Full wwPDB EM Validation Report

Nov 5, 2024 – 06:24 PM JST

PDB ID	:	8JC9
EMDB ID	:	EMD-36154
Title	:	Cryo-EM structure of the LH1 complex from thermochromatium tepidum
Authors	:	Wang, G.-L.; Yan, Y.-H.; Yu, L.-J.
Deposited on	:	2023-05-10
Resolution	:	3.32 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

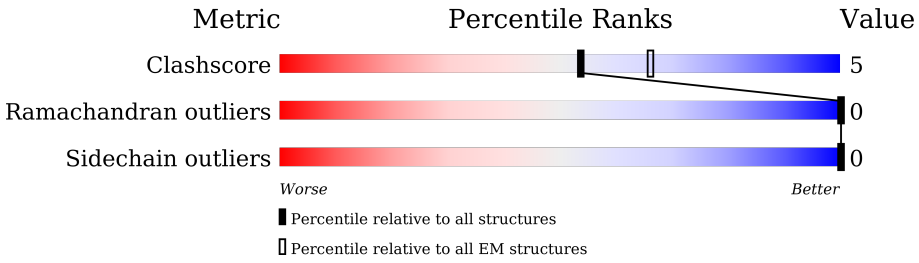
EMDB validation analysis	:	0.0.1.dev113
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

1 Overall quality at a glance

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

The reported resolution of this entry is 3.32 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=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	1	61	77% 8% 15%
1	3	61	80% 7% 13%
1	5	61	80% 5% 15%
1	7	61	5% 84% 13%
1	A	61	79% 7% 15%
1	D	61	5% 84% 13%
1	F	61	5% 80% 7% 13%
1	I	61	7% 79% 8% 13%

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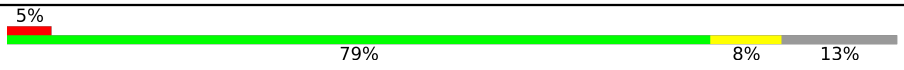
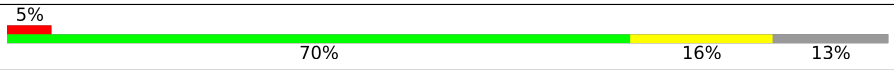
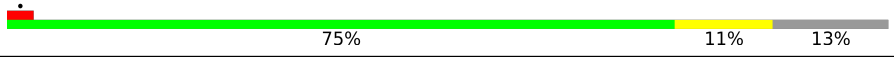
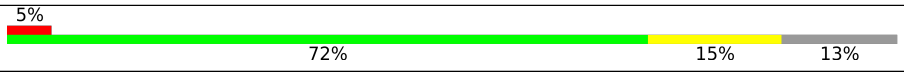
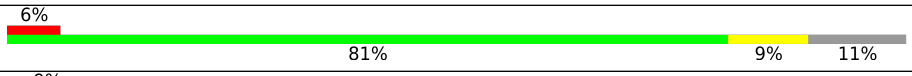
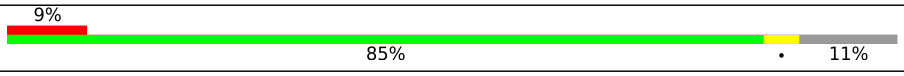
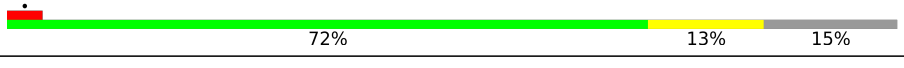
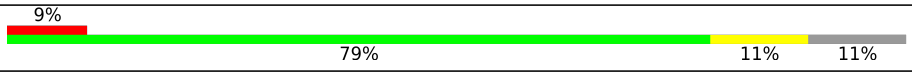
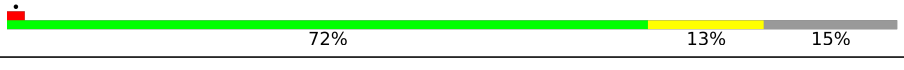
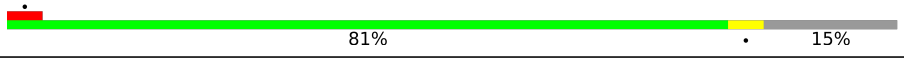
Mol	Chain	Length	Quality of chain
1	K	61	
1	O	61	
1	Q	61	
1	S	61	
1	U	61	
1	Y	61	
2	2	47	
2	4	47	
2	6	47	
2	8	47	
2	B	47	
2	E	47	
2	G	47	
2	J	47	
2	N	47	
2	P	47	
2	R	47	
2	T	47	
2	V	47	
2	Z	47	

2 Entry composition (i)

There are 6 unique types of molecules in this entry. The entry contains 13411 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 LH1 alpha polypeptide.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	1	52	Total	C	N	O	S	0	0
			422	282	68	71	1		
1	3	53	Total	C	N	O	S	0	0
			430	286	70	73	1		
1	5	52	Total	C	N	O	S	0	0
			422	282	68	71	1		
1	7	53	Total	C	N	O	S	0	0
			430	286	70	73	1		
1	A	52	Total	C	N	O	S	0	0
			422	282	68	71	1		
1	D	53	Total	C	N	O	S	0	0
			430	286	70	73	1		
1	F	53	Total	C	N	O	S	0	0
			430	286	70	73	1		
1	I	53	Total	C	N	O	S	0	0
			430	286	70	73	1		
1	K	53	Total	C	N	O	S	0	0
			430	286	70	73	1		
1	O	52	Total	C	N	O	S	0	0
			422	282	68	71	1		
1	Q	53	Total	C	N	O	S	0	0
			430	286	70	73	1		
1	S	53	Total	C	N	O	S	0	0
			430	286	70	73	1		
1	U	53	Total	C	N	O	S	0	0
			430	286	70	73	1		
1	Y	53	Total	C	N	O	S	0	0
			430	286	70	73	1		

- Molecule 2 is a protein called LH1 beta polypeptide.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	2	41	Total	C	N	O	S	0	0
			345	234	53	56	2		

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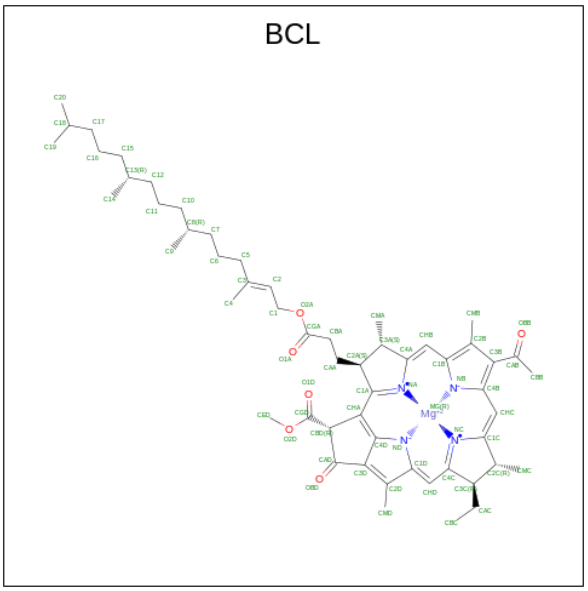
Mol	Chain	Residues	Atoms					AltConf	Trace
2	4	42	Total	C	N	O	S	0	0
			351	237	54	58	2		
2	6	42	Total	C	N	O	S	0	0
			351	237	54	58	2		
2	8	40	Total	C	N	O	S	0	0
			337	228	52	55	2		
2	B	40	Total	C	N	O	S	0	0
			337	228	52	55	2		
2	E	40	Total	C	N	O	S	0	0
			337	228	52	55	2		
2	G	42	Total	C	N	O	S	0	0
			351	237	54	58	2		
2	J	40	Total	C	N	O	S	0	0
			337	228	52	55	2		
2	N	40	Total	C	N	O	S	0	0
			337	228	52	55	2		
2	P	40	Total	C	N	O	S	0	0
			337	228	52	55	2		
2	R	40	Total	C	N	O	S	0	0
			337	228	52	55	2		
2	T	42	Total	C	N	O	S	0	0
			351	237	54	58	2		
2	V	40	Total	C	N	O	S	0	0
			337	228	52	55	2		
2	Z	40	Total	C	N	O	S	0	0
			337	228	52	55	2		

- Molecule 3 is BACTERIOCHLOROPHYLL A (three-letter code: BCL) (formula: $C_{55}H_{74}MgN_4O_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
3	1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	2	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	3	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	4	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	5	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	6	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	7	1	Total	C	Mg	N	O	0
			61	50	1	4	6	
3	8	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	A	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	B	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	D	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	E	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	F	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	G	1	Total	C	Mg	N	O	0
			66	55	1	4	6	

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Mol	Chain	Residues	Atoms					AltConf
3	I	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	J	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	K	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	N	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	O	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	P	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	Q	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	R	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	S	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	T	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	U	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	V	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	Y	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
3	Z	1	Total	C	Mg	N	O	0
			66	55	1	4	6	

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
4	1	1	Total	Ca	0
			1	1	
4	3	1	Total	Ca	0
			1	1	
4	5	1	Total	Ca	0
			1	1	
4	7	1	Total	Ca	0
			1	1	
4	A	1	Total	Ca	0
			1	1	

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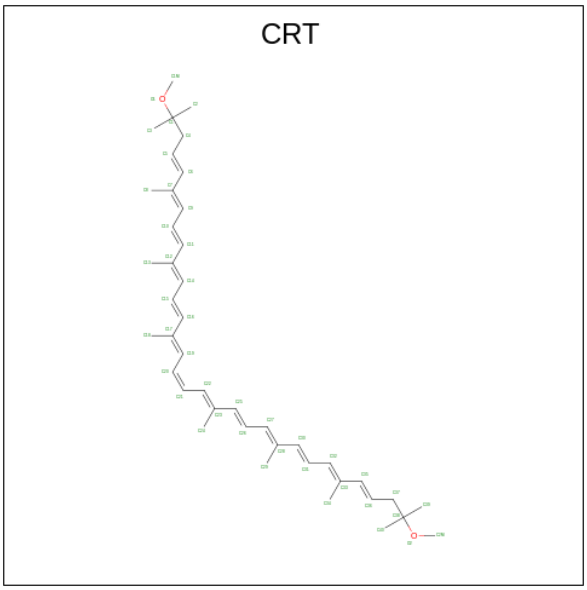
Mol	Chain	Residues	Atoms	AltConf
4	D	1	Total Ca 1 1	0
4	F	1	Total Ca 1 1	0
4	I	1	Total Ca 1 1	0
4	K	1	Total Ca 1 1	0
4	O	1	Total Ca 1 1	0
4	Q	1	Total Ca 1 1	0
4	S	1	Total Ca 1 1	0
4	U	1	Total Ca 1 1	0
4	Y	1	Total Ca 1 1	0

- Molecule 5 is SPIRILLOXANTHIN (three-letter code: CRT) (formula: $C_{42}H_{60}O_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	AltConf
5	1	1	Total C O 44 42 2	0
5	1	1	Total C O 44 42 2	0

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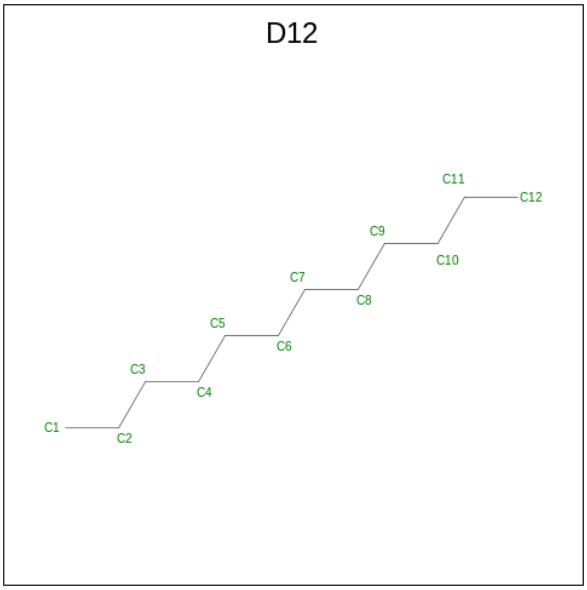
Mol	Chain	Residues	Atoms	AltConf
5	2	1	Total C O 44 42 2	0
5	7	1	Total C O 44 42 2	0
5	7	1	Total C O 44 42 2	0
5	A	1	Total C O 44 42 2	0
5	E	1	Total C O 44 42 2	0
5	I	1	Total C O 44 42 2	0
5	K	1	Total C O 44 42 2	0
5	K	1	Total C O 44 42 2	0
5	O	1	Total C O 44 42 2	0
5	S	1	Total C O 44 42 2	0
5	S	1	Total C O 44 42 2	0
5	Y	1	Total C O 44 42 2	0

- Molecule 6 is DODECANE (three-letter code: D12) (formula: $C_{12}H_{26}$).



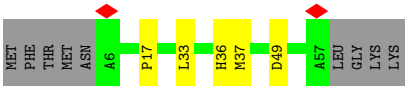
Mol	Chain	Residues	Atoms	AltConf
6	2	1	Total C 12 12	0
6	4	1	Total C 12 12	0
6	6	1	Total C 12 12	0
6	8	1	Total C 12 12	0
6	B	1	Total C 12 12	0
6	E	1	Total C 12 12	0
6	G	1	Total C 12 12	0
6	J	1	Total C 12 12	0
6	N	1	Total C 12 12	0
6	P	1	Total C 12 12	0
6	R	1	Total C 12 12	0
6	T	1	Total C 12 12	0
6	V	1	Total C 12 12	0
6	Z	1	Total C 12 12	0

3 Residue-property plots (i)

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

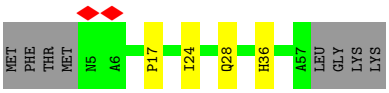
• Molecule 1: LH1 alpha polypeptide

Chain 1:



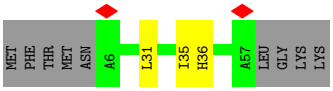
• Molecule 1: LH1 alpha polypeptide

Chain 3:



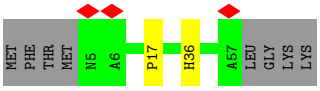
• Molecule 1: LH1 alpha polypeptide

Chain 5:



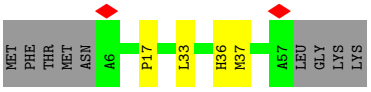
• Molecule 1: LH1 alpha polypeptide

Chain 7:



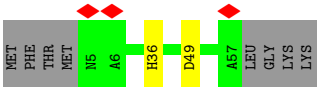
• Molecule 1: LH1 alpha polypeptide

Chain A:



• Molecule 1: LH1 alpha polypeptide

Chain D:

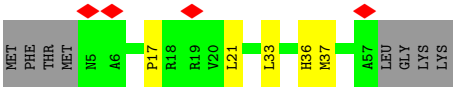


• Molecule 1: LH1 alpha polypeptide

Chain F:

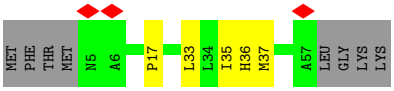
• Molecule 1: LH1 alpha polypeptide

Chain I:



• Molecule 1: LH1 alpha polypeptide

Chain K:

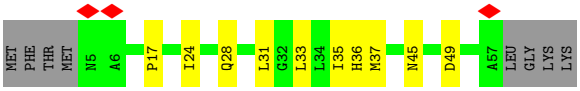


• Molecule 1: LH1 alpha polypeptide

Chain O:

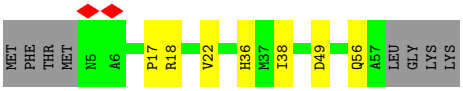
• Molecule 1: LH1 alpha polypeptide

Chain Q:



• Molecule 1: LH1 alpha polypeptide

Chain S:

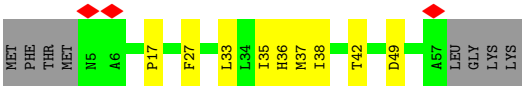


• Molecule 1: LH1 alpha polypeptide

Chain U:

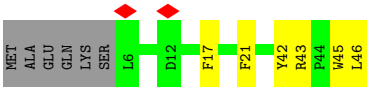
• Molecule 1: LH1 alpha polypeptide

Chain Y:



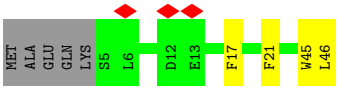
• Molecule 2: LH1 beta polypeptide

Chain 2:



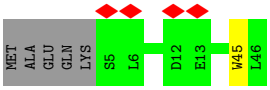
• Molecule 2: LH1 beta polypeptide

Chain 4:



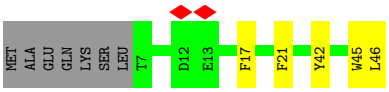
• Molecule 2: LH1 beta polypeptide

Chain 6:



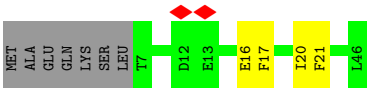
• Molecule 2: LH1 beta polypeptide

Chain 8:



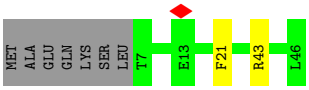
• Molecule 2: LH1 beta polypeptide

Chain B:



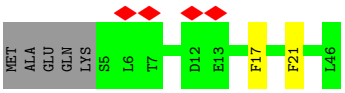
• Molecule 2: LH1 beta polypeptide

Chain E:



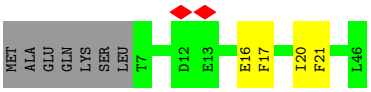
• Molecule 2: LH1 beta polypeptide

Chain G:



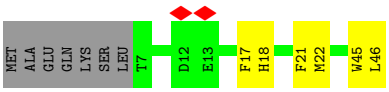
• Molecule 2: LH1 beta polypeptide

Chain J:



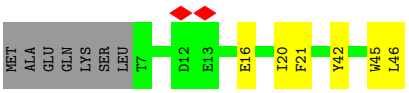
• Molecule 2: LH1 beta polypeptide

Chain N:



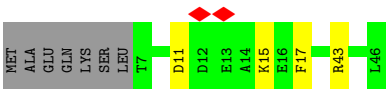
• Molecule 2: LH1 beta polypeptide

Chain P:



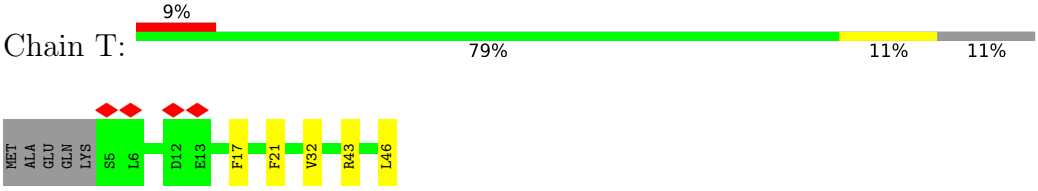
• Molecule 2: LH1 beta polypeptide

Chain R:



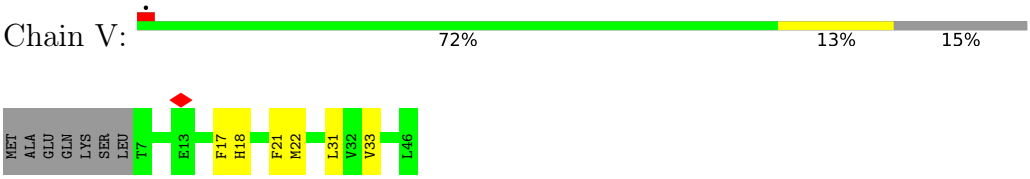
• Molecule 2: LH1 beta polypeptide

Chain T:



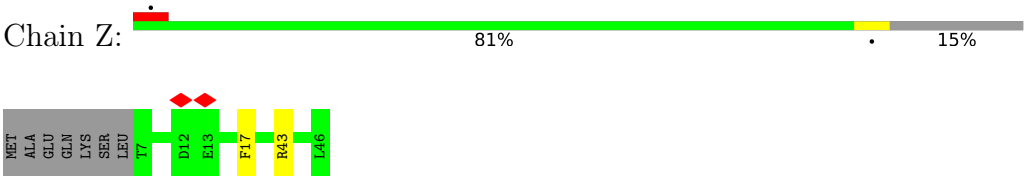
• Molecule 2: LH1 beta polypeptide

Chain V:



• Molecule 2: LH1 beta polypeptide

Chain Z:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	47987	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TALOS ARCTICA	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	63.2	Depositor
Minimum defocus (nm)	700	Depositor
Maximum defocus (nm)	2300	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	1.684	Depositor
Minimum map value	-1.113	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.035	Depositor
Recommended contour level	0.27	Depositor
Map size (Å)	320.4, 320.4, 320.4	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.89, 0.89, 0.89	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: CRT, CA, D12, BCL

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	1	0.24	0/431	0.44	0/591
1	3	0.23	0/439	0.41	0/602
1	5	0.23	0/431	0.42	0/591
1	7	0.23	0/439	0.43	0/602
1	A	0.23	0/431	0.42	0/591
1	D	0.24	0/439	0.46	0/602
1	F	0.23	0/439	0.41	0/602
1	I	0.24	0/439	0.44	0/602
1	K	0.24	0/439	0.48	0/602
1	O	0.24	0/431	0.44	0/591
1	Q	0.24	0/439	0.43	0/602
1	S	0.25	0/439	0.49	0/602
1	U	0.24	0/439	0.45	0/602
1	Y	0.24	0/439	0.42	0/602
2	2	0.25	0/358	0.41	0/487
2	4	0.25	0/364	0.38	0/495
2	6	0.25	0/364	0.38	0/495
2	8	0.26	0/350	0.38	0/476
2	B	0.26	0/350	0.40	0/476
2	E	0.26	0/350	0.41	0/476
2	G	0.25	0/364	0.42	0/495
2	J	0.26	0/350	0.38	0/476
2	N	0.25	0/350	0.38	0/476
2	P	0.25	0/350	0.40	0/476
2	R	0.25	0/350	0.39	0/476
2	T	0.25	0/364	0.39	0/495
2	V	0.26	0/350	0.39	0/476
2	Z	0.25	0/350	0.39	0/476
All	All	0.24	0/11078	0.42	0/15135

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1	422	0	446	5	0
1	3	430	0	452	3	0
1	5	422	0	446	2	0
1	7	430	0	452	2	0
1	A	422	0	446	4	0
1	D	430	0	452	2	0
1	F	430	0	452	3	0
1	I	430	0	452	5	0
1	K	430	0	452	4	0
1	O	422	0	446	4	0
1	Q	430	0	452	7	0
1	S	430	0	452	6	0
1	U	430	0	452	2	0
1	Y	430	0	452	7	0
2	2	345	0	334	5	0
2	4	351	0	339	3	0
2	6	351	0	339	1	0
2	8	337	0	323	4	0
2	B	337	0	323	3	0
2	E	337	0	323	2	0
2	G	351	0	339	2	0
2	J	337	0	323	4	0
2	N	337	0	323	4	0
2	P	337	0	323	4	0
2	R	337	0	323	3	0
2	T	351	0	339	5	0
2	V	337	0	323	5	0
2	Z	337	0	323	2	0
3	1	66	0	74	1	0
3	2	66	0	74	2	0
3	3	66	0	74	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	4	66	0	74	2	0
3	5	66	0	74	1	0
3	6	66	0	74	4	0
3	7	61	0	61	1	0
3	8	66	0	74	3	0
3	A	66	0	74	2	0
3	B	66	0	74	2	0
3	D	66	0	74	2	0
3	E	66	0	74	3	0
3	F	66	0	74	1	0
3	G	66	0	74	3	0
3	I	66	0	74	4	0
3	J	66	0	74	3	0
3	K	66	0	74	2	0
3	N	66	0	74	1	0
3	O	66	0	74	4	0
3	P	66	0	74	6	0
3	Q	66	0	74	4	0
3	R	66	0	74	2	0
3	S	66	0	74	0	0
3	T	66	0	74	3	0
3	U	66	0	74	2	0
3	V	66	0	74	3	0
3	Y	66	0	74	0	0
3	Z	66	0	74	3	0
4	1	1	0	0	0	0
4	3	1	0	0	0	0
4	5	1	0	0	0	0
4	7	1	0	0	0	0
4	A	1	0	0	0	0
4	D	1	0	0	0	0
4	F	1	0	0	0	0
4	I	1	0	0	0	0
4	K	1	0	0	0	0
4	O	1	0	0	0	0
4	Q	1	0	0	0	0
4	S	1	0	0	0	0
4	U	1	0	0	0	0
4	Y	1	0	0	0	0
5	1	88	0	120	5	0
5	2	44	0	60	1	0
5	7	88	0	120	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	A	44	0	60	3	0
5	E	44	0	60	3	0
5	I	44	0	60	3	0
5	K	88	0	120	4	0
5	O	44	0	60	5	0
5	S	88	0	120	3	0
5	Y	44	0	60	1	0
6	2	12	0	26	2	0
6	4	12	0	26	0	0
6	6	12	0	26	0	0
6	8	12	0	26	1	0
6	B	12	0	26	0	0
6	E	12	0	26	0	0
6	G	12	0	26	1	0
6	J	12	0	26	0	0
6	N	12	0	26	0	0
6	P	12	0	26	1	0
6	R	12	0	26	0	0
6	T	12	0	26	0	0
6	V	12	0	26	2	0
6	Z	12	0	26	0	0
All	All	13411	0	14164	137	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 5.

