HD22	1:C:587:ILE:CD1	2.27	0.62
1:B:126:VAL:CG2	1:B:172:SER:HB2	2.30	0.62
1:B:1028:LYS:NZ	1:B:1042:PHE:CD1	2.54	0.62
1:C:168:PHE:CZ	1:C:231:ILE:HD11	2.35	0.62
1:C:612:TYR:CB	1:C:615:VAL:HG11	2.27	0.62
1:A:829:ALA:C	1:A:949:GLN:OE1	2.38	0.62
1:A:1095:PHE:HB3	1:A:1102:TRP:HZ3	1.65	0.62
1:B:466:ARG:NH1	1:B:468:ILE:HG23	2.14	0.62
1:C:738:CYS:SG	1:C:760:CYS:O	2.58	0.62
1:A:331:ASN:HB3	1:A:580:GLN:HE21	1.63	0.62
1:A:724:THR:CG2	1:A:1063:LEU:HD23	2.26	0.62
1:A:1078:ALA:N	1:A:1102:TRP:CH2	2.68	0.62
1:B:543:PHE:CD2	1:B:576:VAL:HG22	2.34	0.62
1:C:210:ILE:CB	1:C:212:LEU:HD21	2.21	0.62
1:C:673:SER:O	1:C:693:ILE:HG12	2.00	0.62
1:C:729:VAL:HG13	1:C:781:VAL:HG21	1.82	0.62
1:A:895:GLN:NE2	1:C:713:ALA:HB2	2.15	0.61
1:B:201:PHE:CE1	1:B:203:ILE:CG1	2.71	0.61
1:B:826:VAL:HG21	1:B:1057:PRO:CG	2.27	0.61
1:C:32:PHE:CE1	1:C:218:GLN:CB	2.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:110:LEU:CD1	1:C:237:ARG:HH12	2.13	0.61
1:A:612:TYR:CE1	1:A:651:ILE:HD12	2.34	0.61
1:C:360:ASN:HA	1:C:523:THR:CG2	2.30	0.61
1:C:541:PHE:HE2	1:C:587:ILE:HG21	1.54	0.61
1:C:931:ILE:O	1:C:934:ILE:CG2	2.49	0.61
1:A:729:VAL:HG21	1:A:1060:VAL:CG2	2.29	0.61
1:A:736:VAL:HG22	1:A:858:LEU:HD22	1.79	0.61
1:B:69:HIS:CD2	1:B:77:LYS:HA	2.35	0.61
1:B:164:ASN:OD1	1:B:165:ASN:CG	2.39	0.61
1:B:365:TYR:CB	1:B:387:LEU:HD12	2.26	0.61
1:B:726:ILE:HD12	1:B:1061:VAL:CG2	2.26	0.61
1:B:1088:HIS:NE2	1:B:1137:VAL:HG21	2.14	0.61
1:A:417:LYS:NZ	1:A:455:LEU:O	2.32	0.61
1:A:620:VAL:HG23	1:A:621:PRO:CD	2.22	0.61
1:B:334:ASN:O	1:B:361:CYS:CA	2.48	0.61
1:B:365:TYR:CD1	1:B:387:LEU:HB3	2.36	0.61
1:C:366:SER:O	1:C:370:ASN:HB3	1.97	0.61
1:A:964:LYS:HB2	1:A:964:LYS:NZ	2.16	0.61
1:A:1081:ILE:HG21	1:A:1135:ASN:CB	2.26	0.61
1:B:322:PRO:CB	1:B:549:THR:CG2	2.78	0.61
1:B:965:GLN:HE21	1:B:965:GLN:HA	1.65	0.61
1:C:102:ARG:HD3	1:C:141:LEU:HD13	1.83	0.61
1:C:380:TYR:HE2	1:C:412:PRO:HD3	1.64	0.61
1:B:212:LEU:HD13	1:B:214:ARG:N	2.15	0.61
1:B:422:ASN:HD21	1:B:454:ARG:H	1.48	0.61
1:B:1028:LYS:NZ	1:B:1042:PHE:C	2.53	0.61
1:C:48:LEU:HD12	1:C:48:LEU:N	2.14	0.61
1:C:224:GLU:N	1:C:224:GLU:OE1	2.33	0.61
1:A:817:PHE:HE2	1:A:935:GLN:CG	2.14	0.61
1:B:277:LEU:HD12	1:B:288:ALA:HB2	1.81	0.61
1:B:804:GLN:O	1:B:818:ILE:HG13	2.00	0.61
1:B:856:ASN:C	1:B:858:LEU:N	2.49	0.61
1:C:90:VAL:N	1:C:270:LEU:CD1	2.63	0.61
1:C:581:THR:O	1:C:582:LEU:HB3	2.00	0.61
1:C:692:ILE:HD12	1:C:692:ILE:N	2.15	0.61
1:A:96:GLU:OE2	1:A:101:ILE:O	2.17	0.61
1:A:474:GLN:OE1	1:A:479:PRO:CB	2.49	0.61
1:B:426:PRO:CB	1:B:464:PHE:CE1	2.81	0.61
1:B:882:ILE:HG23	1:B:898:PHE:CD2	2.36	0.61
1:A:912:THR:OG1	1:A:914:ASN:OD1	2.06	0.61
1:C:555:SER:OG	1:C:584:ILE:O	2.17	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:611:LEU:HD22	1:A:666:ILE:HG23	1.83	0.61
1:A:992:GLN:HA	1:A:992:GLN:HE21	1.66	0.61
1:B:280:ASN:HB3	1:B:286:THR:HG23	1.80	0.61
1:B:329:PHE:C	1:B:579:PRO:CG	2.61	0.61
1:B:597:VAL:HG12	1:B:599:THR:HG23	1.83	0.61
1:C:591:SER:HB2	1:C:619:GLU:HG2	1.83	0.61
1:A:693:ILE:HD13	1:A:693:ILE:H	1.64	0.60
1:A:1090:PRO:CG	1:A:1093:GLY:O	2.49	0.60
1:B:197:ILE:N	1:B:197:ILE:HD12	2.16	0.60
1:B:335:LEU:C	1:B:361:CYS:HB2	2.20	0.60
1:B:779:GLN:HA	1:B:779:GLN:OE1	2.01	0.60
1:B:1082:CYS:SG	1:B:1132:ILE:CD1	2.89	0.60
1:B:1142:GLN:HB3	1:B:1143:PRO:HD3	1.84	0.60
1:A:107:GLY:N	1:A:235:ILE:HG21	2.14	0.60
1:A:321:GLN:HA	1:A:321:GLN:NE2	2.15	0.60
1:A:328:ARG:NH1	1:A:578:ASP:OD2	2.34	0.60
1:A:529:LYS:HG2	1:A:530:SER:O	2.01	0.60
1:B:335:LEU:HD22	1:B:335:LEU:N	2.15	0.60
1:C:599:THR:HB	1:C:608:VAL:CG1	2.31	0.60
1:C:37:TYR:HB3	1:C:223:LEU:HD11	1.84	0.60
1:C:659:SER:HB3	1:C:698:SER:HB3	1.81	0.60
1:C:733:LYS:HD2	1:C:771:ALA:O	2.00	0.60
1:A:336:CYS:N	1:A:361:CYS:HB2	2.17	0.60
1:A:715:PRO:CA	1:A:1071:GLN:O	2.47	0.60
1:A:886:TRP:HB2	1:A:1035:GLY:HA2	1.83	0.60
1:A:1145:LEU:HD23	1:A:1145:LEU:O	2.01	0.60
1:B:318:PHE:CE2	1:B:615:VAL:HG21	2.35	0.60
1:C:168:PHE:CZ	1:C:229:LEU:HD12	2.36	0.60
1:A:33:THR:HB	1:A:58:PHE:CZ	2.36	0.60
1:A:166:CYS:CB	1:A:169:GLU:OE2	2.50	0.60
1:A:639:GLY:CA	1:A:642:VAL:CG2	2.70	0.60
1:B:365:TYR:CE2	1:B:388:ASN:N	2.70	0.60
1:B:819:GLU:HG2	1:B:1054:GLN:OE1	2.01	0.60
1:B:1090:PRO:HB3	1:B:1093:GLY:O	2.01	0.60
1:C:220:PHE:CE2	1:C:287:ASP:CA	2.82	0.60
1:C:722:VAL:HA	1:C:1064:HIS:O	2.02	0.60
1:A:797:PHE:CD1	1:A:882:ILE:HG21	2.36	0.60
1:A:1032:CYS:HB3	1:A:1051:SER:HB2	1.84	0.60
1:B:44:ARG:O	1:B:279:TYR:CB	2.49	0.60
1:B:69:HIS:NE2	1:B:77:LYS:HD3	2.16	0.60
1:B:541:PHE:CZ	1:B:587:ILE:CD1	2.80	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:743:CYS:O	1:B:977:LEU:HD12	2.00	0.60
1:B:805:ILE:HA	1:B:818:ILE:HD11	1.83	0.60
1:B:909:ILE:HG23	1:B:1036:GLN:HE22	1.64	0.60
1:B:985:ASP:C	1:B:987:PRO:HD2	2.21	0.60
1:C:382:VAL:HG21	1:C:515:PHE:HE2	1.67	0.60
1:A:107:GLY:H	1:A:235:ILE:CG2	2.09	0.60
1:A:317:ASN:HB3	1:A:592:PHE:HE2	1.54	0.60
1:B:470:THR:HG22	1:B:492:LEU:CD1	2.32	0.60
1:A:1043:CYS:HA	1:A:1064:HIS:HE1	1.67	0.60
1:B:33:THR:HA	1:B:58:PHE:CE2	2.35	0.60
1:B:515:PHE:C	1:B:516:GLU:CD	2.59	0.60
1:B:563:GLN:HG2	1:C:41:LYS:O	2.01	0.60
1:B:584:ILE:HD12	1:B:584:ILE:N	2.17	0.60
1:B:991:VAL:HG23	1:B:992:GLN:OE1	2.02	0.60
1:A:89:GLY:C	1:A:270:LEU:HD12	2.22	0.60
1:A:435:ALA:HB1	1:A:510:VAL:HG22	1.83	0.60
1:B:34:ARG:HH12	1:B:189:LEU:HD21	1.65	0.60
1:B:719:THR:O	1:B:1068:VAL:HG22	2.02	0.60
1:B:722:VAL:HG11	1:B:934:ILE:HG13	1.83	0.60
1:C:584:ILE:C	1:C:585:LEU:HD23	2.23	0.60
1:A:85:PRO:HG2	1:A:269:TYR:HH	1.65	0.60
1:A:472:ILE:HA	1:A:491:PRO:HD3	1.84	0.60
1:B:338:PHE:HE2	1:B:363:ALA:HB1	1.67	0.60
1:B:885:GLY:HA2	1:B:901:GLN:HE21	1.66	0.60
1:A:817:PHE:O	1:A:821:LEU:HD13	2.02	0.59
1:C:347:PHE:CE1	1:C:509:ARG:HD3	2.37	0.59
1:A:1138:TYR:HE2	1:A:1140:PRO:CB	2.14	0.59
1:B:553:THR:HG23	1:B:586:ASP:HB2	1.84	0.59
1:B:737:ASP:N	1:B:737:ASP:OD1	2.35	0.59
1:B:738:CYS:SG	1:B:760:CYS:C	2.80	0.59
1:C:805:ILE:HD11	1:C:1063:LEU:HD12	1.84	0.59
1:C:965:GLN:HG3	1:C:970:PHE:CZ	2.33	0.59
1:A:616:ASN:HB3	1:A:619:GLU:HG2	1.84	0.59
1:A:826:VAL:O	1:A:829:ALA:O	2.20	0.59
1:B:15:CYS:SG	1:B:16:VAL:N	2.75	0.59
1:B:611:LEU:HD22	1:B:666:ILE:HG23	1.84	0.59
1:C:55:PHE:HB2	1:C:275:PHE:HE1	1.65	0.59
1:C:220:PHE:CZ	1:C:288:ALA:CA	2.73	0.59
1:C:423:TYR:CE2	1:C:425:LEU:HD21	2.37	0.59
1:C:774:GLN:OE1	1:C:774:GLN:HA	2.01	0.59
1:A:29:THR:O	1:A:62:VAL:HG12	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:55:PHE:CD1	1:A:275:PHE:CD2	2.90	0.59
1:A:106:PHE:HB2	1:A:117:LEU:HB3	1.83	0.59
1:B:56:LEU:CD1	1:B:57:PRO:HD2	2.27	0.59
1:B:91:TYR:HE1	1:B:93:ALA:HB2	1.65	0.59
1:B:338:PHE:HE2	1:B:363:ALA:CB	2.15	0.59
1:B:338:PHE:CE2	1:B:363:ALA:HB1	2.37	0.59
1:B:540:ASN:OD1	1:B:549:THR:CB	2.51	0.59
1:C:314:GLN:O	1:C:314:GLN:HG3	2.01	0.59
1:C:365:TYR:OH	1:C:392:PHE:CZ	2.14	0.59
1:C:448:ASN:O	1:C:449:TYR:CD1	2.55	0.59
1:C:453:TYR:O	1:C:493:GLN:HB3	2.02	0.59
1:C:33:THR:CA	1:C:58:PHE:CD1	2.71	0.59
1:C:33:THR:N	1:C:58:PHE:CD1	2.70	0.59
1:C:106:PHE:HZ	1:C:194:PHE:CD2	2.20	0.59
1:C:330:PRO:HD3	1:C:544:ASN:HD22	1.54	0.59
1:C:765:ARG:HA	1:C:768:THR:HG22	1.83	0.59
1:C:825:LYS:CE	1:C:942:ALA:CB	2.76	0.59
1:A:117:LEU:HD13	1:A:201:PHE:CE2	2.37	0.59
1:A:777:ASN:HD21	1:A:1019:ARG:HA	1.67	0.59
1:B:55:PHE:HB2	1:B:275:PHE:CE2	2.38	0.59
1:B:322:PRO:CB	1:B:549:THR:HG23	2.33	0.59
1:B:564:GLN:NE2	1:B:564:GLN:HA	2.17	0.59
1:C:69:HIS:NE2	1:C:77:LYS:HD3	2.17	0.59
1:C:212:LEU:HD22	1:C:212:LEU:N	2.16	0.59
1:C:712:ILE:HD12	1:C:1094:VAL:HG11	1.83	0.59
1:A:353:TRP:CE2	1:A:466:ARG:HB2	2.38	0.59
1:A:552:LEU:HD23	1:A:552:LEU:N	2.18	0.59
1:B:541:PHE:HE2	1:B:587:ILE:HG23	1.64	0.59
1:B:659:SER:HB3	1:B:698:SER:HB3	1.85	0.59
1:A:322:PRO:HB3	1:A:539:VAL:HA	1.85	0.59
1:B:125:ASN:OD1	1:B:172:SER:O	2.19	0.59
1:A:777:ASN:ND2	1:A:1019:ARG:HA	2.17	0.59
1:B:352:ALA:HA	1:B:466:ARG:NE	2.18	0.59
1:C:86:PHE:CE2	1:C:106:PHE:CE1	2.91	0.59
1:C:503:VAL:HA	1:C:506:GLN:CG	2.33	0.59
1:A:203:ILE:CG2	1:A:227:VAL:CG2	2.81	0.59
1:B:44:ARG:HB2	1:B:279:TYR:CE2	2.37	0.59
1:B:197:ILE:CD1	1:B:202:LYS:HD2	2.24	0.59
1:A:331:ASN:HB3	1:A:580:GLN:NE2	2.18	0.58
1:A:718:PHE:HD2	1:A:1109:PHE:CE2	2.21	0.58
1:B:55:PHE:HB2	1:B:275:PHE:HE2	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:128:ILE:HG22	1:B:129:LYS:N	2.18	0.58
1:B:335:LEU:O	1:B:361:CYS:CB	2.48	0.58
1:B:472:ILE:HD12	1:B:490:PHE:HB2	1.85	0.58
1:C:117:LEU:HD23	1:C:117:LEU:C	2.23	0.58
1:C:119:ILE:CG1	1:C:127:VAL:C	2.70	0.58
1:C:1004:LEU:O	1:C:1004:LEU:HD23	2.02	0.58
1:A:536:ASN:HD22	1:A:536:ASN:N	2.01	0.58
1:A:1081:ILE:CG2	1:A:1135:ASN:CB	2.81	0.58
1:A:1102:TRP:CZ2	1:A:1133:VAL:HG21	2.39	0.58
1:B:44:ARG:NH2	1:B:49:HIS:NE2	2.51	0.58
1:B:53:ASP:O	1:B:55:PHE:HD2	1.85	0.58
1:B:546:LEU:CD1	1:B:573:THR:CB	2.81	0.58
1:C:119:ILE:CD1	1:C:128:ILE:CG1	2.80	0.58
1:C:502:GLY:C	1:C:506:GLN:HG3	2.24	0.58
1:A:369:TYR:OH	1:A:384:PRO:HB2	2.03	0.58
1:B:543:PHE:CB	1:B:576:VAL:CB	2.80	0.58
1:C:458:LYS:HA	1:C:473:TYR:HE1	1.68	0.58
1:C:718:PHE:CZ	1:C:923:ILE:CG1	2.80	0.58
1:A:675:GLN:HA	1:A:675:GLN:NE2	2.18	0.58
1:A:804:GLN:OE1	1:A:931:ILE:HG22	2.02	0.58
1:B:128:ILE:CG2	1:B:129:LYS:N	2.67	0.58
1:B:546:LEU:HB3	1:B:565:PHE:HE1	1.68	0.58
1:C:318:PHE:HD1	1:C:593:GLY:HA3	1.60	0.58
1:B:245:HIS:HB3	1:B:259:THR:O	2.04	0.58
1:B:365:TYR:CD1	1:B:387:LEU:CB	2.86	0.58
1:B:105:ILE:HG13	1:B:118:LEU:CD1	2.33	0.58
1:B:212:LEU:HD13	1:B:212:LEU:C	2.23	0.58
1:B:334:ASN:O	1:B:361:CYS:HA	2.04	0.58
1:B:382:VAL:HA	1:C:984:LEU:HD13	1.84	0.58
1:C:773:GLU:OE2	1:C:1019:ARG:HG3	2.02	0.58
1:A:200:TYR:OH	1:C:394:ASN:ND2	2.36	0.58
1:A:643:PHE:CD2	1:A:655:HIS:CB	2.87	0.58
1:B:117:LEU:HD23	1:B:117:LEU:C	2.24	0.58
1:C:326:ILE:HG13	1:C:326:ILE:O	2.03	0.58
1:C:366:SER:O	1:C:370:ASN:HB2	2.02	0.58
1:C:977:LEU:HD21	1:C:1000:ARG:NH1	2.18	0.58
1:A:643:PHE:CE2	1:A:655:HIS:CG	2.92	0.58
1:A:770:ILE:O	1:A:774:GLN:HG2	2.04	0.58
1:A:906:PHE:O	1:A:909:ILE:CG1	2.50	0.58
1:B:422:ASN:HD21	1:B:453:TYR:HA	1.69	0.58
1:A:617:CYS:SG	1:A:644:GLN:CA	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:426:PRO:CG	1:C:464:PHE:CD2	2.87	0.58
1:C:989:ALA:O	1:C:993:ILE:CG1	2.52	0.58
1:A:353:TRP:CZ2	1:A:465:GLU:C	2.73	0.58
1:A:471:GLU:OE1	1:A:471:GLU:HA	2.04	0.58
1:A:964:LYS:O	1:A:965:GLN:C	2.42	0.58
1:B:388:ASN:OD1	1:B:527:PRO:HG2	2.04	0.58
1:B:965:GLN:HA	1:B:965:GLN:NE2	2.19	0.58
1:C:534:VAL:CG1	1:C:539:VAL:HG21	2.34	0.58
1:A:332:ILE:H	1:A:332:ILE:CD1	2.16	0.57
1:A:788:ILE:HG13	1:C:699:LEU:HG	1.86	0.57
1:B:543:PHE:CD2	1:B:576:VAL:CG2	2.86	0.57
1:B:699:LEU:HD22	1:B:699:LEU:H	1.69	0.57
1:B:912:THR:HG23	1:B:1106:GLN:OE1	2.03	0.57
1:B:1010:GLN:CB	1:B:1014:ARG:NH1	2.41	0.57
1:C:34:ARG:HG3	1:C:91:TYR:OH	2.04	0.57
1:C:95:THR:OG1	1:C:186:PHE:HB3	2.04	0.57
1:C:1103:PHE:CE1	1:C:1114:ILE:HD13	2.36	0.57
1:A:736:VAL:HG21	1:A:858:LEU:HD22	1.86	0.57
1:A:1102:TRP:CB	1:A:1135:ASN:HD21	1.96	0.57
1:B:44:ARG:O	1:B:279:TYR:CG	2.57	0.57
1:B:365:TYR:CG	1:B:387:LEU:CB	2.87	0.57
1:B:1142:GLN:HA	1:B:1142:GLN:NE2	2.18	0.57
1:C:210:ILE:H	1:C:210:ILE:CD1	2.14	0.57
1:C:337:PRO:HD2	1:C:358:ILE:CD1	2.24	0.57
1:C:984:LEU:CG	1:C:988:GLU:HG2	2.33	0.57
1:A:1078:ALA:HB3	1:A:1102:TRP:CH2	2.39	0.57
1:B:334:ASN:O	1:B:361:CYS:C	2.41	0.57
1:B:805:ILE:HA	1:B:818:ILE:HD12	1.85	0.57
1:C:520:ALA:HB1	1:C:521:PRO:HD2	1.85	0.57
1:C:699:LEU:H	1:C:699:LEU:CD2	2.18	0.57
1:C:733:LYS:HB3	1:C:771:ALA:HB1	1.86	0.57
1:A:86:PHE:CD2	1:A:90:VAL:HB	2.40	0.57
1:A:621:PRO:HB2	1:A:637:SER:CB	2.28	0.57
1:A:329:PHE:CD2	1:A:528:LYS:HB3	2.39	0.57
1:A:600:PRO:HG2	1:A:674:TYR:CD1	2.40	0.57
1:A:749:CYS:HA	1:A:993:ILE:HD13	1.85	0.57
1:A:774:GLN:HE21	1:A:774:GLN:HA	1.69	0.57
1:A:890:ALA:HA	1:C:1046:GLY:CA	2.33	0.57
1:B:699:LEU:HD13	1:B:699:LEU:N	2.20	0.57
1:C:1095:PHE:CE1	1:C:1120:THR:HG21	2.39	0.57
1:A:123:ALA:O	1:A:175:PHE:O	2.21	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:402:ILE:HD11	1:A:418:ILE:HG21	1.86	0.57
1:A:1021:SER:O	1:A:1025:ALA:CB	2.53	0.57
1:A:1044:GLY:N	1:A:1064:HIS:HD1	2.01	0.57
1:B:91:TYR:HE1	1:B:93:ALA:CB	2.18	0.57
1:B:368:LEU:O	1:B:372:ALA:CB	2.52	0.57
1:B:455:LEU:N	1:B:491:PRO:O	2.37	0.57
1:B:1039:ARG:NH1	1:B:1042:PHE:HE2	1.90	0.57
1:C:86:PHE:CE2	1:C:106:PHE:HE1	2.23	0.57
1:A:97:LYS:N	1:A:186:PHE:HD2	2.02	0.57
1:A:897:PRO:HB2	1:A:900:MET:HG3	1.87	0.57
1:B:119:ILE:CG1	1:B:127:VAL:O	2.53	0.57
1:B:538:CYS:HA	1:B:551:VAL:CG1	2.34	0.57
1:C:782:PHE:CD2	1:C:870:ILE:HG23	2.39	0.57
1:A:825:LYS:HD2	1:A:938:LEU:O	2.04	0.57
1:A:1105:THR:HB	1:A:1111:GLU:O	2.05	0.57
1:B:325:SER:HA	1:B:540:ASN:O	2.04	0.57
1:B:976:VAL:O	1:B:980:ILE:HG22	2.04	0.57
1:C:429:PHE:CZ	1:C:431:GLY:C	2.78	0.57
1:B:294:ASP:H	1:B:297:SER:HB2	1.70	0.57
1:B:822:LEU:CD2	1:B:1056:ALA:HB2	2.21	0.57
1:C:100:ILE:HG23	1:C:243:ALA:H	1.69	0.57
1:C:185:ASN:ND2	1:C:211:ASN:HD21	2.02	0.57
1:C:552:LEU:CD2	1:C:587:ILE:HD11	2.29	0.57
1:A:726:ILE:HD12	1:A:944:ALA:C	2.24	0.57
1:B:658:ASN:HB2	1:B:660:TYR:CE1	2.40	0.57
1:B:821:LEU:HD11	1:B:824:ASN:ND2	2.20	0.57
1:B:1043:CYS:HB2	1:B:1048:HIS:CD2	2.40	0.57
1:B:1140:PRO:O	1:B:1143:PRO:CD	2.50	0.57
1:C:220:PHE:CD2	1:C:287:ASP:HA	2.38	0.57
1:C:401:VAL:HG22	1:C:509:ARG:HA	1.87	0.57
1:C:411:ALA:CA	1:C:425:LEU:HD12	2.35	0.57
1:C:454:ARG:HD3	1:C:457:ARG:HB2	1.86	0.57
1:A:394:ASN:HD21	1:B:230:PRO:HB3	1.70	0.56
1:A:1081:ILE:HG13	1:A:1095:PHE:CE2	2.40	0.56
1:A:1101:HIS:HB2	1:A:1103:PHE:CZ	2.40	0.56
1:B:328:ARG:O	1:B:579:PRO:CD	2.52	0.56
1:B:659:SER:HB3	1:B:698:SER:CB	2.35	0.56
1:C:388:ASN:HD22	1:C:388:ASN:N	2.03	0.56
1:A:68:ILE:CB	1:A:262:ALA:HA	2.35	0.56
1:A:570:ALA:HB1	1:B:963:VAL:CG1	2.34	0.56
1:A:598:ILE:HD12	1:A:598:ILE:N	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:895:GLN:H	1:A:895:GLN:CD	2.08	0.56
1:A:919:ASN:O	1:A:923:ILE:HG13	2.06	0.56
1:C:434:ILE:N	1:C:434:ILE:HD12	2.20	0.56
1:A:119:ILE:HG23	1:A:127:VAL:O	2.04	0.56
1:A:353:TRP:H	1:A:466:ARG:HD3	1.67	0.56
1:A:403:ARG:HG3	1:A:495:TYR:CE1	2.39	0.56
1:A:487:ASN:HA	1:A:489:TYR:HE1	1.70	0.56
1:A:709:ASN:OD1	1:A:709:ASN:N	2.36	0.56
1:A:718:PHE:CD2	1:A:1109:PHE:HE2	2.24	0.56
1:A:1084:ASP:CB	1:A:1086:LYS:NZ	2.66	0.56
1:B:322:PRO:CD	1:B:549:THR:HG21	2.34	0.56
1:B:365:TYR:CZ	1:B:387:LEU:HB3	2.41	0.56
1:B:543:PHE:CG	1:B:576:VAL:CB	2.89	0.56
1:B:654:GLU:OE1	1:B:654:GLU:HA	2.04	0.56
1:B:980:ILE:HD11	1:B:984:LEU:HD12	1.88	0.56
1:B:1082:CYS:SG	1:B:1132:ILE:HD11	2.45	0.56
1:C:119:ILE:HG12	1:C:127:VAL:C	2.25	0.56
1:C:229:LEU:HB3	1:C:231:ILE:CD1	2.36	0.56
1:C:426:PRO:CG	1:C:464:PHE:CE2	2.82	0.56
1:C:555:SER:HG	1:C:584:ILE:C	2.08	0.56
1:C:942:ALA:HA	1:C:945:LEU:HD12	1.87	0.56
1:C:987:PRO:O	1:C:990:GLU:HB2	2.05	0.56
1:A:408:ARG:O	1:A:414:GLN:NE2	2.38	0.56
1:C:55:PHE:HB3	1:C:275:PHE:CE1	2.38	0.56
1:C:712:ILE:HD13	1:C:714:ILE:HD11	1.87	0.56
1:A:322:PRO:HB3	1:A:539:VAL:CA	2.36	0.56
1:A:331:ASN:OD1	1:A:580:GLN:NE2	2.38	0.56
1:A:697:MET:O	1:A:697:MET:HG2	2.05	0.56
1:B:226:LEU:CD1	1:B:227:VAL:HG13	2.36	0.56
1:C:118:LEU:CD2	1:C:135:PHE:CE1	2.87	0.56
1:C:472:ILE:CG2	1:C:490:PHE:HD1	2.18	0.56
1:C:498:GLN:HG3	1:C:499:PRO:HD2	1.87	0.56
1:C:611:LEU:O	1:C:611:LEU:HD23	2.05	0.56
1:A:329:PHE:CD2	1:A:528:LYS:CB	2.89	0.56
1:A:617:CYS:SG	1:A:644:GLN:HB2	2.46	0.56
1:B:382:VAL:HA	1:C:983:ARG:O	2.06	0.56
1:B:574:ASP:O	1:B:587:ILE:CB	2.51	0.56
1:B:654:GLU:HB3	1:B:693:ILE:HG22	1.88	0.56
1:A:89:GLY:CA	1:A:270:LEU:H	2.10	0.56
1:B:329:PHE:HA	1:B:579:PRO:HG3	1.78	0.56
1:B:430:THR:HG21	1:C:983:ARG:HH11	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:546:LEU:CB	1:B:565:PHE:CE1	2.88	0.56
1:C:87:ASN:ND2	1:C:269:TYR:CE2	2.74	0.56
1:C:458:LYS:HE2	1:C:474:GLN:HE21	1.70	0.56
1:C:644:GLN:HA	1:C:644:GLN:HE21	1.68	0.56
1:C:956:ALA:O	1:C:960:ASN:HB2	2.05	0.56
1:C:1103:PHE:HE1	1:C:1114:ILE:HD12	1.70	0.56
1:A:216:LEU:HD12	1:A:216:LEU:N	2.21	0.56
1:B:85:PRO:O	1:B:269:TYR:CZ	2.57	0.56
1:B:816:SER:H	1:B:819:GLU:HB2	1.70	0.56
1:B:1114:ILE:HG23	1:B:1138:TYR:CD1	2.40	0.56
1:C:471:GLU:O	1:C:491:PRO:CG	2.54	0.56
1:A:552:LEU:CD2	1:A:587:ILE:CD1	2.75	0.56
1:A:707:TYR:CD1	1:A:708:SER:N	2.74	0.56
1:A:1054:GLN:OE1	1:A:1054:GLN:HA	2.05	0.56
1:B:900:MET:HG2	1:B:917:TYR:OH	2.06	0.56
1:B:1115:ILE:O	1:B:1138:TYR:HD1	1.89	0.56
1:B:226:LEU:HG	1:B:227:VAL:HG22	1.87	0.56
1:B:326:ILE:HG22	1:B:531:THR:OG1	2.05	0.56
1:B:474:GLN:OE1	1:B:479:PRO:CB	2.54	0.56
1:B:599:THR:CG2	1:B:608:VAL:HG11	2.33	0.56
1:C:33:THR:N	1:C:58:PHE:HD1	2.04	0.56
1:A:357:ARG:HG3	1:A:396:TYR:CD1	2.41	0.55
1:A:546:LEU:HD23	1:A:546:LEU:C	2.26	0.55
1:B:103:GLY:H	1:B:241:LEU:HB2	1.71	0.55
1:B:275:PHE:HE1	1:B:290:ASP:CB	2.18	0.55
1:B:411:ALA:HB3	1:B:414:GLN:CG	2.35	0.55
1:C:123:ALA:O	1:C:175:PHE:O	2.23	0.55
1:C:461:LEU:HD21	1:C:465:GLU:OE1	2.06	0.55
1:C:472:ILE:HA	1:C:491:PRO:HD3	1.88	0.55
1:A:128:ILE:HG22	1:A:129:LYS:N	2.21	0.55
1:A:353:TRP:N	1:A:466:ARG:HD2	2.11	0.55
1:A:888:PHE:CZ	1:A:1034:LEU:HD22	2.41	0.55
1:B:1049:LEU:N	1:B:1049:LEU:HD12	2.21	0.55
1:B:577:ARG:HD3	1:B:582:LEU:CD2	2.28	0.55
1:C:105:ILE:HG13	1:C:118:LEU:HD12	1.80	0.55
1:C:453:TYR:CD1	1:C:495:TYR:CD1	2.93	0.55
1:A:421:TYR:HB3	1:A:454:ARG:HD2	1.88	0.55
1:A:654:GLU:HG3	1:A:693:ILE:HG22	1.88	0.55
1:B:330:PRO:HD3	1:B:579:PRO:HG3	1.88	0.55
1:B:718:PHE:HZ	1:B:923:ILE:CG1	2.18	0.55
1:C:69:HIS:CD2	1:C:77:LYS:HA	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:87:ASN:ND2	1:A:269:TYR:CE1	2.75	0.55
1:A:985:ASP:CG	1:A:986:PRO:HD2	2.27	0.55
1:B:85:PRO:CG	1:B:269:TYR:OH	2.52	0.55
1:B:422:ASN:ND2	1:B:454:ARG:H	2.05	0.55
1:B:546:LEU:CD2	1:B:573:THR:HB	2.36	0.55
1:C:417:LYS:O	1:C:421:TYR:HB2	2.06	0.55
1:A:55:PHE:CD1	1:A:275:PHE:CE2	2.95	0.55
1:B:58:PHE:CD1	1:B:290:ASP:HB2	2.42	0.55
1:B:317:ASN:ND2	1:C:737:ASP:CB	2.69	0.55
1:C:83:VAL:CB	1:C:237:ARG:HH21	2.19	0.55
1:C:309:GLU:OE1	1:C:309:GLU:HA	2.07	0.55
1:A:1081:ILE:HG23	1:A:1133:VAL:O	2.07	0.55
1:B:336:CYS:SG	1:B:362:VAL:N	2.80	0.55
1:C:186:PHE:O	1:C:211:ASN:ND2	2.40	0.55
1:A:90:VAL:HG13	1:A:194:PHE:CB	2.36	0.55
1:A:201:PHE:HD1	1:A:202:LYS:N	2.05	0.55
1:A:724:THR:CG2	1:A:1063:LEU:CD2	2.84	0.55
1:A:735:SER:OG	1:A:861:LEU:HD13	2.07	0.55
1:A:193:VAL:HG23	1:A:223:LEU:HD13	1.89	0.55
1:A:403:ARG:HD3	1:A:495:TYR:CE1	2.42	0.55
1:B:716:THR:O	1:B:1109:PHE:CE1	2.60	0.55
1:B:770:ILE:HD13	1:B:1011:GLN:HB3	1.88	0.55
1:C:462:LYS:HE2	1:C:462:LYS:CA	2.19	0.55
1:C:541:PHE:CE2	1:C:587:ILE:CG1	2.91	0.55
1:A:864:LEU:CD1	1:C:665:PRO:HB2	2.37	0.54
1:B:372:ALA:HB1	1:B:374:PHE:CD2	2.37	0.54
1:C:956:ALA:O	1:C:960:ASN:HB3	2.06	0.54
1:A:546:LEU:HD23	1:A:547:THR:N	2.22	0.54
1:A:1091:ARG:NE	1:A:1118:ASP:O	2.41	0.54
1:C:360:ASN:HD22	1:C:523:THR:CG2	2.13	0.54
1:C:544:ASN:CG	1:C:579:PRO:HG3	2.27	0.54
1:B:106:PHE:HB3	1:B:235:ILE:HD12	1.85	0.54
1:B:1082:CYS:SG	1:B:1132:ILE:HD13	2.48	0.54
1:C:290:ASP:O	1:C:297:SER:CB	2.54	0.54
