



## Full wwPDB EM Validation Report ⓘ

Mar 6, 2026 – 02:53 PM UTC

PDB ID : 5VKQ / pdb\_00005vkq  
EMDB ID : EMD-8702  
Title : Structure of a mechanotransduction ion channel *Drosophila* NOMPC in nanodisc  
Authors : Jin, P.; Bulkley, D.; Guo, Y.; Zhang, W.; Guo, Z.; Huynh, W.; Wu, S.; Meltzer, S.; Chen, T.; Jan, L.Y.; Jan, Y.-N.; Cheng, Y.  
Deposited on : 2017-04-22  
Resolution : 3.55 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](mailto: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>.

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

EMDB validation analysis : 0.0.1.dev132  
Mogul : 2022.3.0, CSD as543be (2022)  
MolProbity : 4-5-2 with Phenix2.0  
Buster-report : wwPDB partial adaption of 1.1.7 (2018)  
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)  
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.49

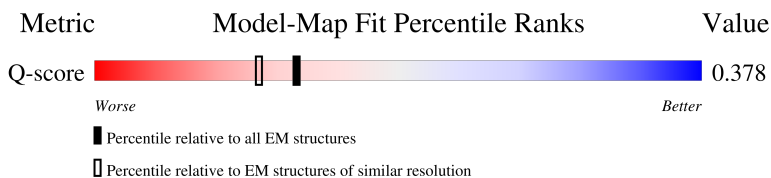
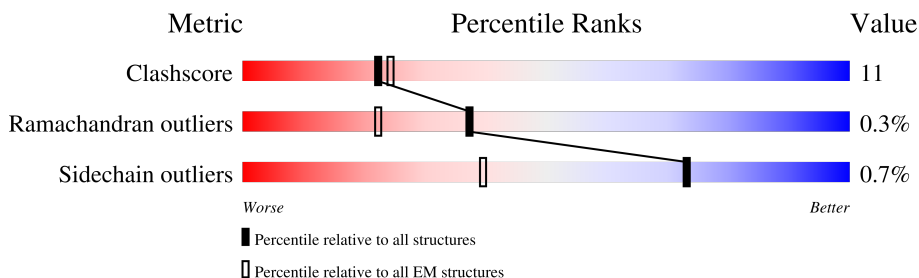
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.55 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	12819 ( 3.05 - 4.05 )

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  $\geq 3$ , 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	1732	<div> <div>16%</div> <div>71%</div> <div>15%</div> <div>13%</div> </div>
1	B	1732	<div> <div>15%</div> <div>71%</div> <div>15%</div> <div>13%</div> </div>
1	C	1732	<div> <div>15%</div> <div>71%</div> <div>16%</div> <div>13%</div> </div>
1	D	1732	<div> <div>16%</div> <div>70%</div> <div>16%</div> <div>13%</div> </div>

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	PCF	A	1803	-	-	X	-
2	PCF	B	1808	-	-	X	-
2	PCF	C	1801	-	-	X	-
2	PCF	D	1801	-	-	X	-

## 2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 41900 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.

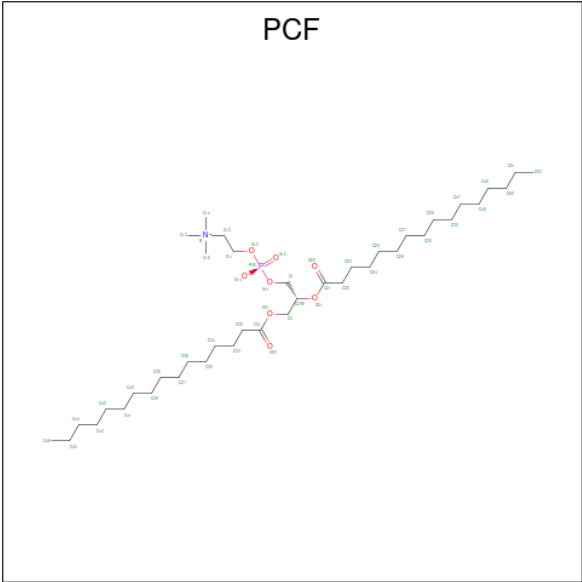
- Molecule 1 is a protein called No mechanoreceptor potential C isoform L.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1499	Total	C	N	O	S	0	0
			10217	6543	1834	1793	47		
1	B	1499	Total	C	N	O	S	0	0
			10217	6543	1834	1793	47		
1	C	1499	Total	C	N	O	S	0	0
			10217	6543	1834	1793	47		
1	D	1499	Total	C	N	O	S	0	0
			10217	6543	1834	1793	47		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1551	GLN	ASN	conflict	UNP E0A9E1
B	1551	GLN	ASN	conflict	UNP E0A9E1
C	1551	GLN	ASN	conflict	UNP E0A9E1
D	1551	GLN	ASN	conflict	UNP E0A9E1

- Molecule 2 is 1,2-DIACYL-SN-GLYCERO-3-PHOSHOCHOLINE (CCD ID: PCF) (formula:  $C_{40}H_{80}NO_8P$ ).



Mol	Chain	Residues	Atoms					AltConf
2	A	1	Total	C	O	P		0
			37	28	8	1		
2	A	1	Total	C	O	P		0
			28	19	8	1		
2	A	1	Total	C	N	O	P	0
			42	32	1	8	1	
2	A	1	Total	C	N	O	P	0
			36	26	1	8	1	
2	A	1	Total	C	N	O	P	0
			35	25	1	8	1	
2	A	1	Total	C	O	P		0
			18	9	8	1		
2	A	1	Total	C	O	P		0
			30	21	8	1		
2	A	1	Total	C	N	O	P	0
			32	22	1	8	1	
2	B	1	Total	C	N	O	P	0
			36	26	1	8	1	
2	B	1	Total	C	N	O	P	0
			35	25	1	8	1	
2	B	1	Total	C	O	P		0
			18	9	8	1		
2	B	1	Total	C	O	P		0
			30	21	8	1		
2	B	1	Total	C	N	O	P	0
			32	22	1	8	1	
2	B	1	Total	C	O	P		0
			37	28	8	1		

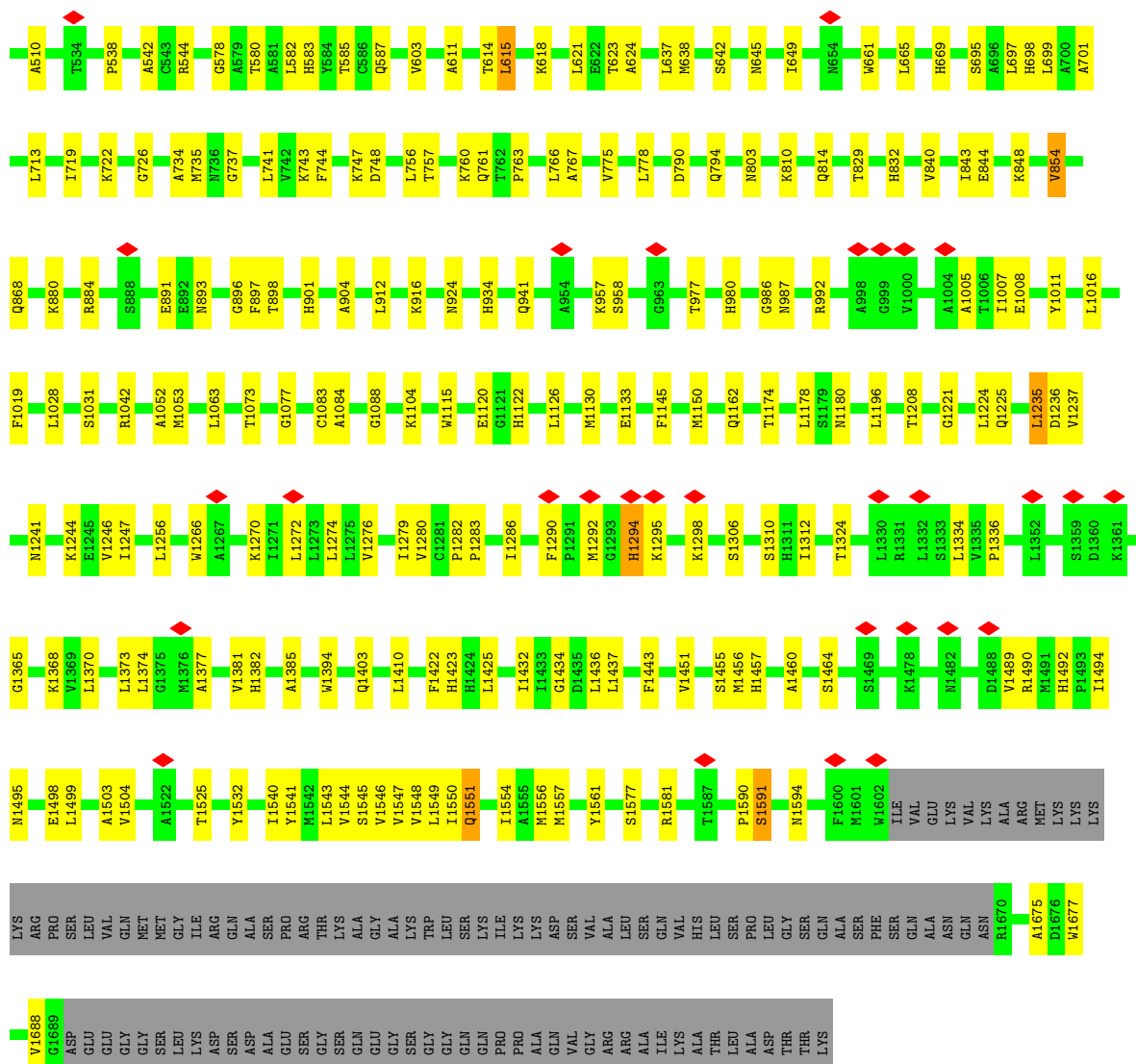
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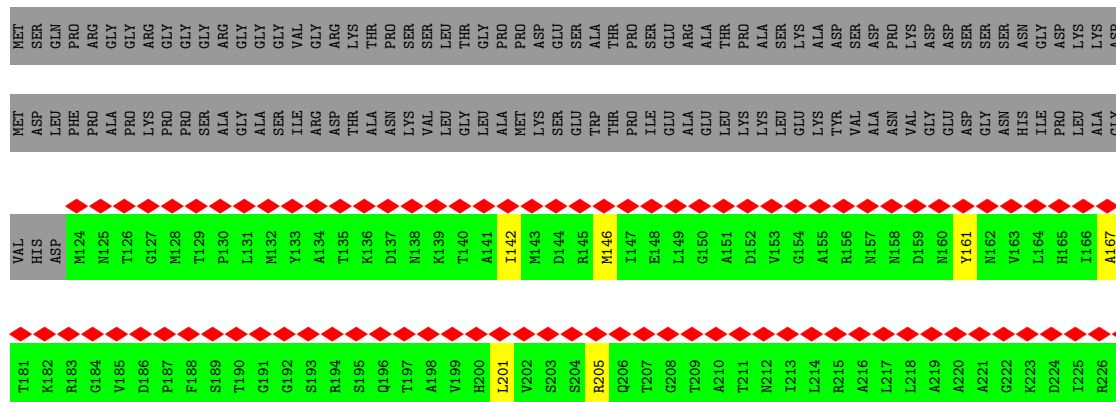
Mol	Chain	Residues	Atoms				AltConf
2	B	1	Total	C	O	P	0
			28	19	8	1	
2	B	1	Total	C	N	O	P
			42	32	1	8	1
2	C	1	Total	C	N	O	P
			42	32	1	8	1
2	C	1	Total	C	N	O	P
			36	26	1	8	1
2	C	1	Total	C	N	O	P
			35	25	1	8	1
2	C	1	Total	C	O	P	0
			18	9	8	1	
2	C	1	Total	C	O	P	0
			30	21	8	1	
2	C	1	Total	C	N	O	P
			32	22	1	8	1
2	C	1	Total	C	O	P	0
			37	28	8	1	
2	C	1	Total	C	O	P	0
			28	19	8	1	
2	D	1	Total	C	N	O	P
			42	32	1	8	1
2	D	1	Total	C	N	O	P
			36	26	1	8	1
2	D	1	Total	C	N	O	P
			35	25	1	8	1
2	D	1	Total	C	O	P	0
			18	9	8	1	
2	D	1	Total	C	O	P	0
			30	21	8	1	
2	D	1	Total	C	N	O	P
			32	22	1	8	1
2	D	1	Total	C	O	P	0
			37	28	8	1	
2	D	1	Total	C	O	P	0
			28	19	8	1	

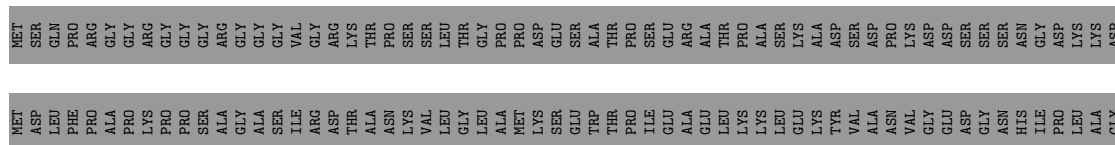






- Molecule 1: No mechanoreceptor potential C isoform L





VAL	HIS	ASP	M124	N125	T126	G127	M128	T129	P130	L131	M132	Y133	A134	T135	K136	D137	N138	K139	T140	A141	I142	M143	D144	R145	M146	I147	E148	L149	G150	A151	I152	V153	G154	A155	R156	N157	N158	D159	M160	Y161	N162	V163	L164	H165	I166	A167	A168	M169	Y170	S171	R172	E173	D174	V175	V176	K177	L178	L179	L180
T181	K182	R183	G184	N185	D186	P187	F188	S189	T190	G191	G192	S193	R194	S195	Q196	T197	A198	V199	H200	L201	V202	S203	S204	R205	Q206	T207	G208	T209	A210	T211	N212	L213	L214	R215	A216	L217	L218	A219	A220	A221	G222	K223	D224	I225	R226	L227	K228	A229	D230	G231	R232	G233	K234	I235	P236	L237	L238	L239	A240
V241	E242	S243	G244	N245	Q246	S247	M248	C249	R250	E251	L252	L253	A254	A255	Q256	T257	A258	E259	Q260	L261	K262	A263	T264	T265	A266	N267	G268	D269	T270	A271	L272	H273	L274	A275	A276	R277	R278	R279	D280	V281	D282	M283	V284	R285	I286	L287	V288	D289	Y290	G291	T292	N293	V294	D295	T296	Q297	N298	G299	E300
G301	Q302	T303	P304	L305	H306	I307	A308	A309	A310	E311	G312	D313	E314	A315	L316	L317	K318	Y319	F320	Y321	G322	V323	R324	A325	S326	A327	S328	I329	A330	D331	N332	Q333	D334	P337	A341	N344	G345	H346	A347	H348	V349	I350	E351	L352	L353	A354	D355	K356	F357	K358	A359	S360	I361	F362	E363	R364			
T365	K366	T370	L371	M372	H373	L377	A381	E382	C383	M386	L387	F388	K389	K390	L394	N398	A402	A409	G412	I417	L421	Q422	V427	Y435	H439	I440	A441	V449	G457	H461	V462	R463	R468	I474	R477	L486	K490																						
S491	N496	A510	L529	P538	A542	C543	R544	G578	A579	T580	A581	L582	H583	V584	T585	C586	Q587	L595	V603	A611	T614	L615	K618	L621	E622	T623	A624	L637	M638	S642	N645	I649	N654	V661	L665	H669	S695	A696																					
L697	H698	L699	A701	L713	T719	K722	S723	R724	V725	G726	A734	H735	N736	G737	L741	V742	K743	F744	K747	D748	L756	T757	K760	Q761	T762	P763	L766	A767	V775	L778	D790	Q794	N803	K810	Q814	T829	H832	V840																					
I843	E844	K848	V854	Q868	K880	R884	A887	S888	E891	E892	N893	G896	F897	T898	H901	A904	L912	K916	N924	H934	Q941	A954	K957	S958	G963	T977	H980	G986	N987	R992	G999	A1004	A1005	T1006	I1007																								
E1008	Y1011	L1016	F1019	L1028	S1031	R1042	A1052	M1053	L1063	E1063	T1073	G1077	C1083	A1084	G1088	K1104	M1115	E1120	G1121	H1122	L1126	M1130	E1133	F1145	M1150	Q1162	T1174	L1178	S1179	N1180	L1196	M1206	A1207	T1208																									
A1215	S1219	A1220	G1221	L1224	Q1225	L1235	D1236	V1237	M1241	K1244	E1245	V1246	I1247	L1256	V1266	A1267	K1270	I1271	L1272	L1273	L1274	L1275	V1276	I1279	L1280	G1281	P1282	A1283	I1286	F1290	P1291	M1292	G1293	H1294	K1295	K1298	S1306	S1310	H1311	I1312	T1324	L1330																	
L1334	V1335	P1336	I1345	L1352	S1359	G1365	K1368	V1369	L1370	L1373	L1374	G1375	M1376	A1377	V1381	H1382	A1385	W1394	L1410	F1422	L1423	I1432	L1433	G1434	D1435	L1436	L1437	F1443	V1451	S1455	M1456	H1457	A1460	S1464	S1469	S1591	N1594	T1598																					
D1488	V1489	R1490	M1491	H1492	P1493	I1494	N1495	E1498	L1499	L1500	F1501	V1502	A1503	V1504	F1505	A1522	T1525	Y1528	Y1532	T1536	I1540	Y1541	M1542	L1543	V1544	S1545	V1546	V1547	V1548	L1549	I1550	Q1551	I1554	M1557	Y1561	S1577	R1581	T1587	P1590	S1591	N1594	T1598																	
V1602	ILE	VAL	GLU	LYS	VAL	LYS	ALA	ARG	MET	LYS	LYS	LYS	ARG	PRO	SER	LEU	VAL	GLN	MET	MET	GLY	ILE	ARG	GLN	ALA	PRO	PRO	ARG	LYS	ALA	ALA	LYS	TRP	LEU	SER	LYS	ILE	LYS	ASP	SER	VAL	LEU	SER	GLN	HIS	SER	PRO	LEU	GLY	SER	GLN								

ALA	SER	PHE	SER	GLN	ALA	ASN	GLN	ASN	R1670	A1675	D1676	W1677	V1688	G1689	ASP	GLU	GLU	GLY	GLY	SER	SER	LEU	LYS	ASP	SER	SER	ASP	ASP	ALA	GLU	SER	GLY	SER	GLN	GLN	GLY	GLY	GLY	GLN	GLN	PRO	PRO	ALA	GLN	VAL	GLY	ARG	ARG	ALA	TLE	LYS	ALA	THR	THR	LEU	ALA	ASP	THR	THR	LYS
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## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	175314	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	54	Depositor
Minimum defocus (nm)	-1400	Depositor
Maximum defocus (nm)	-3300	Depositor
Magnification	41132	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	60.021	Depositor
Minimum map value	-27.667	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	1.000	Depositor
Recommended contour level	10	Depositor
Map size ( $\text{\AA}$ )	486.24, 486.24, 486.24	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.2156, 1.2156, 1.2156	Depositor

## 5 Model quality

### 5.1 Standard geometry

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

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	0.27	0/10413	0.69	5/14270 (0.0%)
1	B	0.27	0/10413	0.69	5/14270 (0.0%)
1	C	0.27	0/10413	0.69	5/14270 (0.0%)
1	D	0.27	0/10413	0.69	5/14270 (0.0%)
All	All	0.27	0/41652	0.69	20/57080 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	7
1	B	0	7
1	C	0	7
1	D	0	7
All	All	0	28

There are no bond length outliers.

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	924	ASN	N-CA-C	6.63	119.99	110.24
1	B	924	ASN	N-CA-C	6.63	119.99	110.24
1	C	924	ASN	N-CA-C	6.63	119.99	110.24
1	D	924	ASN	N-CA-C	6.62	119.97	110.24
1	C	803	ASN	CA-C-N	5.85	130.70	122.46
1	C	803	ASN	C-N-CA	5.85	130.70	122.46
1	A	803	ASN	CA-C-N	5.84	130.69	122.46
1	A	803	ASN	C-N-CA	5.84	130.69	122.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	803	ASN	CA-C-N	5.83	130.69	122.46
1	D	803	ASN	C-N-CA	5.83	130.69	122.46
1	B	803	ASN	CA-C-N	5.83	130.68	122.46
1	B	803	ASN	C-N-CA	5.83	130.68	122.46
1	D	1551	GLN	CA-CB-CG	-5.72	102.66	114.10
1	A	1551	GLN	CA-CB-CG	-5.70	102.70	114.10
1	C	1551	GLN	CA-CB-CG	-5.70	102.71	114.10
1	B	1551	GLN	CA-CB-CG	-5.68	102.73	114.10
1	C	854	VAL	N-CA-C	-5.17	107.37	113.42
1	D	854	VAL	N-CA-C	-5.14	107.41	113.42
1	A	854	VAL	N-CA-C	-5.14	107.41	113.42
1	B	854	VAL	N-CA-C	-5.13	107.42	113.42

There are no chirality outliers.

All (28) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1266	TRP	Peptide
1	A	1590	PRO	Peptide
1	A	1591	SER	Peptide
1	A	394	LEU	Peptide
1	A	461	HIS	Peptide
1	A	957	LYS	Peptide
1	A	986	GLY	Peptide
1	B	1266	TRP	Peptide
1	B	1590	PRO	Peptide
1	B	1591	SER	Peptide
1	B	394	LEU	Peptide
1	B	461	HIS	Peptide
1	B	957	LYS	Peptide
1	B	986	GLY	Peptide
1	C	1266	TRP	Peptide
1	C	1590	PRO	Peptide
1	C	1591	SER	Peptide
1	C	394	LEU	Peptide
1	C	461	HIS	Peptide
1	C	957	LYS	Peptide
1	C	986	GLY	Peptide
1	D	1266	TRP	Peptide
1	D	1590	PRO	Peptide
1	D	1591	SER	Peptide
1	D	394	LEU	Peptide

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Mol	Chain	Res	Type	Group
1	D	461	HIS	Peptide
1	D	957	LYS	Peptide
1	D	986	GLY	Peptide

## 5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	10217	0	9270	206	0
1	B	10217	0	9270	207	0
1	C	10217	0	9270	219	0
1	D	10217	0	9270	221	0
2	A	258	0	309	77	0
2	B	258	0	309	75	0
2	C	258	0	309	85	0
2	D	258	0	309	82	0
All	All	41900	0	38316	911	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 11.