All (137) 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)
3:J:101:BCL:HMC3	3:K:102:BCL:HBB1	1.68	0.74
1:Y:49:ASP:OD2	2:Z:43:ARG:NH2	2.32	0.62
2:R:11:ASP:OD2	2:R:15:LYS:NZ	2.33	0.61
1:1:36:HIS:CE1	3:2:101:BCL:HMD1	2.38	0.58
1:D:36:HIS:CE1	3:E:102:BCL:HMD1	2.39	0.58
3:1:101:BCL:H171	1:Y:27:PHE:HB2	1.86	0.57
1:3:36:HIS:CE1	3:4:101:BCL:HMD1	2.38	0.57
1:U:36:HIS:CE1	3:V:102:BCL:HMD1	2.39	0.57
1:O:36:HIS:CE1	3:P:101:BCL:HMD1	2.41	0.56
1:1:49:ASP:OD2	2:2:43:ARG:NH2	2.39	0.55
1:1:33:LEU:O	1:1:37:MET:HG2	2.07	0.55
1:Q:49:ASP:OD2	2:R:43:ARG:NH2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:8:42:TYR:HB2	6:8:102:D12:H101	1.91	0.53
1:1:33:LEU:HD23	5:1:104:CRT:H36	1.91	0.52
1:I:33:LEU:O	1:I:37:MET:HG2	2.09	0.52
1:K:36:HIS:CE1	3:N:102:BCL:HMD1	2.45	0.52
1:O:16:ASP:HB2	1:O:19:ARG:HH21	1.74	0.51
3:T:101:BCL:HMB1	6:V:101:D12:H122	1.93	0.51
5:K:104:CRT:H35	3:Q:101:BCL:HMB2	1.92	0.51
1:A:33:LEU:O	1:A:37:MET:HG2	2.12	0.49
1:A:36:HIS:CE1	3:B:102:BCL:HMD1	2.46	0.49
1:S:49:ASP:OD2	2:T:43:ARG:NH2	2.45	0.49
3:G:102:BCL:HMC3	3:I:102:BCL:HBB1	1.94	0.49
1:F:36:HIS:CE1	3:G:102:BCL:HMD1	2.48	0.48
2:E:21:PHE:CE1	5:E:103:CRT:H16	2.48	0.48
1:I:17:PRO:HB3	2:J:17:PHE:CZ	2.49	0.48
5:S:104:CRT:H16	2:T:21:PHE:CE1	2.48	0.48
1:I:36:HIS:CE1	3:J:101:BCL:HMD1	2.49	0.48
1:F:31:LEU:O	1:F:35:ILE:HG13	2.14	0.48
5:O:101:CRT:H403	3:O:102:BCL:HMB2	1.94	0.48
3:2:101:BCL:H62	3:2:101:BCL:H41	1.58	0.47
1:S:36:HIS:CE1	3:T:101:BCL:HMD1	2.48	0.47
1:Q:45:ASN:HB3	1:S:56:GLN:HE21	1.78	0.47
1:5:36:HIS:CE1	3:6:101:BCL:HMD1	2.50	0.47
3:8:101:BCL:H18	3:8:101:BCL:H152	1.56	0.47
1:D:49:ASP:OD2	2:E:43:ARG:NH2	2.48	0.47
1:3:17:PRO:HB3	2:4:17:PHE:CZ	2.50	0.47
5:1:104:CRT:H401	1:Y:35:ILE:HG12	1.97	0.47
2:T:46:LEU:HD13	6:V:101:D12:H41	1.97	0.47
1:Y:33:LEU:O	1:Y:37:MET:HG2	2.15	0.47
3:A:102:BCL:CBB	3:A:102:BCL:HMB1	2.45	0.47
1:O:36:HIS:CG	5:O:101:CRT:H372	2.50	0.47
1:S:17:PRO:HB3	2:T:17:PHE:CZ	2.51	0.46
2:V:18:HIS:O	2:V:22:MET:HG2	2.15	0.46
1:Y:36:HIS:CE1	3:Z:101:BCL:HMD1	2.51	0.46
3:J:101:BCL:H93	3:J:101:BCL:H111	1.79	0.46
3:4:101:BCL:HAA1	3:4:101:BCL:H2	1.96	0.46
3:G:102:BCL:H143	3:G:102:BCL:H162	1.85	0.45
3:O:102:BCL:H41	3:O:102:BCL:H62	1.80	0.45
1:Q:36:HIS:CE1	3:R:101:BCL:HMD1	2.51	0.45
3:V:102:BCL:H62	3:V:102:BCL:H41	1.77	0.45
1:7:36:HIS:CE1	3:8:101:BCL:HMD1	2.52	0.45
3:Q:101:BCL:H93	3:Q:101:BCL:H62	1.74	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:21:PHE:CE1	5:K:101:CRT:H16	2.52	0.45
3:P:101:BCL:H92	3:P:101:BCL:H61	1.78	0.45
1:S:18:ARG:O	1:S:22:VAL:HG23	2.17	0.45
1:A:17:PRO:HB3	2:B:17:PHE:CZ	2.52	0.44
1:1:17:PRO:HB3	2:2:17:PHE:CZ	2.52	0.44
1:K:33:LEU:O	1:K:37:MET:HG2	2.17	0.44
3:O:102:BCL:HMB1	3:O:102:BCL:HBB2	1.99	0.44
3:P:101:BCL:H91	3:P:101:BCL:H111	1.74	0.44
5:7:104:CRT:H36	5:7:104:CRT:H341	1.86	0.44
1:F:17:PRO:HB3	2:G:17:PHE:CZ	2.52	0.44
2:T:32:VAL:HG11	3:T:101:BCL:HAA1	2.00	0.44
1:Y:17:PRO:HB3	2:Z:17:PHE:CZ	2.52	0.44
5:A:101:CRT:H36	5:A:101:CRT:H341	1.85	0.44
2:2:21:PHE:CE1	5:2:102:CRT:H16	2.53	0.44
5:I:101:CRT:H35	3:I:102:BCL:HHB	1.99	0.44
1:K:17:PRO:HB3	2:N:17:PHE:CZ	2.52	0.44
2:8:21:PHE:CE1	5:A:101:CRT:H16	2.52	0.43
2:P:42:TYR:HB2	6:P:102:D12:H101	1.99	0.43
5:7:104:CRT:H16	2:B:21:PHE:CE1	2.53	0.43
2:8:45:TRP:CD1	2:8:46:LEU:HG	2.53	0.43
3:A:102:BCL:HHD	3:A:102:BCL:HAC1	1.88	0.43
2:4:45:TRP:CD1	2:4:46:LEU:HG	2.53	0.43
3:Z:101:BCL:H62	3:Z:101:BCL:H41	1.72	0.43
1:I:21:LEU:HD11	2:J:17:PHE:HZ	1.83	0.43
3:K:102:BCL:H193	3:K:102:BCL:H162	1.83	0.43
2:V:21:PHE:CE1	5:Y:101:CRT:H16	2.53	0.43
1:3:24:ILE:O	1:3:28:GLN:HG2	2.19	0.43
2:P:45:TRP:CD1	2:P:46:LEU:HG	2.54	0.43
3:8:101:BCL:H152	3:8:101:BCL:H112	1.44	0.43
5:1:104:CRT:H36	5:1:104:CRT:H341	1.78	0.43
3:E:102:BCL:H112	3:E:102:BCL:H151	1.39	0.43
3:I:102:BCL:H192	3:I:102:BCL:H162	1.87	0.43
1:Q:17:PRO:HB3	2:R:17:PHE:CZ	2.54	0.43
5:E:103:CRT:H36	5:E:103:CRT:H341	1.87	0.42
3:I:102:BCL:H111	3:I:102:BCL:H72	1.77	0.42
1:Q:33:LEU:O	1:Q:37:MET:HG2	2.20	0.42
6:2:103:D12:H12	3:Z:101:BCL:HMB1	2.00	0.42
1:U:17:PRO:HB3	2:V:17:PHE:CZ	2.54	0.42
2:N:18:HIS:O	2:N:22:MET:HG2	2.19	0.42
3:R:101:BCL:H143	3:R:101:BCL:H161	1.81	0.42
2:N:45:TRP:CD1	2:N:46:LEU:HG	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:38:ILE:O	1:Y:42:THR:HG23	2.19	0.42
1:K:35:ILE:HG12	5:O:101:CRT:H401	2.01	0.42
5:K:104:CRT:H371	3:Q:101:BCL:HMB2	2.00	0.42
5:1:103:CRT:H16	2:4:21:PHE:CE1	2.55	0.42
3:P:101:BCL:H111	3:P:101:BCL:H142	1.83	0.42
3:O:102:BCL:HMB1	3:O:102:BCL:CBB	2.49	0.42
3:U:101:BCL:H8	3:U:101:BCL:H51	1.90	0.42
3:6:101:BCL:H93	3:6:101:BCL:H62	1.81	0.42
1:I:36:HIS:CG	5:I:101:CRT:H372	2.55	0.42
1:Q:24:ILE:O	1:Q:28:GLN:HG2	2.20	0.42
1:S:38:ILE:HD13	5:S:104:CRT:H391	2.01	0.41
1:5:31:LEU:O	1:5:35:ILE:HG13	2.19	0.41
3:E:102:BCL:HMB1	6:G:101:D12:H122	2.03	0.41
3:F:101:BCL:CBB	3:F:101:BCL:HMB1	2.50	0.41
1:7:17:PRO:HB3	2:8:17:PHE:CZ	2.55	0.41
2:B:16:GLU:O	2:B:20:ILE:HG13	2.21	0.41
2:V:33:VAL:HG22	3:V:102:BCL:H92	2.02	0.41
5:O:101:CRT:H36	5:O:101:CRT:H341	1.79	0.41
3:U:101:BCL:H41	3:U:101:BCL:H62	1.81	0.41
3:3:101:BCL:HHD	3:3:101:BCL:HAC1	1.84	0.41
3:P:101:BCL:HMC3	3:Q:101:BCL:HBB1	2.01	0.41
2:V:31:LEU:HD23	2:V:31:LEU:HA	1.92	0.41
3:6:101:BCL:H141	3:6:101:BCL:H162	1.75	0.41
3:B:102:BCL:H92	3:B:102:BCL:H62	1.82	0.41
5:1:103:CRT:H341	5:1:103:CRT:H36	1.86	0.41
2:2:45:TRP:CD1	2:2:46:LEU:HG	2.56	0.41
5:7:104:CRT:H292	3:D:101:BCL:H112	2.02	0.41
2:N:21:PHE:CE1	5:O:101:CRT:H16	2.56	0.41
3:P:101:BCL:H141	3:P:101:BCL:H161	1.77	0.41
3:D:101:BCL:HHD	3:D:101:BCL:HAC1	1.83	0.40
2:G:21:PHE:CE1	5:I:101:CRT:H16	2.56	0.40
1:Q:31:LEU:O	1:Q:35:ILE:HG13	2.21	0.40
2:6:45:TRP:HZ2	3:6:101:BCL:H13	1.86	0.40
1:A:33:LEU:HD23	5:A:101:CRT:H36	2.02	0.40
5:K:104:CRT:H16	2:P:21:PHE:CE1	2.56	0.40
2:P:16:GLU:O	2:P:20:ILE:HG13	2.22	0.40
2:2:42:TYR:HB2	6:2:103:D12:H91	2.03	0.40
5:S:104:CRT:H36	5:S:104:CRT:H341	1.85	0.40
3:5:101:BCL:CBB	3:5:101:BCL:HMB1	2.51	0.40
3:7:102:BCL:HHD	3:7:102:BCL:HAC1	1.92	0.40
5:E:103:CRT:H26	5:E:103:CRT:H241	1.97	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:16:GLU:O	2:J:20:ILE:HG13	2.21	0.40
1:O:33:LEU:O	1:O:37:MET:HG2	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	1	50/61 (82%)	50 (100%)	0	0	100	100
1	3	51/61 (84%)	49 (96%)	2 (4%)	0	100	100
1	5	50/61 (82%)	48 (96%)	2 (4%)	0	100	100
1	7	51/61 (84%)	50 (98%)	1 (2%)	0	100	100
1	A	50/61 (82%)	46 (92%)	4 (8%)	0	100	100
1	D	51/61 (84%)	48 (94%)	3 (6%)	0	100	100
1	F	51/61 (84%)	48 (94%)	3 (6%)	0	100	100
1	I	51/61 (84%)	48 (94%)	3 (6%)	0	100	100
1	K	51/61 (84%)	50 (98%)	1 (2%)	0	100	100
1	O	50/61 (82%)	47 (94%)	3 (6%)	0	100	100
1	Q	51/61 (84%)	49 (96%)	2 (4%)	0	100	100
1	S	51/61 (84%)	49 (96%)	2 (4%)	0	100	100
1	U	51/61 (84%)	48 (94%)	3 (6%)	0	100	100
1	Y	51/61 (84%)	49 (96%)	2 (4%)	0	100	100
2	2	39/47 (83%)	38 (97%)	1 (3%)	0	100	100
2	4	40/47 (85%)	40 (100%)	0	0	100	100
2	6	40/47 (85%)	38 (95%)	2 (5%)	0	100	100
2	8	38/47 (81%)	37 (97%)	1 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	B	38/47 (81%)	37 (97%)	1 (3%)	0	100	100
2	E	38/47 (81%)	36 (95%)	2 (5%)	0	100	100
2	G	40/47 (85%)	39 (98%)	1 (2%)	0	100	100
2	J	38/47 (81%)	37 (97%)	1 (3%)	0	100	100
2	N	38/47 (81%)	36 (95%)	2 (5%)	0	100	100
2	P	38/47 (81%)	36 (95%)	2 (5%)	0	100	100
2	R	38/47 (81%)	36 (95%)	2 (5%)	0	100	100
2	T	40/47 (85%)	39 (98%)	1 (2%)	0	100	100
2	V	38/47 (81%)	36 (95%)	2 (5%)	0	100	100
2	Z	38/47 (81%)	37 (97%)	1 (3%)	0	100	100
All	All	1251/1512 (83%)	1201 (96%)	50 (4%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	1	48/56 (86%)	48 (100%)	0	100	100
1	3	49/56 (88%)	49 (100%)	0	100	100
1	5	48/56 (86%)	48 (100%)	0	100	100
1	7	49/56 (88%)	49 (100%)	0	100	100
1	A	48/56 (86%)	48 (100%)	0	100	100
1	D	49/56 (88%)	49 (100%)	0	100	100
1	F	49/56 (88%)	49 (100%)	0	100	100
1	I	49/56 (88%)	49 (100%)	0	100	100
1	K	49/56 (88%)	49 (100%)	0	100	100
1	O	48/56 (86%)	48 (100%)	0	100	100
1	Q	49/56 (88%)	49 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	S	49/56 (88%)	49 (100%)	0	100	100
1	U	49/56 (88%)	49 (100%)	0	100	100
1	Y	49/56 (88%)	49 (100%)	0	100	100
2	2	34/39 (87%)	34 (100%)	0	100	100
2	4	35/39 (90%)	35 (100%)	0	100	100
2	6	35/39 (90%)	35 (100%)	0	100	100
2	8	33/39 (85%)	33 (100%)	0	100	100
2	B	33/39 (85%)	33 (100%)	0	100	100
2	E	33/39 (85%)	33 (100%)	0	100	100
2	G	35/39 (90%)	35 (100%)	0	100	100
2	J	33/39 (85%)	33 (100%)	0	100	100
2	N	33/39 (85%)	33 (100%)	0	100	100
2	P	33/39 (85%)	33 (100%)	0	100	100
2	R	33/39 (85%)	33 (100%)	0	100	100
2	T	35/39 (90%)	35 (100%)	0	100	100
2	V	33/39 (85%)	33 (100%)	0	100	100
2	Z	33/39 (85%)	33 (100%)	0	100	100
All	All	1153/1330 (87%)	1153 (100%)	0	100	100

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

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 70 ligands modelled in this entry, 14 are monoatomic - leaving 56 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
5	CRT	1	104	-	41,43,43	1.96	12 (29%)	50,54,54	1.74	13 (26%)
6	D12	R	102	-	11,11,11	0.09	0	10,10,10	0.13	0
6	D12	G	101	-	11,11,11	0.10	0	10,10,10	0.06	0
3	BCL	P	101	-	64,74,74	1.71	11 (17%)	78,115,115	2.06	20 (25%)
3	BCL	A	102	-	64,74,74	1.68	14 (21%)	78,115,115	2.15	15 (19%)
3	BCL	K	102	-	64,74,74	1.72	14 (21%)	78,115,115	2.22	18 (23%)
6	D12	6	102	-	11,11,11	0.09	0	10,10,10	0.08	0
3	BCL	4	101	-	64,74,74	1.71	12 (18%)	78,115,115	2.09	20 (25%)
3	BCL	7	102	-	59,69,74	1.77	13 (22%)	72,109,115	2.42	21 (29%)
6	D12	N	101	-	11,11,11	0.10	0	10,10,10	0.07	0
6	D12	T	102	-	11,11,11	0.09	0	10,10,10	0.09	0
3	BCL	D	101	-	64,74,74	1.68	14 (21%)	78,115,115	2.14	16 (20%)
5	CRT	K	101	-	41,43,43	1.98	12 (29%)	50,54,54	1.71	13 (26%)
3	BCL	2	101	-	64,74,74	1.71	12 (18%)	78,115,115	2.10	21 (26%)
3	BCL	T	101	-	64,74,74	1.71	12 (18%)	78,115,115	2.21	23 (29%)
6	D12	V	101	-	11,11,11	0.10	0	10,10,10	0.08	0
3	BCL	Z	101	-	64,74,74	1.71	13 (20%)	78,115,115	2.09	20 (25%)
6	D12	8	102	-	11,11,11	0.09	0	10,10,10	0.11	0
5	CRT	E	103	-	41,43,43	1.98	12 (29%)	50,54,54	1.76	14 (28%)
5	CRT	1	103	-	41,43,43	1.98	12 (29%)	50,54,54	1.71	13 (26%)
3	BCL	E	102	-	64,74,74	1.71	12 (18%)	78,115,115	2.08	22 (28%)
3	BCL	3	101	-	64,74,74	1.69	14 (21%)	78,115,115	2.13	17 (21%)
6	D12	E	101	-	11,11,11	0.09	0	10,10,10	0.07	0
5	CRT	S	104	-	41,43,43	1.97	12 (29%)	50,54,54	1.71	13 (26%)
3	BCL	8	101	-	64,74,74	1.69	10 (15%)	78,115,115	2.03	20 (25%)
3	BCL	O	102	-	64,74,74	1.67	12 (18%)	78,115,115	2.00	17 (21%)
5	CRT	K	104	-	41,43,43	1.97	12 (29%)	50,54,54	1.70	14 (28%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
5	CRT	7	104	-	41,43,43	1.99	12 (29%)	50,54,54	1.72	14 (28%)
6	D12	2	103	-	11,11,11	0.09	0	10,10,10	0.09	0
3	BCL	F	101	-	64,74,74	1.69	14 (21%)	78,115,115	2.12	18 (23%)
3	BCL	J	101	-	64,74,74	1.69	13 (20%)	78,115,115	2.07	22 (28%)
6	D12	4	102	-	11,11,11	0.09	0	10,10,10	0.08	0
3	BCL	S	102	-	64,74,74	1.70	13 (20%)	78,115,115	2.25	16 (20%)
3	BCL	N	102	-	64,74,74	1.68	12 (18%)	78,115,115	2.08	21 (26%)
5	CRT	Y	101	-	41,43,43	1.98	12 (29%)	50,54,54	1.71	14 (28%)
3	BCL	B	102	-	64,74,74	1.71	12 (18%)	78,115,115	2.13	21 (26%)
3	BCL	G	102	-	64,74,74	1.66	11 (17%)	78,115,115	2.14	20 (25%)
3	BCL	Y	102	-	64,74,74	1.69	14 (21%)	78,115,115	2.12	18 (23%)
5	CRT	A	101	-	41,43,43	1.98	12 (29%)	50,54,54	1.72	14 (28%)
5	CRT	2	102	-	41,43,43	1.98	12 (29%)	50,54,54	1.71	14 (28%)
3	BCL	V	102	-	64,74,74	1.72	13 (20%)	78,115,115	2.15	20 (25%)
5	CRT	I	101	-	41,43,43	1.97	12 (29%)	50,54,54	1.73	13 (26%)
5	CRT	S	101	-	41,43,43	1.97	12 (29%)	50,54,54	1.76	13 (26%)
3	BCL	6	101	-	64,74,74	1.71	12 (18%)	78,115,115	2.09	20 (25%)
6	D12	Z	102	-	11,11,11	0.09	0	10,10,10	0.08	0
5	CRT	O	101	-	41,43,43	1.97	12 (29%)	50,54,54	1.70	13 (26%)
3	BCL	Q	101	-	64,74,74	1.70	13 (20%)	78,115,115	2.13	18 (23%)
3	BCL	5	101	-	64,74,74	1.69	13 (20%)	78,115,115	2.14	16 (20%)
5	CRT	7	101	-	41,43,43	1.97	12 (29%)	50,54,54	1.74	14 (28%)
3	BCL	R	101	-	64,74,74	1.66	12 (18%)	78,115,115	2.12	22 (28%)
6	D12	B	101	-	11,11,11	0.09	0	10,10,10	0.08	0
3	BCL	1	101	-	64,74,74	1.69	14 (21%)	78,115,115	2.15	20 (25%)
6	D12	J	102	-	11,11,11	0.09	0	10,10,10	0.12	0
3	BCL	U	101	-	64,74,74	1.65	11 (17%)	78,115,115	2.01	17 (21%)
3	BCL	I	102	-	64,74,74	1.73	13 (20%)	78,115,115	2.15	19 (24%)
6	D12	P	102	-	11,11,11	0.09	0	10,10,10	0.08	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
5	CRT	1	104	-	-	0/51/51/51	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
6	D12	R	102	-	-	0/9/9/9	-
6	D12	G	101	-	-	0/9/9/9	-
3	BCL	P	101	-	-	18/37/137/137	-
3	BCL	A	102	-	-	12/37/137/137	-
3	BCL	K	102	-	-	8/37/137/137	-
6	D12	6	102	-	-	0/9/9/9	-
3	BCL	4	101	-	-	21/37/137/137	-
3	BCL	7	102	-	-	12/31/131/137	-
6	D12	N	101	-	-	0/9/9/9	-
6	D12	T	102	-	-	0/9/9/9	-
3	BCL	D	101	-	-	5/37/137/137	-
5	CRT	K	101	-	-	0/51/51/51	-
3	BCL	2	101	-	-	17/37/137/137	-
3	BCL	T	101	-	-	20/37/137/137	-
6	D12	V	101	-	-	0/9/9/9	-
3	BCL	Z	101	-	-	18/37/137/137	-
6	D12	8	102	-	-	0/9/9/9	-
5	CRT	E	103	-	-	1/51/51/51	-
5	CRT	1	103	-	-	0/51/51/51	-
3	BCL	E	102	-	-	23/37/137/137	-
3	BCL	3	101	-	-	11/37/137/137	-
6	D12	E	101	-	-	1/9/9/9	-
5	CRT	S	104	-	-	0/51/51/51	-
3	BCL	8	101	-	-	23/37/137/137	-
3	BCL	O	102	-	-	17/37/137/137	-
5	CRT	K	104	-	-	0/51/51/51	-
5	CRT	7	104	-	-	0/51/51/51	-
6	D12	2	103	-	-	1/9/9/9	-
3	BCL	F	101	-	-	5/37/137/137	-
3	BCL	J	101	-	-	20/37/137/137	-
6	D12	4	102	-	-	0/9/9/9	-
3	BCL	S	102	-	-	16/37/137/137	-
3	BCL	N	102	-	-	18/37/137/137	-
5	CRT	Y	101	-	-	0/51/51/51	-
3	BCL	B	102	-	-	22/37/137/137	-
3	BCL	G	102	-	-	24/37/137/137	-
3	BCL	Y	102	-	-	10/37/137/137	-
5	CRT	A	101	-	-	0/51/51/51	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	CRT	2	102	-	-	0/51/51/51	-
3	BCL	V	102	-	-	22/37/137/137	-
5	CRT	I	101	-	-	0/51/51/51	-
5	CRT	S	101	-	-	1/51/51/51	-
3	BCL	6	101	-	-	18/37/137/137	-
6	D12	Z	102	-	-	1/9/9/9	-
5	CRT	O	101	-	-	0/51/51/51	-
3	BCL	Q	101	-	-	12/37/137/137	-
3	BCL	5	101	-	-	6/37/137/137	-
5	CRT	7	101	-	-	3/51/51/51	-
3	BCL	R	101	-	-	23/37/137/137	-
6	D12	B	101	-	-	0/9/9/9	-
3	BCL	1	101	-	-	11/37/137/137	-
6	D12	J	102	-	-	0/9/9/9	-
3	BCL	U	101	-	-	5/37/137/137	-
3	BCL	I	102	-	-	9/37/137/137	-
6	D12	P	102	-	-	0/9/9/9	-