1:A:68:ILE:HD12	1:A:262:ALA:CB	2.38	0.54
1:A:324:GLU:H	1:A:539:VAL:HG12	1.72	0.54
1:A:357:ARG:HG3	1:A:396:TYR:HE1	1.71	0.54
1:B:328:ARG:NE	1:B:578:ASP:OD2	2.40	0.54
1:B:472:ILE:HD13	1:B:490:PHE:HD1	1.71	0.54
1:B:715:PRO:CA	1:B:1071:GLN:O	2.54	0.54
1:B:905:ARG:NH1	1:B:1049:LEU:O	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:535:LYS:C	1:A:536:ASN:HD22	2.11	0.54
1:A:886:TRP:HB2	1:A:1035:GLY:N	2.23	0.54
1:B:200:TYR:CE1	1:B:202:LYS:CE	2.89	0.54
1:B:962:LEU:HA	1:B:965:GLN:HG2	1.88	0.54
1:C:930:ALA:O	1:C:934:ILE:HG22	2.07	0.54
1:A:736:VAL:HG22	1:A:858:LEU:CD2	2.37	0.54
1:B:985:ASP:CB	1:B:987:PRO:HD2	2.38	0.54
1:C:55:PHE:HD2	1:C:275:PHE:HD1	1.45	0.54
1:C:120:VAL:HG21	1:C:157:PHE:HZ	1.71	0.54
1:C:204:TYR:HD1	1:C:225:PRO:HB3	1.70	0.54
1:A:391:CYS:SG	1:A:544:ASN:HA	2.48	0.54
1:B:613:GLN:HG2	1:C:861:LEU:HD12	1.89	0.54
1:B:874:THR:HG21	1:B:1055:SER:HB3	1.88	0.54
1:C:1029:MET:SD	1:C:1033:VAL:HG21	2.48	0.54
1:A:89:GLY:HA3	1:A:270:LEU:CD1	2.32	0.54
1:A:115:GLN:OE1	1:A:130:VAL:HG12	2.08	0.54
1:A:735:SER:OG	1:A:861:LEU:CD1	2.56	0.54
1:B:360:ASN:OD1	1:B:523:THR:HG22	2.07	0.54
1:B:386:LYS:HE2	1:C:982:SER:O	2.07	0.54
1:B:546:LEU:CB	1:B:565:PHE:HE1	2.21	0.54
1:C:367:VAL:HG23	1:C:368:LEU:HD12	1.88	0.54
3:C:1305:NAG:O7	3:C:1305:NAG:H3	2.06	0.54
1:A:90:VAL:HG13	1:A:194:PHE:O	2.08	0.54
1:A:229:LEU:HD12	1:A:229:LEU:N	2.23	0.54
1:A:731:MET:CE	1:A:1011:GLN:HE21	2.21	0.54
1:A:927:PHE:O	1:A:927:PHE:HD1	1.91	0.54
1:B:577:ARG:HA	1:B:584:ILE:HA	1.89	0.54
1:B:639:GLY:HA3	1:B:651:ILE:HD12	1.89	0.54
1:C:58:PHE:HD2	1:C:290:ASP:HB2	1.71	0.54
1:C:353:TRP:HE1	1:C:466:ARG:HB3	1.73	0.54
1:C:1078:ALA:N	1:C:1102:TRP:HH2	2.05	0.54
1:C:1102:TRP:CB	1:C:1135:ASN:OD1	2.46	0.54
1:A:54:LEU:CD1	1:A:54:LEU:H	2.20	0.54
1:B:360:ASN:H	1:B:524:VAL:HG22	1.73	0.54
1:B:472:ILE:HD13	1:B:490:PHE:CD1	2.42	0.54
1:C:83:VAL:CB	1:C:237:ARG:NH2	2.70	0.54
1:C:329:PHE:O	1:C:580:GLN:HG3	2.08	0.54
1:A:752:LEU:HD11	1:A:990:GLU:HG3	1.89	0.53
1:A:886:TRP:HB2	1:A:1035:GLY:H	1.72	0.53
1:B:201:PHE:HE1	1:B:203:ILE:CD1	2.20	0.53
1:B:310:LYS:HE3	1:B:663:ASP:OD1	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:331:ASN:C	1:B:333:THR:HG23	2.20	0.53
1:B:718:PHE:CB	1:B:1067:TYR:CZ	2.82	0.53
1:B:802:PHE:HE1	1:B:1052:PHE:CE2	2.26	0.53
1:C:825:LYS:HZ1	1:C:942:ALA:CB	2.09	0.53
1:A:800:PHE:CE2	1:A:927:PHE:HD2	2.27	0.53
1:B:31:SER:OG	1:B:60:SER:O	2.19	0.53
1:C:106:PHE:CZ	1:C:194:PHE:CD2	2.97	0.53
1:C:395:VAL:HG23	1:C:524:VAL:HG21	1.90	0.53
1:C:821:LEU:HD21	1:C:939:SER:CB	2.34	0.53
1:A:280:ASN:HB2	1:A:286:THR:HG23	1.89	0.53
1:A:457:ARG:HG3	1:A:459:SER:O	2.09	0.53
1:B:17:ASN:O	1:B:255:SER:HA	2.07	0.53
1:C:36:VAL:HG21	1:C:220:PHE:HE1	1.73	0.53
1:C:411:ALA:HB1	1:C:412:PRO:HD2	1.90	0.53
1:A:763:LEU:HD22	1:A:1008:VAL:HG21	1.90	0.53
1:A:55:PHE:HB3	1:A:275:PHE:HE2	1.70	0.53
1:A:66:HIS:CD2	1:A:68:ILE:CG2	2.92	0.53
1:A:643:PHE:CD2	1:A:655:HIS:HB2	2.43	0.53
1:A:895:GLN:O	1:C:712:ILE:HA	2.09	0.53
1:B:541:PHE:CE2	1:B:587:ILE:CG2	2.85	0.53
1:B:1027:THR:O	1:B:1031:GLU:N	2.33	0.53
1:A:89:GLY:CA	1:A:270:LEU:CG	2.84	0.53
1:A:166:CYS:CB	1:A:169:GLU:CD	2.77	0.53
1:A:277:LEU:HD23	1:A:288:ALA:CB	2.39	0.53
1:A:403:ARG:CD	1:A:495:TYR:HE1	2.22	0.53
1:A:1029:MET:N	1:A:1062:PHE:CZ	2.77	0.53
1:A:1043:CYS:CA	1:A:1064:HIS:CE1	2.91	0.53
1:B:331:ASN:C	1:B:333:THR:N	2.58	0.53
1:B:718:PHE:CG	1:B:1067:TYR:CE1	2.71	0.53
1:B:1050:MET:O	1:B:1065:VAL:HG23	2.07	0.53
1:C:37:TYR:CD2	1:C:204:TYR:CE2	2.96	0.53
1:C:103:GLY:HA2	1:C:104:TRP:CE3	2.44	0.53
1:C:1090:PRO:CB	1:C:1093:GLY:O	2.57	0.53
1:A:118:LEU:CD2	1:A:135:PHE:CZ	2.78	0.53
1:A:204:TYR:CD1	1:A:225:PRO:CB	2.92	0.53
1:A:1085:GLY:C	1:A:1126:CYS:SG	2.86	0.53
1:A:1102:TRP:CE2	1:A:1133:VAL:HG21	2.44	0.53
1:B:356:LYS:HB3	1:B:397:ALA:HB3	1.90	0.53
1:B:1089:PHE:HB2	1:B:1121:PHE:CE1	2.44	0.53
1:B:1090:PRO:N	1:B:1095:PHE:HE1	2.07	0.53
1:C:218:GLN:OE1	1:C:218:GLN:N	2.33	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:330:PRO:CD	1:C:544:ASN:HD21	2.13	0.53
1:A:54:LEU:H	1:A:54:LEU:HD12	1.74	0.53
1:A:67:ALA:HB3	1:A:263:ALA:CB	2.35	0.53
1:A:133:PHE:HE1	1:A:160:TYR:CE1	2.17	0.53
1:B:331:ASN:OD1	2:H:1:NAG:O5	2.27	0.53
1:B:365:TYR:HE2	1:B:388:ASN:CA	2.22	0.53
1:B:538:CYS:HA	1:B:551:VAL:HG12	1.89	0.53
1:C:185:ASN:ND2	1:C:211:ASN:ND2	2.57	0.53
1:C:230:PRO:HD2	1:C:231:ILE:HD12	1.89	0.53
1:C:931:ILE:HA	1:C:934:ILE:CG2	2.39	0.53
1:A:203:ILE:HG22	1:A:227:VAL:CG2	2.38	0.53
1:A:1028:LYS:O	1:A:1062:PHE:CE2	2.62	0.53
1:B:719:THR:HG23	1:B:1070:ALA:HB2	1.89	0.53
1:A:64:TRP:CE2	1:A:266:TYR:CE2	2.94	0.53
1:A:89:GLY:O	1:A:270:LEU:HD12	2.09	0.53
1:A:729:VAL:HG22	1:A:1025:ALA:CB	2.38	0.53
1:A:886:TRP:HB2	1:A:1035:GLY:CA	2.39	0.53
1:A:1047:TYR:HD1	1:A:1067:TYR:O	1.91	0.53
1:B:825:LYS:HZ2	1:B:945:LEU:HD12	1.73	0.53
1:B:1114:ILE:CG2	1:B:1138:TYR:CE1	2.91	0.53
1:C:223:LEU:HD23	1:C:223:LEU:N	2.24	0.53
1:C:409:GLN:HE21	1:C:409:GLN:H	1.55	0.53
1:C:724:THR:OG1	1:C:934:ILE:HD13	2.09	0.53
1:A:314:GLN:HG3	1:A:314:GLN:O	2.09	0.52
1:A:617:CYS:SG	1:A:644:GLN:CB	2.98	0.52
1:A:781:VAL:HA	1:A:1026:ALA:CA	2.37	0.52
1:A:802:PHE:CD2	1:A:882:ILE:HD13	2.44	0.52
1:A:804:GLN:O	1:A:816:SER:HB3	2.09	0.52
1:B:16:VAL:HG13	1:B:158:ARG:NH2	2.24	0.52
1:B:53:ASP:HB3	1:B:55:PHE:HE2	1.70	0.52
1:B:665:PRO:HB2	1:C:864:LEU:HD13	1.91	0.52
1:C:516:GLU:OE2	1:C:519:HIS:CE1	2.63	0.52
1:A:329:PHE:CE2	1:A:528:LYS:CG	2.93	0.52
1:A:722:VAL:HA	1:A:1064:HIS:O	2.09	0.52
1:B:69:HIS:NE2	1:B:77:LYS:HA	2.23	0.52
1:C:800:PHE:CE1	1:C:898:PHE:HE2	2.28	0.52
1:C:1029:MET:HE1	1:C:1060:VAL:HG21	1.91	0.52
1:B:319:ARG:HA	1:B:591:SER:O	2.09	0.52
1:B:328:ARG:NH2	1:B:533:LEU:CB	2.73	0.52
1:B:332:ILE:HG22	1:B:334:ASN:HD21	1.75	0.52
1:B:388:ASN:ND2	1:B:527:PRO:HG2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:569:ILE:HB	1:C:47:VAL:HG11	1.91	0.52
1:C:32:PHE:HE1	1:C:218:GLN:CB	2.22	0.52
1:C:727:LEU:HD11	1:C:1028:LYS:HE3	1.90	0.52
1:C:813:SER:O	1:C:868:GLU:OE1	2.28	0.52
1:A:1082:CYS:HB2	1:A:1132:ILE:HD13	1.91	0.52
1:A:1138:TYR:HE2	1:A:1140:PRO:CA	2.21	0.52
1:B:396:TYR:N	1:B:514:SER:O	2.42	0.52
1:B:699:LEU:HD23	1:C:788:ILE:CG1	2.29	0.52
1:B:743:CYS:SG	1:B:750:SER:HA	2.49	0.52
1:B:1081:ILE:HD12	1:B:1133:VAL:HG23	1.90	0.52
1:C:795:LYS:HB3	1:C:797:PHE:HE2	1.73	0.52
1:A:394:ASN:HD21	1:B:230:PRO:HB2	1.74	0.52
1:C:452:LEU:CD2	1:C:492:LEU:HB3	2.39	0.52
1:C:494:SER:OG	1:C:495:TYR:N	2.42	0.52
1:C:719:THR:HG23	1:C:1070:ALA:HB2	1.91	0.52
1:C:988:GLU:C	1:C:990:GLU:N	2.62	0.52
1:C:1083:HIS:HB2	1:C:1137:VAL:HG23	1.91	0.52
1:A:394:ASN:ND2	1:B:230:PRO:HB3	2.24	0.52
1:A:426:PRO:CG	1:A:463:PRO:HB3	2.38	0.52
1:A:743:CYS:O	1:A:977:LEU:CD2	2.57	0.52
1:A:1081:ILE:HD12	1:A:1133:VAL:HG23	1.92	0.52
1:A:1138:TYR:CE2	1:A:1140:PRO:CB	2.92	0.52
1:B:726:ILE:CG2	1:B:948:LEU:HG	2.40	0.52
1:B:955:ASN:O	1:B:959:LEU:HD23	2.10	0.52
1:C:194:PHE:HE1	1:C:203:ILE:HD11	1.75	0.52
1:A:193:VAL:HG13	1:A:270:LEU:HD21	1.90	0.52
1:A:1033:VAL:HG21	1:A:1053:PRO:HG3	1.91	0.52
1:B:310:LYS:CE	1:B:663:ASP:OD1	2.58	0.52
1:B:976:VAL:HB	1:B:979:ASP:HB3	1.92	0.52
1:C:89:GLY:CA	1:C:270:LEU:HD13	2.39	0.52
1:C:101:ILE:HD12	1:C:101:ILE:N	2.25	0.52
1:C:423:TYR:CE2	1:C:425:LEU:CD2	2.93	0.52
1:C:710:ASN:O	1:C:1077:THR:HG22	2.10	0.52
1:C:738:CYS:SG	1:C:760:CYS:C	2.86	0.52
1:A:92:PHE:CE1	1:A:94:SER:CB	2.92	0.52
1:A:774:GLN:HA	1:A:774:GLN:NE2	2.25	0.52
1:A:817:PHE:CE2	1:A:935:GLN:HG3	2.35	0.52
1:B:990:GLU:O	1:B:994:ASP:N	2.27	0.52
1:C:37:TYR:CE2	1:C:204:TYR:CE2	2.97	0.52
1:C:353:TRP:CH2	1:C:423:TYR:HA	2.45	0.52
1:C:453:TYR:OH	1:C:493:GLN:NE2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:660:TYR:H	1:C:695:TYR:HE2	1.58	0.52
1:C:1054:GLN:OE1	1:C:1054:GLN:HA	2.09	0.52
1:A:800:PHE:HE2	1:A:927:PHE:HD2	1.57	0.52
1:A:825:LYS:CD	1:A:938:LEU:O	2.58	0.52
1:B:804:GLN:OE1	1:B:804:GLN:N	2.42	0.52
1:C:355:ARG:NH2	1:C:396:TYR:CG	2.77	0.52
1:A:480:CYS:HG	1:A:488:CYS:CB	2.23	0.52
1:A:800:PHE:CD2	1:A:927:PHE:CD2	2.98	0.52
1:B:665:PRO:CB	1:C:864:LEU:HD13	2.40	0.52
1:B:1145:LEU:CD2	1:B:1145:LEU:H	2.22	0.52
1:C:180:GLU:HB3	1:C:182:LYS:HE2	1.92	0.52
1:C:543:PHE:CD2	1:C:576:VAL:HG21	2.45	0.52
1:C:727:LEU:CG	1:C:1028:LYS:HZ2	2.23	0.52
1:A:278:LYS:HB3	1:A:287:ASP:O	2.10	0.51
1:A:379:CYS:CB	1:A:384:PRO:HD3	2.39	0.51
1:A:973:ILE:HG22	1:A:983:ARG:NH2	2.21	0.51
1:A:1025:ALA:O	1:A:1029:MET:HG2	2.10	0.51
1:B:44:ARG:HB2	1:B:279:TYR:HD2	1.70	0.51
1:B:64:TRP:HD1	1:B:65:PHE:N	2.08	0.51
1:B:275:PHE:HE1	1:B:290:ASP:HB2	1.74	0.51
1:B:823:PHE:CA	1:B:826:VAL:HG12	2.39	0.51
1:C:1145:LEU:C	1:C:1145:LEU:HD13	2.31	0.51
1:A:931:ILE:O	1:A:934:ILE:HG23	2.10	0.51
1:A:988:GLU:O	1:A:991:VAL:CG1	2.57	0.51
1:A:1082:CYS:HB2	1:A:1132:ILE:HD11	1.92	0.51
1:B:472:ILE:CA	1:B:489:TYR:O	2.58	0.51
1:B:1090:PRO:CD	1:B:1095:PHE:CE1	2.86	0.51
1:B:1095:PHE:CZ	1:B:1120:THR:CG2	2.91	0.51
1:B:1105:THR:OG1	1:B:1111:GLU:O	2.28	0.51
1:B:1125:ASN:OD1	1:B:1125:ASN:N	2.42	0.51
1:B:1141:LEU:CD2	1:B:1145:LEU:CD2	2.63	0.51
1:C:360:ASN:CA	1:C:523:THR:HG21	2.40	0.51
1:C:461:LEU:CD2	1:C:465:GLU:OE1	2.57	0.51
1:C:577:ARG:HB2	1:C:584:ILE:HD13	1.92	0.51
1:A:407:VAL:HG21	1:A:508:TYR:HD2	1.75	0.51
1:B:164:ASN:OD1	1:B:165:ASN:ND2	2.43	0.51
1:B:351:TYR:CE1	1:B:452:LEU:HB2	2.45	0.51
1:B:805:ILE:CA	1:B:818:ILE:HD11	2.40	0.51
1:B:821:LEU:HD13	1:B:824:ASN:HD22	1.75	0.51
1:B:915:VAL:O	1:B:919:ASN:OD1	2.28	0.51
1:C:36:VAL:C	1:C:223:LEU:HD21	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:303:LEU:HD12	1:C:308:VAL:HG22	1.93	0.51
1:C:392:PHE:CE2	1:C:524:VAL:CG1	2.88	0.51
1:C:480:CYS:HA	1:C:483:VAL:HG12	1.90	0.51
1:A:931:ILE:O	1:A:934:ILE:CG2	2.59	0.51
1:A:1145:LEU:HD23	1:A:1145:LEU:C	2.30	0.51
1:B:91:TYR:CE1	1:B:93:ALA:CB	2.87	0.51
1:B:1080:ALA:O	1:B:1132:ILE:CG1	2.59	0.51
1:C:661:GLU:OE1	1:C:661:GLU:N	2.28	0.51
1:A:33:THR:HA	1:A:58:PHE:CE1	2.46	0.51
1:A:773:GLU:OE2	1:A:1019:ARG:CB	2.59	0.51
1:B:107:GLY:H	1:B:235:ILE:HD13	1.75	0.51
1:B:599:THR:HG22	1:B:608:VAL:HG12	1.90	0.51
1:C:220:PHE:CE1	1:C:288:ALA:HB3	2.44	0.51
1:C:280:ASN:ND2	1:C:284:THR:OG1	2.43	0.51
1:A:273:ARG:HH21	1:A:292:ALA:CB	2.24	0.51
1:A:699:LEU:HD22	1:B:873:TYR:CZ	2.46	0.51
1:B:647:ALA:HB2	1:C:862:PRO:HG3	1.93	0.51
1:B:795:LYS:HB3	1:B:797:PHE:CE2	2.45	0.51
1:C:330:PRO:N	1:C:544:ASN:HD21	2.08	0.51
1:A:29:THR:O	1:A:62:VAL:HG13	2.10	0.51
1:A:367:VAL:HG23	1:A:368:LEU:CD2	2.41	0.51
1:B:195:LYS:CB	1:B:197:ILE:HD11	2.35	0.51
1:B:277:LEU:CD1	1:B:288:ALA:HB2	2.40	0.51
1:B:542:ASN:CA	1:B:547:THR:HG23	2.41	0.51
1:B:584:ILE:H	1:B:584:ILE:CD1	2.24	0.51
1:B:1011:GLN:HE21	1:B:1011:GLN:CA	2.07	0.51
1:C:497:PHE:CD1	1:C:507:PRO:CD	2.93	0.51
1:C:733:LYS:HB3	1:C:771:ALA:CB	2.40	0.51
1:C:1098:ASN:OD1	1:C:1098:ASN:N	2.43	0.51
1:A:135:PHE:CD1	1:A:160:TYR:HB3	2.46	0.51
1:A:166:CYS:HB3	1:A:169:GLU:CD	2.30	0.51
1:A:302:THR:HG21	1:A:315:THR:HA	1.92	0.51
1:A:374:PHE:HD1	1:A:436:TRP:HB3	1.75	0.51
1:A:973:ILE:HB	1:A:980:ILE:HD11	1.93	0.51
1:B:515:PHE:CA	1:B:516:GLU:OE1	2.58	0.51
1:B:559:PHE:CG	1:B:584:ILE:HG12	2.46	0.51
1:B:617:CYS:CA	1:B:649:CYS:SG	2.99	0.51
1:B:1040:VAL:HG12	1:B:1041:ASP:OD1	2.11	0.51
1:B:1046:GLY:HA2	1:C:890:ALA:HA	1.93	0.51
1:C:55:PHE:O	1:C:270:LEU:HB3	2.10	0.51
1:C:915:VAL:HG22	1:C:1111:GLU:OE2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:471:GLU:O	1:A:491:PRO:HG3	2.11	0.51
1:A:611:LEU:HG	1:A:611:LEU:O	2.09	0.51
1:B:743:CYS:O	1:B:977:LEU:CD1	2.59	0.51
1:B:877:LEU:HD13	1:B:1029:MET:SD	2.51	0.51
1:B:1029:MET:HE1	1:B:1053:PRO:HB3	1.92	0.51
1:B:1054:GLN:HB2	1:B:1061:VAL:O	2.11	0.51
1:C:410:ILE:O	1:C:410:ILE:HG22	2.11	0.51
1:C:551:VAL:HG22	1:C:588:THR:O	2.10	0.51
1:C:1141:LEU:HD23	1:C:1141:LEU:C	2.31	0.51
1:A:663:ASP:N	1:A:695:TYR:OH	2.44	0.51
1:A:976:VAL:CG1	1:A:979:ASP:CB	2.88	0.51
1:A:1088:HIS:CE1	1:A:1122:VAL:HG13	2.38	0.51
1:B:55:PHE:CB	1:B:275:PHE:CE2	2.90	0.51
1:B:328:ARG:NH2	1:B:533:LEU:HB2	2.26	0.51
1:B:368:LEU:O	1:B:372:ALA:HB2	2.10	0.51
1:B:381:GLY:C	1:C:984:LEU:HD13	2.30	0.51
1:B:819:GLU:HG3	1:B:1054:GLN:OE1	2.09	0.51
1:B:1062:PHE:HB3	1:B:1064:HIS:CE1	2.46	0.51
1:C:327:VAL:H	1:C:531:THR:CG2	2.23	0.51
1:C:660:TYR:HB2	1:C:695:TYR:CZ	2.45	0.51
1:A:141:LEU:N	1:A:241:LEU:HD11	2.26	0.50
1:A:203:ILE:HG21	1:A:227:VAL:CG2	2.41	0.50
1:A:619:GLU:OE1	1:A:619:GLU:HA	2.11	0.50
1:A:741:TYR:CZ	1:A:966:LEU:CD2	2.93	0.50
1:A:1039:ARG:CZ	1:A:1042:PHE:CD2	2.94	0.50
1:B:384:PRO:O	1:B:387:LEU:HG	2.11	0.50
1:B:718:PHE:HB3	1:B:1067:TYR:OH	2.10	0.50
1:C:404:GLY:CA	1:C:508:TYR:CD2	2.94	0.50
1:C:610:VAL:O	1:C:651:ILE:HG12	2.11	0.50
1:A:902:MET:HG3	1:A:916:LEU:HD11	1.92	0.50
1:B:815:ARG:CZ	1:B:823:PHE:CG	2.94	0.50
1:C:105:ILE:HD12	1:C:239:GLN:O	2.11	0.50
1:C:336:CYS:HB2	1:C:363:ALA:HB2	1.94	0.50
1:C:977:LEU:CD2	1:C:1000:ARG:HH12	2.23	0.50
1:A:117:LEU:HD13	1:A:201:PHE:CD2	2.46	0.50
1:A:133:PHE:CZ	1:A:160:TYR:CZ	3.00	0.50
1:C:85:PRO:HG2	1:C:269:TYR:HH	1.68	0.50
1:C:280:ASN:OD1	1:C:284:THR:N	2.44	0.50
1:C:615:VAL:CG2	1:C:649:CYS:H	2.24	0.50
1:C:654:GLU:OE2	1:C:693:ILE:HG22	2.11	0.50
1:C:1001:LEU:C	1:C:1001:LEU:HD13	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:712:ILE:HB	1:A:1077:THR:HG22	1.93	0.50
1:A:955:ASN:OD1	1:A:1014:ARG:HD3	2.11	0.50
1:B:699:LEU:H	1:B:699:LEU:HD13	1.76	0.50
1:B:733:LYS:HD3	1:B:775:ASP:CG	2.31	0.50
1:C:197:ILE:O	1:C:197:ILE:HG13	2.11	0.50
1:C:328:ARG:HB2	1:C:543:PHE:CD1	2.47	0.50
1:A:106:PHE:CZ	1:A:194:PHE:CD2	2.94	0.50
1:A:903:ALA:CA	1:A:916:LEU:HD13	2.42	0.50
1:A:1029:MET:HA	1:A:1062:PHE:HE2	1.75	0.50
1:B:37:TYR:CD1	1:B:37:TYR:C	2.85	0.50
1:B:393:THR:OG1	1:B:522:ALA:HB3	2.11	0.50
1:B:821:LEU:O	1:B:824:ASN:N	2.44	0.50
1:B:1142:GLN:N	1:B:1143:PRO:CD	2.74	0.50
1:C:102:ARG:NE	1:C:141:LEU:HD22	2.26	0.50
1:C:817:PHE:CE1	1:C:935:GLN:HG3	2.46	0.50
1:C:861:LEU:HD22	1:C:861:LEU:H	1.77	0.50
1:A:864:LEU:HD13	1:C:665:PRO:HB2	1.94	0.50
1:B:119:ILE:HG13	1:B:127:VAL:O	2.11	0.50
1:B:119:ILE:CG2	1:B:120:VAL:N	2.74	0.50
1:B:280:ASN:HB3	1:B:286:THR:CG2	2.42	0.50
1:B:962:LEU:O	1:B:965:GLN:HB2	2.12	0.50
1:A:53:ASP:O	1:A:55:PHE:HD2	1.86	0.50
1:A:64:TRP:CD1	1:A:266:TYR:HD2	2.12	0.50
1:A:731:MET:HG2	1:A:774:GLN:CD	2.30	0.50
1:A:965:GLN:O	1:A:966:LEU:C	2.49	0.50
1:B:226:LEU:HD12	1:B:227:VAL:HG13	1.93	0.50
1:C:203:ILE:CG2	1:C:227:VAL:HG23	2.34	0.50
1:B:64:TRP:HD1	1:B:65:PHE:H	1.58	0.50
1:B:117:LEU:HD23	1:B:117:LEU:O	2.12	0.50
1:B:290:ASP:HB3	1:B:293:LEU:HB2	1.93	0.50
1:B:599:THR:CG2	1:B:608:VAL:CG1	2.81	0.50
1:C:318:PHE:O	1:C:593:GLY:N	2.45	0.50
1:C:735:SER:HB2	1:C:861:LEU:HD21	1.84	0.50
1:C:1089:PHE:O	1:C:1120:THR:CA	2.60	0.50
1:A:97:LYS:N	1:A:186:PHE:CD2	2.79	0.50
1:A:201:PHE:CD1	1:A:202:LYS:N	2.79	0.50
1:A:763:LEU:HD13	1:A:1004:LEU:HB3	1.92	0.50
1:A:885:GLY:CA	1:A:901:GLN:CD	2.78	0.50
1:A:950:ASP:OD1	1:A:954:GLN:NE2	2.45	0.50
1:A:988:GLU:OE1	1:A:988:GLU:HA	2.12	0.50
1:A:1043:CYS:HA	1:A:1064:HIS:CE1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:59:PHE:CD1	1:B:293:LEU:HD21	2.46	0.50
1:B:659:SER:CB	1:B:698:SER:CB	2.89	0.50
1:B:662:CYS:HB2	1:B:671:CYS:SG	2.51	0.50
1:B:949:GLN:OE1	1:B:949:GLN:HA	2.12	0.50
1:B:995:ARG:O	1:B:996:LEU:C	2.46	0.50
1:C:119:ILE:CG1	1:C:128:ILE:CB	2.90	0.50
1:C:119:ILE:CG2	1:C:120:VAL:N	2.75	0.50
1:C:541:PHE:CB	1:C:552:LEU:HD11	2.42	0.50
1:C:716:THR:N	1:C:1071:GLN:O	2.39	0.50
1:C:730:SER:HB2	1:C:774:GLN:CB	2.42	0.50
1:C:1083:HIS:HB3	1:C:1088:HIS:CE1	2.46	0.50
1:A:788:ILE:CG1	1:C:699:LEU:HG	2.42	0.49
1:A:1029:MET:HA	1:A:1062:PHE:CE2	2.47	0.49
1:B:29:THR:HG23	1:B:62:VAL:HG12	1.94	0.49
1:C:643:PHE:HE1	1:C:655:HIS:CD2	2.30	0.49
1:C:821:LEU:HD11	1:C:939:SER:HB3	1.94	0.49
1:C:905:ARG:HE	1:C:1050:MET:HE1	1.75	0.49
1:A:430:THR:HG21	1:A:517:LEU:HD21	1.94	0.49
1:A:582:LEU:HD22	1:A:582:LEU:N	2.27	0.49
1:A:600:PRO:CG	1:A:674:TYR:CD1	2.96	0.49
1:A:729:VAL:HG22	1:A:1025:ALA:HB1	1.93	0.49
1:B:193:VAL:CG1	1:B:223:LEU:HD12	2.42	0.49
1:B:273:ARG:HH11	1:B:273:ARG:HG3	1.76	0.49
1:B:533:LEU:HD11	1:B:535:LYS:HG3	1.93	0.49
1:B:989:ALA:HB1	1:B:993:ILE:HD12	1.93	0.49
1:C:659:SER:HB2	1:C:698:SER:HB3	1.93	0.49
1:A:250:THR:HG22	1:A:259:THR:HG23	1.93	0.49
1:A:662:CYS:HA	1:A:695:TYR:OH	2.12	0.49
1:A:864:LEU:HD12	1:C:667:GLY:HA2	1.94	0.49
1:A:903:ALA:HA	1:A:916:LEU:HD13	1.95	0.49
1:A:1028:LYS:HE3	1:A:1062:PHE:CG	2.47	0.49
1:C:275:PHE:CE2	1:C:290:ASP:OD2	2.65	0.49
1:C:320:VAL:CG2	1:C:591:SER:HB2	2.42	0.49
1:C:365:TYR:N	1:C:365:TYR:CD1	2.81	0.49
1:A:91:TYR:HB2	1:A:270:LEU:HD11	1.95	0.49
1:A:322:PRO:HG3	1:A:549:THR:CG2	2.43	0.49
1:C:368:LEU:HD12	1:C:368:LEU:H	1.76	0.49
1:C:726:ILE:HG22	1:C:948:LEU:CG	2.39	0.49
1:C:1033:VAL:HG23	1:C:1062:PHE:HE1	1.77	0.49
1:A:86:PHE:HE2	1:A:90:VAL:CG1	2.24	0.49
1:A:86:PHE:CE2	1:A:90:VAL:HG11	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:277:LEU:HD23	1:A:288:ALA:HB1	1.94	0.49
1:B:106:PHE:CZ	1:B:194:PHE:CD2	2.94	0.49
1:B:1134:ASN:OD1	1:B:1134:ASN:N	2.45	0.49
1:C:105:ILE:HG23	1:C:118:LEU:CD1	2.39	0.49
1:C:360:ASN:HD22	1:C:360:ASN:N	2.10	0.49
1:C:1015:ALA:O	1:C:1019:ARG:N	2.45	0.49
1:A:590:CYS:O	1:A:591:SER:C	2.50	0.49
1:A:922:LEU:HG	1:A:926:GLN:HE21	1.77	0.49
1:B:48:LEU:HD12	1:B:48:LEU:N	2.27	0.49
1:C:69:HIS:NE2	1:C:77:LYS:HA	2.28	0.49
1:C:472:ILE:O	1:C:472:ILE:HG13	2.13	0.49
1:C:672:ALA:HA	1:C:693:ILE:O	2.13	0.49
1:A:273:ARG:NH2	1:A:292:ALA:CB	2.76	0.49
1:A:743:CYS:SG	1:A:750:SER:CA	3.00	0.49
1:A:800:PHE:CE2	1:A:927:PHE:CD2	3.01	0.49
1:A:1080:ALA:C	1:A:1132:ILE:HG13	2.33	0.49
1:B:101:ILE:HD11	1:B:263:ALA:HB1	1.94	0.49
1:B:342:PHE:CD2	1:B:368:LEU:CD1	2.96	0.49
1:B:639:GLY:CA	1:B:651:ILE:HD12	2.41	0.49
1:B:967:SER:O	1:B:975:SER:HB2	2.12	0.49
1:B:1145:LEU:CD2	1:B:1145:LEU:N	2.75	0.49
1:C:119:ILE:CG1	1:C:128:ILE:CG1	2.76	0.49
1:C:457:ARG:C	1:C:473:TYR:HE1	2.14	0.49
1:C:658:ASN:OD1	1:C:658:ASN:N	2.38	0.49
1:A:33:THR:HA	1:A:58:PHE:CZ	2.47	0.49
1:A:310:LYS:HG3	1:A:664:ILE:CD1	2.31	0.49
1:A:421:TYR:CE1	1:A:457:ARG:HB3	2.48	0.49
1:A:617:CYS:SG	1:A:644:GLN:CD	2.91	0.49
1:A:805:ILE:HD12	1:A:878:LEU:HD11	1.95	0.49
1:B:662:CYS:CB	1:B:671:CYS:SG	3.01	0.49
1:B:1039:ARG:NH2	1:B:1042:PHE:CD2	2.77	0.49
1:C:452:LEU:HG	1:C:494:SER:HA	1.94	0.49
1:C:490:PHE:CE2	1:C:492:LEU:HB2	2.46	0.49
1:C:1013:ILE:O	1:C:1017:GLU:HG3	2.12	0.49
1:A:241:LEU:HD12	1:A:241:LEU:C	2.32	0.49
1:A:273:ARG:NH2	1:A:292:ALA:HB1	2.27	0.49
1:A:480:CYS:CB	1:A:488:CYS:HG	2.25	0.49
1:A:671:CYS:O	1:A:694:ALA:HA	2.13	0.49
1:B:599:THR:HA	1:B:608:VAL:HG12	1.93	0.49
1:B:720:ILE:CD1	1:B:1067:TYR:HA	2.43	0.49
1:C:119:ILE:CD1	1:C:128:ILE:CG2	2.63	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:422:ASN:O	1:C:461:LEU:HD13	2.13	0.49
1:C:965:GLN:CG	1:C:970:PHE:HZ	2.23	0.49
1:A:289:VAL:HG23	1:A:306:PHE:HE1	1.78	0.49