All (911) 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:D:1532:TYR:CE2	2:D:1801:PCF:H222	1.24	1.68
1:C:1532:TYR:CE2	2:C:1801:PCF:H222	1.32	1.64
1:D:1532:TYR:CE1	2:D:1801:PCF:H21	1.32	1.62
1:A:1498:GLU:CB	2:B:1808:PCF:H351	1.30	1.57
1:D:1532:TYR:CD2	2:D:1801:PCF:H222	1.40	1.57
1:C:1498:GLU:CB	2:D:1801:PCF:H351	1.29	1.55
1:B:1532:TYR:CE2	2:B:1808:PCF:H222	1.41	1.54
1:C:1532:TYR:CZ	2:C:1801:PCF:H21	1.44	1.48
1:C:1532:TYR:CE1	2:C:1801:PCF:H21	1.46	1.47
1:A:1532:TYR:CE2	2:A:1803:PCF:H222	1.53	1.43
2:A:1803:PCF:H351	1:D:1498:GLU:CB	1.48	1.43
1:B:1498:GLU:CB	2:C:1801:PCF:H351	1.50	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1532:TYR:CE1	2:A:1803:PCF:H21	1.55	1.39
1:D:1532:TYR:CE2	2:D:1801:PCF:C22	2.04	1.37
1:A:1532:TYR:CZ	2:A:1803:PCF:H21	1.59	1.35
1:C:1532:TYR:CD2	2:C:1801:PCF:H222	1.57	1.35
1:C:1532:TYR:CE2	2:C:1801:PCF:C22	2.10	1.34
1:B:1532:TYR:CE1	2:B:1808:PCF:H21	1.63	1.34
1:A:1532:TYR:CD2	2:A:1803:PCF:H222	1.65	1.30
1:A:1489:VAL:HG21	2:A:1805:PCF:C13	1.62	1.28
1:D:1532:TYR:CZ	2:D:1801:PCF:H21	1.71	1.25
1:B:1532:TYR:CD2	2:B:1808:PCF:H222	1.74	1.22
1:C:1498:GLU:CB	2:D:1801:PCF:C35	2.20	1.19
1:A:1498:GLU:CB	2:B:1808:PCF:C35	2.21	1.17
1:D:1532:TYR:CZ	2:D:1801:PCF:C21	2.27	1.17
1:D:1532:TYR:CE1	2:D:1801:PCF:C2	2.28	1.16
1:D:1489:VAL:HG21	2:D:1803:PCF:H133	1.22	1.15
1:C:1489:VAL:HG21	2:C:1803:PCF:H133	1.19	1.14
1:B:1489:VAL:HG21	2:B:1802:PCF:H133	1.19	1.14
1:A:1532:TYR:CE2	2:A:1803:PCF:C22	2.29	1.13
2:D:1805:PCF:H361	2:D:1806:PCF:H241	1.27	1.13
1:B:1532:TYR:CE2	2:B:1808:PCF:C22	2.29	1.13
1:A:1489:VAL:CG2	2:A:1805:PCF:C13	2.27	1.12
1:D:1489:VAL:HG21	2:D:1803:PCF:C13	1.79	1.11
1:B:1489:VAL:HG21	2:B:1802:PCF:C13	1.80	1.11
1:C:1532:TYR:CZ	2:C:1801:PCF:C2	2.33	1.11
2:B:1804:PCF:H361	2:B:1805:PCF:H241	1.27	1.11
2:C:1805:PCF:C36	2:C:1806:PCF:H241	1.82	1.10
2:C:1805:PCF:H361	2:C:1806:PCF:H241	1.27	1.09
2:D:1805:PCF:C36	2:D:1806:PCF:H241	1.82	1.09
2:A:1807:PCF:H361	2:A:1808:PCF:H241	1.27	1.09
2:B:1804:PCF:C36	2:B:1805:PCF:H241	1.82	1.09
1:C:1489:VAL:HG21	2:C:1803:PCF:C13	1.82	1.08
2:A:1807:PCF:C36	2:A:1808:PCF:H241	1.82	1.08
1:C:1532:TYR:CE1	2:C:1801:PCF:C2	2.35	1.08
1:A:1282:PRO:O	1:A:1286:ILE:HG13	1.55	1.06
1:C:1282:PRO:O	1:C:1286:ILE:HG13	1.55	1.05
1:B:1282:PRO:O	1:B:1286:ILE:HG13	1.55	1.05
1:D:1532:TYR:CZ	2:D:1801:PCF:C22	2.39	1.04
1:D:1282:PRO:O	1:D:1286:ILE:HG13	1.55	1.04
1:A:1489:VAL:CG2	2:A:1805:PCF:H133	1.85	1.04
1:A:1489:VAL:HG21	2:A:1805:PCF:H133	1.07	1.03
1:B:1532:TYR:CZ	2:B:1808:PCF:H21	1.94	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1803:PCF:C35	1:D:1498:GLU:CB	2.38	1.01
1:B:1422:PHE:HZ	2:B:1806:PCF:C34	1.73	1.00
1:C:1422:PHE:HZ	2:C:1807:PCF:C34	1.74	1.00
1:D:1422:PHE:HZ	2:D:1807:PCF:C34	1.73	1.00
1:D:1532:TYR:CE2	2:D:1801:PCF:C21	2.45	1.00
1:A:1422:PHE:HZ	2:A:1801:PCF:C34	1.74	0.99
1:B:1498:GLU:CB	2:C:1801:PCF:C35	2.40	0.99
1:D:1532:TYR:CD2	2:D:1801:PCF:C22	2.33	0.99
1:A:1532:TYR:CE1	2:A:1803:PCF:C2	2.45	0.99
1:A:1532:TYR:CZ	2:A:1803:PCF:C2	2.46	0.98
1:C:1489:VAL:CG2	2:C:1803:PCF:C13	2.41	0.98
1:C:1489:VAL:CG2	2:C:1803:PCF:H133	1.92	0.98
1:D:1532:TYR:CZ	2:D:1801:PCF:H222	2.00	0.97
1:C:1492:HIS:CE1	2:C:1803:PCF:H222	1.99	0.97
1:C:1437:LEU:HB3	2:C:1806:PCF:H222	1.47	0.96
1:B:1532:TYR:CZ	2:B:1808:PCF:H222	2.00	0.95
1:B:1489:VAL:CG2	2:B:1802:PCF:H133	1.96	0.95
1:B:1489:VAL:CG2	2:B:1802:PCF:C13	2.44	0.95
1:D:1489:VAL:CG2	2:D:1803:PCF:C13	2.45	0.93
1:C:1532:TYR:CD2	2:C:1801:PCF:C22	2.44	0.92
1:D:1437:LEU:HB3	2:D:1806:PCF:H222	1.52	0.92
1:B:1532:TYR:CZ	2:B:1808:PCF:C22	2.52	0.92
1:C:1532:TYR:CE2	2:C:1801:PCF:C21	2.53	0.91
1:B:1532:TYR:CZ	2:B:1808:PCF:C21	2.54	0.90
1:D:1532:TYR:CZ	2:D:1801:PCF:C2	2.51	0.90
1:C:1532:TYR:CZ	2:C:1801:PCF:C21	2.55	0.90
1:A:1437:LEU:HB3	2:A:1808:PCF:H222	1.53	0.88
1:D:1489:VAL:CG2	2:D:1803:PCF:H133	2.01	0.87
1:D:1532:TYR:HE1	2:D:1801:PCF:H21	1.34	0.86
1:B:1437:LEU:HB3	2:B:1805:PCF:H222	1.57	0.86
1:D:1422:PHE:HZ	2:D:1807:PCF:H341	1.41	0.86
1:A:1422:PHE:HZ	2:A:1801:PCF:H341	1.41	0.85
1:B:1422:PHE:HZ	2:B:1806:PCF:H341	1.41	0.84
1:C:1422:PHE:HZ	2:C:1807:PCF:H341	1.41	0.83
1:A:1489:VAL:CG2	2:A:1805:PCF:H131	2.05	0.83
1:C:1532:TYR:CZ	2:C:1801:PCF:C22	2.62	0.83
2:B:1804:PCF:C36	2:B:1805:PCF:C24	2.58	0.82
1:A:1492:HIS:CE1	2:A:1805:PCF:H222	2.15	0.82
1:B:1492:HIS:CE1	2:B:1802:PCF:H222	2.15	0.82
1:A:1532:TYR:CE2	2:A:1803:PCF:C21	2.62	0.82
2:A:1807:PCF:C36	2:A:1808:PCF:C24	2.57	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1532:TYR:CD2	2:A:1803:PCF:C22	2.54	0.81
1:C:1543:LEU:O	1:C:1547:VAL:HB	1.80	0.81
1:D:1543:LEU:O	1:D:1547:VAL:HB	1.80	0.81
2:D:1805:PCF:C36	2:D:1806:PCF:C24	2.58	0.81
1:A:1543:LEU:O	1:A:1547:VAL:HB	1.80	0.80
2:C:1805:PCF:C36	2:C:1806:PCF:C24	2.58	0.80
1:A:1422:PHE:CZ	2:A:1801:PCF:C34	2.64	0.80
1:B:1543:LEU:O	1:B:1547:VAL:HB	1.80	0.80
1:D:1422:PHE:CZ	2:D:1807:PCF:C34	2.64	0.79
1:A:1489:VAL:HG23	2:A:1805:PCF:H131	1.65	0.78
2:A:1807:PCF:H362	2:A:1808:PCF:H232	1.66	0.78
1:B:1422:PHE:CZ	2:B:1806:PCF:C34	2.64	0.78
2:B:1804:PCF:H362	2:B:1805:PCF:H232	1.65	0.78
1:A:1492:HIS:HB3	2:B:1808:PCF:O14	1.83	0.77
2:A:1807:PCF:H361	2:A:1808:PCF:C24	2.13	0.77
1:D:1532:TYR:OH	2:D:1801:PCF:C21	2.32	0.77
1:A:1532:TYR:CZ	2:A:1803:PCF:C21	2.67	0.77
2:C:1805:PCF:H362	2:C:1806:PCF:H232	1.65	0.77
2:B:1804:PCF:H361	2:B:1805:PCF:C24	2.13	0.77
1:C:1422:PHE:CZ	2:C:1807:PCF:C34	2.64	0.77
1:C:1434:GLY:N	2:C:1805:PCF:O14	2.18	0.77
2:D:1805:PCF:H362	2:D:1806:PCF:H232	1.66	0.76
1:D:1492:HIS:ND1	2:D:1803:PCF:H111	2.01	0.76
1:C:1492:HIS:ND1	2:C:1803:PCF:H111	2.01	0.75
1:C:1528:TYR:HE2	2:C:1801:PCF:H131	1.51	0.75
1:A:1422:PHE:HZ	2:A:1801:PCF:H342	1.52	0.75
1:B:1492:HIS:ND1	2:B:1802:PCF:H111	2.02	0.75
1:B:1422:PHE:HZ	2:B:1806:PCF:H342	1.52	0.74
1:C:1422:PHE:HZ	2:C:1807:PCF:H342	1.52	0.74
1:D:1492:HIS:CE1	2:D:1803:PCF:H222	2.23	0.74
1:C:1532:TYR:OH	2:C:1801:PCF:O11	2.06	0.73
1:A:1532:TYR:OH	2:A:1803:PCF:O11	2.06	0.73
2:B:1804:PCF:H362	2:B:1805:PCF:C23	2.18	0.73
1:D:1422:PHE:HZ	2:D:1807:PCF:H342	1.52	0.73
2:A:1807:PCF:H362	2:A:1808:PCF:C23	2.18	0.72
1:A:1422:PHE:CZ	2:A:1801:PCF:H342	2.25	0.72
1:B:1422:PHE:CZ	2:B:1806:PCF:H342	2.25	0.72
1:C:1422:PHE:CZ	2:C:1807:PCF:H342	2.25	0.72
1:C:1532:TYR:OH	2:C:1801:PCF:C2	2.38	0.72
2:C:1805:PCF:H362	2:C:1806:PCF:C23	2.18	0.72
1:C:1422:PHE:CE2	2:C:1807:PCF:H321	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1422:PHE:CE2	2:D:1807:PCF:H321	2.25	0.71
1:A:1422:PHE:CE2	2:A:1801:PCF:H321	2.25	0.71
1:D:1422:PHE:CZ	2:D:1807:PCF:H342	2.25	0.71
2:D:1805:PCF:H362	2:D:1806:PCF:C23	2.18	0.71
1:C:1272:LEU:HD21	2:C:1808:PCF:H222	1.73	0.71
1:A:1434:GLY:HA3	2:A:1807:PCF:O14	1.90	0.70
1:B:1422:PHE:CE2	2:B:1806:PCF:H321	2.25	0.70
1:D:1272:LEU:HD21	2:D:1808:PCF:H222	1.73	0.70
1:A:1272:LEU:HD21	2:A:1802:PCF:H222	1.74	0.70
1:B:1422:PHE:CE2	2:B:1806:PCF:C32	2.75	0.70
1:C:1422:PHE:CE2	2:C:1807:PCF:C32	2.75	0.70
1:C:1532:TYR:OH	2:C:1801:PCF:H21	1.91	0.70
1:C:1437:LEU:HB3	2:C:1806:PCF:C22	2.21	0.70
1:A:1422:PHE:CE2	2:A:1801:PCF:C32	2.75	0.69
1:D:1422:PHE:CE2	2:D:1807:PCF:C32	2.75	0.69
1:C:1492:HIS:HE1	2:C:1803:PCF:H222	1.54	0.69
2:D:1805:PCF:H361	2:D:1806:PCF:C24	2.13	0.69
1:B:1272:LEU:HD21	2:B:1807:PCF:H222	1.73	0.69
1:C:1433:ILE:HG21	2:C:1805:PCF:O22	1.91	0.69
1:A:1492:HIS:ND1	2:A:1805:PCF:H111	2.07	0.69
1:B:1532:TYR:CE1	2:B:1808:PCF:C2	2.59	0.68
2:C:1805:PCF:H361	2:C:1806:PCF:C24	2.13	0.68
1:D:1489:VAL:CG2	2:D:1803:PCF:H131	2.22	0.68
1:B:1532:TYR:CD2	2:B:1808:PCF:C22	2.67	0.67
1:D:1532:TYR:CG	2:D:1801:PCF:H222	2.22	0.67
1:C:1489:VAL:CG2	2:C:1803:PCF:H131	2.26	0.66
1:D:1270:LYS:O	1:D:1274:LEU:HB2	1.95	0.66
1:A:1492:HIS:CB	2:B:1808:PCF:O14	2.43	0.66
1:C:1270:LYS:O	1:C:1274:LEU:HB2	1.95	0.66
1:C:1422:PHE:CZ	2:C:1807:PCF:H341	2.30	0.66
1:B:1270:LYS:O	1:B:1274:LEU:HB2	1.95	0.66
1:B:1489:VAL:CG2	2:B:1802:PCF:H131	2.25	0.66
1:A:1270:LYS:O	1:A:1274:LEU:HB2	1.95	0.65
1:A:1422:PHE:CZ	2:A:1801:PCF:H341	2.30	0.65
1:A:1528:TYR:HE2	2:A:1803:PCF:H131	1.61	0.65
1:A:1374:LEU:O	1:A:1377:ALA:HB3	1.97	0.65
1:B:1532:TYR:CE2	2:B:1808:PCF:C21	2.79	0.65
1:B:1374:LEU:O	1:B:1377:ALA:HB3	1.97	0.65
1:D:743:LYS:O	1:D:747:LYS:HB3	1.97	0.65
1:A:1532:TYR:CZ	2:A:1803:PCF:C22	2.81	0.64
1:A:695:SER:H	1:A:698:HIS:HD2	1.46	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:250:ARG:O	1:D:254:ALA:HB2	1.98	0.64
1:D:1434:GLY:HA3	2:D:1805:PCF:O14	1.97	0.64
1:A:250:ARG:O	1:A:254:ALA:HB2	1.98	0.64
1:C:1374:LEU:O	1:C:1377:ALA:HB3	1.97	0.64
1:D:695:SER:H	1:D:698:HIS:HD2	1.46	0.64
1:C:743:LYS:O	1:C:747:LYS:HB3	1.97	0.64
1:A:743:LYS:O	1:A:747:LYS:HB3	1.97	0.64
1:C:250:ARG:O	1:C:254:ALA:HB2	1.98	0.64
1:C:1489:VAL:HG23	2:C:1803:PCF:H131	1.78	0.64
1:A:1434:GLY:N	2:A:1807:PCF:O14	2.31	0.64
1:B:695:SER:H	1:B:698:HIS:HD2	1.46	0.63
1:B:743:LYS:O	1:B:747:LYS:HB3	1.97	0.63
1:B:1224:LEU:HD22	1:B:1235:LEU:HD23	1.81	0.63
1:D:1374:LEU:O	1:D:1377:ALA:HB3	1.97	0.63
1:D:1224:LEU:HD22	1:D:1235:LEU:HD23	1.81	0.63
1:C:695:SER:H	1:C:698:HIS:HD2	1.46	0.63
1:A:1224:LEU:HD22	1:A:1235:LEU:HD23	1.81	0.63
1:B:1489:VAL:HG23	2:B:1802:PCF:H131	1.81	0.63
1:C:1224:LEU:HD22	1:C:1235:LEU:HD23	1.81	0.63
1:B:1532:TYR:CZ	2:B:1808:PCF:C2	2.79	0.63
1:B:250:ARG:O	1:B:254:ALA:HB2	1.98	0.62
1:B:1532:TYR:OH	2:B:1808:PCF:C21	2.47	0.62
1:D:1422:PHE:CZ	2:D:1807:PCF:H341	2.29	0.62
1:A:1492:HIS:HE1	2:A:1805:PCF:H222	1.64	0.62
1:A:1120:GLU:O	1:A:1122:HIS:ND1	2.31	0.62
1:B:1422:PHE:CZ	2:B:1806:PCF:H341	2.29	0.62
1:C:1492:HIS:ND1	2:C:1803:PCF:C11	2.62	0.62
1:C:1492:HIS:HB3	2:D:1801:PCF:O14	1.99	0.62
1:D:1334:LEU:HB3	1:D:1336:PRO:HD3	1.82	0.62
1:C:1489:VAL:HG23	2:C:1803:PCF:C13	2.30	0.62
1:C:1544:VAL:O	1:C:1548:VAL:HB	2.00	0.62
1:A:1434:GLY:CA	2:A:1807:PCF:O14	2.48	0.61
1:A:1544:VAL:O	1:A:1548:VAL:HB	2.00	0.61
1:B:1334:LEU:HB3	1:B:1336:PRO:HD3	1.82	0.61
1:D:1544:VAL:O	1:D:1548:VAL:HB	2.00	0.61
1:D:1528:TYR:HE2	2:D:1801:PCF:H131	1.65	0.61
1:A:1334:LEU:HB3	1:A:1336:PRO:HD3	1.82	0.61
2:A:1803:PCF:O14	1:D:1492:HIS:HB3	2.00	0.61
1:B:1544:VAL:O	1:B:1548:VAL:HB	2.00	0.61
1:B:1422:PHE:CZ	2:B:1806:PCF:C32	2.84	0.61
1:C:1334:LEU:HB3	1:C:1336:PRO:HD3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:1806:PCF:H332	2:D:1806:PCF:H31	1.82	0.61
1:D:665:LEU:O	1:D:669:HIS:HB2	2.01	0.61
1:D:1422:PHE:CZ	2:D:1807:PCF:C32	2.84	0.61
1:A:665:LEU:O	1:A:669:HIS:HB2	2.01	0.61
1:A:1422:PHE:CZ	2:A:1801:PCF:C32	2.84	0.61
1:C:1532:TYR:HH	2:C:1801:PCF:C1	2.14	0.60
1:C:1422:PHE:CE2	2:C:1807:PCF:H322	2.36	0.60
1:C:1554:ILE:HG12	1:D:1551:GLN:HB3	1.82	0.60
1:B:1410:LEU:HD11	1:C:1457:HIS:HB2	1.82	0.60
1:C:665:LEU:O	1:C:669:HIS:HB2	2.01	0.60
1:C:1422:PHE:HE2	2:C:1807:PCF:H321	1.65	0.60
1:A:1422:PHE:CE2	2:A:1801:PCF:H322	2.36	0.60
2:B:1805:PCF:H31	2:B:1805:PCF:H332	1.83	0.60
2:A:1808:PCF:H31	2:A:1808:PCF:H332	1.82	0.60
1:B:1422:PHE:CE2	2:B:1806:PCF:H322	2.36	0.60
1:D:1489:VAL:HG23	2:D:1803:PCF:H131	1.83	0.60
1:C:463:ARG:HH11	1:C:468:ARG:HG2	1.67	0.60
1:C:1422:PHE:CZ	2:C:1807:PCF:C32	2.84	0.60
1:D:1422:PHE:CE2	2:D:1807:PCF:H322	2.36	0.60
1:A:463:ARG:HH11	1:A:468:ARG:HG2	1.67	0.60
2:C:1806:PCF:H31	2:C:1806:PCF:H332	1.82	0.60
1:D:757:THR:H	1:D:761:GLN:H	1.50	0.59
1:B:665:LEU:O	1:B:669:HIS:HB2	2.01	0.59
1:A:1551:GLN:HB3	1:D:1554:ILE:HG12	1.82	0.59
1:B:463:ARG:HH11	1:B:468:ARG:HG2	1.67	0.59
1:C:1120:GLU:O	1:C:1122:HIS:ND1	2.31	0.59
1:A:757:THR:H	1:A:761:GLN:H	1.50	0.59
1:D:1492:HIS:ND1	2:D:1803:PCF:C11	2.65	0.59
1:A:1276:VAL:O	1:A:1280:VAL:HG22	2.03	0.59
1:A:1422:PHE:HE2	2:A:1801:PCF:H321	1.65	0.59
1:D:1276:VAL:O	1:D:1280:VAL:HG22	2.03	0.59
1:D:463:ARG:HH11	1:D:468:ARG:HG2	1.67	0.59
1:D:1422:PHE:HE2	2:D:1807:PCF:H321	1.65	0.59
2:B:1804:PCF:H341	2:B:1805:PCF:H221	1.85	0.59
2:D:1805:PCF:H341	2:D:1806:PCF:H221	1.85	0.59
1:B:1120:GLU:O	1:B:1122:HIS:ND1	2.31	0.59
2:C:1805:PCF:H341	2:C:1806:PCF:H221	1.85	0.59
2:A:1807:PCF:H341	2:A:1808:PCF:H221	1.85	0.58
1:C:1492:HIS:NE2	2:C:1803:PCF:H222	2.18	0.58
1:B:1276:VAL:O	1:B:1280:VAL:HG22	2.03	0.58
1:B:1492:HIS:ND1	2:B:1802:PCF:C11	2.65	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1422:PHE:HE2	2:B:1806:PCF:C32	2.17	0.58
2:A:1807:PCF:H332	2:A:1807:PCF:H31	1.86	0.58
1:A:417:ILE:O	1:A:421:LEU:HB2	2.04	0.58
1:B:757:THR:H	1:B:761:GLN:H	1.50	0.58
1:B:1434:GLY:HA3	2:B:1804:PCF:O14	2.02	0.58
1:C:757:THR:H	1:C:761:GLN:H	1.50	0.58
1:C:395:HIS:CD2	1:D:457:GLY:HA2	2.38	0.58
1:C:1276:VAL:O	1:C:1280:VAL:HG22	2.03	0.58
1:B:1492:HIS:HE1	2:B:1802:PCF:H222	1.65	0.58
1:A:1422:PHE:HE2	2:A:1801:PCF:C32	2.17	0.58
1:B:1492:HIS:HB3	2:C:1801:PCF:O14	2.03	0.58
1:D:417:ILE:O	1:D:421:LEU:HB2	2.04	0.58
2:B:1804:PCF:H332	2:B:1804:PCF:H31	1.86	0.57
1:D:1052:ALA:HB1	1:D:1084:ALA:HB2	1.87	0.57
2:A:1807:PCF:H362	2:A:1808:PCF:C24	2.35	0.57
1:B:1422:PHE:HE2	2:B:1806:PCF:H321	1.65	0.57
1:B:417:ILE:O	1:B:421:LEU:HB2	2.04	0.57
1:C:383:CYS:O	1:C:387:LEU:HB2	2.05	0.57
2:A:1807:PCF:C36	2:A:1808:PCF:C23	2.83	0.57
1:B:1052:ALA:HB1	1:B:1084:ALA:HB2	1.87	0.57
2:D:1805:PCF:H31	2:D:1805:PCF:H332	1.86	0.57
1:C:417:ILE:O	1:C:421:LEU:HB2	2.04	0.56
1:C:1434:GLY:CA	2:C:1805:PCF:O14	2.53	0.56
1:D:1422:PHE:HE2	2:D:1807:PCF:C32	2.17	0.56
1:A:383:CYS:O	1:A:387:LEU:HB2	2.05	0.56
1:A:1052:ALA:HB1	1:A:1084:ALA:HB2	1.87	0.56
1:A:1433:ILE:HG21	2:A:1807:PCF:O22	2.04	0.56
1:A:1490:ARG:HH12	1:A:1525:THR:HG21	1.70	0.56
1:B:383:CYS:O	1:B:387:LEU:HB2	2.05	0.56
2:C:1805:PCF:H332	2:C:1805:PCF:H31	1.86	0.56
1:D:383:CYS:O	1:D:387:LEU:HB2	2.05	0.56
1:B:904:ALA:O	1:B:941:GLN:NE2	2.39	0.56
1:B:1490:ARG:HH12	1:B:1525:THR:HG21	1.70	0.56
1:C:1126:LEU:O	1:C:1130:MET:HB2	2.06	0.56
1:D:1282:PRO:O	1:D:1286:ILE:CG1	2.44	0.56
1:D:1423:HIS:CE1	2:D:1807:PCF:O22	2.59	0.56
2:D:1805:PCF:C36	2:D:1806:PCF:C23	2.83	0.56
1:C:1052:ALA:HB1	1:C:1084:ALA:HB2	1.87	0.56
1:C:661:TRP:HA	1:C:665:LEU:HD12	1.88	0.56
1:D:661:TRP:HA	1:D:665:LEU:HD12	1.88	0.56
1:D:904:ALA:O	1:D:941:GLN:NE2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1126:LEU:O	1:A:1130:MET:HB2	2.06	0.56
1:A:1423:HIS:CE1	2:A:1801:PCF:O22	2.59	0.56
1:D:1126:LEU:O	1:D:1130:MET:HB2	2.06	0.56
1:C:1434:GLY:HA3	2:C:1805:PCF:O14	2.06	0.56
1:A:1208:THR:HG22	1:A:1246:VAL:HA	1.88	0.56
2:B:1804:PCF:H362	2:B:1805:PCF:C24	2.35	0.56
1:C:904:ALA:O	1:C:941:GLN:NE2	2.39	0.56
1:A:904:ALA:O	1:A:941:GLN:NE2	2.39	0.56
1:C:1208:THR:HG22	1:C:1246:VAL:HA	1.88	0.55
1:C:1423:HIS:CE1	2:C:1807:PCF:O22	2.59	0.55
1:D:1208:THR:HG22	1:D:1246:VAL:HA	1.88	0.55
1:B:1423:HIS:CE1	2:B:1806:PCF:O22	2.59	0.55
1:B:1591:SER:HA	1:B:1594:ASN:H	1.72	0.55
1:A:1591:SER:HA	1:A:1594:ASN:H	1.72	0.55
1:B:370:THR:HB	1:B:373:HIS:HD2	1.71	0.55
1:B:1208:THR:HG22	1:B:1246:VAL:HA	1.88	0.55
1:B:1031:SER:O	1:C:722:LYS:NZ	2.36	0.55
1:B:1282:PRO:O	1:B:1286:ILE:CG1	2.44	0.55
1:C:370:THR:HB	1:C:373:HIS:HD2	1.71	0.55
1:C:1532:TYR:OH	2:C:1801:PCF:C21	2.54	0.55
2:C:1805:PCF:H362	2:C:1806:PCF:C24	2.35	0.55
1:A:1282:PRO:O	1:A:1286:ILE:CG1	2.44	0.55
1:A:1437:LEU:HB3	2:A:1808:PCF:C22	2.33	0.55
1:B:1126:LEU:O	1:B:1130:MET:HB2	2.06	0.55
1:C:1490:ARG:HH12	1:C:1525:THR:HG21	1.70	0.55
1:C:1591:SER:HA	1:C:1594:ASN:H	1.72	0.55
2:D:1805:PCF:C37	2:D:1806:PCF:H241	2.36	0.55
1:A:580:THR:H	1:A:583:HIS:CD2	2.25	0.55
1:B:661:TRP:HA	1:B:665:LEU:HD12	1.88	0.55
1:D:370:THR:HB	1:D:373:HIS:HD2	1.71	0.55
1:D:1007:ILE:HD12	1:D:1011:TYR:HB2	1.88	0.55
2:A:1807:PCF:C37	2:A:1808:PCF:H241	2.36	0.55
1:C:462:VAL:O	1:C:463:ARG:NE	2.38	0.55
1:D:1490:ARG:HH12	1:D:1525:THR:HG21	1.70	0.55
1:A:370:THR:HB	1:A:373:HIS:HD2	1.71	0.55
1:A:462:VAL:O	1:A:463:ARG:NE	2.38	0.55
1:D:1451:VAL:O	1:D:1455:SER:HB3	2.07	0.55
1:A:1007:ILE:HD12	1:A:1011:TYR:HB2	1.88	0.55
1:A:661:TRP:HA	1:A:665:LEU:HD12	1.88	0.54
1:B:868:GLN:OE1	1:B:893:ASN:ND2	2.40	0.54
1:B:1007:ILE:HD12	1:B:1011:TYR:HB2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:383:CYS:O	1:B:387:LEU:CB	2.56	0.54
1:C:383:CYS:O	1:C:387:LEU:CB	2.56	0.54
1:C:1007:ILE:HD12	1:C:1011:TYR:HB2	1.88	0.54
1:A:868:GLN:OE1	1:A:893:ASN:ND2	2.40	0.54
1:B:722:LYS:HB3	1:B:726:GLY:HA2	1.90	0.54
1:D:1422:PHE:CZ	2:D:1807:PCF:H321	2.43	0.54
1:D:1591:SER:HA	1:D:1594:ASN:H	1.72	0.54
1:C:868:GLN:OE1	1:C:893:ASN:ND2	2.40	0.54
1:D:868:GLN:OE1	1:D:893:ASN:ND2	2.40	0.54
1:A:383:CYS:O	1:A:387:LEU:CB	2.56	0.54
1:A:1410:LEU:HD11	1:B:1457:HIS:HB2	1.88	0.54
1:C:1422:PHE:HE2	2:C:1807:PCF:C32	2.17	0.54
2:B:1804:PCF:C37	2:B:1805:PCF:H241	2.36	0.54
1:C:1422:PHE:CZ	2:C:1807:PCF:H321	2.43	0.54
1:A:236:PRO:O	1:A:240:ALA:HB3	2.08	0.54
1:B:669:HIS:HD2	1:B:699:LEU:HD22	1.74	0.54
1:C:1451:VAL:O	1:C:1455:SER:HB3	2.07	0.54
1:D:383:CYS:O	1:D:387:LEU:CB	2.56	0.54
1:D:580:THR:H	1:D:583:HIS:CD2	2.25	0.54
1:A:1451:VAL:O	1:A:1455:SER:HB3	2.07	0.53
1:A:1104:LYS:HE3	1:A:1133:GLU:HB3	1.90	0.53
1:B:1451:VAL:O	1:B:1455:SER:HB3	2.07	0.53
2:B:1804:PCF:C36	2:B:1805:PCF:C23	2.83	0.53
2:C:1805:PCF:C37	2:C:1806:PCF:H241	2.36	0.53
1:D:1120:GLU:O	1:D:1122:HIS:ND1	2.31	0.53
1:A:722:LYS:HB3	1:A:726:GLY:HA2	1.90	0.53
1:D:669:HIS:HD2	1:D:699:LEU:HD22	1.73	0.53
1:C:722:LYS:HB3	1:C:726:GLY:HA2	1.90	0.53
1:D:462:VAL:O	1:D:463:ARG:NE	2.38	0.53
1:B:580:THR:H	1:B:583:HIS:CD2	2.25	0.53
1:C:580:THR:H	1:C:583:HIS:CD2	2.25	0.53
2:C:1805:PCF:C36	2:C:1806:PCF:C23	2.83	0.53
1:D:236:PRO:O	1:D:240:ALA:HB3	2.08	0.53
1:D:486:LEU:O	1:D:490:LYS:N	2.41	0.53
1:D:1528:TYR:CE2	2:D:1801:PCF:H131	2.42	0.53
2:D:1805:PCF:H362	2:D:1806:PCF:C24	2.35	0.53
1:B:912:LEU:O	1:B:916:LYS:CB	2.57	0.53
1:D:1104:LYS:HE3	1:D:1133:GLU:HB3	1.90	0.53
1:B:1422:PHE:CZ	2:B:1806:PCF:H321	2.43	0.53
1:D:1495:ASN:O	1:D:1499:LEU:HB2	2.09	0.53
1:A:1422:PHE:CZ	2:A:1801:PCF:H321	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:236:PRO:O	1:B:240:ALA:HB3	2.08	0.53
1:C:912:LEU:O	1:C:916:LYS:CB	2.57	0.53
1:C:236:PRO:O	1:C:240:ALA:HB3	2.08	0.53
1:C:669:HIS:HD2	1:C:699:LEU:HD22	1.74	0.53
1:D:722:LYS:HB3	1:D:726:GLY:HA2	1.90	0.53
1:A:1495:ASN:O	1:A:1499:LEU:HB2	2.09	0.52
1:C:1532:TYR:CD1	2:C:1801:PCF:O31	2.61	0.52
1:D:170:TYR:O	1:D:174:ASP:CB	2.58	0.52
1:B:170:TYR:O	1:B:174:ASP:CB	2.58	0.52
1:D:743:LYS:HG3	1:D:778:LEU:HD21	1.91	0.52
1:B:462:VAL:O	1:B:463:ARG:NE	2.38	0.52
1:C:170:TYR:O	1:C:174:ASP:CB	2.58	0.52
1:C:810:LYS:O	1:C:814:GLN:CB	2.58	0.52
1:A:669:HIS:HD2	1:A:699:LEU:HD22	1.73	0.52
1:B:486:LEU:O	1:B:490:LYS:N	2.41	0.52
1:A:810:LYS:O	1:A:814:GLN:CB	2.58	0.52
1:D:912:LEU:O	1:D:916:LYS:CB	2.57	0.52
1:A:170:TYR:O	1:A:174:ASP:CB	2.58	0.52
1:A:912:LEU:O	1:A:916:LYS:CB	2.57	0.52
1:B:1174:THR:O	1:B:1178:LEU:HB3	2.10	0.52
1:C:1104:LYS:HE3	1:C:1133:GLU:HB3	1.90	0.52
1:C:1492:HIS:CE1	2:C:1803:PCF:C22	2.85	0.52
1:A:1532:TYR:OH	2:A:1803:PCF:C2	2.57	0.52
1:D:810:LYS:O	1:D:814:GLN:CB	2.58	0.52
1:D:544:ARG:NH1	1:D:587:GLN:OE1	2.43	0.52
1:A:544:ARG:NH1	1:A:587:GLN:OE1	2.43	0.52
1:B:538:PRO:O	1:B:542:ALA:HB2	2.10	0.52
1:C:734:ALA:HB1	1:C:767:ALA:HB2	1.92	0.52
1:C:1115:TRP:HD1	1:C:1145:PHE:HB2	1.75	0.52
1:C:1174:THR:O	1:C:1178:LEU:HB3	2.09	0.52
1:B:734:ALA:HB1	1:B:767:ALA:HB2	1.92	0.51
1:C:743:LYS:HG3	1:C:778:LEU:HD21	1.91	0.51
1:D:1174:THR:O	1:D:1178:LEU:HB3	2.09	0.51
1:A:743:LYS:HG3	1:A:778:LEU:HD21	1.91	0.51
1:B:743:LYS:HG3	1:B:778:LEU:HD21	1.91	0.51
1:B:1104:LYS:HE3	1:B:1133:GLU:HB3	1.90	0.51
1:C:538:PRO:O	1:C:542:ALA:HB2	2.10	0.51
1:C:1495:ASN:O	1:C:1499:LEU:HB2	2.09	0.51
1:A:249:CYS:O	1:A:253:LEU:CB	2.58	0.51
1:B:810:LYS:O	1:B:814:GLN:CB	2.58	0.51
1:B:1495:ASN:O	1:B:1499:LEU:HB2	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:249:CYS:O	1:D:253:LEU:CB	2.58	0.51
1:D:868:GLN:NE2	1:D:891:GLU:O	2.44	0.51
1:A:722:LYS:NZ	1:D:1031:SER:O	2.32	0.51
1:A:868:GLN:NE2	1:A:891:GLU:O	2.44	0.51
1:A:1174:THR:O	1:A:1178:LEU:HB3	2.09	0.51
1:B:868:GLN:NE2	1:B:891:GLU:O	2.44	0.51
1:B:1115:TRP:HD1	1:B:1145:PHE:HB2	1.75	0.51
1:D:538:PRO:O	1:D:542:ALA:HB2	2.10	0.51
1:B:544:ARG:NH1	1:B:587:GLN:OE1	2.43	0.51
1:A:538:PRO:O	1:A:542:ALA:HB2	2.10	0.51
1:A:734:ALA:HB1	1:A:767:ALA:HB2	1.93	0.51
1:A:898:THR:OG1	1:A:901:HIS:ND1	2.36	0.51
2:A:1807:PCF:C34	2:A:1808:PCF:H221	2.41	0.51
1:B:638:MET:O	1:B:642:SER:CB	2.59	0.51
1:C:544:ARG:NH1	1:C:587:GLN:OE1	2.43	0.51
1:C:868:GLN:NE2	1:C:891:GLU:O	2.44	0.51
1:B:249:CYS:O	1:B:253:LEU:CB	2.58	0.51
1:C:638:MET:O	1:C:642:SER:CB	2.59	0.51
1:C:1282:PRO:O	1:C:1286:ILE:CG1	2.44	0.51
2:C:1805:PCF:C34	2:C:1806:PCF:H221	2.41	0.51
1:D:734:ALA:HB1	1:D:767:ALA:HB2	1.92	0.51
1:A:1554:ILE:HG12	1:B:1551:GLN:HB3	1.93	0.51
1:C:249:CYS:O	1:C:253:LEU:CB	2.58	0.51
2:D:1805:PCF:C34	2:D:1806:PCF:H221	2.41	0.51
1:D:253:LEU:O	1:D:257:THR:CB	2.59	0.51
1:A:1115:TRP:HD1	1:A:1145:PHE:HB2	1.75	0.51
1:C:368:GLY:HA2	1:D:490:LYS:HE2	1.93	0.51
2:A:1803:PCF:O14	1:D:1492:HIS:CB	2.59	0.50
1:C:756:LEU:HB3	1:C:760:LYS:HA	1.93	0.50
1:D:638:MET:O	1:D:642:SER:CB	2.59	0.50
1:D:756:LEU:HB3	1:D:760:LYS:HA	1.93	0.50