All (521) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	I	102	BCL	C3D-C4D	-5.19	1.32	1.44
3	5	101	BCL	C3D-C4D	-5.16	1.32	1.44
3	O	102	BCL	C3D-C4D	-5.16	1.32	1.44
3	7	102	BCL	C3D-C4D	-5.14	1.32	1.44
3	U	101	BCL	C3D-C4D	-5.14	1.32	1.44
3	Q	101	BCL	C3D-C4D	-5.12	1.32	1.44
3	1	101	BCL	C3D-C4D	-5.11	1.32	1.44
3	F	101	BCL	C3D-C4D	-5.10	1.32	1.44
3	S	102	BCL	C3D-C4D	-5.10	1.32	1.44
3	K	102	BCL	C3D-C4D	-5.10	1.32	1.44
3	3	101	BCL	C3D-C4D	-5.07	1.32	1.44
3	Y	102	BCL	C3D-C4D	-5.05	1.32	1.44
3	D	101	BCL	C3D-C4D	-5.04	1.32	1.44
3	A	102	BCL	C3D-C4D	-5.04	1.32	1.44
3	E	102	BCL	C3B-C2B	4.92	1.48	1.39
3	J	101	BCL	C3B-C2B	4.90	1.48	1.39
3	4	101	BCL	C3B-C2B	4.90	1.48	1.39
3	2	101	BCL	C3B-C2B	4.89	1.48	1.39
3	R	101	BCL	C3D-C4D	-4.88	1.33	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	8	101	BCL	C3D-C4D	-4.87	1.33	1.44
3	Z	101	BCL	C3D-C4D	-4.87	1.33	1.44
3	Z	101	BCL	C3B-C2B	4.87	1.48	1.39
3	T	101	BCL	C3D-C4D	-4.86	1.33	1.44
3	6	101	BCL	C3D-C4D	-4.83	1.33	1.44
3	B	102	BCL	C3B-C2B	4.82	1.48	1.39
3	V	102	BCL	C3D-C4D	-4.82	1.33	1.44
3	T	101	BCL	C3B-C2B	4.81	1.48	1.39
3	V	102	BCL	O2D-CGD	4.80	1.44	1.33
3	J	101	BCL	C3D-C4D	-4.79	1.33	1.44
3	2	101	BCL	O2D-CGD	4.78	1.44	1.33
3	P	101	BCL	C3B-C2B	4.78	1.48	1.39
3	6	101	BCL	C3B-C2B	4.78	1.48	1.39
3	6	101	BCL	O2D-CGD	4.78	1.44	1.33
3	P	101	BCL	O2D-CGD	4.77	1.44	1.33
3	P	101	BCL	C3D-C4D	-4.77	1.33	1.44
3	E	102	BCL	C3D-C4D	-4.76	1.33	1.44
3	E	102	BCL	O2D-CGD	4.76	1.44	1.33
3	N	102	BCL	C3D-C4D	-4.75	1.33	1.44
3	B	102	BCL	C3D-C4D	-4.75	1.33	1.44
3	J	101	BCL	O2D-CGD	4.75	1.44	1.33
3	Z	101	BCL	O2D-CGD	4.75	1.44	1.33
3	8	101	BCL	O2D-CGD	4.74	1.44	1.33
3	T	101	BCL	O2D-CGD	4.73	1.44	1.33
3	2	101	BCL	C3D-C4D	-4.73	1.33	1.44
3	4	101	BCL	C3D-C4D	-4.72	1.33	1.44
3	N	102	BCL	O2D-CGD	4.72	1.44	1.33
3	G	102	BCL	C3B-C2B	4.69	1.47	1.39
3	K	102	BCL	C3B-C2B	4.67	1.47	1.39
3	G	102	BCL	C3D-C4D	-4.67	1.33	1.44
3	G	102	BCL	O2D-CGD	4.67	1.44	1.33
3	B	102	BCL	O2D-CGD	4.65	1.44	1.33
3	R	101	BCL	O2D-CGD	4.62	1.44	1.33
3	7	102	BCL	C3B-C2B	4.62	1.47	1.39
3	S	102	BCL	O2D-CGD	4.59	1.44	1.33
3	Y	102	BCL	O2D-CGD	4.58	1.44	1.33
3	1	101	BCL	O2D-CGD	4.56	1.44	1.33
3	S	102	BCL	C3B-C2B	4.56	1.47	1.39
3	5	101	BCL	O2D-CGD	4.55	1.44	1.33
3	I	102	BCL	O2D-CGD	4.55	1.44	1.33
3	F	101	BCL	O2D-CGD	4.55	1.44	1.33
3	4	101	BCL	O2D-CGD	4.55	1.44	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	3	101	BCL	O2D-CGD	4.54	1.44	1.33
3	A	102	BCL	O2D-CGD	4.53	1.44	1.33
3	7	102	BCL	O2D-CGD	4.53	1.44	1.33
3	Q	101	BCL	O2D-CGD	4.53	1.44	1.33
3	D	101	BCL	O2D-CGD	4.52	1.44	1.33
3	K	102	BCL	O2D-CGD	4.52	1.44	1.33
3	O	102	BCL	O2D-CGD	4.52	1.44	1.33
3	V	102	BCL	C1D-ND	-4.52	1.32	1.37
3	U	101	BCL	O2D-CGD	4.51	1.44	1.33
3	8	101	BCL	C3B-C2B	4.49	1.47	1.39
3	V	102	BCL	C3B-C2B	4.46	1.47	1.39
3	R	101	BCL	C3B-C2B	4.41	1.47	1.39
3	6	101	BCL	C1D-ND	-4.38	1.32	1.37
3	I	102	BCL	C3B-C2B	4.37	1.47	1.39
3	P	101	BCL	O2A-CGA	4.34	1.46	1.33
3	8	101	BCL	O2A-CGA	4.34	1.46	1.33
3	N	102	BCL	C3B-C2B	4.31	1.47	1.39
3	2	101	BCL	C1D-ND	-4.31	1.32	1.37
3	G	102	BCL	O2A-CGA	4.29	1.45	1.33
3	B	102	BCL	O2A-CGA	4.29	1.45	1.33
3	B	102	BCL	C1D-ND	-4.25	1.32	1.37
3	2	101	BCL	O2A-CGA	4.23	1.45	1.33
3	R	101	BCL	O2A-CGA	4.23	1.45	1.33
3	4	101	BCL	C1D-ND	-4.23	1.32	1.37
3	E	102	BCL	C1D-ND	-4.22	1.32	1.37
3	J	101	BCL	O2A-CGA	4.22	1.45	1.33
3	N	102	BCL	O2A-CGA	4.20	1.45	1.33
3	E	102	BCL	O2A-CGA	4.20	1.45	1.33
3	V	102	BCL	O2A-CGA	4.20	1.45	1.33
3	Y	102	BCL	C3B-C2B	4.19	1.46	1.39
3	4	101	BCL	O2A-CGA	4.17	1.45	1.33
3	Z	101	BCL	O2A-CGA	4.17	1.45	1.33
3	6	101	BCL	O2A-CGA	4.16	1.45	1.33
3	5	101	BCL	C3B-C2B	4.13	1.46	1.39
3	I	102	BCL	O2A-CGA	4.12	1.45	1.33
5	S	101	CRT	C22-C23	4.12	1.41	1.35
3	N	102	BCL	C1D-ND	-4.11	1.32	1.37
5	S	104	CRT	C19-C17	4.11	1.41	1.35
3	U	101	BCL	C3B-C2B	4.10	1.46	1.39
3	1	101	BCL	C3B-C2B	4.10	1.46	1.39
3	3	101	BCL	C3B-C2B	4.09	1.46	1.39
5	E	103	CRT	C22-C23	4.09	1.41	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	103	CRT	C19-C17	4.09	1.41	1.35
5	7	104	CRT	C19-C17	4.09	1.41	1.35
3	Z	101	BCL	C1D-ND	-4.08	1.32	1.37
3	3	101	BCL	O2A-CGA	4.08	1.45	1.33
3	A	102	BCL	O2A-CGA	4.07	1.45	1.33
3	U	101	BCL	O2A-CGA	4.07	1.45	1.33
3	P	101	BCL	C1D-ND	-4.07	1.32	1.37
5	Y	101	CRT	C22-C23	4.07	1.41	1.35
5	1	103	CRT	C22-C23	4.06	1.41	1.35
3	1	101	BCL	O2A-CGA	4.06	1.45	1.33
3	Y	102	BCL	O2A-CGA	4.06	1.45	1.33
3	K	102	BCL	O2A-CGA	4.06	1.45	1.33
3	Q	101	BCL	C3B-C2B	4.06	1.46	1.39
3	T	101	BCL	C1D-ND	-4.05	1.32	1.37
3	D	101	BCL	C3B-C2B	4.05	1.46	1.39
3	5	101	BCL	O2A-CGA	4.04	1.45	1.33
5	1	103	CRT	C19-C17	4.04	1.41	1.35
3	O	102	BCL	O2A-CGA	4.04	1.45	1.33
5	K	101	CRT	C22-C23	4.04	1.41	1.35
3	T	101	BCL	O2A-CGA	4.04	1.45	1.33
5	A	101	CRT	C22-C23	4.03	1.41	1.35
3	F	101	BCL	O2A-CGA	4.03	1.45	1.33
5	A	101	CRT	C27-C28	4.03	1.41	1.35
3	D	101	BCL	O2A-CGA	4.02	1.45	1.33
5	O	101	CRT	C22-C23	4.02	1.41	1.35
5	K	104	CRT	C19-C17	4.02	1.41	1.35
5	K	104	CRT	C22-C23	4.02	1.41	1.35
3	7	102	BCL	O2A-CGA	4.01	1.45	1.33
5	7	101	CRT	C22-C23	4.01	1.41	1.35
5	7	104	CRT	C14-C12	4.01	1.41	1.35
5	2	102	CRT	C22-C23	4.01	1.41	1.35
5	7	104	CRT	C22-C23	4.01	1.41	1.35
5	E	103	CRT	C27-C28	4.00	1.41	1.35
5	I	101	CRT	C19-C17	4.00	1.41	1.35
5	Y	101	CRT	C19-C17	4.00	1.41	1.35
5	K	101	CRT	C19-C17	3.99	1.41	1.35
5	A	101	CRT	C19-C17	3.99	1.41	1.35
3	Q	101	BCL	O2A-CGA	3.99	1.45	1.33
5	Y	101	CRT	C14-C12	3.98	1.41	1.35
5	2	102	CRT	C19-C17	3.98	1.41	1.35
5	E	103	CRT	C9-C7	3.98	1.41	1.35
5	E	103	CRT	C14-C12	3.98	1.41	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	1	104	CRT	C19-C17	3.97	1.41	1.35
5	K	104	CRT	C14-C12	3.96	1.41	1.35
5	2	102	CRT	C14-C12	3.96	1.41	1.35
5	7	104	CRT	C27-C28	3.96	1.41	1.35
5	7	101	CRT	C19-C17	3.96	1.41	1.35
5	I	101	CRT	C22-C23	3.96	1.41	1.35
5	S	101	CRT	C27-C28	3.95	1.41	1.35
3	J	101	BCL	C1D-ND	-3.95	1.32	1.37
3	F	101	BCL	C3B-C2B	3.95	1.46	1.39
5	1	104	CRT	C22-C23	3.94	1.41	1.35
5	2	102	CRT	C27-C28	3.94	1.41	1.35
3	O	102	BCL	C3B-C2B	3.93	1.46	1.39
5	I	101	CRT	C14-C12	3.93	1.41	1.35
5	K	101	CRT	C27-C28	3.93	1.41	1.35
5	S	104	CRT	C14-C12	3.93	1.41	1.35
5	S	104	CRT	C27-C28	3.93	1.41	1.35
5	S	104	CRT	C22-C23	3.93	1.41	1.35
5	1	103	CRT	C14-C12	3.93	1.41	1.35
5	Y	101	CRT	C27-C28	3.92	1.41	1.35
5	S	101	CRT	C19-C17	3.92	1.41	1.35
5	K	101	CRT	C14-C12	3.92	1.41	1.35
5	A	101	CRT	C14-C12	3.92	1.41	1.35
5	E	103	CRT	C32-C33	3.91	1.41	1.35
5	O	101	CRT	C14-C12	3.91	1.41	1.35
5	7	104	CRT	C32-C33	3.91	1.41	1.35
5	S	101	CRT	C14-C12	3.91	1.41	1.35
5	K	101	CRT	C32-C33	3.91	1.41	1.35
5	K	104	CRT	C27-C28	3.90	1.41	1.35
3	S	102	BCL	O2A-CGA	3.90	1.44	1.33
5	7	101	CRT	C14-C12	3.90	1.40	1.35
5	A	101	CRT	C32-C33	3.90	1.40	1.35
5	2	102	CRT	C9-C7	3.90	1.40	1.35
5	1	103	CRT	C9-C7	3.89	1.40	1.35
5	Y	101	CRT	C9-C7	3.89	1.40	1.35
3	8	101	BCL	C1D-ND	-3.89	1.33	1.37
5	1	104	CRT	C14-C12	3.89	1.40	1.35
5	I	101	CRT	C9-C7	3.88	1.40	1.35
5	1	103	CRT	C27-C28	3.88	1.40	1.35
5	A	101	CRT	C9-C7	3.88	1.40	1.35
5	7	104	CRT	C9-C7	3.87	1.40	1.35
5	7	101	CRT	C27-C28	3.86	1.40	1.35
5	2	102	CRT	C32-C33	3.86	1.40	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	S	104	CRT	C32-C33	3.86	1.40	1.35
5	Y	101	CRT	C32-C33	3.86	1.40	1.35
5	1	104	CRT	C27-C28	3.85	1.40	1.35
5	K	104	CRT	C9-C7	3.85	1.40	1.35
5	S	101	CRT	C32-C33	3.84	1.40	1.35
5	S	104	CRT	C9-C7	3.84	1.40	1.35
5	1	103	CRT	C32-C33	3.83	1.40	1.35
5	O	101	CRT	C27-C28	3.83	1.40	1.35
5	1	104	CRT	C9-C7	3.82	1.40	1.35
5	K	101	CRT	C9-C7	3.82	1.40	1.35
5	O	101	CRT	C19-C17	3.82	1.40	1.35
5	S	101	CRT	C9-C7	3.82	1.40	1.35
5	O	101	CRT	C32-C33	3.82	1.40	1.35
3	R	101	BCL	C1D-ND	-3.81	1.33	1.37
5	7	101	CRT	C9-C7	3.81	1.40	1.35
5	I	101	CRT	C27-C28	3.81	1.40	1.35
5	7	101	CRT	C32-C33	3.80	1.40	1.35
3	A	102	BCL	C3B-C2B	3.80	1.46	1.39
3	O	102	BCL	C1D-ND	-3.79	1.33	1.37
5	1	104	CRT	C32-C33	3.78	1.40	1.35
5	K	104	CRT	C32-C33	3.78	1.40	1.35
5	O	101	CRT	C9-C7	3.78	1.40	1.35
5	I	101	CRT	C32-C33	3.76	1.40	1.35
3	G	102	BCL	C1D-ND	-3.74	1.33	1.37
3	I	102	BCL	C1D-ND	-3.65	1.33	1.37
3	5	101	BCL	C1D-ND	-3.58	1.33	1.37
3	Q	101	BCL	CHD-C1D	3.49	1.45	1.38
3	7	102	BCL	C1D-ND	-3.47	1.33	1.37
3	3	101	BCL	CHD-C1D	3.39	1.45	1.38
3	A	102	BCL	CHD-C1D	3.37	1.44	1.38
3	U	101	BCL	C1D-ND	-3.36	1.33	1.37
3	U	101	BCL	CHD-C1D	3.34	1.44	1.38
3	Y	102	BCL	CHD-C1D	3.34	1.44	1.38
3	S	102	BCL	CHD-C1D	3.34	1.44	1.38
3	F	101	BCL	CHD-C1D	3.33	1.44	1.38
3	K	102	BCL	C1D-ND	-3.32	1.33	1.37
3	O	102	BCL	CHD-C1D	3.32	1.44	1.38
3	K	102	BCL	CHD-C1D	3.30	1.44	1.38
3	F	101	BCL	C1D-ND	-3.29	1.33	1.37
3	I	102	BCL	CHD-C1D	3.28	1.44	1.38
3	D	101	BCL	CHD-C1D	3.25	1.44	1.38
3	Q	101	BCL	C1D-ND	-3.24	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	Y	102	BCL	C1D-ND	-3.24	1.33	1.37
3	D	101	BCL	C1D-ND	-3.22	1.33	1.37
3	S	102	BCL	C1D-ND	-3.21	1.33	1.37
3	1	101	BCL	C1D-ND	-3.21	1.33	1.37
3	1	101	BCL	CHD-C1D	3.19	1.44	1.38
3	5	101	BCL	CHD-C1D	3.06	1.44	1.38
3	N	102	BCL	OBD-CAD	3.06	1.27	1.22
3	A	102	BCL	C1D-ND	-3.05	1.34	1.37
3	6	101	BCL	OBD-CAD	3.04	1.27	1.22
3	3	101	BCL	C1D-ND	-3.04	1.34	1.37
3	7	102	BCL	CHD-C1D	3.01	1.44	1.38
3	R	101	BCL	OBD-CAD	2.96	1.27	1.22
3	P	101	BCL	OBD-CAD	2.96	1.27	1.22
3	V	102	BCL	C3D-C2D	2.91	1.47	1.39
3	Z	101	BCL	OBD-CAD	2.90	1.27	1.22
3	4	101	BCL	C3D-C2D	2.89	1.47	1.39
3	8	101	BCL	OBD-CAD	2.89	1.27	1.22
3	E	102	BCL	C3D-C2D	2.88	1.47	1.39
3	P	101	BCL	C3C-C4C	-2.86	1.48	1.51
3	B	102	BCL	C3C-C4C	-2.85	1.48	1.51
3	B	102	BCL	OBD-CAD	2.85	1.27	1.22
3	2	101	BCL	C3D-C2D	2.84	1.46	1.39
3	2	101	BCL	OBD-CAD	2.83	1.27	1.22
3	T	101	BCL	OBD-CAD	2.82	1.27	1.22
3	E	102	BCL	OBD-CAD	2.80	1.27	1.22
3	P	101	BCL	C3D-C2D	2.80	1.46	1.39
3	T	101	BCL	C3D-C2D	2.80	1.46	1.39
3	4	101	BCL	OBD-CAD	2.77	1.27	1.22
3	J	101	BCL	OBD-CAD	2.76	1.27	1.22
3	V	102	BCL	OBD-CAD	2.75	1.27	1.22
3	J	101	BCL	C3D-C2D	2.74	1.46	1.39
3	T	101	BCL	C3C-C4C	-2.74	1.48	1.51
3	N	102	BCL	C3D-C2D	2.74	1.46	1.39
3	G	102	BCL	OBD-CAD	2.74	1.27	1.22
3	O	102	BCL	C3D-C2D	2.74	1.46	1.39
3	O	102	BCL	OBD-CAD	2.74	1.27	1.22
3	6	101	BCL	C3C-C4C	-2.73	1.48	1.51
3	G	102	BCL	C3D-C2D	2.72	1.46	1.39
3	B	102	BCL	C3D-C2D	2.72	1.46	1.39
3	I	102	BCL	OBD-CAD	2.72	1.27	1.22
3	Z	101	BCL	C3D-C2D	2.71	1.46	1.39
3	6	101	BCL	C3D-C2D	2.71	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	V	102	BCL	C3C-C4C	-2.71	1.48	1.51
3	8	101	BCL	C3C-C4C	-2.70	1.48	1.51
3	K	102	BCL	MG-NA	-2.70	1.99	2.06
3	G	102	BCL	C3C-C4C	-2.70	1.48	1.51
3	Q	101	BCL	C3D-C2D	2.70	1.46	1.39
3	R	101	BCL	C3D-C2D	2.69	1.46	1.39
3	3	101	BCL	C3D-C2D	2.68	1.46	1.39
3	8	101	BCL	C3D-C2D	2.67	1.46	1.39
3	I	102	BCL	C3D-C2D	2.67	1.46	1.39
3	E	102	BCL	C3C-C4C	-2.67	1.48	1.51
3	1	101	BCL	C4B-NB	-2.67	1.32	1.35
3	Y	102	BCL	C3D-C2D	2.67	1.46	1.39
3	J	101	BCL	C3C-C4C	-2.66	1.48	1.51
3	S	102	BCL	MG-NA	-2.66	1.99	2.06
3	K	102	BCL	C3D-C2D	2.66	1.46	1.39
3	S	102	BCL	C3D-C2D	2.66	1.46	1.39
3	A	102	BCL	C3D-C2D	2.66	1.46	1.39
3	F	101	BCL	C3D-C2D	2.65	1.46	1.39
3	N	102	BCL	C3C-C4C	-2.65	1.48	1.51
3	5	101	BCL	OBD-CAD	2.65	1.27	1.22
3	5	101	BCL	C3D-C2D	2.65	1.46	1.39
3	R	101	BCL	C3C-C4C	-2.64	1.48	1.51
3	1	101	BCL	MG-NA	-2.64	2.00	2.06
3	O	102	BCL	C4B-NB	-2.64	1.32	1.35
3	4	101	BCL	C3C-C4C	-2.64	1.48	1.51
3	K	102	BCL	OBD-CAD	2.63	1.27	1.22
3	1	101	BCL	C3D-C2D	2.62	1.46	1.39
3	7	102	BCL	MG-NA	-2.62	2.00	2.06
3	U	101	BCL	C3D-C2D	2.62	1.46	1.39
3	D	101	BCL	C3D-C2D	2.62	1.46	1.39
3	D	101	BCL	OBD-CAD	2.61	1.27	1.22
3	Y	102	BCL	MG-NA	-2.61	2.00	2.06
3	Y	102	BCL	OBD-CAD	2.61	1.27	1.22
3	3	101	BCL	OBD-CAD	2.60	1.27	1.22
3	5	101	BCL	C2C-C3C	-2.60	1.47	1.54
3	2	101	BCL	C3C-C4C	-2.60	1.48	1.51
3	Q	101	BCL	MG-NA	-2.59	2.00	2.06
3	1	101	BCL	OBD-CAD	2.59	1.26	1.22
3	V	102	BCL	MG-NA	-2.59	2.00	2.06
3	F	101	BCL	OBD-CAD	2.59	1.26	1.22
3	S	102	BCL	OBD-CAD	2.58	1.26	1.22
3	7	102	BCL	C3D-C2D	2.57	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	7	102	BCL	OBD-CAD	2.57	1.26	1.22
3	A	102	BCL	MG-NA	-2.57	2.00	2.06
3	Q	101	BCL	CHD-C4C	2.57	1.46	1.39
3	3	101	BCL	MG-NA	-2.56	2.00	2.06
3	F	101	BCL	MG-NA	-2.56	2.00	2.06
3	Z	101	BCL	C3C-C4C	-2.56	1.48	1.51
3	8	101	BCL	CHD-C1D	2.55	1.43	1.38
3	U	101	BCL	OBD-CAD	2.55	1.26	1.22
3	A	102	BCL	OBD-CAD	2.53	1.26	1.22
3	F	101	BCL	CHD-C4C	2.52	1.46	1.39
5	O	101	CRT	C35-C33	-2.52	1.40	1.45
3	A	102	BCL	CHD-C4C	2.51	1.46	1.39
3	D	101	BCL	MG-NA	-2.51	2.00	2.06
3	Y	102	BCL	CHD-C4C	2.51	1.46	1.39
3	I	102	BCL	CHD-C4C	2.50	1.46	1.39
3	D	101	BCL	CHD-C4C	2.49	1.46	1.39
3	Q	101	BCL	OBD-CAD	2.49	1.26	1.22
3	3	101	BCL	CHD-C4C	2.49	1.46	1.39
3	T	101	BCL	CHD-C1D	2.48	1.43	1.38
3	R	101	BCL	CHD-C1D	2.48	1.43	1.38
3	G	102	BCL	CHD-C1D	2.47	1.43	1.38
3	U	101	BCL	C4B-NB	-2.46	1.33	1.35
3	J	101	BCL	CHD-C1D	2.45	1.43	1.38
3	K	102	BCL	CHD-C4C	2.45	1.46	1.39
3	1	101	BCL	CHD-C4C	2.44	1.46	1.39
3	I	102	BCL	MG-NA	-2.44	2.00	2.06
3	U	101	BCL	CHD-C4C	2.43	1.46	1.39
3	S	102	BCL	CHD-C4C	2.43	1.46	1.39
3	5	101	BCL	C4B-NB	-2.42	1.33	1.35
5	O	101	CRT	C16-C17	-2.42	1.40	1.45
5	O	101	CRT	C30-C28	-2.42	1.40	1.45
3	A	102	BCL	MG-NC	-2.41	2.00	2.06
3	A	102	BCL	C4B-NB	-2.41	1.33	1.35
3	3	101	BCL	C4B-NB	-2.41	1.33	1.35
3	Z	101	BCL	CHD-C1D	2.41	1.43	1.38
5	I	101	CRT	C30-C28	-2.41	1.40	1.45
5	I	101	CRT	C35-C33	-2.40	1.40	1.45
5	7	101	CRT	C25-C23	-2.40	1.40	1.45
5	1	104	CRT	C30-C28	-2.39	1.40	1.45
5	A	101	CRT	C30-C28	-2.39	1.40	1.45
5	2	102	CRT	C30-C28	-2.39	1.40	1.45
5	7	101	CRT	C30-C28	-2.39	1.40	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	7	102	BCL	CHD-C4C	2.39	1.45	1.39
3	Y	102	BCL	MG-NC	-2.38	2.00	2.06
5	2	102	CRT	C25-C23	-2.37	1.40	1.45
5	K	101	CRT	C30-C28	-2.37	1.40	1.45
3	4	101	BCL	CHD-C1D	2.37	1.43	1.38
5	Y	101	CRT	C30-C28	-2.37	1.40	1.45
5	K	101	CRT	C25-C23	-2.37	1.40	1.45
5	O	101	CRT	C25-C23	-2.37	1.40	1.45
3	Q	101	BCL	C4B-NB	-2.37	1.33	1.35
5	S	101	CRT	C30-C28	-2.36	1.40	1.45
5	7	101	CRT	C35-C33	-2.36	1.40	1.45
5	I	101	CRT	C25-C23	-2.36	1.40	1.45
5	K	104	CRT	C30-C28	-2.36	1.40	1.45
5	S	104	CRT	C30-C28	-2.36	1.40	1.45
5	1	103	CRT	C25-C23	-2.36	1.40	1.45
3	N	102	BCL	CHD-C1D	2.36	1.43	1.38
5	Y	101	CRT	C25-C23	-2.36	1.40	1.45
3	F	101	BCL	MG-NC	-2.36	2.00	2.06
3	P	101	BCL	CHD-C1D	2.35	1.42	1.38
5	S	104	CRT	C35-C33	-2.35	1.40	1.45
5	K	104	CRT	C25-C23	-2.34	1.40	1.45
3	O	102	BCL	CHD-C4C	2.34	1.45	1.39
5	2	102	CRT	C35-C33	-2.34	1.40	1.45
5	1	103	CRT	C30-C28	-2.33	1.40	1.45
5	O	101	CRT	C11-C12	-2.33	1.40	1.45
3	D	101	BCL	MG-NC	-2.33	2.00	2.06
5	7	104	CRT	C30-C28	-2.33	1.40	1.45
3	5	101	BCL	CHD-C4C	2.33	1.45	1.39
3	F	101	BCL	C4B-NB	-2.33	1.33	1.35
5	K	104	CRT	C16-C17	-2.33	1.40	1.45
3	D	101	BCL	C4B-NB	-2.33	1.33	1.35
5	A	101	CRT	C35-C33	-2.32	1.41	1.45
5	E	103	CRT	C30-C28	-2.32	1.41	1.45
5	I	101	CRT	C16-C17	-2.32	1.41	1.45
5	1	104	CRT	C25-C23	-2.32	1.41	1.45
3	E	102	BCL	CHD-C1D	2.32	1.42	1.38
3	Q	101	BCL	MG-NC	-2.32	2.00	2.06
5	1	104	CRT	C35-C33	-2.32	1.41	1.45
5	S	101	CRT	C16-C17	-2.32	1.41	1.45
5	7	104	CRT	C25-C23	-2.32	1.41	1.45
5	7	104	CRT	C35-C33	-2.31	1.41	1.45
5	A	101	CRT	C25-C23	-2.31	1.41	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	7	101	CRT	C16-C17	-2.31	1.41	1.45
5	I	101	CRT	C11-C12	-2.31	1.41	1.45
5	S	104	CRT	C25-C23	-2.31	1.41	1.45
5	7	104	CRT	C16-C17	-2.31	1.41	1.45
3	S	102	BCL	MG-NC	-2.31	2.00	2.06
3	B	102	BCL	CHD-C1D	2.30	1.42	1.38
5	S	104	CRT	C16-C17	-2.30	1.41	1.45
3	6	101	BCL	CHD-C1D	2.30	1.42	1.38
3	7	102	BCL	C1B-CHB	2.30	1.47	1.41
5	K	101	CRT	C11-C12	-2.30	1.41	1.45
5	K	104	CRT	C35-C33	-2.30	1.41	1.45
5	1	103	CRT	C11-C12	-2.29	1.41	1.45
5	1	104	CRT	C16-C17	-2.29	1.41	1.45
5	2	102	CRT	C11-C12	-2.29	1.41	1.45
3	3	101	BCL	MG-NC	-2.29	2.00	2.06
3	V	102	BCL	C1B-CHB	2.29	1.47	1.41
5	E	103	CRT	C25-C23	-2.29	1.41	1.45
5	K	101	CRT	C35-C33	-2.29	1.41	1.45
5	S	101	CRT	C25-C23	-2.29	1.41	1.45
5	E	103	CRT	C35-C33	-2.28	1.41	1.45
3	U	101	BCL	MG-NA	-2.28	2.00	2.06
5	7	101	CRT	C11-C12	-2.28	1.41	1.45
5	1	103	CRT	C35-C33	-2.28	1.41	1.45
5	K	101	CRT	C16-C17	-2.27	1.41	1.45
5	Y	101	CRT	C11-C12	-2.27	1.41	1.45
5	Y	101	CRT	C16-C17	-2.27	1.41	1.45
5	Y	101	CRT	C35-C33	-2.27	1.41	1.45
5	S	101	CRT	C35-C33	-2.27	1.41	1.45
5	7	104	CRT	C11-C12	-2.27	1.41	1.45
5	A	101	CRT	C16-C17	-2.27	1.41	1.45
3	K	102	BCL	C4B-NB	-2.27	1.33	1.35
5	2	102	CRT	C16-C17	-2.27	1.41	1.45
5	O	101	CRT	C6-C7	-2.27	1.41	1.45
5	1	104	CRT	C11-C12	-2.27	1.41	1.45
3	2	101	BCL	CHD-C1D	2.26	1.42	1.38
5	I	101	CRT	C6-C7	-2.26	1.41	1.45
5	1	104	CRT	C6-C7	-2.26	1.41	1.45
5	K	104	CRT	C11-C12	-2.26	1.41	1.45
5	S	104	CRT	C11-C12	-2.26	1.41	1.45
3	3	101	BCL	C3C-C4C	-2.25	1.48	1.51
5	1	103	CRT	C16-C17	-2.25	1.41	1.45
5	S	101	CRT	C11-C12	-2.25	1.41	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	S	101	CRT	C6-C7	-2.25	1.41	1.45
5	7	101	CRT	C6-C7	-2.24	1.41	1.45
5	A	101	CRT	C6-C7	-2.23	1.41	1.45
5	E	103	CRT	C11-C12	-2.23	1.41	1.45
3	D	101	BCL	C3C-C4C	-2.23	1.48	1.51
5	A	101	CRT	C11-C12	-2.23	1.41	1.45
5	K	101	CRT	C6-C7	-2.23	1.41	1.45
5	Y	101	CRT	C6-C7	-2.22	1.41	1.45
3	G	102	BCL	C1B-CHB	2.22	1.47	1.41
3	A	102	BCL	C3C-C4C	-2.22	1.48	1.51
3	5	101	BCL	MG-NA	-2.21	2.01	2.06
5	1	103	CRT	C6-C7	-2.21	1.41	1.45
3	1	101	BCL	MG-NC	-2.21	2.01	2.06
5	K	104	CRT	C6-C7	-2.21	1.41	1.45
5	7	104	CRT	C6-C7	-2.21	1.41	1.45
3	2	101	BCL	C1B-CHB	2.20	1.47	1.41
5	2	102	CRT	C6-C7	-2.20	1.41	1.45
3	Y	102	BCL	C3C-C4C	-2.20	1.48	1.51
3	F	101	BCL	C3C-C4C	-2.20	1.48	1.51
5	S	104	CRT	C6-C7	-2.19	1.41	1.45
3	V	102	BCL	CHD-C1D	2.19	1.42	1.38
5	E	103	CRT	C16-C17	-2.19	1.41	1.45
3	I	102	BCL	C4B-NB	-2.19	1.33	1.35
3	I	102	BCL	MG-NC	-2.18	2.01	2.06
3	Q	101	BCL	C3C-C4C	-2.17	1.48	1.51
3	P	101	BCL	C1B-CHB	2.16	1.47	1.41
3	6	101	BCL	C1B-CHB	2.16	1.47	1.41
3	V	102	BCL	C2C-C3C	-2.14	1.48	1.54
3	Z	101	BCL	C1B-CHB	2.14	1.46	1.41
3	N	102	BCL	MG-NA	-2.13	2.01	2.06
3	O	102	BCL	C4B-CHC	2.13	1.46	1.41
3	6	101	BCL	MG-NA	-2.13	2.01	2.06
3	7	102	BCL	C3A-C2A	-2.13	1.48	1.54
3	B	102	BCL	MG-NA	-2.12	2.01	2.06
3	T	101	BCL	MG-NA	-2.12	2.01	2.06
5	E	103	CRT	C6-C7	-2.12	1.41	1.45
3	N	102	BCL	C1B-CHB	2.12	1.46	1.41
3	Z	101	BCL	MG-NA	-2.12	2.01	2.06
3	2	101	BCL	C2C-C3C	-2.12	1.48	1.54
3	K	102	BCL	MG-NC	-2.11	2.01	2.06
3	R	101	BCL	C1B-CHB	2.11	1.46	1.41
3	E	102	BCL	C2C-C3C	-2.11	1.48	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	K	102	BCL	C1B-CHB	2.10	1.46	1.41
3	T	101	BCL	MG-NC	-2.10	2.01	2.06
3	J	101	BCL	C1B-CHB	2.10	1.46	1.41
3	3	101	BCL	C1B-CHB	2.10	1.46	1.41
3	Y	102	BCL	C4B-NB	-2.09	1.33	1.35
3	4	101	BCL	MG-NA	-2.09	2.01	2.06
3	1	101	BCL	C3C-C4C	-2.08	1.49	1.51
3	S	102	BCL	C3C-C4C	-2.08	1.49	1.51
3	7	102	BCL	C3C-C4C	-2.08	1.49	1.51
3	F	101	BCL	C1B-CHB	2.08	1.46	1.41
3	1	101	BCL	C1B-CHB	2.08	1.46	1.41
3	4	101	BCL	C1B-CHB	2.08	1.46	1.41
3	N	102	BCL	C2C-C3C	-2.07	1.48	1.54
3	B	102	BCL	C2C-C3C	-2.07	1.48	1.54
3	Y	102	BCL	C1B-CHB	2.07	1.46	1.41
3	2	101	BCL	MG-NA	-2.07	2.01	2.06
3	4	101	BCL	C2C-C3C	-2.06	1.48	1.54
3	D	101	BCL	C1B-CHB	2.06	1.46	1.41
3	O	102	BCL	MG-NA	-2.06	2.01	2.06
3	P	101	BCL	MG-NA	-2.06	2.01	2.06
3	J	101	BCL	MG-NA	-2.06	2.01	2.06
3	6	101	BCL	C2C-C3C	-2.05	1.48	1.54
3	5	101	BCL	C4B-CHC	2.05	1.46	1.41
3	V	102	BCL	C4D-CHA	2.05	1.45	1.38
3	I	102	BCL	C1B-NB	-2.04	1.33	1.35
3	R	101	BCL	C2C-C3C	-2.04	1.48	1.54
3	K	102	BCL	C3C-C4C	-2.04	1.49	1.51
3	G	102	BCL	C2C-C3C	-2.04	1.48	1.54
3	Z	101	BCL	C2C-C3C	-2.04	1.48	1.54
3	E	102	BCL	C1B-CHB	2.04	1.46	1.41
3	A	102	BCL	C1B-CHB	2.03	1.46	1.41
3	T	101	BCL	C2C-C3C	-2.02	1.48	1.54
3	J	101	BCL	C2C-C3C	-2.02	1.48	1.54
3	E	102	BCL	MG-NA	-2.02	2.01	2.06
3	B	102	BCL	C1B-CHB	2.02	1.46	1.41
3	8	101	BCL	MG-NA	-2.01	2.01	2.06
3	S	102	BCL	C1B-CHB	2.01	1.46	1.41
3	Z	101	BCL	C4B-CHC	2.01	1.46	1.41
3	J	101	BCL	C4D-CHA	2.01	1.45	1.38
3	R	101	BCL	CHD-C4C	2.00	1.44	1.39