1:A:480:CYS:SG	1:A:488:CYS:CB	3.01	0.49
1:A:490:PHE:CE2	1:A:492:LEU:HB2	2.48	0.49
1:A:805:ILE:O	1:A:816:SER:CB	2.61	0.49
1:B:92:PHE:CE2	1:B:265:TYR:HD2	2.28	0.49
1:B:403:ARG:HG3	1:B:497:PHE:HE1	1.78	0.49
1:C:211:ASN:N	1:C:211:ASN:OD1	2.46	0.49
1:C:341:VAL:CG2	1:C:356:LYS:HD3	2.43	0.49
1:C:360:ASN:N	1:C:523:THR:HG23	2.26	0.49
1:B:119:ILE:HD11	1:B:128:ILE:HG12	1.92	0.48
1:B:753:LEU:HD21	1:B:760:CYS:SG	2.53	0.48
1:B:989:ALA:HB1	1:B:993:ILE:CD1	2.43	0.48
1:C:55:PHE:CD2	1:C:275:PHE:CE1	3.00	0.48
1:C:817:PHE:HE1	1:C:935:GLN:CG	2.25	0.48
1:A:616:ASN:O	1:A:619:GLU:HG2	2.13	0.48
1:A:900:MET:HE3	1:C:1079:PRO:HA	1.96	0.48
1:A:973:ILE:CG2	1:A:983:ARG:HH21	2.19	0.48
1:B:118:LEU:HB2	1:B:135:PHE:CZ	2.45	0.48
1:B:543:PHE:HD2	1:B:576:VAL:HG22	1.78	0.48
1:C:106:PHE:HB3	1:C:235:ILE:HD13	1.95	0.48
1:C:231:ILE:H	1:C:231:ILE:CD1	2.23	0.48
1:B:119:ILE:HG13	1:B:128:ILE:CA	2.37	0.48
1:B:332:ILE:HG22	1:B:334:ASN:ND2	2.28	0.48
1:B:383:SER:OG	1:C:985:ASP:HB3	2.12	0.48
1:B:816:SER:OG	1:B:819:GLU:CG	2.61	0.48
1:B:1107:ARG:CZ	1:C:896:ILE:HD11	2.43	0.48
1:C:695:TYR:N	1:C:695:TYR:CD1	2.81	0.48
1:C:795:LYS:HB3	1:C:797:PHE:CE2	2.48	0.48
1:C:821:LEU:CD2	1:C:939:SER:HB3	2.38	0.48
1:C:1090:PRO:HD3	1:C:1095:PHE:CE2	2.49	0.48
1:A:33:THR:CG2	1:A:58:PHE:CD2	2.59	0.48
1:A:119:ILE:CG2	1:A:120:VAL:N	2.77	0.48
1:A:313:TYR:N	1:A:313:TYR:CD1	2.82	0.48
1:A:320:VAL:HG12	1:A:321:GLN:N	2.28	0.48
1:A:695:TYR:CD1	1:A:695:TYR:N	2.81	0.48
1:A:974:SER:OG	1:A:980:ILE:HG12	2.13	0.48
1:B:122:ASN:O	1:B:175:PHE:CE2	2.66	0.48
1:B:200:TYR:CE1	1:B:202:LYS:CG	2.93	0.48
1:B:805:ILE:CG1	1:B:818:ILE:HD11	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:387:LEU:O	1:C:390:LEU:CD1	2.61	0.48
1:C:472:ILE:CA	1:C:491:PRO:HD3	2.44	0.48
1:A:733:LYS:HE3	1:A:863:PRO:HA	1.94	0.48
1:A:890:ALA:CA	1:C:1046:GLY:HA3	2.43	0.48
1:A:1103:PHE:N	1:A:1103:PHE:CD1	2.81	0.48
1:B:633:TRP:CE3	1:B:636:TYR:O	2.67	0.48
1:B:726:ILE:HG21	1:B:948:LEU:HG	1.95	0.48
1:C:409:GLN:H	1:C:409:GLN:NE2	2.11	0.48
1:A:782:PHE:HE2	1:A:874:THR:CG2	2.26	0.48
1:A:1105:THR:OG1	1:A:1111:GLU:N	2.44	0.48
1:B:164:ASN:OD1	1:B:165:ASN:OD1	2.32	0.48
1:B:718:PHE:CZ	1:B:923:ILE:CD1	2.88	0.48
1:B:1088:HIS:CD2	1:B:1137:VAL:CG1	2.71	0.48
1:C:27:ALA:HB3	1:C:64:TRP:HB3	1.95	0.48
1:C:490:PHE:CZ	1:C:492:LEU:HD23	2.48	0.48
1:C:546:LEU:HD23	1:C:546:LEU:C	2.34	0.48
1:C:660:TYR:N	1:C:660:TYR:CD1	2.81	0.48
1:C:710:ASN:O	1:C:1077:THR:N	2.41	0.48
1:A:822:LEU:O	1:A:826:VAL:HG23	2.14	0.48
1:C:377:PHE:CE1	1:C:434:ILE:HG13	2.45	0.48
1:C:1142:GLN:N	1:C:1143:PRO:CD	2.77	0.48
1:A:96:GLU:OE1	1:A:100:ILE:N	2.46	0.48
1:A:661:GLU:O	1:A:695:TYR:CE2	2.67	0.48
1:B:190:ARG:NE	1:B:207:HIS:CE1	2.76	0.48
1:B:405:ASP:N	1:B:504:GLY:O	2.46	0.48
1:B:543:PHE:CD2	1:B:576:VAL:CB	2.97	0.48
1:C:661:GLU:O	1:C:695:TYR:OH	2.31	0.48
1:A:96:GLU:HA	1:A:186:PHE:CD2	2.48	0.48
1:A:727:LEU:C	1:A:948:LEU:CD2	2.82	0.48
1:B:96:GLU:OE1	1:B:100:ILE:N	2.46	0.48
1:B:914:ASN:OD1	1:B:915:VAL:HG23	2.14	0.48
1:C:526:GLY:HA3	1:C:527:PRO:HD2	1.43	0.48
1:A:882:ILE:HG23	1:A:898:PHE:CE1	2.49	0.48
1:C:32:PHE:HB3	1:C:59:PHE:CE1	2.49	0.48
1:C:1013:ILE:HG22	1:C:1017:GLU:OE2	2.14	0.48
1:A:472:ILE:HG23	1:A:489:TYR:O	2.14	0.47
1:B:97:LYS:HB2	1:B:186:PHE:HA	1.96	0.47
1:B:396:TYR:HH	1:C:200:TYR:HH	1.62	0.47
1:B:538:CYS:N	1:B:551:VAL:CG1	2.71	0.47
1:B:763:LEU:HD13	1:B:1004:LEU:HB3	1.96	0.47
1:B:1039:ARG:CZ	1:B:1042:PHE:HD2	2.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1141:LEU:HD23	1:B:1145:LEU:HD23	1.93	0.47
1:C:458:LYS:HA	1:C:473:TYR:CE1	2.48	0.47
1:C:1010:GLN:CD	1:C:1014:ARG:HH12	2.16	0.47
1:A:92:PHE:HE1	1:A:94:SER:CB	2.26	0.47
1:A:104:TRP:O	1:A:118:LEU:CD1	2.55	0.47
1:A:131:CYS:HB2	1:A:133:PHE:CE2	2.48	0.47
1:A:643:PHE:CE2	1:A:655:HIS:CB	2.97	0.47
1:A:791:THR:HG21	1:A:806:LEU:HD11	1.96	0.47
1:A:962:LEU:HD22	1:A:1007:TYR:HB2	1.95	0.47
1:B:44:ARG:O	1:B:279:TYR:HB3	2.14	0.47
1:B:59:PHE:CE1	1:B:293:LEU:HD21	2.49	0.47
1:B:194:PHE:HB3	1:B:201:PHE:CE2	2.49	0.47
1:B:216:LEU:H	1:B:216:LEU:HD12	1.78	0.47
1:B:329:PHE:CG	1:B:330:PRO:CD	2.97	0.47
1:B:353:TRP:HH2	1:B:466:ARG:HB3	1.58	0.47
1:B:659:SER:HB2	1:B:698:SER:HB3	1.96	0.47
1:B:715:PRO:CG	1:B:1069:PRO:HB3	2.44	0.47
1:B:797:PHE:CD1	1:B:802:PHE:HD2	2.32	0.47
1:B:909:ILE:HG13	1:B:911:VAL:HG23	1.95	0.47
1:C:555:SER:OG	1:C:585:LEU:N	2.47	0.47
1:A:741:TYR:CE2	1:A:966:LEU:HD21	2.50	0.47
1:A:799:GLY:O	1:A:924:ALA:HB1	2.13	0.47
1:A:1102:TRP:HB2	1:A:1135:ASN:HD22	1.67	0.47
1:B:185:ASN:HB2	1:B:213:VAL:HG21	1.96	0.47
1:B:365:TYR:OH	1:B:387:LEU:O	2.31	0.47
1:B:1010:GLN:O	1:B:1014:ARG:HG3	2.15	0.47
1:C:126:VAL:HG13	1:C:175:PHE:HZ	1.78	0.47
1:C:429:PHE:CD1	1:C:431:GLY:N	2.78	0.47
1:C:581:THR:CG2	1:C:583:GLU:HG3	2.40	0.47
1:C:868:GLU:OE1	1:C:868:GLU:HA	2.14	0.47
1:A:126:VAL:HG13	1:A:175:PHE:CZ	2.49	0.47
1:A:164:ASN:OD1	2:F:1:NAG:O5	2.33	0.47
1:B:107:GLY:HA2	1:B:235:ILE:HG12	1.95	0.47
1:B:330:PRO:N	1:B:579:PRO:HG2	2.26	0.47
1:B:466:ARG:HH12	1:B:468:ILE:HG23	1.78	0.47
1:C:366:SER:O	1:C:370:ASN:CA	2.61	0.47
1:C:921:LYS:HA	1:C:921:LYS:HE3	1.91	0.47
1:A:128:ILE:CG2	1:A:129:LYS:N	2.77	0.47
1:B:381:GLY:O	1:C:983:ARG:HG2	2.14	0.47
1:C:37:TYR:HA	1:C:223:LEU:HG	1.96	0.47
1:C:317:ASN:HA	1:C:593:GLY:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:729:VAL:HG21	1:C:782:PHE:HE1	1.80	0.47
1:A:230:PRO:CG	1:C:357:ARG:NH1	2.77	0.47
1:A:1028:LYS:HZ1	1:A:1064:HIS:CE1	2.31	0.47
1:A:1043:CYS:C	1:A:1064:HIS:ND1	2.66	0.47
1:A:1092:GLU:OE1	1:A:1092:GLU:N	2.48	0.47
1:B:379:CYS:SG	1:B:384:PRO:HB3	2.55	0.47
1:B:817:PHE:HZ	1:B:935:GLN:NE2	2.10	0.47
1:B:977:LEU:HA	1:B:980:ILE:HG22	1.97	0.47
1:C:791:THR:CG2	1:C:792:PRO:HD2	2.44	0.47
1:C:977:LEU:HD21	1:C:1000:ARG:HH12	1.78	0.47
1:A:329:PHE:CE2	1:A:528:LYS:CB	2.98	0.47
1:B:200:TYR:HH	1:B:202:LYS:HE2	1.79	0.47
1:B:353:TRP:CZ3	1:B:423:TYR:HD1	2.33	0.47
1:B:472:ILE:CD1	1:B:490:PHE:CB	2.86	0.47
1:B:911:VAL:HG21	1:B:1067:TYR:CE2	2.50	0.47
1:B:1116:THR:HG22	1:B:1140:PRO:CD	2.39	0.47
1:B:1141:LEU:HD11	1:C:1141:LEU:HD12	1.95	0.47
1:C:37:TYR:CB	1:C:223:LEU:HG	2.44	0.47
1:C:43:PHE:CD1	1:C:43:PHE:C	2.88	0.47
1:C:83:VAL:HB	1:C:237:ARG:NH2	2.29	0.47
1:C:104:TRP:CE3	1:C:104:TRP:N	2.82	0.47
1:C:168:PHE:CD2	1:C:231:ILE:HG13	2.50	0.47
1:C:194:PHE:CD1	1:C:203:ILE:HG13	2.50	0.47
1:C:270:LEU:HD12	1:C:270:LEU:N	2.30	0.47
1:C:377:PHE:HE1	1:C:434:ILE:HD11	1.80	0.47
1:C:462:LYS:HB3	1:C:463:PRO:HD2	1.97	0.47
1:C:728:PRO:HB3	1:C:948:LEU:HD22	1.97	0.47
1:C:817:PHE:HD1	1:C:818:ILE:HD13	1.78	0.47
1:C:1085:GLY:C	1:C:1126:CYS:SG	2.93	0.47
1:C:1086:LYS:HB3	1:C:1122:VAL:HG21	1.96	0.47
1:A:89:GLY:CA	1:A:270:LEU:N	2.53	0.47
1:B:64:TRP:CD1	1:B:65:PHE:N	2.82	0.47
1:B:118:LEU:CD2	1:B:135:PHE:CE1	2.84	0.47
1:B:168:PHE:CE2	1:B:170:TYR:CB	2.92	0.47
1:B:539:VAL:C	1:B:549:THR:HG23	2.36	0.47
1:B:718:PHE:CZ	1:B:923:ILE:HG12	2.50	0.47
1:B:1031:GLU:OE2	1:B:1039:ARG:CD	2.61	0.47
1:B:1145:LEU:HD22	1:B:1145:LEU:H	1.76	0.47
1:C:612:TYR:HB2	1:C:615:VAL:CG2	2.44	0.47
1:A:43:PHE:CE2	1:A:282:ASN:O	2.54	0.47
1:A:86:PHE:CE2	1:A:90:VAL:CG1	2.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:96:GLU:CA	1:A:186:PHE:HD2	2.27	0.47
1:A:401:VAL:HG11	1:A:451:TYR:CE2	2.50	0.47
1:A:448:ASN:HB2	1:A:497:PHE:HB2	1.97	0.47
1:B:204:TYR:CE1	1:B:225:PRO:CB	2.93	0.47
1:B:699:LEU:CD2	1:C:788:ILE:HG13	2.31	0.47
1:B:795:LYS:HB3	1:B:797:PHE:HE2	1.80	0.47
1:B:1029:MET:CE	1:B:1053:PRO:HB3	2.45	0.47
1:C:1080:ALA:C	1:C:1132:ILE:HG13	2.35	0.47
1:A:664:ILE:HB	1:A:672:ALA:O	2.15	0.47
1:A:1028:LYS:CB	1:A:1062:PHE:CZ	2.97	0.47
1:B:197:ILE:HD13	1:B:202:LYS:CG	2.44	0.47
1:B:336:CYS:HA	1:B:361:CYS:SG	2.55	0.47
1:B:365:TYR:CG	1:B:387:LEU:HD12	2.50	0.47
1:B:396:TYR:OH	1:C:200:TYR:CZ	2.54	0.47
1:B:817:PHE:HD1	1:B:817:PHE:C	2.18	0.47
1:C:230:PRO:HD2	1:C:231:ILE:CD1	2.44	0.47
1:C:612:TYR:HB2	1:C:615:VAL:HG13	1.80	0.47
1:A:93:ALA:O	1:A:266:TYR:CD1	2.61	0.46
1:A:403:ARG:CG	1:A:495:TYR:CZ	2.98	0.46
1:A:403:ARG:HG2	1:A:495:TYR:CE1	2.49	0.46
1:A:743:CYS:O	1:A:977:LEU:HD23	2.14	0.46
1:B:200:TYR:C	1:B:200:TYR:CD1	2.88	0.46
1:C:414:GLN:HE21	1:C:414:GLN:CA	2.19	0.46
1:A:600:PRO:HB3	1:A:674:TYR:HB2	1.96	0.46
1:A:650:LEU:HD12	1:A:653:ALA:HB3	1.97	0.46
1:B:265:TYR:N	1:B:265:TYR:CD1	2.83	0.46
1:B:370:ASN:C	1:B:372:ALA:H	2.19	0.46
1:B:490:PHE:CD1	1:B:491:PRO:HD2	2.51	0.46
1:B:1049:LEU:HD11	1:B:1067:TYR:HB2	1.98	0.46
1:C:99:ASN:N	1:C:99:ASN:ND2	2.64	0.46
1:C:451:TYR:C	1:C:452:LEU:HD12	2.35	0.46
1:C:585:LEU:HD23	1:C:585:LEU:N	2.29	0.46
1:C:734:THR:HG21	1:C:1007:TYR:OH	2.16	0.46
1:B:365:TYR:CE2	1:B:388:ASN:HA	2.46	0.46
1:B:395:VAL:HG22	1:B:515:PHE:HB3	1.96	0.46
1:C:534:VAL:HG11	1:C:539:VAL:HG21	1.97	0.46
1:C:733:LYS:HD2	1:C:771:ALA:HB1	1.97	0.46
1:A:29:THR:HG23	1:A:62:VAL:HG13	1.97	0.46
1:A:119:ILE:HG22	1:A:120:VAL:N	2.30	0.46
1:A:895:GLN:HE22	1:C:713:ALA:HB2	1.81	0.46
1:A:903:ALA:HA	1:A:916:LEU:CD1	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:91:TYR:O	1:B:91:TYR:HD1	1.99	0.46
1:B:108:THR:OG1	1:B:234:ASN:O	2.33	0.46
1:B:350:VAL:HB	1:B:402:ILE:HG22	1.97	0.46
1:B:866:THR:HG23	1:B:869:MET:H	1.79	0.46
1:C:588:THR:HG22	1:C:589:PRO:CD	2.44	0.46
1:C:707:TYR:C	1:C:707:TYR:CD1	2.89	0.46
1:A:141:LEU:HB2	1:A:241:LEU:HD11	1.98	0.46
1:A:216:LEU:HD12	1:A:216:LEU:H	1.80	0.46
1:A:328:ARG:HH22	1:A:533:LEU:CA	2.28	0.46
1:A:914:ASN:O	1:A:918:GLU:HG3	2.15	0.46
1:A:1028:LYS:HE3	1:A:1062:PHE:CD1	2.50	0.46
1:B:101:ILE:HG13	1:B:242:LEU:HD13	1.98	0.46
1:B:229:LEU:N	1:B:229:LEU:HD22	2.30	0.46
1:B:336:CYS:SG	1:B:363:ALA:N	2.88	0.46
1:C:392:PHE:HD2	1:C:395:VAL:HG22	1.67	0.46
1:C:541:PHE:CE1	1:C:587:ILE:CD1	2.85	0.46
1:C:734:THR:CG2	1:C:1011:GLN:HE21	2.29	0.46
1:C:1048:HIS:CE1	1:C:1050:MET:C	2.89	0.46
1:A:231:ILE:CG2	1:A:233:ILE:H	2.22	0.46
1:A:455:LEU:HG	1:A:456:PHE:CD2	2.51	0.46
1:B:65:PHE:HB2	1:B:265:TYR:CE1	2.51	0.46
1:B:388:ASN:HD21	1:B:527:PRO:HG2	1.79	0.46
1:B:805:ILE:HD13	1:B:1052:PHE:CD2	2.51	0.46
1:B:856:ASN:O	1:B:858:LEU:HG	2.16	0.46
1:B:888:PHE:CD1	1:B:888:PHE:C	2.89	0.46
1:C:503:VAL:HG22	1:C:506:GLN:OE1	2.16	0.46
1:C:712:ILE:CD1	1:C:714:ILE:HD11	2.45	0.46
1:A:954:GLN:HG2	1:A:1014:ARG:HH22	1.80	0.46
1:B:107:GLY:N	1:B:235:ILE:CD1	2.75	0.46
1:B:107:GLY:H	1:B:235:ILE:CG2	2.29	0.46
1:B:882:ILE:HG23	1:B:898:PHE:HD2	1.78	0.46
1:B:1081:ILE:HD12	1:B:1133:VAL:CG2	2.46	0.46
1:C:326:ILE:HD11	1:C:552:LEU:HD12	1.96	0.46
1:C:671:CYS:O	1:C:695:TYR:CE1	2.69	0.46
1:C:720:ILE:CD1	1:C:1049:LEU:HD11	2.46	0.46
1:A:329:PHE:CE2	1:A:528:LYS:HB3	2.50	0.46
1:A:411:ALA:HB3	1:A:414:GLN:HE21	1.81	0.46
1:B:265:TYR:N	1:B:265:TYR:HD1	2.13	0.46
1:B:347:PHE:HB2	1:B:401:VAL:HG23	1.97	0.46
1:B:365:TYR:CZ	1:B:387:LEU:O	2.69	0.46
1:B:388:ASN:CG	1:B:527:PRO:HG2	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:31:SER:O	1:C:59:PHE:HA	2.16	0.46
1:C:374:PHE:CD1	1:C:374:PHE:N	2.83	0.46
1:C:974:SER:HB3	1:C:980:ILE:HD11	1.98	0.46
1:A:231:ILE:CG2	1:A:233:ILE:HG23	2.45	0.46
1:A:1030:SER:OG	1:A:1034:LEU:HD12	2.16	0.46
1:B:329:PHE:CG	1:B:330:PRO:HD2	2.44	0.46
1:B:356:LYS:N	1:B:397:ALA:O	2.45	0.46
1:B:411:ALA:HB3	1:B:414:GLN:HG2	1.96	0.46
1:B:538:CYS:CA	1:B:551:VAL:CG1	2.93	0.46
1:B:763:LEU:HD22	1:B:1008:VAL:CG2	2.42	0.46
1:B:784:GLN:HE21	1:B:784:GLN:CA	2.07	0.46
1:B:1126:CYS:SG	1:B:1132:ILE:HD13	2.55	0.46
1:C:377:PHE:CD1	1:C:434:ILE:CG1	2.87	0.46
1:C:671:CYS:O	1:C:695:TYR:CD1	2.69	0.46
1:C:720:ILE:HD11	1:C:1049:LEU:HD11	1.98	0.46
1:C:742:ILE:HG22	1:C:743:CYS:SG	2.56	0.46
1:C:817:PHE:HE1	1:C:935:GLN:HG3	1.81	0.46
1:C:1001:LEU:HD13	1:C:1001:LEU:O	2.16	0.46
1:C:1029:MET:O	1:C:1034:LEU:HG	2.16	0.46
1:A:357:ARG:HD2	1:B:230:PRO:HB2	1.97	0.46
1:A:767:LEU:HD23	1:A:767:LEU:HA	1.82	0.46
1:A:864:LEU:HA	1:C:667:GLY:HA2	1.97	0.46
1:B:318:PHE:O	1:B:592:PHE:HA	2.16	0.46
1:B:533:LEU:HD12	1:B:533:LEU:C	2.33	0.46
1:B:727:LEU:C	1:B:948:LEU:HD21	2.36	0.46
1:B:805:ILE:HG23	1:B:878:LEU:HD11	1.97	0.46
1:B:821:LEU:CD1	1:B:824:ASN:CB	2.87	0.46
1:B:1080:ALA:O	1:B:1132:ILE:HG13	2.15	0.46
1:C:310:LYS:HB2	1:C:600:PRO:O	2.16	0.46
1:C:731:MET:HG2	1:C:774:GLN:NE2	2.31	0.46
1:A:797:PHE:HE1	1:A:882:ILE:HG22	1.77	0.45
1:B:62:VAL:HG21	1:B:266:TYR:HB3	1.97	0.45
1:B:995:ARG:O	1:B:998:THR:N	2.49	0.45
1:C:395:VAL:CG1	1:C:513:LEU:HD11	2.46	0.45
1:A:57:PRO:HB3	1:A:273:ARG:HE	1.80	0.45
1:A:86:PHE:CD1	1:A:86:PHE:C	2.89	0.45
1:A:1043:CYS:CB	1:A:1064:HIS:CE1	2.99	0.45
1:B:396:TYR:HB2	1:B:514:SER:HB3	1.97	0.45
1:B:542:ASN:HA	1:B:547:THR:HG23	1.98	0.45
1:B:555:SER:HB3	1:B:584:ILE:O	2.16	0.45
1:B:817:PHE:HD1	1:B:817:PHE:O	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1081:ILE:CD1	1:B:1133:VAL:CG2	2.95	0.45
1:B:1125:ASN:ND2	1:B:1127:ASP:OD2	2.49	0.45
1:C:406:GLU:OE1	1:C:406:GLU:N	2.49	0.45
1:C:1103:PHE:CE1	1:C:1114:ILE:CD1	2.89	0.45
1:A:273:ARG:HH21	1:A:292:ALA:HB3	1.80	0.45
1:B:382:VAL:CA	1:C:984:LEU:HD13	2.46	0.45
1:B:562:PHE:CZ	1:C:225:PRO:HD2	2.51	0.45
1:B:718:PHE:CZ	1:B:923:ILE:CG1	2.99	0.45
1:C:607:GLN:NE2	1:C:674:TYR:CE1	2.85	0.45
1:C:805:ILE:HD11	1:C:1063:LEU:CD1	2.46	0.45
1:A:92:PHE:C	1:A:92:PHE:CD1	2.90	0.45
1:A:639:GLY:O	1:A:640:SER:C	2.55	0.45
1:A:743:CYS:SG	1:A:750:SER:HA	2.57	0.45
1:A:782:PHE:CE1	1:A:1060:VAL:HG22	2.52	0.45
1:A:894:LEU:HD11	1:C:715:PRO:HG3	1.98	0.45
1:A:909:ILE:HD13	1:A:1049:LEU:HD21	1.97	0.45
1:B:92:PHE:HE1	1:B:94:SER:HB3	1.82	0.45
1:B:324:GLU:HG3	1:B:539:VAL:CG2	2.46	0.45
1:B:962:LEU:HA	1:B:965:GLN:CG	2.45	0.45
1:C:315:THR:O	1:C:595:VAL:HB	2.15	0.45
1:A:34:ARG:CZ	1:A:217:PRO:HG2	2.46	0.45
1:A:738:CYS:SG	1:A:760:CYS:O	2.74	0.45
1:A:916:LEU:O	1:A:916:LEU:HD23	2.17	0.45
1:A:976:VAL:CG1	1:A:979:ASP:HB2	2.47	0.45
1:B:324:GLU:HG3	1:B:539:VAL:HG23	1.98	0.45
1:B:1111:GLU:O	1:B:1111:GLU:HG3	2.16	0.45
1:C:92:PHE:CD1	1:C:92:PHE:C	2.90	0.45
1:C:269:TYR:CD1	1:C:269:TYR:N	2.83	0.45
1:C:365:TYR:N	1:C:365:TYR:HD1	2.14	0.45
1:A:37:TYR:O	1:A:38:TYR:C	2.55	0.45
1:A:135:PHE:HD1	1:A:160:TYR:HB3	1.81	0.45
1:A:193:VAL:CG2	1:A:223:LEU:CD1	2.94	0.45
1:A:643:PHE:CD2	1:A:655:HIS:HB3	2.51	0.45
1:A:804:GLN:H	1:A:804:GLN:HG2	1.57	0.45
1:B:63:THR:O	1:B:63:THR:OG1	2.31	0.45
1:B:118:LEU:CD2	1:B:135:PHE:CZ	2.84	0.45
1:B:131:CYS:HB2	1:B:133:PHE:CE2	2.52	0.45
1:C:136:CYS:SG	1:C:137:ASN:N	2.90	0.45
1:C:390:LEU:HD12	1:C:390:LEU:C	2.37	0.45
1:C:611:LEU:HD23	1:C:611:LEU:C	2.37	0.45
1:C:781:VAL:HG22	1:C:1026:ALA:CA	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:367:VAL:HG23	1:A:368:LEU:HD22	1.98	0.45
1:A:403:ARG:CD	1:A:495:TYR:CE1	3.00	0.45
1:A:453:TYR:HE2	1:A:493:GLN:HG2	1.69	0.45
1:A:489:TYR:N	1:A:489:TYR:CD1	2.85	0.45
1:A:927:PHE:HE1	1:A:931:ILE:CG1	2.30	0.45
1:A:1095:PHE:HE2	1:A:1115:ILE:HD13	1.82	0.45
3:A:1306:NAG:C1	3:A:1306:NAG:C8	2.94	0.45
1:B:539:VAL:O	1:B:549:THR:HA	2.15	0.45
1:B:564:GLN:HE21	1:B:564:GLN:CA	2.22	0.45
1:B:612:TYR:CD2	1:B:620:VAL:HG11	2.51	0.45
1:B:785:VAL:HG12	1:B:888:PHE:HE1	1.82	0.45
1:B:1083:HIS:CE1	1:B:1136:THR:OG1	2.70	0.45
1:C:643:PHE:CE1	1:C:655:HIS:CD2	3.05	0.45
1:C:743:CYS:HB3	1:C:749:CYS:HB3	1.85	0.45
1:A:200:TYR:CE1	1:A:230:PRO:HB3	2.52	0.45
1:A:693:ILE:CD1	1:A:693:ILE:H	2.28	0.45
1:B:57:PRO:CB	1:B:273:ARG:NH1	2.60	0.45
1:B:322:PRO:HD3	1:B:549:THR:HG21	1.98	0.45
1:B:818:ILE:HG13	1:B:818:ILE:H	1.57	0.45
1:B:965:GLN:HE21	1:B:965:GLN:CA	2.25	0.45
1:C:312:ILE:HD11	1:C:596:SER:HB3	1.99	0.45
1:C:990:GLU:OE1	1:C:990:GLU:HA	2.17	0.45
1:C:1076:THR:OG1	1:C:1097:SER:OG	2.34	0.45
1:A:211:ASN:ND2	1:A:211:ASN:O	2.50	0.45
1:A:954:GLN:CG	1:A:1014:ARG:HH22	2.30	0.45
1:B:126:VAL:CG1	1:B:175:PHE:CZ	2.99	0.45
1:B:334:ASN:CB	1:B:361:CYS:HA	2.45	0.45
1:B:718:PHE:CB	1:B:1067:TYR:OH	2.64	0.45
1:B:1080:ALA:O	1:B:1132:ILE:HG12	2.17	0.45
1:A:90:VAL:HG13	1:A:90:VAL:O	2.16	0.45
1:A:577:ARG:NH2	1:A:582:LEU:HD12	2.32	0.45
1:A:728:PRO:N	1:A:948:LEU:CD2	2.79	0.45
1:A:784:GLN:HE22	1:A:1030:SER:HB2	1.78	0.45
1:A:945:LEU:O	1:A:949:GLN:CB	2.64	0.45
1:A:1096:VAL:HG23	1:A:1096:VAL:O	2.17	0.45
1:B:86:PHE:C	1:B:86:PHE:CD1	2.90	0.45
1:B:92:PHE:HZ	1:B:265:TYR:CD2	2.31	0.45
1:B:817:PHE:C	1:B:817:PHE:CD1	2.88	0.45
1:B:821:LEU:O	1:B:824:ASN:CB	2.61	0.45
1:C:226:LEU:CG	1:C:227:VAL:HG13	2.43	0.45
1:C:453:TYR:CE2	1:C:493:GLN:CD	2.91	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:675:GLN:HE21	1:A:675:GLN:CA	2.23	0.44
1:A:794:ILE:HG22	1:A:796:ASP:H	1.82	0.44
1:B:330:PRO:N	1:B:579:PRO:CG	2.80	0.44
1:B:633:TRP:HE3	1:B:636:TYR:O	2.00	0.44
1:B:1039:ARG:NE	1:B:1042:PHE:HD2	2.14	0.44
1:B:1048:HIS:NE2	1:B:1051:SER:OG	2.43	0.44
1:C:326:ILE:HG21	1:C:534:VAL:CG1	2.46	0.44
1:C:409:GLN:HG2	1:C:416:GLY:HA3	1.99	0.44
1:C:720:ILE:HD12	1:C:1049:LEU:HD12	1.99	0.44
1:C:931:ILE:HA	1:C:934:ILE:HG22	1.98	0.44
1:C:1097:SER:HB3	1:C:1102:TRP:CD2	2.51	0.44
1:A:101:ILE:HG13	1:A:242:LEU:HD13	1.98	0.44
1:A:612:TYR:CB	1:A:615:VAL:HG22	2.47	0.44
1:A:643:PHE:CD1	1:A:643:PHE:C	2.90	0.44
1:A:1028:LYS:HB3	1:A:1062:PHE:CZ	2.53	0.44
1:B:190:ARG:HG2	1:B:207:HIS:CE1	2.52	0.44
1:B:866:THR:O	1:B:869:MET:N	2.50	0.44
1:C:86:PHE:CD2	1:C:106:PHE:HE1	2.35	0.44
1:C:131:CYS:HG	1:C:166:CYS:CB	2.28	0.44
1:C:555:SER:OG	1:C:585:LEU:CA	2.66	0.44
1:C:825:LYS:NZ	1:C:942:ALA:CB	2.60	0.44
1:C:1089:PHE:HB2	1:C:1121:PHE:CE1	2.52	0.44
1:A:457:ARG:CG	1:A:459:SER:O	2.65	0.44
1:A:896:ILE:CG2	1:A:897:PRO:HD2	2.46	0.44
1:A:992:GLN:HE21	1:A:992:GLN:CA	2.30	0.44
1:B:48:LEU:HB3	1:B:276:LEU:HD21	1.99	0.44
1:B:168:PHE:CZ	1:B:170:TYR:HB2	2.52	0.44
1:B:240:THR:CG2	1:B:241:LEU:N	2.80	0.44
1:B:276:LEU:CD1	1:B:304:LYS:HA	2.45	0.44
1:B:823:PHE:O	1:B:827:THR:CG2	2.43	0.44
1:B:1097:SER:HB3	1:B:1102:TRP:CG	2.53	0.44
1:A:204:TYR:HD1	1:A:225:PRO:N	2.15	0.44
1:A:560:LEU:HD13	1:A:562:PHE:HE1	1.82	0.44
1:B:730:SER:HA	1:B:774:GLN:OE1	2.18	0.44
1:B:1027:THR:O	1:B:1031:GLU:CB	2.65	0.44
1:B:1043:CYS:CB	1:B:1048:HIS:CD2	3.00	0.44
1:C:83:VAL:HB	1:C:237:ARG:HH21	1.81	0.44
1:C:116:SER:HA	1:C:233:ILE:HD11	1.98	0.44
1:C:377:PHE:CE1	1:C:434:ILE:CG1	3.01	0.44
1:C:660:TYR:N	1:C:695:TYR:CE2	2.83	0.44
1:C:726:ILE:HD12	1:C:1061:VAL:HG22	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:805:ILE:CG2	1:C:878:LEU:HD13	2.48	0.44
1:A:289:VAL:HG23	1:A:306:PHE:CE1	2.53	0.44
1:A:357:ARG:HH11	1:A:357:ARG:CG	2.28	0.44
1:A:541:PHE:O	1:A:541:PHE:CD1	2.71	0.44
1:A:565:PHE:N	1:A:565:PHE:CD1	2.85	0.44
1:A:718:PHE:CD1	1:A:718:PHE:C	2.91	0.44
1:B:123:ALA:HB1	1:B:176:LEU:HD23	1.99	0.44
1:B:131:CYS:HG	1:B:166:CYS:CB	2.31	0.44
1:B:559:PHE:HB3	1:B:577:ARG:NH2	2.30	0.44
1:B:731:MET:H	1:B:774:GLN:CD	2.19	0.44
1:C:194:PHE:HE1	1:C:203:ILE:CD1	2.29	0.44
1:A:96:GLU:CA	1:A:186:PHE:CD2	2.99	0.44
1:A:422:ASN:HD21	1:A:454:ARG:H	1.65	0.44
1:A:743:CYS:O	1:A:977:LEU:HD21	2.18	0.44
1:C:275:PHE:HE2	1:C:290:ASP:OD2	2.01	0.44