1:B:1370:LEU:HD23	1:B:1373:LEU:HD12	1.93	0.50
1:B:1554:ILE:HG12	1:C:1551:GLN:HB3	1.93	0.50
2:B:1804:PCF:C34	2:B:1805:PCF:H221	2.41	0.50
1:A:756:LEU:HB3	1:A:760:LYS:HA	1.93	0.50
1:B:582:LEU:HD11	1:B:611:ALA:HB1	1.94	0.50
1:B:1532:TYR:HE1	2:B:1808:PCF:H21	1.55	0.50
1:C:538:PRO:O	1:C:542:ALA:CB	2.60	0.50
1:D:582:LEU:HD11	1:D:611:ALA:HB1	1.94	0.50
1:D:1115:TRP:HD1	1:D:1145:PHE:HB2	1.75	0.50
1:D:1532:TYR:CG	2:D:1801:PCF:C22	2.89	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:253:LEU:O	1:C:257:THR:CB	2.59	0.50
1:C:486:LEU:O	1:C:490:LYS:N	2.41	0.50
1:C:1370:LEU:HD23	1:C:1373:LEU:HD12	1.94	0.50
1:D:538:PRO:O	1:D:542:ALA:CB	2.60	0.50
1:A:582:LEU:HD11	1:A:611:ALA:HB1	1.94	0.50
1:B:253:LEU:O	1:B:257:THR:CB	2.59	0.50
1:B:756:LEU:HB3	1:B:760:LYS:HA	1.93	0.50
1:A:398:ASN:HD22	1:A:402:ALA:HB3	1.77	0.50
1:A:538:PRO:O	1:A:542:ALA:CB	2.60	0.50
1:A:638:MET:O	1:A:642:SER:CB	2.59	0.50
1:D:398:ASN:HD22	1:D:402:ALA:HB3	1.77	0.50
1:C:582:LEU:HD11	1:C:611:ALA:HB1	1.94	0.50
1:C:1444:LEU:HD23	2:C:1806:PCF:H381	1.93	0.50
1:C:1532:TYR:CE1	2:C:1801:PCF:O31	2.65	0.50
1:A:253:LEU:O	1:A:257:THR:CB	2.59	0.50
1:B:398:ASN:HD22	1:B:402:ALA:HB3	1.77	0.50
1:B:1394:TRP:CH2	2:B:1801:PCF:H131	2.47	0.50
1:C:398:ASN:HD22	1:C:402:ALA:HB3	1.77	0.50
1:D:829:THR:H	1:D:832:HIS:HD2	1.60	0.49
1:D:1434:GLY:CA	2:D:1805:PCF:O14	2.60	0.49
1:A:829:THR:H	1:A:832:HIS:HD2	1.60	0.49
1:C:829:THR:H	1:C:832:HIS:HD2	1.60	0.49
1:B:538:PRO:O	1:B:542:ALA:CB	2.60	0.49
1:B:829:THR:H	1:B:832:HIS:HD2	1.60	0.49
1:B:1675:ALA:HB3	1:B:1677:TRP:CE2	2.48	0.49
1:C:1498:GLU:CB	2:D:1801:PCF:C36	2.90	0.49
1:D:168:ALA:O	1:D:172:ARG:CB	2.61	0.49
1:A:412:GLY:HA2	1:A:449:VAL:HG21	1.94	0.49
1:A:486:LEU:O	1:A:490:LYS:N	2.41	0.49
1:A:1675:ALA:HB3	1:A:1677:TRP:CE2	2.48	0.49
1:C:1528:TYR:CE2	2:C:1801:PCF:H131	2.38	0.49
1:D:412:GLY:HA2	1:D:449:VAL:HG21	1.94	0.49
1:D:1675:ALA:HB3	1:D:1677:TRP:CE2	2.48	0.49
1:B:168:ALA:O	1:B:172:ARG:CB	2.61	0.49
1:B:898:THR:OG1	1:B:901:HIS:ND1	2.36	0.49
1:A:168:ALA:O	1:A:172:ARG:CB	2.61	0.49
1:A:1370:LEU:HD23	1:A:1373:LEU:HD12	1.94	0.49
1:A:1492:HIS:ND1	2:A:1805:PCF:C11	2.75	0.49
2:A:1807:PCF:H291	1:B:1540:ILE:HG21	1.95	0.49
1:B:412:GLY:HA2	1:B:449:VAL:HG21	1.94	0.49
1:C:1403:GLN:NE2	1:D:1460:ALA:O	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1394:TRP:CH2	2:D:1802:PCF:H131	2.48	0.49
1:C:1237:VAL:O	1:C:1241:ASN:N	2.44	0.49
1:D:1370:LEU:HD23	1:D:1373:LEU:HD12	1.94	0.49
1:D:1434:GLY:N	2:D:1805:PCF:O14	2.46	0.49
1:C:1441:ALA:CB	2:C:1806:PCF:H32	2.44	0.48
1:D:1237:VAL:O	1:D:1241:ASN:N	2.45	0.48
1:C:168:ALA:O	1:C:172:ARG:CB	2.61	0.48
1:A:1443:PHE:HE1	1:A:1549:LEU:HB3	1.79	0.48
1:B:1443:PHE:HE1	1:B:1549:LEU:HB3	1.79	0.48
2:A:1808:PCF:O22	2:A:1808:PCF:H112	2.14	0.48
1:C:1126:LEU:O	1:C:1130:MET:CB	2.61	0.48
1:C:1675:ALA:HB3	1:C:1677:TRP:CE2	2.48	0.48
1:A:1126:LEU:O	1:A:1130:MET:CB	2.61	0.48
1:C:614:THR:O	1:C:623:THR:OG1	2.26	0.48
1:D:169:MET:O	1:D:173:GLU:CB	2.62	0.48
1:D:1126:LEU:O	1:D:1130:MET:CB	2.61	0.48
1:B:1492:HIS:CB	2:C:1801:PCF:O14	2.62	0.48
1:C:412:GLY:HA2	1:C:449:VAL:HG21	1.94	0.48
1:C:1443:PHE:HE1	1:C:1549:LEU:HB3	1.79	0.48
2:C:1806:PCF:O22	2:C:1806:PCF:H112	2.14	0.48
1:D:1532:TYR:CE1	2:D:1801:PCF:C22	2.93	0.48
2:D:1806:PCF:O22	2:D:1806:PCF:H112	2.14	0.48
1:A:272:LEU:O	1:A:276:ALA:HB2	2.14	0.48
1:C:1016:LEU:HA	1:C:1019:PHE:HD2	1.79	0.48
1:C:1410:LEU:HD11	1:D:1457:HIS:HB2	1.95	0.48
1:B:409:ALA:HB1	1:B:441:ALA:HB2	1.96	0.47
1:B:1237:VAL:O	1:B:1241:ASN:N	2.44	0.47
1:C:169:MET:O	1:C:173:GLU:CB	2.62	0.47
1:D:898:THR:OG1	1:D:901:HIS:ND1	2.36	0.47
1:D:1532:TYR:CE2	2:D:1801:PCF:O22	2.66	0.47
1:D:1532:TYR:OH	2:D:1801:PCF:C2	2.60	0.47
1:A:1492:HIS:CG	2:B:1808:PCF:O14	2.67	0.47
2:B:1805:PCF:O22	2:B:1805:PCF:H112	2.14	0.47
1:D:272:LEU:O	1:D:276:ALA:HB2	2.14	0.47
1:D:1437:LEU:HB3	2:D:1806:PCF:C22	2.36	0.47
1:D:1443:PHE:HE1	1:D:1549:LEU:HB3	1.79	0.47
1:B:1126:LEU:O	1:B:1130:MET:CB	2.61	0.47
1:B:1377:ALA:O	1:B:1381:VAL:N	2.48	0.47
1:A:1377:ALA:O	1:A:1381:VAL:N	2.48	0.47
1:B:893:ASN:H	1:B:897:PHE:H	1.62	0.47
1:C:1162:GLN:HE22	1:C:1688:VAL:HG11	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1492:HIS:CB	2:D:1801:PCF:O14	2.62	0.47
1:A:169:MET:O	1:A:173:GLU:CB	2.62	0.47
1:B:272:LEU:O	1:B:276:ALA:HB2	2.14	0.47
1:B:1016:LEU:HA	1:B:1019:PHE:HD2	1.79	0.47
1:C:1323:ILE:HG21	1:D:1456:MET:HE3	1.95	0.47
1:C:1377:ALA:O	1:C:1381:VAL:N	2.48	0.47
1:D:409:ALA:HB1	1:D:441:ALA:HB2	1.96	0.47
1:D:1377:ALA:O	1:D:1381:VAL:N	2.48	0.47
1:A:236:PRO:O	1:A:240:ALA:CB	2.63	0.47
1:A:1237:VAL:O	1:A:1241:ASN:N	2.45	0.47
1:D:236:PRO:O	1:D:240:ALA:CB	2.63	0.47
1:D:638:MET:O	1:D:642:SER:HB3	2.15	0.47
1:D:893:ASN:HB2	1:D:896:GLY:H	1.79	0.47
1:D:1016:LEU:HA	1:D:1019:PHE:HD2	1.79	0.47
1:B:169:MET:O	1:B:173:GLU:CB	2.62	0.47
1:B:1256:LEU:HD21	1:B:1577:SER:HA	1.97	0.47
1:B:1492:HIS:HD2	1:B:1494:ILE:HG22	1.80	0.47
1:C:272:LEU:O	1:C:276:ALA:HB2	2.14	0.47
1:C:1290:PHE:HB3	1:C:1292:MET:HG3	1.97	0.47
1:D:1162:GLN:HE22	1:D:1688:VAL:HG11	1.80	0.47
1:A:1016:LEU:HA	1:A:1019:PHE:HD2	1.79	0.47
1:A:1256:LEU:HD21	1:A:1577:SER:HA	1.97	0.47
1:A:1290:PHE:HB3	1:A:1292:MET:HG3	1.97	0.47
1:B:1561:TYR:CZ	1:C:1556:MET:HG2	2.49	0.47
1:C:1492:HIS:HD2	1:C:1494:ILE:HG22	1.80	0.47
1:C:1493:PRO:HG3	2:C:1803:PCF:H12	1.97	0.47
1:D:1492:HIS:HE1	2:D:1803:PCF:H222	1.73	0.47
1:A:474:ILE:HG12	1:A:477:ARG:HH12	1.80	0.47
1:A:638:MET:O	1:A:642:SER:HB3	2.15	0.47
1:A:763:PRO:O	1:A:767:ALA:HB2	2.15	0.47
1:B:1162:GLN:HE22	1:B:1688:VAL:HG11	1.80	0.47
1:D:1290:PHE:HB3	1:D:1292:MET:HG3	1.97	0.47
1:A:744:PHE:O	1:A:748:ASP:CB	2.63	0.46
1:A:893:ASN:H	1:A:897:PHE:H	1.62	0.46
1:B:236:PRO:O	1:B:240:ALA:CB	2.63	0.46
1:B:1504:VAL:HG22	1:B:1550:ILE:HD11	1.97	0.46
2:D:1805:PCF:O22	2:D:1805:PCF:H11	2.15	0.46
1:A:409:ALA:HB1	1:A:441:ALA:HB2	1.96	0.46
1:C:421:LEU:HD11	1:C:427:VAL:HG13	1.97	0.46
1:C:638:MET:O	1:C:642:SER:HB3	2.15	0.46
1:D:421:LEU:HD11	1:D:427:VAL:HG13	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:893:ASN:HB2	1:A:896:GLY:H	1.79	0.46
1:B:763:PRO:O	1:B:767:ALA:HB2	2.15	0.46
2:B:1804:PCF:H11	2:B:1804:PCF:O22	2.15	0.46
1:D:744:PHE:O	1:D:748:ASP:CB	2.63	0.46
1:A:1236:ASP:OD1	1:A:1581:ARG:NH1	2.49	0.46
1:A:1492:HIS:HD2	1:A:1494:ILE:HG22	1.80	0.46
1:A:1504:VAL:HG22	1:A:1550:ILE:HD11	1.97	0.46
1:D:1492:HIS:HD2	1:D:1494:ILE:HG22	1.80	0.46
1:A:435:TYR:HD1	1:A:439:HIS:HB3	1.81	0.46
1:C:236:PRO:O	1:C:240:ALA:CB	2.63	0.46
1:C:252:LEU:O	1:C:256:GLN:CB	2.64	0.46
1:C:373:HIS:O	1:C:377:LEU:N	2.49	0.46
1:C:409:ALA:HB1	1:C:441:ALA:HB2	1.96	0.46
1:C:744:PHE:O	1:C:748:ASP:CB	2.63	0.46
1:C:763:PRO:O	1:C:767:ALA:HB2	2.15	0.46
1:C:474:ILE:HG12	1:C:477:ARG:HH12	1.80	0.46
1:C:893:ASN:H	1:C:897:PHE:H	1.63	0.46
1:D:763:PRO:O	1:D:767:ALA:HB2	2.15	0.46
1:B:744:PHE:O	1:B:748:ASP:CB	2.63	0.46
1:B:893:ASN:HB2	1:B:896:GLY:H	1.79	0.46
1:B:1290:PHE:HB3	1:B:1292:MET:HG3	1.97	0.46
1:D:614:THR:O	1:D:623:THR:OG1	2.26	0.46
1:D:1215:ALA:O	1:D:1219:SER:OG	2.33	0.46
1:D:1504:VAL:HG22	1:D:1550:ILE:HD11	1.97	0.46
1:A:1162:GLN:HE22	1:A:1688:VAL:HG11	1.80	0.46
1:B:474:ILE:HG12	1:B:477:ARG:HH12	1.80	0.46
1:B:1236:ASP:OD1	1:B:1581:ARG:NH1	2.49	0.46
1:C:1236:ASP:OD1	1:C:1581:ARG:NH1	2.49	0.46
1:A:1489:VAL:HG23	2:A:1805:PCF:C13	2.25	0.46
1:D:252:LEU:O	1:D:256:GLN:CB	2.64	0.46
1:D:373:HIS:O	1:D:377:LEU:N	2.49	0.46
1:D:893:ASN:H	1:D:897:PHE:H	1.62	0.46
1:A:252:LEU:O	1:A:256:GLN:CB	2.64	0.46
1:A:421:LEU:HD11	1:A:427:VAL:HG13	1.97	0.46
1:B:142:ILE:O	1:B:146:MET:N	2.42	0.46
1:B:201:LEU:O	1:B:205:ARG:CB	2.64	0.46
1:B:1425:LEU:O	1:C:1442:ARG:NE	2.46	0.46
1:C:893:ASN:HB2	1:C:896:GLY:H	1.79	0.46
1:D:201:LEU:O	1:D:205:ARG:CB	2.64	0.46
1:D:1236:ASP:OD1	1:D:1581:ARG:NH1	2.49	0.46
1:D:1256:LEU:HD21	1:D:1577:SER:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1073:THR:HB	1:A:1077:GLY:HA2	1.98	0.45
1:A:1279:ILE:HD11	1:A:1312:ILE:HG21	1.99	0.45
1:B:421:LEU:HD11	1:B:427:VAL:HG13	1.97	0.45
1:B:697:LEU:O	1:B:701:ALA:CB	2.64	0.45
1:C:582:LEU:O	1:C:585:THR:OG1	2.29	0.45
1:C:697:LEU:O	1:C:701:ALA:CB	2.64	0.45
1:D:474:ILE:HG12	1:D:477:ARG:HH12	1.80	0.45
1:B:638:MET:O	1:B:642:SER:HB3	2.15	0.45
1:C:435:TYR:HD1	1:C:439:HIS:HB3	1.81	0.45
1:D:307:ILE:O	1:D:311:GLU:CB	2.65	0.45
1:A:737:GLY:HA2	1:A:775:VAL:HG21	1.98	0.45
2:A:1807:PCF:O22	2:A:1807:PCF:H11	2.15	0.45
1:B:284:VAL:O	1:B:288:VAL:CB	2.65	0.45
1:D:435:TYR:HD1	1:D:439:HIS:HB3	1.81	0.45
1:A:307:ILE:O	1:A:311:GLU:CB	2.65	0.45
1:A:697:LEU:O	1:A:701:ALA:CB	2.64	0.45
1:A:1457:HIS:HB2	1:D:1410:LEU:HD11	1.98	0.45
1:B:252:LEU:O	1:B:256:GLN:CB	2.64	0.45
1:C:307:ILE:O	1:C:311:GLU:CB	2.65	0.45
2:C:1805:PCF:O22	2:C:1805:PCF:H11	2.15	0.45
1:D:284:VAL:O	1:D:288:VAL:CB	2.65	0.45
1:A:284:VAL:O	1:A:288:VAL:CB	2.65	0.45
1:C:1088:GLY:HA3	1:C:1122:HIS:CD2	2.52	0.45
1:D:737:GLY:HA2	1:D:775:VAL:HG21	1.98	0.45
1:D:1436:LEU:HD22	1:D:1557:MET:HG2	1.99	0.45
1:A:201:LEU:O	1:A:205:ARG:CB	2.64	0.45
1:A:980:HIS:CE1	1:A:1005:ALA:HB1	2.52	0.45
1:B:307:ILE:O	1:B:311:GLU:CB	2.65	0.45
1:B:1279:ILE:HD11	1:B:1312:ILE:HG21	1.99	0.45
1:C:1256:LEU:HD21	1:C:1577:SER:HA	1.97	0.45
1:A:1403:GLN:NE2	1:B:1460:ALA:O	2.49	0.45
1:C:284:VAL:O	1:C:288:VAL:CB	2.65	0.45
1:C:980:HIS:CE1	1:C:1005:ALA:HB1	2.52	0.45
1:C:1436:LEU:HD22	1:C:1557:MET:HG2	1.99	0.45
1:C:1504:VAL:HG22	1:C:1550:ILE:HD11	1.97	0.45
1:D:161:TYR:HA	1:D:167:ALA:HA	1.99	0.45
1:D:697:LEU:O	1:D:701:ALA:CB	2.64	0.45
1:A:1436:LEU:HD22	1:A:1557:MET:HG2	1.99	0.45
1:B:1073:THR:HB	1:B:1077:GLY:HA2	1.98	0.45
1:C:1279:ILE:HD11	1:C:1312:ILE:HG21	1.98	0.45
1:D:1150:MET:HG3	1:D:1196:LEU:HD23	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1279:ILE:HD11	1:D:1312:ILE:HG21	1.98	0.45
1:B:737:GLY:HA2	1:B:775:VAL:HG21	1.98	0.45
1:B:1088:GLY:HA3	1:B:1122:HIS:CD2	2.52	0.45
1:C:161:TYR:HA	1:C:167:ALA:HA	1.99	0.45
1:C:713:LEU:HD21	1:C:719:ILE:HG23	1.99	0.45
1:C:737:GLY:HA2	1:C:775:VAL:HG21	1.98	0.45
1:D:980:HIS:CE1	1:D:1005:ALA:HB1	2.52	0.45
1:A:1150:MET:HG3	1:A:1196:LEU:HD23	1.99	0.45
1:C:201:LEU:O	1:C:205:ARG:CB	2.64	0.45
1:C:1437:LEU:HD13	2:C:1805:PCF:H341	1.99	0.45
1:A:373:HIS:O	1:A:377:LEU:N	2.49	0.44
1:D:1073:THR:HB	1:D:1077:GLY:HA2	1.98	0.44
1:A:713:LEU:HD21	1:A:719:ILE:HG23	1.99	0.44
1:A:1088:GLY:HA3	1:A:1122:HIS:CD2	2.52	0.44
1:B:1324:THR:HG21	2:C:1803:PCF:O32	2.18	0.44
1:B:1434:GLY:CA	2:B:1804:PCF:O14	2.66	0.44
1:B:1495:ASN:O	1:B:1499:LEU:CB	2.65	0.44
1:C:1306:SER:O	1:C:1310:SER:CB	2.66	0.44
1:A:1306:SER:O	1:A:1310:SER:CB	2.66	0.44
1:A:1436:LEU:HD23	1:A:1436:LEU:HA	1.87	0.44
2:A:1805:PCF:O32	1:D:1324:THR:HG21	2.18	0.44
1:B:1150:MET:HG3	1:B:1196:LEU:HD23	1.99	0.44
1:D:1088:GLY:HA3	1:D:1122:HIS:CD2	2.52	0.44
1:D:1244:LYS:HA	1:D:1247:ILE:HG22	2.00	0.44
1:D:1433:ILE:HG21	2:D:1805:PCF:O22	2.17	0.44
1:A:161:TYR:HA	1:A:167:ALA:HA	1.99	0.44
1:B:435:TYR:HD1	1:B:439:HIS:HB3	1.81	0.44
1:B:1436:LEU:HD22	1:B:1557:MET:HG2	1.99	0.44
1:D:1221:GLY:O	1:D:1225:GLN:CB	2.66	0.44
1:B:161:TYR:HA	1:B:167:ALA:HA	1.99	0.44
1:B:1221:GLY:O	1:B:1225:GLN:CB	2.66	0.44
1:C:1244:LYS:HA	1:C:1247:ILE:HG22	2.00	0.44
1:C:1495:ASN:O	1:C:1499:LEU:CB	2.65	0.44
1:A:1221:GLY:O	1:A:1225:GLN:CB	2.66	0.44
1:B:980:HIS:CE1	1:B:1005:ALA:HB1	2.52	0.44
1:C:1073:THR:HB	1:C:1077:GLY:HA2	1.98	0.44
1:C:1150:MET:HG3	1:C:1196:LEU:HD23	1.99	0.44
1:B:373:HIS:O	1:B:377:LEU:N	2.49	0.44
1:D:1365:GLY:O	1:D:1368:LYS:HB2	2.18	0.44
1:D:1495:ASN:O	1:D:1499:LEU:CB	2.65	0.44
1:B:1503:ALA:HB3	1:B:1541:TYR:HE2	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1324:THR:HG21	2:D:1803:PCF:O32	2.18	0.44
1:C:1441:ALA:HB1	2:C:1806:PCF:H32	2.00	0.44
1:A:934:HIS:CE1	1:A:958:SER:HB3	2.53	0.43
1:B:713:LEU:HD21	1:B:719:ILE:HG23	1.99	0.43
1:B:934:HIS:CE1	1:B:958:SER:HB3	2.53	0.43
1:B:1403:GLN:NE2	1:C:1460:ALA:O	2.51	0.43
1:D:582:LEU:O	1:D:585:THR:OG1	2.29	0.43
1:A:880:LYS:O	1:A:884:ARG:CB	2.66	0.43
1:A:1324:THR:HG21	2:B:1802:PCF:O32	2.18	0.43
1:A:1365:GLY:O	1:A:1368:LYS:HB2	2.18	0.43
1:B:880:LYS:O	1:B:884:ARG:CB	2.66	0.43
1:B:1008:GLU:O	1:B:1042:ARG:NH1	2.49	0.43
1:D:1503:ALA:HB3	1:D:1541:TYR:HE2	1.83	0.43
1:A:1492:HIS:CD2	1:A:1494:ILE:HG22	2.53	0.43
1:A:1495:ASN:O	1:A:1499:LEU:CB	2.65	0.43
1:B:763:PRO:O	1:B:767:ALA:CB	2.66	0.43
2:A:1808:PCF:H332	2:A:1808:PCF:C3	2.48	0.43
1:C:1221:GLY:O	1:C:1225:GLN:CB	2.66	0.43
1:D:510:ALA:HB1	1:D:542:ALA:HB2	2.00	0.43
1:D:713:LEU:HD21	1:D:719:ILE:HG23	1.99	0.43
1:D:992:ARG:HE	1:D:1028:LEU:HD21	1.83	0.43
1:A:510:ALA:HB1	1:A:542:ALA:HB2	2.00	0.43
1:A:582:LEU:O	1:A:585:THR:OG1	2.29	0.43
1:A:1323:ILE:HG21	1:B:1456:MET:HE3	2.01	0.43
1:B:1282:PRO:N	1:B:1283:PRO:CD	2.82	0.43
1:B:1306:SER:O	1:B:1310:SER:CB	2.66	0.43
1:C:763:PRO:O	1:C:767:ALA:CB	2.66	0.43
1:C:1365:GLY:O	1:C:1368:LYS:HB2	2.18	0.43
1:B:582:LEU:O	1:B:585:THR:OG1	2.29	0.43
1:B:1365:GLY:O	1:B:1368:LYS:HB2	2.18	0.43
1:D:285:ARG:O	1:D:289:ASP:CB	2.67	0.43
1:A:271:ALA:O	1:A:275:ALA:CB	2.67	0.43
1:A:285:ARG:O	1:A:289:ASP:CB	2.67	0.43
1:B:283:MET:O	1:B:287:LEU:CB	2.67	0.43
1:B:1244:LYS:HA	1:B:1247:ILE:HG22	2.00	0.43
1:C:283:MET:O	1:C:287:LEU:CB	2.67	0.43
1:C:992:ARG:HE	1:C:1028:LEU:HD21	1.83	0.43
1:D:763:PRO:O	1:D:767:ALA:CB	2.66	0.43
1:D:1306:SER:O	1:D:1310:SER:CB	2.66	0.43
1:A:1244:LYS:HA	1:A:1247:ILE:HG22	2.00	0.43
1:B:578:GLY:HA3	1:B:618:LYS:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1501:PHE:HZ	1:D:1543:LEU:HD12	1.84	0.43
1:D:880:LYS:O	1:D:884:ARG:CB	2.66	0.43
1:D:1282:PRO:N	1:D:1283:PRO:CD	2.82	0.43
1:A:697:LEU:O	1:A:701:ALA:HB3	2.19	0.43
1:A:763:PRO:O	1:A:767:ALA:CB	2.66	0.43
1:B:271:ALA:O	1:B:275:ALA:CB	2.67	0.43
2:B:1805:PCF:H332	2:B:1805:PCF:C3	2.48	0.43
1:C:271:ALA:O	1:C:275:ALA:CB	2.67	0.43
1:C:1503:ALA:HB3	1:C:1541:TYR:HE2	1.83	0.43
1:D:142:ILE:O	1:D:146:MET:N	2.42	0.43
1:D:735:MET:HE3	1:D:766:LEU:HD21	2.01	0.43
1:D:844:GLU:O	1:D:848:LYS:CB	2.67	0.43
1:A:1503:ALA:HB3	1:A:1541:TYR:HE2	1.83	0.43
1:C:735:MET:HE3	1:C:766:LEU:HD21	2.01	0.43
1:C:844:GLU:O	1:C:848:LYS:CB	2.67	0.43
1:D:271:ALA:O	1:D:275:ALA:CB	2.67	0.43
1:A:283:MET:O	1:A:287:LEU:CB	2.67	0.42
1:A:578:GLY:HA3	1:A:618:LYS:H	1.84	0.42
1:B:623:THR:OG1	1:B:624:ALA:N	2.52	0.42
1:B:645:ASN:HB2	1:B:649:ILE:HG13	2.01	0.42
1:B:844:GLU:O	1:B:848:LYS:CB	2.67	0.42
1:C:510:ALA:HB1	1:C:542:ALA:HB2	2.00	0.42
1:C:623:THR:OG1	1:C:624:ALA:N	2.52	0.42
1:C:1492:HIS:CD2	1:C:1494:ILE:HG22	2.53	0.42
1:A:603:VAL:HG21	1:A:637:LEU:HD22	2.01	0.42
1:C:697:LEU:O	1:C:701:ALA:HB3	2.19	0.42
1:D:934:HIS:CE1	1:D:958:SER:HB3	2.53	0.42
1:D:1492:HIS:CD2	1:D:1494:ILE:HG22	2.53	0.42
1:A:992:ARG:HE	1:A:1028:LEU:HD21	1.83	0.42
1:A:1282:PRO:N	1:A:1283:PRO:CD	2.82	0.42
1:B:285:ARG:O	1:B:289:ASP:CB	2.67	0.42
1:C:898:THR:OG1	1:C:901:HIS:ND1	2.36	0.42
1:C:934:HIS:CE1	1:C:958:SER:HB3	2.53	0.42
1:C:1282:PRO:N	1:C:1283:PRO:CD	2.82	0.42
1:D:1464:SER:HB3	1:D:1490:ARG:HH11	1.84	0.42
1:A:623:THR:OG1	1:A:624:ALA:N	2.52	0.42
1:A:645:ASN:HB2	1:A:649:ILE:HG13	2.01	0.42
1:B:697:LEU:O	1:B:701:ALA:HB3	2.19	0.42
1:C:880:LYS:O	1:C:884:ARG:CB	2.66	0.42
1:C:1053:MET:HB3	1:C:1083:CYS:HB3	2.02	0.42
1:D:370:THR:HB	1:D:373:HIS:CD2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:623:THR:OG1	1:D:624:ALA:N	2.52	0.42
1:A:1464:SER:HB3	1:A:1490:ARG:HH11	1.85	0.42
1:D:283:MET:O	1:D:287:LEU:CB	2.67	0.42
1:D:697:LEU:O	1:D:701:ALA:HB3	2.19	0.42
1:B:992:ARG:HE	1:B:1028:LEU:HD21	1.83	0.42
1:B:1180:ASN:HB2	1:B:1241:ASN:OD1	2.20	0.42
1:B:1282:PRO:HD2	1:B:1283:PRO:HD3	2.01	0.42
1:B:1545:SER:OG	1:B:1546:VAL:N	2.53	0.42
2:B:1808:PCF:H132	2:B:1808:PCF:H112	1.84	0.42
1:C:1464:SER:HB3	1:C:1490:ARG:HH11	1.85	0.42
1:A:1008:GLU:O	1:A:1042:ARG:NH1	2.49	0.42
1:A:1053:MET:HB3	1:A:1083:CYS:HB3	2.02	0.42
1:A:1180:ASN:HB2	1:A:1241:ASN:OD1	2.20	0.42
1:C:578:GLY:HA3	1:C:618:LYS:H	1.84	0.42
1:D:614:THR:OG1	1:D:615:LEU:N	2.53	0.42
1:B:1492:HIS:CD2	1:B:1494:ILE:HG22	2.53	0.42
1:C:285:ARG:O	1:C:289:ASP:CB	2.67	0.42
1:C:1180:ASN:HB2	1:C:1241:ASN:OD1	2.20	0.42
1:C:1282:PRO:HD2	1:C:1283:PRO:HD3	2.01	0.42
1:D:645:ASN:HB2	1:D:649:ILE:HG13	2.01	0.42
1:A:395:HIS:CD2	1:B:457:GLY:HA2	2.55	0.42
1:A:735:MET:HE3	1:A:766:LEU:HD21	2.01	0.42
1:A:844:GLU:O	1:A:848:LYS:CB	2.67	0.42
1:B:510:ALA:HB1	1:B:542:ALA:HB2	2.00	0.42
1:B:735:MET:HE3	1:B:766:LEU:HD21	2.01	0.42
1:D:603:VAL:HG21	1:D:637:LEU:HD22	2.01	0.42
2:D:1801:PCF:H322	2:D:1801:PCF:H31	1.85	0.42
1:A:1382:HIS:O	1:A:1385:ALA:HB3	2.20	0.42
1:C:1545:SER:OG	1:C:1546:VAL:N	2.53	0.42
1:D:248:MET:O	1:D:252:LEU:CB	2.68	0.42
1:D:1540:ILE:HG12	2:D:1801:PCF:H412	2.02	0.42
1:D:1545:SER:OG	1:D:1546:VAL:N	2.53	0.42
2:D:1806:PCF:H332	2:D:1806:PCF:C3	2.48	0.42
1:A:580:THR:H	1:A:583:HIS:HD2	1.67	0.41
1:A:1532:TYR:HH	2:A:1803:PCF:C1	2.32	0.41
1:B:603:VAL:HG21	1:B:637:LEU:HD22	2.01	0.41
1:C:1382:HIS:O	1:C:1385:ALA:HB3	2.20	0.41
1:C:1532:TYR:OH	2:C:1801:PCF:C1	2.66	0.41
2:C:1803:PCF:H112	2:C:1803:PCF:H132	1.84	0.41
1:D:1008:GLU:O	1:D:1042:ARG:NH1	2.49	0.41
1:D:1532:TYR:OH	2:D:1801:PCF:O11	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:614:THR:OG1	1:A:615:LEU:N	2.53	0.41
1:A:1282:PRO:HD2	1:A:1283:PRO:HD3	2.01	0.41
1:B:337:PRO:O	1:B:341:ALA:CB	2.68	0.41
1:C:337:PRO:O	1:C:341:ALA:CB	2.68	0.41
1:C:614:THR:OG1	1:C:615:LEU:N	2.53	0.41
1:C:1436:LEU:HD23	1:C:1436:LEU:HA	1.87	0.41
2:D:1807:PCF:H332	2:D:1807:PCF:C3	2.50	0.41
1:A:248:MET:O	1:A:252:LEU:CB	2.68	0.41
1:A:1547:VAL:HG23	1:D:1505:PHE:HE1	1.85	0.41
1:D:578:GLY:HA3	1:D:618:LYS:H	1.84	0.41
1:B:248:MET:O	1:B:252:LEU:CB	2.68	0.41
1:B:1434:GLY:N	2:B:1804:PCF:O14	2.53	0.41
1:C:248:MET:O	1:C:252:LEU:CB	2.68	0.41
1:C:840:VAL:HA	1:C:843:ILE:HG22	2.02	0.41
2:C:1806:PCF:H332	2:C:1806:PCF:C3	2.48	0.41
1:D:337:PRO:O	1:D:341:ALA:CB	2.68	0.41
1:D:840:VAL:HA	1:D:843:ILE:HG22	2.02	0.41
1:D:1382:HIS:O	1:D:1385:ALA:HB3	2.20	0.41
1:B:1432:ILE:HG21	1:B:1561:TYR:HD1	1.84	0.41
1:B:1464:SER:HB3	1:B:1490:ARG:HH11	1.84	0.41
1:C:645:ASN:HB2	1:C:649:ILE:HG13	2.01	0.41
1:C:1432:ILE:HG21	1:C:1561:TYR:HD1	1.85	0.41
2:C:1803:PCF:P	2:C:1803:PCF:O22	2.79	0.41
1:A:790:ASP:H	1:A:794:GLN:H	1.69	0.41
1:B:580:THR:H	1:B:583:HIS:HD2	1.67	0.41
1:D:1053:MET:HB3	1:D:1083:CYS:HB3	2.02	0.41
1:A:1545:SER:OG	1:A:1546:VAL:N	2.53	0.41
2:B:1804:PCF:H332	2:B:1804:PCF:C3	2.51	0.41
1:C:790:ASP:H	1:C:794:GLN:H	1.69	0.41
1:D:1432:ILE:HG21	1:D:1561:TYR:HD1	1.85	0.41
1:B:1436:LEU:HA	1:B:1436:LEU:HD23	1.86	0.41
2:B:1808:PCF:H322	2:B:1808:PCF:H31	1.85	0.41
1:A:337:PRO:O	1:A:341:ALA:CB	2.68	0.41
1:A:840:VAL:HA	1:A:843:ILE:HG22	2.02	0.41
1:A:1432:ILE:HG21	1:A:1561:TYR:HD1	1.85	0.41
1:A:1561:TYR:CZ	1:B:1556:MET:HG2	2.56	0.41
2:A:1801:PCF:C3	2:A:1801:PCF:H332	2.50	0.41
2:A:1807:PCF:H332	2:A:1807:PCF:C3	2.51	0.41
1:B:614:THR:OG1	1:B:615:LEU:N	2.53	0.41
1:B:790:ASP:H	1:B:794:GLN:H	1.69	0.41
1:B:1382:HIS:O	1:B:1385:ALA:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1422:PHE:CZ	2:B:1806:PCF:H322	2.56	0.41
1:B:1492:HIS:NE2	2:B:1802:PCF:H222	2.36	0.41
2:B:1802:PCF:O22	2:B:1802:PCF:P	2.79	0.41
1:C:603:VAL:HG21	1:C:637:LEU:HD22	2.02	0.41
1:D:790:ASP:H	1:D:794:GLN:H	1.69	0.41
1:D:1180:ASN:HB2	1:D:1241:ASN:OD1	2.20	0.41
1:D:1206:MET:HE3	1:D:1206:MET:HB2	1.98	0.41
1:D:1282:PRO:HD2	1:D:1283:PRO:HD3	2.01	0.41
1:D:1536:ILE:HD11	2:D:1801:PCF:C27	2.50	0.41
2:D:1801:PCF:H132	2:D:1801:PCF:H112	1.84	0.41
1:A:1532:TYR:CE1	2:A:1803:PCF:C1	3.03	0.41
2:A:1803:PCF:H112	2:A:1803:PCF:H132	1.84	0.41
1:B:713:LEU:HD23	1:B:713:LEU:HA	1.94	0.41
1:B:840:VAL:HA	1:B:843:ILE:HG22	2.02	0.41
1:B:1053:MET:HB3	1:B:1083:CYS:HB3	2.02	0.41
1:B:1294:HIS:CE1	1:B:1298:LYS:HG3	2.56	0.41
2:A:1805:PCF:P	2:A:1805:PCF:O22	2.79	0.40
2:B:1806:PCF:H332	2:B:1806:PCF:C3	2.50	0.40
1:C:142:ILE:O	1:C:146:MET:N	2.42	0.40
2:A:1805:PCF:H132	2:A:1805:PCF:H112	1.84	0.40
2:B:1802:PCF:H112	2:B:1802:PCF:H132	1.84	0.40
1:D:1294:HIS:CE1	1:D:1298:LYS:HG3	2.56	0.40
1:A:1498:GLU:CB	2:B:1808:PCF:O32	2.69	0.40
2:A:1803:PCF:O14	1:D:1492:HIS:CG	2.75	0.40
1:B:977:THR:H	1:B:980:HIS:HD2	1.69	0.40
1:C:977:THR:H	1:C:980:HIS:HD2	1.69	0.40
2:C:1805:PCF:H332	2:C:1805:PCF:C3	2.51	0.40
1:D:977:THR:H	1:D:980:HIS:HD2	1.70	0.40
1:A:1543:LEU:HD12	1:D:1501:PHE:HZ	1.86	0.40
1:C:397:PRO:HG2	1:D:491:SER:HB3	2.04	0.40
2:D:1803:PCF:O22	2:D:1803:PCF:P	2.79	0.40
1:A:1294:HIS:CE1	1:A:1298:LYS:HG3	2.56	0.40
1:A:1532:TYR:CD1	2:A:1803:PCF:O31	2.75	0.40
1:B:237:LEU:O	1:B:241:VAL:CB	2.70	0.40
2:C:1807:PCF:C3	2:C:1807:PCF:H332	2.50	0.40
1:D:237:LEU:O	1:D:241:VAL:CB	2.70	0.40
1:D:309:ALA:HB1	1:D:341:ALA:HB2	2.04	0.40
1:D:580:THR:H	1:D:583:HIS:HD2	1.67	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1495/1732 (86%)	1357 (91%)	133 (9%)	5 (0%)	36	65
1	B	1495/1732 (86%)	1357 (91%)	133 (9%)	5 (0%)	36	65
1	C	1495/1732 (86%)	1357 (91%)	133 (9%)	5 (0%)	36	65
1	D	1495/1732 (86%)	1357 (91%)	133 (9%)	5 (0%)	36	65
All	All	5980/6928 (86%)	5428 (91%)	532 (9%)	20 (0%)	37	65