All (727) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	S	102	BCL	CHD-C1D-ND	-8.09	117.02	124.45
3	Q	101	BCL	CHD-C1D-ND	-7.84	117.25	124.45
3	3	101	BCL	CHD-C1D-ND	-7.82	117.27	124.45
3	7	102	BCL	CHD-C1D-ND	-7.77	117.31	124.45
3	A	102	BCL	CHD-C1D-ND	-7.76	117.33	124.45
3	K	102	BCL	CHD-C1D-ND	-7.67	117.40	124.45
3	F	101	BCL	CHD-C1D-ND	-7.66	117.41	124.45
3	Y	102	BCL	CHD-C1D-ND	-7.58	117.48	124.45
3	D	101	BCL	CHD-C1D-ND	-7.57	117.50	124.45
3	1	101	BCL	CHD-C1D-ND	-7.52	117.54	124.45
3	S	102	BCL	CMD-C2D-C1D	7.18	137.36	124.71
3	A	102	BCL	CMD-C2D-C1D	7.17	137.34	124.71
3	3	101	BCL	CMD-C2D-C1D	7.14	137.30	124.71
3	D	101	BCL	CMD-C2D-C1D	7.08	137.19	124.71
3	I	102	BCL	CHD-C1D-ND	-7.06	117.97	124.45
3	F	101	BCL	CMD-C2D-C1D	7.05	137.14	124.71
3	7	102	BCL	CMD-C2D-C1D	7.05	137.13	124.71
3	Q	101	BCL	CMD-C2D-C1D	7.01	137.07	124.71
3	K	102	BCL	CMD-C2D-C1D	6.98	137.01	124.71
3	1	101	BCL	CMD-C2D-C1D	6.95	136.96	124.71
3	Y	102	BCL	CMD-C2D-C1D	6.91	136.90	124.71
3	7	102	BCL	O2D-CGD-CBD	6.87	123.47	111.27
3	5	101	BCL	CHD-C1D-ND	-6.84	118.16	124.45
3	U	101	BCL	CMD-C2D-C1D	6.57	136.30	124.71
3	U	101	BCL	CHD-C1D-ND	-6.55	118.44	124.45
3	I	102	BCL	CMD-C2D-C1D	6.48	136.14	124.71
3	5	101	BCL	O2D-CGD-CBD	6.41	122.65	111.27
3	K	102	BCL	O2D-CGD-CBD	6.40	122.64	111.27
3	I	102	BCL	O2D-CGD-CBD	6.39	122.63	111.27
3	5	101	BCL	CMD-C2D-C1D	6.32	135.85	124.71
3	A	102	BCL	O2D-CGD-CBD	6.29	122.45	111.27
3	G	102	BCL	C2D-C1D-ND	6.23	114.69	110.10
3	V	102	BCL	C1C-NC-C4C	-6.22	103.91	106.71
3	O	102	BCL	CHD-C1D-ND	-6.21	118.75	124.45
3	4	101	BCL	C2D-C1D-ND	6.14	114.63	110.10
3	F	101	BCL	O2D-CGD-CBD	6.12	122.15	111.27
3	S	102	BCL	O2D-CGD-CBD	6.12	122.14	111.27
3	D	101	BCL	O2D-CGD-CBD	6.11	122.13	111.27
3	3	101	BCL	O2D-CGD-CBD	6.01	121.96	111.27
3	2	101	BCL	C2D-C1D-ND	6.01	114.54	110.10
3	O	102	BCL	CMD-C2D-C1D	5.97	135.23	124.71
3	E	102	BCL	C2D-C1D-ND	5.93	114.48	110.10
3	1	101	BCL	O2D-CGD-CBD	5.93	121.80	111.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	O	102	BCL	O2D-CGD-CBD	5.93	121.80	111.27
3	N	102	BCL	C2D-C1D-ND	5.91	114.46	110.10
3	P	101	BCL	C2D-C1D-ND	5.90	114.45	110.10
3	T	101	BCL	CMB-C2B-C3B	5.89	135.71	124.68
3	I	102	BCL	CMB-C2B-C3B	5.88	135.69	124.68
3	U	101	BCL	O2D-CGD-CBD	5.88	121.71	111.27
3	V	102	BCL	C2D-C1D-ND	5.86	114.42	110.10
3	V	102	BCL	C4A-NA-C1A	5.80	109.31	106.71
3	Y	102	BCL	O2D-CGD-CBD	5.80	121.57	111.27
3	J	101	BCL	C2D-C1D-ND	5.79	114.37	110.10
3	B	102	BCL	C2D-C1D-ND	5.75	114.34	110.10
3	B	102	BCL	CMB-C2B-C3B	5.72	135.38	124.68
3	V	102	BCL	C3C-C4C-CHD	-5.72	111.18	123.39
3	Z	101	BCL	CMB-C2B-C3B	5.70	135.35	124.68
3	T	101	BCL	C2D-C1D-ND	5.70	114.30	110.10
3	6	101	BCL	C2D-C1D-ND	5.65	114.27	110.10
3	Q	101	BCL	O2D-CGD-CBD	5.63	121.27	111.27
3	R	101	BCL	C2D-C1D-ND	5.62	114.25	110.10
3	8	101	BCL	C2D-C1D-ND	5.60	114.23	110.10
3	Z	101	BCL	C2D-C1D-ND	5.56	114.20	110.10
3	E	102	BCL	CMB-C2B-C3B	5.52	135.00	124.68
3	2	101	BCL	C3C-C4C-CHD	-5.45	111.74	123.39
3	B	102	BCL	C3C-C4C-CHD	-5.43	111.78	123.39
3	E	102	BCL	C3C-C4C-CHD	-5.39	111.87	123.39
3	N	102	BCL	C3C-C4C-CHD	-5.37	111.92	123.39
3	J	101	BCL	CMB-C2B-C3B	5.36	134.70	124.68
3	G	102	BCL	C3C-C4C-CHD	-5.34	111.99	123.39
3	6	101	BCL	C3C-C4C-CHD	-5.33	112.01	123.39
3	4	101	BCL	C3C-C4C-CHD	-5.32	112.02	123.39
3	P	101	BCL	C3C-C4C-CHD	-5.30	112.06	123.39
3	4	101	BCL	C1C-NC-C4C	-5.28	104.33	106.71
3	2	101	BCL	CMB-C2B-C3B	5.27	134.53	124.68
3	2	101	BCL	C1C-NC-C4C	-5.23	104.36	106.71
3	R	101	BCL	C3C-C4C-CHD	-5.22	112.25	123.39
3	Z	101	BCL	C3C-C4C-CHD	-5.22	112.25	123.39
3	J	101	BCL	C3C-C4C-CHD	-5.21	112.25	123.39
3	6	101	BCL	C4A-NA-C1A	5.18	109.03	106.71
3	S	102	BCL	CMB-C2B-C3B	5.14	134.30	124.68
3	8	101	BCL	C3C-C4C-CHD	-5.12	112.45	123.39
3	T	101	BCL	C3C-C4C-CHD	-5.10	112.50	123.39
3	4	101	BCL	CMB-C2B-C3B	5.10	134.22	124.68
3	E	102	BCL	C1C-NC-C4C	-5.03	104.44	106.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	G	102	BCL	CHD-C1D-ND	-5.02	119.84	124.45
3	6	101	BCL	CMB-C2B-C3B	4.99	134.02	124.68
5	S	101	CRT	C20-C21-C22	4.98	133.68	123.47
3	T	101	BCL	CHD-C1D-ND	-4.96	119.89	124.45
3	R	101	BCL	O2D-CGD-CBD	4.94	120.05	111.27
3	7	102	BCL	CMB-C2B-C3B	4.90	133.84	124.68
3	P	101	BCL	CMB-C2B-C3B	4.88	133.80	124.68
3	6	101	BCL	C1C-NC-C4C	-4.86	104.52	106.71
3	N	102	BCL	C1C-NC-C4C	-4.85	104.52	106.71
5	E	103	CRT	C20-C21-C22	4.78	133.27	123.47
3	A	102	BCL	C3D-C2D-C1D	-4.76	99.33	105.83
3	R	101	BCL	CHD-C1D-ND	-4.75	120.09	124.45
3	Z	101	BCL	CHD-C1D-ND	-4.74	120.10	124.45
3	N	102	BCL	C4A-NA-C1A	4.74	108.84	106.71
3	1	101	BCL	C3D-C2D-C1D	-4.73	99.37	105.83
5	I	101	CRT	C20-C21-C22	4.72	133.15	123.47
3	8	101	BCL	CMD-C2D-C1D	4.72	133.03	124.71
3	G	102	BCL	C3D-C2D-C1D	-4.71	99.40	105.83
3	3	101	BCL	C3D-C2D-C1D	-4.71	99.41	105.83
3	5	101	BCL	C2D-C1D-ND	4.70	113.57	110.10
3	S	102	BCL	C3D-C2D-C1D	-4.70	99.41	105.83
3	S	102	BCL	C2D-C1D-ND	4.70	113.57	110.10
5	7	101	CRT	C20-C21-C22	4.70	133.10	123.47
5	A	101	CRT	C20-C21-C22	4.69	133.08	123.47
3	R	101	BCL	CMD-C2D-C1D	4.69	132.97	124.71
3	1	101	BCL	C2D-C1D-ND	4.68	113.55	110.10
3	G	102	BCL	CMB-C2B-C3B	4.68	133.43	124.68
3	G	102	BCL	CMD-C2D-C1D	4.67	132.94	124.71
5	S	104	CRT	C20-C21-C22	4.67	133.03	123.47
3	B	102	BCL	C1C-NC-C4C	-4.67	104.61	106.71
3	O	102	BCL	CMB-C2B-C3B	4.66	133.40	124.68
3	B	102	BCL	C4A-NA-C1A	4.66	108.80	106.71
5	1	104	CRT	C20-C21-C22	4.66	133.01	123.47
3	G	102	BCL	CHD-C4C-NC	4.65	130.25	125.08
3	F	101	BCL	C3D-C2D-C1D	-4.65	99.48	105.83
3	7	102	BCL	C1C-NC-C4C	-4.62	104.63	106.71
3	D	101	BCL	C2D-C1D-ND	4.62	113.51	110.10
3	P	101	BCL	C4A-NA-C1A	4.62	108.78	106.71
5	1	103	CRT	C20-C21-C22	4.61	132.91	123.47
3	J	101	BCL	C1C-NC-C4C	-4.61	104.63	106.71
3	V	102	BCL	CMB-C2B-C3B	4.61	133.30	124.68
3	Z	101	BCL	C1C-NC-C4C	-4.60	104.64	106.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	7	102	BCL	C3D-C2D-C1D	-4.60	99.55	105.83
3	A	102	BCL	C2D-C1D-ND	4.60	113.50	110.10
3	G	102	BCL	C4A-NA-C1A	4.60	108.77	106.71
3	K	102	BCL	C3D-C2D-C1D	-4.60	99.55	105.83
3	D	101	BCL	C3D-C2D-C1D	-4.60	99.55	105.83
5	2	102	CRT	C20-C21-C22	4.58	132.85	123.47
3	Q	101	BCL	C3D-C2D-C1D	-4.57	99.59	105.83
3	8	101	BCL	CHD-C1D-ND	-4.57	120.25	124.45
3	V	102	BCL	CHD-C4C-NC	4.57	130.15	125.08
5	7	104	CRT	C20-C21-C22	4.56	132.81	123.47
5	K	104	CRT	C20-C21-C22	4.55	132.80	123.47
5	Y	101	CRT	C20-C21-C22	4.55	132.79	123.47
3	K	102	BCL	CMB-C2B-C3B	4.54	133.17	124.68
3	5	101	BCL	C3D-C2D-C1D	-4.54	99.64	105.83
5	K	101	CRT	C20-C21-C22	4.53	132.76	123.47
3	7	102	BCL	C2D-C1D-ND	4.53	113.44	110.10
3	K	102	BCL	C2D-C1D-ND	4.52	113.44	110.10
3	8	101	BCL	CMB-C2B-C3B	4.52	133.13	124.68
3	Y	102	BCL	C3D-C2D-C1D	-4.51	99.67	105.83
3	7	102	BCL	C3C-C4C-CHD	-4.51	113.75	123.39
3	8	101	BCL	C3D-C2D-C1D	-4.49	99.70	105.83
3	T	101	BCL	C4A-NA-C1A	4.49	108.72	106.71
3	T	101	BCL	CMD-C2D-C1D	4.49	132.62	124.71
3	J	101	BCL	C3D-C2D-C1D	-4.48	99.71	105.83
3	T	101	BCL	C3D-C2D-C1D	-4.48	99.72	105.83
3	R	101	BCL	CHD-C4C-NC	4.47	130.04	125.08
3	I	102	BCL	C3D-C2D-C1D	-4.47	99.73	105.83
3	4	101	BCL	C3D-C2D-C1D	-4.46	99.75	105.83
3	V	102	BCL	CHD-C1D-ND	-4.45	120.36	124.45
3	J	101	BCL	CHD-C1D-ND	-4.44	120.38	124.45
3	R	101	BCL	C3D-C2D-C1D	-4.43	99.79	105.83
3	3	101	BCL	C2D-C1D-ND	4.42	113.36	110.10
3	E	102	BCL	C3D-C2D-C1D	-4.42	99.80	105.83
3	4	101	BCL	C4A-NA-C1A	4.41	108.69	106.71
3	Z	101	BCL	C3D-C2D-C1D	-4.39	99.84	105.83
3	P	101	BCL	C3D-C2D-C1D	-4.39	99.84	105.83
3	2	101	BCL	C4A-NA-C1A	4.39	108.68	106.71
5	O	101	CRT	C20-C21-C22	4.39	132.46	123.47
3	Y	102	BCL	C2D-C1D-ND	4.38	113.33	110.10
3	B	102	BCL	CHD-C4C-NC	4.37	129.94	125.08
3	P	101	BCL	CHD-C4C-NC	4.36	129.92	125.08
3	N	102	BCL	CHD-C4C-NC	4.36	129.92	125.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	N	102	BCL	C3D-C2D-C1D	-4.36	99.88	105.83
3	N	102	BCL	CHD-C1D-ND	-4.35	120.46	124.45
3	P	101	BCL	C1C-NC-C4C	-4.35	104.75	106.71
3	R	101	BCL	C4A-NA-C1A	4.35	108.66	106.71
3	B	102	BCL	C3D-C2D-C1D	-4.33	99.92	105.83
3	Z	101	BCL	CMD-C2D-C1D	4.33	132.34	124.71
3	F	101	BCL	C2D-C1D-ND	4.33	113.29	110.10
3	G	102	BCL	C1C-NC-C4C	-4.33	104.76	106.71
3	E	102	BCL	CHD-C4C-NC	4.32	129.88	125.08
3	J	101	BCL	CHD-C4C-NC	4.31	129.87	125.08
3	Z	101	BCL	CHD-C4C-NC	4.31	129.86	125.08
3	J	101	BCL	CMD-C2D-C1D	4.29	132.28	124.71
3	4	101	BCL	CHD-C1D-ND	-4.29	120.51	124.45
3	V	102	BCL	C3D-C2D-C1D	-4.28	99.98	105.83
3	8	101	BCL	CHD-C4C-NC	4.28	129.83	125.08
3	Q	101	BCL	C2D-C1D-ND	4.27	113.25	110.10
3	T	101	BCL	CHD-C4C-NC	4.27	129.82	125.08
3	2	101	BCL	C3D-C2D-C1D	-4.27	100.01	105.83
3	6	101	BCL	CHD-C4C-NC	4.26	129.81	125.08
3	S	102	BCL	CHD-C4C-NC	4.26	129.81	125.08
3	2	101	BCL	CHD-C4C-NC	4.26	129.81	125.08
3	5	101	BCL	C3C-C4C-CHD	-4.26	114.29	123.39
3	B	102	BCL	CHD-C1D-ND	-4.26	120.54	124.45
3	4	101	BCL	CHD-C4C-NC	4.25	129.80	125.08
3	7	102	BCL	CHD-C4C-NC	4.23	129.78	125.08
3	U	101	BCL	C3D-C2D-C1D	-4.22	100.07	105.83
3	P	101	BCL	CHD-C1D-ND	-4.22	120.57	124.45
3	I	102	BCL	C2D-C1D-ND	4.22	113.21	110.10
3	6	101	BCL	C3D-C2D-C1D	-4.20	100.10	105.83
3	N	102	BCL	CMB-C2B-C3B	4.19	132.51	124.68
3	6	101	BCL	CHD-C1D-ND	-4.18	120.61	124.45
3	U	101	BCL	CMB-C2B-C3B	4.17	132.49	124.68
3	O	102	BCL	C3D-C2D-C1D	-4.13	100.20	105.83
3	S	102	BCL	C3C-C4C-CHD	-4.12	114.59	123.39
3	5	101	BCL	CMB-C2B-C3B	4.12	132.38	124.68
3	E	102	BCL	C4A-NA-C1A	4.05	108.53	106.71
3	U	101	BCL	C3C-C4C-CHD	-4.04	114.76	123.39
3	Q	101	BCL	CMB-C2B-C3B	4.04	132.23	124.68
3	Z	101	BCL	C4A-NA-C1A	4.03	108.52	106.71
3	U	101	BCL	C2D-C1D-ND	4.02	113.07	110.10
3	I	102	BCL	C3C-C4C-CHD	-3.99	114.87	123.39
3	R	101	BCL	CMB-C2B-C3B	3.99	132.14	124.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	1	101	BCL	C3C-C4C-CHD	-3.98	114.89	123.39
3	5	101	BCL	CHD-C4C-NC	3.98	129.49	125.08
3	Q	101	BCL	CHD-C4C-NC	3.97	129.49	125.08
3	B	102	BCL	CMD-C2D-C1D	3.97	131.70	124.71
3	7	102	BCL	O2D-CGD-O1D	-3.96	116.09	123.84
3	K	102	BCL	C3C-C4C-CHD	-3.96	114.94	123.39
3	E	102	BCL	CHD-C1D-ND	-3.93	120.84	124.45
3	J	101	BCL	C4A-NA-C1A	3.92	108.47	106.71
3	Q	101	BCL	C3C-C4C-CHD	-3.92	115.02	123.39
3	K	102	BCL	O2D-CGD-O1D	-3.92	116.18	123.84
3	Y	102	BCL	CMB-C2B-C3B	3.89	131.96	124.68
3	6	101	BCL	CMD-C2D-C1D	3.88	131.55	124.71
3	P	101	BCL	CMD-C2D-C1D	3.88	131.55	124.71
3	I	102	BCL	CHD-C4C-NC	3.87	129.37	125.08
3	8	101	BCL	C1C-NC-C4C	-3.87	104.97	106.71
3	K	102	BCL	CHD-C4C-NC	3.86	129.37	125.08
3	2	101	BCL	CHD-C1D-ND	-3.82	120.94	124.45
3	N	102	BCL	CMD-C2D-C1D	3.82	131.44	124.71
3	A	102	BCL	O2D-CGD-O1D	-3.82	116.38	123.84
3	A	102	BCL	CHD-C4C-NC	3.82	129.31	125.08
3	O	102	BCL	C3C-C4C-CHD	-3.81	115.25	123.39
3	8	101	BCL	C4A-NA-C1A	3.81	108.42	106.71
3	I	102	BCL	O2D-CGD-O1D	-3.81	116.39	123.84
3	G	102	BCL	C1D-ND-C4D	-3.80	103.63	106.33
3	1	101	BCL	CHD-C4C-NC	3.80	129.30	125.08
3	Y	102	BCL	CHD-C4C-NC	3.80	129.30	125.08
3	O	102	BCL	C2D-C1D-ND	3.79	112.90	110.10
3	S	102	BCL	C1D-ND-C4D	-3.77	103.66	106.33
3	D	101	BCL	C1D-ND-C4D	-3.77	103.66	106.33
3	Y	102	BCL	C3C-C4C-CHD	-3.77	115.34	123.39
3	F	101	BCL	CHD-C4C-NC	3.76	129.25	125.08
3	A	102	BCL	C3C-C4C-CHD	-3.76	115.36	123.39
3	S	102	BCL	O2D-CGD-O1D	-3.75	116.51	123.84
3	1	101	BCL	CMB-C2B-C3B	3.74	131.68	124.68
3	D	101	BCL	C3C-C4C-CHD	-3.74	115.40	123.39
3	5	101	BCL	O2D-CGD-O1D	-3.73	116.55	123.84
3	D	101	BCL	CHD-C4C-NC	3.73	129.22	125.08
3	3	101	BCL	CMB-C2B-C3B	3.71	131.62	124.68
3	F	101	BCL	C3C-C4C-CHD	-3.71	115.46	123.39
3	T	101	BCL	CMB-C2B-C1B	-3.70	122.78	128.46
3	3	101	BCL	C3C-C4C-CHD	-3.69	115.50	123.39
3	O	102	BCL	O2D-CGD-O1D	-3.69	116.62	123.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	D	101	BCL	CMB-C2B-C3B	3.68	131.57	124.68
3	T	101	BCL	O2A-CGA-CBA	3.66	123.41	111.91
3	5	101	BCL	C1D-ND-C4D	-3.65	103.74	106.33
3	T	101	BCL	C1C-NC-C4C	-3.62	105.08	106.71
3	A	102	BCL	C1D-ND-C4D	-3.61	103.77	106.33
3	R	101	BCL	C1C-NC-C4C	-3.61	105.08	106.71
3	T	101	BCL	CHB-C4A-NA	3.61	129.51	124.51
3	D	101	BCL	O2D-CGD-O1D	-3.58	116.84	123.84
3	3	101	BCL	O2D-CGD-O1D	-3.57	116.87	123.84
3	Y	102	BCL	O2D-CGD-O1D	-3.56	116.88	123.84
3	1	101	BCL	C1D-ND-C4D	-3.55	103.81	106.33
3	3	101	BCL	CHD-C4C-NC	3.55	129.02	125.08
3	5	101	BCL	C1C-NC-C4C	-3.55	105.11	106.71
3	P	101	BCL	C1D-ND-C4D	-3.52	103.83	106.33
3	I	102	BCL	CMB-C2B-C1B	-3.52	123.05	128.46
3	F	101	BCL	O2D-CGD-O1D	-3.52	116.97	123.84
3	1	101	BCL	O2D-CGD-O1D	-3.51	116.97	123.84
3	8	101	BCL	CHB-C4A-NA	3.50	129.36	124.51
3	R	101	BCL	C1D-ND-C4D	-3.50	103.85	106.33
3	4	101	BCL	C1D-ND-C4D	-3.50	103.85	106.33
3	F	101	BCL	CMB-C2B-C3B	3.49	131.22	124.68
3	2	101	BCL	C1D-ND-C4D	-3.49	103.85	106.33
3	Q	101	BCL	O2D-CGD-O1D	-3.48	117.03	123.84
3	P	101	BCL	O2A-CGA-CBA	3.48	122.82	111.91
3	E	102	BCL	CMD-C2D-C1D	3.43	130.76	124.71
3	K	102	BCL	C1D-ND-C4D	-3.42	103.90	106.33
3	U	101	BCL	O2D-CGD-O1D	-3.42	117.15	123.84
3	B	102	BCL	CMB-C2B-C1B	-3.42	123.21	128.46
3	V	102	BCL	C1D-CHD-C4C	-3.40	118.41	126.62
5	E	103	CRT	C8-C7-C9	-3.40	118.16	122.92
3	4	101	BCL	CMD-C2D-C1D	3.40	130.70	124.71
3	N	102	BCL	C1D-ND-C4D	-3.39	103.93	106.33
5	S	101	CRT	C24-C23-C22	-3.39	118.18	122.92
3	Z	101	BCL	CMB-C2B-C1B	-3.38	123.27	128.46
3	Y	102	BCL	C1D-ND-C4D	-3.36	103.95	106.33
5	O	101	CRT	C24-C23-C22	-3.35	118.22	122.92
3	1	101	BCL	C4-C3-C5	3.35	120.91	115.27
3	T	101	BCL	C1D-ND-C4D	-3.34	103.97	106.33
3	R	101	BCL	CHB-C4A-NA	3.33	129.12	124.51
3	N	102	BCL	O2A-CGA-CBA	3.33	122.34	111.91
3	3	101	BCL	C1D-ND-C4D	-3.32	103.97	106.33
3	J	101	BCL	C1D-ND-C4D	-3.32	103.97	106.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	1	104	CRT	C24-C23-C22	-3.32	118.28	122.92
3	V	102	BCL	O2D-CGD-CBD	3.32	117.16	111.27
5	E	103	CRT	C24-C23-C22	-3.31	118.28	122.92
5	Y	101	CRT	C24-C23-C22	-3.30	118.30	122.92
5	K	101	CRT	C24-C23-C22	-3.30	118.30	122.92
3	7	102	BCL	C1D-ND-C4D	-3.30	103.99	106.33
5	2	102	CRT	C24-C23-C22	-3.30	118.31	122.92
5	7	101	CRT	C24-C23-C22	-3.30	118.31	122.92
5	A	101	CRT	C24-C23-C22	-3.29	118.31	122.92
3	R	101	BCL	O2A-CGA-CBA	3.29	122.24	111.91
3	U	101	BCL	C1D-ND-C4D	-3.29	104.00	106.33
5	I	101	CRT	C24-C23-C22	-3.29	118.31	122.92
5	7	104	CRT	C24-C23-C22	-3.29	118.32	122.92
3	E	102	BCL	O2A-CGA-CBA	3.28	122.20	111.91
3	2	101	BCL	CMD-C2D-C1D	3.28	130.49	124.71
3	2	101	BCL	C1D-CHD-C4C	-3.27	118.72	126.62
5	I	101	CRT	C34-C33-C32	-3.27	118.35	122.92
3	2	101	BCL	O2A-CGA-CBA	3.27	122.16	111.91
3	Z	101	BCL	C1D-CHD-C4C	-3.26	118.75	126.62
5	S	104	CRT	C24-C23-C22	-3.26	118.35	122.92
5	1	103	CRT	C24-C23-C22	-3.26	118.35	122.92
3	V	102	BCL	CMD-C2D-C1D	3.26	130.46	124.71
3	O	102	BCL	C1C-NC-C4C	-3.26	105.24	106.71
5	1	104	CRT	C34-C33-C32	-3.26	118.36	122.92
3	Q	101	BCL	C1D-ND-C4D	-3.26	104.02	106.33
3	8	101	BCL	O2A-CGA-CBA	3.26	122.13	111.91
3	T	101	BCL	C4-C3-C5	3.25	120.73	115.27
3	6	101	BCL	C1D-CHD-C4C	-3.25	118.79	126.62
5	K	104	CRT	C24-C23-C22	-3.22	118.41	122.92
3	F	101	BCL	C1D-ND-C4D	-3.22	104.05	106.33
3	E	102	BCL	C1D-CHD-C4C	-3.22	118.86	126.62
3	J	101	BCL	O2A-CGA-CBA	3.21	122.00	111.91
3	Z	101	BCL	C1D-ND-C4D	-3.21	104.06	106.33
3	6	101	BCL	C1D-ND-C4D	-3.21	104.06	106.33
3	8	101	BCL	C1D-ND-C4D	-3.21	104.06	106.33
3	B	102	BCL	C1D-CHD-C4C	-3.20	118.89	126.62
3	U	101	BCL	CHD-C4C-NC	3.20	128.63	125.08
3	N	102	BCL	C1D-CHD-C4C	-3.20	118.91	126.62
3	4	101	BCL	O2A-CGA-CBA	3.19	121.93	111.91
5	A	101	CRT	C8-C7-C9	-3.19	118.45	122.92
3	E	102	BCL	C1D-ND-C4D	-3.19	104.07	106.33
3	D	101	BCL	C3D-C4D-ND	3.18	115.38	110.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	O	101	CRT	C8-C7-C9	-3.17	118.48	122.92
5	1	104	CRT	C8-C7-C9	-3.17	118.48	122.92
5	Y	101	CRT	C8-C7-C9	-3.17	118.48	122.92
5	7	104	CRT	C8-C7-C9	-3.16	118.50	122.92
3	J	101	BCL	C1D-CHD-C4C	-3.16	119.01	126.62
3	V	102	BCL	O2A-CGA-CBA	3.16	121.81	111.91
5	1	103	CRT	C8-C7-C9	-3.15	118.50	122.92
3	4	101	BCL	C1D-CHD-C4C	-3.15	119.02	126.62
3	B	102	BCL	O2D-CGD-CBD	3.15	116.87	111.27
5	I	101	CRT	C8-C7-C9	-3.15	118.51	122.92
5	2	102	CRT	C8-C7-C9	-3.15	118.51	122.92
5	S	101	CRT	C8-C7-C9	-3.15	118.52	122.92
5	K	101	CRT	C8-C7-C9	-3.14	118.52	122.92
3	P	101	BCL	C1D-CHD-C4C	-3.14	119.04	126.62
5	K	104	CRT	C8-C7-C9	-3.14	118.53	122.92
3	E	102	BCL	CMB-C2B-C1B	-3.14	123.64	128.46
5	7	101	CRT	C8-C7-C9	-3.13	118.53	122.92
5	I	101	CRT	C29-C28-C27	-3.13	118.54	122.92
3	B	102	BCL	C1D-ND-C4D	-3.13	104.11	106.33
5	S	104	CRT	C8-C7-C9	-3.12	118.55	122.92
5	1	103	CRT	C34-C33-C32	-3.12	118.55	122.92
3	S	102	BCL	C3D-C4D-ND	3.12	115.28	110.24
3	A	102	BCL	CMB-C2B-C3B	3.12	130.51	124.68
5	1	104	CRT	C29-C28-C27	-3.11	118.56	122.92
3	P	101	BCL	CHB-C4A-NA	3.11	128.81	124.51
3	U	101	BCL	C3D-C4D-ND	3.10	115.26	110.24
5	A	101	CRT	C34-C33-C32	-3.10	118.58	122.92
3	4	101	BCL	CHB-C4A-NA	3.09	128.79	124.51
3	5	101	BCL	C3D-C4D-ND	3.09	115.23	110.24
3	A	102	BCL	C3D-C4D-ND	3.08	115.23	110.24
3	B	102	BCL	CHB-C4A-NA	3.08	128.77	124.51
3	2	101	BCL	C4-C3-C5	3.08	120.45	115.27
3	7	102	BCL	C4A-NA-C1A	3.07	108.09	106.71
3	6	101	BCL	CHB-C4A-NA	3.07	128.76	124.51
3	N	102	BCL	CHB-C4A-NA	3.07	128.76	124.51
5	7	104	CRT	C34-C33-C32	-3.07	118.62	122.92
5	O	101	CRT	C34-C33-C32	-3.06	118.64	122.92
3	4	101	BCL	C4-C3-C5	3.05	120.41	115.27
3	G	102	BCL	C1D-CHD-C4C	-3.05	119.27	126.62
3	Z	101	BCL	O2A-CGA-CBA	3.04	121.46	111.91
3	G	102	BCL	O2D-CGD-CBD	3.04	116.67	111.27
5	E	103	CRT	C34-C33-C32	-3.04	118.67	122.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	E	103	CRT	C6-C7-C9	3.04	123.60	118.94
5	S	104	CRT	C34-C33-C32	-3.03	118.68	122.92
5	2	102	CRT	C34-C33-C32	-3.03	118.68	122.92
5	A	101	CRT	C29-C28-C27	-3.03	118.69	122.92
3	V	102	BCL	C1D-ND-C4D	-3.03	104.19	106.33
5	K	101	CRT	C34-C33-C32	-3.02	118.69	122.92
3	Q	101	BCL	C3D-C4D-ND	3.01	115.10	110.24
3	G	102	BCL	O2A-CGA-CBA	3.01	121.34	111.91
3	Y	102	BCL	C3D-C4D-ND	3.00	115.09	110.24
3	8	101	BCL	C1D-CHD-C4C	-3.00	119.39	126.62
5	E	103	CRT	C29-C28-C27	-3.00	118.72	122.92
5	K	101	CRT	C29-C28-C27	-3.00	118.73	122.92
5	Y	101	CRT	C34-C33-C32	-2.99	118.73	122.92
5	S	101	CRT	C25-C23-C22	2.99	123.53	118.94
3	E	102	BCL	CHB-C4A-NA	2.99	128.64	124.51
5	K	104	CRT	C34-C33-C32	-2.99	118.74	122.92
3	7	102	BCL	C1-C2-C3	-2.98	120.89	126.04
5	S	104	CRT	C29-C28-C27	-2.98	118.75	122.92
5	S	101	CRT	C29-C28-C27	-2.98	118.75	122.92
5	2	102	CRT	C29-C28-C27	-2.97	118.76	122.92
3	F	101	BCL	C3D-C4D-ND	2.97	115.05	110.24
3	K	102	BCL	C3D-C4D-ND	2.97	115.04	110.24
5	Y	101	CRT	C29-C28-C27	-2.97	118.76	122.92
5	7	104	CRT	C29-C28-C27	-2.97	118.76	122.92
3	3	101	BCL	C3D-C4D-ND	2.96	115.03	110.24
5	1	103	CRT	C29-C28-C27	-2.96	118.78	122.92
3	Z	101	BCL	C4-C3-C5	2.96	120.25	115.27
5	O	101	CRT	C29-C28-C27	-2.95	118.78	122.92
5	E	103	CRT	C25-C23-C22	2.95	123.47	118.94
3	I	102	BCL	C1D-ND-C4D	-2.95	104.24	106.33
3	1	101	BCL	C3D-C4D-ND	2.95	115.00	110.24
5	O	101	CRT	C25-C23-C22	2.94	123.46	118.94
3	T	101	BCL	C1D-CHD-C4C	-2.94	119.53	126.62
3	6	101	BCL	O2A-CGA-CBA	2.94	121.13	111.91
3	2	101	BCL	CMB-C2B-C1B	-2.93	123.95	128.46
5	1	104	CRT	C25-C23-C22	2.93	123.43	118.94
3	N	102	BCL	O2D-CGD-CBD	2.92	116.46	111.27
3	8	101	BCL	O2D-CGD-CBD	2.92	116.46	111.27
3	T	101	BCL	O2D-CGD-CBD	2.92	116.46	111.27
5	I	101	CRT	C25-C23-C22	2.92	123.42	118.94
3	R	101	BCL	C1D-CHD-C4C	-2.92	119.58	126.62
3	E	102	BCL	O2D-CGD-CBD	2.92	116.45	111.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	G	102	BCL	CHB-C4A-NA	2.91	128.54	124.51
3	O	102	BCL	C3D-C4D-ND	2.91	114.94	110.24
5	K	104	CRT	C29-C28-C27	-2.90	118.86	122.92
5	7	101	CRT	C29-C28-C27	-2.90	118.86	122.92
3	B	102	BCL	O2A-CGA-CBA	2.89	120.99	111.91
5	E	103	CRT	C13-C12-C14	-2.89	118.87	122.92
3	J	101	BCL	CHB-C4A-NA	2.88	128.49	124.51
3	K	102	BCL	C1C-NC-C4C	-2.87	105.42	106.71
3	8	101	BCL	C1-C2-C3	-2.86	121.09	126.04
5	7	101	CRT	C25-C23-C22	2.86	123.33	118.94
5	7	104	CRT	C25-C23-C22	2.86	123.33	118.94
3	I	102	BCL	C3D-C4D-ND	2.86	114.86	110.24
3	7	102	BCL	C3D-C4D-ND	2.85	114.86	110.24
3	1	101	BCL	C1C-NC-C4C	-2.85	105.42	106.71
5	S	104	CRT	C25-C23-C22	2.85	123.32	118.94
5	A	101	CRT	C25-C23-C22	2.85	123.31	118.94
5	1	104	CRT	C35-C33-C32	2.85	123.31	118.94
3	J	101	BCL	CMB-C2B-C1B	-2.85	124.09	128.46
3	V	102	BCL	CHC-C1C-NC	2.84	128.44	124.51
3	Z	101	BCL	O2D-CGD-CBD	2.84	116.31	111.27
3	7	102	BCL	C1D-CHD-C4C	-2.84	119.77	126.62
5	K	101	CRT	C25-C23-C22	2.84	123.29	118.94
3	P	101	BCL	C4-C3-C5	2.84	120.04	115.27
5	S	101	CRT	C34-C33-C32	-2.83	118.95	122.92
3	V	102	BCL	C4-C3-C5	2.83	120.03	115.27
5	2	102	CRT	C25-C23-C22	2.82	123.27	118.94
5	I	101	CRT	C35-C33-C32	2.82	123.27	118.94
3	6	101	BCL	O2D-CGD-CBD	2.82	116.28	111.27
5	7	101	CRT	C18-C17-C19	-2.82	118.98	122.92
5	K	104	CRT	C18-C17-C19	-2.82	118.98	122.92
5	K	104	CRT	C25-C23-C22	2.81	123.25	118.94
5	Y	101	CRT	C25-C23-C22	2.81	123.25	118.94
5	1	104	CRT	C18-C17-C19	-2.81	118.99	122.92
5	O	101	CRT	C18-C17-C19	-2.81	118.99	122.92
5	1	103	CRT	C25-C23-C22	2.81	123.25	118.94
5	7	104	CRT	C18-C17-C19	-2.80	119.00	122.92
5	S	101	CRT	C18-C17-C19	-2.80	119.00	122.92
5	E	103	CRT	C18-C17-C19	-2.80	119.01	122.92
5	2	102	CRT	C18-C17-C19	-2.79	119.01	122.92
5	K	101	CRT	C18-C17-C19	-2.79	119.01	122.92
3	S	102	BCL	CMB-C2B-C1B	-2.78	124.19	128.46
5	I	101	CRT	C18-C17-C19	-2.78	119.03	122.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	Y	101	CRT	C18-C17-C19	-2.78	119.03	122.92
5	7	101	CRT	C34-C33-C32	-2.77	119.04	122.92
3	S	102	BCL	C4-C3-C5	2.77	119.94	115.27
3	2	101	BCL	CHB-C4A-NA	2.77	128.34	124.51
5	A	101	CRT	C18-C17-C19	-2.76	119.05	122.92
5	1	103	CRT	C18-C17-C19	-2.76	119.05	122.92
3	3	101	BCL	C1D-CHD-C4C	-2.75	119.98	126.62
5	S	104	CRT	C18-C17-C19	-2.75	119.07	122.92
3	K	102	BCL	CHC-C1C-NC	2.75	128.31	124.51
3	1	101	BCL	C4A-NA-C1A	2.74	107.94	106.71
5	7	104	CRT	C13-C12-C14	-2.74	119.08	122.92
5	I	101	CRT	C13-C12-C14	-2.74	119.09	122.92
3	T	101	BCL	C1-C2-C3	-2.74	121.31	126.04
5	1	103	CRT	C13-C12-C14	-2.73	119.09	122.92
5	K	101	CRT	C13-C12-C14	-2.73	119.10	122.92
5	7	101	CRT	C13-C12-C14	-2.72	119.11	122.92
5	S	101	CRT	C13-C12-C14	-2.72	119.11	122.92
5	S	104	CRT	C13-C12-C14	-2.72	119.11	122.92
5	2	102	CRT	C13-C12-C14	-2.72	119.11	122.92
3	K	102	BCL	C4A-NA-C1A	2.72	107.93	106.71
3	O	102	BCL	C4-C3-C5	2.72	119.84	115.27
5	K	104	CRT	C13-C12-C14	-2.72	119.12	122.92
5	Y	101	CRT	C13-C12-C14	-2.72	119.12	122.92
3	2	101	BCL	O2D-CGD-CBD	2.71	116.08	111.27
3	7	102	BCL	CMB-C2B-C1B	-2.71	124.30	128.46
3	1	101	BCL	C1D-CHD-C4C	-2.70	120.10	126.62
5	1	104	CRT	C13-C12-C14	-2.70	119.14	122.92
3	5	101	BCL	CMC-C2C-C1C	-2.69	104.54	111.77
5	O	101	CRT	C35-C33-C32	2.69	123.07	118.94
5	A	101	CRT	C13-C12-C14	-2.68	119.16	122.92
3	N	102	BCL	C1-C2-C3	-2.68	121.41	126.04
5	1	104	CRT	C30-C28-C27	2.68	123.05	118.94
3	3	101	BCL	C4-C3-C5	2.66	119.75	115.27
5	O	101	CRT	C6-C7-C9	2.65	123.02	118.94
3	Y	102	BCL	C1D-CHD-C4C	-2.65	120.22	126.62
5	1	104	CRT	C6-C7-C9	2.65	123.01	118.94
5	A	101	CRT	C6-C7-C9	2.65	123.00	118.94
3	7	102	BCL	O2A-CGA-CBA	2.65	120.21	111.91
3	B	102	BCL	C1-C2-C3	-2.64	121.47	126.04
3	K	102	BCL	C1D-CHD-C4C	-2.64	120.26	126.62
3	P	101	BCL	C1-O2A-CGA	2.63	123.35	116.44
3	P	101	BCL	O2D-CGD-CBD	2.63	115.94	111.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	J	101	BCL	C1-C2-C3	-2.63	121.50	126.04
5	O	101	CRT	C13-C12-C14	-2.63	119.24	122.92
5	7	101	CRT	C36-C35-C33	2.62	129.86	125.89
5	S	101	CRT	C6-C7-C9	2.62	122.96	118.94
5	7	104	CRT	C6-C7-C9	2.62	122.96	118.94
3	D	101	BCL	C1D-CHD-C4C	-2.62	120.30	126.62
5	Y	101	CRT	C6-C7-C9	2.61	122.95	118.94
3	A	102	BCL	C4-C3-C5	2.61	119.66	115.27
5	K	101	CRT	C6-C7-C9	2.61	122.95	118.94
5	1	103	CRT	C6-C7-C9	2.61	122.94	118.94
3	T	101	BCL	O2A-CGA-O1A	-2.61	117.01	123.59
3	J	101	BCL	O2D-CGD-CBD	2.61	115.90	111.27
3	O	102	BCL	C1D-ND-C4D	-2.61	104.48	106.33
5	2	102	CRT	C6-C7-C9	2.60	122.94	118.94
5	7	101	CRT	C6-C7-C9	2.60	122.94	118.94
3	I	102	BCL	CHC-C1C-NC	2.60	128.11	124.51
5	I	101	CRT	C30-C28-C27	2.60	122.93	118.94
5	K	104	CRT	C6-C7-C9	2.60	122.92	118.94
3	A	102	BCL	C1D-CHD-C4C	-2.59	120.37	126.62
3	4	101	BCL	O2D-CGD-CBD	2.59	115.87	111.27
5	O	101	CRT	C15-C14-C12	2.58	131.00	127.31
5	I	101	CRT	C6-C7-C9	2.58	122.90	118.94
3	G	102	BCL	C4-C3-C5	2.58	119.61	115.27
5	S	104	CRT	C6-C7-C9	2.58	122.90	118.94
3	R	101	BCL	O2D-CGD-O1D	-2.58	118.80	123.84
3	4	101	BCL	C3D-C4D-ND	2.58	114.41	110.24
3	3	101	BCL	C4A-NA-C1A	2.57	107.86	106.71
5	S	101	CRT	C36-C35-C33	2.57	129.78	125.89
3	O	102	BCL	CBC-CAC-C3C	-2.56	107.76	113.47
3	F	101	BCL	C1D-CHD-C4C	-2.55	120.47	126.62
3	T	101	BCL	CED-O2D-CGD	2.55	121.70	115.94
3	P	101	BCL	C3D-C4D-ND	2.54	114.35	110.24
3	2	101	BCL	C3D-C4D-ND	2.54	114.35	110.24
5	A	101	CRT	C35-C33-C32	2.54	122.84	118.94
3	S	102	BCL	C1D-CHD-C4C	-2.53	120.51	126.62
5	1	103	CRT	C35-C33-C32	2.53	122.82	118.94
3	Q	101	BCL	C1D-CHD-C4C	-2.52	120.54	126.62
3	Q	101	BCL	CHC-C1C-NC	2.50	127.97	124.51
3	T	101	BCL	C3D-C4D-ND	2.49	114.27	110.24
3	E	102	BCL	C1-C2-C3	-2.48	121.75	126.04
3	R	101	BCL	C1-C2-C3	-2.48	121.75	126.04
3	G	102	BCL	C3D-C4D-ND	2.48	114.25	110.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	R	101	BCL	C4D-CHA-C1A	-2.48	118.23	121.25
3	4	101	BCL	CMB-C2B-C1B	-2.48	124.66	128.46
5	K	101	CRT	C15-C14-C12	2.48	130.84	127.31
5	S	101	CRT	C15-C14-C12	2.48	130.84	127.31
3	R	101	BCL	C3D-C4D-ND	2.47	114.24	110.24
3	3	101	BCL	C1C-NC-C4C	-2.46	105.60	106.71
3	Z	101	BCL	CHB-C4A-NA	2.46	127.91	124.51
5	2	102	CRT	C15-C14-C12	2.45	130.81	127.31
3	U	101	BCL	C1D-CHD-C4C	-2.45	120.71	126.62
5	Y	101	CRT	C15-C14-C12	2.45	130.81	127.31
3	B	102	BCL	CED-O2D-CGD	2.45	121.47	115.94
5	1	103	CRT	C15-C14-C12	2.44	130.80	127.31
5	S	104	CRT	C35-C33-C32	2.44	122.69	118.94
5	7	104	CRT	C35-C33-C32	2.44	122.69	118.94
5	A	101	CRT	C15-C14-C12	2.44	130.79	127.31
3	5	101	BCL	C1D-CHD-C4C	-2.43	120.75	126.62
3	I	102	BCL	C1D-CHD-C4C	-2.43	120.76	126.62
3	Z	101	BCL	C3D-C4D-ND	2.42	114.16	110.24
5	1	104	CRT	C15-C14-C12	2.42	130.77	127.31
5	E	103	CRT	C30-C28-C27	2.42	122.65	118.94
5	S	104	CRT	C15-C14-C12	2.42	130.76	127.31
3	6	101	BCL	C3D-C4D-ND	2.42	114.15	110.24
3	I	102	BCL	C2A-C3A-C4A	-2.42	97.97	101.87
5	7	101	CRT	C15-C14-C12	2.41	130.75	127.31
5	E	103	CRT	C35-C33-C32	2.41	122.64	118.94
5	I	101	CRT	C15-C14-C12	2.41	130.75	127.31
3	5	101	BCL	C4-C3-C5	2.41	119.32	115.27
5	K	101	CRT	C35-C33-C32	2.40	122.63	118.94
3	Q	101	BCL	C2A-C3A-C4A	-2.40	97.99	101.87
5	Y	101	CRT	C35-C33-C32	2.39	122.61	118.94
3	8	101	BCL	C1-O2A-CGA	2.39	122.71	116.44
5	K	104	CRT	C15-C14-C12	2.39	130.72	127.31
5	A	101	CRT	C30-C28-C27	2.38	122.59	118.94
3	N	102	BCL	CED-O2D-CGD	2.38	121.32	115.94
3	N	102	BCL	C3D-C4D-ND	2.38	114.09	110.24
3	I	102	BCL	O2A-CGA-CBA	2.38	119.36	111.91
5	7	104	CRT	C15-C14-C12	2.38	130.70	127.31
3	T	101	BCL	C11-C10-C8	-2.37	108.25	115.92
3	6	101	BCL	CED-O2D-CGD	2.37	121.30	115.94
3	O	102	BCL	CHC-C1C-NC	2.37	127.79	124.51
3	E	102	BCL	C3D-C4D-ND	2.37	114.07	110.24
5	2	102	CRT	C35-C33-C32	2.37	122.58	118.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	S	104	CRT	C30-C28-C27	2.37	122.58	118.94
3	7	102	BCL	CHC-C1C-NC	2.37	127.78	124.51
3	A	102	BCL	O2A-CGA-CBA	2.37	119.33	111.91
3	S	102	BCL	O2A-CGA-CBA	2.36	119.30	111.91
5	K	104	CRT	C35-C33-C32	2.35	122.55	118.94
5	S	101	CRT	C30-C28-C27	2.35	122.55	118.94
3	J	101	BCL	C3D-C4D-ND	2.35	114.04	110.24
3	P	101	BCL	CMB-C2B-C1B	-2.34	124.86	128.46
3	3	101	BCL	O2A-CGA-CBA	2.34	119.25	111.91
5	Y	101	CRT	C30-C28-C27	2.34	122.53	118.94
5	2	102	CRT	C30-C28-C27	2.33	122.52	118.94
3	U	101	BCL	O2A-CGA-CBA	2.33	119.23	111.91
3	6	101	BCL	CMB-C2B-C1B	-2.33	124.88	128.46
3	V	102	BCL	C3D-C4D-ND	2.33	114.00	110.24
3	8	101	BCL	C4-C3-C5	2.33	119.19	115.27
3	T	101	BCL	CHC-C1C-NC	2.33	127.73	124.51
5	K	101	CRT	C30-C28-C27	2.33	122.51	118.94
3	Y	102	BCL	C6-C5-C3	-2.32	107.36	113.45
5	7	104	CRT	C30-C28-C27	2.32	122.50	118.94
3	B	102	BCL	C3D-C4D-ND	2.32	113.98	110.24
3	K	102	BCL	C4-C3-C5	2.31	119.15	115.27
5	1	103	CRT	C30-C28-C27	2.31	122.48	118.94
3	T	101	BCL	CAA-C2A-C1A	2.30	119.52	111.97
3	G	102	BCL	CHC-C1C-NC	2.30	127.69	124.51
3	8	101	BCL	C3D-C4D-ND	2.30	113.95	110.24
3	F	101	BCL	C4-C3-C5	2.27	119.09	115.27
3	R	101	BCL	C4-C3-C5	2.27	119.09	115.27
3	5	101	BCL	O2A-CGA-CBA	2.27	119.04	111.91
3	K	102	BCL	O2A-CGA-CBA	2.27	119.03	111.91
3	4	101	BCL	CED-O2D-CGD	2.27	121.07	115.94
3	S	102	BCL	CHC-C1C-NC	2.27	127.64	124.51
3	1	101	BCL	O2A-CGA-CBA	2.26	119.01	111.91
3	P	101	BCL	CED-O2D-CGD	2.26	121.04	115.94
3	D	101	BCL	C4-C3-C5	2.25	119.06	115.27
5	K	104	CRT	C30-C28-C27	2.25	122.40	118.94
3	3	101	BCL	CHB-C4A-NA	2.25	127.62	124.51
3	O	102	BCL	CBA-CAA-C2A	-2.25	107.22	113.86
5	7	101	CRT	C30-C28-C27	2.25	122.39	118.94
3	O	102	BCL	C1D-CHD-C4C	-2.25	121.20	126.62
3	J	101	BCL	C1-O2A-CGA	2.25	122.34	116.44
3	6	101	BCL	C4-C3-C5	2.25	119.05	115.27
3	Z	101	BCL	CHC-C1C-NC	2.25	127.62	124.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	8	101	BCL	C4D-CHA-C1A	-2.24	118.52	121.25
3	G	102	BCL	CED-O2D-CGD	2.24	121.00	115.94
3	G	102	BCL	C11-C10-C8	-2.24	108.69	115.92
3	Y	102	BCL	C4A-NA-C1A	2.24	107.71	106.71
3	F	101	BCL	O2A-CGA-CBA	2.23	118.91	111.91
5	E	103	CRT	C15-C14-C12	2.23	130.49	127.31
3	U	101	BCL	CHC-C1C-NC	2.22	127.58	124.51
3	N	102	BCL	C1-O2A-CGA	2.22	122.27	116.44
3	E	102	BCL	CED-O2D-CGD	2.21	120.94	115.94
3	Z	101	BCL	CED-O2D-CGD	2.21	120.94	115.94
3	D	101	BCL	O2A-CGA-CBA	2.21	118.83	111.91
3	N	102	BCL	C4-C3-C5	2.20	118.97	115.27
3	U	101	BCL	C1C-NC-C4C	-2.18	105.73	106.71
3	N	102	BCL	O2A-CGA-O1A	-2.18	118.10	123.59
3	B	102	BCL	C1-O2A-CGA	2.18	122.16	116.44
5	O	101	CRT	C30-C28-C27	2.18	122.28	118.94
5	S	104	CRT	C20-C19-C17	2.18	130.42	127.31
3	Y	102	BCL	CBA-CAA-C2A	-2.18	107.44	113.86
3	4	101	BCL	C1-O2A-CGA	2.17	122.14	116.44
3	U	101	BCL	C4-C3-C5	2.17	118.92	115.27
3	G	102	BCL	C1-O2A-CGA	2.17	122.13	116.44
3	Q	101	BCL	C4-C3-C5	2.17	118.91	115.27
3	Z	101	BCL	C4-C3-C2	-2.16	118.12	123.68
3	1	101	BCL	CHB-C4A-NA	2.16	127.50	124.51
3	A	102	BCL	CHB-C4A-NA	2.16	127.50	124.51
3	7	102	BCL	CMA-C3A-C4A	-2.16	105.97	111.77
5	E	103	CRT	C11-C12-C14	2.16	122.25	118.94
3	I	102	BCL	C1B-CHB-C4A	-2.16	125.84	130.12
3	Q	101	BCL	O2A-CGA-CBA	2.16	118.67	111.91
3	6	101	BCL	C11-C10-C8	-2.15	108.95	115.92
3	E	102	BCL	C1-O2A-CGA	2.15	122.09	116.44
3	R	101	BCL	C1-O2A-CGA	2.15	122.09	116.44
3	I	102	BCL	C1-O2A-CGA	2.15	122.08	116.44
3	1	101	BCL	CHC-C1C-NC	2.15	127.48	124.51
3	F	101	BCL	C4A-NA-C1A	2.14	107.67	106.71
3	V	102	BCL	CED-O2D-CGD	2.14	120.78	115.94
5	S	101	CRT	C20-C19-C17	2.14	130.37	127.31
3	R	101	BCL	C11-C10-C8	-2.14	109.00	115.92
3	2	101	BCL	CED-O2D-CGD	2.13	120.76	115.94
3	4	101	BCL	C16-C15-C13	-2.13	109.03	115.92
3	Y	102	BCL	CHB-C4A-NA	2.12	127.44	124.51
5	7	104	CRT	C21-C20-C19	2.12	127.81	123.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	F	101	BCL	CHB-C4A-NA	2.12	127.44	124.51
3	E	102	BCL	C4-C3-C5	2.11	118.83	115.27
3	E	102	BCL	CHC-C1C-NC	2.11	127.43	124.51
3	D	101	BCL	CHC-C1C-NC	2.11	127.43	124.51
5	E	103	CRT	C20-C19-C17	2.11	130.32	127.31
5	7	101	CRT	C31-C32-C33	2.09	130.30	127.31
3	P	101	BCL	C4D-CHA-C1A	-2.09	118.70	121.25
3	V	102	BCL	CMB-C2B-C1B	-2.09	125.25	128.46
3	V	102	BCL	C4-C3-C2	-2.09	118.31	123.68
3	1	101	BCL	C4-C3-C2	-2.09	118.31	123.68
3	J	101	BCL	CHC-C1C-NC	2.09	127.40	124.51
3	Y	102	BCL	C11-C12-C13	-2.09	109.17	115.92
3	E	102	BCL	O2A-CGA-O1A	-2.09	118.33	123.59
3	F	101	BCL	C1C-NC-C4C	-2.09	105.77	106.71
5	I	101	CRT	C20-C19-C17	2.09	130.29	127.31
3	J	101	BCL	CED-O2D-CGD	2.08	120.64	115.94
5	A	101	CRT	C20-C19-C17	2.07	130.27	127.31
5	Y	101	CRT	C21-C20-C19	2.07	127.72	123.47
5	1	104	CRT	C20-C19-C17	2.07	130.26	127.31
3	F	101	BCL	C4B-CHC-C1C	-2.07	126.02	130.12
5	7	101	CRT	C20-C19-C17	2.06	130.25	127.31
3	7	102	BCL	C4B-CHC-C1C	-2.06	126.04	130.12
3	I	102	BCL	C4-C3-C5	2.06	118.73	115.27
3	7	102	BCL	C4-C3-C5	2.06	118.73	115.27
3	O	102	BCL	O2A-CGA-CBA	2.06	118.36	111.91
3	J	101	BCL	C4-C3-C5	2.06	118.73	115.27
3	8	101	BCL	C7-C6-C5	-2.05	107.78	113.36
5	K	101	CRT	C21-C20-C19	2.05	127.68	123.47
3	B	102	BCL	CHC-C1C-NC	2.05	127.35	124.51
3	2	101	BCL	C1-O2A-CGA	2.05	121.81	116.44
3	D	101	BCL	CHB-C4A-NA	2.05	127.34	124.51
3	Y	102	BCL	O2A-CGA-CBA	2.04	118.33	111.91
5	7	104	CRT	C20-C19-C17	2.04	130.23	127.31
3	6	101	BCL	C4D-CHA-C1A	-2.04	118.76	121.25
3	2	101	BCL	C4-C3-C2	-2.04	118.44	123.68
5	1	103	CRT	C20-C19-C17	2.04	130.22	127.31
5	2	102	CRT	C20-C19-C17	2.03	130.21	127.31
3	Q	101	BCL	C1-C2-C3	-2.03	122.53	126.04
5	K	104	CRT	C21-C20-C19	2.03	127.64	123.47
3	N	102	BCL	C11-C10-C8	-2.03	109.35	115.92
5	2	102	CRT	C21-C20-C19	2.03	127.62	123.47
5	Y	101	CRT	C20-C19-C17	2.02	130.20	127.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	V	102	BCL	O2D-CGD-O1D	-2.02	119.88	123.84
3	1	101	BCL	CBA-CAA-C2A	-2.02	107.90	113.86
3	Q	101	BCL	C1B-CHB-C4A	-2.02	126.12	130.12
3	B	102	BCL	C4-C3-C5	2.02	118.67	115.27
5	K	104	CRT	C20-C19-C17	2.01	130.18	127.31
3	J	101	BCL	O2A-CGA-O1A	-2.01	118.52	123.59
5	A	101	CRT	C21-C20-C19	2.01	127.59	123.47
3	K	102	BCL	CMB-C2B-C1B	-2.01	125.38	128.46
3	R	101	BCL	CHC-C1C-NC	2.00	127.28	124.51
3	2	101	BCL	C4D-CHA-C1A	-2.00	118.81	121.25
3	U	101	BCL	C11-C12-C13	-2.00	109.45	115.92
5	O	101	CRT	C21-C20-C19	2.00	127.57	123.47