1:C:770:ILE:CD1	1:C:1015:ALA:HB2	2.47	0.44
1:A:115:GLN:OE1	1:A:130:VAL:CG1	2.66	0.44
1:A:326:ILE:HG21	1:A:534:VAL:CG2	2.43	0.44
1:A:1047:TYR:O	1:A:1066:THR:HA	2.17	0.44
1:B:44:ARG:O	1:B:279:TYR:CD2	2.70	0.44
1:B:291:CYS:O	1:B:298:GLU:HA	2.18	0.44
1:B:726:ILE:HD13	1:B:1061:VAL:HG13	2.00	0.44
1:B:805:ILE:HG23	1:B:878:LEU:CD1	2.48	0.44
1:B:1080:ALA:HB3	1:B:1132:ILE:HG13	2.00	0.44
1:C:105:ILE:HG23	1:C:118:LEU:HB2	1.99	0.44
1:C:410:ILE:HD12	1:C:423:TYR:HD2	1.83	0.44
1:C:552:LEU:HD21	1:C:587:ILE:CD1	2.43	0.44
1:C:577:ARG:HB2	1:C:584:ILE:CD1	2.48	0.44
1:A:309:GLU:OE1	1:A:309:GLU:N	2.39	0.44
1:A:600:PRO:CD	1:A:692:ILE:HD11	2.43	0.44
1:A:716:THR:N	1:A:1071:GLN:O	2.50	0.44
1:B:54:LEU:HD12	1:B:54:LEU:H	1.83	0.44
1:B:365:TYR:CZ	1:B:387:LEU:C	2.91	0.44
1:B:396:TYR:OH	1:C:200:TYR:CE2	2.70	0.44
1:B:448:ASN:HB3	1:B:497:PHE:HB2	1.99	0.44
1:B:521:PRO:CB	1:B:544:ASN:CG	2.84	0.44
1:B:714:ILE:HG23	1:B:1107:ARG:O	2.18	0.44
1:C:200:TYR:HD2	1:C:230:PRO:CA	2.07	0.44
1:C:309:GLU:O	1:C:313:TYR:OH	2.24	0.44
1:C:318:PHE:N	1:C:593:GLY:O	2.51	0.44
1:C:424:LYS:O	1:C:463:PRO:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:472:ILE:HG22	1:C:490:PHE:CA	2.29	0.44
1:C:491:PRO:HG2	1:C:492:LEU:HD22	2.00	0.44
1:C:949:GLN:OE1	1:C:949:GLN:HA	2.17	0.44
1:A:16:VAL:HG13	1:A:158:ARG:NH2	2.33	0.44
1:A:36:VAL:HG21	1:A:220:PHE:CE1	2.53	0.44
1:A:84:LEU:O	1:A:237:ARG:HB2	2.18	0.44
1:A:299:THR:HA	1:A:315:THR:HG21	1.98	0.44
1:A:710:ASN:O	1:A:1076:THR:HG23	2.18	0.44
1:A:731:MET:HE1	1:A:1011:GLN:HG3	1.98	0.44
1:A:781:VAL:HA	1:A:1026:ALA:CB	2.47	0.44
1:A:819:GLU:OE2	1:A:1054:GLN:OE1	2.36	0.44
1:A:1141:LEU:HD13	1:C:1141:LEU:HD11	2.00	0.44
1:B:30:ASN:HA	1:B:61:ASN:HA	2.00	0.44
1:B:107:GLY:CA	1:B:235:ILE:HG12	2.48	0.44
1:B:454:ARG:CA	1:B:491:PRO:O	2.56	0.44
1:B:532:ASN:OD1	1:B:533:LEU:N	2.51	0.44
1:B:644:GLN:OE1	1:B:645:THR:N	2.51	0.44
1:B:801:ASN:ND2	3:B:1308:NAG:H83	2.33	0.44
1:C:368:LEU:HD12	1:C:368:LEU:N	2.33	0.44
1:C:735:SER:CB	1:C:861:LEU:CD2	2.77	0.44
1:C:782:PHE:CZ	1:C:1060:VAL:HB	2.52	0.44
1:A:472:ILE:HA	1:A:491:PRO:CD	2.48	0.43
1:A:612:TYR:CB	1:A:615:VAL:CG2	2.95	0.43
1:A:730:SER:HA	1:A:774:GLN:NE2	2.32	0.43
1:B:986:PRO:HA	1:B:989:ALA:CB	2.42	0.43
1:B:1029:MET:HE1	1:B:1062:PHE:CE1	2.53	0.43
1:C:365:TYR:HH	1:C:392:PHE:HZ	0.58	0.43
1:C:661:GLU:H	1:C:661:GLU:CD	2.18	0.43
1:C:1067:TYR:CD1	1:C:1067:TYR:C	2.91	0.43
1:A:710:ASN:O	1:A:1076:THR:HA	2.17	0.43
1:A:752:LEU:HD12	1:A:993:ILE:CG2	2.48	0.43
1:A:779:GLN:HE21	1:A:864:LEU:HD23	1.83	0.43
1:A:962:LEU:O	1:A:965:GLN:HB2	2.17	0.43
1:B:470:THR:O	1:B:490:PHE:CD1	2.63	0.43
1:B:731:MET:CG	1:B:774:GLN:NE2	2.81	0.43
1:C:581:THR:HG21	1:C:583:GLU:CD	2.38	0.43
1:A:105:ILE:O	1:A:238:PHE:HB2	2.17	0.43
1:A:278:LYS:CB	1:A:306:PHE:HE2	2.13	0.43
1:A:357:ARG:HG2	1:A:357:ARG:NH1	2.30	0.43
1:A:409:GLN:NE2	1:A:418:ILE:HG22	2.33	0.43
1:A:426:PRO:HD2	1:A:429:PHE:HB2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:804:GLN:HA	1:B:817:PHE:HB3	2.00	0.43
1:B:882:ILE:HG23	1:B:898:PHE:CE2	2.52	0.43
1:B:1078:ALA:CB	1:B:1102:TRP:CH2	3.00	0.43
1:C:220:PHE:CE1	1:C:288:ALA:CB	2.99	0.43
1:C:360:ASN:ND2	1:C:360:ASN:N	2.65	0.43
1:C:886:TRP:CD1	1:C:886:TRP:C	2.91	0.43
1:A:29:THR:HG23	1:A:62:VAL:CG1	2.47	0.43
1:A:56:LEU:HD12	1:A:57:PRO:CD	2.47	0.43
1:A:299:THR:HA	1:A:315:THR:CG2	2.48	0.43
1:A:719:THR:HG23	1:A:1070:ALA:HB2	2.01	0.43
1:A:882:ILE:HG23	1:A:898:PHE:CD1	2.53	0.43
1:B:365:TYR:CE2	1:B:388:ASN:CA	3.02	0.43
1:B:855:PHE:CD1	1:B:855:PHE:C	2.91	0.43
1:B:1078:ALA:HB3	1:B:1102:TRP:CH2	2.54	0.43
1:C:201:PHE:O	1:C:229:LEU:O	2.35	0.43
1:C:216:LEU:HD12	1:C:216:LEU:O	2.18	0.43
1:C:360:ASN:CA	1:C:523:THR:CG2	2.97	0.43
1:A:68:ILE:CG1	1:A:262:ALA:HA	2.48	0.43
1:A:231:ILE:HG23	1:A:233:ILE:HG23	2.01	0.43
1:A:726:ILE:CG2	1:A:948:LEU:HD12	2.45	0.43
1:A:1138:TYR:HE2	1:A:1140:PRO:HA	1.78	0.43
1:A:1141:LEU:CD1	1:C:1141:LEU:HD11	2.47	0.43
1:B:126:VAL:HG23	1:B:126:VAL:O	2.18	0.43
1:B:534:VAL:HG12	1:B:552:LEU:HD12	2.00	0.43
1:B:785:VAL:HG12	1:B:888:PHE:CE1	2.53	0.43
1:C:97:LYS:H	1:C:186:PHE:HD1	1.67	0.43
1:C:100:ILE:HG23	1:C:243:ALA:N	2.31	0.43
1:C:168:PHE:CG	1:C:231:ILE:HG12	2.53	0.43
1:C:317:ASN:OD1	1:C:317:ASN:N	2.52	0.43
1:C:655:HIS:CB	1:C:694:ALA:O	2.53	0.43
1:C:726:ILE:HG21	1:C:948:LEU:HG	1.99	0.43
1:A:282:ASN:HD22	3:A:1308:NAG:C7	2.30	0.43
1:A:501:ASN:N	1:A:501:ASN:ND2	2.66	0.43
1:A:743:CYS:C	1:A:977:LEU:CD2	2.87	0.43
1:A:896:ILE:HG22	1:A:897:PRO:CD	2.46	0.43
1:A:1067:TYR:C	1:A:1067:TYR:CD1	2.92	0.43
1:B:471:GLU:O	1:B:491:PRO:CD	2.67	0.43
1:B:578:ASP:OD2	1:B:581:THR:OG1	2.34	0.43
1:B:578:ASP:O	1:B:582:LEU:HA	2.19	0.43
1:B:1097:SER:HB3	1:B:1102:TRP:CD2	2.54	0.43
1:B:1110:TYR:CD1	1:B:1111:GLU:N	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:230:PRO:CD	1:C:231:ILE:HD12	2.48	0.43
1:C:360:ASN:N	1:C:523:THR:CG2	2.78	0.43
1:B:18:LEU:HA	1:B:255:SER:O	2.18	0.43
1:B:106:PHE:C	1:B:235:ILE:HD13	2.39	0.43
1:B:1049:LEU:N	1:B:1049:LEU:CD1	2.82	0.43
1:C:44:ARG:O	1:C:279:TYR:HB3	2.19	0.43
1:C:326:ILE:HD13	1:C:534:VAL:HG12	2.01	0.43
1:C:353:TRP:HD1	1:C:353:TRP:O	2.01	0.43
1:C:550:GLY:C	1:C:587:ILE:HG23	2.39	0.43
1:C:735:SER:O	1:C:859:THR:O	2.37	0.43
1:C:973:ILE:HG23	1:C:992:GLN:NE2	2.32	0.43
1:C:977:LEU:CG	1:C:1000:ARG:NH1	2.74	0.43
1:C:1116:THR:HA	1:C:1138:TYR:O	2.18	0.43
1:A:66:HIS:CD2	1:A:68:ILE:HG22	2.54	0.43
1:A:353:TRP:CZ2	1:A:465:GLU:O	2.57	0.43
1:A:901:GLN:HE21	1:A:905:ARG:HH21	1.65	0.43
1:A:914:ASN:OD1	1:A:914:ASN:N	2.51	0.43
1:C:354:ASN:HB3	1:C:399:SER:HB2	2.01	0.43
1:C:643:PHE:CE1	1:C:655:HIS:HB3	2.53	0.43
1:A:490:PHE:HE2	1:A:492:LEU:HB2	1.83	0.43
1:B:336:CYS:O	1:B:338:PHE:N	2.52	0.43
1:B:472:ILE:HD13	1:B:490:PHE:CB	2.49	0.43
1:B:916:LEU:HD12	1:B:923:ILE:HD12	2.01	0.43
1:C:90:VAL:C	1:C:270:LEU:HD11	2.40	0.43
1:A:35:GLY:HA3	1:A:91:TYR:CE1	2.53	0.43
1:A:235:ILE:HD12	1:A:235:ILE:N	2.30	0.43
1:A:302:THR:HG21	1:A:315:THR:CA	2.49	0.43
1:A:707:TYR:CD1	1:A:707:TYR:C	2.92	0.43
1:A:752:LEU:HD23	1:A:752:LEU:HA	1.82	0.43
1:B:44:ARG:CB	1:B:47:VAL:CG2	2.90	0.43
1:B:553:THR:O	1:B:586:ASP:N	2.52	0.43
1:C:100:ILE:CG2	1:C:243:ALA:H	2.32	0.43
1:C:119:ILE:HG12	1:C:128:ILE:CB	2.49	0.43
1:C:204:TYR:HD1	1:C:225:PRO:HA	1.83	0.43
1:C:220:PHE:CE2	1:C:287:ASP:C	2.92	0.43
1:C:541:PHE:C	1:C:541:PHE:CD1	2.91	0.43
1:C:753:LEU:HD12	1:C:753:LEU:HA	1.82	0.43
1:C:817:PHE:CD1	1:C:817:PHE:C	2.92	0.43
1:C:945:LEU:O	1:C:946:GLY:C	2.57	0.43
1:C:984:LEU:CG	1:C:988:GLU:CG	2.94	0.43
1:A:90:VAL:HG22	1:A:194:PHE:HD2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:538:CYS:HA	1:B:551:VAL:HG13	2.00	0.42
1:B:823:PHE:CA	1:B:826:VAL:CG1	2.84	0.42
1:C:192:PHE:HA	1:C:204:TYR:O	2.19	0.42
1:C:382:VAL:HG13	1:C:390:LEU:HD21	2.00	0.42
1:A:91:TYR:HE1	1:A:223:LEU:HD11	1.82	0.42
1:A:92:PHE:CE1	1:A:104:TRP:HZ2	2.37	0.42
1:A:192:PHE:HA	1:A:204:TYR:O	2.19	0.42
1:A:1078:ALA:CB	1:A:1102:TRP:CH2	3.02	0.42
1:B:200:TYR:CZ	1:B:202:LYS:CE	2.95	0.42
1:B:368:LEU:O	1:B:372:ALA:HB3	2.18	0.42
1:C:210:ILE:CB	1:C:212:LEU:CD2	2.91	0.42
1:C:733:LYS:HD2	1:C:771:ALA:C	2.40	0.42
1:C:1145:LEU:HD13	1:C:1145:LEU:O	2.19	0.42
1:A:115:GLN:CD	1:A:130:VAL:HG12	2.40	0.42
1:A:353:TRP:CE2	1:A:466:ARG:HD3	2.54	0.42
1:A:782:PHE:CE2	1:A:874:THR:CG2	3.02	0.42
1:A:996:LEU:O	1:A:1000:ARG:N	2.44	0.42
1:A:1013:ILE:HD13	1:B:1012:LEU:HB3	2.02	0.42
1:B:16:VAL:O	1:B:17:ASN:OD1	2.37	0.42
1:B:103:GLY:HA3	1:B:241:LEU:HD13	2.01	0.42
1:B:140:PHE:CE1	1:B:244:LEU:HD12	2.54	0.42
1:B:430:THR:HG21	1:C:983:ARG:NH1	2.33	0.42
1:C:238:PHE:HZ	1:C:267:VAL:HG21	1.84	0.42
1:C:365:TYR:CD2	1:C:387:LEU:HD13	2.54	0.42
1:C:748:GLU:CD	1:C:981:LEU:HG	2.40	0.42
1:A:201:PHE:CD1	1:A:201:PHE:C	2.93	0.42
1:A:208:THR:HA	1:A:209:PRO:HD3	1.88	0.42
1:A:781:VAL:HG13	1:A:1029:MET:HG2	1.99	0.42
1:A:886:TRP:HE3	1:A:886:TRP:O	2.02	0.42
1:B:89:GLY:CA	1:B:270:LEU:HD13	2.50	0.42
1:B:335:LEU:N	1:B:335:LEU:CD2	2.81	0.42
1:B:743:CYS:C	1:B:749:CYS:SG	2.97	0.42
1:B:916:LEU:CD1	1:B:923:ILE:HD12	2.49	0.42
1:C:195:LYS:HD2	1:C:204:TYR:CE2	2.54	0.42
1:C:245:HIS:HB3	1:C:259:THR:O	2.19	0.42
1:C:355:ARG:HA	1:C:397:ALA:O	2.19	0.42
1:C:856:ASN:OD1	1:C:966:LEU:CD1	2.61	0.42
1:C:878:LEU:HD21	1:C:1053:PRO:HD2	1.99	0.42
1:A:1081:ILE:CG1	1:A:1095:PHE:CE2	3.02	0.42
1:B:350:VAL:HG13	1:B:422:ASN:ND2	2.34	0.42
1:B:1056:ALA:HB1	1:B:1057:PRO:HD2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1114:ILE:HD12	1:B:1114:ILE:N	2.34	0.42
1:C:378:LYS:HG3	1:C:433:VAL:HG12	2.01	0.42
1:C:659:SER:HB3	1:C:698:SER:CB	2.49	0.42
1:C:825:LYS:HE3	1:C:942:ALA:HB2	1.96	0.42
1:A:437:ASN:OD1	1:A:438:SER:N	2.52	0.42
1:A:1047:TYR:CD1	1:A:1047:TYR:N	2.84	0.42
1:B:36:VAL:HG13	1:B:277:LEU:HD11	2.00	0.42
1:B:36:VAL:HG21	1:B:288:ALA:HB3	2.02	0.42
1:B:275:PHE:CE1	1:B:290:ASP:CA	3.02	0.42
1:B:367:VAL:O	1:B:370:ASN:OD1	2.36	0.42
1:B:528:LYS:HB3	1:B:528:LYS:NZ	2.34	0.42
1:B:805:ILE:HG22	1:B:878:LEU:HD13	2.01	0.42
1:B:991:VAL:HG23	1:B:992:GLN:CD	2.40	0.42
1:C:409:GLN:NE2	1:C:409:GLN:N	2.68	0.42
1:C:472:ILE:CB	1:C:490:PHE:HA	2.48	0.42
1:C:655:HIS:CD2	1:C:655:HIS:C	2.92	0.42
1:A:984:LEU:HD23	1:A:984:LEU:HA	1.80	0.42
1:A:1095:PHE:HD2	1:A:1102:TRP:HE3	1.68	0.42
1:B:238:PHE:CD1	1:B:238:PHE:C	2.93	0.42
1:B:600:PRO:HD3	1:B:692:ILE:HD11	2.01	0.42
1:B:801:ASN:HD22	3:B:1308:NAG:H83	1.84	0.42
1:C:516:GLU:OE1	1:C:516:GLU:HA	2.19	0.42
1:C:612:TYR:CG	1:C:615:VAL:HG11	2.54	0.42
1:A:317:ASN:HD21	1:B:737:ASP:HB3	1.85	0.42
1:A:961:THR:O	1:A:965:GLN:HG2	2.20	0.42
1:B:273:ARG:NH1	1:B:273:ARG:HG3	2.34	0.42
1:B:884:SER:OG	1:B:888:PHE:HB3	2.20	0.42
1:C:99:ASN:N	1:C:99:ASN:HD22	2.17	0.42
1:C:350:VAL:CG1	1:C:422:ASN:HB2	2.48	0.42
1:C:534:VAL:HG13	1:C:539:VAL:HG21	2.00	0.42
1:C:615:VAL:HG23	1:C:649:CYS:H	1.85	0.42
1:C:692:ILE:H	1:C:692:ILE:CD1	2.31	0.42
1:C:718:PHE:CD1	1:C:718:PHE:C	2.93	0.42
1:C:734:THR:HG23	1:C:767:LEU:HD12	2.02	0.42
1:A:66:HIS:HD2	1:A:68:ILE:CG2	2.32	0.42
1:A:276:LEU:HD23	1:A:276:LEU:C	2.39	0.42
1:A:697:MET:HB3	1:A:697:MET:HE3	1.95	0.42
1:A:866:THR:H	1:A:869:MET:HE3	1.84	0.42
1:B:353:TRP:CZ2	1:B:466:ARG:HB3	2.38	0.42
1:B:428:ASP:OD1	1:B:428:ASP:N	2.49	0.42
1:B:431:GLY:HA2	1:B:515:PHE:HZ	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:773:GLU:OE2	1:B:1019:ARG:NH1	2.53	0.42
1:C:96:GLU:HB3	1:C:99:ASN:HA	2.01	0.42
1:C:368:LEU:H	1:C:368:LEU:CD1	2.33	0.42
1:C:498:GLN:HG2	1:C:499:PRO:HD2	2.02	0.42
1:C:662:CYS:SG	1:C:697:MET:HB2	2.57	0.42
1:C:984:LEU:HD12	1:C:984:LEU:HA	1.87	0.42
1:A:99:ASN:O	1:A:102:ARG:NE	2.38	0.42
1:A:1043:CYS:CA	1:A:1064:HIS:HE1	2.27	0.42
1:B:55:PHE:HB3	1:B:275:PHE:HE2	1.79	0.42
1:B:599:THR:CB	1:B:608:VAL:HG12	2.50	0.42
1:B:773:GLU:OE2	1:B:1019:ARG:HG3	2.19	0.42
1:B:1078:ALA:N	1:B:1102:TRP:HH2	2.18	0.42
1:C:718:PHE:HD2	1:C:1109:PHE:HE1	1.68	0.42
1:C:800:PHE:CD1	1:C:898:PHE:CE2	3.08	0.42
1:A:33:THR:CB	1:A:58:PHE:CZ	3.00	0.41
1:A:238:PHE:CD1	1:A:238:PHE:C	2.93	0.41
1:A:321:GLN:HA	1:A:322:PRO:HD3	1.95	0.41
1:A:350:VAL:HG13	1:A:422:ASN:ND2	2.35	0.41
1:B:708:SER:HB2	1:B:711:SER:CB	2.50	0.41
1:B:1098:ASN:OD1	1:B:1099:GLY:N	2.53	0.41
1:C:516:GLU:CG	1:C:519:HIS:CE1	2.97	0.41
1:B:107:GLY:H	1:B:235:ILE:HG23	1.85	0.41
1:C:37:TYR:CD1	1:C:37:TYR:N	2.87	0.41
1:C:83:VAL:HG11	1:C:237:ARG:HH21	1.85	0.41
1:C:105:ILE:HG12	1:C:118:LEU:HD13	1.96	0.41
1:C:138:ASP:N	1:C:139:PRO:HD3	2.35	0.41
1:C:317:ASN:CA	1:C:593:GLY:O	2.68	0.41
1:C:715:PRO:CA	1:C:1071:GLN:O	2.65	0.41
1:C:726:ILE:CD1	1:C:1061:VAL:HG22	2.49	0.41
1:A:55:PHE:CD1	1:A:275:PHE:HD2	2.38	0.41
1:A:119:ILE:HG13	1:A:128:ILE:HG12	2.01	0.41
1:A:290:ASP:O	1:A:297:SER:HB3	2.20	0.41
1:A:612:TYR:HB3	1:A:615:VAL:CG2	2.50	0.41
1:B:91:TYR:O	1:B:91:TYR:CD1	2.74	0.41
1:B:902:MET:CB	1:B:916:LEU:HD21	2.40	0.41
1:B:976:VAL:HG12	1:B:979:ASP:H	1.86	0.41
1:C:320:VAL:HG11	1:C:619:GLU:OE2	2.21	0.41
1:C:718:PHE:CZ	1:C:923:ILE:HD11	2.55	0.41
1:C:734:THR:HG21	1:C:1011:GLN:HE21	1.84	0.41
1:C:808:ASP:HA	1:C:809:PRO:HD3	1.95	0.41
1:C:931:ILE:HA	1:C:931:ILE:HD13	1.97	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:347:PHE:CE2	1:A:399:SER:HB2	2.55	0.41
1:A:775:ASP:OD2	1:A:864:LEU:HD22	2.21	0.41
1:A:804:GLN:HE21	1:A:804:GLN:HB3	1.63	0.41
1:A:992:GLN:NE2	1:A:992:GLN:CA	2.81	0.41
1:A:1097:SER:HB2	1:A:1102:TRP:CG	2.55	0.41
1:B:417:LYS:O	1:B:421:TYR:HB2	2.21	0.41
1:B:541:PHE:CE1	1:B:587:ILE:CD1	2.90	0.41
1:B:825:LYS:NZ	1:B:945:LEU:HD12	2.35	0.41
1:C:349:SER:OG	1:C:451:TYR:HA	2.20	0.41
1:A:357:ARG:CD	1:B:230:PRO:HB2	2.50	0.41
1:A:805:ILE:HB	1:A:878:LEU:HD11	2.03	0.41
1:A:874:THR:HG21	1:A:1055:SER:HB3	2.01	0.41
1:B:212:LEU:CD1	1:B:214:ARG:N	2.83	0.41
1:B:961:THR:HG22	1:B:965:GLN:OE1	2.20	0.41
1:C:328:ARG:HD3	1:C:531:THR:O	2.21	0.41
1:C:555:SER:OG	1:C:585:LEU:HA	2.20	0.41
1:C:660:TYR:CB	1:C:695:TYR:CE2	3.00	0.41
1:C:1124:GLY:C	1:C:1125:ASN:HD22	2.24	0.41
1:A:230:PRO:HG2	1:C:357:ARG:NH1	2.36	0.41
1:A:398:ASP:OD2	1:A:423:TYR:OH	2.28	0.41
1:A:536:ASN:N	1:A:536:ASN:ND2	2.68	0.41
1:B:195:LYS:HE2	1:B:197:ILE:CG1	2.51	0.41
1:B:555:SER:HA	1:B:586:ASP:OD1	2.20	0.41
1:C:204:TYR:HD1	1:C:225:PRO:CB	2.31	0.41
1:C:241:LEU:CD1	1:C:241:LEU:N	2.84	0.41
1:C:429:PHE:CD1	1:C:429:PHE:C	2.93	0.41
1:C:532:ASN:N	1:C:532:ASN:HD22	2.17	0.41
1:C:658:ASN:ND2	1:C:660:TYR:OH	2.53	0.41
1:A:37:TYR:N	1:A:37:TYR:CD1	2.88	0.41
1:A:864:LEU:O	1:A:864:LEU:HG	2.19	0.41
1:B:270:LEU:HD12	1:B:270:LEU:N	2.33	0.41
1:B:294:ASP:N	1:B:297:SER:HB2	2.33	0.41
1:B:555:SER:CB	1:B:586:ASP:OD1	2.69	0.41
1:C:15:CYS:SG	1:C:16:VAL:N	2.93	0.41
1:C:119:ILE:HG13	1:C:127:VAL:C	2.35	0.41
1:C:164:ASN:O	1:C:164:ASN:ND2	2.54	0.41
1:C:423:TYR:HE2	1:C:425:LEU:HD21	1.82	0.41
1:C:516:GLU:CD	1:C:519:HIS:NE2	2.72	0.41
1:C:720:ILE:HD12	1:C:1049:LEU:CD1	2.50	0.41
1:A:17:ASN:O	1:A:255:SER:HA	2.21	0.41
1:A:458:LYS:HD3	1:A:473:TYR:CE2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:569:ILE:HG23	1:B:47:VAL:CG1	2.51	0.41
1:A:1079:PRO:HA	1:B:900:MET:HE3	2.03	0.41
1:B:88:ASP:OD1	1:B:88:ASP:N	2.54	0.41
1:B:805:ILE:CG2	1:B:878:LEU:CD1	2.99	0.41
1:C:395:VAL:CG2	1:C:524:VAL:HG11	2.47	0.41
1:A:203:ILE:CG2	1:A:227:VAL:HG22	2.51	0.41
1:A:328:ARG:NH2	1:A:533:LEU:CA	2.84	0.41
1:A:328:ARG:NH2	1:A:533:LEU:N	2.69	0.41
1:A:335:LEU:HD12	1:A:335:LEU:O	2.21	0.41
1:A:368:LEU:HD11	2:E:1:NAG:H81	2.03	0.41
1:A:483:VAL:HG13	1:A:485:GLY:H	1.86	0.41
1:A:962:LEU:HA	1:A:965:GLN:CG	2.50	0.41
1:A:1023:ASN:O	1:A:1027:THR:OG1	2.24	0.41
1:B:133:PHE:CE1	1:B:163:ALA:HB2	2.55	0.41
1:B:321:GLN:H	1:B:321:GLN:CD	2.20	0.41
1:B:354:ASN:O	1:B:398:ASP:HA	2.20	0.41
1:B:382:VAL:N	1:C:984:LEU:HD13	2.36	0.41
1:B:501:ASN:HB3	1:B:505:TYR:HB2	2.01	0.41
1:B:542:ASN:N	1:B:547:THR:HG23	2.34	0.41
1:B:583:GLU:OE1	1:B:583:GLU:HA	2.20	0.41
1:B:800:PHE:HD2	1:B:927:PHE:CE2	2.37	0.41
1:B:805:ILE:CD1	1:B:1052:PHE:CD2	3.03	0.41
1:B:961:THR:C	1:B:965:GLN:HG2	2.37	0.41
1:C:117:LEU:HD21	1:C:119:ILE:CD1	2.51	0.41
1:C:210:ILE:CD1	1:C:210:ILE:N	2.83	0.41
1:C:781:VAL:HG13	1:C:1026:ALA:HA	2.02	0.41
1:C:786:LYS:N	1:C:786:LYS:HE3	2.35	0.41
1:C:1004:LEU:HD23	1:C:1004:LEU:C	2.41	0.41
1:A:56:LEU:HD11	1:A:60:SER:HB3	2.03	0.41
1:A:295:PRO:HB2	1:A:608:VAL:HG21	2.03	0.41
1:A:405:ASP:OD1	1:A:405:ASP:N	2.54	0.41
1:A:612:TYR:HB2	1:A:615:VAL:CG2	2.51	0.41
1:A:1048:HIS:O	1:A:1048:HIS:CG	2.73	0.41
1:B:360:ASN:OD1	1:B:523:THR:HG23	2.15	0.41
1:B:794:ILE:HG22	1:B:796:ASP:H	1.86	0.41
1:B:1110:TYR:CD1	1:B:1110:TYR:C	2.93	0.41
1:C:353:TRP:CE3	1:C:423:TYR:HB2	2.16	0.41
1:C:738:CYS:HB3	1:C:1004:LEU:HD11	2.03	0.41
1:C:807:PRO:CG	1:C:875:SER:HB2	2.50	0.41
1:A:231:ILE:HG22	1:A:233:ILE:N	2.29	0.40
1:A:241:LEU:HD12	1:A:242:LEU:H	1.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:335:LEU:HD12	1:A:335:LEU:C	2.41	0.40
1:A:349:SER:O	1:A:352:ALA:O	2.39	0.40
1:A:864:LEU:HD11	1:C:665:PRO:CB	2.52	0.40
1:A:884:SER:O	1:A:884:SER:OG	2.39	0.40
1:A:1007:TYR:CE1	1:A:1011:GLN:OE1	2.74	0.40
1:A:1116:THR:HG22	1:A:1138:TYR:HB3	2.03	0.40
1:B:410:ILE:HG23	1:B:425:LEU:HD11	2.02	0.40
1:B:537:LYS:O	1:B:551:VAL:HA	2.20	0.40
1:B:1081:ILE:CD1	1:B:1133:VAL:HG23	2.50	0.40
1:C:380:TYR:HE2	1:C:412:PRO:HD2	1.76	0.40
1:A:752:LEU:HD12	1:A:993:ILE:HG21	2.02	0.40
1:A:826:VAL:HG22	1:A:945:LEU:CD1	2.33	0.40
1:A:890:ALA:CB	1:C:1046:GLY:HA3	2.51	0.40
1:A:1032:CYS:HB3	1:A:1051:SER:CB	2.48	0.40
1:A:1078:ALA:CB	1:A:1102:TRP:HH2	2.34	0.40
1:B:56:LEU:HD12	1:B:57:PRO:HD3	1.98	0.40
1:B:131:CYS:SG	1:B:166:CYS:HB3	2.61	0.40
1:B:1095:PHE:HZ	1:B:1120:THR:CG2	2.25	0.40
1:C:337:PRO:HB2	1:C:340:GLU:HG2	2.03	0.40
1:C:365:TYR:HD2	1:C:387:LEU:HD13	1.86	0.40
1:C:497:PHE:CE1	1:C:507:PRO:HA	2.57	0.40
1:C:660:TYR:C	1:C:695:TYR:HE2	2.24	0.40
1:C:811:LYS:HA	1:C:812:PRO:HD3	1.93	0.40
1:A:211:ASN:HD22	1:A:211:ASN:H	1.68	0.40
1:A:280:ASN:HD22	1:A:286:THR:CG2	2.34	0.40
1:A:453:TYR:OH	1:A:493:GLN:HG3	2.20	0.40
1:A:738:CYS:SG	1:A:760:CYS:C	3.00	0.40
1:A:864:LEU:HD11	1:C:665:PRO:HB2	2.02	0.40
1:A:998:THR:O	1:A:1002:GLN:HG2	2.21	0.40
1:A:1090:PRO:HG3	1:A:1093:GLY:O	2.21	0.40
1:A:1115:ILE:H	1:A:1115:ILE:HG13	1.64	0.40
1:B:541:PHE:C	1:B:541:PHE:CD1	2.95	0.40
1:B:985:ASP:O	1:B:989:ALA:CA	2.66	0.40
1:B:1116:THR:CG2	1:B:1140:PRO:HD3	2.43	0.40
1:C:353:TRP:CH2	1:C:423:TYR:CA	3.04	0.40
1:C:453:TYR:CZ	1:C:493:GLN:NE2	2.90	0.40
1:C:480:CYS:SG	1:C:483:VAL:HG12	2.61	0.40
1:C:659:SER:C	1:C:660:TYR:CD1	2.94	0.40
1:A:230:PRO:HG3	1:C:357:ARG:NH1	2.36	0.40
1:A:280:ASN:HD22	1:A:286:THR:HG21	1.84	0.40
1:A:741:TYR:CD1	1:A:741:TYR:C	2.94	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:791:THR:HA	1:A:792:PRO:HD2	1.88	0.40
1:A:962:LEU:HD22	1:A:1007:TYR:CB	2.52	0.40
1:A:1029:MET:N	1:A:1062:PHE:CE2	2.89	0.40
1:B:198:ASP:OD1	1:B:200:TYR:CE2	2.74	0.40
1:B:456:PHE:CD1	1:B:490:PHE:O	2.75	0.40
1:B:729:VAL:H	1:B:1059:GLY:HA2	1.86	0.40
1:B:773:GLU:O	1:B:777:ASN:CB	2.69	0.40
1:C:17:ASN:O	1:C:255:SER:HA	2.22	0.40
1:C:119:ILE:HG23	1:C:120:VAL:N	2.35	0.40
1:C:273:ARG:HB2	1:C:275:PHE:CE1	2.56	0.40
1:A:353:TRP:CD1	1:A:353:TRP:N	2.89	0.40
1:A:612:TYR:HB3	1:A:615:VAL:HG22	2.02	0.40
1:B:277:LEU:HD12	1:B:288:ALA:CB	2.51	0.40
1:B:296:LEU:HB2	1:B:608:VAL:HG21	2.04	0.40
1:B:471:GLU:HA	1:B:471:GLU:OE1	2.22	0.40
1:B:541:PHE:HZ	1:B:587:ILE:HD13	1.73	0.40
1:B:577:ARG:CA	1:B:584:ILE:HA	2.51	0.40
1:B:884:SER:O	1:B:887:THR:OG1	2.27	0.40
1:B:1115:ILE:O	1:B:1138:TYR:CD1	2.72	0.40
1:C:320:VAL:HG21	1:C:619:GLU:OE2	2.21	0.40
1:C:337:PRO:HB2	1:C:340:GLU:CG	2.52	0.40
1:C:492:LEU:HD22	1:C:492:LEU:N	2.36	0.40
1:C:528:LYS:N	1:C:528:LYS:HD2	2.37	0.40
1:C:727:LEU:HD21	1:C:1028:LYS:HZ2	1.86	0.40
1:C:773:GLU:HA	1:C:776:LYS:HB3	2.03	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	1070/1270 (84%)	1017 (95%)	46 (4%)	7 (1%)	19 56