All (20) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	987	ASN
1	B	987	ASN
1	C	987	ASN
1	D	987	ASN
1	A	371	LEU
1	A	1295	LYS
1	B	371	LEU
1	B	462	VAL
1	B	1295	LYS
1	C	371	LEU
1	C	462	VAL
1	C	1295	LYS
1	D	371	LEU
1	D	1295	LYS
1	A	462	VAL
1	A	1294	HIS
1	B	1294	HIS
1	C	1294	HIS
1	D	462	VAL
1	D	1294	HIS

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	836/1421 (59%)	830 (99%)	6 (1%)	76	78
1	B	836/1421 (59%)	830 (99%)	6 (1%)	76	78
1	C	836/1421 (59%)	830 (99%)	6 (1%)	76	78
1	D	836/1421 (59%)	830 (99%)	6 (1%)	76	78
All	All	3344/5684 (59%)	3320 (99%)	24 (1%)	73	78

All (24) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	615	LEU
1	A	621	LEU
1	A	741	LEU
1	A	854	VAL
1	A	1063	LEU
1	A	1235	LEU
1	B	615	LEU
1	B	621	LEU
1	B	741	LEU
1	B	854	VAL
1	B	1063	LEU
1	B	1235	LEU
1	C	615	LEU
1	C	621	LEU
1	C	741	LEU
1	C	854	VAL
1	C	1063	LEU
1	C	1235	LEU
1	D	615	LEU
1	D	621	LEU
1	D	741	LEU
1	D	854	VAL
1	D	1063	LEU
1	D	1235	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (68) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	378	ASN
1	A	398	ASN
1	A	461	HIS
1	A	514	ASN
1	A	520	GLN
1	A	553	HIS
1	A	654	ASN
1	A	669	HIS
1	A	832	HIS
1	A	980	HIS
1	A	1012	ASN
1	A	1056	HIS
1	A	1297	ASN
1	A	1403	GLN
1	A	1423	HIS
1	B	378	ASN
1	B	398	ASN
1	B	461	HIS
1	B	514	ASN
1	B	520	GLN
1	B	553	HIS
1	B	650	GLN
1	B	654	ASN
1	B	669	HIS
1	B	832	HIS
1	B	980	HIS
1	B	1012	ASN
1	B	1056	HIS
1	B	1162	GLN
1	B	1261	HIS
1	B	1297	ASN
1	B	1403	GLN
1	B	1423	HIS
1	C	378	ASN
1	C	398	ASN
1	C	514	ASN
1	C	520	GLN
1	C	553	HIS
1	C	654	ASN
1	C	669	HIS
1	C	832	HIS

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Mol	Chain	Res	Type
1	C	837	GLN
1	C	980	HIS
1	C	1012	ASN
1	C	1056	HIS
1	C	1162	GLN
1	C	1241	ASN
1	C	1243	GLN
1	C	1261	HIS
1	C	1297	ASN
1	C	1403	GLN
1	C	1423	HIS
1	C	1507	GLN
1	D	378	ASN
1	D	398	ASN
1	D	514	ASN
1	D	520	GLN
1	D	553	HIS
1	D	654	ASN
1	D	669	HIS
1	D	832	HIS
1	D	837	GLN
1	D	980	HIS
1	D	1012	ASN
1	D	1056	HIS
1	D	1261	HIS
1	D	1297	ASN
1	D	1423	HIS

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

## 5.6 Ligand geometry

32 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z  > 2$	Counts	RMSZ	# $ Z  > 2$
2	PCF	D	1805	-	29,29,49	0.76	1 (3%)	32,34,57	1.11	2 (6%)
2	PCF	B	1803	-	17,17,49	1.07	2 (11%)	18,21,57	0.98	2 (11%)
2	PCF	A	1802	-	27,27,49	0.79	1 (3%)	30,32,57	1.04	1 (3%)
2	PCF	B	1801	-	35,35,49	0.69	0	41,43,57	0.94	1 (2%)
2	PCF	A	1807	-	29,29,49	0.76	1 (3%)	32,34,57	1.11	2 (6%)
2	PCF	A	1804	-	35,35,49	0.69	0	41,43,57	0.94	1 (2%)
2	PCF	C	1803	-	34,34,49	0.69	0	40,42,57	0.93	1 (2%)
2	PCF	C	1808	-	27,27,49	0.79	0	30,32,57	1.04	1 (3%)
2	PCF	D	1806	-	31,31,49	0.89	1 (3%)	37,39,57	1.12	2 (5%)
2	PCF	C	1804	-	17,17,49	1.08	2 (11%)	18,21,57	0.98	2 (11%)
2	PCF	D	1807	-	36,36,49	0.69	0	39,41,57	1.03	2 (5%)
2	PCF	A	1808	-	31,31,49	0.89	1 (3%)	37,39,57	1.12	2 (5%)
2	PCF	B	1802	-	34,34,49	0.70	0	40,42,57	0.93	1 (2%)
2	PCF	D	1802	-	35,35,49	0.69	0	41,43,57	0.94	1 (2%)
2	PCF	B	1805	-	31,31,49	0.89	1 (3%)	37,39,57	1.12	2 (5%)
2	PCF	B	1806	-	36,36,49	0.69	0	39,41,57	1.03	2 (5%)
2	PCF	B	1807	-	27,27,49	0.80	1 (3%)	30,32,57	1.03	1 (3%)
2	PCF	A	1806	-	17,17,49	1.07	2 (11%)	18,21,57	0.97	2 (11%)
2	PCF	B	1804	-	29,29,49	0.76	1 (3%)	32,34,57	1.10	2 (6%)
2	PCF	C	1801	-	41,41,49	0.64	0	47,49,57	0.87	0
2	PCF	D	1808	-	27,27,49	0.79	1 (3%)	30,32,57	1.04	1 (3%)
2	PCF	C	1805	-	29,29,49	0.76	0	32,34,57	1.10	2 (6%)
2	PCF	D	1804	-	17,17,49	1.07	2 (11%)	18,21,57	0.97	2 (11%)
2	PCF	D	1803	-	34,34,49	0.70	0	40,42,57	0.93	1 (2%)
2	PCF	A	1805	-	34,34,49	0.70	0	40,42,57	0.93	1 (2%)
2	PCF	C	1802	-	35,35,49	0.69	0	41,43,57	0.94	1 (2%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
2	PCF	A	1801	-	36,36,49	0.69	0	39,41,57	1.02	2 (5%)
2	PCF	C	1807	-	36,36,49	0.69	0	39,41,57	1.02	2 (5%)
2	PCF	C	1806	-	31,31,49	0.90	1 (3%)	37,39,57	1.12	2 (5%)
2	PCF	B	1808	-	41,41,49	0.64	0	47,49,57	0.87	0
2	PCF	D	1801	-	41,41,49	0.65	0	47,49,57	0.87	0
2	PCF	A	1803	-	41,41,49	0.64	0	47,49,57	0.87	0

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	PCF	D	1805	-	-	13/31/31/53	-
2	PCF	B	1803	-	-	9/18/18/53	-
2	PCF	A	1802	-	-	6/29/29/53	-
2	PCF	B	1801	-	-	21/39/39/53	-
2	PCF	A	1807	-	-	13/31/31/53	-
2	PCF	A	1804	-	-	21/39/39/53	-
2	PCF	C	1803	-	-	18/38/38/53	-
2	PCF	C	1808	-	-	6/29/29/53	-
2	PCF	D	1806	-	-	12/35/35/53	-
2	PCF	C	1804	-	-	9/18/18/53	-
2	PCF	D	1807	-	-	14/38/38/53	-
2	PCF	A	1808	-	-	12/35/35/53	-
2	PCF	B	1802	-	-	18/38/38/53	-
2	PCF	D	1802	-	-	21/39/39/53	-
2	PCF	B	1805	-	-	12/35/35/53	-
2	PCF	B	1806	-	-	14/38/38/53	-
2	PCF	B	1807	-	-	6/29/29/53	-
2	PCF	A	1806	-	-	9/18/18/53	-
2	PCF	B	1804	-	-	13/31/31/53	-
2	PCF	C	1801	-	-	22/45/45/53	-
2	PCF	D	1808	-	-	6/29/29/53	-
2	PCF	C	1805	-	-	13/31/31/53	-
2	PCF	D	1804	-	-	9/18/18/53	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	PCF	D	1803	-	-	18/38/38/53	-
2	PCF	A	1805	-	-	18/38/38/53	-
2	PCF	C	1802	-	-	21/39/39/53	-
2	PCF	A	1801	-	-	14/38/38/53	-
2	PCF	C	1807	-	-	14/38/38/53	-
2	PCF	C	1806	-	-	12/35/35/53	-
2	PCF	B	1808	-	-	22/45/45/53	-
2	PCF	D	1801	-	-	22/45/45/53	-
2	PCF	A	1803	-	-	22/45/45/53	-

All (18) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	1806	PCF	O21-C2	-2.62	1.40	1.46
2	A	1808	PCF	O21-C2	-2.59	1.40	1.46
2	B	1805	PCF	O21-C2	-2.59	1.40	1.46
2	D	1806	PCF	O21-C2	-2.58	1.40	1.46
2	D	1804	PCF	O21-C2	-2.37	1.43	1.46
2	C	1804	PCF	O21-C2	-2.32	1.43	1.46
2	B	1803	PCF	O21-C2	-2.31	1.43	1.46
2	A	1806	PCF	O21-C2	-2.29	1.43	1.46
2	C	1804	PCF	P-O14	2.02	1.62	1.54
2	A	1807	PCF	P-O14	2.02	1.62	1.54
2	D	1808	PCF	P-O14	2.02	1.62	1.54
2	D	1805	PCF	P-O14	2.01	1.62	1.54
2	B	1804	PCF	P-O14	2.01	1.62	1.54
2	B	1807	PCF	P-O14	2.01	1.62	1.54
2	D	1804	PCF	P-O14	2.01	1.62	1.54
2	A	1806	PCF	P-O14	2.01	1.62	1.54
2	B	1803	PCF	P-O14	2.01	1.62	1.54
2	A	1802	PCF	P-O14	2.00	1.62	1.54

All (44) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	1805	PCF	C2-O21-C21	-3.44	109.56	117.80
2	B	1802	PCF	C2-O21-C21	-3.44	109.57	117.80
2	C	1803	PCF	C2-O21-C21	-3.43	109.58	117.80
2	D	1803	PCF	C2-O21-C21	-3.43	109.59	117.80
2	B	1801	PCF	C2-O21-C21	-3.37	109.74	117.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	1804	PCF	C2-O21-C21	-3.36	109.75	117.80
2	C	1802	PCF	C2-O21-C21	-3.36	109.76	117.80
2	D	1802	PCF	C2-O21-C21	-3.36	109.76	117.80
2	A	1808	PCF	O31-C31-C32	3.20	121.58	111.83
2	B	1805	PCF	O31-C31-C32	3.19	121.57	111.83
2	C	1806	PCF	O31-C31-C32	3.19	121.57	111.83
2	D	1806	PCF	O31-C31-C32	3.18	121.52	111.83
2	C	1807	PCF	O21-C21-C22	2.23	116.31	111.48
2	B	1806	PCF	O21-C21-C22	2.23	116.31	111.48
2	D	1807	PCF	O21-C21-C22	2.23	116.30	111.48
2	A	1801	PCF	O21-C21-C22	2.22	116.29	111.48
2	A	1807	PCF	O11-P-O12	2.22	112.43	106.44
2	B	1804	PCF	O11-P-O12	2.21	112.41	106.44
2	C	1805	PCF	O11-P-O12	2.20	112.40	106.44
2	D	1805	PCF	O11-P-O12	2.20	112.38	106.44
2	C	1807	PCF	O11-P-O12	2.20	112.38	106.44
2	D	1807	PCF	O11-P-O12	2.19	112.37	106.44
2	A	1801	PCF	O11-P-O12	2.19	112.36	106.44
2	B	1806	PCF	O11-P-O12	2.19	112.36	106.44
2	D	1805	PCF	C2-O21-C21	-2.16	112.63	117.80
2	B	1804	PCF	C2-O21-C21	-2.15	112.64	117.80
2	C	1805	PCF	C2-O21-C21	-2.15	112.64	117.80
2	A	1807	PCF	C2-O21-C21	-2.15	112.65	117.80
2	B	1807	PCF	O11-P-O12	2.14	112.21	106.44
2	D	1808	PCF	O11-P-O12	2.13	112.20	106.44
2	C	1808	PCF	O11-P-O12	2.13	112.20	106.44
2	A	1802	PCF	O11-P-O12	2.12	112.18	106.44
2	C	1806	PCF	C3-O31-C31	-2.08	109.51	117.12
2	A	1808	PCF	C3-O31-C31	-2.08	109.52	117.12
2	D	1806	PCF	C3-O31-C31	-2.08	109.53	117.12
2	B	1805	PCF	C3-O31-C31	-2.08	109.53	117.12
2	C	1804	PCF	C3-O31-C31	-2.07	109.55	117.12
2	B	1803	PCF	C3-O31-C31	-2.07	109.56	117.12
2	C	1804	PCF	O11-P-O12	2.06	112.00	106.44
2	A	1806	PCF	C3-O31-C31	-2.06	109.60	117.12
2	D	1804	PCF	C3-O31-C31	-2.06	109.61	117.12
2	A	1806	PCF	O11-P-O12	2.05	111.99	106.44
2	B	1803	PCF	O11-P-O12	2.05	111.99	106.44
2	D	1804	PCF	O11-P-O12	2.05	111.98	106.44

There are no chirality outliers.

All (460) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	1801	PCF	C1-O11-P-O13
2	A	1801	PCF	C22-C21-O21-C2
2	A	1803	PCF	C1-O11-P-O13
2	A	1803	PCF	C11-O13-P-O11
2	A	1803	PCF	C11-O13-P-O12
2	A	1803	PCF	O13-C11-C12-N
2	A	1803	PCF	O22-C21-O21-C2
2	A	1803	PCF	C22-C21-O21-C2
2	A	1804	PCF	C11-O13-P-O11
2	A	1804	PCF	C11-O13-P-O12
2	A	1804	PCF	C11-O13-P-O14
2	A	1804	PCF	O13-C11-C12-N
2	A	1804	PCF	C22-C21-O21-C2
2	A	1805	PCF	C1-O11-P-O13
2	A	1805	PCF	C1-O11-P-O14
2	A	1805	PCF	C11-O13-P-O14
2	A	1805	PCF	C22-C21-O21-C2
2	A	1806	PCF	C1-O11-P-O13
2	A	1806	PCF	C1-O11-P-O14
2	A	1806	PCF	C3-C2-O21-C21
2	A	1806	PCF	O22-C21-O21-C2
2	A	1807	PCF	C1-O11-P-O13
2	A	1808	PCF	C1-O11-P-O14
2	A	1808	PCF	C11-O13-P-O11
2	A	1808	PCF	C11-O13-P-O12
2	A	1808	PCF	C11-O13-P-O14
2	A	1808	PCF	C12-C11-O13-P
2	B	1801	PCF	C11-O13-P-O11
2	B	1801	PCF	C11-O13-P-O12
2	B	1801	PCF	C11-O13-P-O14
2	B	1801	PCF	O13-C11-C12-N
2	B	1801	PCF	C22-C21-O21-C2
2	B	1802	PCF	C1-O11-P-O13
2	B	1802	PCF	C1-O11-P-O14
2	B	1802	PCF	C11-O13-P-O14
2	B	1802	PCF	C22-C21-O21-C2
2	B	1803	PCF	C1-O11-P-O13
2	B	1803	PCF	C1-O11-P-O14
2	B	1803	PCF	C3-C2-O21-C21
2	B	1803	PCF	O22-C21-O21-C2
2	B	1804	PCF	C1-O11-P-O13
2	B	1805	PCF	C1-O11-P-O14
2	B	1805	PCF	C11-O13-P-O11

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Mol	Chain	Res	Type	Atoms
2	B	1805	PCF	C11-O13-P-O12
2	B	1805	PCF	C11-O13-P-O14
2	B	1805	PCF	C12-C11-O13-P
2	B	1806	PCF	C1-O11-P-O13
2	B	1806	PCF	C22-C21-O21-C2
2	B	1808	PCF	C1-O11-P-O13
2	B	1808	PCF	C11-O13-P-O11
2	B	1808	PCF	C11-O13-P-O12
2	B	1808	PCF	O13-C11-C12-N
2	B	1808	PCF	O22-C21-O21-C2
2	B	1808	PCF	C22-C21-O21-C2
2	C	1801	PCF	C1-O11-P-O13
2	C	1801	PCF	C11-O13-P-O11
2	C	1801	PCF	C11-O13-P-O12
2	C	1801	PCF	O13-C11-C12-N
2	C	1801	PCF	O22-C21-O21-C2
2	C	1801	PCF	C22-C21-O21-C2
2	C	1802	PCF	C11-O13-P-O11
2	C	1802	PCF	C11-O13-P-O12
2	C	1802	PCF	C11-O13-P-O14
2	C	1802	PCF	O13-C11-C12-N
2	C	1802	PCF	C22-C21-O21-C2
2	C	1803	PCF	C1-O11-P-O13
2	C	1803	PCF	C1-O11-P-O14
2	C	1803	PCF	C11-O13-P-O14
2	C	1803	PCF	C22-C21-O21-C2
2	C	1804	PCF	C1-O11-P-O13
2	C	1804	PCF	C1-O11-P-O14
2	C	1804	PCF	C3-C2-O21-C21
2	C	1804	PCF	O22-C21-O21-C2
2	C	1805	PCF	C1-O11-P-O13
2	C	1806	PCF	C1-O11-P-O14
2	C	1806	PCF	C11-O13-P-O11
2	C	1806	PCF	C11-O13-P-O12
2	C	1806	PCF	C11-O13-P-O14
2	C	1806	PCF	C12-C11-O13-P
2	C	1807	PCF	C1-O11-P-O13
2	C	1807	PCF	C22-C21-O21-C2
2	D	1801	PCF	C1-O11-P-O13
2	D	1801	PCF	C11-O13-P-O11
2	D	1801	PCF	C11-O13-P-O12
2	D	1801	PCF	O13-C11-C12-N

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Mol	Chain	Res	Type	Atoms
2	D	1801	PCF	O22-C21-O21-C2
2	D	1801	PCF	C22-C21-O21-C2
2	D	1802	PCF	C11-O13-P-O11
2	D	1802	PCF	C11-O13-P-O12
2	D	1802	PCF	C11-O13-P-O14
2	D	1802	PCF	O13-C11-C12-N
2	D	1802	PCF	C22-C21-O21-C2
2	D	1803	PCF	C1-O11-P-O13
2	D	1803	PCF	C1-O11-P-O14
2	D	1803	PCF	C11-O13-P-O14
2	D	1803	PCF	C22-C21-O21-C2
2	D	1804	PCF	C1-O11-P-O13
2	D	1804	PCF	C1-O11-P-O14
2	D	1804	PCF	C3-C2-O21-C21
2	D	1804	PCF	O22-C21-O21-C2
2	D	1805	PCF	C1-O11-P-O13
2	D	1806	PCF	C1-O11-P-O14
2	D	1806	PCF	C11-O13-P-O11
2	D	1806	PCF	C11-O13-P-O12
2	D	1806	PCF	C11-O13-P-O14
2	D	1806	PCF	C12-C11-O13-P
2	D	1807	PCF	C1-O11-P-O13
2	D	1807	PCF	C22-C21-O21-C2
2	A	1801	PCF	O32-C31-O31-C3
2	A	1807	PCF	O32-C31-O31-C3
2	A	1808	PCF	O32-C31-O31-C3
2	B	1804	PCF	O32-C31-O31-C3
2	B	1805	PCF	O32-C31-O31-C3
2	B	1806	PCF	O32-C31-O31-C3
2	C	1805	PCF	O32-C31-O31-C3
2	C	1806	PCF	O32-C31-O31-C3
2	C	1807	PCF	O32-C31-O31-C3
2	D	1805	PCF	O32-C31-O31-C3
2	D	1806	PCF	O32-C31-O31-C3
2	D	1807	PCF	O32-C31-O31-C3
2	A	1801	PCF	C32-C31-O31-C3
2	A	1807	PCF	C32-C31-O31-C3
2	A	1808	PCF	C32-C31-O31-C3
2	B	1804	PCF	C32-C31-O31-C3
2	B	1805	PCF	C32-C31-O31-C3
2	B	1806	PCF	C32-C31-O31-C3
2	C	1805	PCF	C32-C31-O31-C3

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Mol	Chain	Res	Type	Atoms
2	C	1806	PCF	C32-C31-O31-C3
2	C	1807	PCF	C32-C31-O31-C3
2	D	1805	PCF	C32-C31-O31-C3
2	D	1806	PCF	C32-C31-O31-C3
2	D	1807	PCF	C32-C31-O31-C3
2	A	1803	PCF	O32-C31-O31-C3
2	A	1804	PCF	O32-C31-O31-C3
2	B	1801	PCF	O32-C31-O31-C3
2	B	1808	PCF	O32-C31-O31-C3
2	C	1801	PCF	O32-C31-O31-C3
2	C	1802	PCF	O32-C31-O31-C3
2	D	1801	PCF	O32-C31-O31-C3
2	D	1802	PCF	O32-C31-O31-C3
2	A	1801	PCF	O22-C21-O21-C2
2	A	1805	PCF	O22-C21-O21-C2
2	B	1802	PCF	O22-C21-O21-C2
2	B	1806	PCF	O22-C21-O21-C2
2	C	1803	PCF	O22-C21-O21-C2
2	C	1807	PCF	O22-C21-O21-C2
2	D	1803	PCF	O22-C21-O21-C2
2	D	1807	PCF	O22-C21-O21-C2
2	A	1803	PCF	C32-C31-O31-C3
2	A	1804	PCF	C32-C31-O31-C3
2	B	1801	PCF	C32-C31-O31-C3
2	B	1808	PCF	C32-C31-O31-C3
2	C	1801	PCF	C32-C31-O31-C3
2	C	1802	PCF	C32-C31-O31-C3
2	D	1801	PCF	C32-C31-O31-C3
2	D	1802	PCF	C32-C31-O31-C3
2	A	1804	PCF	O22-C21-O21-C2
2	B	1801	PCF	O22-C21-O21-C2
2	C	1802	PCF	O22-C21-O21-C2
2	D	1802	PCF	O22-C21-O21-C2
2	A	1806	PCF	C32-C31-O31-C3
2	B	1803	PCF	C32-C31-O31-C3
2	C	1804	PCF	C32-C31-O31-C3
2	D	1804	PCF	C32-C31-O31-C3
2	A	1806	PCF	O32-C31-O31-C3
2	B	1803	PCF	O32-C31-O31-C3
2	C	1804	PCF	O32-C31-O31-C3
2	D	1804	PCF	O32-C31-O31-C3
2	A	1805	PCF	C32-C31-O31-C3

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Mol	Chain	Res	Type	Atoms
2	B	1802	PCF	C32-C31-O31-C3
2	C	1803	PCF	C32-C31-O31-C3
2	D	1803	PCF	C32-C31-O31-C3
2	A	1805	PCF	O32-C31-O31-C3
2	B	1802	PCF	O32-C31-O31-C3
2	C	1803	PCF	O32-C31-O31-C3
2	D	1803	PCF	O32-C31-O31-C3
2	A	1807	PCF	O22-C21-O21-C2
2	B	1804	PCF	O22-C21-O21-C2
2	C	1805	PCF	O22-C21-O21-C2
2	D	1805	PCF	O22-C21-O21-C2
2	A	1805	PCF	C21-C22-C23-C24
2	B	1802	PCF	C21-C22-C23-C24
2	C	1803	PCF	C21-C22-C23-C24
2	D	1803	PCF	C21-C22-C23-C24
2	A	1803	PCF	C21-C22-C23-C24
2	A	1804	PCF	C21-C22-C23-C24
2	B	1801	PCF	C21-C22-C23-C24
2	B	1808	PCF	C21-C22-C23-C24
2	C	1801	PCF	C21-C22-C23-C24
2	C	1802	PCF	C21-C22-C23-C24
2	D	1801	PCF	C21-C22-C23-C24
2	D	1802	PCF	C21-C22-C23-C24
2	A	1807	PCF	C22-C21-O21-C2
2	B	1804	PCF	C22-C21-O21-C2
2	C	1805	PCF	C22-C21-O21-C2
2	D	1805	PCF	C22-C21-O21-C2
2	A	1805	PCF	C26-C27-C28-C29
2	B	1802	PCF	C26-C27-C28-C29
2	C	1803	PCF	C26-C27-C28-C29
2	D	1803	PCF	C26-C27-C28-C29
2	A	1802	PCF	C32-C31-O31-C3
2	B	1807	PCF	C32-C31-O31-C3
2	C	1808	PCF	C32-C31-O31-C3
2	D	1808	PCF	C32-C31-O31-C3
2	A	1805	PCF	C22-C23-C24-C25
2	A	1805	PCF	C25-C26-C27-C28
2	B	1802	PCF	C22-C23-C24-C25
2	B	1802	PCF	C25-C26-C27-C28
2	C	1803	PCF	C22-C23-C24-C25
2	C	1803	PCF	C25-C26-C27-C28
2	D	1803	PCF	C22-C23-C24-C25

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Mol	Chain	Res	Type	Atoms
2	D	1803	PCF	C25-C26-C27-C28
2	A	1804	PCF	C25-C26-C27-C28
2	B	1801	PCF	C25-C26-C27-C28
2	C	1802	PCF	C25-C26-C27-C28
2	D	1802	PCF	C25-C26-C27-C28
2	A	1802	PCF	O32-C31-O31-C3
2	B	1807	PCF	O32-C31-O31-C3
2	C	1808	PCF	O32-C31-O31-C3
2	D	1808	PCF	O32-C31-O31-C3
2	A	1803	PCF	C24-C25-C26-C27
2	C	1801	PCF	C24-C25-C26-C27
2	D	1801	PCF	C24-C25-C26-C27
2	B	1808	PCF	C24-C25-C26-C27
2	A	1803	PCF	C32-C33-C34-C35
2	C	1801	PCF	C32-C33-C34-C35
2	D	1801	PCF	C32-C33-C34-C35
2	B	1808	PCF	C32-C33-C34-C35
2	A	1803	PCF	C34-C35-C36-C37
2	B	1808	PCF	C34-C35-C36-C37
2	C	1801	PCF	C34-C35-C36-C37
2	D	1801	PCF	C34-C35-C36-C37
2	D	1802	PCF	C23-C24-C25-C26
2	A	1804	PCF	C23-C24-C25-C26
2	B	1801	PCF	C23-C24-C25-C26
2	C	1802	PCF	C23-C24-C25-C26
2	A	1803	PCF	C41-C42-C43-C44
2	B	1808	PCF	C41-C42-C43-C44
2	C	1801	PCF	C41-C42-C43-C44
2	D	1801	PCF	C41-C42-C43-C44
2	B	1808	PCF	C42-C43-C44-C45
2	C	1801	PCF	C42-C43-C44-C45
2	D	1801	PCF	C42-C43-C44-C45
2	A	1803	PCF	C42-C43-C44-C45
2	A	1804	PCF	C26-C27-C28-C29
2	B	1801	PCF	C26-C27-C28-C29
2	C	1802	PCF	C26-C27-C28-C29
2	D	1802	PCF	C26-C27-C28-C29
2	B	1802	PCF	C27-C28-C29-C30
2	D	1803	PCF	C27-C28-C29-C30
2	A	1805	PCF	C27-C28-C29-C30
2	C	1803	PCF	C27-C28-C29-C30
2	A	1805	PCF	C32-C33-C34-C35

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Mol	Chain	Res	Type	Atoms
2	B	1802	PCF	C32-C33-C34-C35
2	C	1803	PCF	C32-C33-C34-C35
2	D	1803	PCF	C32-C33-C34-C35
2	A	1801	PCF	C1-O11-P-O12
2	A	1802	PCF	C1-O11-P-O12
2	A	1807	PCF	C1-O11-P-O12
2	B	1804	PCF	C1-O11-P-O12
2	B	1806	PCF	C1-O11-P-O12
2	B	1807	PCF	C1-O11-P-O12
2	C	1805	PCF	C1-O11-P-O12
2	C	1807	PCF	C1-O11-P-O12
2	C	1808	PCF	C1-O11-P-O12
2	D	1805	PCF	C1-O11-P-O12
2	D	1807	PCF	C1-O11-P-O12
2	D	1808	PCF	C1-O11-P-O12
2	A	1804	PCF	C22-C23-C24-C25
2	B	1801	PCF	C22-C23-C24-C25
2	C	1802	PCF	C22-C23-C24-C25
2	D	1802	PCF	C22-C23-C24-C25
2	A	1803	PCF	O21-C2-C3-O31
2	B	1808	PCF	O21-C2-C3-O31
2	C	1801	PCF	O21-C2-C3-O31
2	D	1801	PCF	O21-C2-C3-O31
2	A	1803	PCF	C2-C1-O11-P
2	B	1808	PCF	C2-C1-O11-P
2	C	1801	PCF	C2-C1-O11-P
2	D	1801	PCF	C2-C1-O11-P
2	A	1807	PCF	C31-C32-C33-C34
2	B	1804	PCF	C31-C32-C33-C34
2	C	1805	PCF	C31-C32-C33-C34
2	D	1805	PCF	C31-C32-C33-C34
2	A	1808	PCF	C2-C1-O11-P
2	B	1805	PCF	C2-C1-O11-P
2	C	1806	PCF	C2-C1-O11-P
2	D	1806	PCF	C2-C1-O11-P
2	A	1804	PCF	C31-C32-C33-C34
2	B	1801	PCF	C31-C32-C33-C34
2	C	1802	PCF	C31-C32-C33-C34
2	D	1802	PCF	C31-C32-C33-C34
2	A	1807	PCF	C1-O11-P-O14
2	B	1804	PCF	C1-O11-P-O14
2	C	1805	PCF	C1-O11-P-O14