There are no chirality outliers.

All (434) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	1	101	BCL	C2-C3-C5-C6
3	1	101	BCL	C4-C3-C5-C6
3	2	101	BCL	C1A-C2A-CAA-CBA
3	2	101	BCL	C2C-C3C-CAC-CBC
3	2	101	BCL	C4C-C3C-CAC-CBC
3	2	101	BCL	C2-C3-C5-C6
3	2	101	BCL	C4-C3-C5-C6
3	4	101	BCL	C1A-C2A-CAA-CBA
3	4	101	BCL	C2C-C3C-CAC-CBC
3	4	101	BCL	C4C-C3C-CAC-CBC
3	6	101	BCL	C2C-C3C-CAC-CBC
3	6	101	BCL	C4C-C3C-CAC-CBC
3	7	102	BCL	C2A-CAA-CBA-CGA
3	8	101	BCL	C2C-C3C-CAC-CBC
3	8	101	BCL	C4C-C3C-CAC-CBC
3	B	102	BCL	C2C-C3C-CAC-CBC
3	B	102	BCL	C4C-C3C-CAC-CBC
3	E	102	BCL	C1A-C2A-CAA-CBA
3	E	102	BCL	C2C-C3C-CAC-CBC
3	E	102	BCL	C4C-C3C-CAC-CBC
3	G	102	BCL	C2C-C3C-CAC-CBC
3	G	102	BCL	C4C-C3C-CAC-CBC
3	G	102	BCL	CHA-CBD-CGD-O1D
3	G	102	BCL	C6-C7-C8-C9
3	J	101	BCL	C1A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
3	J	101	BCL	C2C-C3C-CAC-CBC
3	J	101	BCL	C4C-C3C-CAC-CBC
3	N	102	BCL	C1A-C2A-CAA-CBA
3	N	102	BCL	C2C-C3C-CAC-CBC
3	N	102	BCL	C4C-C3C-CAC-CBC
3	P	101	BCL	C1A-C2A-CAA-CBA
3	P	101	BCL	C2C-C3C-CAC-CBC
3	P	101	BCL	C4C-C3C-CAC-CBC
3	Q	101	BCL	C2C-C3C-CAC-CBC
3	Q	101	BCL	C4C-C3C-CAC-CBC
3	R	101	BCL	C1A-C2A-CAA-CBA
3	R	101	BCL	C2C-C3C-CAC-CBC
3	R	101	BCL	C4C-C3C-CAC-CBC
3	R	101	BCL	CBD-CGD-O2D-CED
3	T	101	BCL	C1A-C2A-CAA-CBA
3	T	101	BCL	C2C-C3C-CAC-CBC
3	T	101	BCL	C4C-C3C-CAC-CBC
3	V	102	BCL	C1A-C2A-CAA-CBA
3	V	102	BCL	C3A-C2A-CAA-CBA
3	V	102	BCL	C2C-C3C-CAC-CBC
3	V	102	BCL	C4C-C3C-CAC-CBC
3	V	102	BCL	C2-C3-C5-C6
3	V	102	BCL	C4-C3-C5-C6
3	V	102	BCL	C6-C7-C8-C9
3	Z	101	BCL	C1A-C2A-CAA-CBA
3	Z	101	BCL	C3A-C2A-CAA-CBA
3	Z	101	BCL	C2C-C3C-CAC-CBC
3	Z	101	BCL	C4C-C3C-CAC-CBC
3	Z	101	BCL	C14-C13-C15-C16
5	7	101	CRT	C36-C37-C38-C39
5	7	101	CRT	C36-C37-C38-C40
5	7	101	CRT	C36-C37-C38-O2
5	E	103	CRT	C1-C4-C5-C6
3	R	101	BCL	O1D-CGD-O2D-CED
3	G	102	BCL	CBD-CGD-O2D-CED
3	6	101	BCL	C3-C5-C6-C7
3	B	102	BCL	C3-C5-C6-C7
3	S	102	BCL	C3-C5-C6-C7
3	Z	101	BCL	C4-C3-C5-C6
3	6	101	BCL	C2A-CAA-CBA-CGA
3	B	102	BCL	C2A-CAA-CBA-CGA
3	G	102	BCL	C2A-CAA-CBA-CGA

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Mol	Chain	Res	Type	Atoms
3	R	101	BCL	C2A-CAA-CBA-CGA
3	4	101	BCL	C3-C5-C6-C7
3	Y	102	BCL	C3-C5-C6-C7
3	4	101	BCL	CBA-CGA-O2A-C1
3	B	102	BCL	CBD-CGD-O2D-CED
3	E	102	BCL	CBD-CGD-O2D-CED
3	2	101	BCL	C3-C5-C6-C7
3	R	101	BCL	C3-C5-C6-C7
3	T	101	BCL	C3-C5-C6-C7
3	Z	101	BCL	C3-C5-C6-C7
3	G	102	BCL	O1D-CGD-O2D-CED
3	P	101	BCL	CBA-CGA-O2A-C1
3	4	101	BCL	O1A-CGA-O2A-C1
3	8	101	BCL	C2A-CAA-CBA-CGA
3	E	102	BCL	C2A-CAA-CBA-CGA
3	J	101	BCL	C2A-CAA-CBA-CGA
3	P	101	BCL	O1A-CGA-O2A-C1
3	8	101	BCL	C15-C16-C17-C18
3	G	102	BCL	C3-C5-C6-C7
3	1	101	BCL	CBA-CGA-O2A-C1
3	2	101	BCL	CBA-CGA-O2A-C1
3	S	102	BCL	CBA-CGA-O2A-C1
3	V	102	BCL	CBA-CGA-O2A-C1
3	Z	101	BCL	CBA-CGA-O2A-C1
3	4	101	BCL	C5-C6-C7-C8
3	B	102	BCL	C10-C11-C12-C13
3	E	102	BCL	C15-C16-C17-C18
3	Z	101	BCL	C2-C3-C5-C6
3	6	101	BCL	C6-C7-C8-C9
3	8	101	BCL	C11-C10-C8-C9
3	B	102	BCL	C6-C7-C8-C9
3	E	102	BCL	C11-C10-C8-C9
3	E	102	BCL	C14-C13-C15-C16
3	G	102	BCL	C11-C12-C13-C14
3	J	101	BCL	C11-C10-C8-C9
3	J	101	BCL	C14-C13-C15-C16
3	O	102	BCL	C14-C13-C15-C16
3	P	101	BCL	C6-C7-C8-C9
3	P	101	BCL	C11-C10-C8-C9
3	R	101	BCL	C6-C7-C8-C9
3	R	101	BCL	C14-C13-C15-C16
3	V	102	BCL	C14-C13-C15-C16

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Mol	Chain	Res	Type	Atoms
3	1	101	BCL	C5-C6-C7-C8
3	N	102	BCL	C2A-CAA-CBA-CGA
3	2	101	BCL	O1A-CGA-O2A-C1
3	V	102	BCL	O1A-CGA-O2A-C1
3	Z	101	BCL	O1A-CGA-O2A-C1
3	2	101	BCL	C13-C15-C16-C17
3	B	102	BCL	C13-C15-C16-C17
3	Q	101	BCL	C3-C5-C6-C7
3	T	101	BCL	CBA-CGA-O2A-C1
3	5	101	BCL	C10-C11-C12-C13
3	8	101	BCL	C10-C11-C12-C13
3	S	102	BCL	C15-C16-C17-C18
3	Y	102	BCL	C5-C6-C7-C8
3	Y	102	BCL	C8-C10-C11-C12
3	Z	101	BCL	C8-C10-C11-C12
3	6	101	BCL	C5-C6-C7-C8
3	A	102	BCL	C15-C16-C17-C18
3	D	101	BCL	C10-C11-C12-C13
3	E	102	BCL	C8-C10-C11-C12
3	G	102	BCL	C13-C15-C16-C17
3	N	102	BCL	C15-C16-C17-C18
3	1	101	BCL	O1A-CGA-O2A-C1
3	V	102	BCL	CBD-CGD-O2D-CED
3	G	102	BCL	C5-C6-C7-C8
3	2	101	BCL	C10-C11-C12-C13
3	Q	101	BCL	C5-C6-C7-C8
3	T	101	BCL	C5-C6-C7-C8
3	J	101	BCL	C8-C10-C11-C12
3	8	101	BCL	C11-C12-C13-C15
3	A	102	BCL	C11-C10-C8-C7
3	E	102	BCL	C11-C12-C13-C15
3	J	101	BCL	C11-C10-C8-C7
3	J	101	BCL	C11-C12-C13-C15
3	Y	102	BCL	C6-C7-C8-C10
3	S	102	BCL	O1A-CGA-O2A-C1
3	5	101	BCL	C15-C16-C17-C18
3	7	102	BCL	C5-C6-C7-C8
3	8	101	BCL	C5-C6-C7-C8
3	J	101	BCL	C10-C11-C12-C13
3	N	102	BCL	C10-C11-C12-C13
3	Q	101	BCL	C10-C11-C12-C13
3	R	101	BCL	C5-C6-C7-C8

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Mol	Chain	Res	Type	Atoms
3	U	101	BCL	C10-C11-C12-C13
3	V	102	BCL	C15-C16-C17-C18
3	T	101	BCL	O1A-CGA-O2A-C1
3	K	102	BCL	C10-C11-C12-C13
3	N	102	BCL	C3-C5-C6-C7
3	E	102	BCL	C10-C11-C12-C13
3	F	101	BCL	C10-C11-C12-C13
3	T	101	BCL	C10-C11-C12-C13
3	N	102	BCL	CBA-CGA-O2A-C1
3	1	101	BCL	C10-C11-C12-C13
3	O	102	BCL	C15-C16-C17-C18
3	P	101	BCL	C15-C16-C17-C18
3	3	101	BCL	C5-C6-C7-C8
3	4	101	BCL	C13-C15-C16-C17
3	E	102	BCL	O1D-CGD-O2D-CED
3	O	102	BCL	C16-C17-C18-C19
3	B	102	BCL	C5-C6-C7-C8
3	G	102	BCL	C16-C17-C18-C20
3	S	102	BCL	C16-C17-C18-C19
3	8	101	BCL	CBA-CGA-O2A-C1
3	E	102	BCL	C3-C5-C6-C7
3	Y	102	BCL	C13-C15-C16-C17
3	N	102	BCL	O1A-CGA-O2A-C1
3	G	102	BCL	C16-C17-C18-C19
3	T	101	BCL	C16-C17-C18-C20
3	P	101	BCL	C4-C3-C5-C6
3	8	101	BCL	C11-C12-C13-C14
3	P	101	BCL	C11-C12-C13-C14
3	A	102	BCL	C16-C17-C18-C19
3	E	102	BCL	C16-C17-C18-C19
3	O	102	BCL	C16-C17-C18-C20
3	R	101	BCL	C13-C15-C16-C17
3	S	102	BCL	C8-C10-C11-C12
3	E	102	BCL	CBA-CGA-O2A-C1
3	B	102	BCL	O1D-CGD-O2D-CED
3	2	101	BCL	C3A-C2A-CAA-CBA
3	4	101	BCL	C3A-C2A-CAA-CBA
3	E	102	BCL	C3A-C2A-CAA-CBA
3	J	101	BCL	C3A-C2A-CAA-CBA
3	N	102	BCL	C3A-C2A-CAA-CBA
3	P	101	BCL	C3A-C2A-CAA-CBA
3	R	101	BCL	C3A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
3	T	101	BCL	C3A-C2A-CAA-CBA
3	P	101	BCL	C5-C6-C7-C8
3	8	101	BCL	O1A-CGA-O2A-C1
3	A	102	BCL	C16-C17-C18-C20
3	S	102	BCL	C16-C17-C18-C20
3	P	101	BCL	C2-C3-C5-C6
3	3	101	BCL	C13-C15-C16-C17
3	E	102	BCL	O1A-CGA-O2A-C1
3	J	101	BCL	CBA-CGA-O2A-C1
3	D	101	BCL	C15-C16-C17-C18
3	Z	101	BCL	C13-C15-C16-C17
3	R	101	BCL	C12-C13-C15-C16
3	V	102	BCL	C12-C13-C15-C16
3	J	101	BCL	O1A-CGA-O2A-C1
3	E	102	BCL	C5-C6-C7-C8
3	N	102	BCL	C5-C6-C7-C8
3	Q	101	BCL	C15-C16-C17-C18
3	6	101	BCL	C16-C17-C18-C20
3	7	102	BCL	CBA-CGA-O2A-C1
3	G	102	BCL	CBA-CGA-O2A-C1
3	R	101	BCL	CBA-CGA-O2A-C1
3	1	101	BCL	C8-C10-C11-C12
3	K	102	BCL	C15-C16-C17-C18
3	N	102	BCL	C13-C15-C16-C17
3	J	101	BCL	C16-C17-C18-C19
3	O	102	BCL	C13-C15-C16-C17
3	T	101	BCL	C15-C16-C17-C18
3	4	101	BCL	CBD-CGD-O2D-CED
3	8	101	BCL	C3-C5-C6-C7
3	S	102	BCL	C13-C15-C16-C17
3	A	102	BCL	C11-C10-C8-C9
3	E	102	BCL	C11-C12-C13-C14
3	J	101	BCL	C11-C12-C13-C14
3	N	102	BCL	C6-C7-C8-C9
3	V	102	BCL	O1D-CGD-O2D-CED
3	2	101	BCL	C2A-CAA-CBA-CGA
3	G	102	BCL	O1A-CGA-O2A-C1
3	R	101	BCL	O1A-CGA-O2A-C1
3	8	101	BCL	C1A-C2A-CAA-CBA
3	E	102	BCL	C16-C17-C18-C20
3	T	101	BCL	C16-C17-C18-C19
3	Z	101	BCL	C16-C17-C18-C19

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Mol	Chain	Res	Type	Atoms
3	3	101	BCL	C15-C16-C17-C18
3	A	102	BCL	C5-C6-C7-C8
3	3	101	BCL	C2C-C3C-CAC-CBC
3	K	102	BCL	C2C-C3C-CAC-CBC
3	Y	102	BCL	C2C-C3C-CAC-CBC
3	I	102	BCL	C5-C6-C7-C8
3	I	102	BCL	C15-C16-C17-C18
3	V	102	BCL	C8-C10-C11-C12
3	7	102	BCL	O1A-CGA-O2A-C1
3	8	101	BCL	C16-C17-C18-C20
3	J	101	BCL	C16-C17-C18-C20
3	I	102	BCL	CBA-CGA-O2A-C1
3	J	101	BCL	C15-C16-C17-C18
3	K	102	BCL	C2-C1-O2A-CGA
3	6	101	BCL	CBA-CGA-O2A-C1
3	6	101	BCL	C16-C17-C18-C19
3	G	102	BCL	C15-C16-C17-C18
3	R	101	BCL	C8-C10-C11-C12
3	P	101	BCL	C10-C11-C12-C13
3	U	101	BCL	C15-C16-C17-C18
5	S	101	CRT	C36-C37-C38-C40
3	4	101	BCL	C4-C3-C5-C6
3	6	101	BCL	C6-C7-C8-C10
3	8	101	BCL	C12-C13-C15-C16
3	E	102	BCL	C11-C10-C8-C7
3	E	102	BCL	C12-C13-C15-C16
3	J	101	BCL	C12-C13-C15-C16
3	S	102	BCL	C11-C10-C8-C7
3	T	101	BCL	C11-C12-C13-C15
3	V	102	BCL	C6-C7-C8-C10
3	3	101	BCL	C11-C10-C8-C9
3	7	102	BCL	C6-C7-C8-C9
3	B	102	BCL	C14-C13-C15-C16
3	Q	101	BCL	C6-C7-C8-C9
3	S	102	BCL	C11-C10-C8-C9
3	T	101	BCL	C11-C12-C13-C14
3	T	101	BCL	C14-C13-C15-C16
3	Y	102	BCL	C6-C7-C8-C9
3	O	102	BCL	C4-C3-C5-C6
3	4	101	BCL	C2-C3-C5-C6
3	I	102	BCL	C16-C17-C18-C20
3	A	102	BCL	CBA-CGA-O2A-C1