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	1071/1270 (84%)	1025 (96%)	38 (4%)	8 (1%)	19	56
1	C	1066/1270 (84%)	1020 (96%)	44 (4%)	2 (0%)	44	78
All	All	3207/3810 (84%)	3062 (96%)	128 (4%)	17 (0%)	27	63

All (17) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	591	SER
1	A	620	VAL
1	B	332	ILE
1	B	371	SER
1	B	857	GLY
1	B	946	GLY
1	A	502	GLY
1	A	619	GLU
1	A	1053	PRO
1	A	337	PRO
1	B	728	PRO
1	B	1140	PRO
1	C	529	LYS
1	C	665	PRO
1	A	637	SER
1	B	1112	PRO
1	B	337	PRO

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	938/1102 (85%)	878 (94%)	60 (6%)	14	36
1	B	937/1102 (85%)	884 (94%)	53 (6%)	17	40
1	C	929/1102 (84%)	859 (92%)	70 (8%)	11	31
All	All	2804/3306 (85%)	2621 (94%)	183 (6%)	17	36

All (183) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	32	PHE
1	A	43	PHE
1	A	64	TRP
1	A	66	HIS
1	A	86	PHE
1	A	88	ASP
1	A	117	LEU
1	A	136	CYS
1	A	201	PHE
1	A	211	ASN
1	A	220	PHE
1	A	227	VAL
1	A	229	LEU
1	A	235	ILE
1	A	237	ARG
1	A	240	THR
1	A	266	TYR
1	A	301	CYS
1	A	304	LYS
1	A	353	TRP
1	A	452	LEU
1	A	515	PHE
1	A	518	LEU
1	A	536	ASN
1	A	567	ARG
1	A	574	ASP
1	A	595	VAL
1	A	599	THR
1	A	602	THR
1	A	611	LEU
1	A	650	LEU
1	A	654	GLU
1	A	661	GLU
1	A	693	ILE
1	A	695	TYR
1	A	696	THR
1	A	697	MET
1	A	705	VAL
1	A	709	ASN
1	A	738	CYS
1	A	751	ASN
1	A	804	GLN

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Mol	Chain	Res	Type
1	A	827	THR
1	A	927	PHE
1	A	954	GLN
1	A	959	LEU
1	A	981	LEU
1	A	991	VAL
1	A	992	GLN
1	A	1004	LEU
1	A	1019	ARG
1	A	1031	GLU
1	A	1032	CYS
1	A	1048	HIS
1	A	1065	VAL
1	A	1072	GLU
1	A	1103	PHE
1	A	1107	ARG
1	A	1115	ILE
1	A	1121	PHE
1	B	86	PHE
1	B	88	ASP
1	B	122	ASN
1	B	193	VAL
1	B	215	ASP
1	B	216	LEU
1	B	218	GLN
1	B	220	PHE
1	B	226	LEU
1	B	234	ASN
1	B	238	PHE
1	B	265	TYR
1	B	270	LEU
1	B	277	LEU
1	B	301	CYS
1	B	302	THR
1	B	318	PHE
1	B	329	PHE
1	B	332	ILE
1	B	365	TYR
1	B	466	ARG
1	B	518	LEU
1	B	533	LEU
1	B	547	THR

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Mol	Chain	Res	Type
1	B	553	THR
1	B	557	LYS
1	B	559	PHE
1	B	613	GLN
1	B	620	VAL
1	B	644	GLN
1	B	658	ASN
1	B	695	TYR
1	B	699	LEU
1	B	712	ILE
1	B	737	ASP
1	B	740	MET
1	B	747	THR
1	B	784	GLN
1	B	786	LYS
1	B	817	PHE
1	B	818	ILE
1	B	826	VAL
1	B	888	PHE
1	B	896	ILE
1	B	898	PHE
1	B	933	LYS
1	B	950	ASP
1	B	955	ASN
1	B	1011	GLN
1	B	1065	VAL
1	B	1088	HIS
1	B	1116	THR
1	B	1134	ASN
1	C	32	PHE
1	C	43	PHE
1	C	48	LEU
1	C	51	THR
1	C	54	LEU
1	C	55	PHE
1	C	87	ASN
1	C	96	GLU
1	C	99	ASN
1	C	105	ILE
1	C	164	ASN
1	C	201	PHE
1	C	210	ILE

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Mol	Chain	Res	Type
1	C	213	VAL
1	C	216	LEU
1	C	220	PHE
1	C	223	LEU
1	C	226	LEU
1	C	229	LEU
1	C	233	ILE
1	C	266	TYR
1	C	270	LEU
1	C	282	ASN
1	C	301	CYS
1	C	314	GLN
1	C	318	PHE
1	C	334	ASN
1	C	340	GLU
1	C	345	THR
1	C	353	TRP
1	C	365	TYR
1	C	367	VAL
1	C	368	LEU
1	C	388	ASN
1	C	393	THR
1	C	409	GLN
1	C	483	VAL
1	C	517	LEU
1	C	518	LEU
1	C	528	LYS
1	C	529	LYS
1	C	531	THR
1	C	582	LEU
1	C	585	LEU
1	C	611	LEU
1	C	618	THR
1	C	655	HIS
1	C	660	TYR
1	C	671	CYS
1	C	699	LEU
1	C	738	CYS
1	C	786	LYS
1	C	822	LEU
1	C	826	VAL
1	C	861	LEU

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Mol	Chain	Res	Type
1	C	895	GLN
1	C	896	ILE
1	C	902	MET
1	C	921	LYS
1	C	934	ILE
1	C	969	ASN
1	C	981	LEU
1	C	984	LEU
1	C	1005	GLN
1	C	1092	GLU
1	C	1098	ASN
1	C	1101	HIS
1	C	1121	PHE
1	C	1135	ASN
1	C	1139	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (75) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	66	HIS
1	A	87	ASN
1	A	211	ASN
1	A	321	GLN
1	A	394	ASN
1	A	409	GLN
1	A	501	ASN
1	A	536	ASN
1	A	580	GLN
1	A	613	GLN
1	A	675	GLN
1	A	690	GLN
1	A	751	ASN
1	A	755	GLN
1	A	764	ASN
1	A	774	GLN
1	A	779	GLN
1	A	901	GLN
1	A	954	GLN
1	A	965	GLN
1	A	1002	GLN
1	A	1011	GLN
1	A	1108	ASN

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Mol	Chain	Res	Type
1	B	122	ASN
1	B	165	ASN
1	B	207	HIS
1	B	211	ASN
1	B	218	GLN
1	B	245	HIS
1	B	314	GLN
1	B	317	ASN
1	B	334	ASN
1	B	422	ASN
1	B	501	ASN
1	B	544	ASN
1	B	563	GLN
1	B	564	GLN
1	B	606	ASN
1	B	675	GLN
1	B	690	GLN
1	B	784	GLN
1	B	824	ASN
1	B	913	GLN
1	B	955	ASN
1	B	1011	GLN
1	B	1036	GLN
1	B	1083	HIS
1	B	1119	ASN
1	B	1142	GLN
1	C	99	ASN
1	C	164	ASN
1	C	185	ASN
1	C	207	HIS
1	C	314	GLN
1	C	321	GLN
1	C	360	ASN
1	C	388	ASN
1	C	394	ASN
1	C	409	GLN
1	C	414	GLN
1	C	474	GLN
1	C	493	GLN
1	C	532	ASN
1	C	544	ASN
1	C	607	GLN

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Mol	Chain	Res	Type
1	C	644	GLN
1	C	655	HIS
1	C	751	ASN
1	C	762	GLN
1	C	779	GLN
1	C	824	ASN
1	C	992	GLN
1	C	1048	HIS
1	C	1083	HIS
1	C	1125	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

20 monosaccharides 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	NAG	D	1	1,2	14,14,15	0.79	0	17,19,21	2.97	7 (41%)
2	NAG	D	2	2	14,14,15	0.64	0	17,19,21	1.09	2 (11%)
2	NAG	E	1	1,2	14,14,15	0.79	0	17,19,21	2.86	6 (35%)
2	NAG	E	2	2	14,14,15	0.65	0	17,19,21	1.10	2 (11%)
2	NAG	F	1	1,2	14,14,15	0.81	0	17,19,21	2.88	7 (41%)
2	NAG	F	2	2	14,14,15	0.63	0	17,19,21	1.11	2 (11%)
2	NAG	G	1	1,2	14,14,15	0.75	0	17,19,21	2.92	6 (35%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	NAG	G	2	2	14,14,15	0.63	0	17,19,21	1.12	2 (11%)
2	NAG	H	1	1,2	14,14,15	0.86	0	17,19,21	2.92	7 (41%)
2	NAG	H	2	2	14,14,15	0.62	0	17,19,21	1.10	2 (11%)
2	NAG	I	1	1,2	14,14,15	0.81	0	17,19,21	2.88	6 (35%)
2	NAG	I	2	2	14,14,15	0.62	0	17,19,21	1.09	2 (11%)
2	NAG	J	1	1,2	14,14,15	0.80	0	17,19,21	2.95	6 (35%)
2	NAG	J	2	2	14,14,15	0.65	0	17,19,21	1.07	2 (11%)
2	NAG	K	1	1,2	14,14,15	0.77	0	17,19,21	3.00	7 (41%)
2	NAG	K	2	2	14,14,15	0.65	0	17,19,21	1.08	2 (11%)
2	NAG	L	1	1,2	14,14,15	0.80	0	17,19,21	2.89	7 (41%)
2	NAG	L	2	2	14,14,15	0.64	0	17,19,21	1.12	2 (11%)
2	NAG	M	1	1,2	14,14,15	0.80	0	17,19,21	3.07	6 (35%)
2	NAG	M	2	2	14,14,15	0.68	0	17,19,21	1.13	2 (11%)

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	NAG	D	1	1,2	-	3/6/23/26	0/1/1/1
2	NAG	D	2	2	-	2/6/23/26	0/1/1/1
2	NAG	E	1	1,2	-	3/6/23/26	0/1/1/1
2	NAG	E	2	2	-	2/6/23/26	0/1/1/1
2	NAG	F	1	1,2	1/1/5/7	3/6/23/26	0/1/1/1
2	NAG	F	2	2	-	2/6/23/26	0/1/1/1
2	NAG	G	1	1,2	-	3/6/23/26	0/1/1/1
2	NAG	G	2	2	-	2/6/23/26	0/1/1/1
2	NAG	H	1	1,2	1/1/5/7	3/6/23/26	0/1/1/1
2	NAG	H	2	2	-	2/6/23/26	0/1/1/1
2	NAG	I	1	1,2	1/1/5/7	3/6/23/26	0/1/1/1
2	NAG	I	2	2	-	2/6/23/26	0/1/1/1
2	NAG	J	1	1,2	-	3/6/23/26	0/1/1/1
2	NAG	J	2	2	-	2/6/23/26	0/1/1/1
2	NAG	K	1	1,2	-	3/6/23/26	0/1/1/1
2	NAG	K	2	2	-	2/6/23/26	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	NAG	L	1	1,2	1/1/5/7	3/6/23/26	0/1/1/1
2	NAG	L	2	2	-	2/6/23/26	0/1/1/1
2	NAG	M	1	1,2	-	3/6/23/26	0/1/1/1
2	NAG	M	2	2	-	2/6/23/26	0/1/1/1

There are no bond length outliers.

All (85) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	1	NAG	C8-C7-N2	7.57	128.91	116.10
2	K	1	NAG	C8-C7-N2	7.49	128.78	116.10
2	H	1	NAG	C8-C7-N2	7.44	128.69	116.10
2	J	1	NAG	C8-C7-N2	7.42	128.66	116.10
2	D	1	NAG	C8-C7-N2	7.35	128.54	116.10
2	M	1	NAG	C8-C7-N2	7.22	128.32	116.10
2	L	1	NAG	C8-C7-N2	7.21	128.31	116.10
2	G	1	NAG	C8-C7-N2	7.13	128.17	116.10
2	I	1	NAG	C8-C7-N2	7.13	128.16	116.10
2	F	1	NAG	C8-C7-N2	7.08	128.09	116.10
2	M	1	NAG	C2-N2-C7	6.79	132.58	122.90
2	K	1	NAG	C2-N2-C7	6.58	132.27	122.90
2	D	1	NAG	C2-N2-C7	6.37	131.98	122.90
2	H	1	NAG	C2-N2-C7	6.23	131.78	122.90
2	L	1	NAG	C2-N2-C7	6.19	131.72	122.90
2	J	1	NAG	C2-N2-C7	6.16	131.68	122.90
2	F	1	NAG	C2-N2-C7	6.14	131.65	122.90
2	G	1	NAG	C2-N2-C7	6.08	131.57	122.90
2	E	1	NAG	C2-N2-C7	6.00	131.45	122.90
2	I	1	NAG	C2-N2-C7	5.97	131.40	122.90
2	M	1	NAG	O7-C7-N2	-5.02	112.71	121.95
2	J	1	NAG	O7-C7-N2	-4.95	112.86	121.95
2	K	1	NAG	O7-C7-N2	-4.84	113.06	121.95
2	E	1	NAG	O7-C7-N2	-4.83	113.08	121.95
2	D	1	NAG	O7-C7-N2	-4.78	113.16	121.95
2	G	1	NAG	O7-C7-N2	-4.73	113.25	121.95
2	L	1	NAG	O7-C7-N2	-4.57	113.56	121.95
2	I	1	NAG	O7-C7-N2	-4.37	113.92	121.95
2	F	1	NAG	O7-C7-N2	-4.36	113.93	121.95
2	H	1	NAG	O7-C7-N2	-4.35	113.96	121.95
2	G	1	NAG	C4-C3-C2	-3.69	105.61	111.02
2	M	1	NAG	C1-O5-C5	-3.62	107.29	112.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	I	1	NAG	C1-O5-C5	-3.43	107.54	112.19
2	L	1	NAG	C1-O5-C5	-3.24	107.80	112.19
2	F	1	NAG	C1-O5-C5	-3.19	107.87	112.19
2	F	1	NAG	C4-C3-C2	-3.07	106.52	111.02
2	I	1	NAG	C4-C3-C2	-2.99	106.64	111.02
2	M	1	NAG	C4-C3-C2	-2.98	106.65	111.02
2	D	1	NAG	C4-C3-C2	-2.92	106.74	111.02
2	K	1	NAG	C1-O5-C5	-2.91	108.25	112.19
2	G	1	NAG	C1-O5-C5	-2.90	108.26	112.19
2	H	1	NAG	C1-O5-C5	-2.85	108.33	112.19
2	K	1	NAG	C1-C2-N2	-2.68	105.91	110.49
2	M	1	NAG	C1-C2-N2	-2.68	105.92	110.49
2	D	1	NAG	C1-C2-N2	-2.67	105.92	110.49
2	K	1	NAG	C4-C3-C2	-2.67	107.11	111.02
2	D	1	NAG	C1-O5-C5	-2.60	108.66	112.19
2	H	1	NAG	O7-C7-C8	-2.55	117.32	122.06
2	L	1	NAG	C4-C3-C2	-2.54	107.29	111.02
2	H	1	NAG	C4-C3-C2	-2.54	107.30	111.02
2	M	2	NAG	C2-N2-C7	-2.48	119.37	122.90
2	H	1	NAG	C1-C2-N2	-2.47	106.27	110.49
2	J	1	NAG	C1-O5-C5	-2.45	108.88	112.19
2	J	1	NAG	C4-C3-C2	-2.43	107.46	111.02
2	G	1	NAG	C1-C2-N2	-2.41	106.36	110.49
2	E	2	NAG	C2-N2-C7	-2.41	119.47	122.90
2	F	2	NAG	C1-C2-N2	-2.38	106.42	110.49
2	D	2	NAG	C2-N2-C7	-2.38	119.52	122.90
2	L	2	NAG	C2-N2-C7	-2.37	119.53	122.90
2	G	2	NAG	C2-N2-C7	-2.36	119.54	122.90
2	D	2	NAG	C1-C2-N2	-2.36	106.47	110.49
2	J	2	NAG	C1-C2-N2	-2.35	106.47	110.49
2	E	1	NAG	C4-C3-C2	-2.34	107.58	111.02
2	I	2	NAG	C1-C2-N2	-2.34	106.50	110.49
2	J	1	NAG	C1-C2-N2	-2.33	106.50	110.49
2	H	2	NAG	C1-C2-N2	-2.33	106.51	110.49
2	G	2	NAG	C1-C2-N2	-2.32	106.52	110.49
2	J	2	NAG	C2-N2-C7	-2.32	119.60	122.90
2	K	2	NAG	C2-N2-C7	-2.32	119.61	122.90
2	L	2	NAG	C1-C2-N2	-2.31	106.53	110.49
2	H	2	NAG	C2-N2-C7	-2.31	119.61	122.90
2	K	2	NAG	C1-C2-N2	-2.27	106.60	110.49
2	M	2	NAG	C1-C2-N2	-2.27	106.60	110.49
2	F	1	NAG	C1-C2-N2	-2.25	106.64	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	2	NAG	C2-N2-C7	-2.25	119.70	122.90
2	E	2	NAG	C1-C2-N2	-2.24	106.65	110.49
2	I	2	NAG	C2-N2-C7	-2.24	119.71	122.90
2	I	1	NAG	O7-C7-C8	-2.23	117.91	122.06
2	L	1	NAG	C1-C2-N2	-2.21	106.71	110.49
2	F	1	NAG	O7-C7-C8	-2.20	117.97	122.06
2	E	1	NAG	O7-C7-C8	-2.18	118.00	122.06
2	E	1	NAG	C1-C2-N2	-2.12	106.86	110.49
2	L	1	NAG	O7-C7-C8	-2.11	118.13	122.06
2	K	1	NAG	O7-C7-C8	-2.11	118.14	122.06
2	D	1	NAG	O7-C7-C8	-2.04	118.27	122.06

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	F	1	NAG	C1
2	H	1	NAG	C1
2	I	1	NAG	C1
2	L	1	NAG	C1