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Mol	Chain	Res	Type	Atoms
2	D	1805	PCF	C1-O11-P-O14
2	C	1807	PCF	C27-C28-C29-C30
2	A	1801	PCF	C27-C28-C29-C30
2	B	1806	PCF	C27-C28-C29-C30
2	D	1807	PCF	C27-C28-C29-C30
2	A	1805	PCF	O13-C11-C12-N
2	B	1802	PCF	O13-C11-C12-N
2	C	1803	PCF	O13-C11-C12-N
2	D	1803	PCF	O13-C11-C12-N
2	A	1804	PCF	C35-C36-C37-C38
2	B	1801	PCF	C35-C36-C37-C38
2	C	1802	PCF	C35-C36-C37-C38
2	D	1802	PCF	C35-C36-C37-C38
2	A	1803	PCF	C1-O11-P-O12
2	A	1803	PCF	C11-O13-P-O14
2	A	1804	PCF	C1-O11-P-O12
2	A	1805	PCF	C11-O13-P-O11
2	A	1805	PCF	C11-O13-P-O12
2	A	1808	PCF	C1-O11-P-O13
2	B	1801	PCF	C1-O11-P-O12
2	B	1802	PCF	C11-O13-P-O11
2	B	1802	PCF	C11-O13-P-O12
2	B	1805	PCF	C1-O11-P-O13
2	B	1808	PCF	C1-O11-P-O12
2	B	1808	PCF	C11-O13-P-O14
2	C	1801	PCF	C1-O11-P-O12
2	C	1801	PCF	C11-O13-P-O14
2	C	1802	PCF	C1-O11-P-O12
2	C	1803	PCF	C11-O13-P-O11
2	C	1803	PCF	C11-O13-P-O12
2	C	1806	PCF	C1-O11-P-O13
2	D	1801	PCF	C1-O11-P-O12
2	D	1801	PCF	C11-O13-P-O14
2	D	1802	PCF	C1-O11-P-O12
2	D	1803	PCF	C11-O13-P-O11
2	D	1803	PCF	C11-O13-P-O12
2	D	1806	PCF	C1-O11-P-O13
2	B	1808	PCF	C25-C26-C27-C28
2	A	1803	PCF	C25-C26-C27-C28
2	C	1801	PCF	C25-C26-C27-C28
2	D	1801	PCF	C25-C26-C27-C28
2	D	1801	PCF	C38-C39-C40-C41

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Mol	Chain	Res	Type	Atoms
2	A	1803	PCF	C38-C39-C40-C41
2	B	1808	PCF	C38-C39-C40-C41
2	C	1801	PCF	C38-C39-C40-C41
2	A	1803	PCF	C1-C2-C3-O31
2	B	1808	PCF	C1-C2-C3-O31
2	C	1801	PCF	C1-C2-C3-O31
2	D	1801	PCF	C1-C2-C3-O31
2	B	1801	PCF	C33-C34-C35-C36
2	C	1802	PCF	C33-C34-C35-C36
2	D	1802	PCF	C33-C34-C35-C36
2	A	1804	PCF	C33-C34-C35-C36
2	A	1804	PCF	C2-C1-O11-P
2	B	1801	PCF	C2-C1-O11-P
2	C	1802	PCF	C2-C1-O11-P
2	D	1802	PCF	C2-C1-O11-P
2	B	1808	PCF	C23-C24-C25-C26
2	D	1801	PCF	C23-C24-C25-C26
2	A	1803	PCF	C23-C24-C25-C26
2	C	1801	PCF	C23-C24-C25-C26
2	A	1801	PCF	C1-C2-O21-C21
2	A	1801	PCF	C3-C2-O21-C21
2	B	1806	PCF	C1-C2-O21-C21
2	B	1806	PCF	C3-C2-O21-C21
2	C	1807	PCF	C1-C2-O21-C21
2	C	1807	PCF	C3-C2-O21-C21
2	D	1807	PCF	C1-C2-O21-C21
2	D	1807	PCF	C3-C2-O21-C21
2	A	1807	PCF	C27-C28-C29-C30
2	D	1805	PCF	C27-C28-C29-C30
2	B	1804	PCF	C27-C28-C29-C30
2	C	1805	PCF	C27-C28-C29-C30
2	B	1805	PCF	O21-C21-C22-C23
2	C	1806	PCF	O21-C21-C22-C23
2	D	1806	PCF	O21-C21-C22-C23
2	A	1807	PCF	O21-C21-C22-C23
2	A	1808	PCF	O21-C21-C22-C23
2	B	1804	PCF	O21-C21-C22-C23
2	C	1805	PCF	O21-C21-C22-C23
2	D	1805	PCF	O21-C21-C22-C23
2	A	1802	PCF	C1-O11-P-O14
2	A	1806	PCF	C1-O11-P-O12
2	A	1806	PCF	C1-C2-O21-C21

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Mol	Chain	Res	Type	Atoms
2	B	1803	PCF	C1-O11-P-O12
2	B	1803	PCF	C1-C2-O21-C21
2	B	1807	PCF	C1-O11-P-O14
2	C	1804	PCF	C1-O11-P-O12
2	C	1804	PCF	C1-C2-O21-C21
2	C	1808	PCF	C1-O11-P-O14
2	D	1804	PCF	C1-O11-P-O12
2	D	1804	PCF	C1-C2-O21-C21
2	D	1808	PCF	C1-O11-P-O14
2	D	1808	PCF	O31-C31-C32-C33
2	A	1802	PCF	O31-C31-C32-C33
2	A	1808	PCF	O31-C31-C32-C33
2	B	1805	PCF	O31-C31-C32-C33
2	B	1807	PCF	O31-C31-C32-C33
2	C	1806	PCF	O31-C31-C32-C33
2	C	1808	PCF	O31-C31-C32-C33
2	D	1806	PCF	O31-C31-C32-C33
2	A	1804	PCF	O21-C21-C22-C23
2	C	1802	PCF	O21-C21-C22-C23
2	D	1802	PCF	O21-C21-C22-C23
2	A	1801	PCF	O31-C31-C32-C33
2	A	1807	PCF	O31-C31-C32-C33
2	B	1806	PCF	O31-C31-C32-C33
2	C	1805	PCF	O31-C31-C32-C33
2	C	1807	PCF	O31-C31-C32-C33
2	D	1807	PCF	O31-C31-C32-C33
2	B	1801	PCF	O21-C21-C22-C23
2	B	1804	PCF	O31-C31-C32-C33
2	D	1805	PCF	O31-C31-C32-C33
2	C	1802	PCF	C27-C28-C29-C30
2	B	1801	PCF	C27-C28-C29-C30
2	A	1805	PCF	O21-C21-C22-C23
2	B	1802	PCF	O21-C21-C22-C23
2	D	1802	PCF	C27-C28-C29-C30
2	A	1804	PCF	C27-C28-C29-C30
2	A	1801	PCF	O21-C21-C22-C23
2	B	1806	PCF	O21-C21-C22-C23
2	C	1803	PCF	O21-C21-C22-C23
2	C	1807	PCF	O21-C21-C22-C23
2	D	1803	PCF	O21-C21-C22-C23
2	D	1807	PCF	O21-C21-C22-C23
2	C	1807	PCF	C29-C30-C47-C48

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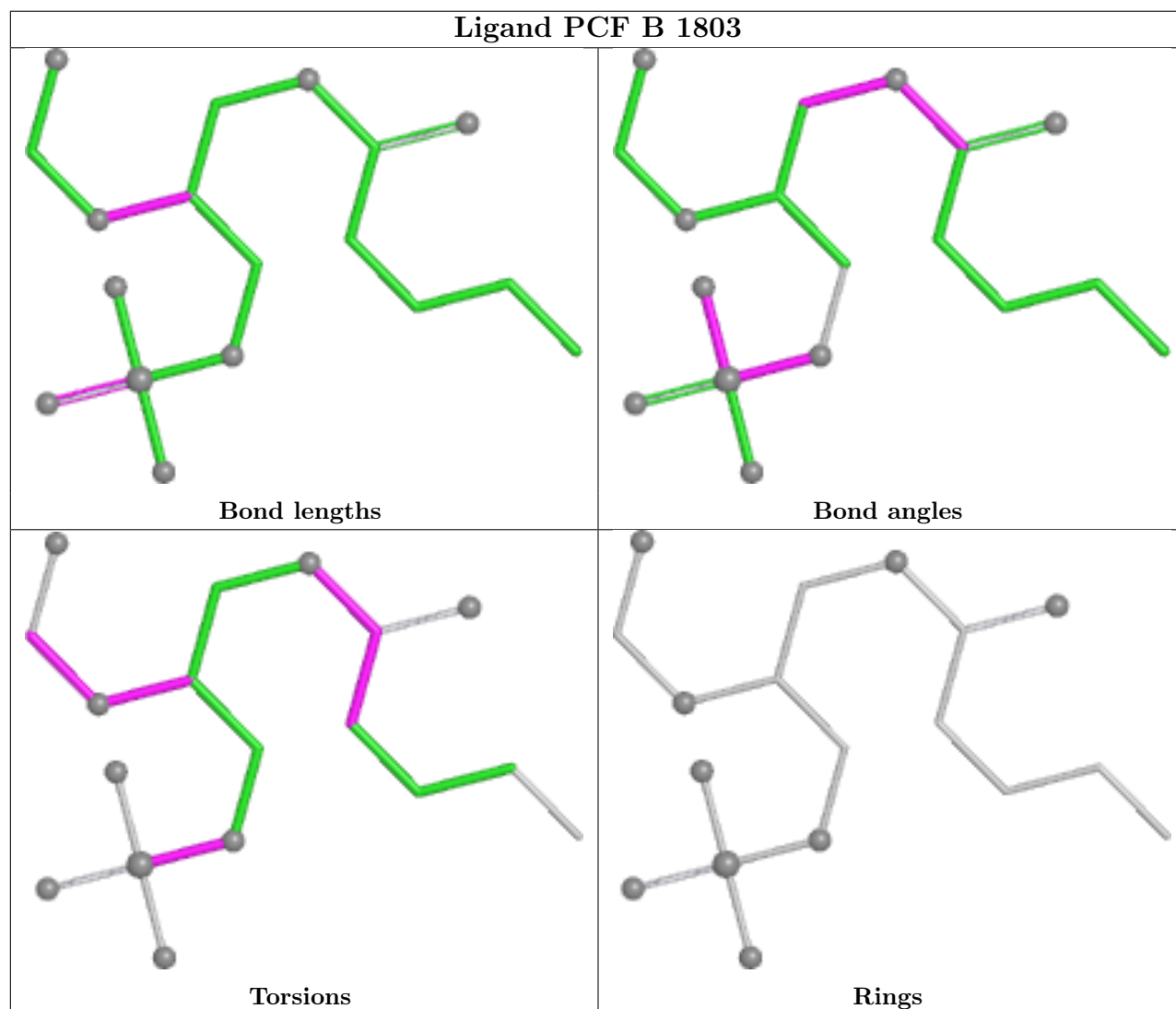
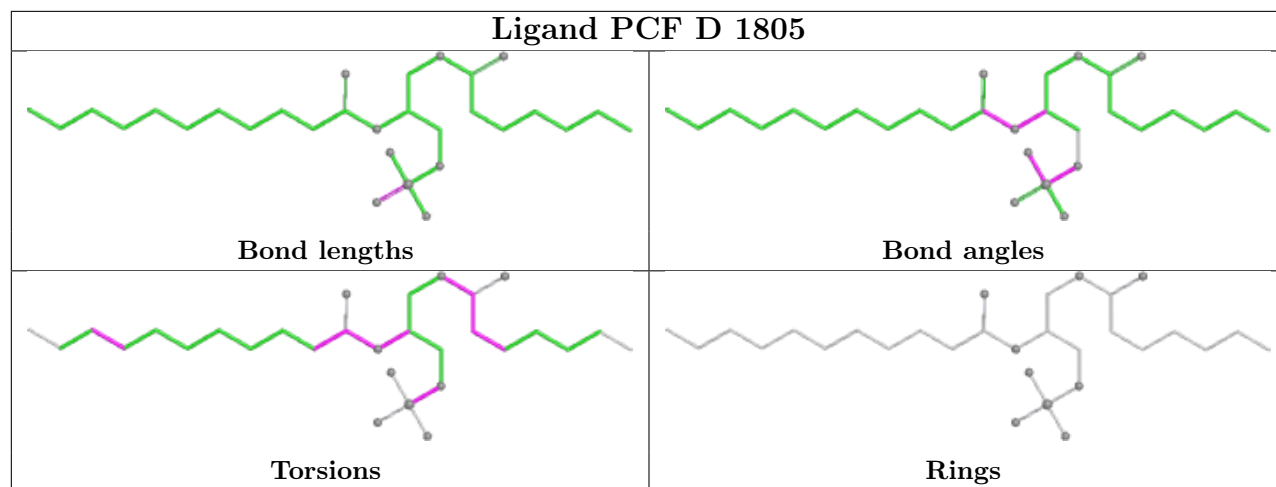
Mol	Chain	Res	Type	Atoms
2	A	1801	PCF	C29-C30-C47-C48
2	D	1807	PCF	C29-C30-C47-C48
2	B	1806	PCF	C29-C30-C47-C48
2	A	1807	PCF	C1-C2-O21-C21
2	B	1804	PCF	C1-C2-O21-C21
2	C	1805	PCF	C1-C2-O21-C21
2	D	1805	PCF	C1-C2-O21-C21
2	D	1803	PCF	C24-C25-C26-C27
2	B	1806	PCF	O32-C31-C32-C33
2	C	1807	PCF	O32-C31-C32-C33
2	D	1807	PCF	O32-C31-C32-C33
2	A	1805	PCF	C24-C25-C26-C27
2	B	1802	PCF	C24-C25-C26-C27
2	C	1803	PCF	C24-C25-C26-C27
2	A	1801	PCF	O32-C31-C32-C33
2	A	1802	PCF	O32-C31-C32-C33
2	B	1807	PCF	O32-C31-C32-C33
2	C	1808	PCF	O32-C31-C32-C33
2	D	1808	PCF	O32-C31-C32-C33
2	A	1808	PCF	O32-C31-C32-C33
2	B	1805	PCF	O32-C31-C32-C33
2	C	1806	PCF	O32-C31-C32-C33
2	D	1806	PCF	O32-C31-C32-C33
2	A	1804	PCF	O22-C21-C22-C23
2	B	1801	PCF	O22-C21-C22-C23
2	C	1805	PCF	O32-C31-C32-C33
2	A	1807	PCF	O32-C31-C32-C33
2	B	1804	PCF	O32-C31-C32-C33
2	C	1802	PCF	O22-C21-C22-C23
2	D	1802	PCF	O22-C21-C22-C23
2	D	1805	PCF	O32-C31-C32-C33
2	B	1806	PCF	O22-C21-C22-C23
2	C	1807	PCF	O22-C21-C22-C23
2	D	1807	PCF	O22-C21-C22-C23
2	A	1801	PCF	O22-C21-C22-C23
2	A	1806	PCF	O31-C31-C32-C33
2	B	1803	PCF	O31-C31-C32-C33
2	C	1804	PCF	O31-C31-C32-C33
2	D	1804	PCF	O31-C31-C32-C33

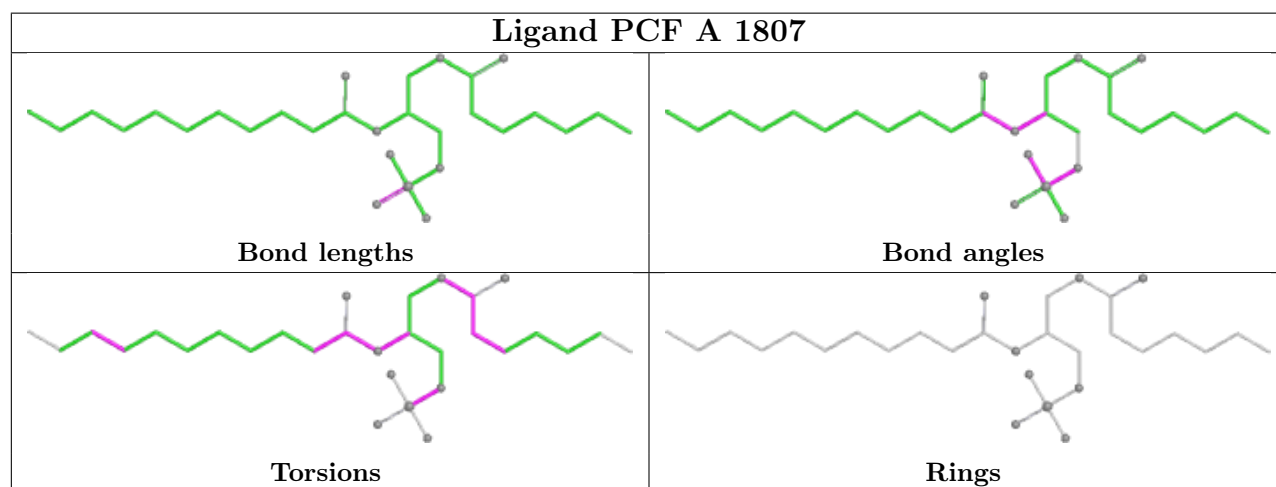
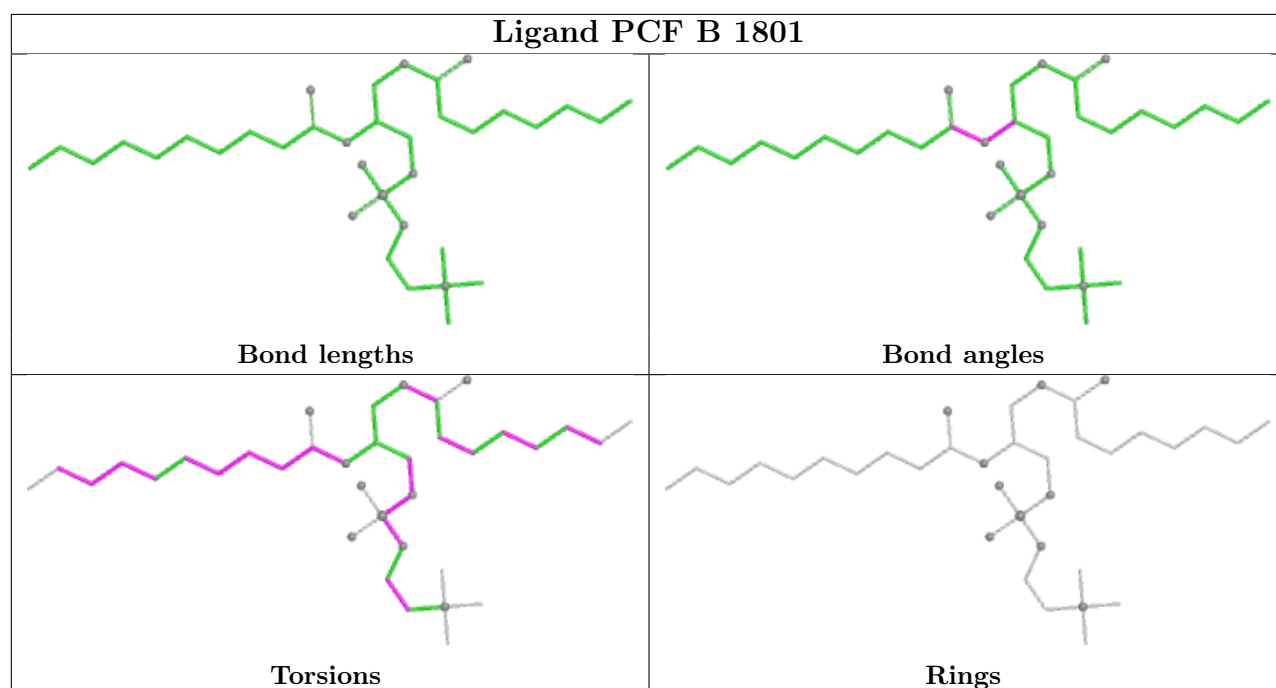
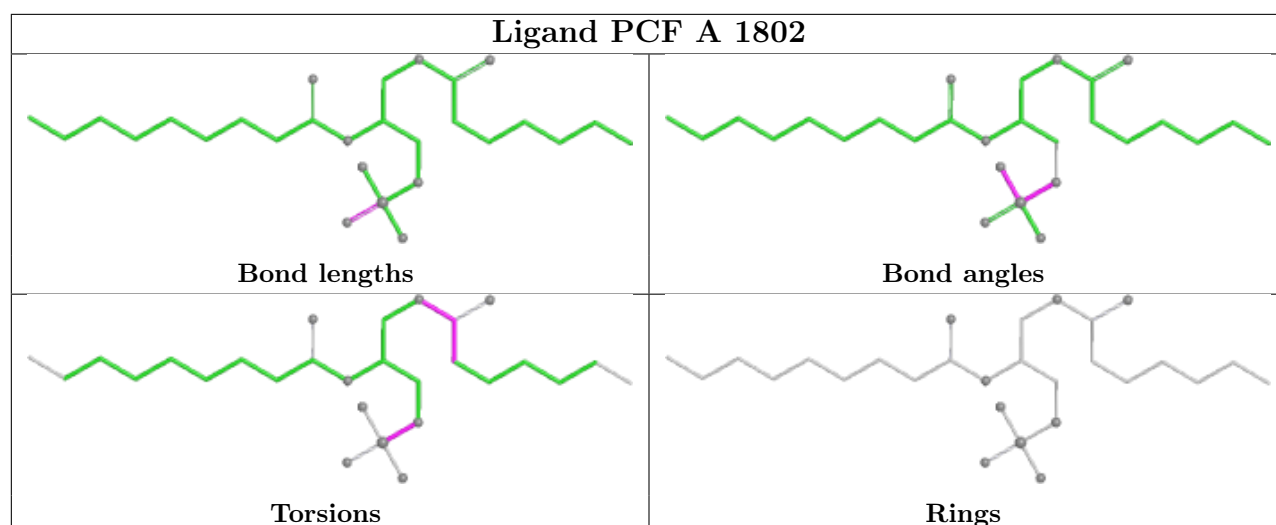
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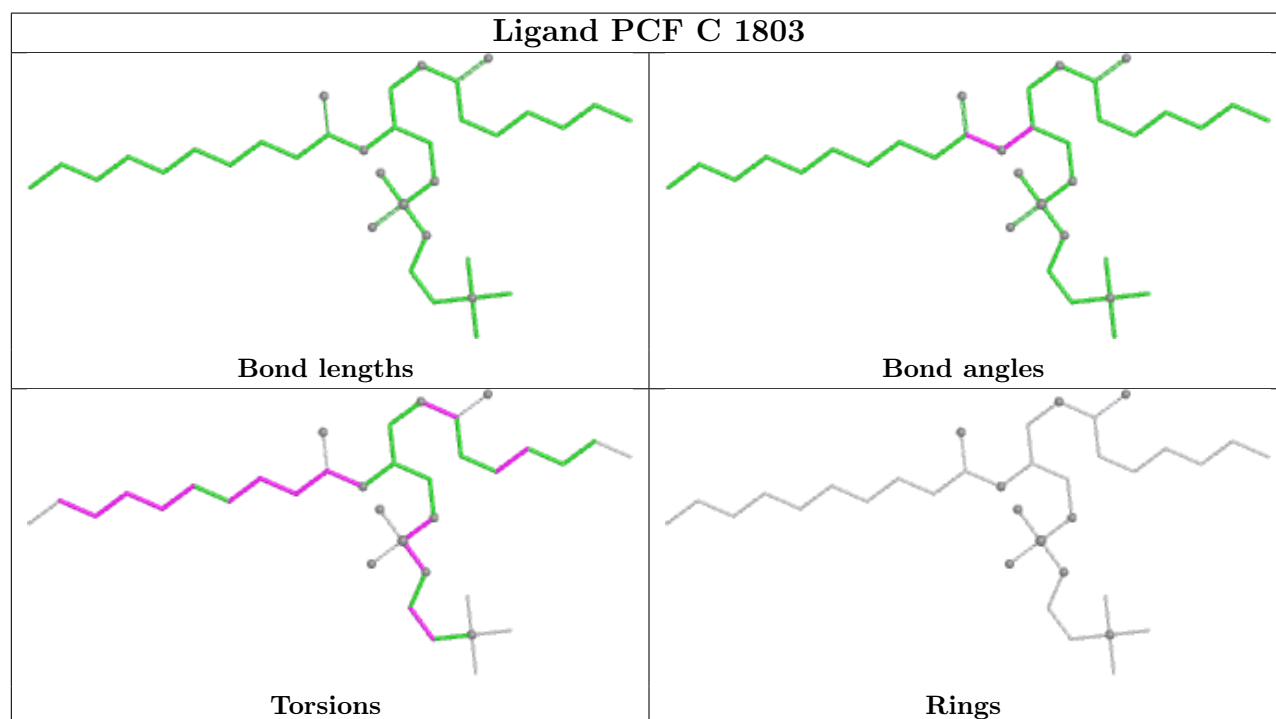
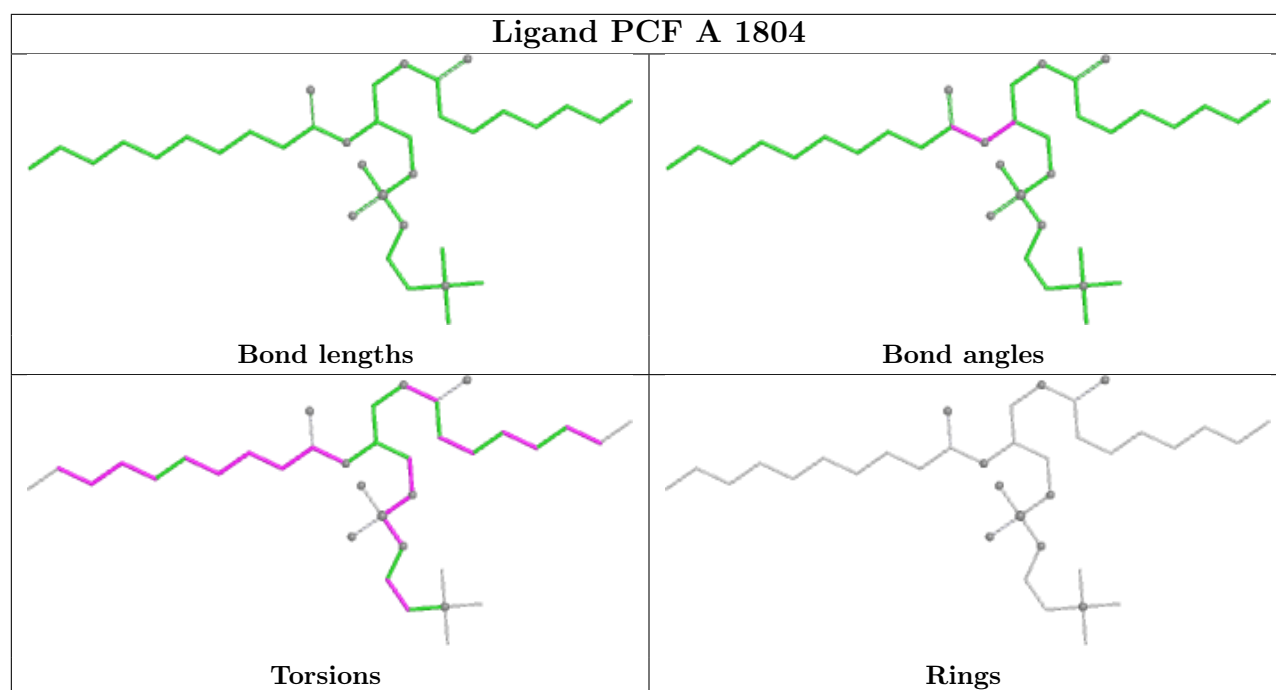
26 monomers are involved in 319 short contacts:

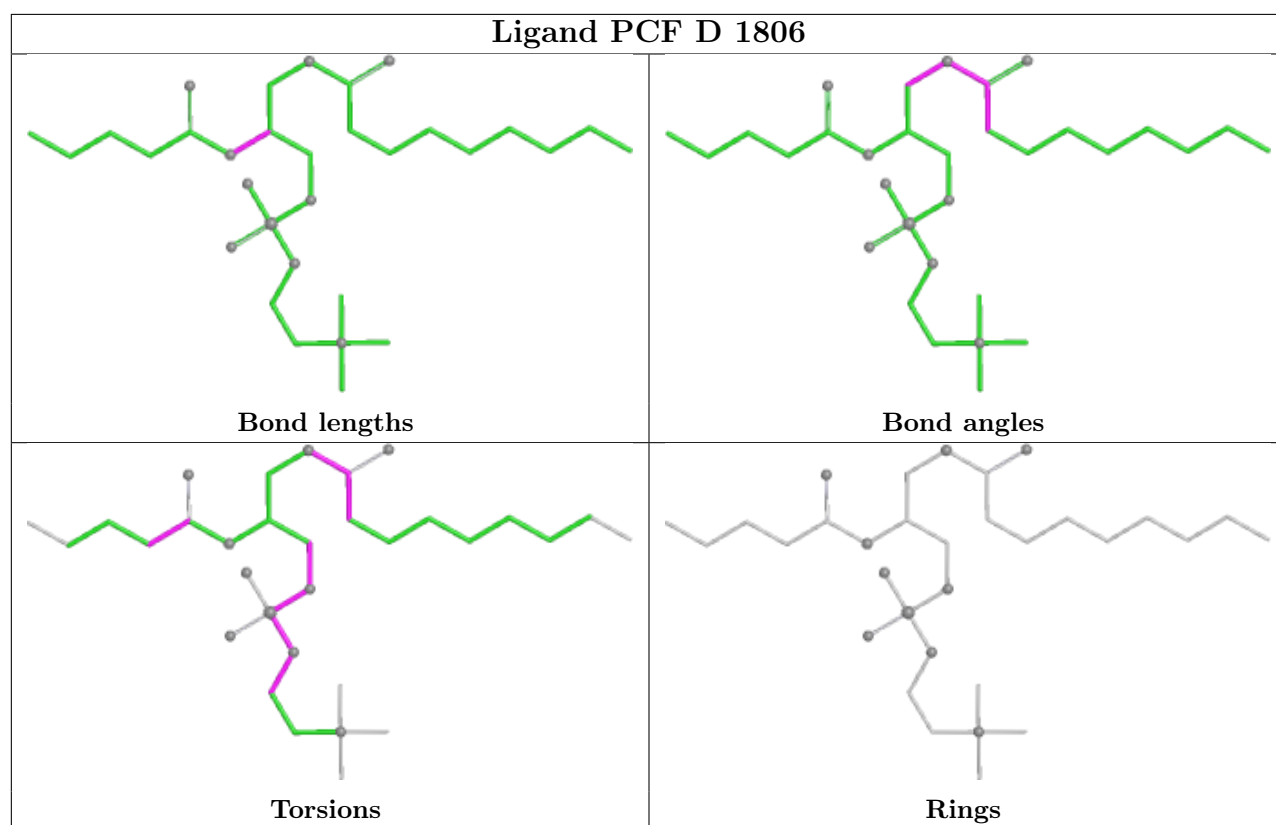
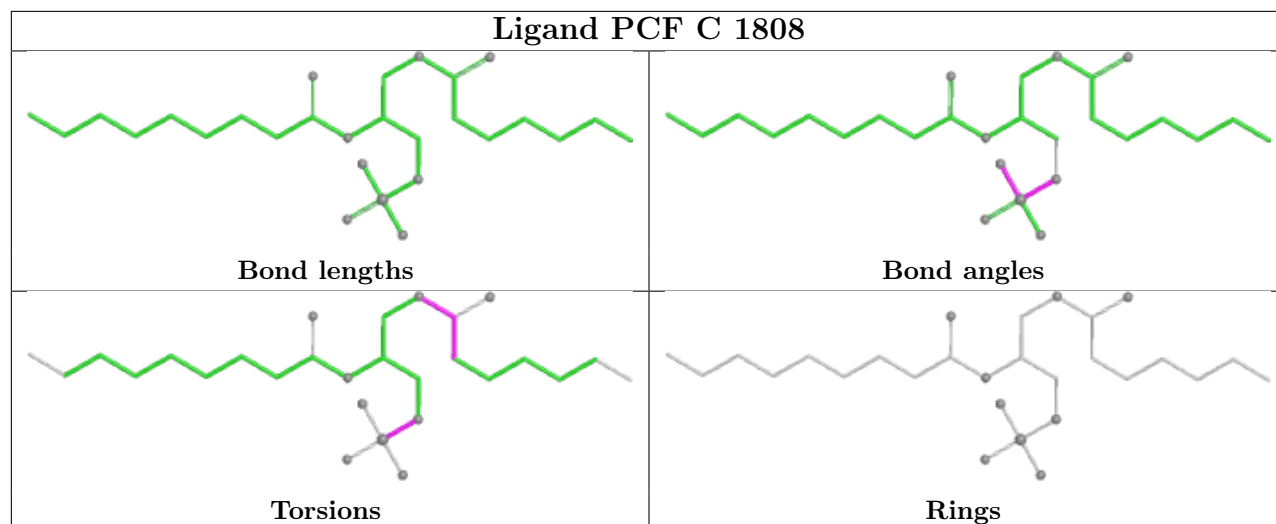
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	D	1805	PCF	17	0
2	A	1802	PCF	1	0
2	B	1801	PCF	1	0
2	A	1807	PCF	19	0
2	C	1803	PCF	17	0
2	C	1808	PCF	1	0
2	D	1806	PCF	16	0
2	D	1807	PCF	15	0
2	A	1808	PCF	16	0
2	B	1802	PCF	14	0
2	D	1802	PCF	1	0
2	B	1805	PCF	15	0
2	B	1806	PCF	16	0
2	B	1807	PCF	1	0
2	B	1804	PCF	17	0
2	C	1801	PCF	25	0
2	D	1808	PCF	1	0
2	C	1805	PCF	19	0
2	D	1803	PCF	12	0
2	A	1805	PCF	14	0
2	A	1801	PCF	15	0
2	C	1807	PCF	15	0
2	C	1806	PCF	19	0
2	B	1808	PCF	22	0
2	D	1801	PCF	31	0
2	A	1803	PCF	23	0