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Mol	Chain	Res	Type	Atoms
3	B	102	BCL	CBA-CGA-O2A-C1
3	A	102	BCL	C8-C10-C11-C12
3	6	101	BCL	O1A-CGA-O2A-C1
3	I	102	BCL	O1A-CGA-O2A-C1
3	Z	101	BCL	C16-C17-C18-C20
3	I	102	BCL	C16-C17-C18-C19
3	D	101	BCL	C2-C1-O2A-CGA
3	F	101	BCL	C2-C1-O2A-CGA
3	Q	101	BCL	C2-C1-O2A-CGA
3	Y	102	BCL	C2-C1-O2A-CGA
3	2	101	BCL	C6-C7-C8-C9
3	4	101	BCL	C11-C10-C8-C9
3	O	102	BCL	C11-C10-C8-C9
3	S	102	BCL	C14-C13-C15-C16
3	Z	101	BCL	C11-C12-C13-C14
3	E	102	BCL	C13-C15-C16-C17
3	T	101	BCL	C2A-CAA-CBA-CGA
3	8	101	BCL	C16-C17-C18-C19
3	2	101	BCL	C12-C13-C15-C16
3	4	101	BCL	C6-C7-C8-C10
3	4	101	BCL	C11-C12-C13-C15
3	7	102	BCL	C6-C7-C8-C10
3	B	102	BCL	C6-C7-C8-C10
3	B	102	BCL	C12-C13-C15-C16
3	G	102	BCL	C6-C7-C8-C10
3	O	102	BCL	C6-C7-C8-C10
3	O	102	BCL	C11-C12-C13-C15
3	O	102	BCL	C12-C13-C15-C16
3	T	101	BCL	C12-C13-C15-C16
3	V	102	BCL	C11-C10-C8-C7
3	Z	101	BCL	C11-C12-C13-C15
3	Z	101	BCL	C12-C13-C15-C16
3	Y	102	BCL	C16-C17-C18-C19
3	3	101	BCL	CBA-CGA-O2A-C1
3	B	102	BCL	O1A-CGA-O2A-C1
3	U	101	BCL	C2A-CAA-CBA-CGA
3	5	101	BCL	C13-C15-C16-C17
3	7	102	BCL	C3-C5-C6-C7
3	A	102	BCL	O1A-CGA-O2A-C1
3	R	101	BCL	CHA-CBD-CGD-O1D
3	2	101	BCL	C14-C13-C15-C16
3	4	101	BCL	C6-C7-C8-C9

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Mol	Chain	Res	Type	Atoms
3	N	102	BCL	C14-C13-C15-C16
3	O	102	BCL	C6-C7-C8-C9
3	T	101	BCL	C6-C7-C8-C9
3	D	101	BCL	C2A-CAA-CBA-CGA
3	V	102	BCL	C2A-CAA-CBA-CGA
3	B	102	BCL	C1A-C2A-CAA-CBA
3	3	101	BCL	C8-C10-C11-C12
3	O	102	BCL	C5-C6-C7-C8
3	3	101	BCL	O1A-CGA-O2A-C1
3	1	101	BCL	C6-C7-C8-C10
3	2	101	BCL	C11-C12-C13-C15
3	6	101	BCL	C11-C10-C8-C7
3	7	102	BCL	C2C-C3C-CAC-CBC
3	8	101	BCL	C3A-C2A-CAA-CBA
3	F	101	BCL	C2C-C3C-CAC-CBC
3	N	102	BCL	C12-C13-C15-C16
3	P	101	BCL	C11-C10-C8-C7
3	R	101	BCL	C6-C7-C8-C10
3	R	101	BCL	C11-C10-C8-C7
3	3	101	BCL	C2A-CAA-CBA-CGA
3	K	102	BCL	C16-C17-C18-C19
3	8	101	BCL	C8-C10-C11-C12
3	F	101	BCL	C16-C17-C18-C19
3	Z	101	BCL	C2A-CAA-CBA-CGA
3	3	101	BCL	C2-C1-O2A-CGA
3	5	101	BCL	C2-C1-O2A-CGA
3	8	101	BCL	C2-C1-O2A-CGA
3	U	101	BCL	C2-C1-O2A-CGA
3	Y	102	BCL	C16-C17-C18-C20
3	Q	101	BCL	C4-C3-C5-C6
3	5	101	BCL	C2A-CAA-CBA-CGA
3	P	101	BCL	C2A-CAA-CBA-CGA
3	T	101	BCL	C13-C15-C16-C17
3	3	101	BCL	C11-C10-C8-C7
3	Q	101	BCL	C6-C7-C8-C10
3	R	101	BCL	C11-C12-C13-C15
3	2	101	BCL	C11-C12-C13-C14
3	8	101	BCL	C14-C13-C15-C16
3	V	102	BCL	C11-C10-C8-C9
3	O	102	BCL	C10-C11-C12-C13
3	K	102	BCL	C16-C17-C18-C20
3	4	101	BCL	O1D-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
3	O	102	BCL	C2-C1-O2A-CGA
3	A	102	BCL	C14-C13-C15-C16
3	P	101	BCL	C13-C15-C16-C17
3	A	102	BCL	C2A-CAA-CBA-CGA
3	F	101	BCL	C2A-CAA-CBA-CGA
6	E	101	D12	C5-C6-C7-C8
3	6	101	BCL	C1A-C2A-CAA-CBA
3	G	102	BCL	C1A-C2A-CAA-CBA
3	B	102	BCL	C11-C12-C13-C15
3	O	102	BCL	C2-C3-C5-C6
3	I	102	BCL	C2A-CAA-CBA-CGA
3	J	101	BCL	C5-C6-C7-C8
3	7	102	BCL	C4-C3-C5-C6
3	A	102	BCL	C2-C1-O2A-CGA
3	J	101	BCL	C2-C1-O2A-CGA
3	N	102	BCL	C2-C1-O2A-CGA
3	S	102	BCL	C2C-C3C-CAC-CBC
3	S	102	BCL	C2A-CAA-CBA-CGA
3	K	102	BCL	C4C-C3C-CAC-CBC
3	1	101	BCL	C2A-CAA-CBA-CGA
3	S	102	BCL	C11-C12-C13-C15
3	7	102	BCL	C2-C3-C5-C6
3	1	101	BCL	C6-C7-C8-C9
3	4	101	BCL	C11-C12-C13-C14
3	6	101	BCL	C11-C10-C8-C9
3	O	102	BCL	C11-C12-C13-C14
3	R	101	BCL	C11-C10-C8-C9
3	B	102	BCL	C3A-C2A-CAA-CBA
3	6	101	BCL	CAA-CBA-CGA-O2A
6	2	103	D12	C3-C4-C5-C6
3	G	102	BCL	CAA-CBA-CGA-O2A
3	4	101	BCL	CHA-CBD-CGD-O1D
3	4	101	BCL	CHA-CBD-CGD-O2D
3	8	101	BCL	CHA-CBD-CGD-O1D
3	8	101	BCL	CHA-CBD-CGD-O2D
3	B	102	BCL	CHA-CBD-CGD-O1D
3	B	102	BCL	CHA-CBD-CGD-O2D
3	G	102	BCL	CHA-CBD-CGD-O2D
3	N	102	BCL	CHA-CBD-CGD-O1D
3	N	102	BCL	CHA-CBD-CGD-O2D
3	R	101	BCL	CHA-CBD-CGD-O2D
3	6	101	BCL	C13-C15-C16-C17

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Mol	Chain	Res	Type	Atoms
3	P	101	BCL	C8-C10-C11-C12
3	G	102	BCL	C11-C12-C13-C15
3	V	102	BCL	C11-C12-C13-C15
3	T	101	BCL	CAA-CBA-CGA-O2A
3	B	102	BCL	C11-C12-C13-C14
3	S	102	BCL	C11-C12-C13-C14
3	V	102	BCL	C16-C17-C18-C19
3	G	102	BCL	CAA-CBA-CGA-O1A
3	1	101	BCL	C16-C17-C18-C19
3	5	101	BCL	C16-C17-C18-C19
3	I	102	BCL	C10-C11-C12-C13
3	6	101	BCL	CAA-CBA-CGA-O1A
3	B	102	BCL	CAA-CBA-CGA-O2A
3	Q	101	BCL	C8-C10-C11-C12
3	D	101	BCL	C4-C3-C5-C6
3	G	102	BCL	C4-C3-C5-C6
3	Q	101	BCL	C2-C3-C5-C6
3	R	101	BCL	C11-C12-C13-C14
6	Z	102	D12	C2-C3-C4-C5
3	U	101	BCL	C4-C3-C5-C6
3	4	101	BCL	C11-C10-C8-C7
3	6	101	BCL	C3A-C2A-CAA-CBA
3	8	101	BCL	C11-C10-C8-C7
3	G	102	BCL	C3A-C2A-CAA-CBA
3	I	102	BCL	C6-C7-C8-C10
3	O	102	BCL	C2C-C3C-CAC-CBC
3	S	102	BCL	C12-C13-C15-C16
3	7	102	BCL	CAA-CBA-CGA-O2A
3	V	102	BCL	CAA-CBA-CGA-O2A
3	7	102	BCL	C8-C10-C11-C12
3	K	102	BCL	C2A-CAA-CBA-CGA

There are no ring outliers.

43 monomers are involved in 92 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	1	104	CRT	3	0
6	G	101	D12	1	0
3	P	101	BCL	6	0
3	A	102	BCL	2	0
3	K	102	BCL	2	0
3	4	101	BCL	2	0

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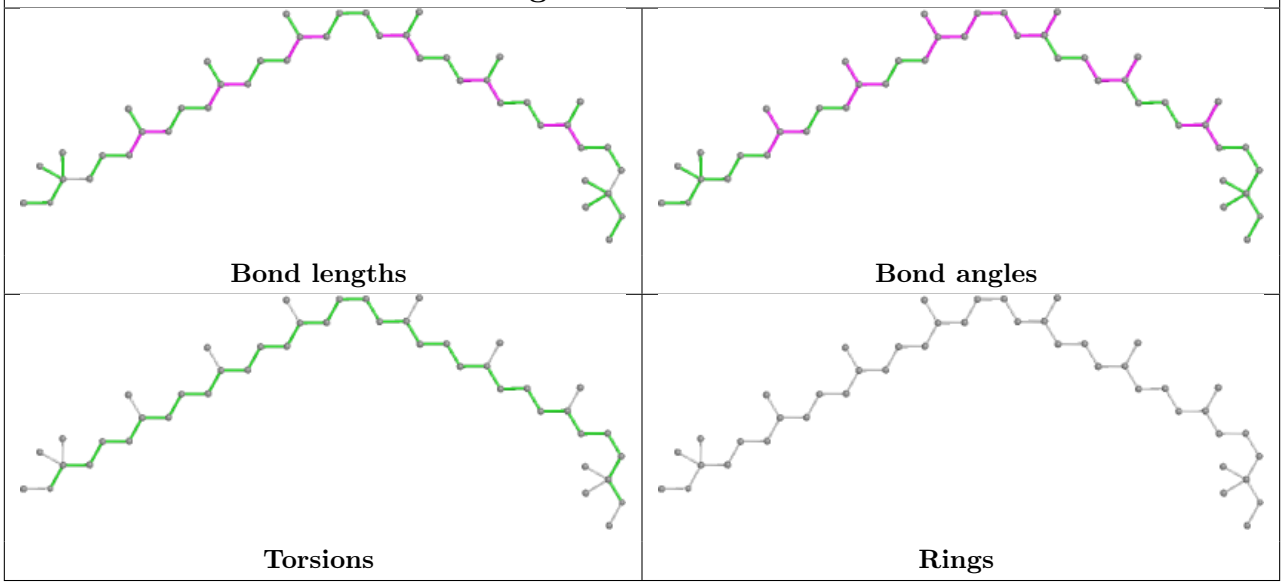
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	7	102	BCL	1	0
3	D	101	BCL	2	0
5	K	101	CRT	1	0
3	2	101	BCL	2	0
3	T	101	BCL	3	0
6	V	101	D12	2	0
3	Z	101	BCL	3	0
6	8	102	D12	1	0
5	E	103	CRT	3	0
5	1	103	CRT	2	0
3	E	102	BCL	3	0
3	3	101	BCL	1	0
5	S	104	CRT	3	0
3	8	101	BCL	3	0
3	O	102	BCL	4	0
5	K	104	CRT	3	0
5	7	104	CRT	3	0
6	2	103	D12	2	0
3	F	101	BCL	1	0
3	J	101	BCL	3	0
3	N	102	BCL	1	0
5	Y	101	CRT	1	0
3	B	102	BCL	2	0
3	G	102	BCL	3	0
5	A	101	CRT	3	0
5	2	102	CRT	1	0
3	V	102	BCL	3	0
5	I	101	CRT	3	0
3	6	101	BCL	4	0
5	O	101	CRT	5	0
3	Q	101	BCL	4	0
3	5	101	BCL	1	0
3	R	101	BCL	2	0
3	1	101	BCL	1	0
3	U	101	BCL	2	0
3	I	102	BCL	4	0
6	P	102	D12	1	0

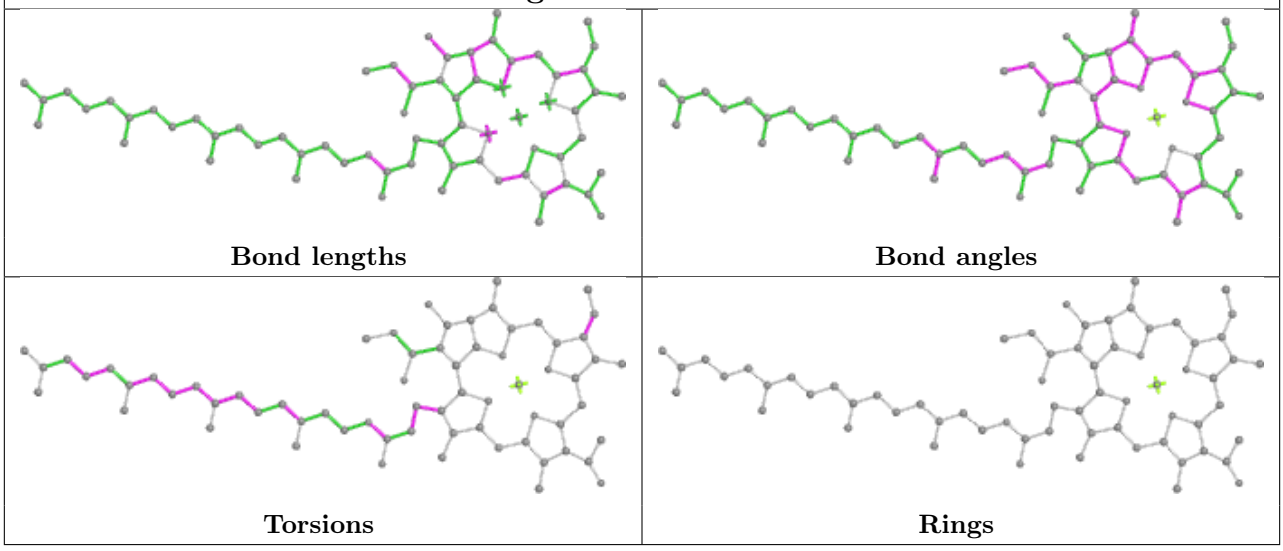
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

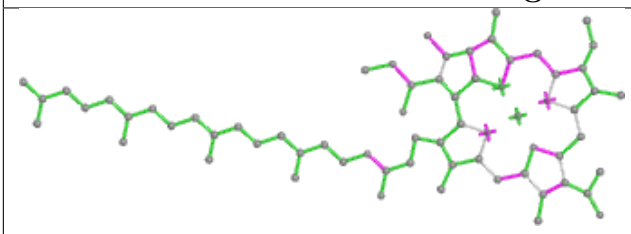
Ligand CRT 1 104



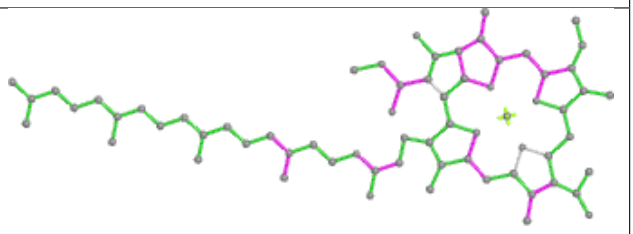
Ligand BCL P 101



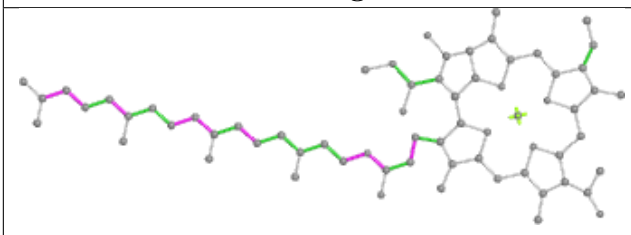
Ligand BCL A 102



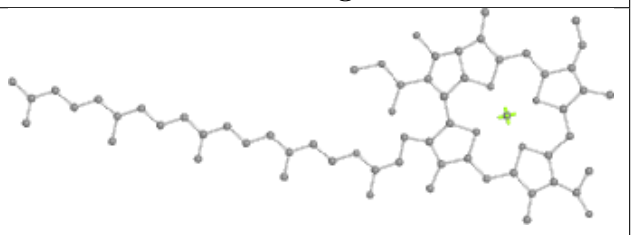
Bond lengths



Bond angles

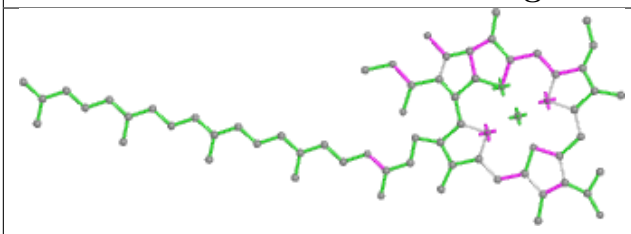


Torsions

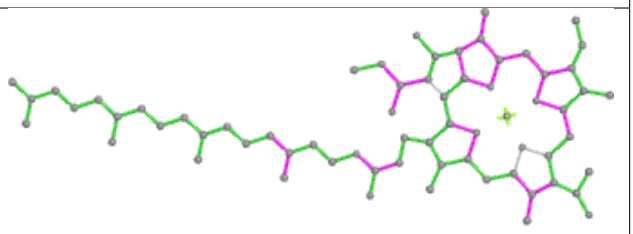


Rings

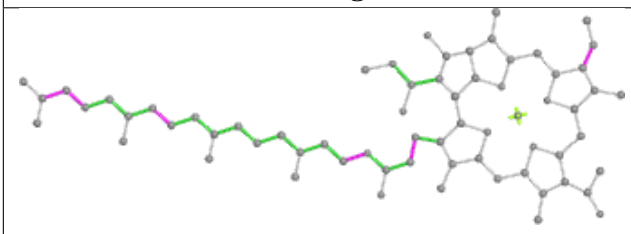
Ligand BCL K 102



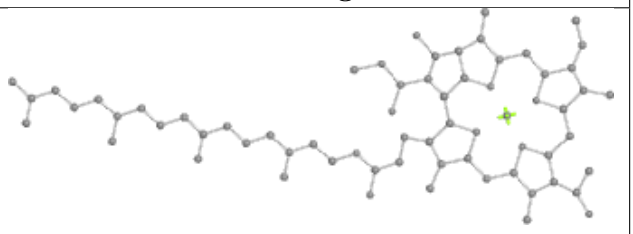
Bond lengths



Bond angles

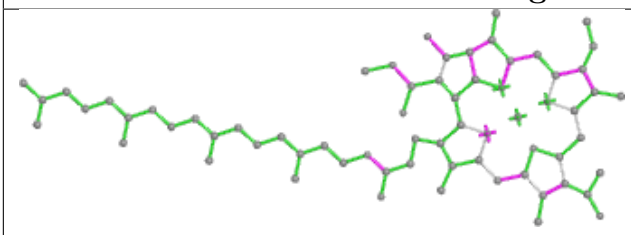


Torsions

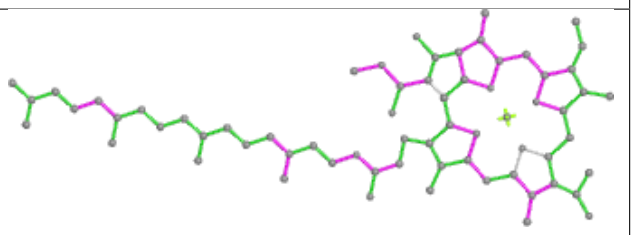


Rings

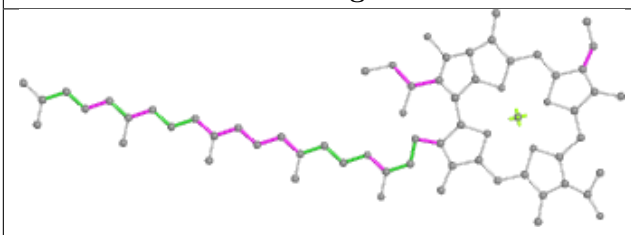
Ligand BCL 4 101



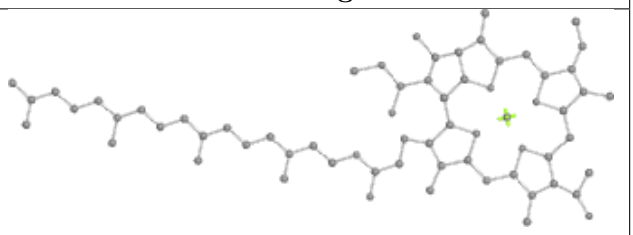
Bond lengths



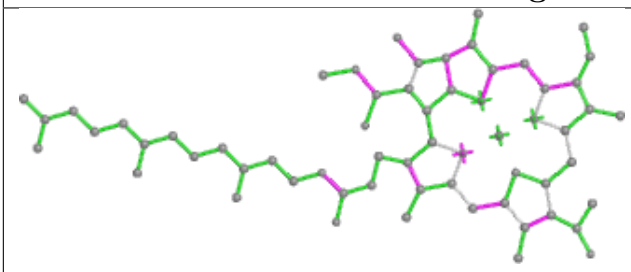
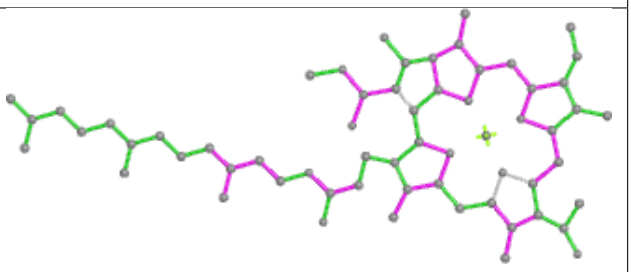
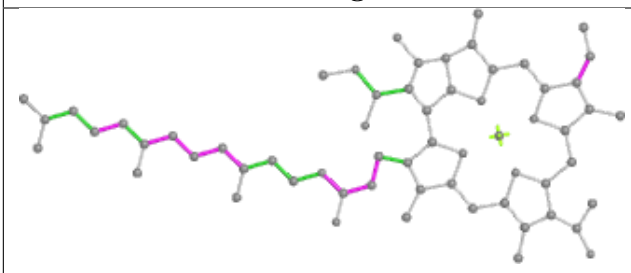
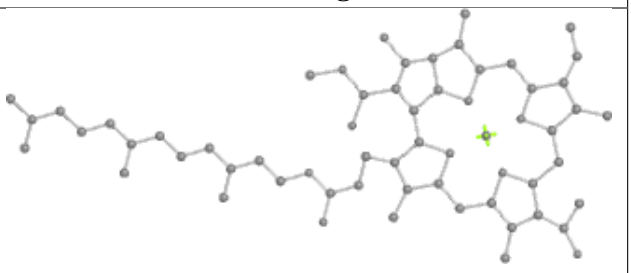
Bond angles

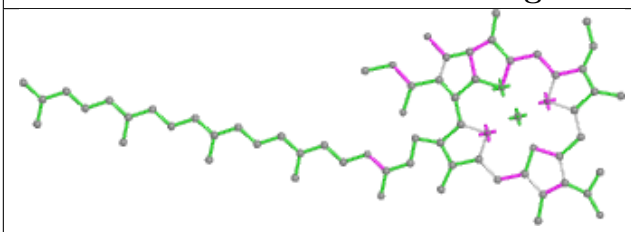
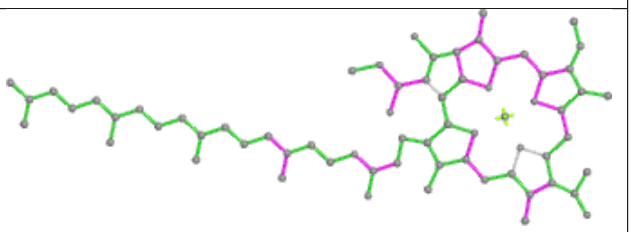
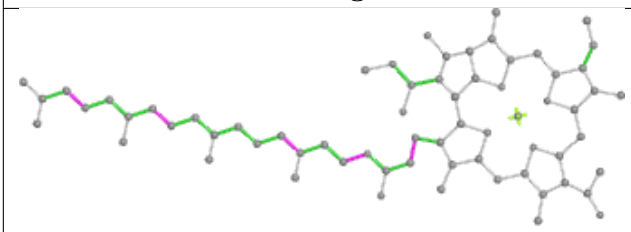
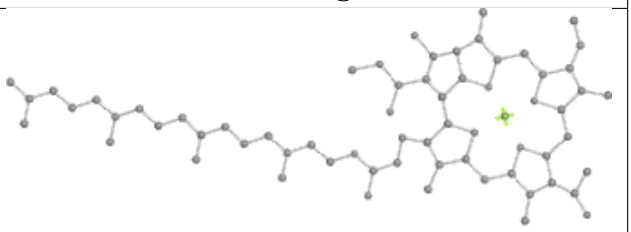


Torsions

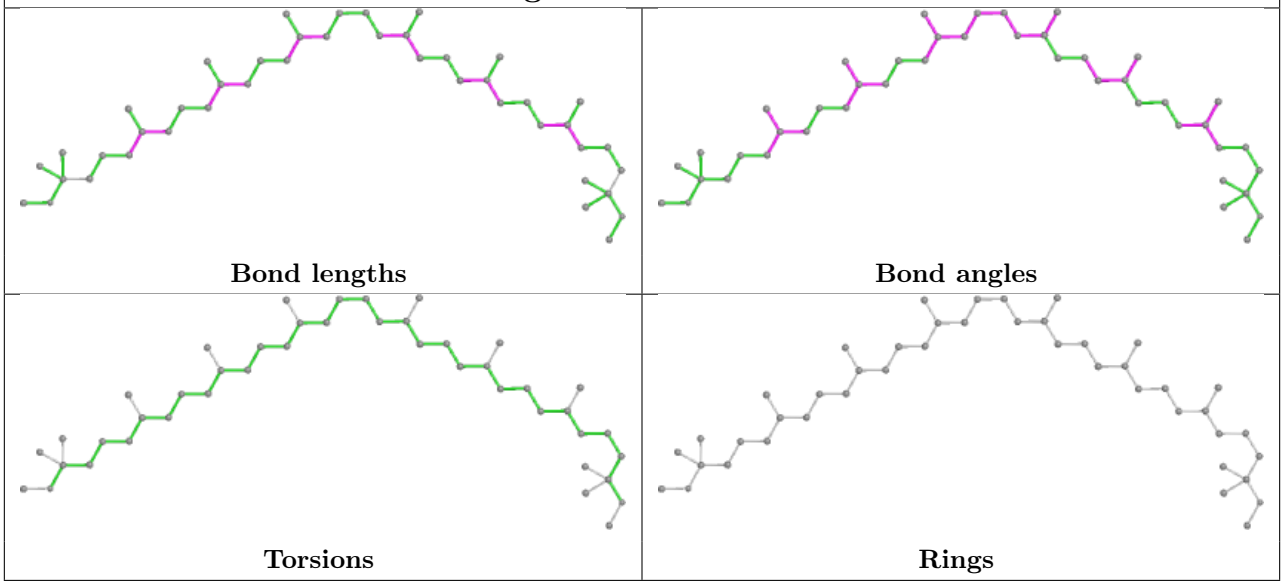


Rings

Ligand BCL 7 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL D 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CRT K 101



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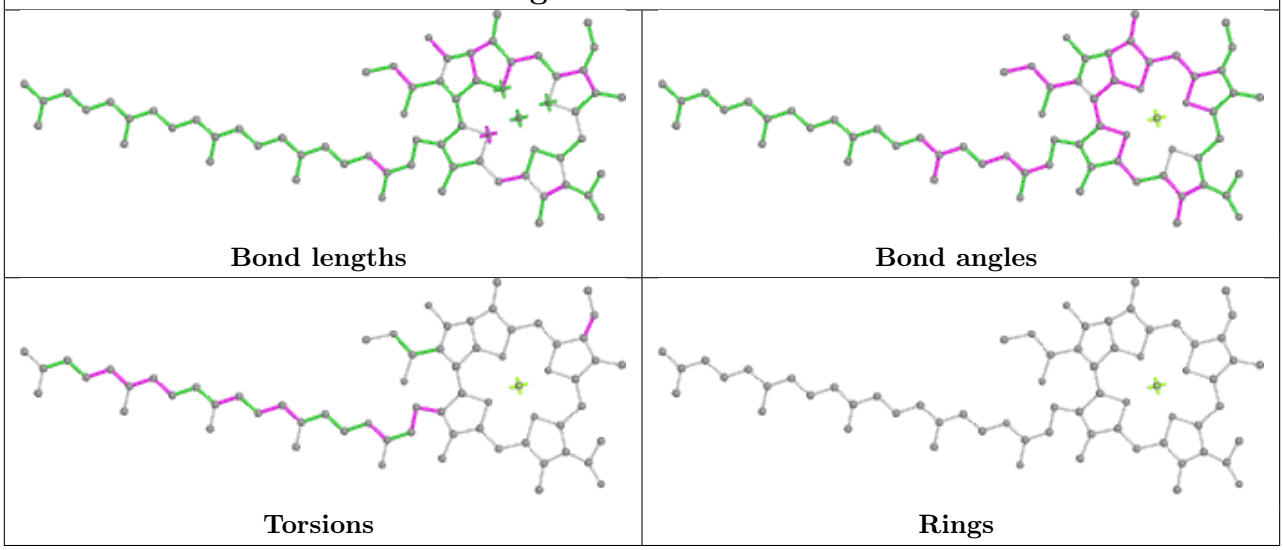
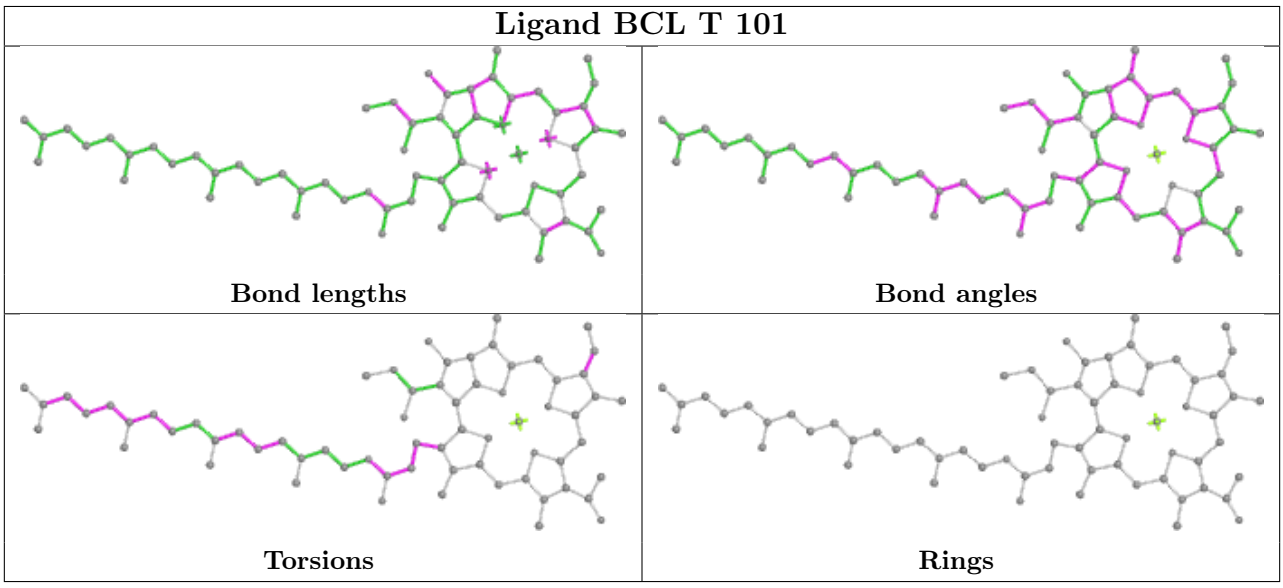