All (50) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	D	1	NAG	C8-C7-N2-C2
2	D	1	NAG	O7-C7-N2-C2
2	E	1	NAG	C8-C7-N2-C2
2	E	1	NAG	O7-C7-N2-C2
2	F	1	NAG	C8-C7-N2-C2
2	F	1	NAG	O7-C7-N2-C2
2	G	1	NAG	C8-C7-N2-C2
2	G	1	NAG	O7-C7-N2-C2
2	H	1	NAG	C8-C7-N2-C2
2	H	1	NAG	O7-C7-N2-C2
2	I	1	NAG	C8-C7-N2-C2
2	I	1	NAG	O7-C7-N2-C2
2	J	1	NAG	C8-C7-N2-C2
2	J	1	NAG	O7-C7-N2-C2
2	K	1	NAG	C8-C7-N2-C2
2	K	1	NAG	O7-C7-N2-C2
2	L	1	NAG	C8-C7-N2-C2
2	L	1	NAG	O7-C7-N2-C2
2	M	1	NAG	C8-C7-N2-C2

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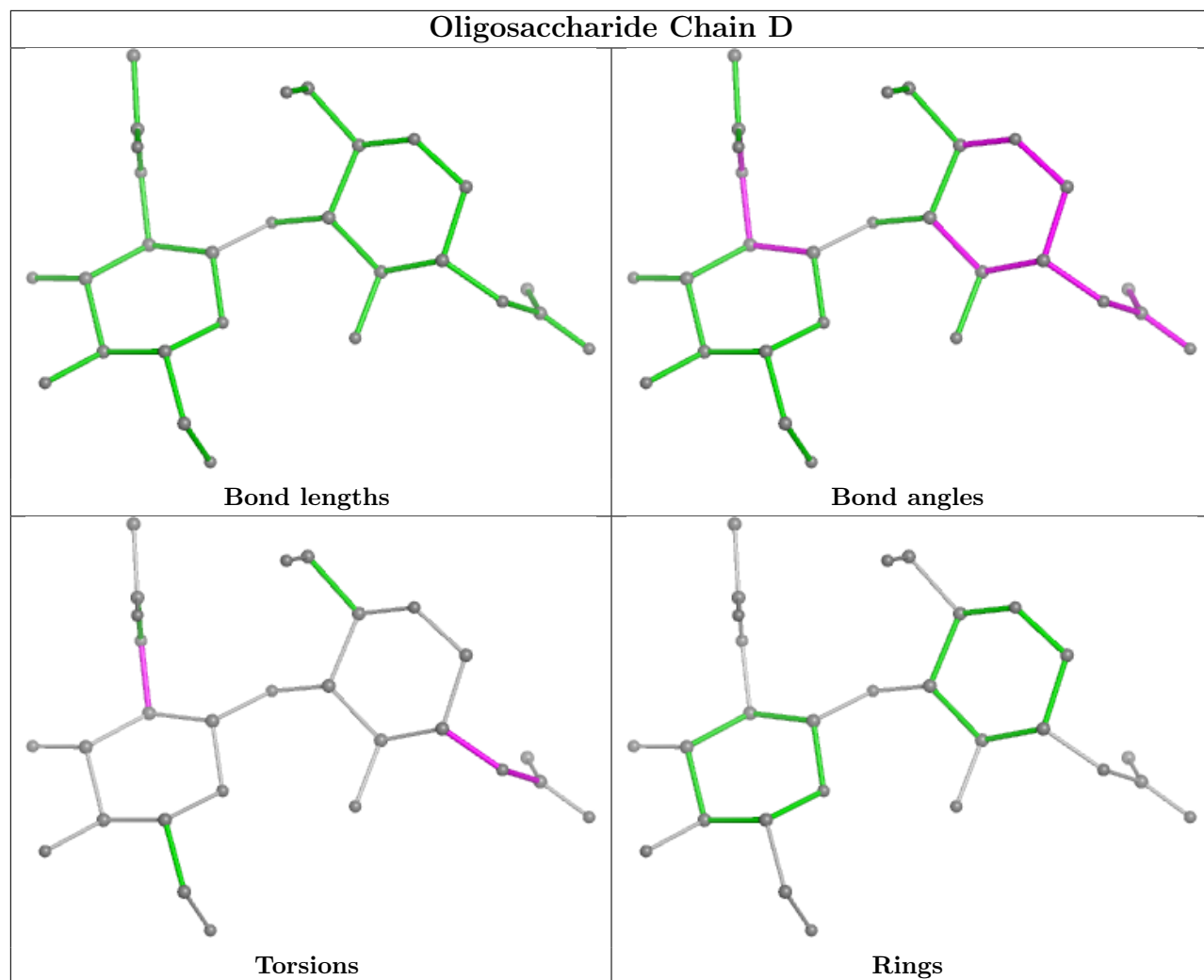
Mol	Chain	Res	Type	Atoms
2	M	1	NAG	O7-C7-N2-C2
2	K	1	NAG	C3-C2-N2-C7
2	D	2	NAG	C1-C2-N2-C7
2	E	2	NAG	C1-C2-N2-C7
2	F	2	NAG	C1-C2-N2-C7
2	G	2	NAG	C1-C2-N2-C7
2	H	2	NAG	C1-C2-N2-C7
2	I	2	NAG	C1-C2-N2-C7
2	J	2	NAG	C1-C2-N2-C7
2	K	2	NAG	C1-C2-N2-C7
2	L	2	NAG	C1-C2-N2-C7
2	M	2	NAG	C1-C2-N2-C7
2	D	1	NAG	C3-C2-N2-C7
2	E	1	NAG	C3-C2-N2-C7
2	F	1	NAG	C3-C2-N2-C7
2	G	1	NAG	C3-C2-N2-C7
2	H	1	NAG	C3-C2-N2-C7
2	I	1	NAG	C3-C2-N2-C7
2	J	1	NAG	C3-C2-N2-C7
2	L	1	NAG	C3-C2-N2-C7
2	M	1	NAG	C3-C2-N2-C7
2	D	2	NAG	C3-C2-N2-C7
2	E	2	NAG	C3-C2-N2-C7
2	F	2	NAG	C3-C2-N2-C7
2	G	2	NAG	C3-C2-N2-C7
2	H	2	NAG	C3-C2-N2-C7
2	I	2	NAG	C3-C2-N2-C7
2	J	2	NAG	C3-C2-N2-C7
2	K	2	NAG	C3-C2-N2-C7
2	L	2	NAG	C3-C2-N2-C7
2	M	2	NAG	C3-C2-N2-C7

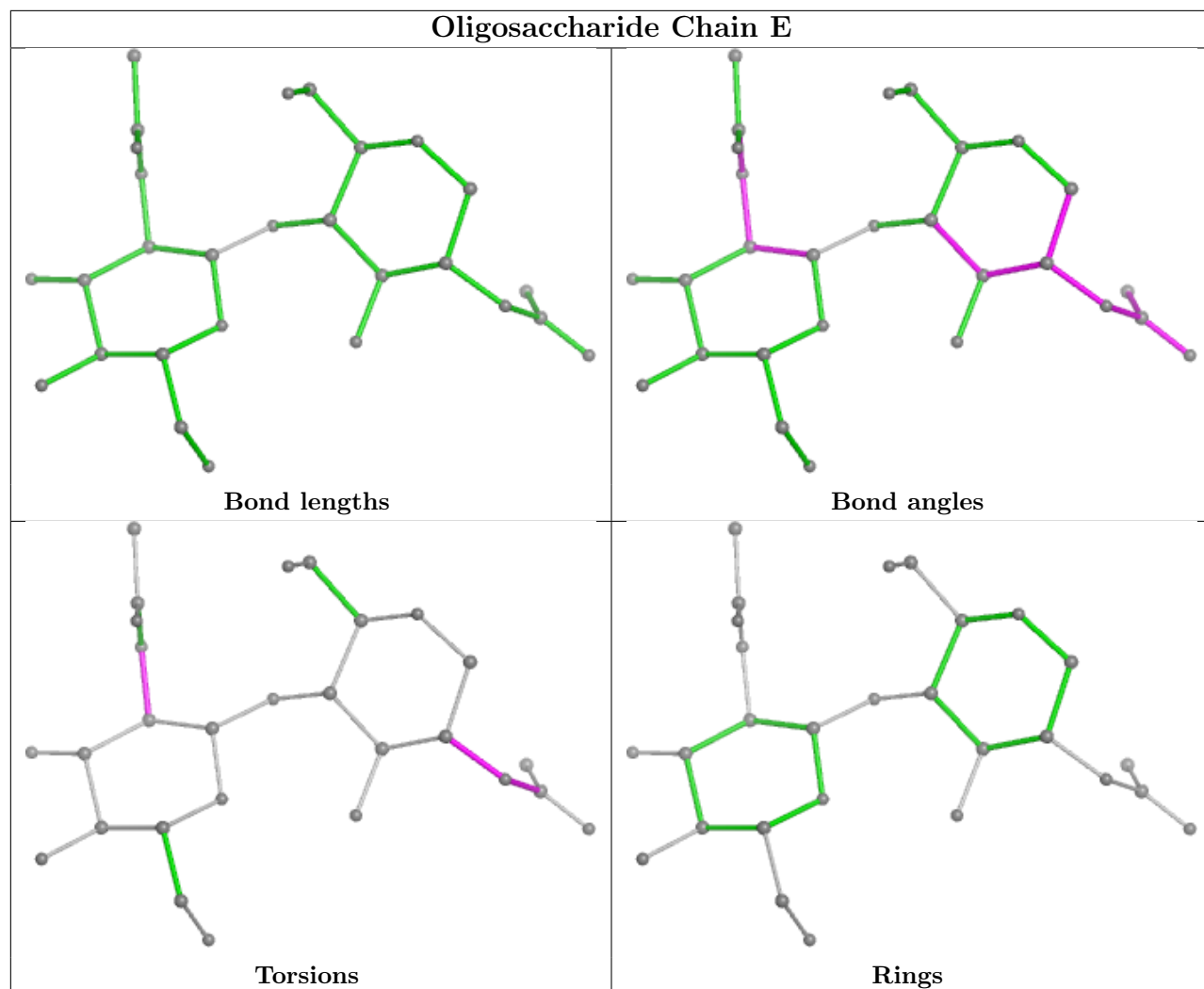
There are no ring outliers.

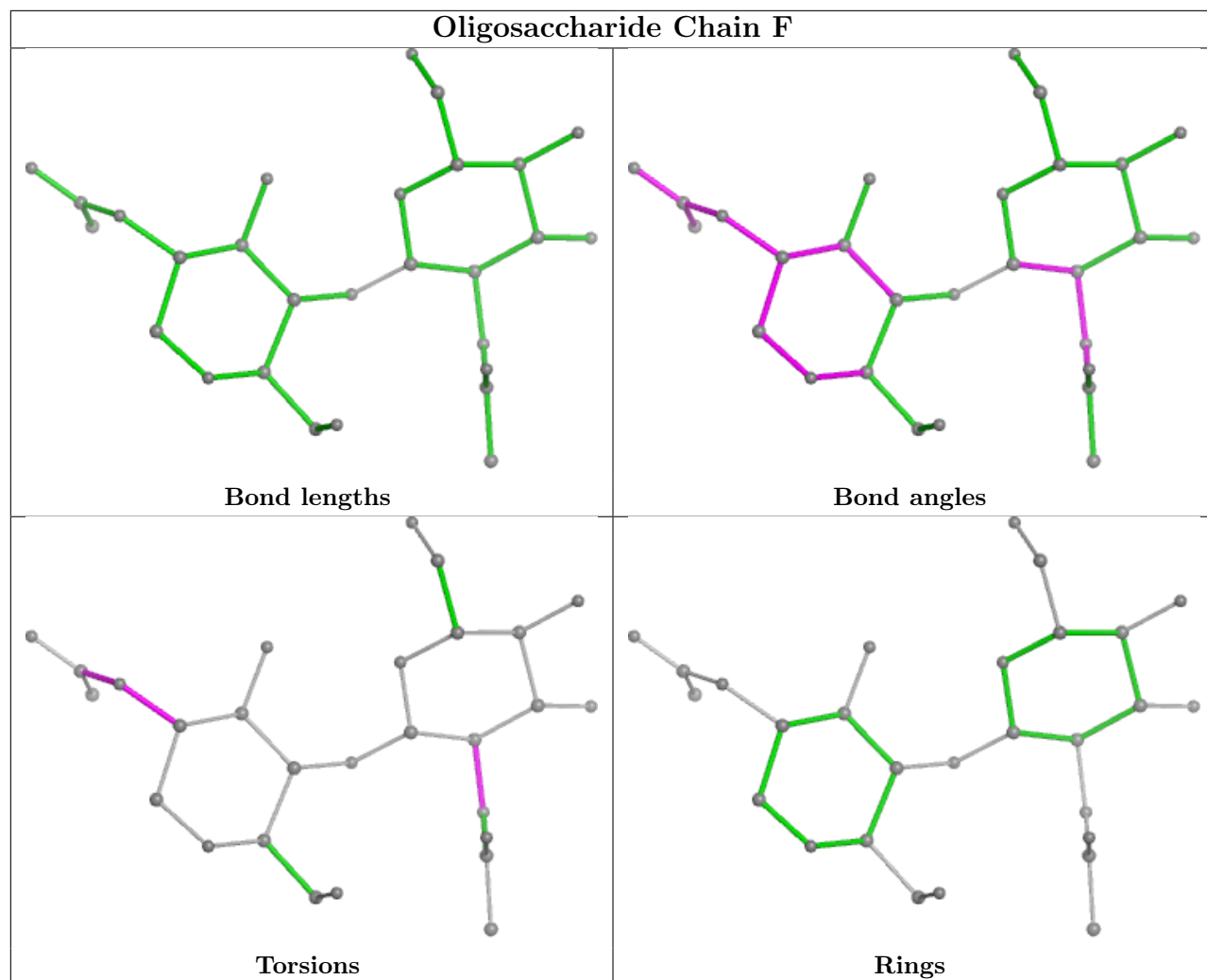
3 monomers are involved in 3 short contacts:

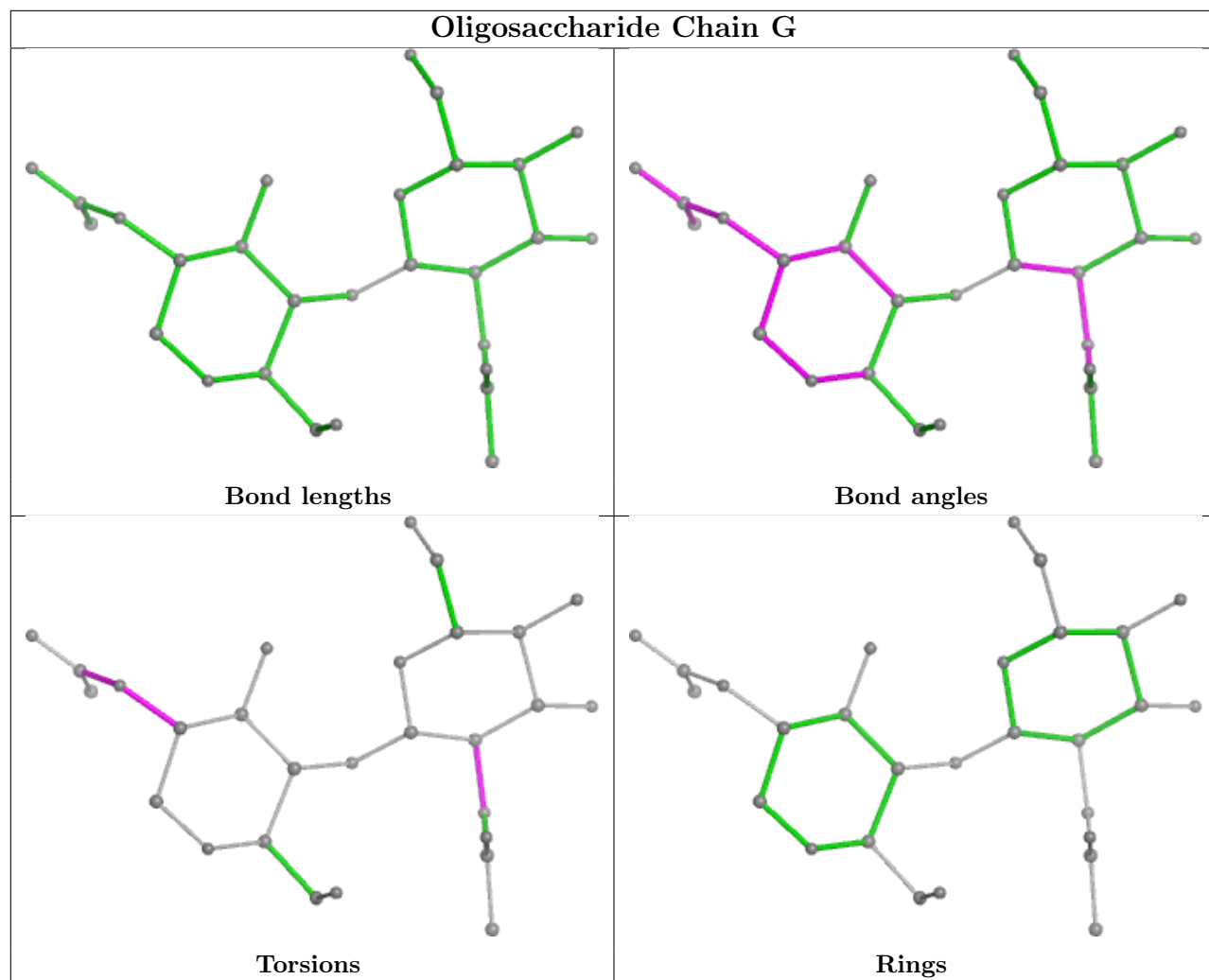
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	H	1	NAG	1	0
2	E	1	NAG	1	0
2	F	1	NAG	1	0

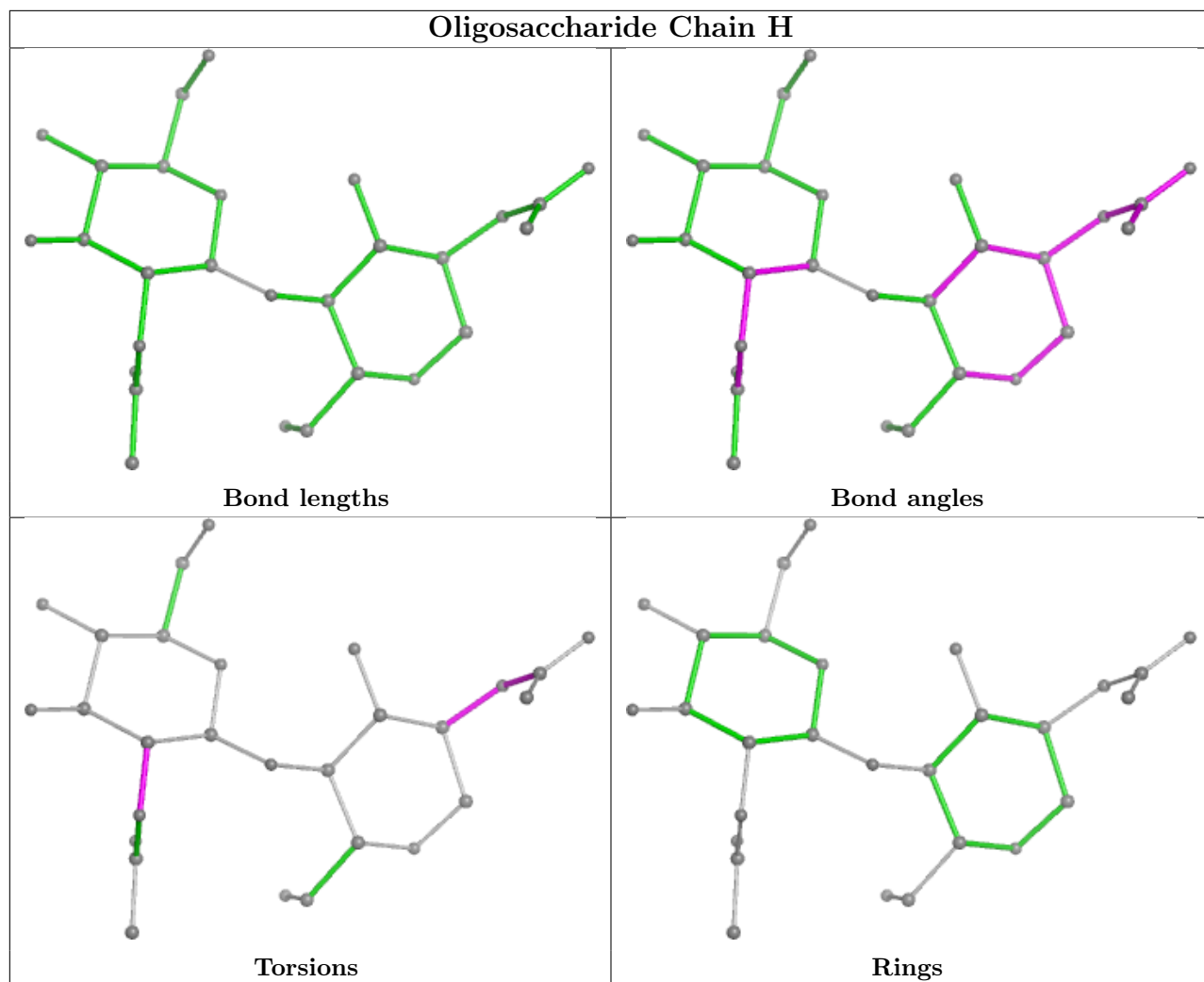
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.