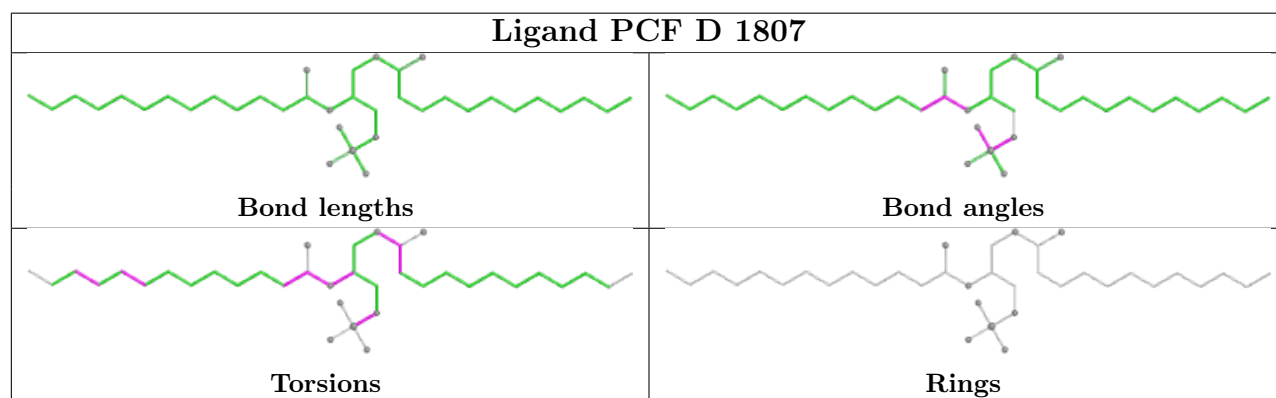
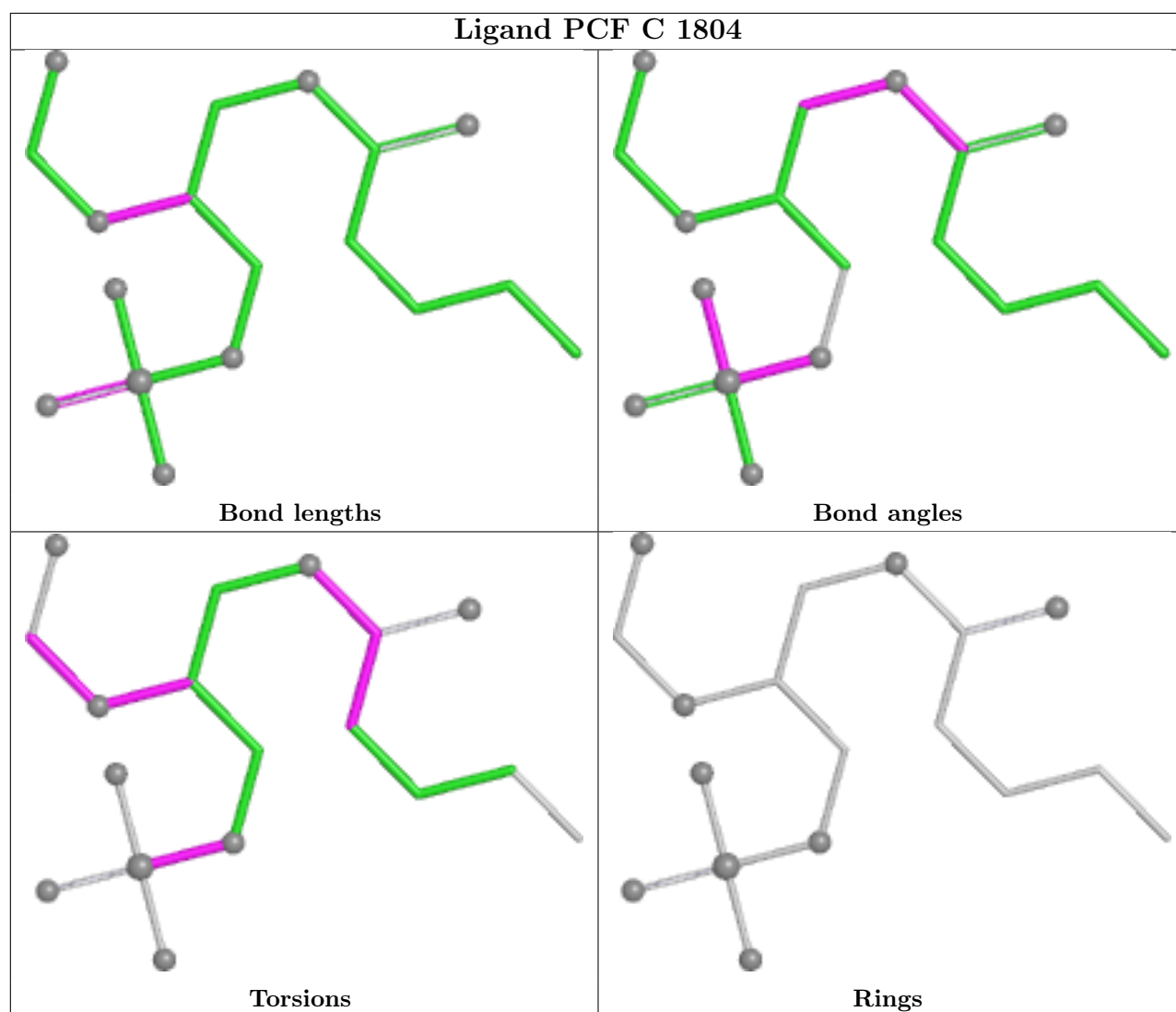
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

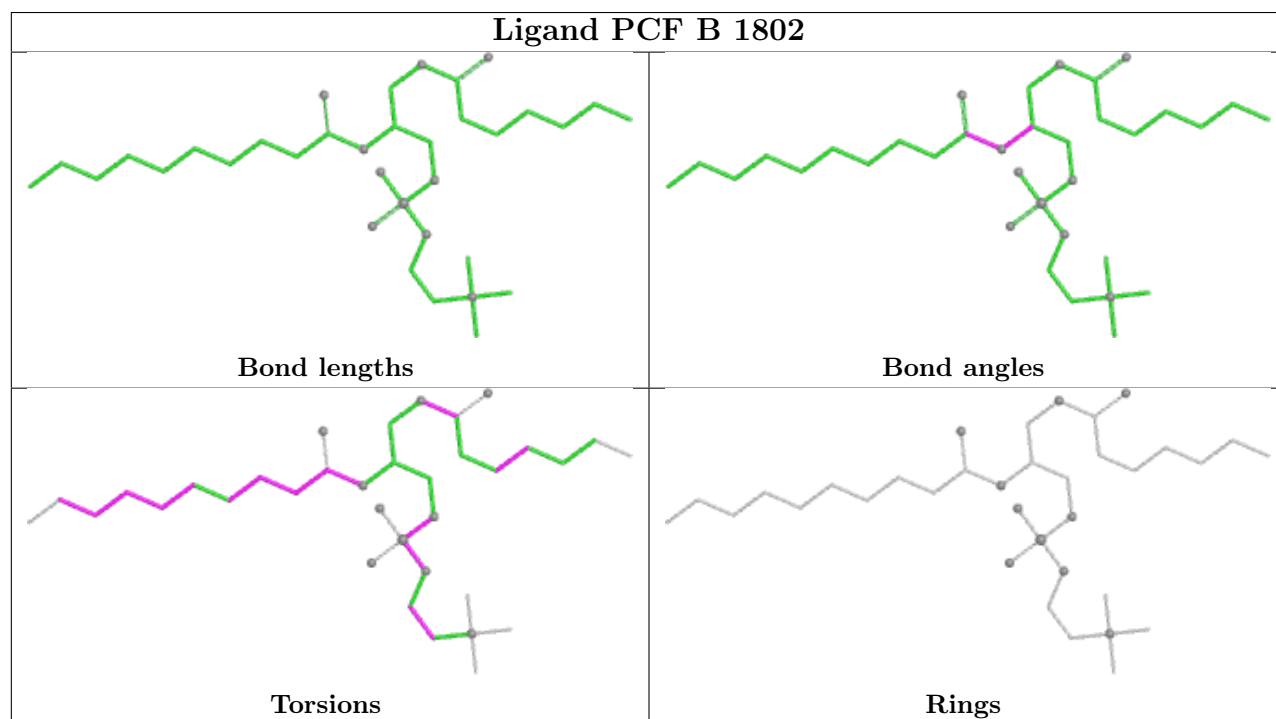
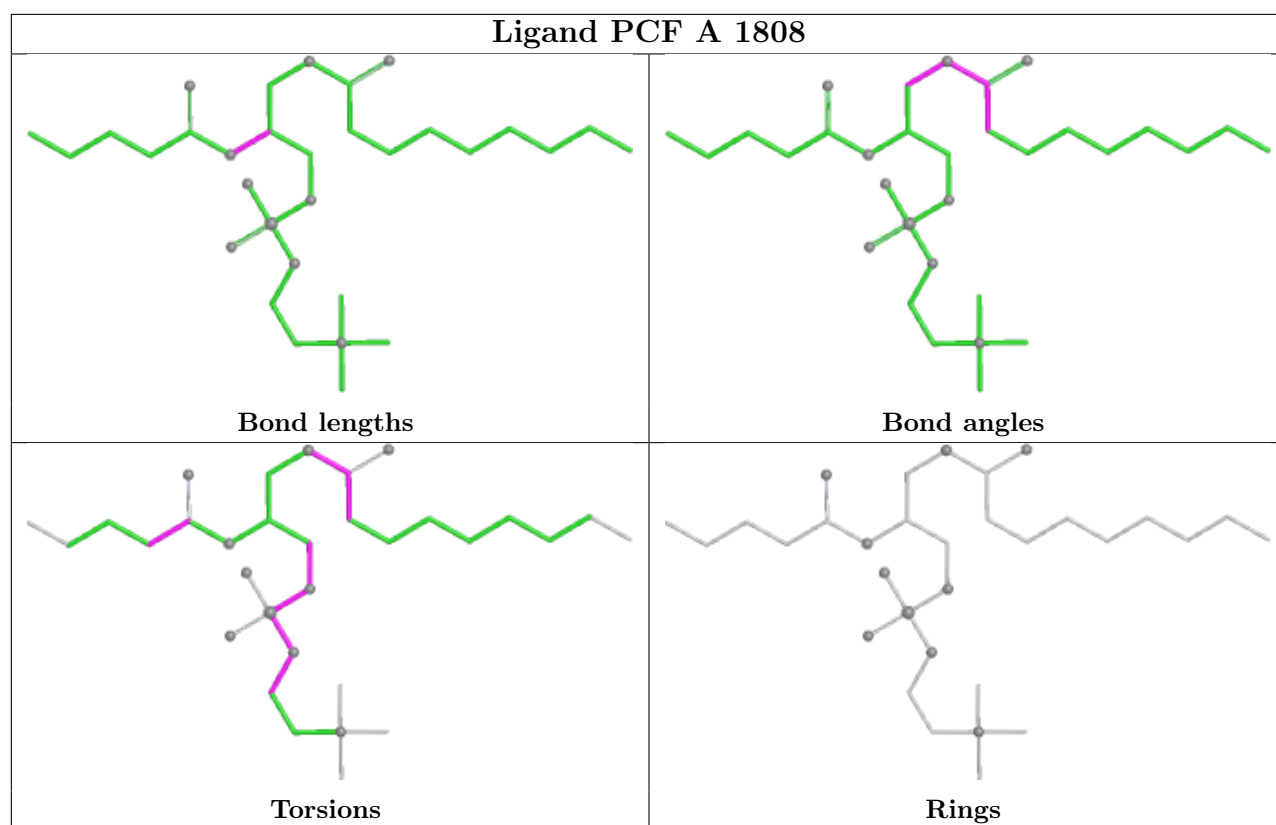


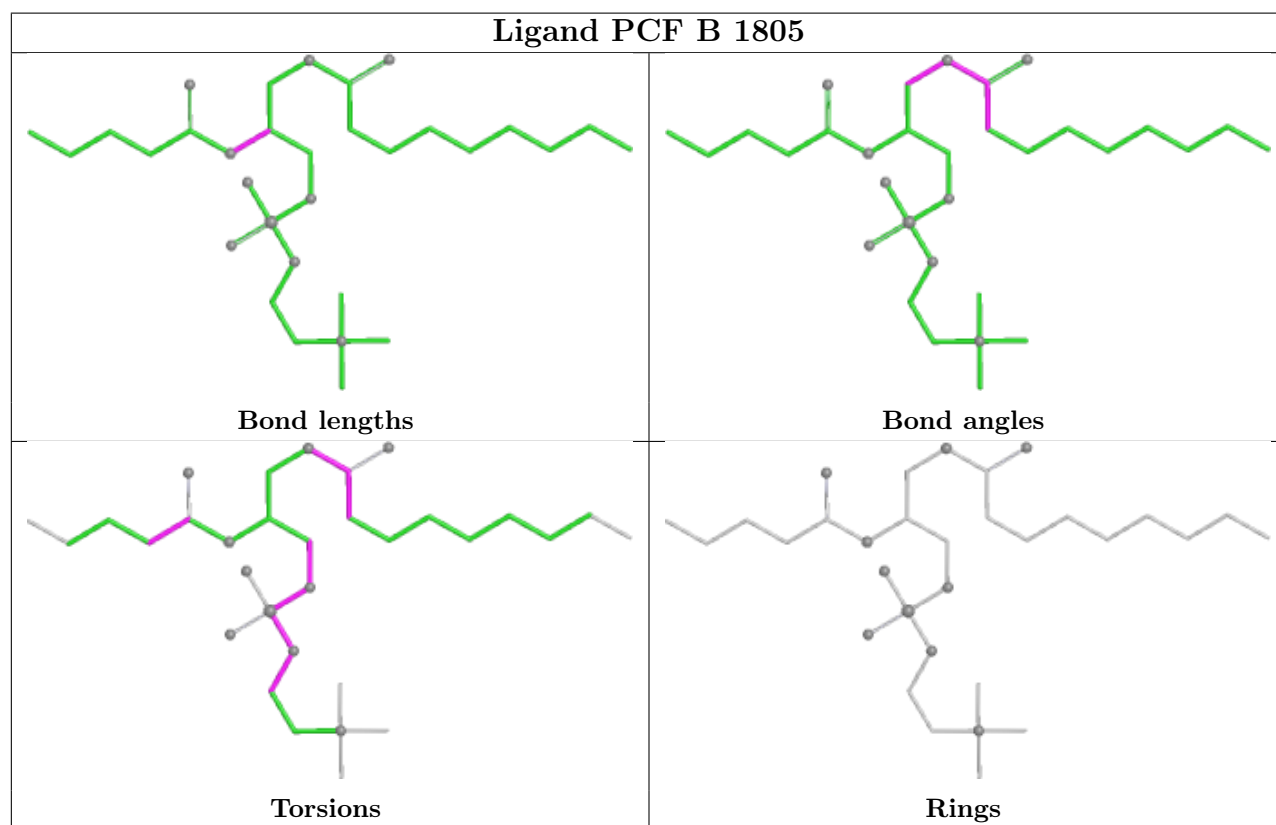
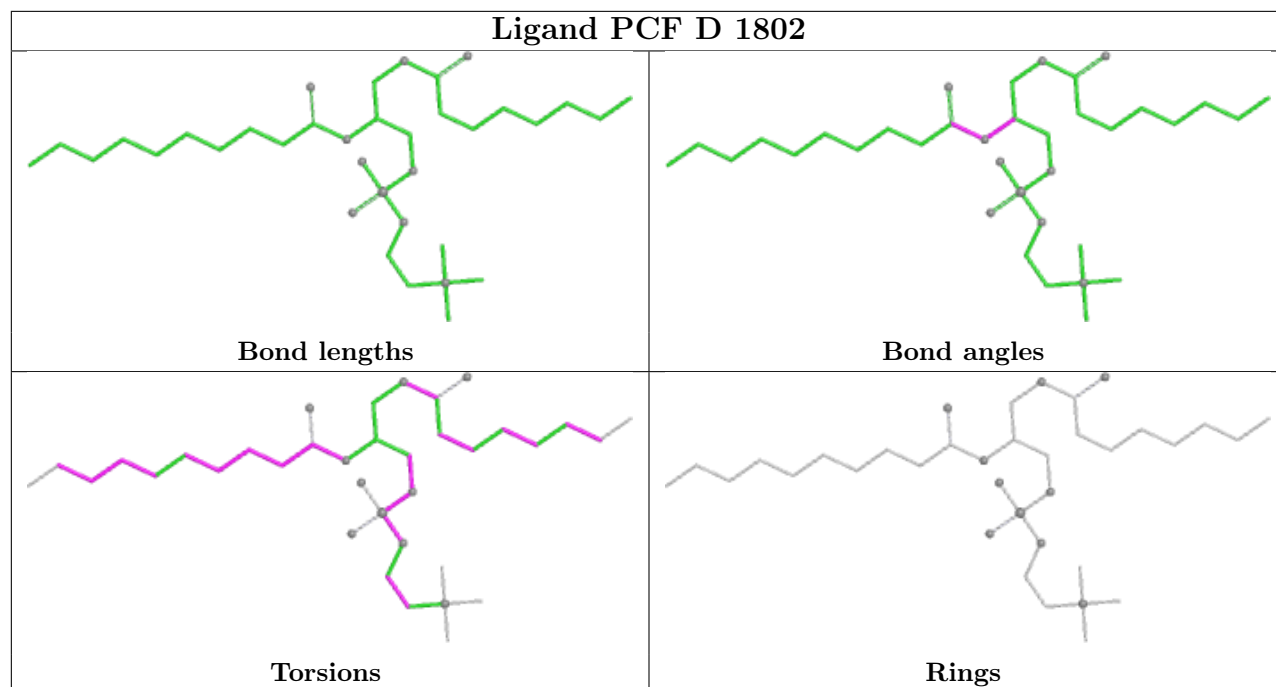


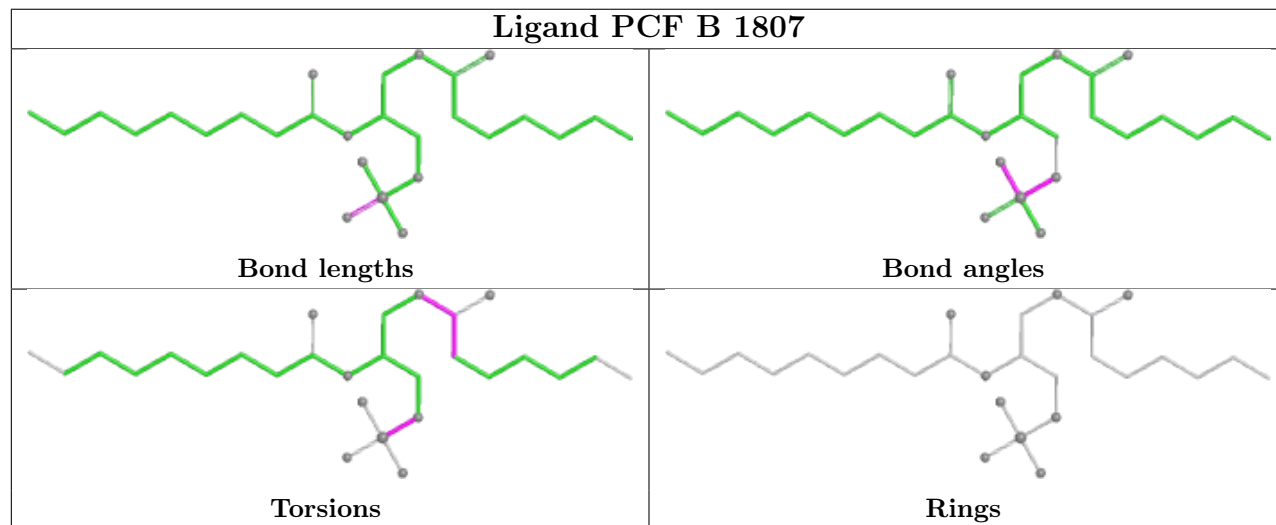
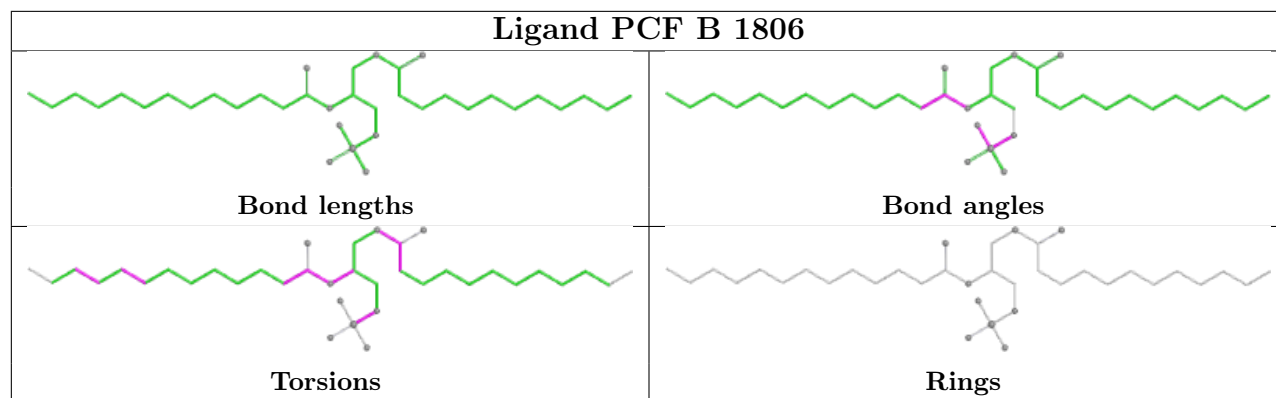


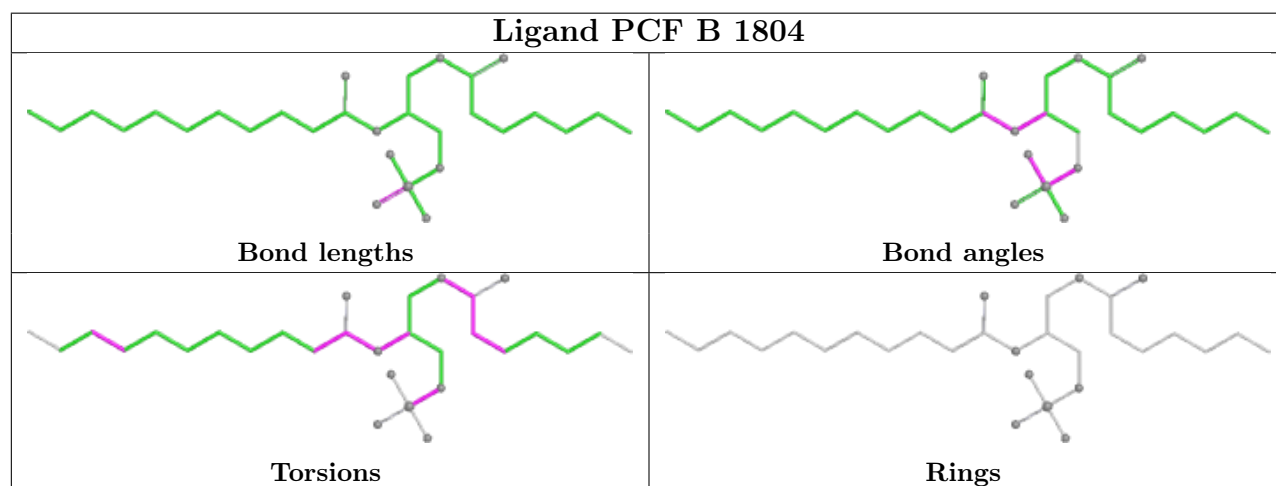
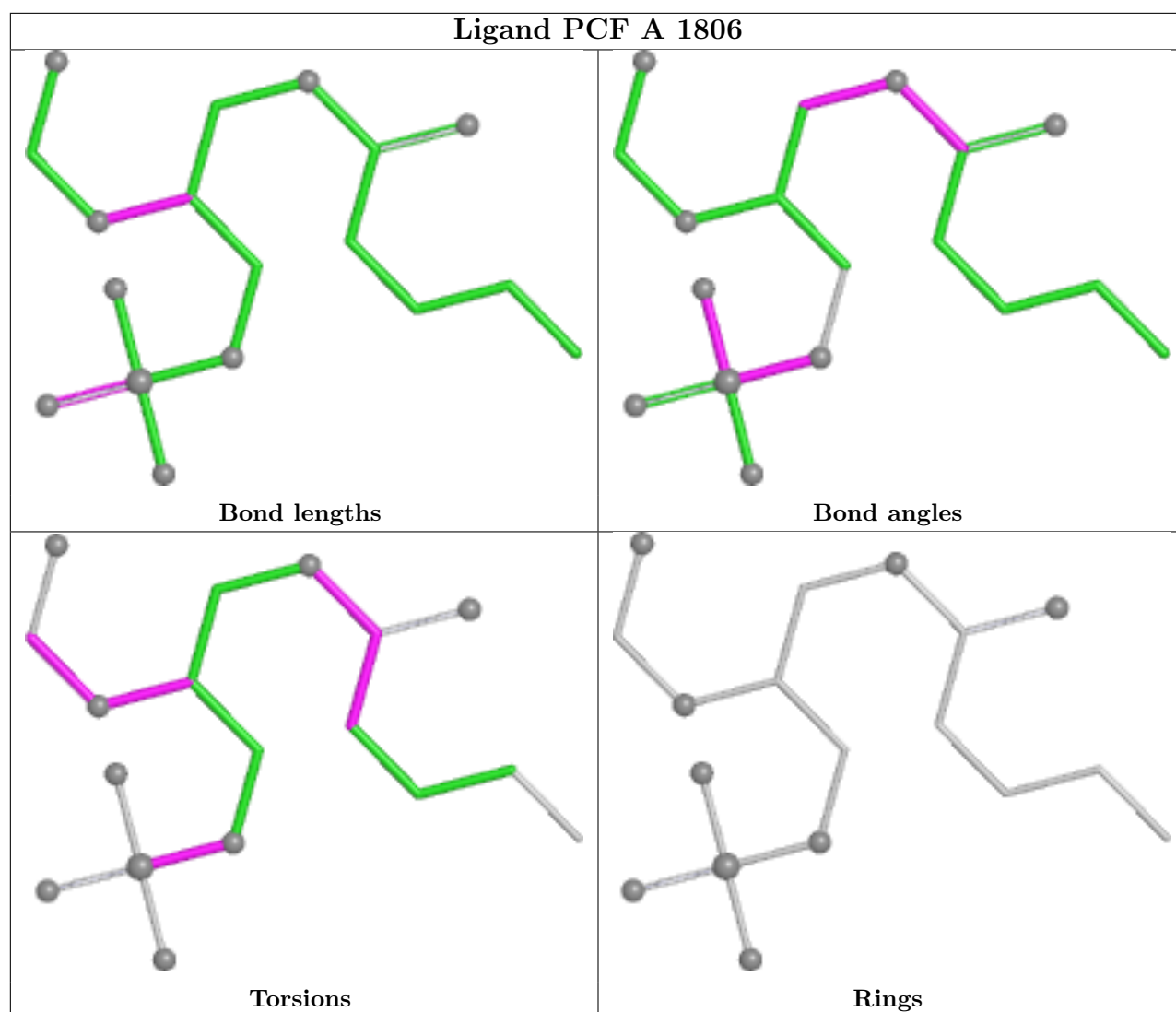