Ligand BCL T 101



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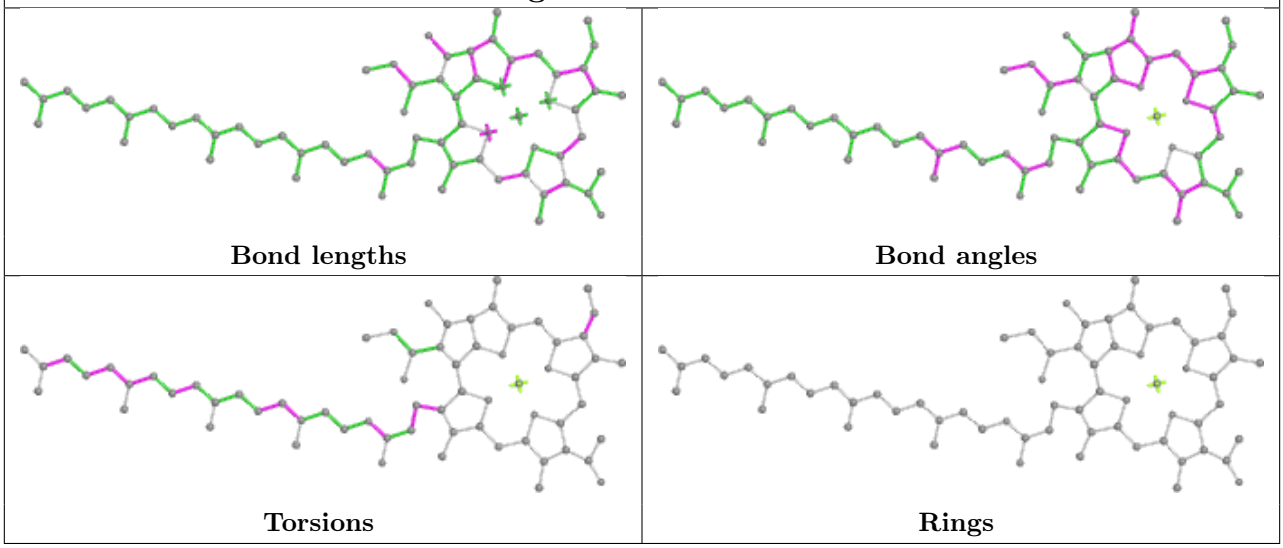
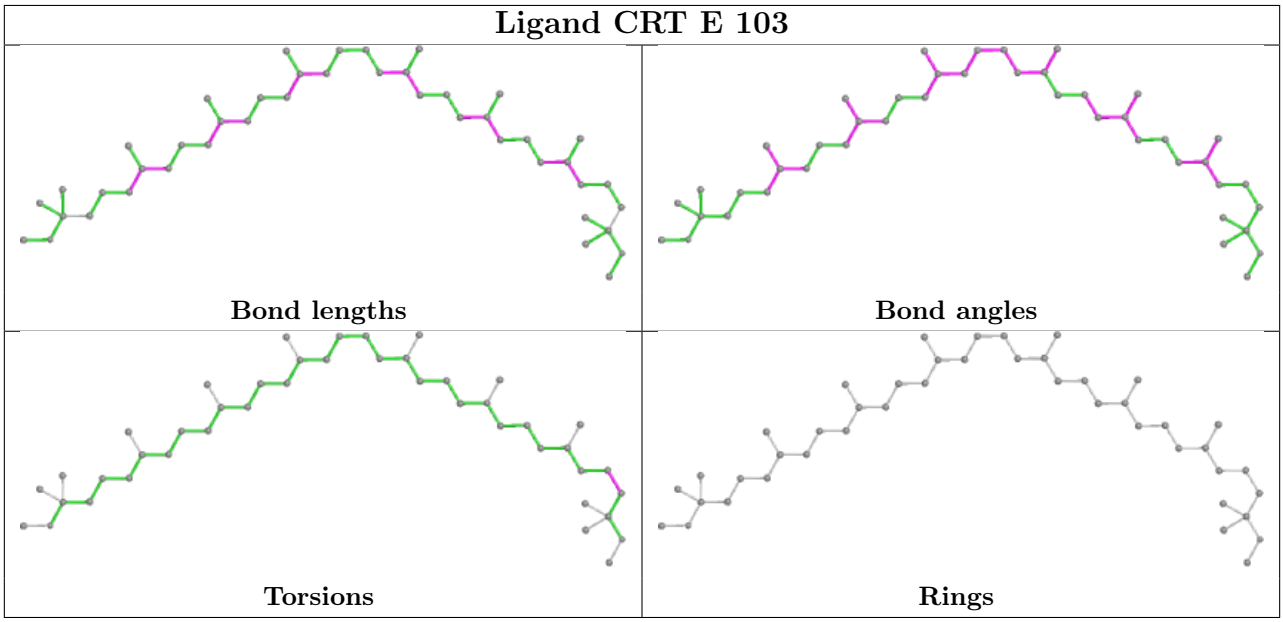
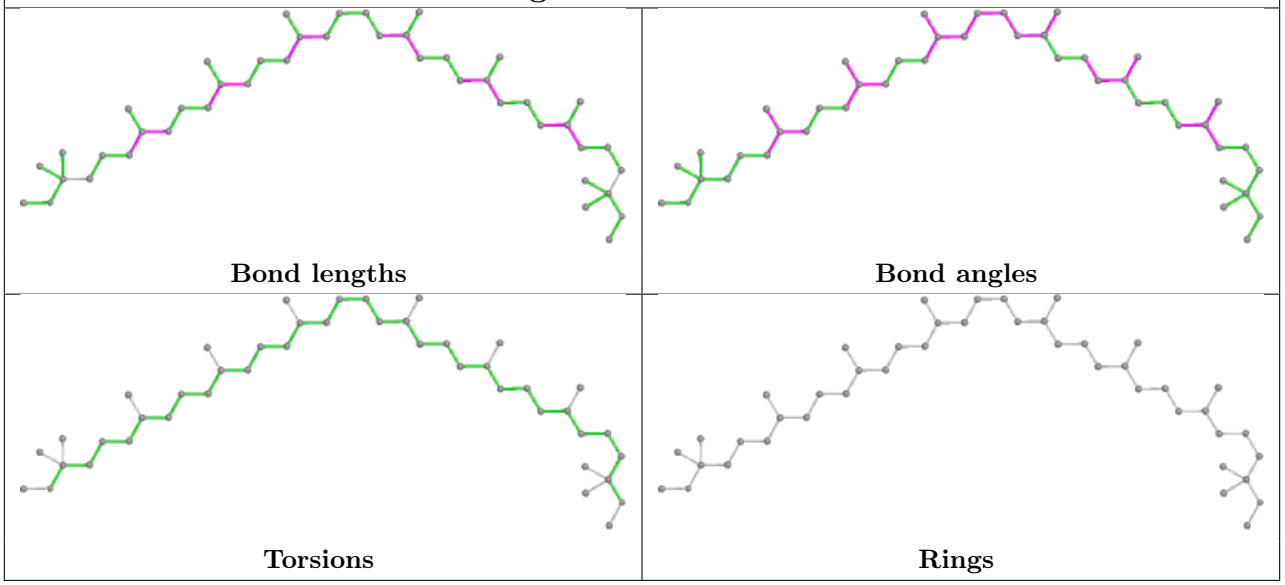


Ligand CRT E 103



Ligand CRT 1 103



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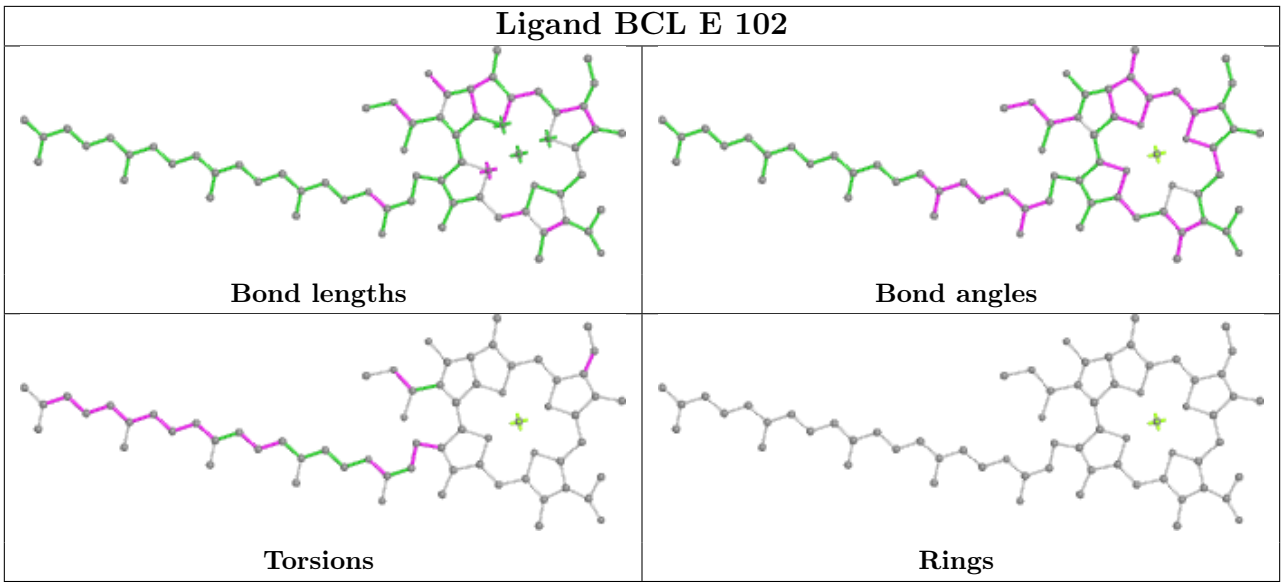
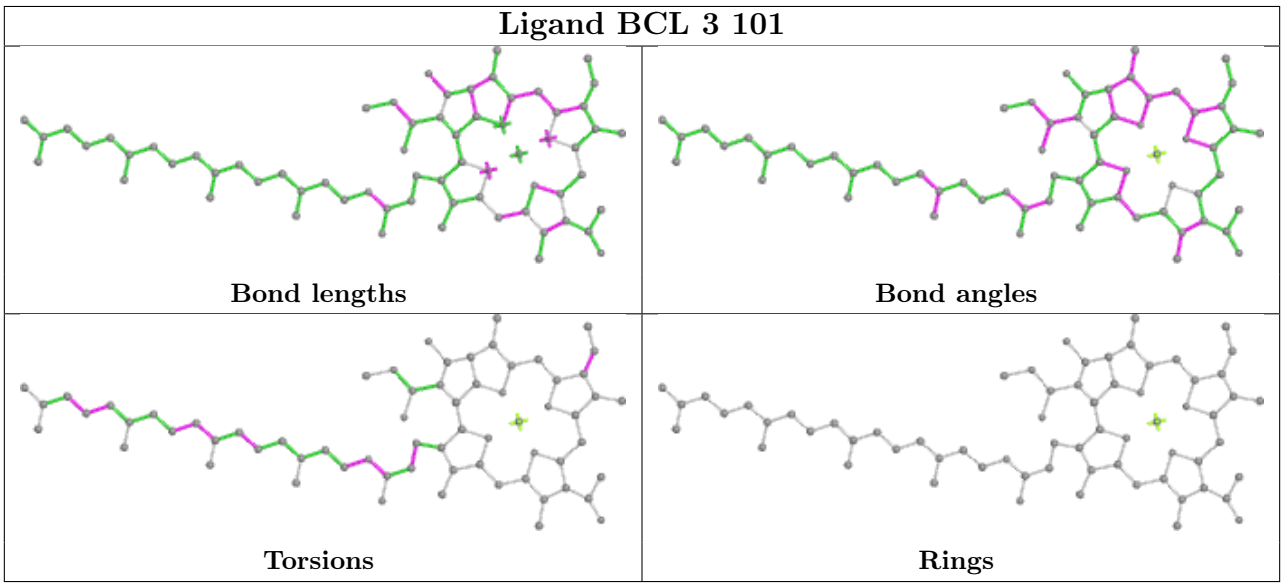
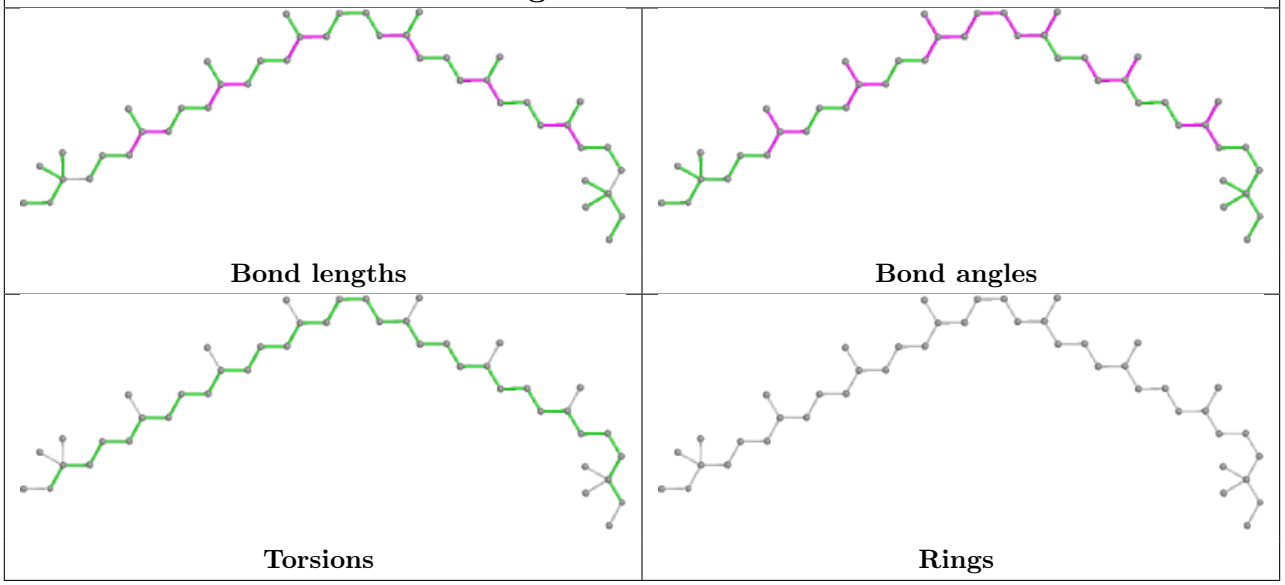


Ligand BCL 3 101



Ligand CRT S 104



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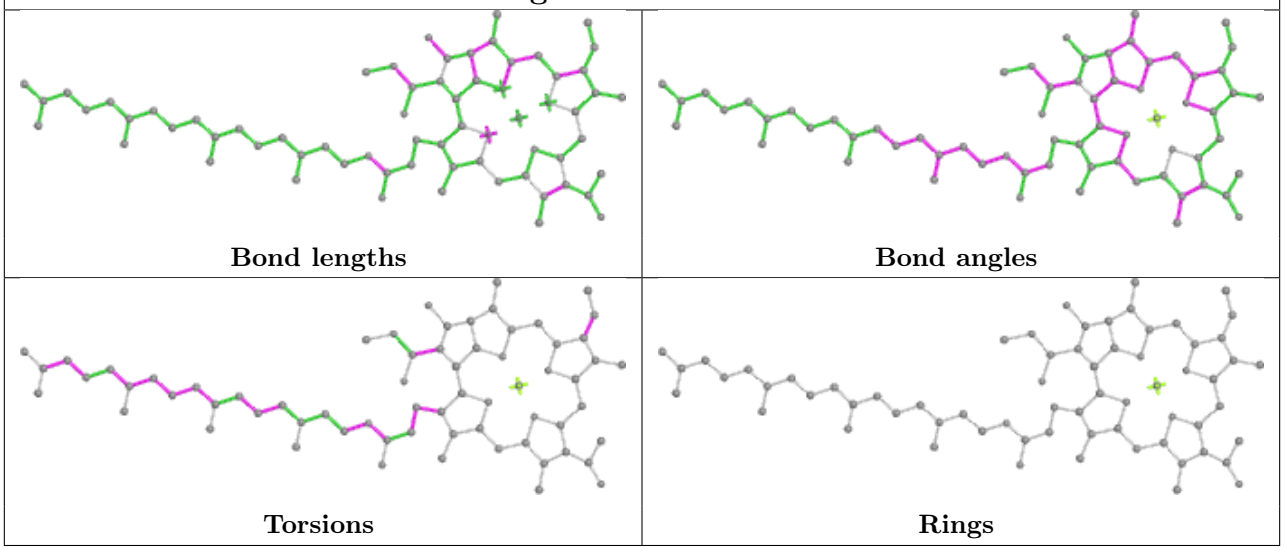
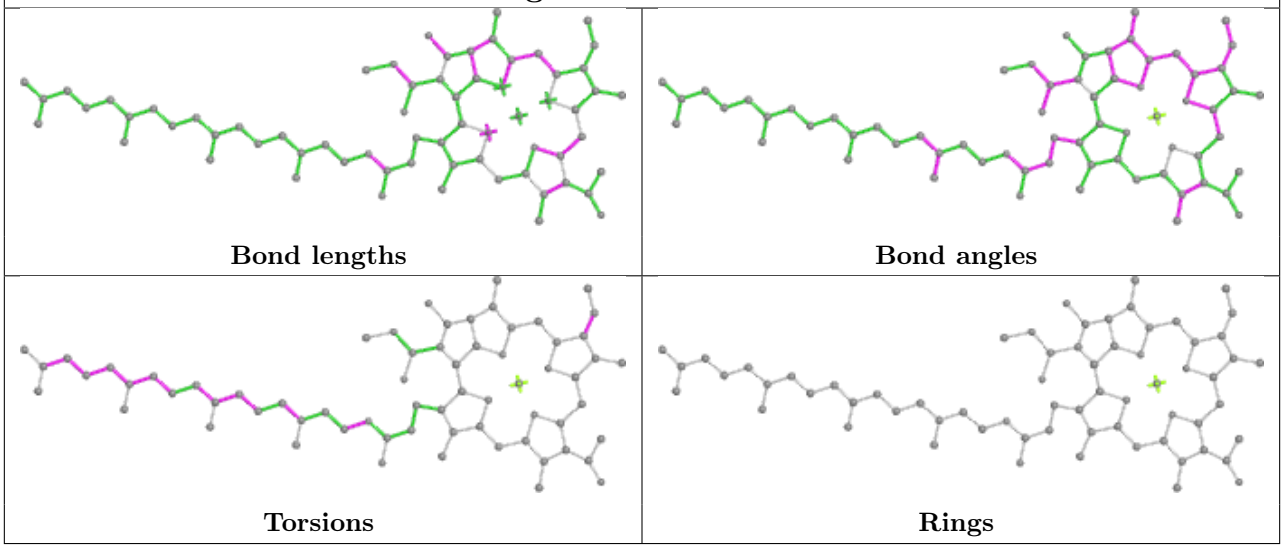
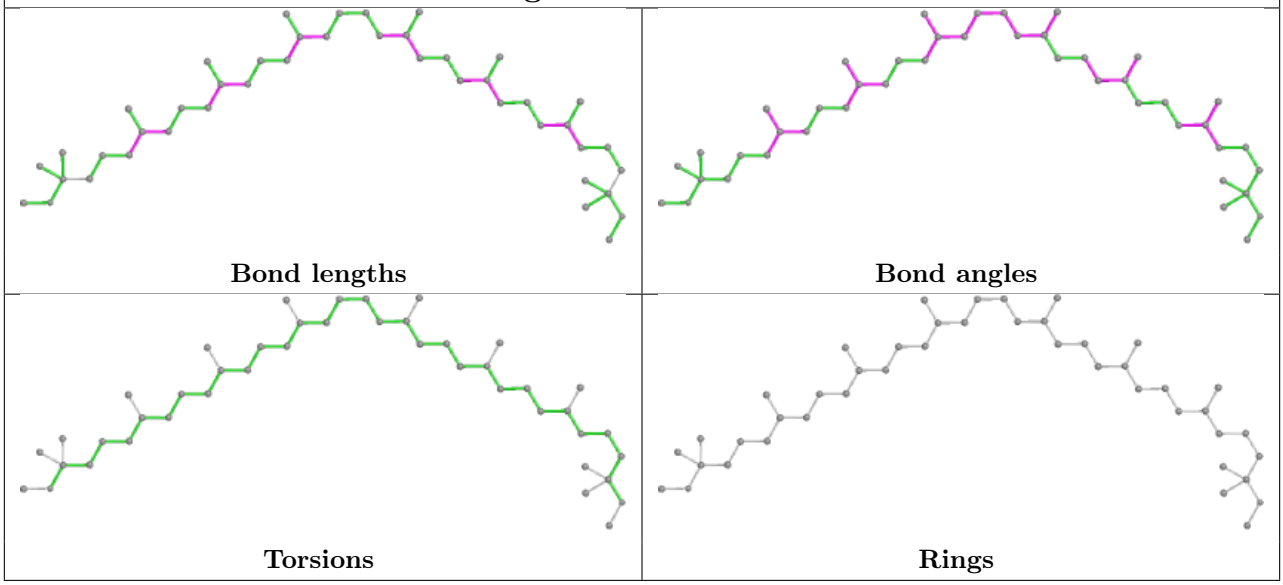