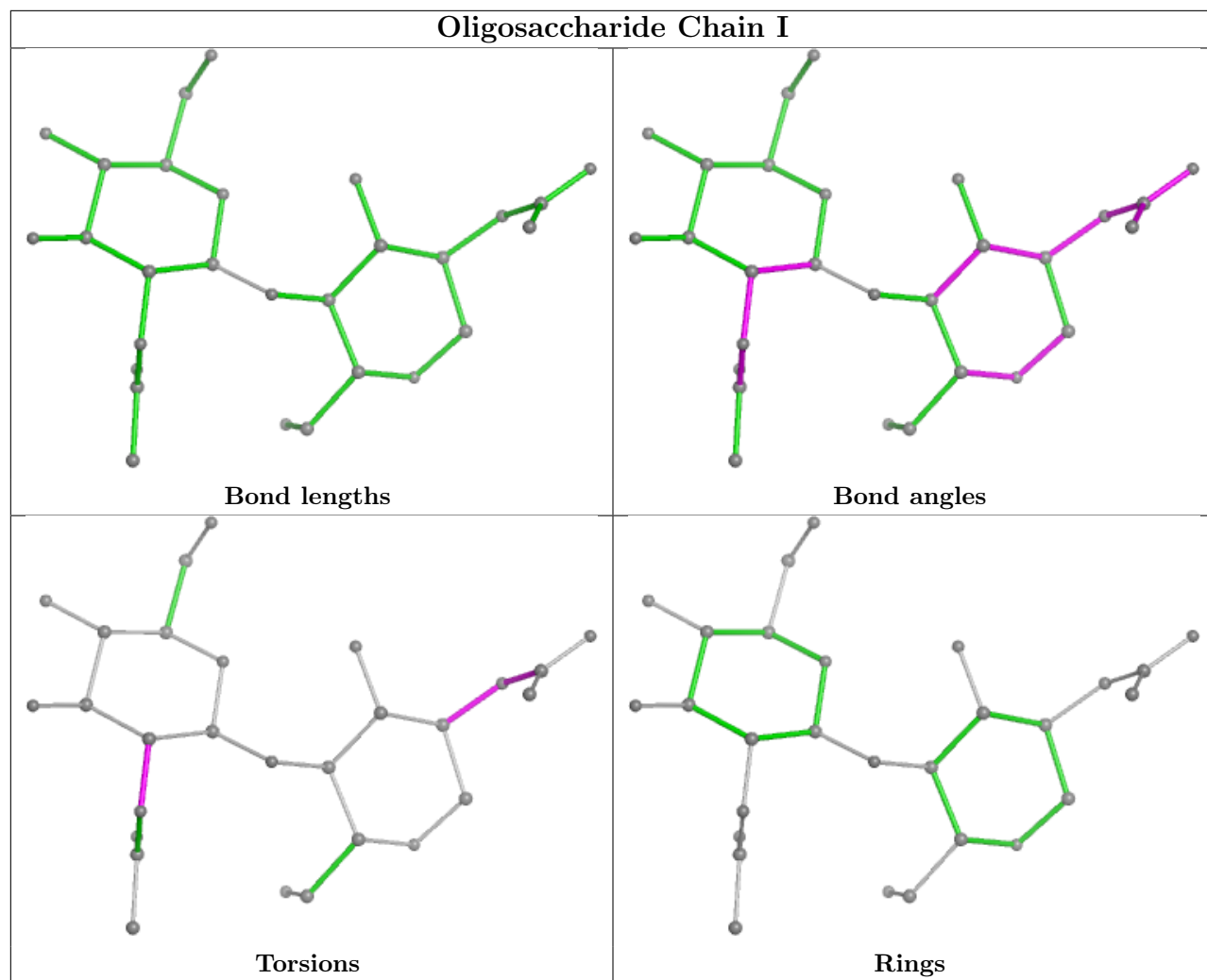


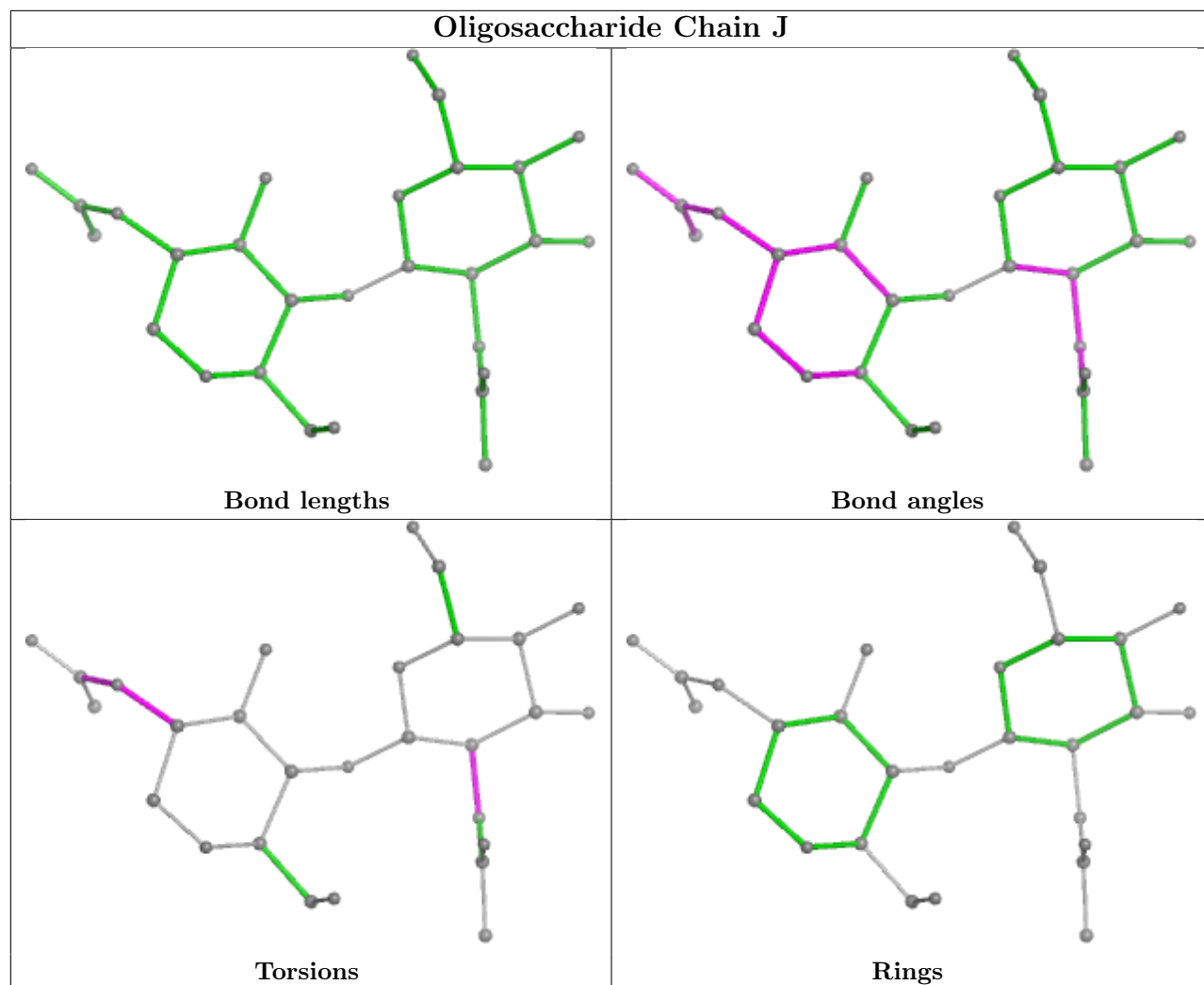


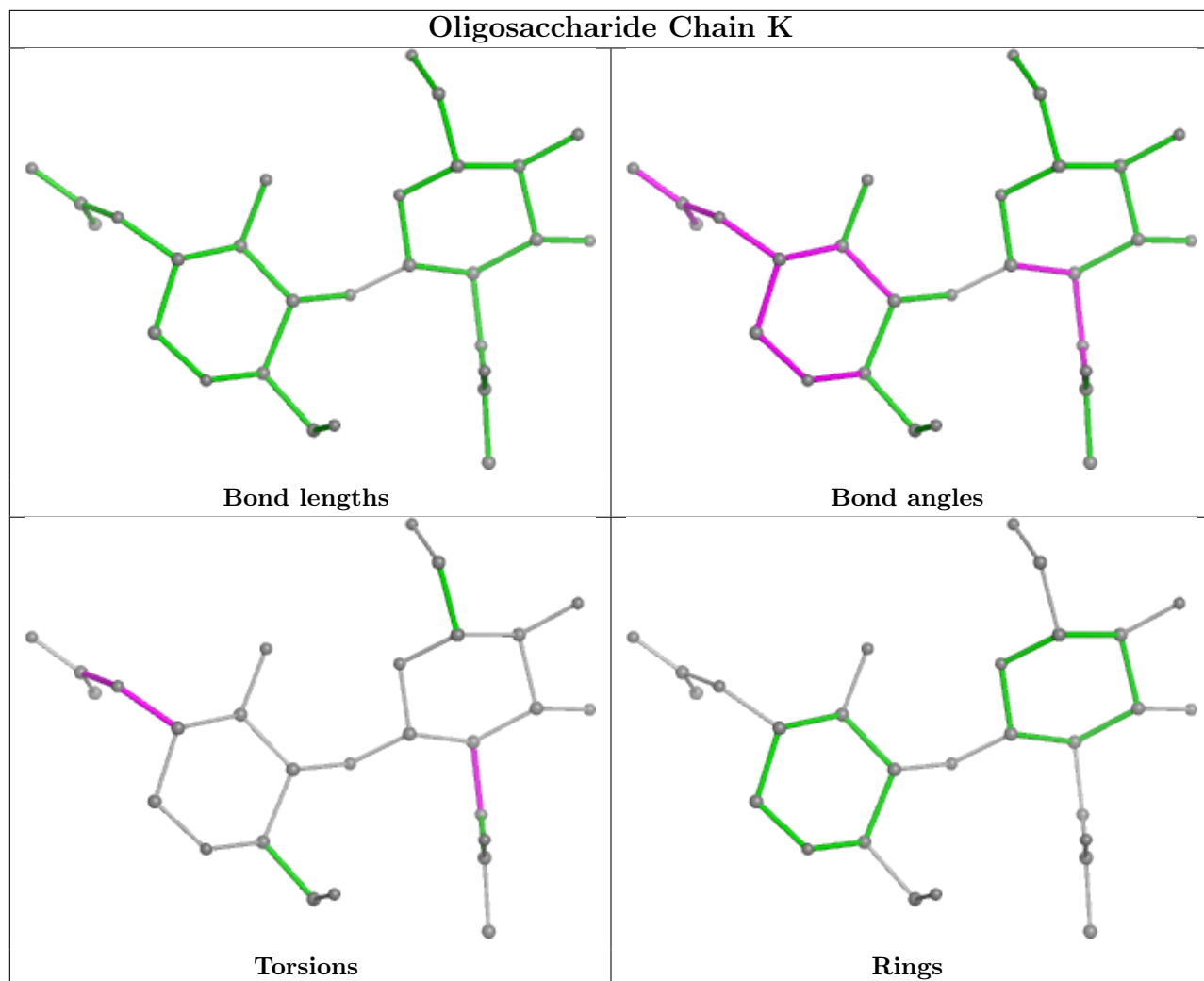


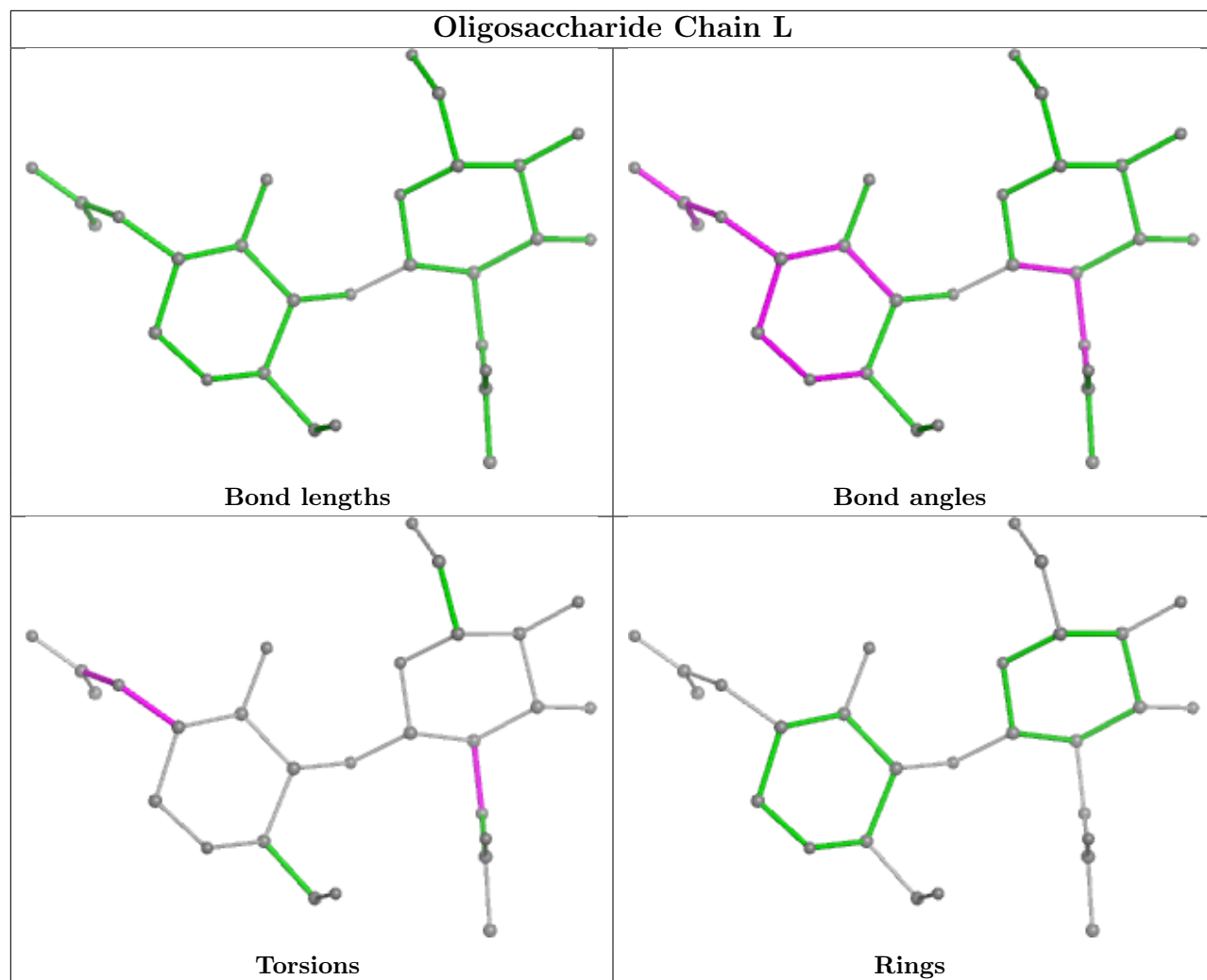


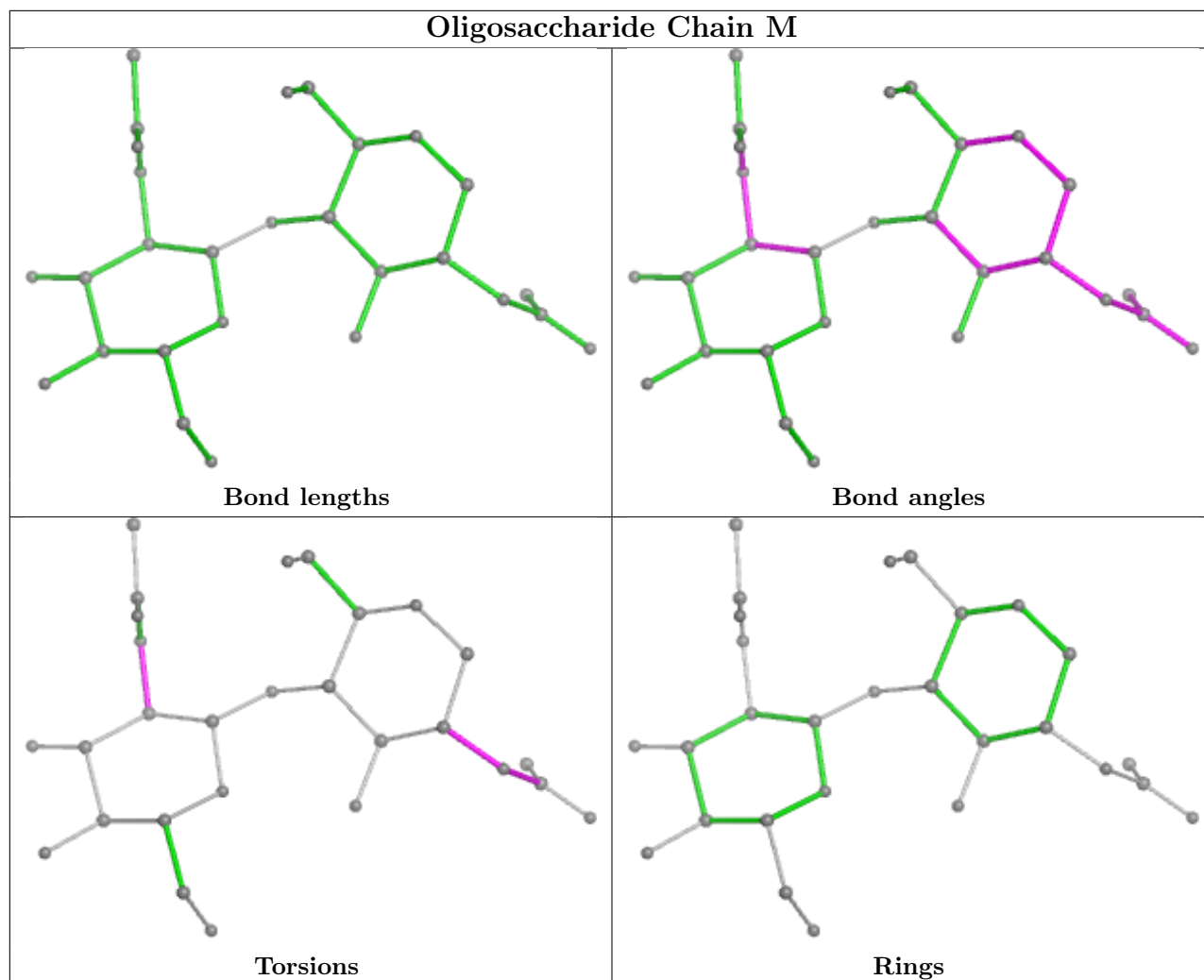












5.6 Ligand geometry [i](#)

Of 28 ligands modelled in this entry, 3 are monoatomic - leaving 25 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
3	NAG	B	1308	1	14,14,15	0.46	0	17,19,21	1.96	5 (29%)
3	NAG	A	1305	1	14,14,15	0.36	0	17,19,21	0.88	1 (5%)
3	NAG	C	1304	1	14,14,15	0.46	0	17,19,21	1.58	3 (17%)
3	NAG	B	1305	1	14,14,15	0.54	0	17,19,21	1.45	3 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	NAG	B	1304	1	14,14,15	0.47	0	17,19,21	1.00	0
3	NAG	B	1309	1	14,14,15	0.90	1 (7%)	17,19,21	1.72	4 (23%)
3	NAG	C	1301	1	14,14,15	0.47	0	17,19,21	1.42	3 (17%)
3	NAG	A	1302	1	14,14,15	0.34	0	17,19,21	0.70	0
3	NAG	B	1307	1	14,14,15	0.56	0	17,19,21	1.26	2 (11%)
3	NAG	B	1302	1	14,14,15	0.89	0	17,19,21	1.23	1 (5%)
3	NAG	A	1309	1	14,14,15	0.47	0	17,19,21	1.13	1 (5%)
3	NAG	A	1306	1	14,14,15	0.42	0	17,19,21	2.45	6 (35%)
3	NAG	C	1303	1	14,14,15	1.88	3 (21%)	17,19,21	3.23	4 (23%)
3	NAG	A	1301	1	14,14,15	0.33	0	17,19,21	0.75	1 (5%)
3	NAG	B	1301	1	14,14,15	0.59	0	17,19,21	1.51	2 (11%)
3	NAG	A	1308	1	14,14,15	0.35	0	17,19,21	0.68	0
3	NAG	A	1304	1	14,14,15	0.36	0	17,19,21	1.26	2 (11%)
3	NAG	C	1306	1	14,14,15	0.47	0	17,19,21	1.57	3 (17%)
3	NAG	A	1307	1	14,14,15	0.63	0	17,19,21	1.63	2 (11%)
3	NAG	C	1305	1	14,14,15	0.45	0	17,19,21	0.75	0
3	NAG	A	1303	1	14,14,15	0.35	0	17,19,21	0.66	0
3	NAG	B	1303	1	14,14,15	0.59	0	17,19,21	0.93	1 (5%)
3	NAG	C	1302	1	14,14,15	0.46	0	17,19,21	1.48	3 (17%)
3	NAG	B	1306	1	14,14,15	0.57	0	17,19,21	1.13	3 (17%)
5	XIO	C	1307	4	88,101,101	2.10	24 (27%)	110,143,143	1.07	7 (6%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	NAG	B	1308	1	-	4/6/23/26	0/1/1/1
3	NAG	A	1305	1	-	1/6/23/26	0/1/1/1
3	NAG	C	1304	1	-	4/6/23/26	0/1/1/1
3	NAG	B	1305	1	-	2/6/23/26	0/1/1/1
3	NAG	B	1304	1	-	2/6/23/26	0/1/1/1
3	NAG	B	1309	1	-	1/6/23/26	0/1/1/1
3	NAG	C	1301	1	-	4/6/23/26	0/1/1/1
3	NAG	A	1302	1	-	1/6/23/26	0/1/1/1
3	NAG	B	1307	1	-	1/6/23/26	0/1/1/1
3	NAG	B	1302	1	-	1/6/23/26	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	NAG	A	1309	1	-	1/6/23/26	0/1/1/1
3	NAG	A	1306	1	-	5/6/23/26	0/1/1/1
3	NAG	C	1303	1	-	0/6/23/26	0/1/1/1
3	NAG	A	1301	1	-	1/6/23/26	0/1/1/1
3	NAG	B	1301	1	-	2/6/23/26	0/1/1/1
3	NAG	A	1308	1	-	1/6/23/26	0/1/1/1
3	NAG	A	1304	1	-	1/6/23/26	0/1/1/1
3	NAG	C	1306	1	-	4/6/23/26	0/1/1/1
3	NAG	A	1307	1	-	0/6/23/26	0/1/1/1
3	NAG	C	1305	1	-	3/6/23/26	0/1/1/1
3	NAG	A	1303	1	-	1/6/23/26	0/1/1/1
3	NAG	B	1303	1	-	0/6/23/26	0/1/1/1
3	NAG	C	1302	1	-	4/6/23/26	0/1/1/1
3	NAG	B	1306	1	-	0/6/23/26	0/1/1/1
5	XIO	C	1307	4	-	23/67/85/85	0/9/9/9

All (28) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	C	1307	XIO	C08-N09	7.01	1.49	1.34
5	C	1307	XIO	C43-N44	6.82	1.48	1.34
5	C	1307	XIO	C02-N71	6.49	1.47	1.34
5	C	1307	XIO	C37-N36	6.45	1.45	1.34
3	C	1303	NAG	C1-C2	5.91	1.61	1.52
5	C	1307	XIO	C06-C05	4.95	1.58	1.54
5	C	1307	XIO	C07-C08	3.36	1.57	1.51
5	C	1307	XIO	C73-C74	3.26	1.55	1.51
5	C	1307	XIO	O83-N81	-3.05	1.17	1.22
5	C	1307	XIO	O94-C93	3.02	1.40	1.30
5	C	1307	XIO	O32-C31	3.01	1.40	1.30
5	C	1307	XIO	C15-S14	2.96	1.83	1.77
5	C	1307	XIO	O67-C66	2.93	1.40	1.30
5	C	1307	XIO	C03-C02	2.89	1.56	1.51
5	C	1307	XIO	O56-N54	-2.72	1.18	1.22
5	C	1307	XIO	C50-S49	2.64	1.83	1.77
5	C	1307	XIO	O21-N19	-2.63	1.18	1.22
5	C	1307	XIO	C11-C12	2.62	1.54	1.51
3	B	1309	NAG	C1-C2	2.55	1.56	1.52
5	C	1307	XIO	O40-C37	-2.48	1.18	1.23
5	C	1307	XIO	C46-C47	2.41	1.54	1.51
5	C	1307	XIO	C77-S76	2.25	1.82	1.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	C	1307	XIO	O01-C02	-2.20	1.18	1.23
5	C	1307	XIO	C42-C43	2.20	1.55	1.51
3	C	1303	NAG	O5-C1	2.09	1.47	1.43
3	C	1303	NAG	O5-C5	2.05	1.47	1.43
5	C	1307	XIO	O35-C08	-2.03	1.19	1.23
5	C	1307	XIO	C04-C05	2.03	1.56	1.54

All (57) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	1303	NAG	C1-O5-C5	11.52	127.80	112.19
3	A	1306	NAG	C2-N2-C7	6.02	131.47	122.90
3	A	1306	NAG	C8-C7-N2	5.76	125.85	116.10
3	B	1308	NAG	C8-C7-N2	5.14	124.81	116.10
3	A	1307	NAG	O5-C1-C2	-4.64	103.95	111.29
3	B	1302	NAG	O5-C1-C2	-4.21	104.65	111.29
3	B	1309	NAG	O5-C1-C2	-4.18	104.68	111.29
3	C	1304	NAG	C8-C7-N2	4.14	123.11	116.10
5	C	1307	XIO	C05-N36-C37	-4.10	119.97	126.45
3	B	1305	NAG	O5-C1-C2	-4.10	104.82	111.29
3	C	1306	NAG	C8-C7-N2	4.07	122.99	116.10
3	B	1309	NAG	C1-O5-C5	3.88	117.45	112.19
3	B	1301	NAG	O5-C1-C2	-3.86	105.19	111.29
3	B	1301	NAG	O5-C5-C6	3.72	113.04	107.20
3	C	1303	NAG	C2-N2-C7	3.69	128.16	122.90
3	C	1302	NAG	C8-C7-N2	3.60	122.20	116.10
3	C	1301	NAG	C8-C7-N2	3.57	122.14	116.10
3	B	1308	NAG	C2-N2-C7	3.52	127.92	122.90
3	A	1304	NAG	O5-C1-C2	-3.44	105.85	111.29
3	B	1307	NAG	C2-N2-C7	3.43	127.79	122.90
3	A	1309	NAG	O5-C1-C2	-3.38	105.96	111.29
3	C	1306	NAG	C2-N2-C7	3.16	127.40	122.90
3	B	1308	NAG	C1-C2-N2	-3.12	105.15	110.49
3	A	1307	NAG	C1-C2-N2	3.03	115.66	110.49
3	B	1303	NAG	C1-O5-C5	3.02	116.28	112.19
3	C	1303	NAG	C3-C4-C5	3.02	115.62	110.24
3	C	1302	NAG	C2-N2-C7	2.93	127.08	122.90
3	A	1306	NAG	O7-C7-N2	-2.90	116.62	121.95
3	C	1304	NAG	C2-N2-C7	2.74	126.80	122.90
3	C	1301	NAG	C2-N2-C7	2.73	126.78	122.90
3	B	1308	NAG	O7-C7-N2	-2.72	116.95	121.95
5	C	1307	XIO	C42-C41-C05	-2.71	112.28	115.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	1306	NAG	C1-O5-C5	2.70	115.85	112.19
5	C	1307	XIO	C03-C04-C05	-2.70	112.29	115.44
5	C	1307	XIO	C07-C06-C05	-2.62	112.38	115.44
3	A	1305	NAG	O5-C1-C2	-2.49	107.35	111.29
3	A	1306	NAG	O7-C7-C8	-2.44	117.52	122.06
3	C	1302	NAG	O7-C7-N2	-2.42	117.50	121.95
5	C	1307	XIO	C07-C08-N09	2.39	119.98	115.83
3	A	1301	NAG	O5-C5-C6	2.38	110.94	107.20
3	B	1307	NAG	O7-C7-N2	2.37	126.32	121.95
5	C	1307	XIO	C42-C43-N44	2.37	119.95	115.83
3	C	1306	NAG	O7-C7-N2	-2.37	117.59	121.95
5	C	1307	XIO	C03-C02-N71	2.35	119.92	115.83
3	B	1305	NAG	O5-C5-C6	2.29	110.79	107.20
3	B	1306	NAG	C2-N2-C7	-2.25	119.69	122.90
3	A	1306	NAG	O5-C5-C6	2.23	110.71	107.20
3	B	1305	NAG	C1-O5-C5	2.15	115.10	112.19
3	A	1304	NAG	C2-N2-C7	2.14	125.95	122.90
3	B	1308	NAG	O7-C7-C8	-2.12	118.13	122.06
3	B	1306	NAG	C1-O5-C5	2.10	115.03	112.19
3	C	1303	NAG	C1-C2-N2	-2.09	106.91	110.49
3	B	1309	NAG	C2-N2-C7	2.09	125.88	122.90
3	B	1306	NAG	O5-C5-C6	2.08	110.46	107.20
3	B	1309	NAG	C4-C3-C2	-2.06	108.00	111.02
3	C	1304	NAG	O7-C7-N2	-2.04	118.20	121.95
3	C	1301	NAG	O7-C7-N2	-2.02	118.24	121.95

There are no chirality outliers.

All (67) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	1304	NAG	C3-C2-N2-C7
3	A	1306	NAG	C1-C2-N2-C7
5	C	1307	XIO	N09-C10-C11-C12
5	C	1307	XIO	C31-C10-N09-C08
5	C	1307	XIO	C06-C05-N36-C37
5	C	1307	XIO	C41-C05-N36-C37
5	C	1307	XIO	C04-C05-N36-C37
5	C	1307	XIO	C52-C53-N54-O56
5	C	1307	XIO	C57-C53-N54-O56
5	C	1307	XIO	C73-C72-N71-C02
3	B	1308	NAG	C4-C5-C6-O6
3	B	1301	NAG	O5-C5-C6-O6

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Mol	Chain	Res	Type	Atoms
3	C	1305	NAG	O5-C5-C6-O6
5	C	1307	XIO	C31-C10-C11-C12
3	B	1305	NAG	O5-C5-C6-O6
3	C	1301	NAG	O5-C5-C6-O6
3	C	1302	NAG	O5-C5-C6-O6
3	C	1304	NAG	O5-C5-C6-O6
3	C	1306	NAG	O5-C5-C6-O6
5	C	1307	XIO	O70-C43-N44-C45
5	C	1307	XIO	O01-C02-N71-C72
5	C	1307	XIO	C03-C02-N71-C72
3	A	1306	NAG	C8-C7-N2-C2
3	A	1306	NAG	O7-C7-N2-C2
3	B	1308	NAG	C8-C7-N2-C2
3	B	1308	NAG	O7-C7-N2-C2
3	C	1301	NAG	C8-C7-N2-C2
3	C	1301	NAG	O7-C7-N2-C2
3	C	1302	NAG	C8-C7-N2-C2
3	C	1302	NAG	O7-C7-N2-C2
3	C	1304	NAG	C8-C7-N2-C2
3	C	1304	NAG	O7-C7-N2-C2
3	C	1306	NAG	C8-C7-N2-C2
3	C	1306	NAG	O7-C7-N2-C2
3	B	1308	NAG	O5-C5-C6-O6
3	B	1304	NAG	O5-C5-C6-O6
3	A	1305	NAG	O5-C5-C6-O6
3	A	1306	NAG	O5-C5-C6-O6
3	A	1308	NAG	O5-C5-C6-O6
3	A	1303	NAG	O5-C5-C6-O6
3	A	1301	NAG	O5-C5-C6-O6
3	A	1302	NAG	O5-C5-C6-O6
3	B	1301	NAG	C4-C5-C6-O6
3	C	1305	NAG	C4-C5-C6-O6
5	C	1307	XIO	N71-C72-C93-O96
5	C	1307	XIO	N71-C72-C93-O94
5	C	1307	XIO	C42-C43-N44-C45
3	B	1302	NAG	O5-C5-C6-O6
3	A	1309	NAG	O5-C5-C6-O6
3	C	1306	NAG	C4-C5-C6-O6
3	C	1304	NAG	C4-C5-C6-O6
3	C	1301	NAG	C4-C5-C6-O6
3	B	1309	NAG	C3-C2-N2-C7
3	C	1305	NAG	C3-C2-N2-C7

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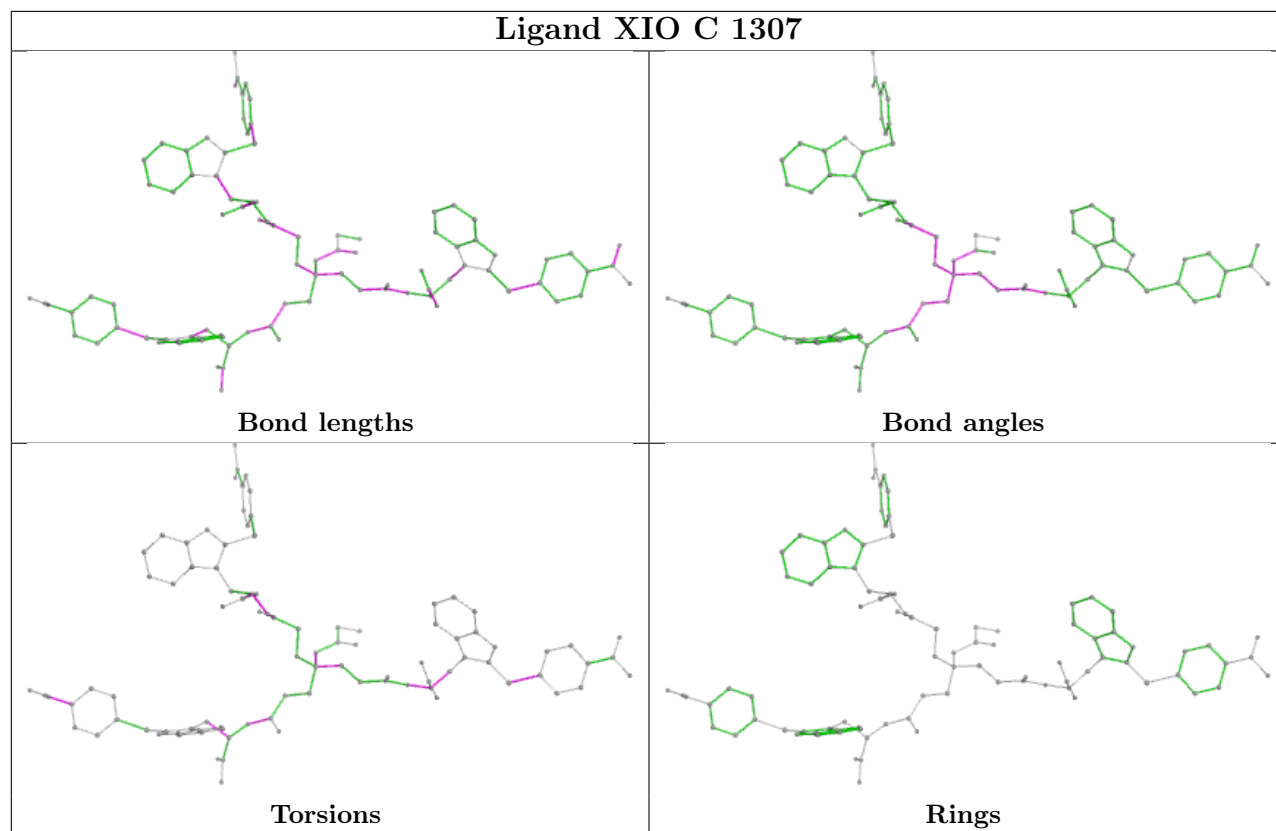
Mol	Chain	Res	Type	Atoms
3	C	1302	NAG	C4-C5-C6-O6
3	B	1305	NAG	C4-C5-C6-O6
5	C	1307	XIO	C66-C45-C46-C47
5	C	1307	XIO	N44-C45-C46-C47
3	B	1307	NAG	C4-C5-C6-O6
5	C	1307	XIO	N09-C10-C31-O34
5	C	1307	XIO	C73-C72-C93-O96
3	A	1306	NAG	C4-C5-C6-O6
5	C	1307	XIO	C73-C72-C93-O94
5	C	1307	XIO	N09-C10-C31-O32
3	B	1304	NAG	C4-C5-C6-O6
5	C	1307	XIO	N36-C05-C06-C07
5	C	1307	XIO	C16-C15-S14-C13

There are no ring outliers.

4 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	1308	NAG	2	0
3	A	1306	NAG	1	0
3	A	1308	NAG	1	0
3	C	1305	NAG	1	0

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



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

There are no such residues in this entry.

5.8 Polymer linkage issues [\(i\)](#)

There are no chain breaks in this entry.

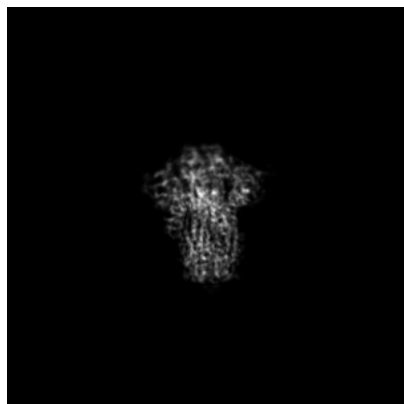
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-17578. These allow visual inspection of the internal detail of the map and identification of artifacts.

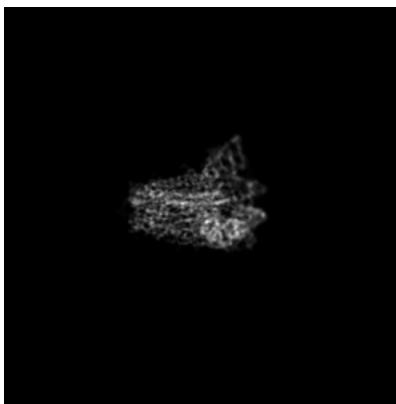
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

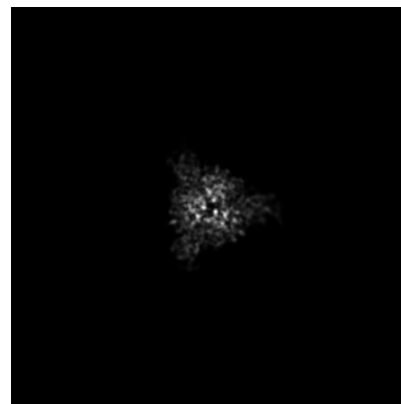
6.1.1 Primary map



X

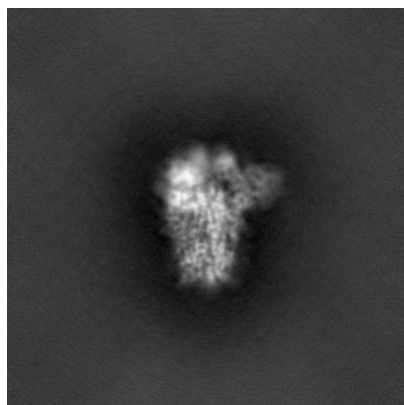


Y

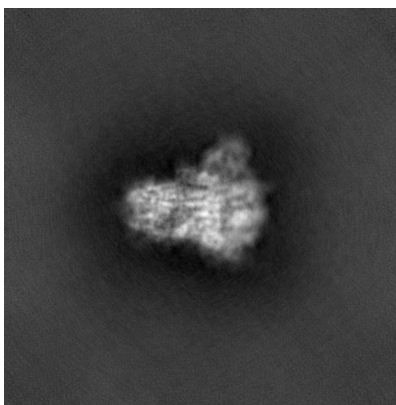


Z

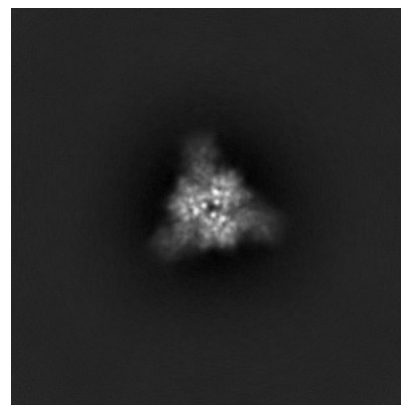
6.1.2 Raw map



X



Y



Z

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

6.2 Central slices [i](#)

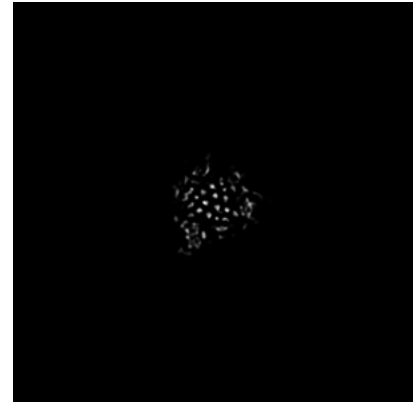
6.2.1 Primary map



X Index: 246

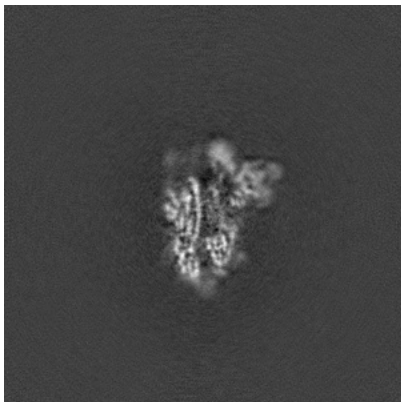


Y Index: 246

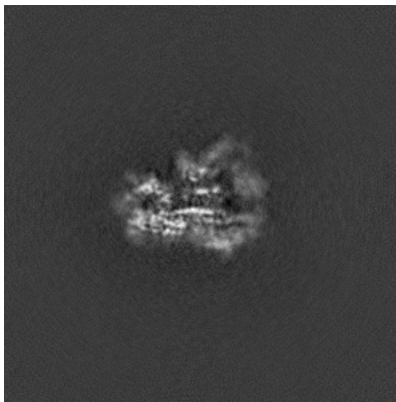


Z Index: 246

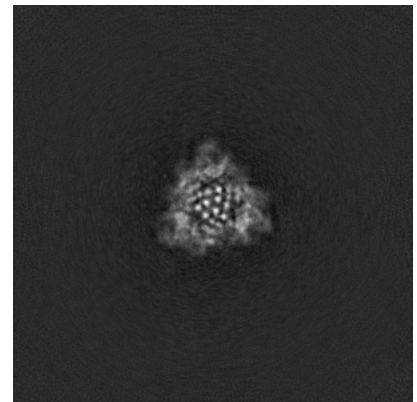
6.2.2 Raw map



X Index: 246



Y Index: 246



Z Index: 246

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: 251

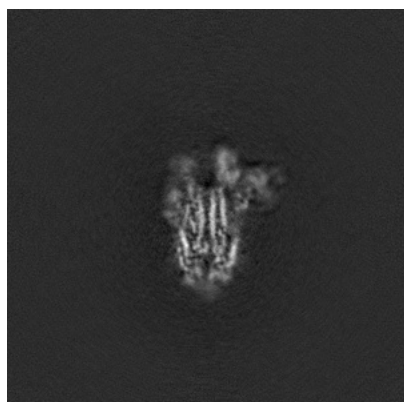


Y Index: 239

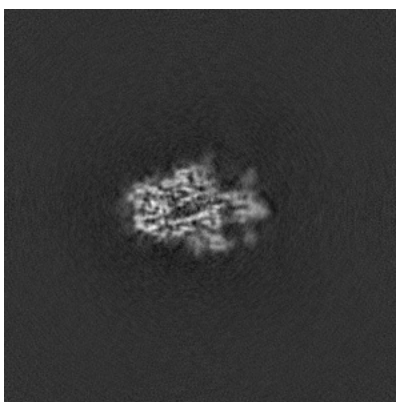


Z Index: 248

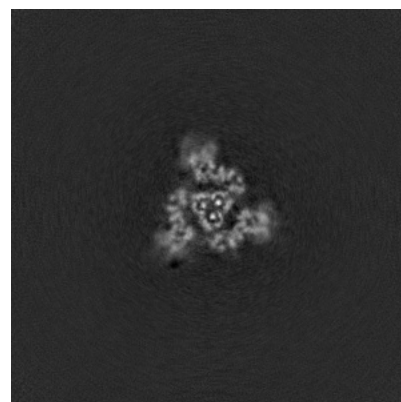
6.3.2 Raw map



X Index: 251



Y Index: 260

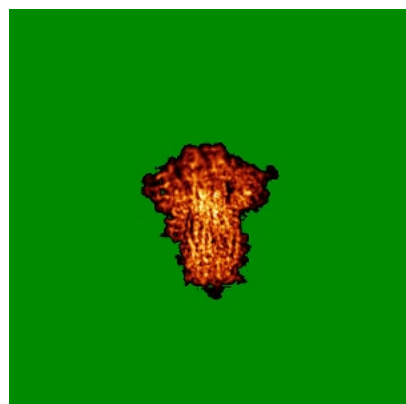


Z Index: 262

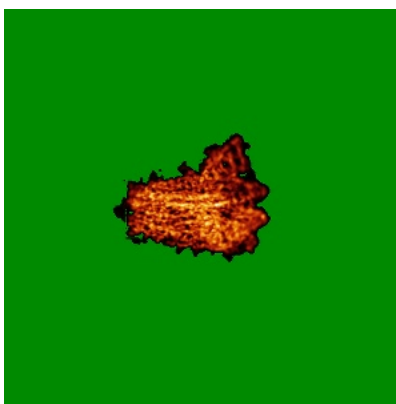
The images above show the largest variance slices of the map in three orthogonal directions.