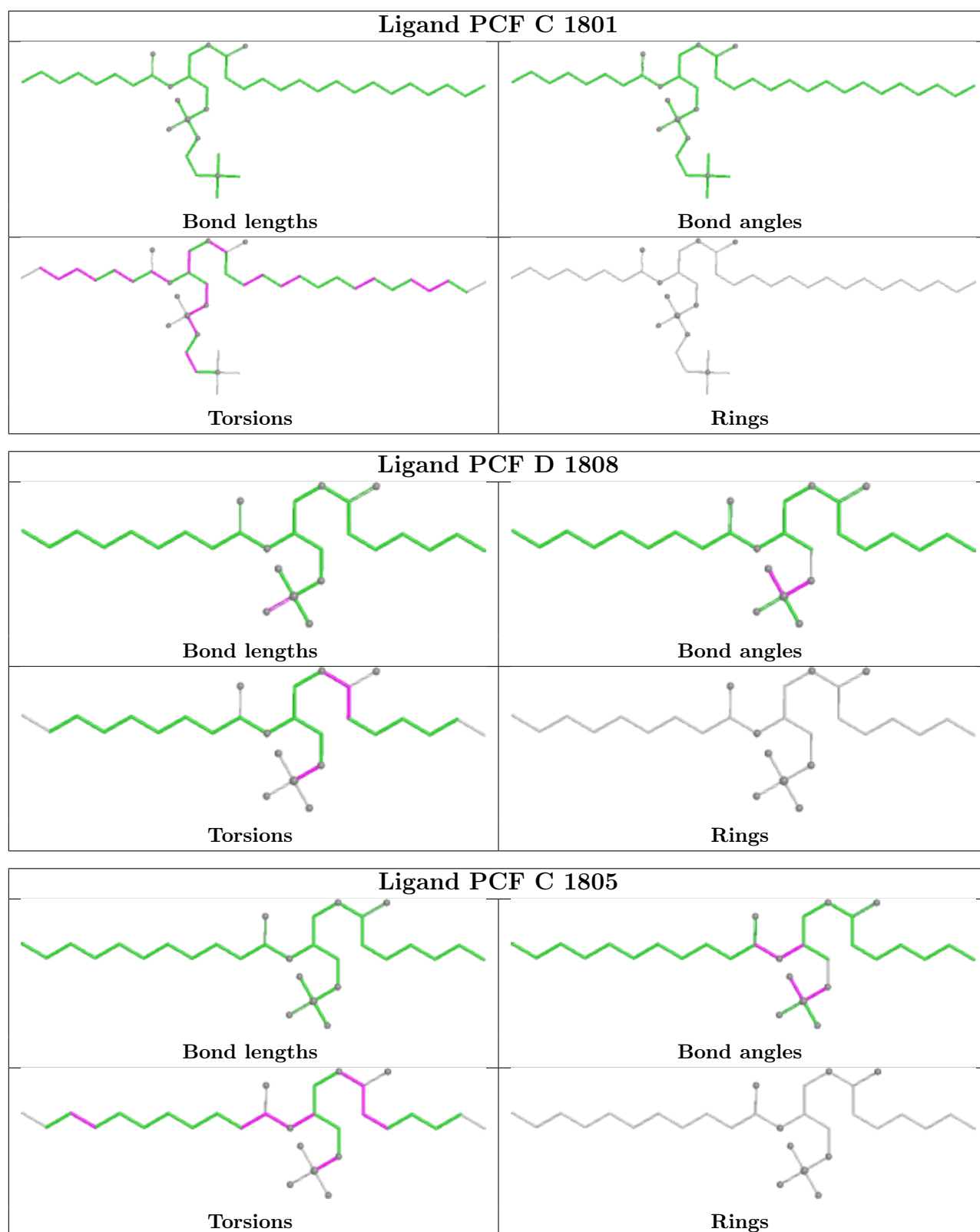


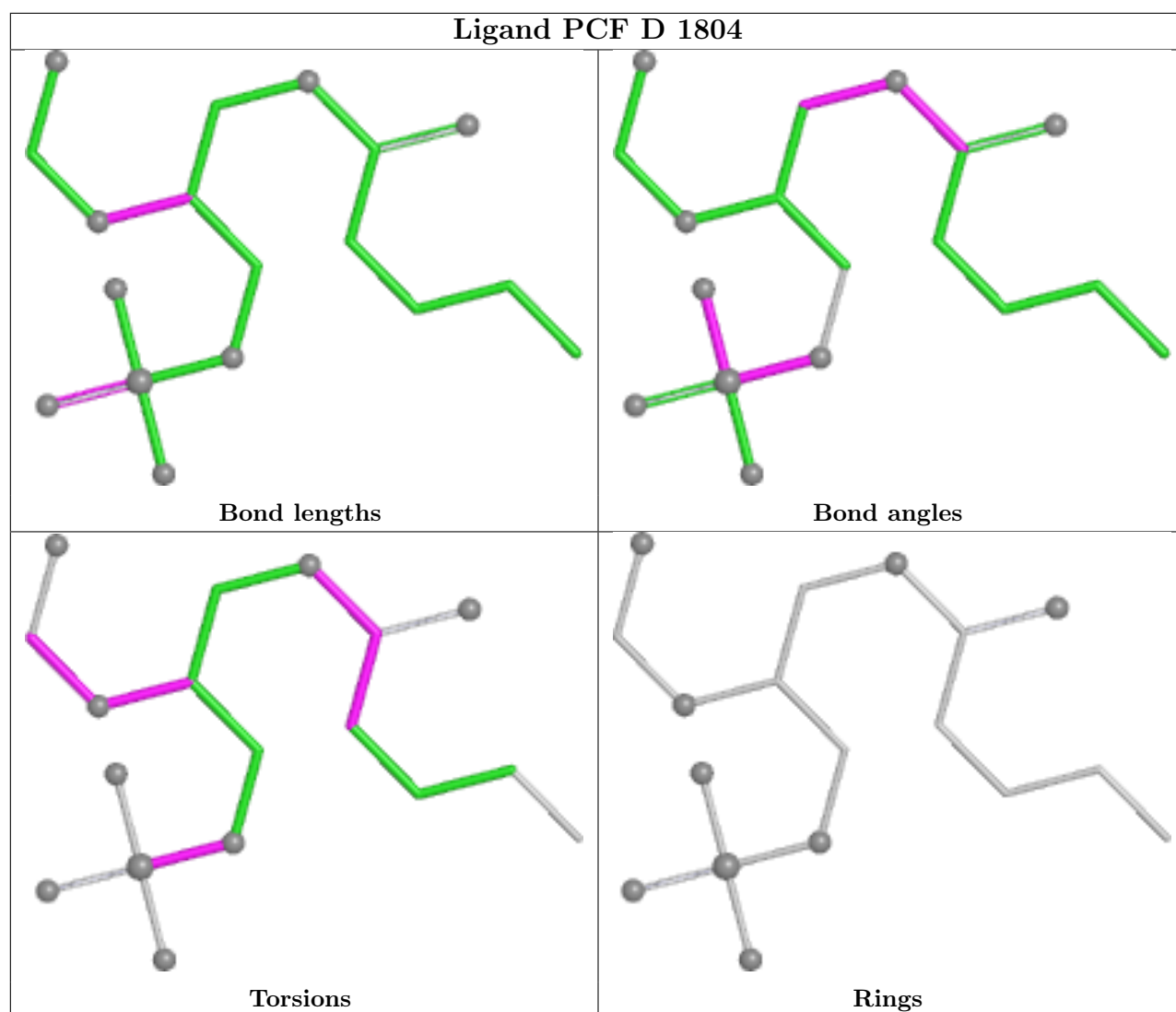


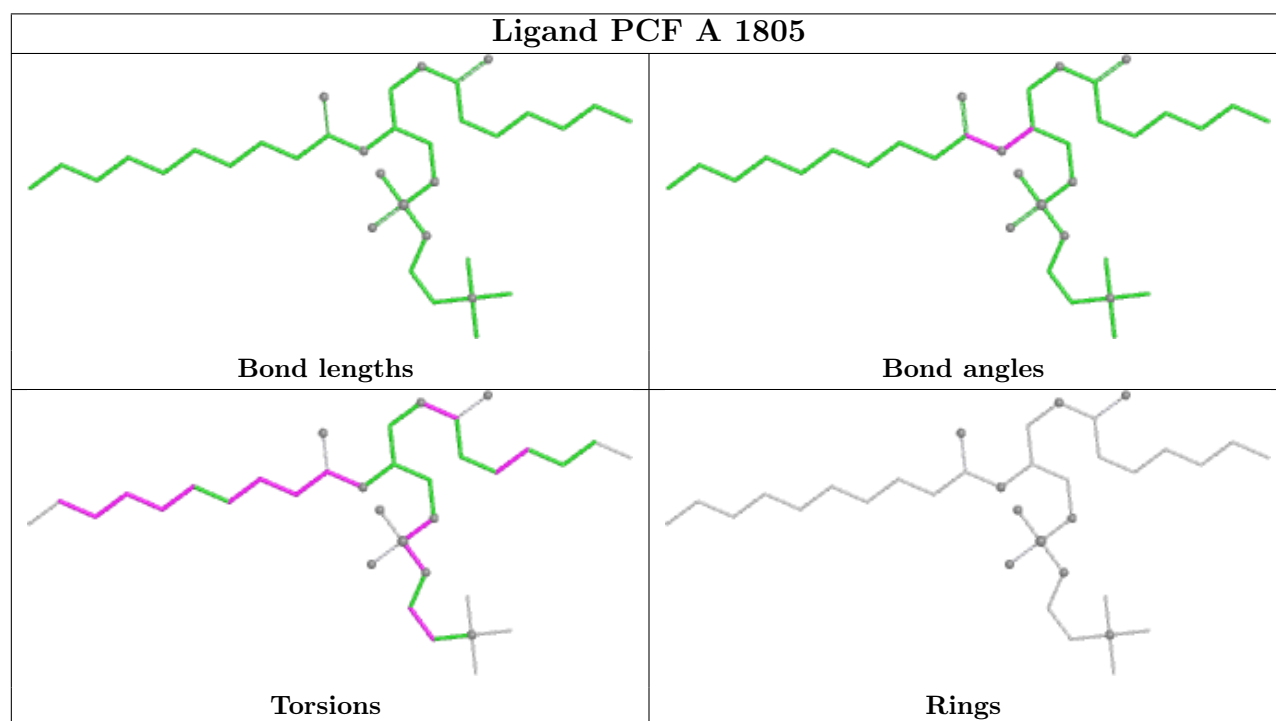
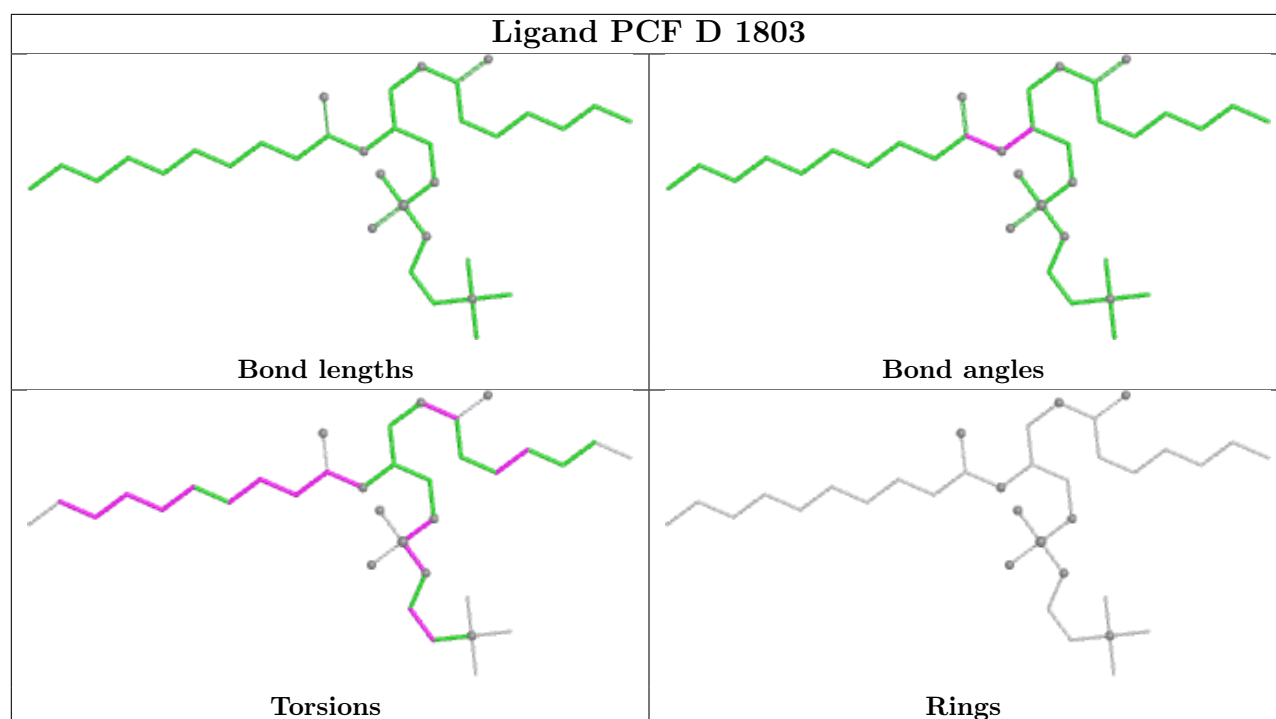


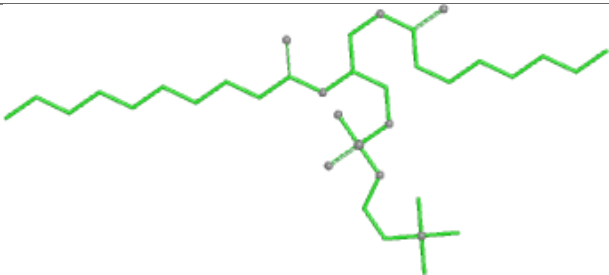
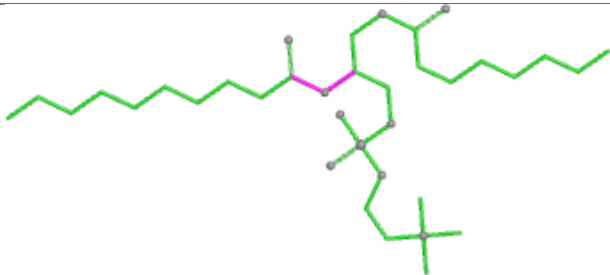
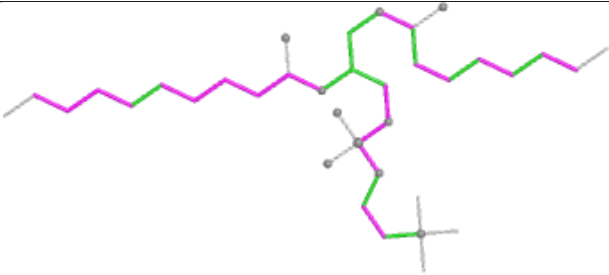
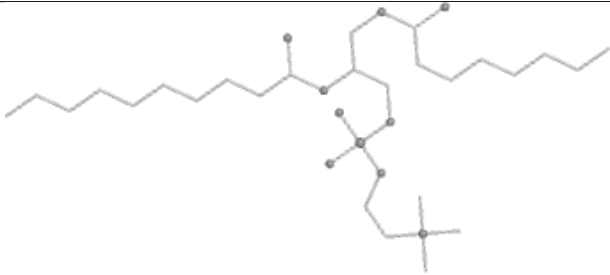


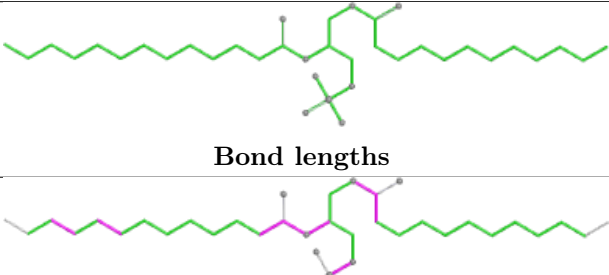
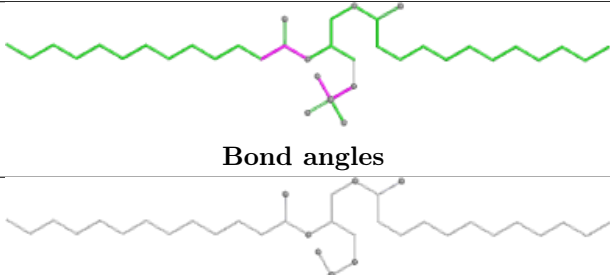
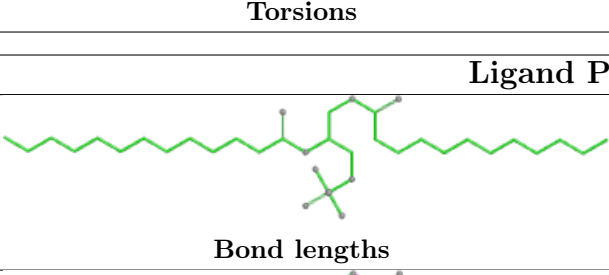
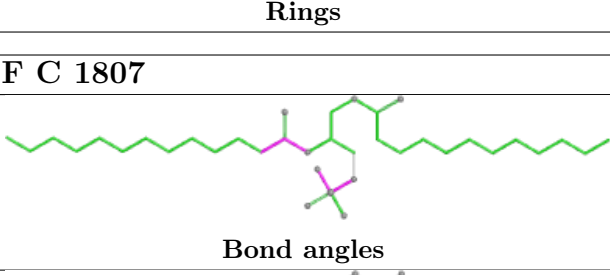


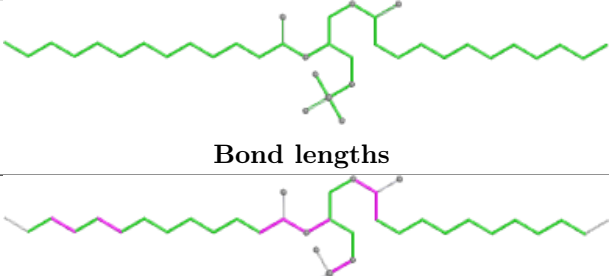
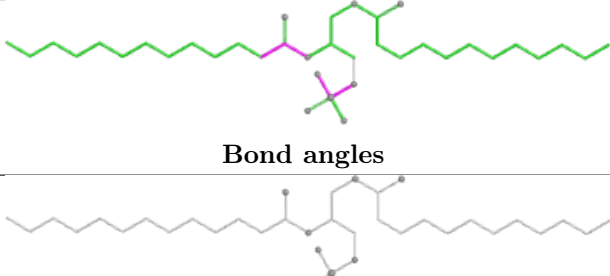
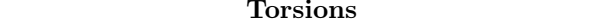
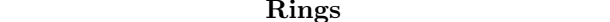


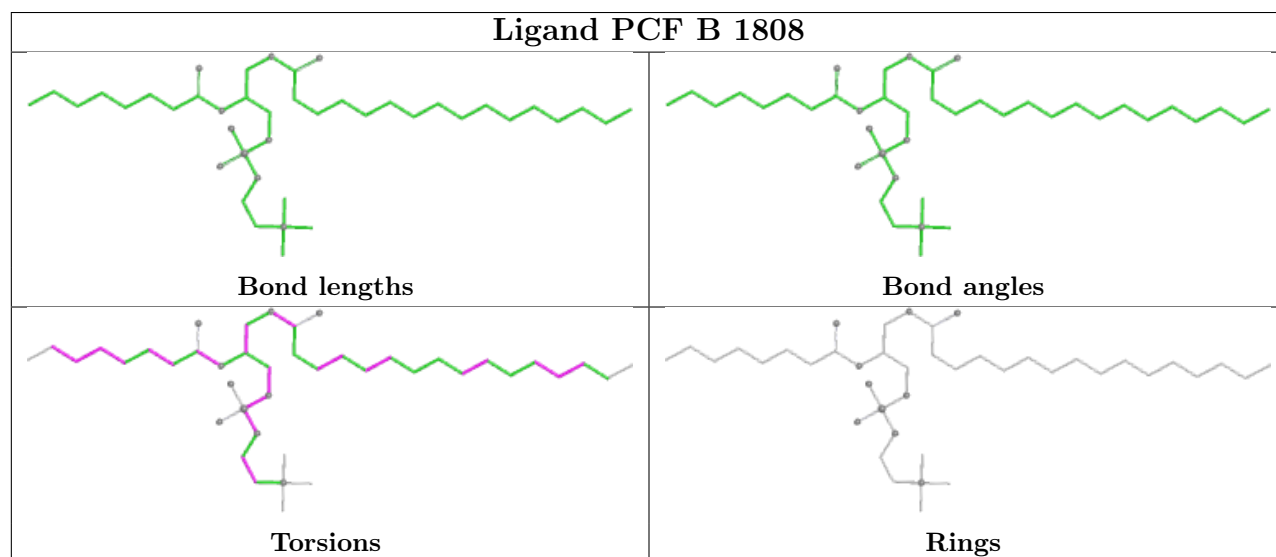
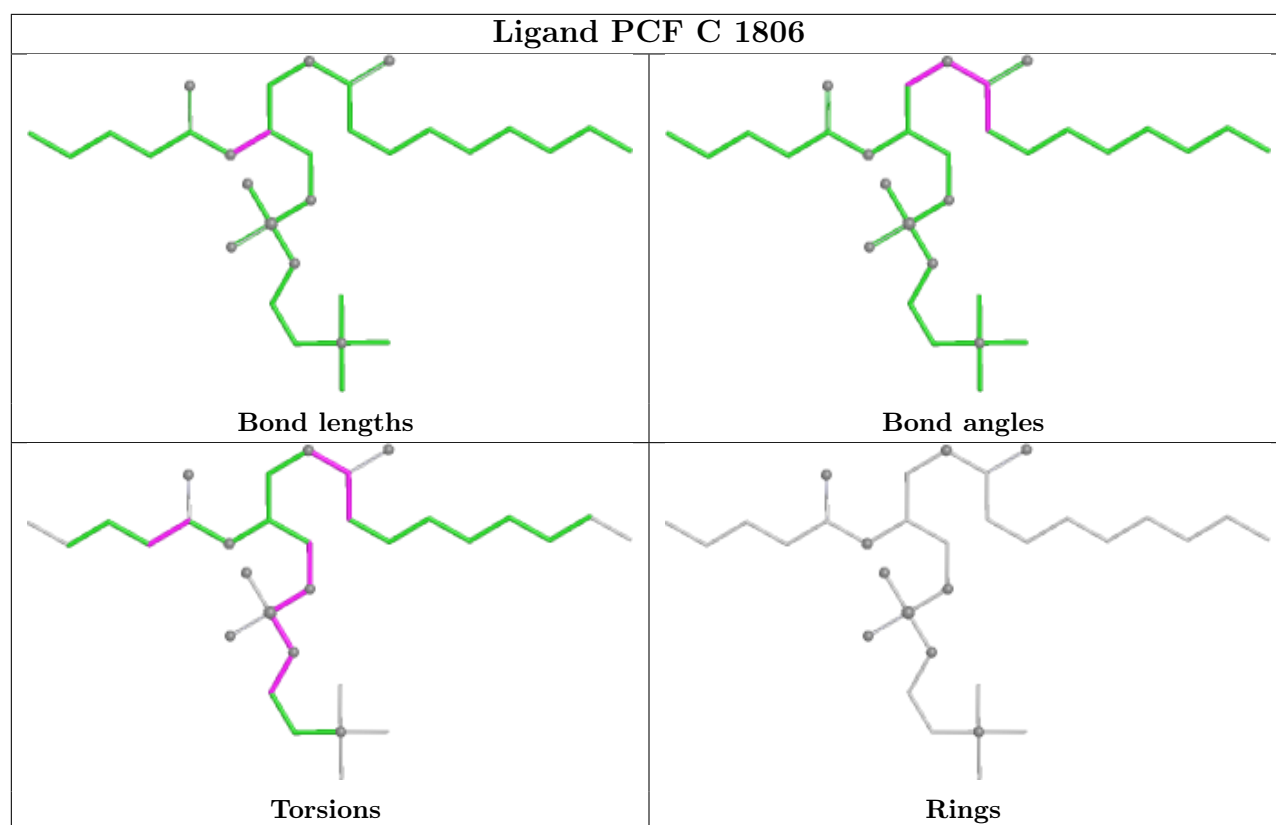


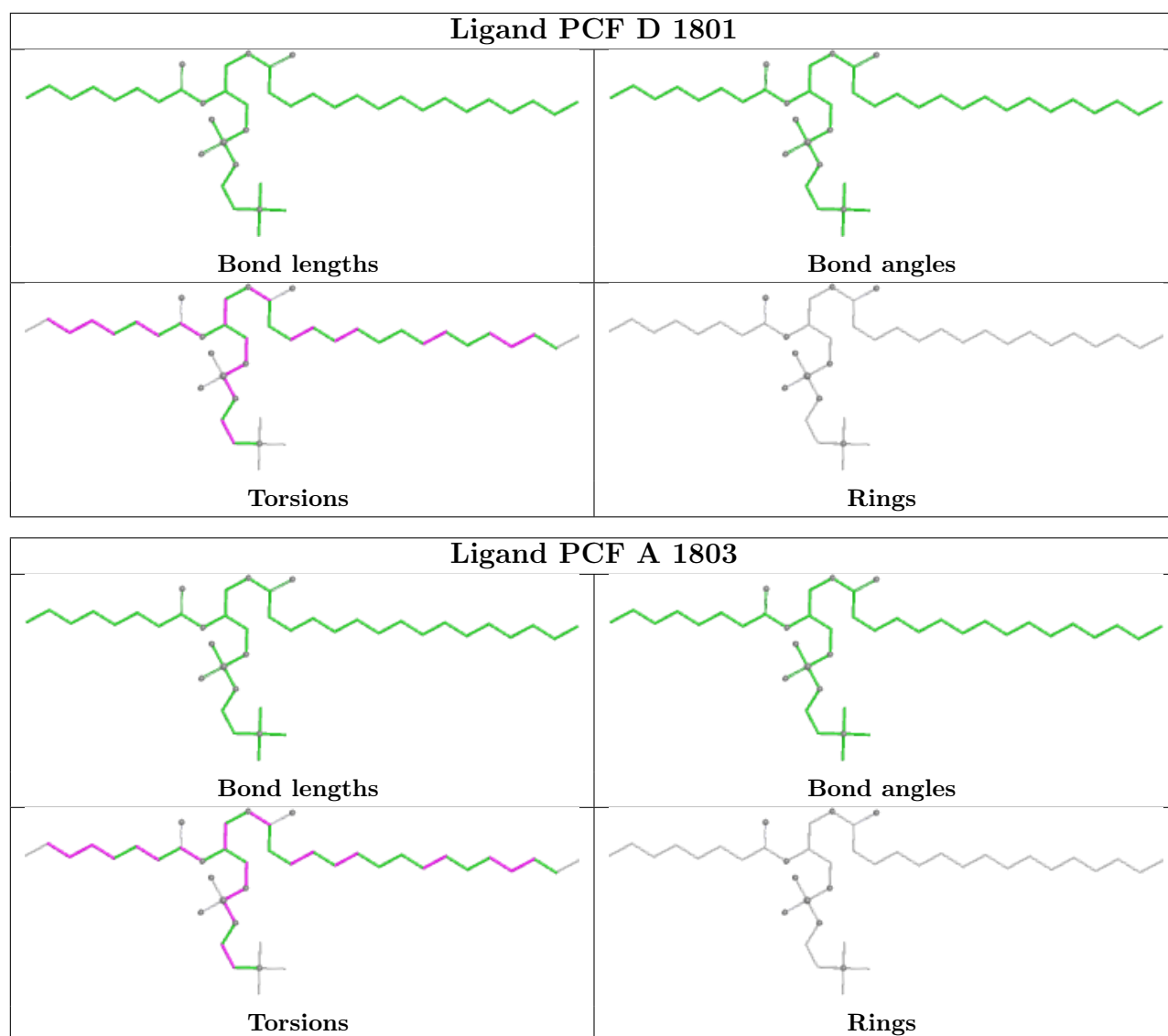


Ligand PCF C 1802	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand PCF A 1801	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand PCF C 1807	
	
Bond lengths	Bond angles
	
Torsions	Rings





## 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.

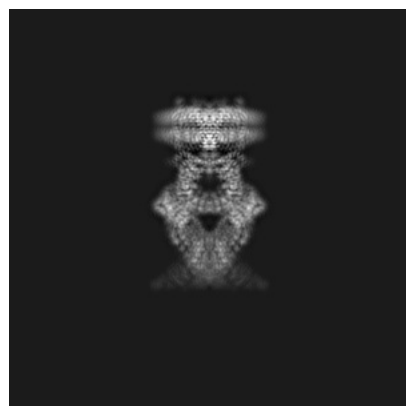
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-8702. These allow visual inspection of the internal detail of the map and identification of artifacts.

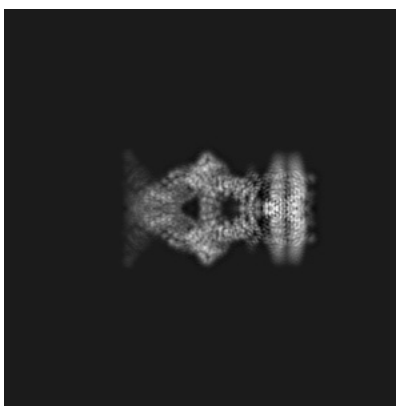
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

### 6.1 Orthogonal projections [i](#)

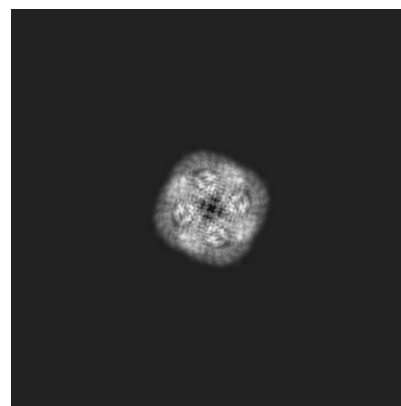
#### 6.1.1 Primary map



X

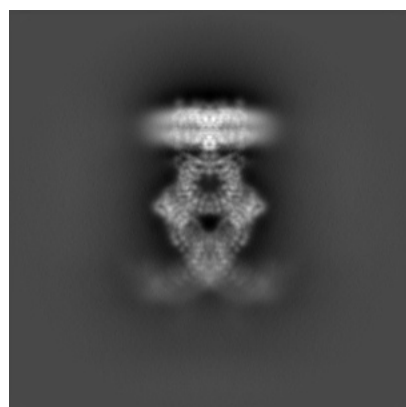


Y

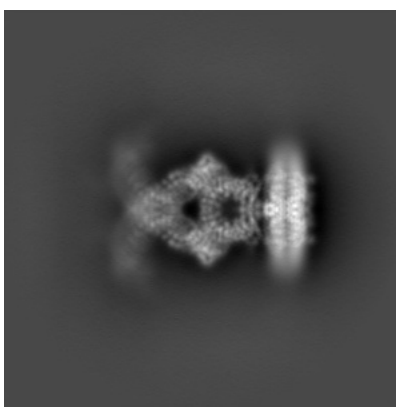


Z

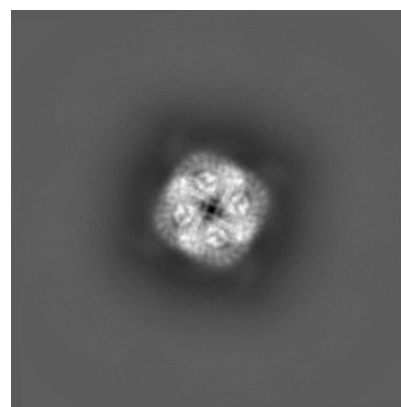
#### 6.1.2 Raw map



X



Y



Z

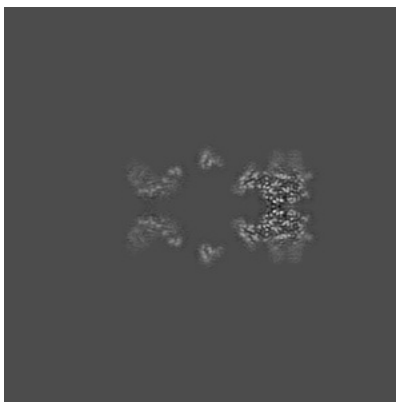
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

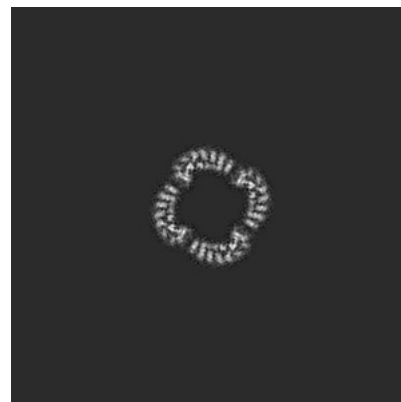
### 6.2.1 Primary map



X Index: 200

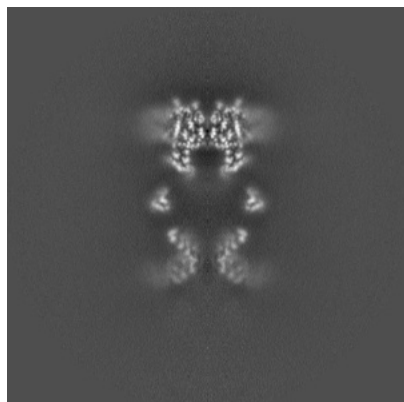


Y Index: 200

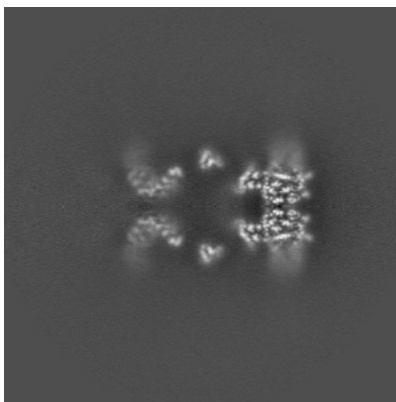


Z Index: 200

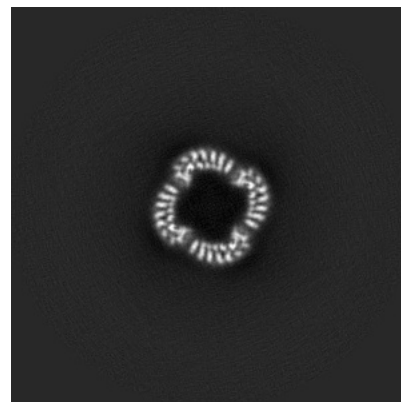
### 6.2.2 Raw map



X Index: 200



Y Index: 200

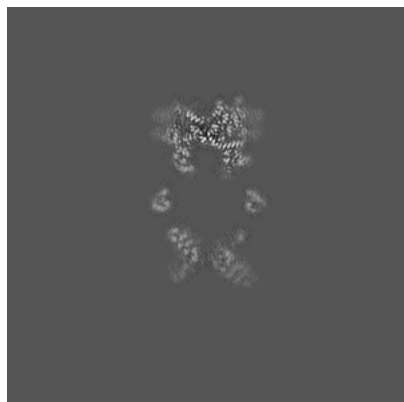


Z Index: 200

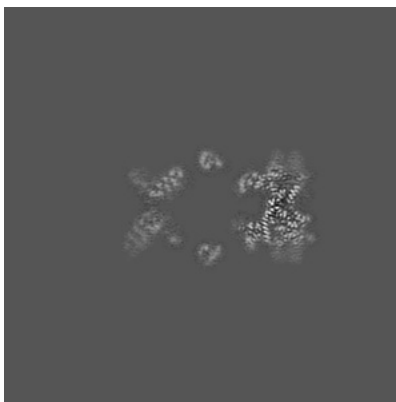
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

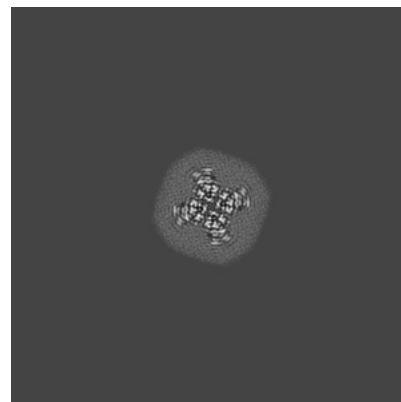
### 6.3.1 Primary map



X Index: 197

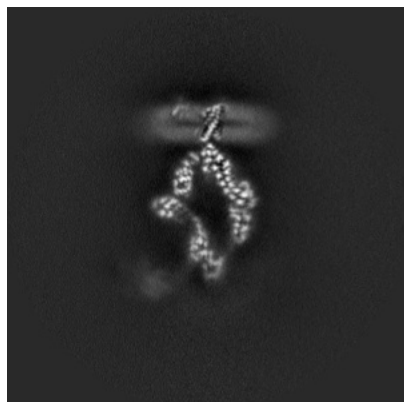


Y Index: 197

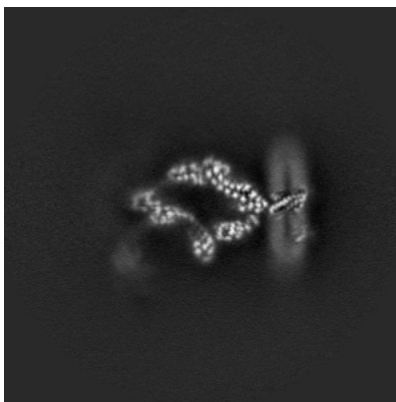


Z Index: 291

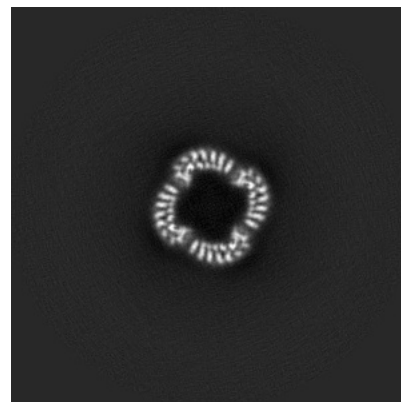
### 6.3.2 Raw map



X Index: 221



Y Index: 179

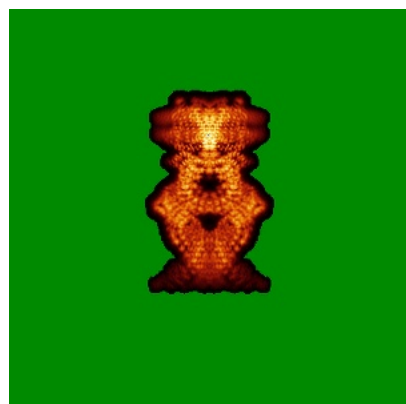


Z Index: 200

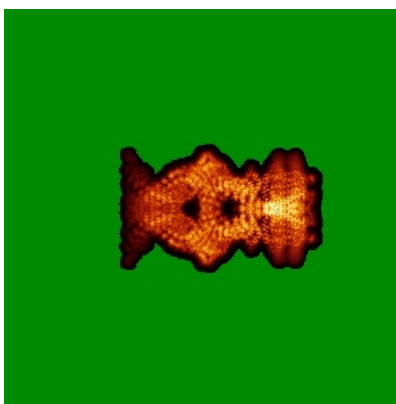
The images above show the largest variance slices of the map in three orthogonal directions.

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

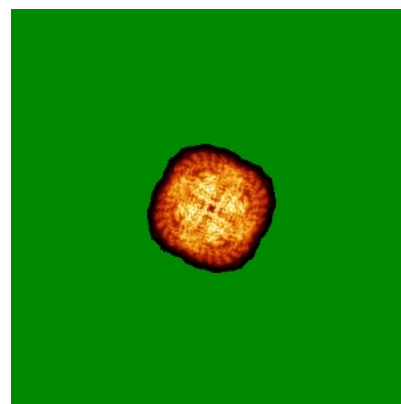
### 6.4.1 Primary map



X

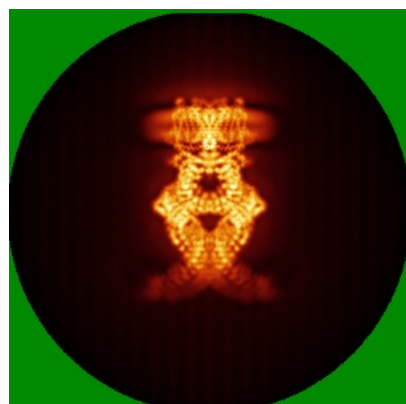


Y

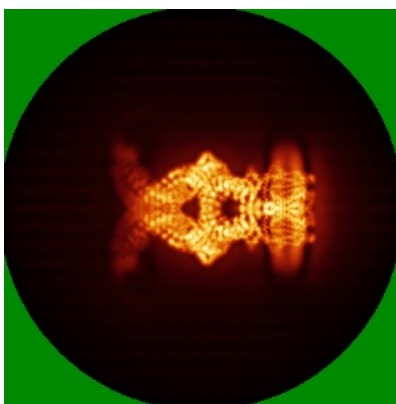


Z

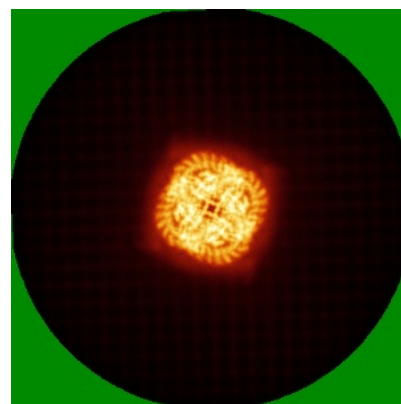
### 6.4.2 Raw map



X



Y

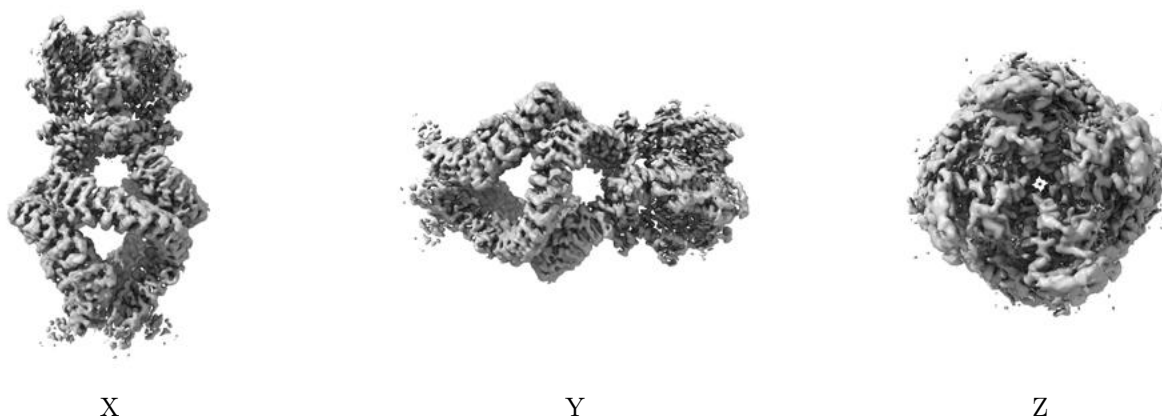


Z

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.

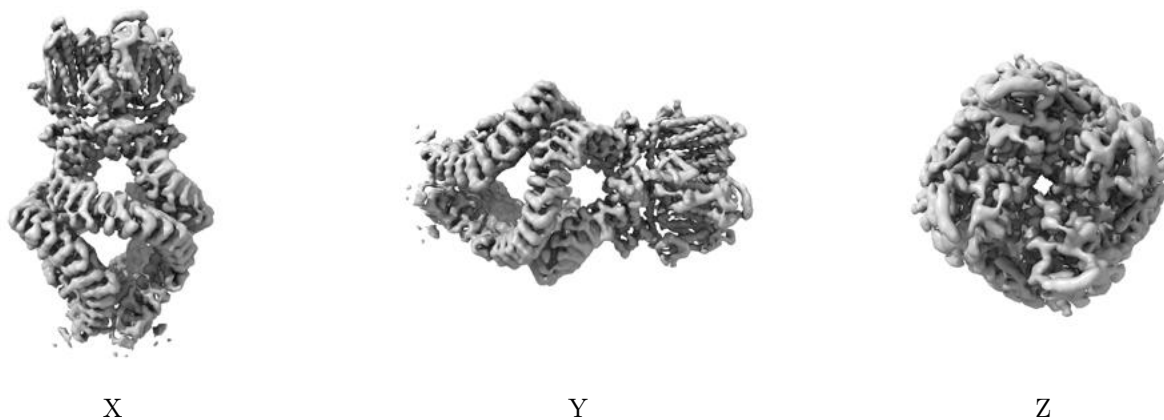
## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 10.0. 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.

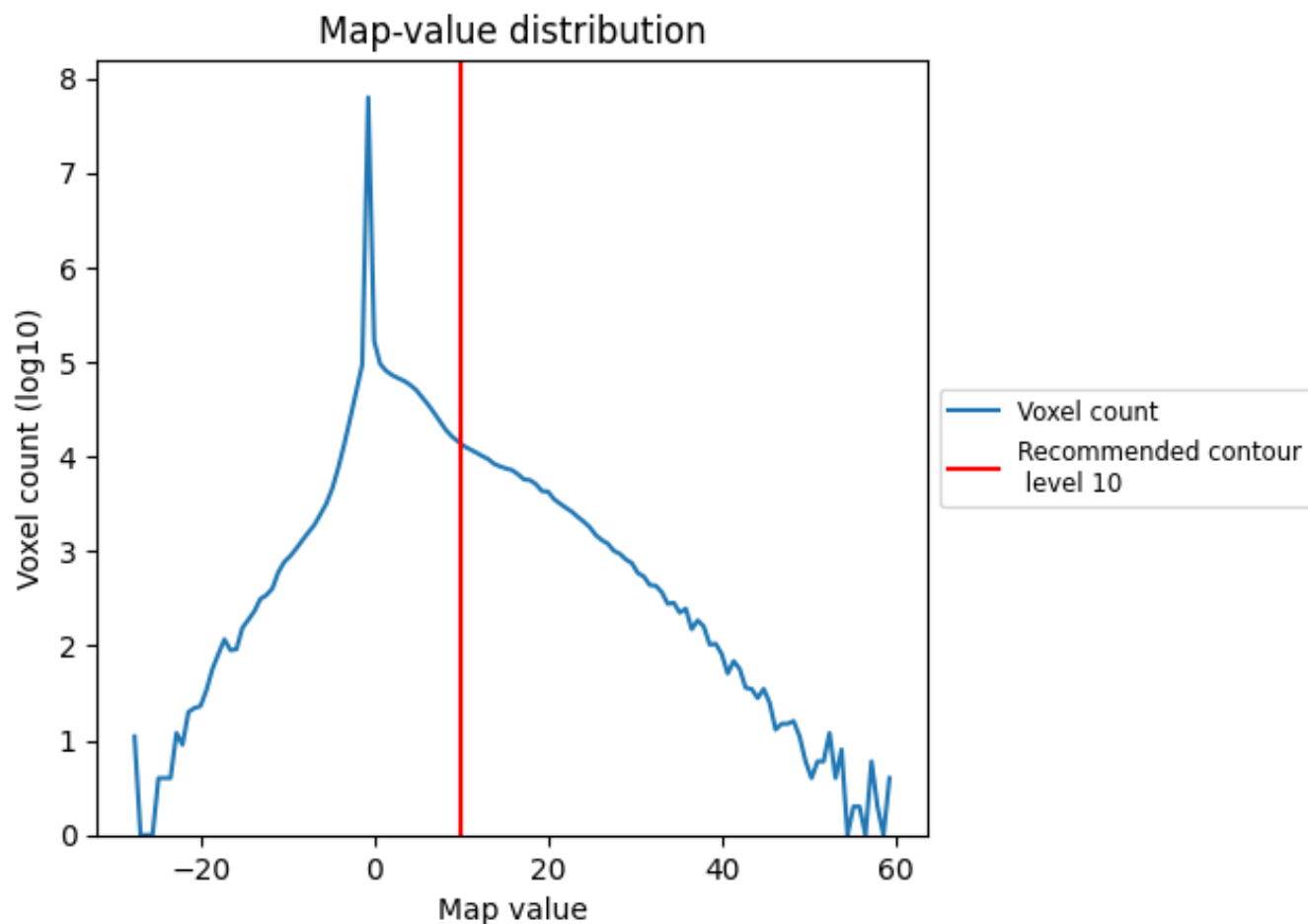
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

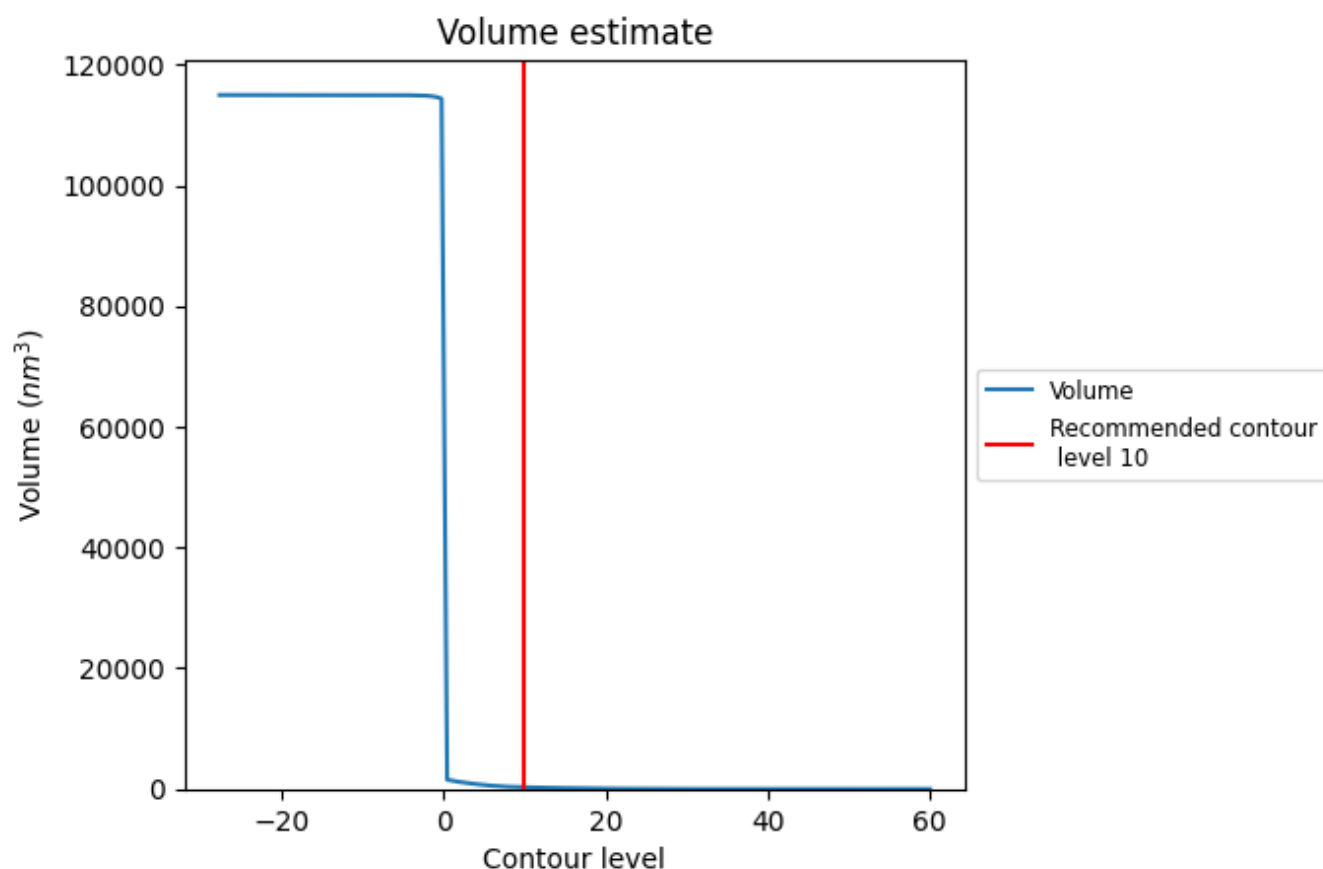
This section contains the results of statistical analysis of the map.

### 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.

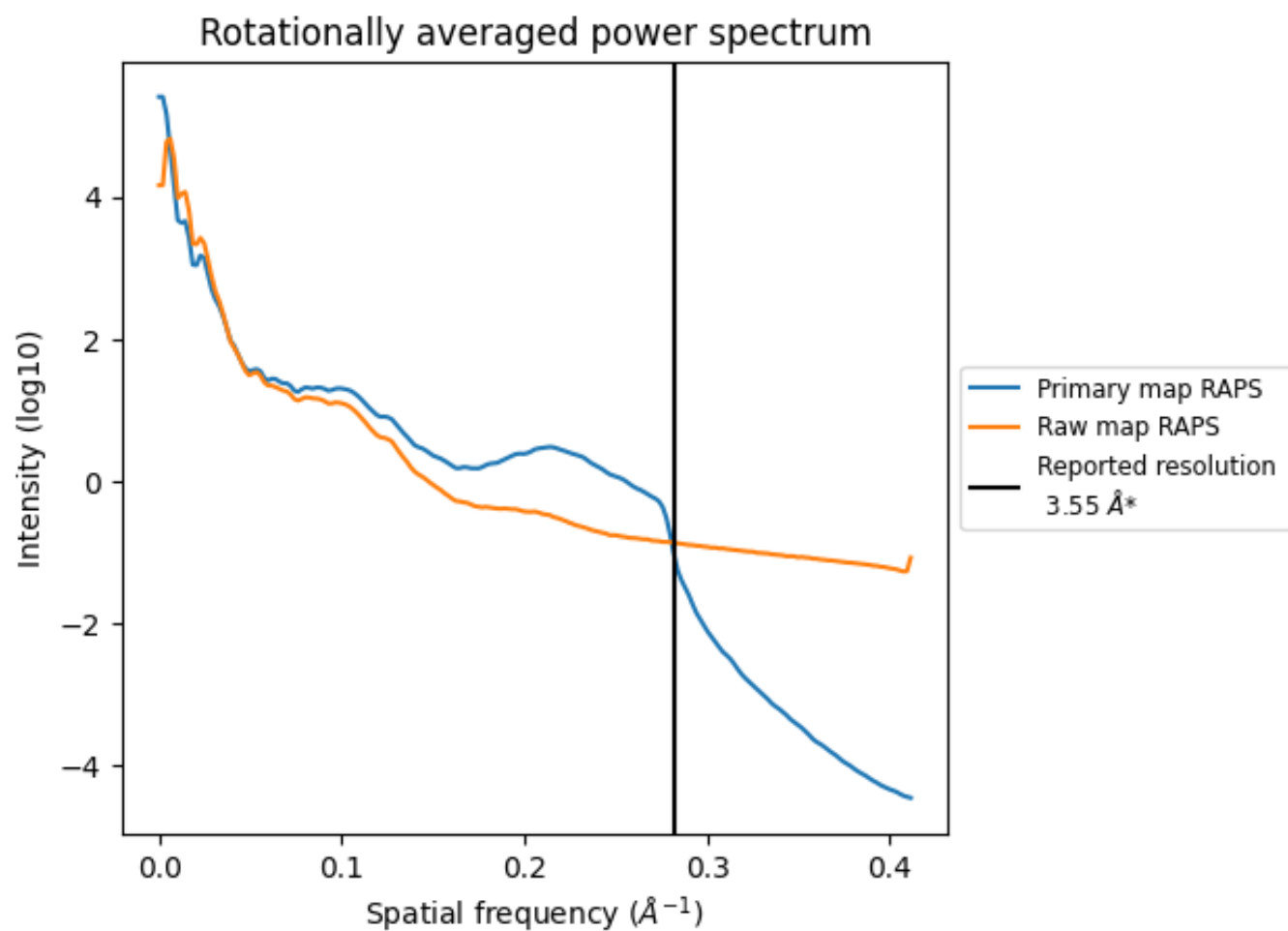
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 278 nm<sup>3</sup>; this corresponds to an approximate mass of 251 kDa.

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

### 7.3 Rotationally averaged power spectrum ⓘ

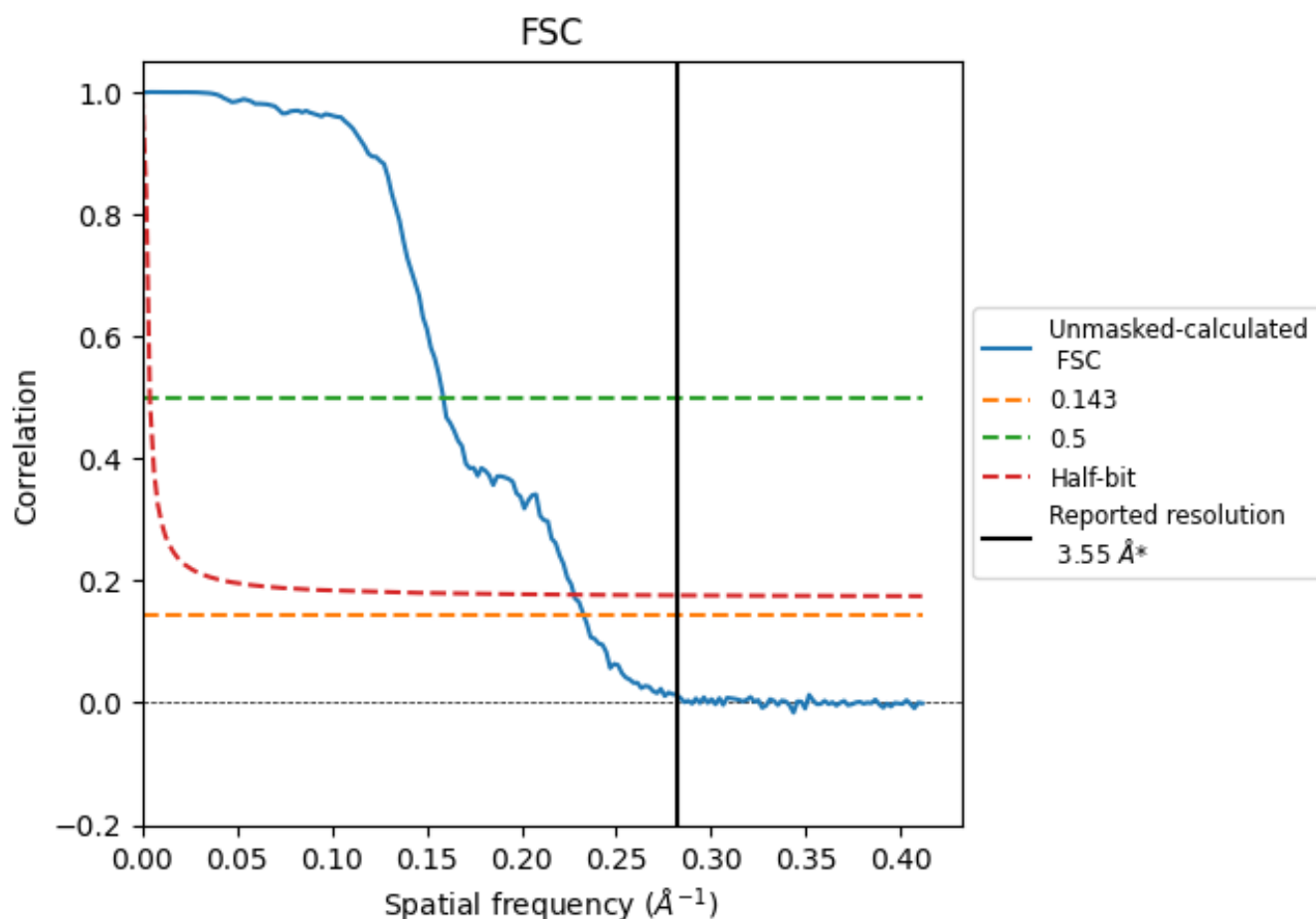


\*Reported resolution corresponds to spatial frequency of  $0.282 \text{ \AA}^{-1}$

## 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 0.282 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

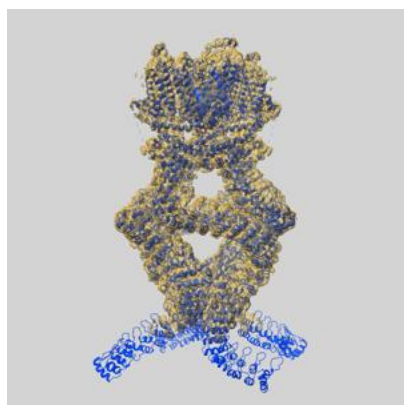
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.55	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	4.30	6.30	4.39

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.30 differs from the reported value 3.55 by more than 10 %

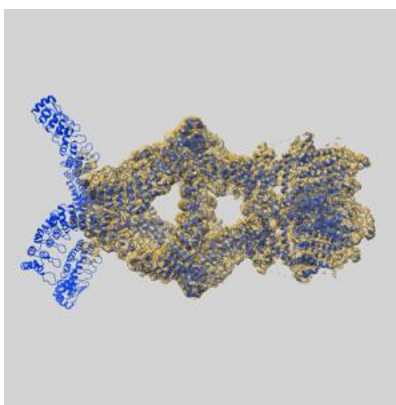
## 9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-8702 and PDB model 5VKQ. Per-residue inclusion information can be found in [section 3](#) on [page 7](#).

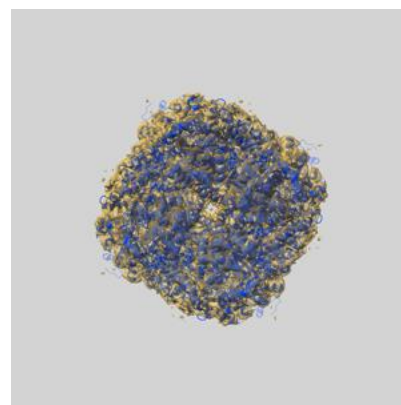
### 9.1 Map-model overlay [i](#)



X



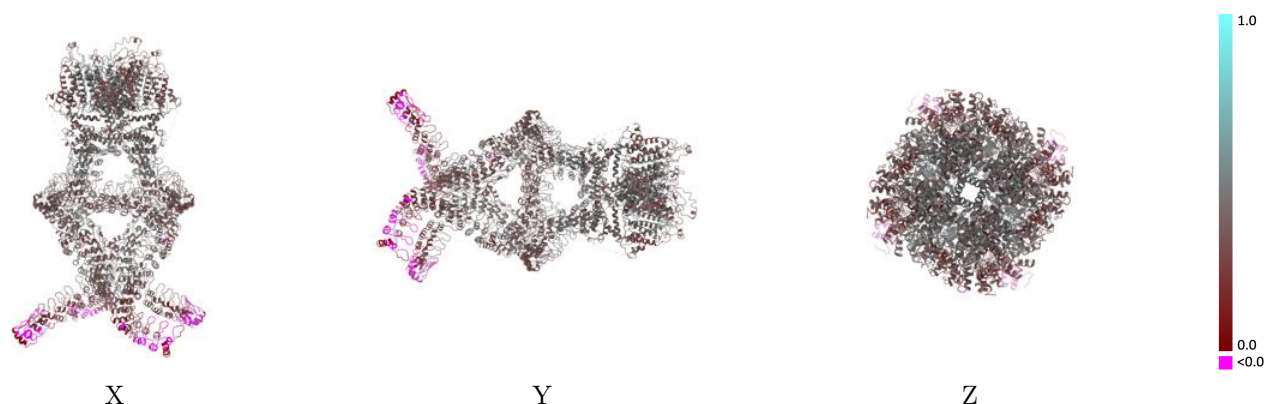
Y



Z

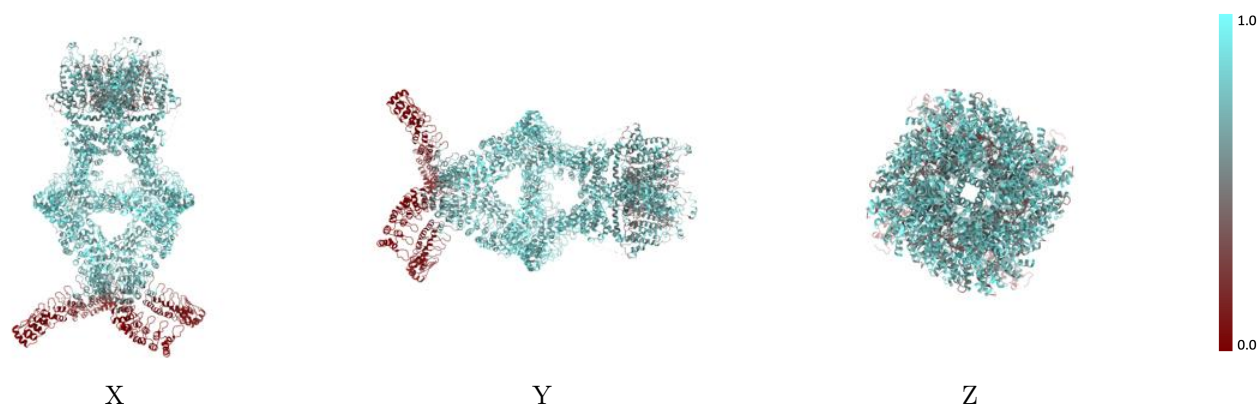
The images above show the 3D surface view of the map at the recommended contour level 10.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



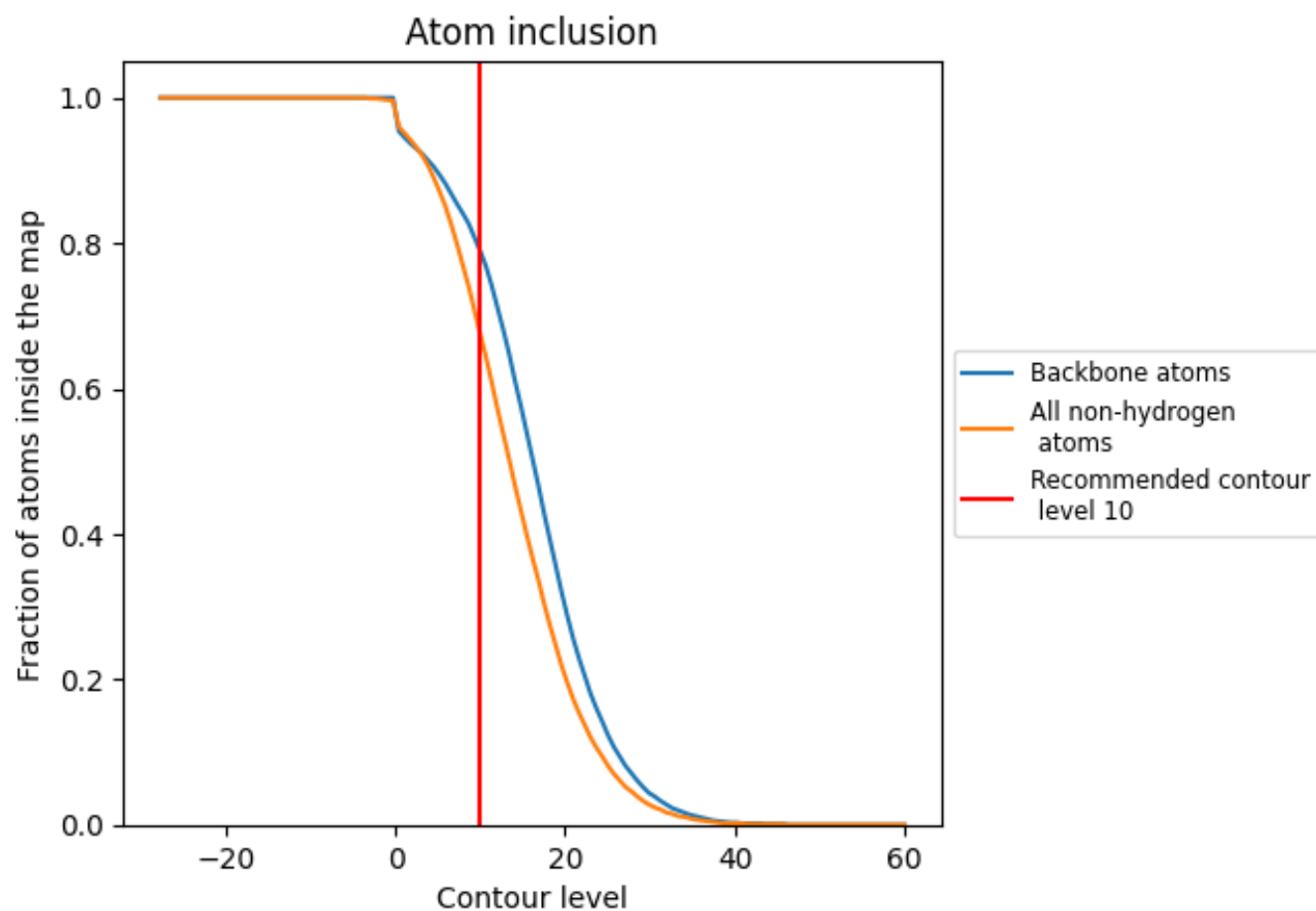
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (10).

## 9.4 Atom inclusion [i](#)



At the recommended contour level, 79% of all backbone atoms, 68% 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 (10) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	<div></div> 0.6750	<div></div> 0.3780
A	<div></div> 0.6740	<div></div> 0.3770
B	<div></div> 0.6780	<div></div> 0.3840
C	<div></div> 0.6750	<div></div> 0.3760
D	<div></div> 0.6750	<div></div> 0.3760