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

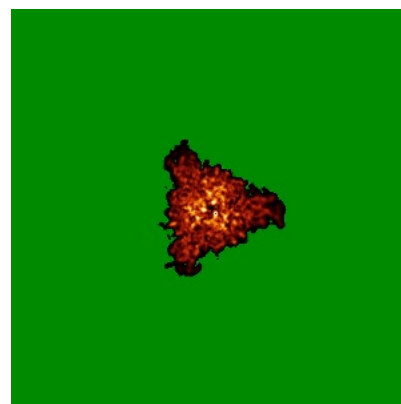
6.4.1 Primary map



X

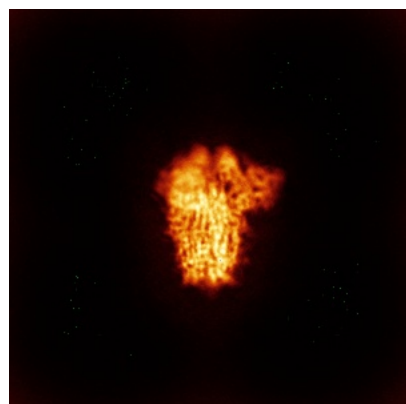


Y

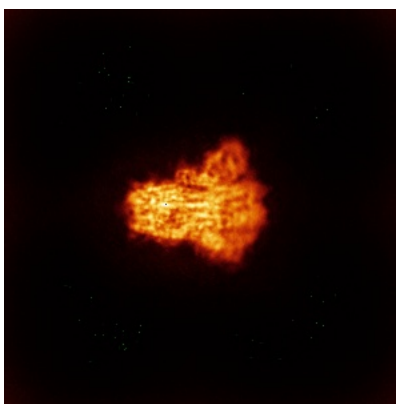


Z

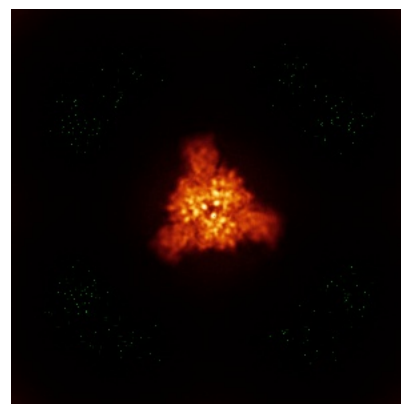
6.4.2 Raw map



X



Y

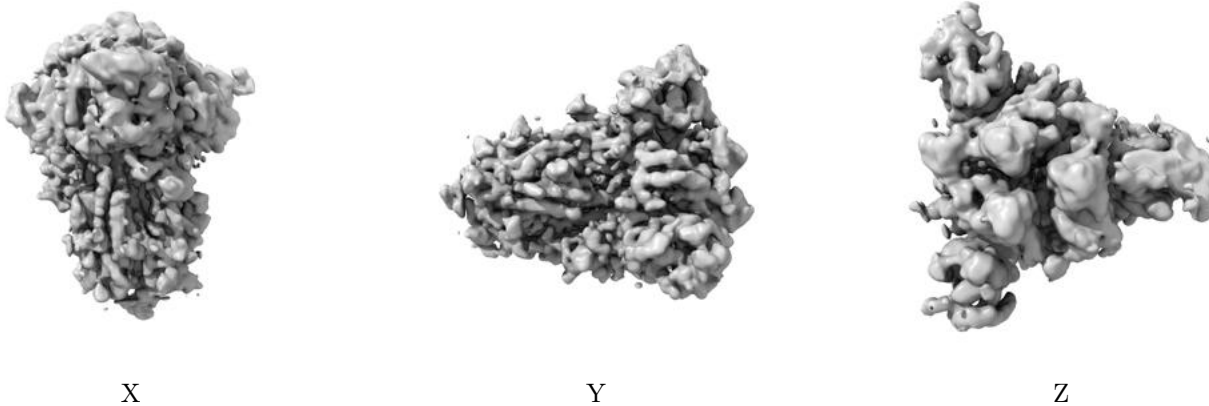


Z

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

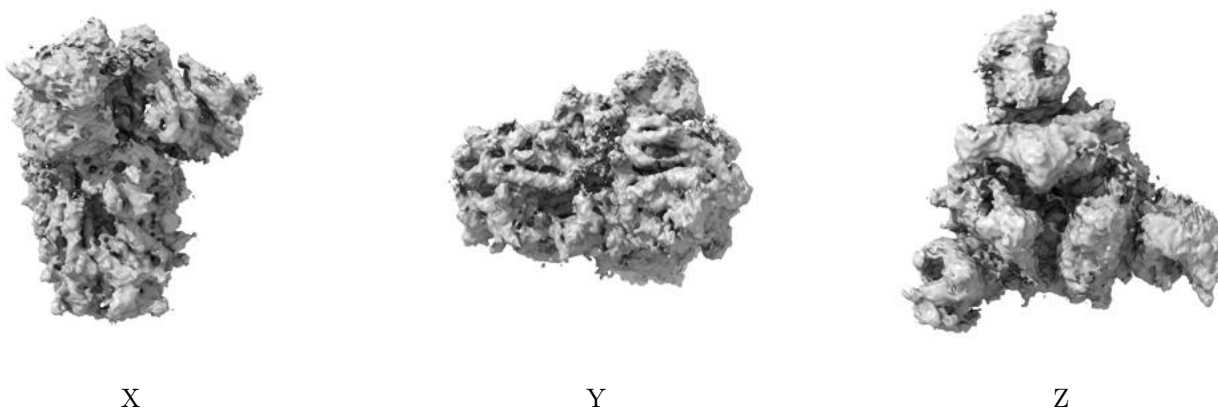
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.01. 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.

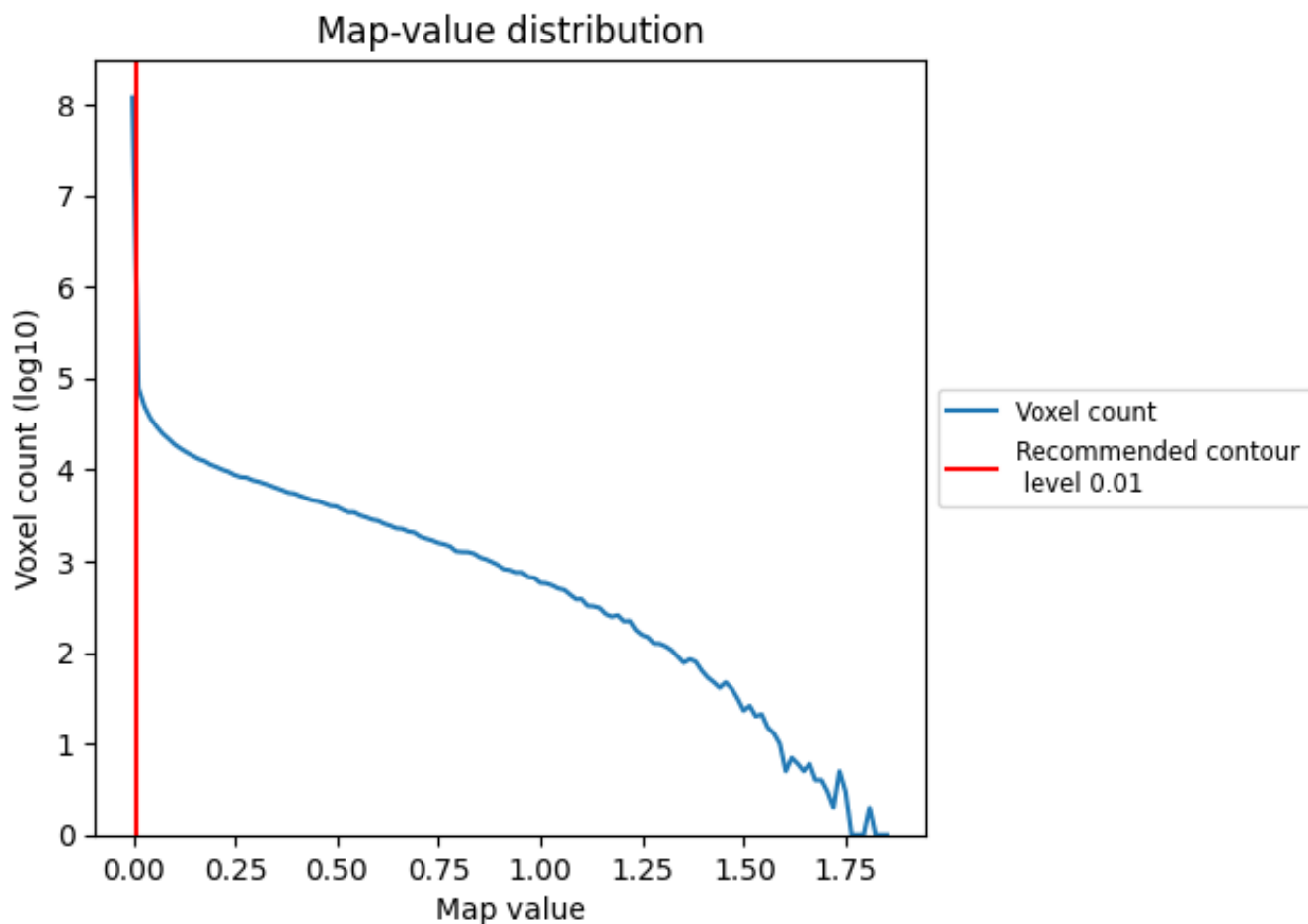
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

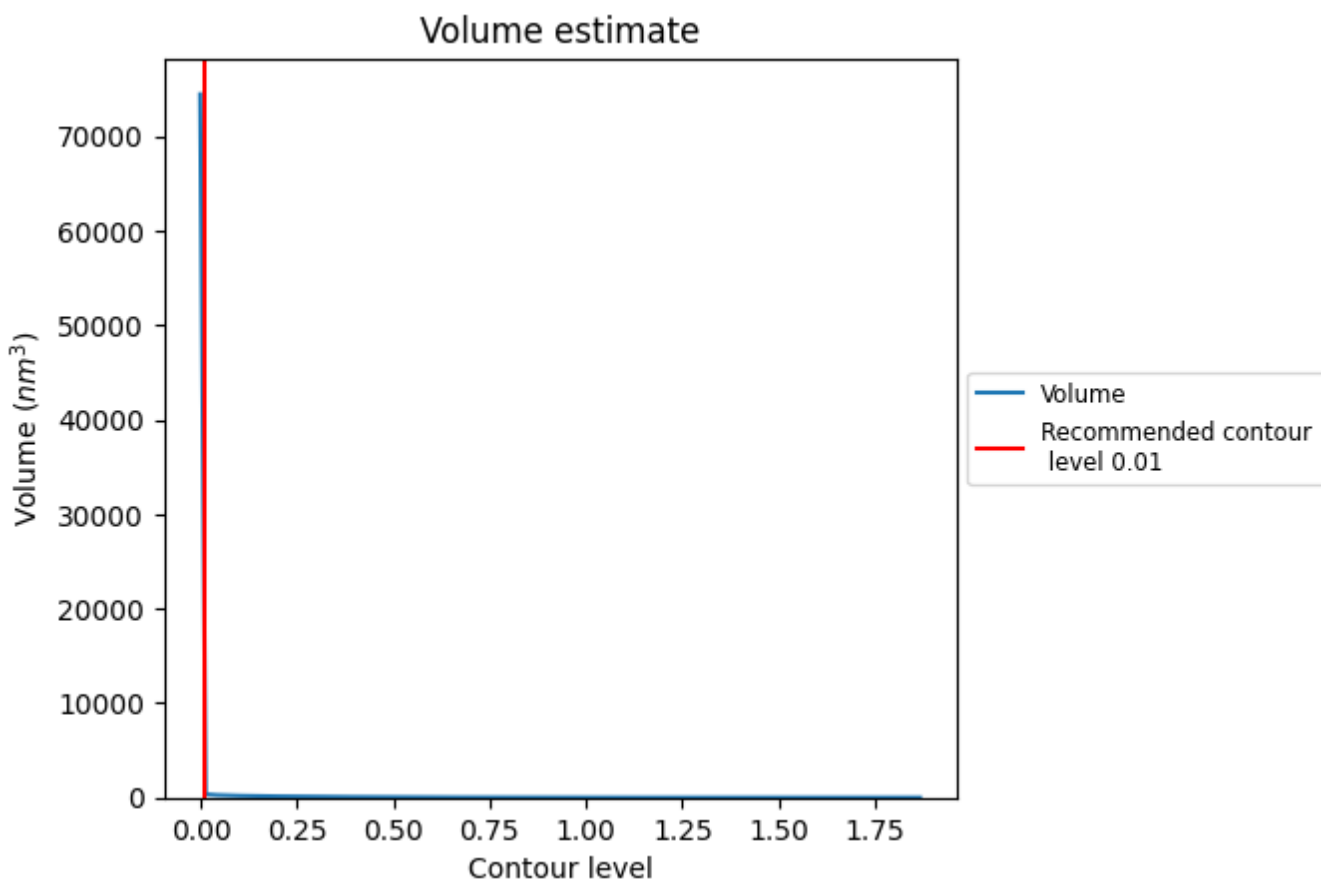
This section contains the results of statistical analysis of the map.

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.

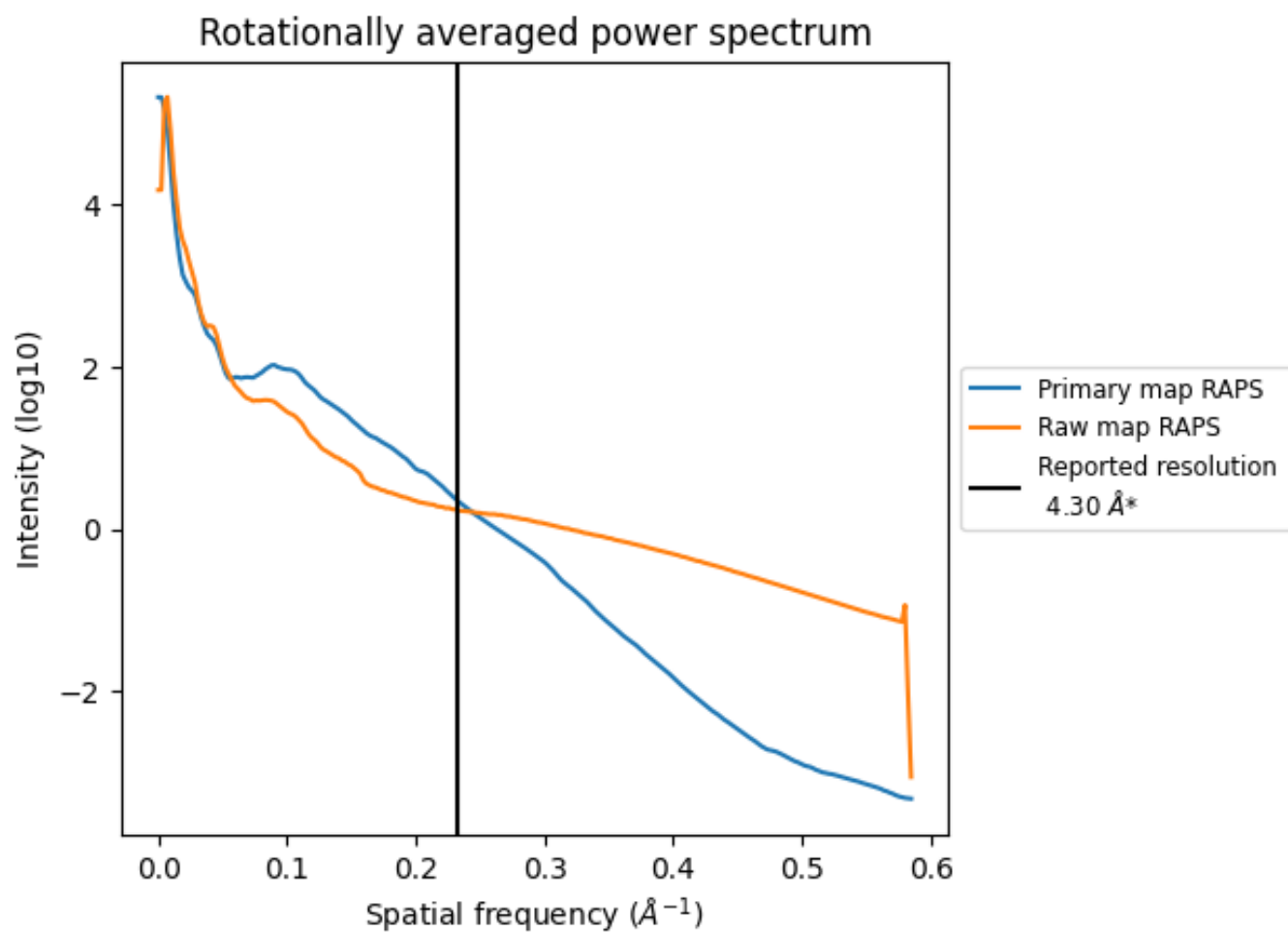
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 15139 nm³; this corresponds to an approximate mass of 13676 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

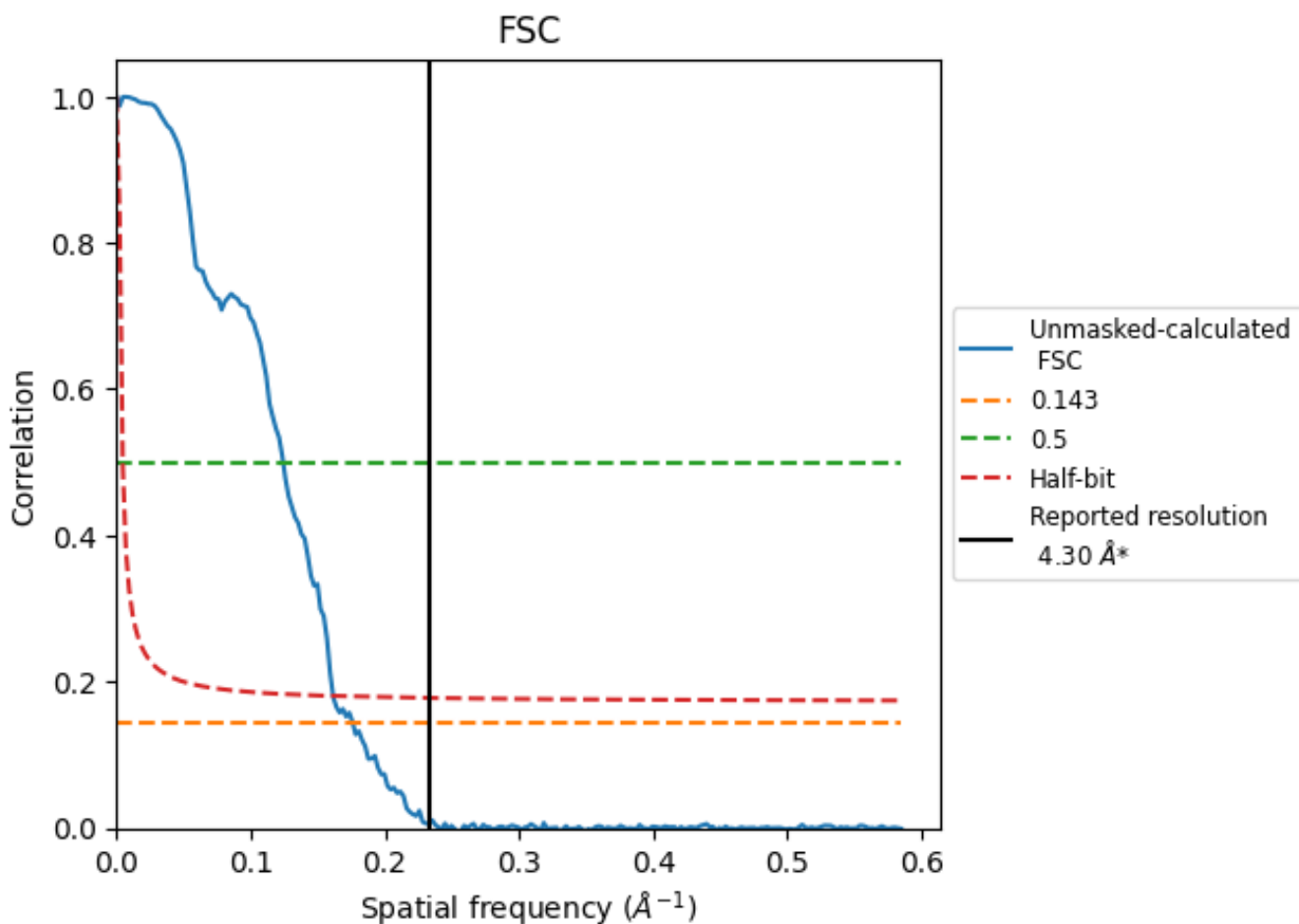


*Reported resolution corresponds to spatial frequency of 0.233 \AA^{-1}

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 0.233 Å⁻¹

8.2 Resolution estimates [i](#)

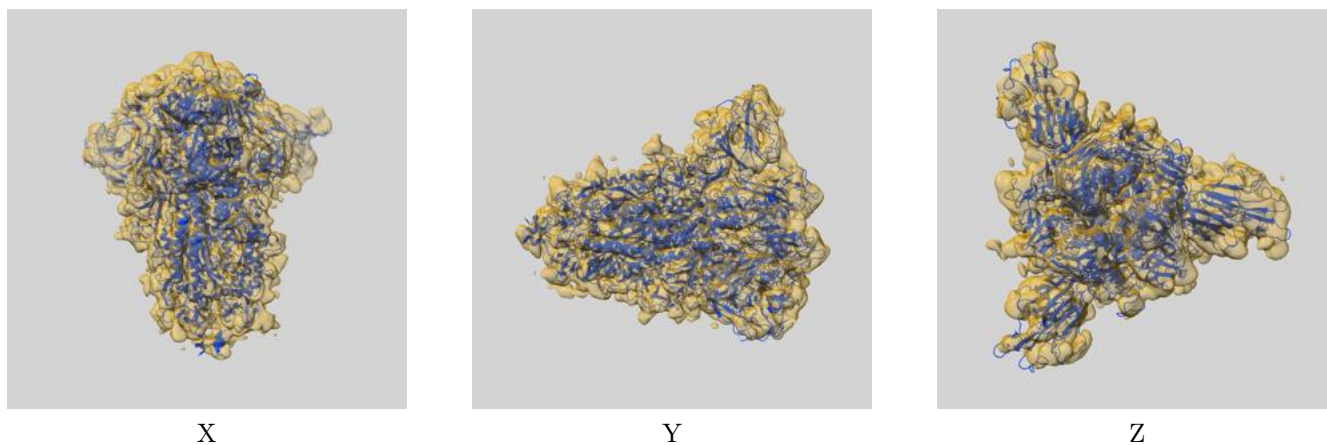
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.30	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	5.68	8.05	6.19

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 5.68 differs from the reported value 4.3 by more than 10 %

9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-17578 and PDB model 8P9Y. Per-residue inclusion information can be found in section 3 on page 14.

9.1 Map-model overlay [i](#)



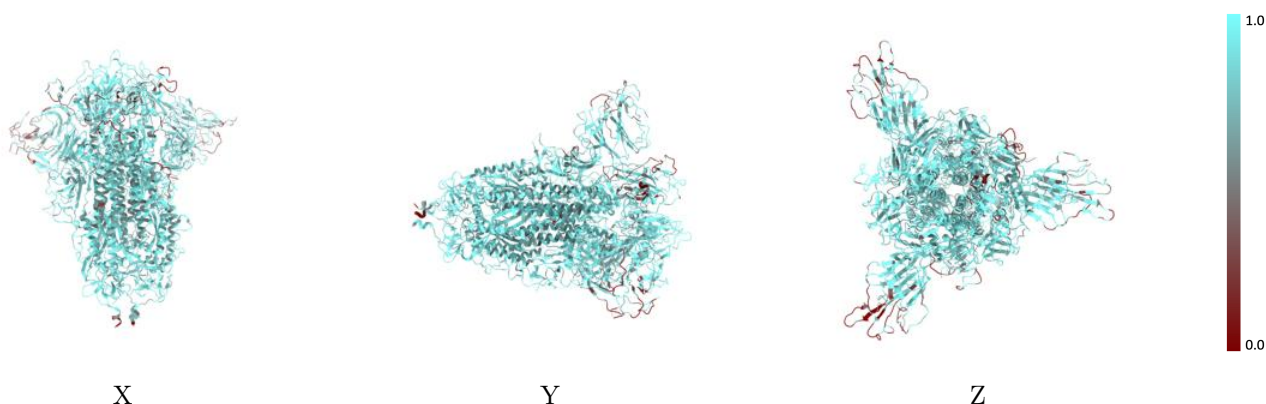
The images above show the 3D surface view of the map at the recommended contour level 0.01 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



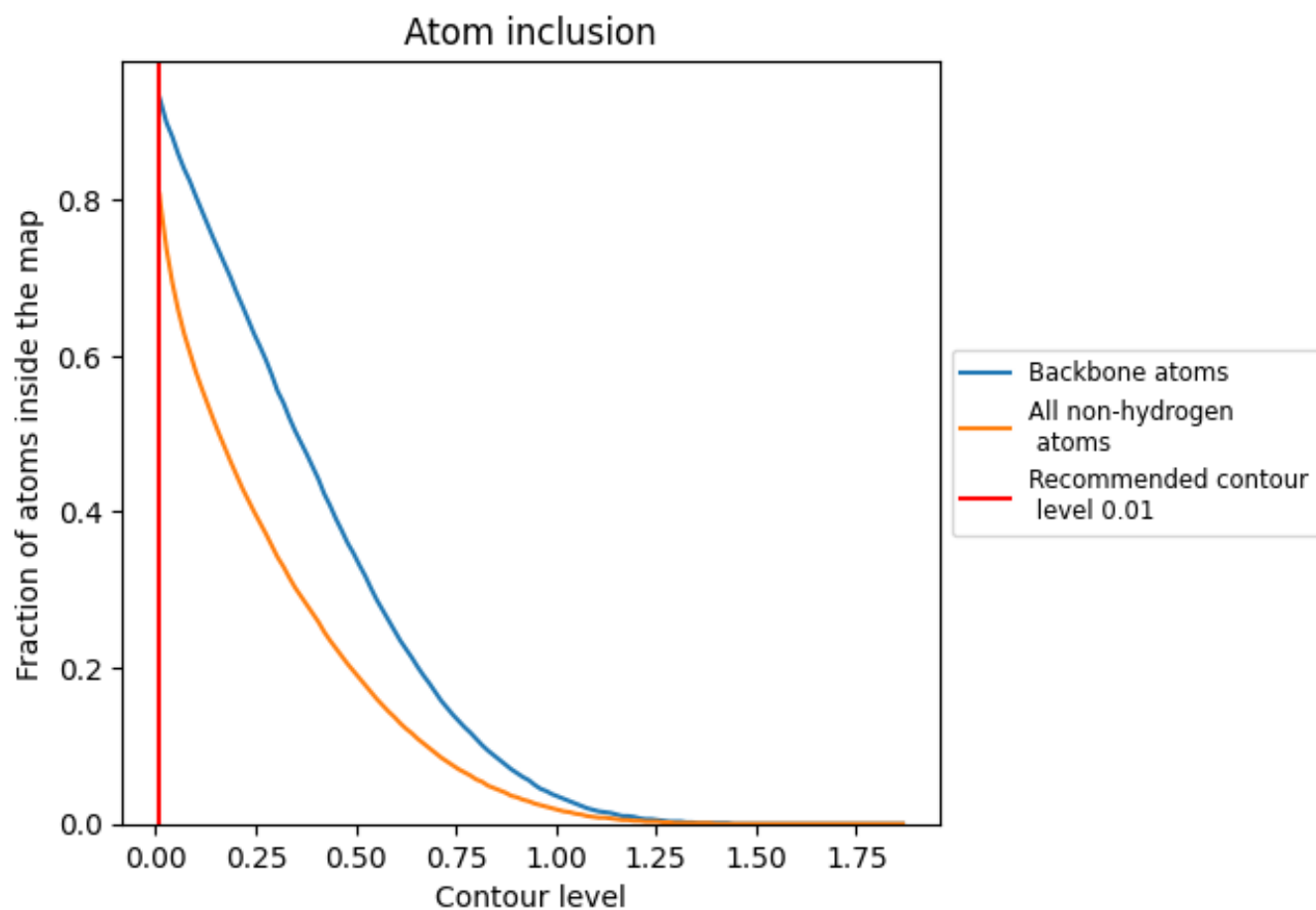
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.01).





























9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 81% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.01) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8070	 0.1170
A	 0.7830	 0.1110
B	 0.8340	 0.1200
C	 0.8070	 0.1170
D	 0.9640	 0.2830
E	 1.0000	 0.2490
F	 0.5710	 0.0870
G	 0.9290	 0.2820
H	 0.2860	 -0.0580
I	 1.0000	 0.2100
J	 0.4290	 0.0340
K	 0.8930	 0.2470
L	 0.6790	 0.1960
M	 1.0000	 0.2090