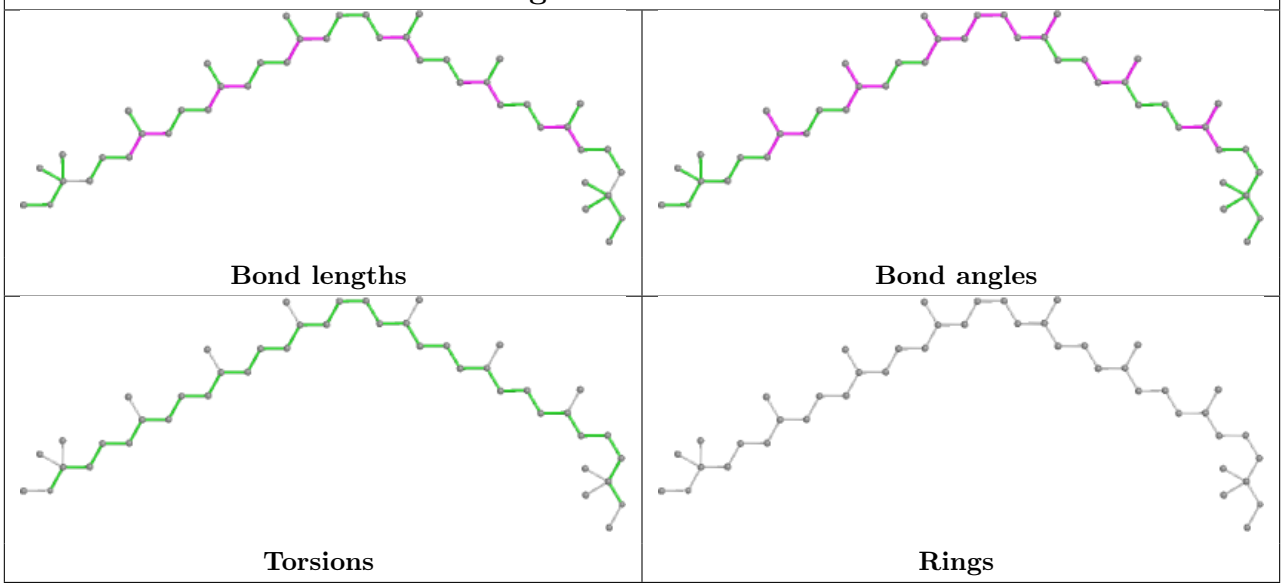
Ligand BCL O 102



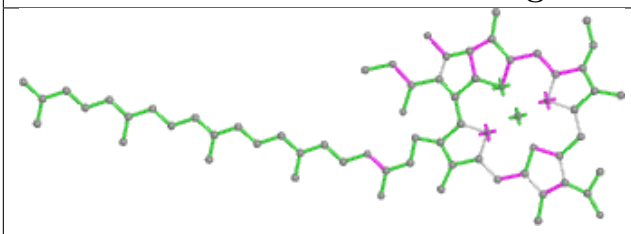
Ligand CRT K 104



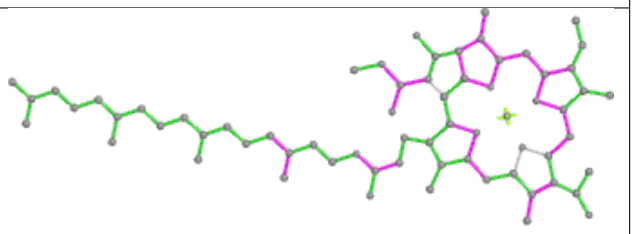
Ligand CRT 7 104



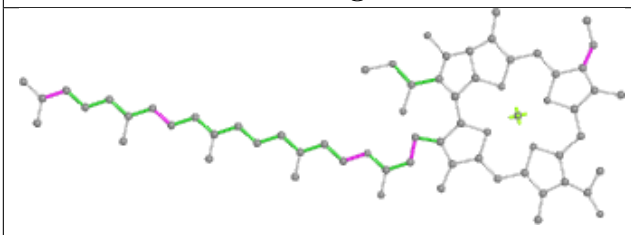
Ligand BCL F 101



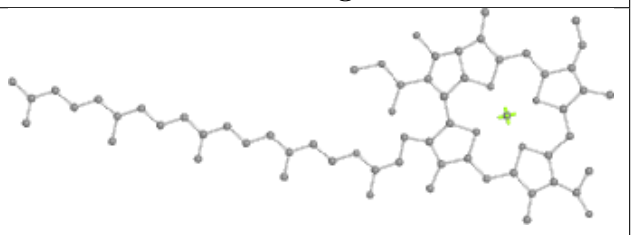
Bond lengths



Bond angles

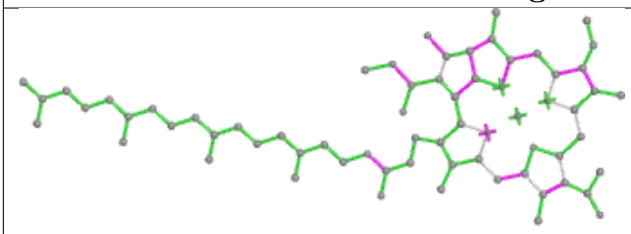


Torsions

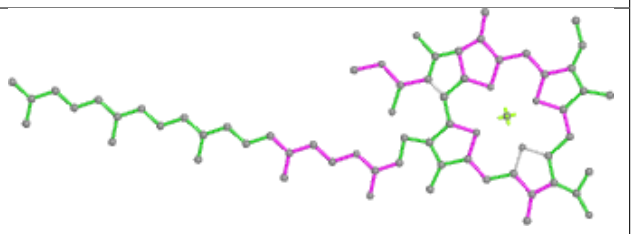


Rings

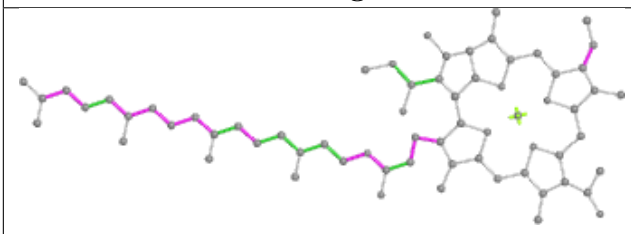
Ligand BCL J 101



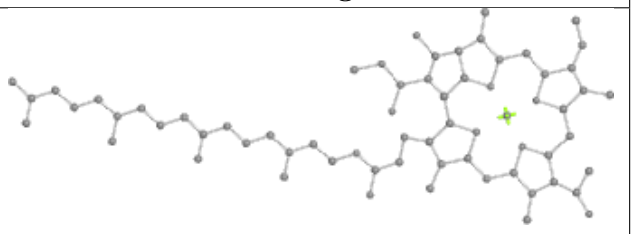
Bond lengths



Bond angles

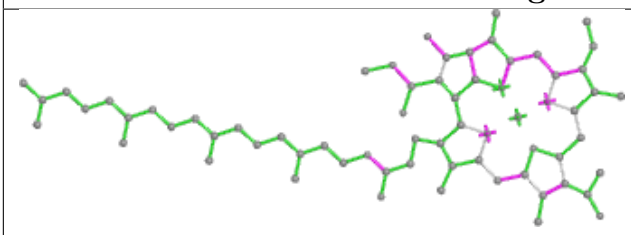


Torsions

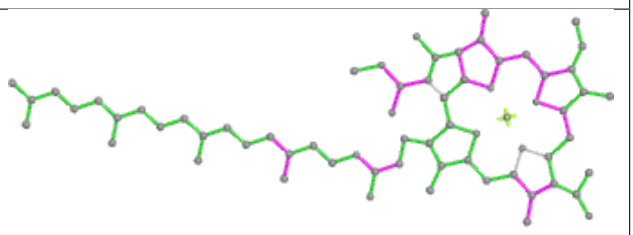


Rings

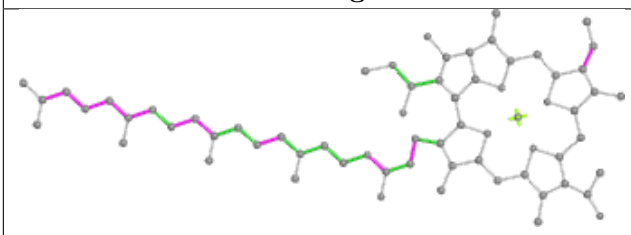
Ligand BCL S 102



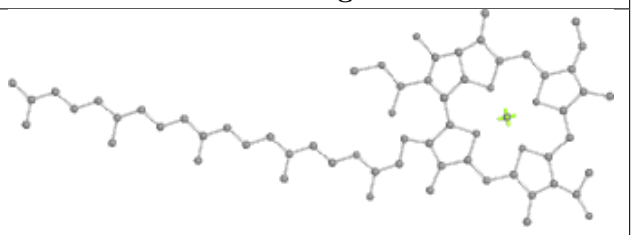
Bond lengths



Bond angles

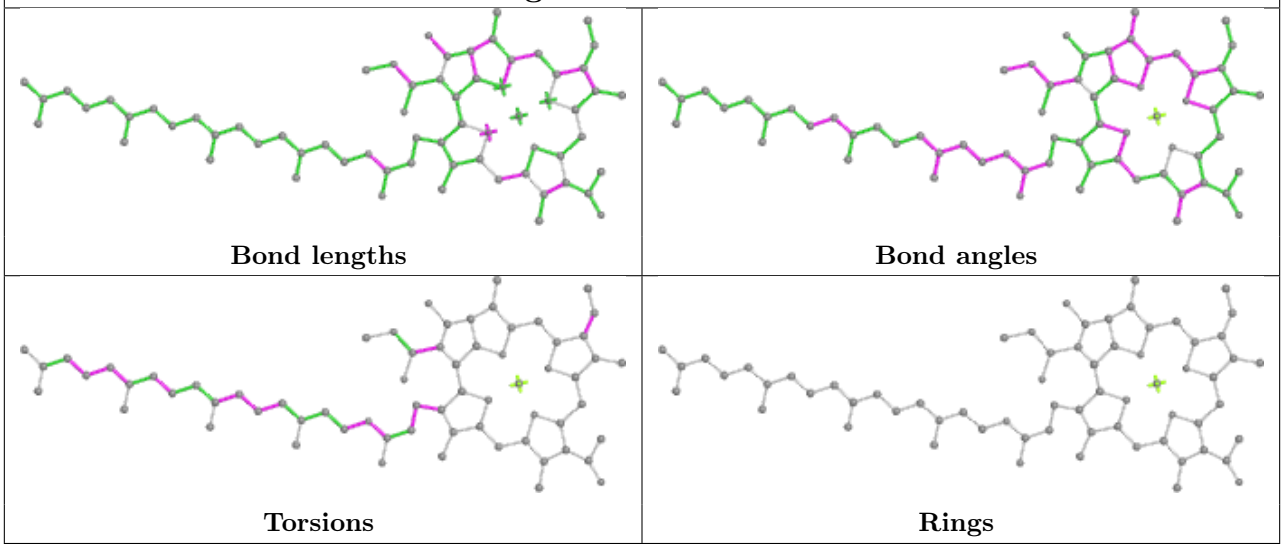


Torsions

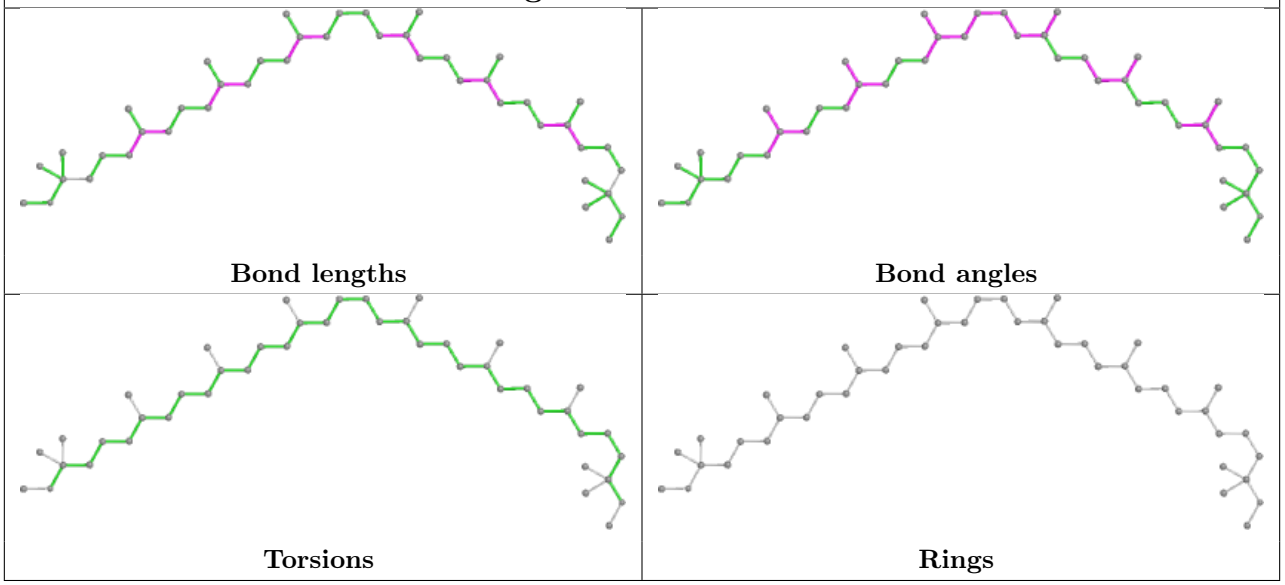


Rings

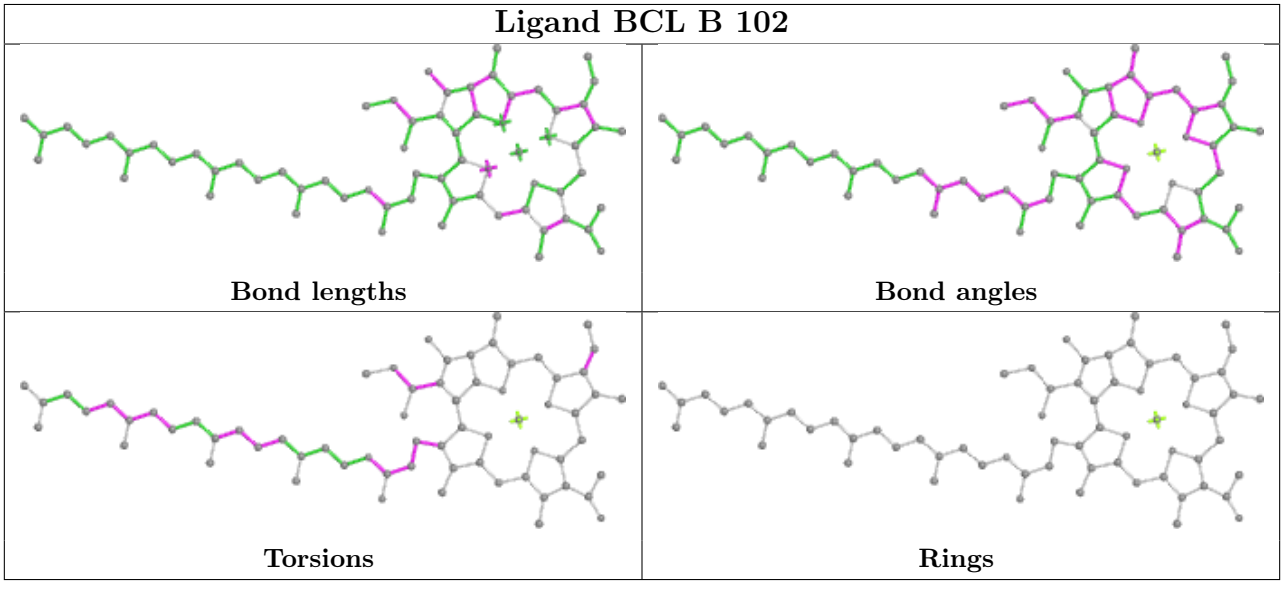
Ligand BCL N 102



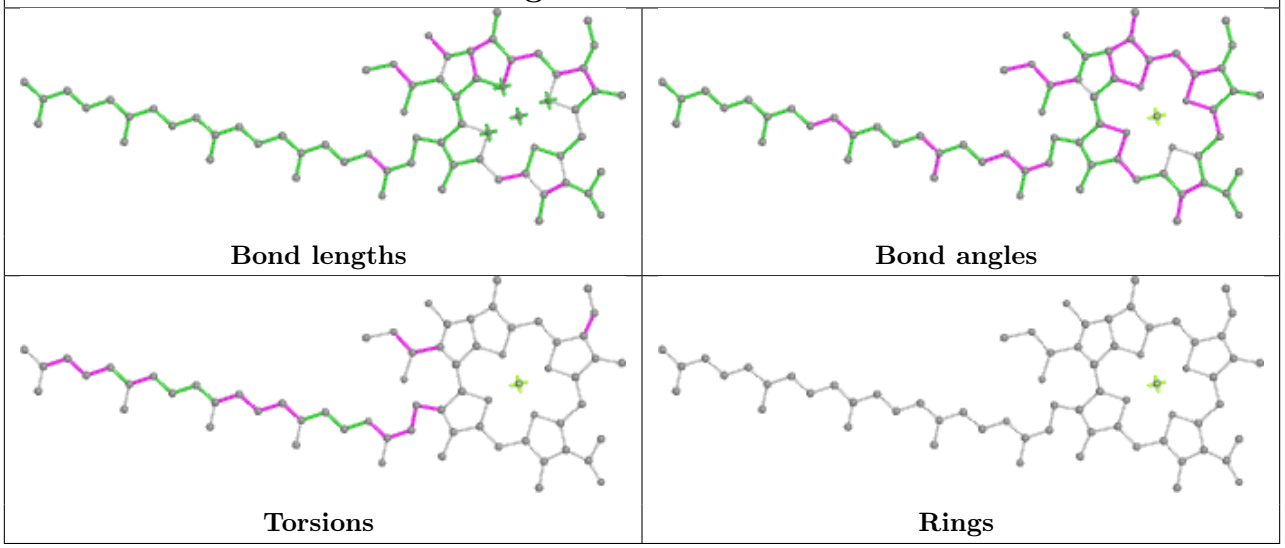
Ligand CRT Y 101



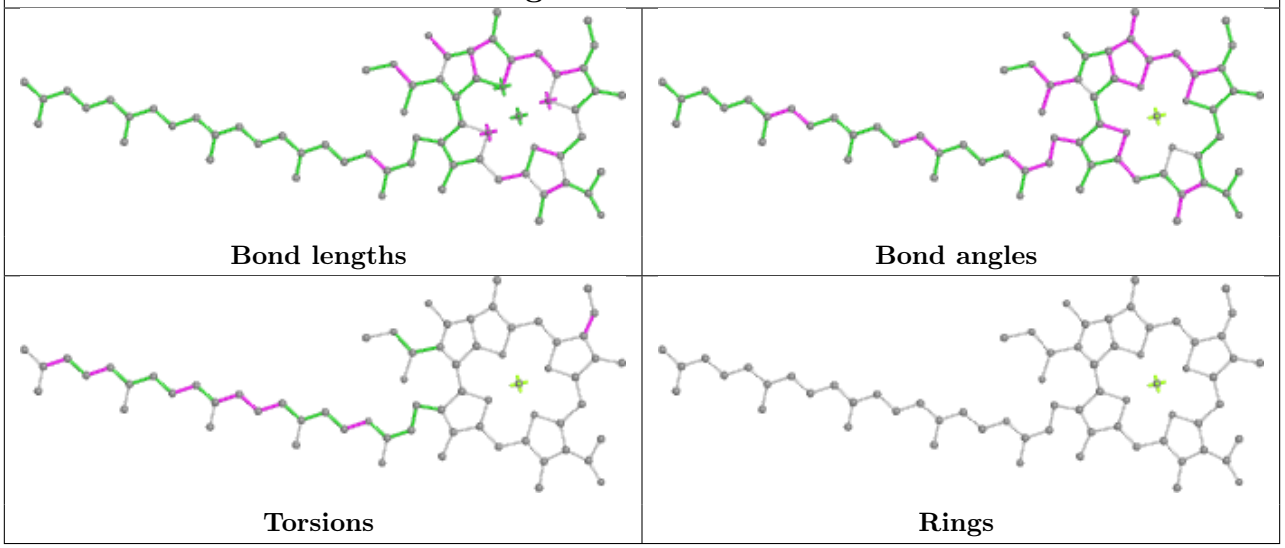
Ligand BCL B 102



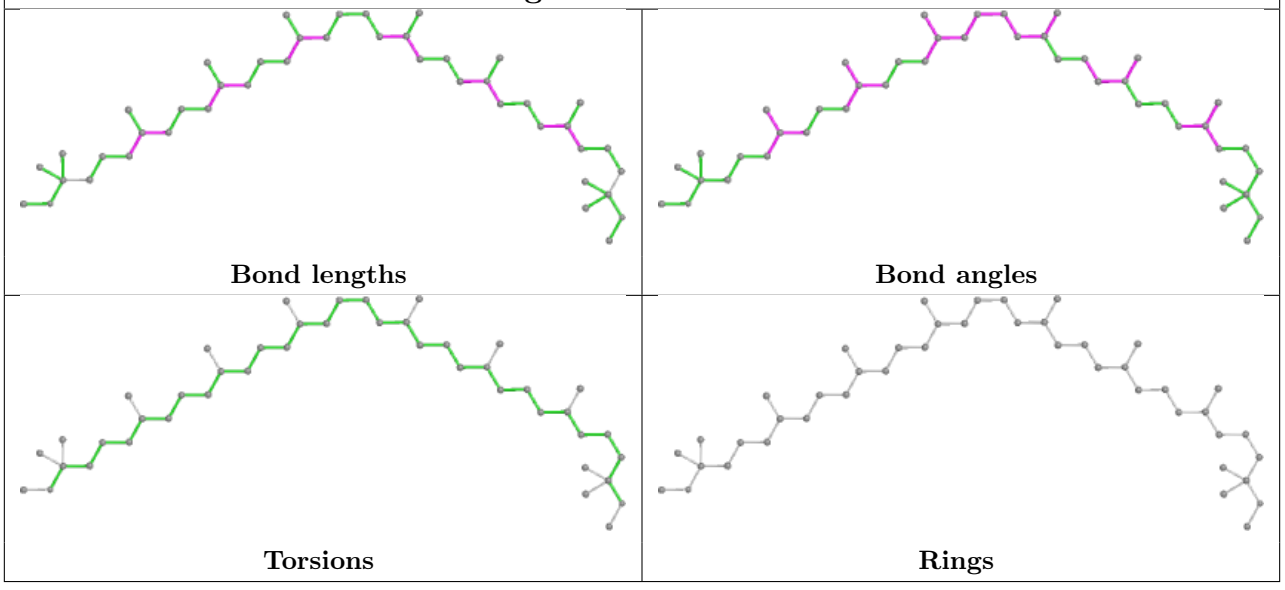
Ligand BCL G 102



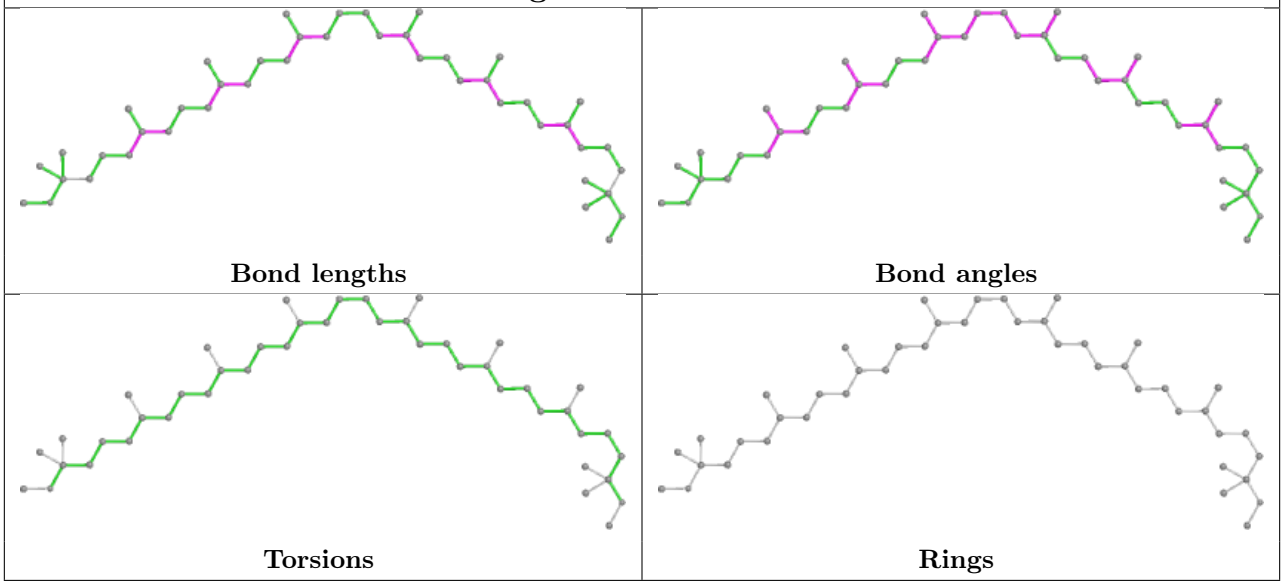
Ligand BCL Y 102



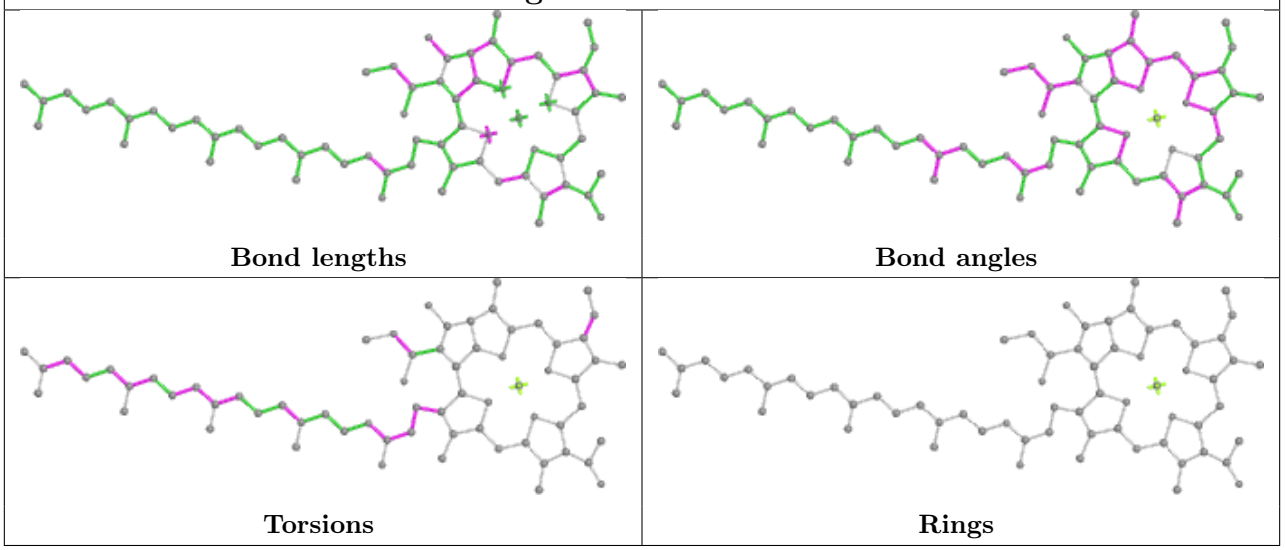
Ligand CRT A 101



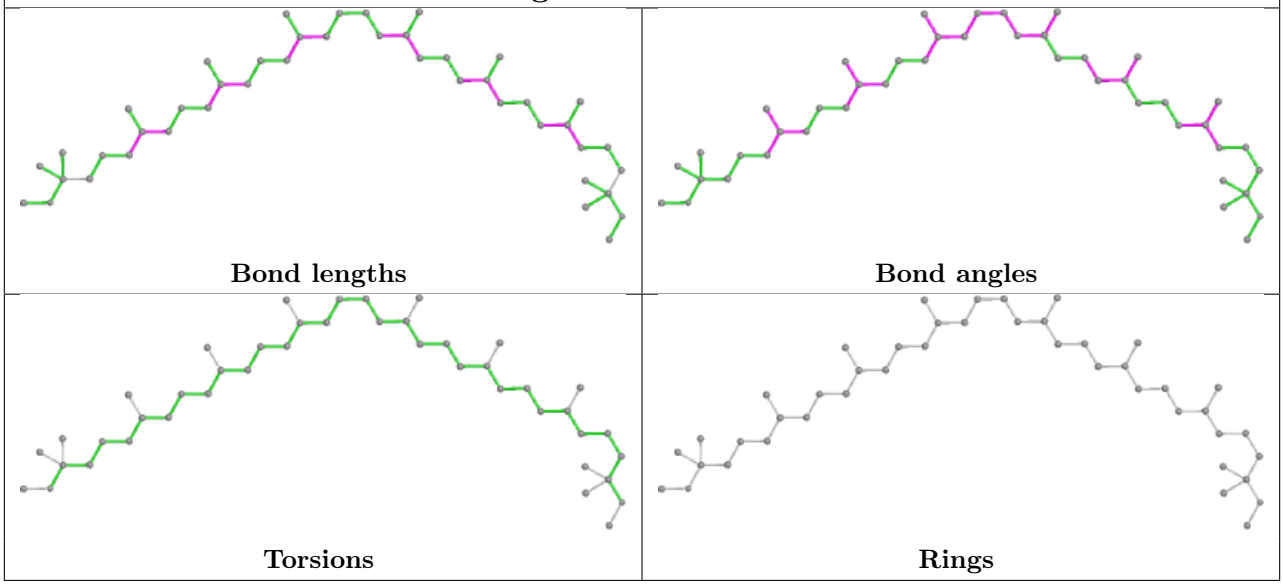
Ligand CRT 2 102



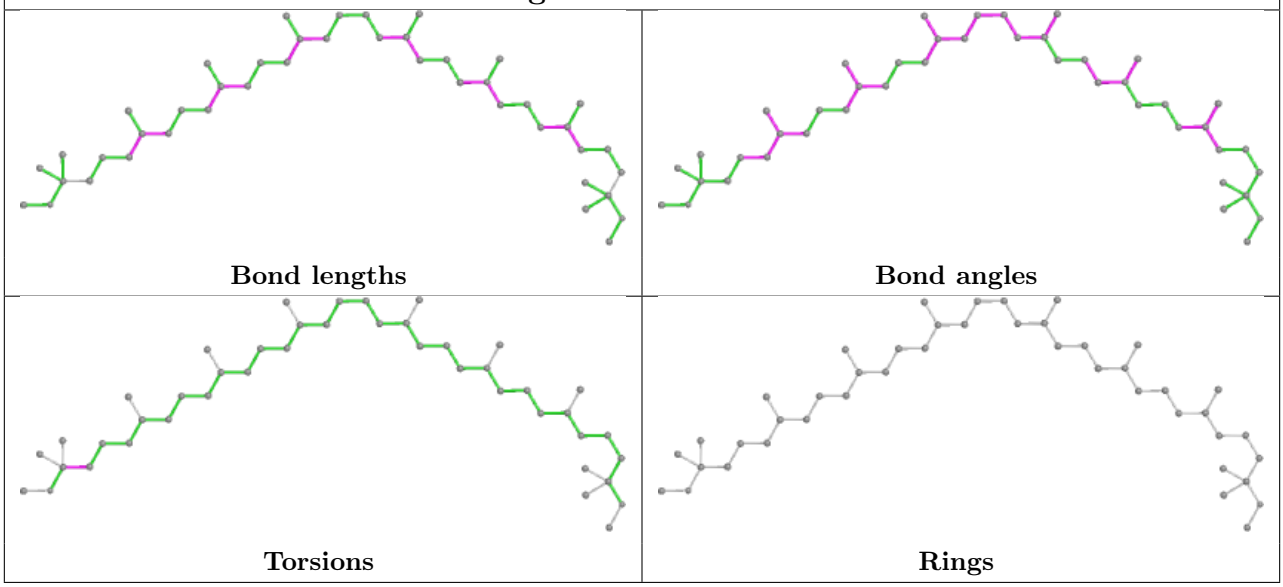
Ligand BCL V 102



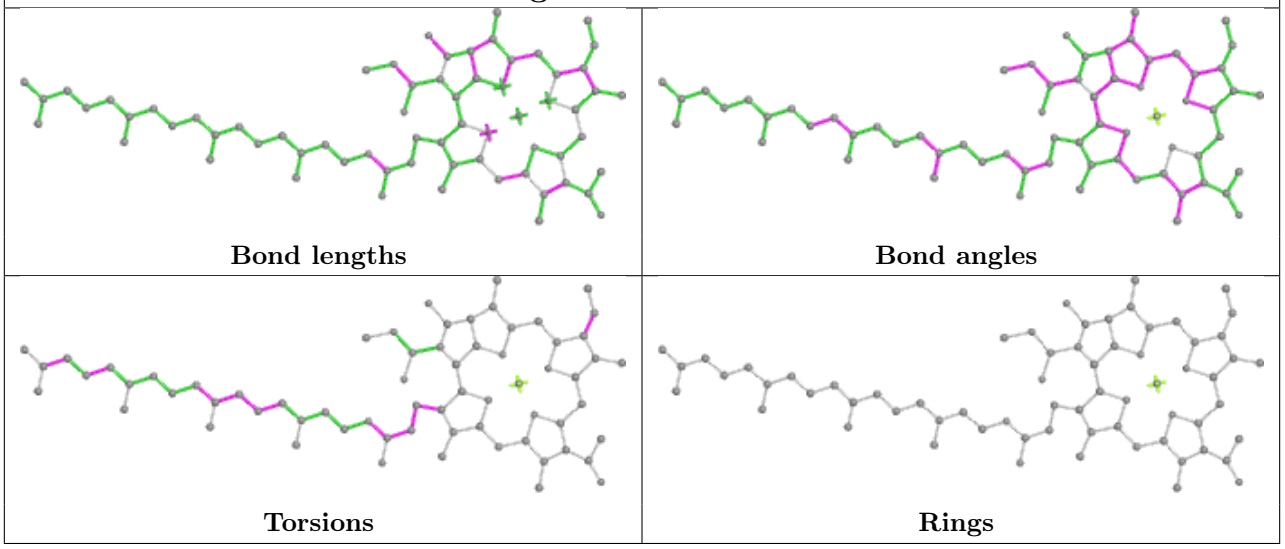
Ligand CRT I 101



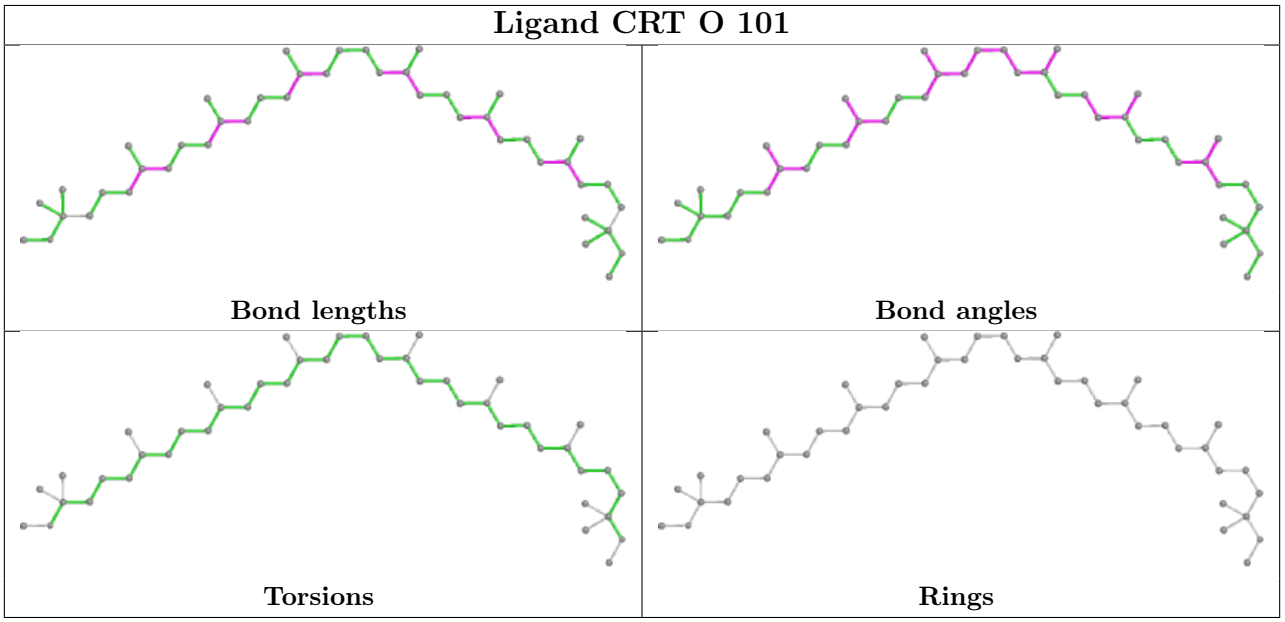
Ligand CRT S 101



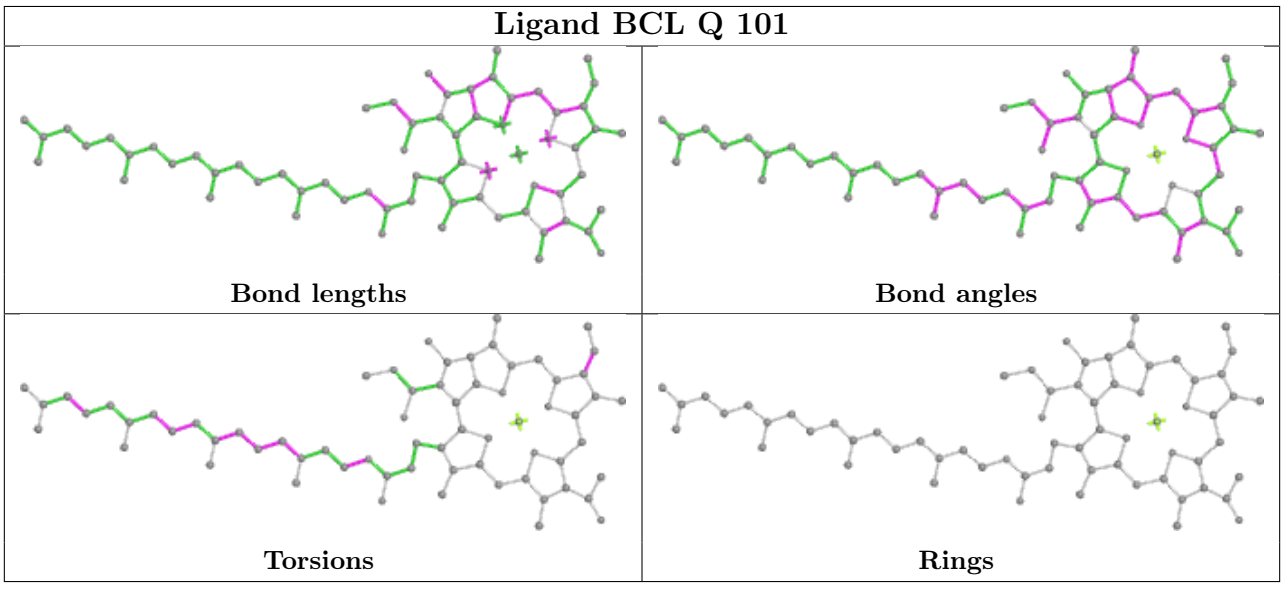
Ligand BCL 6 101



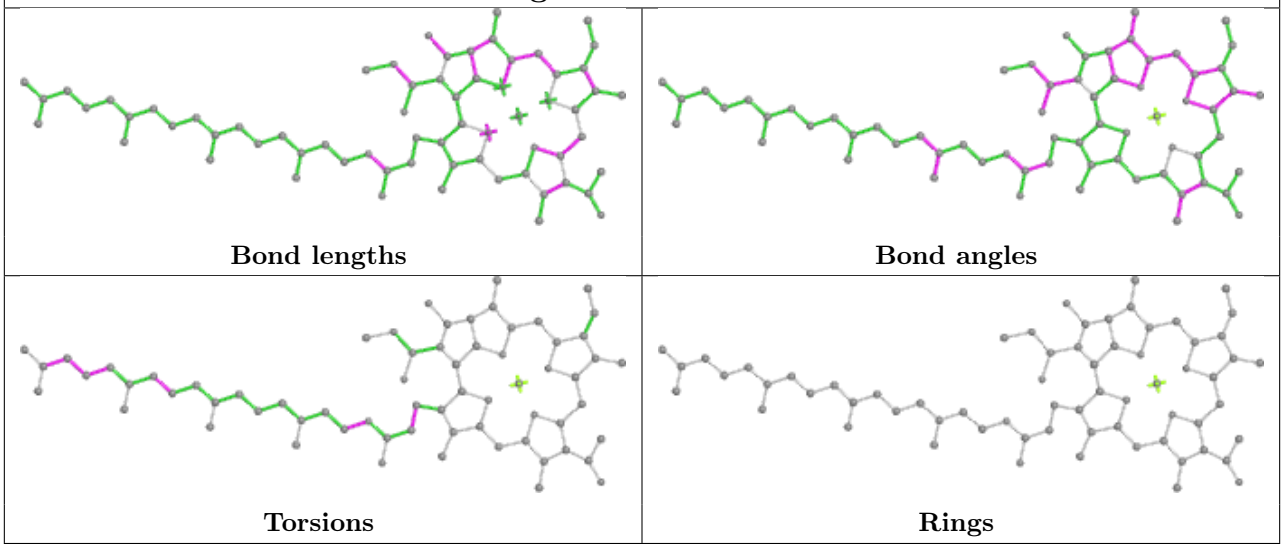
Ligand CRT O 101



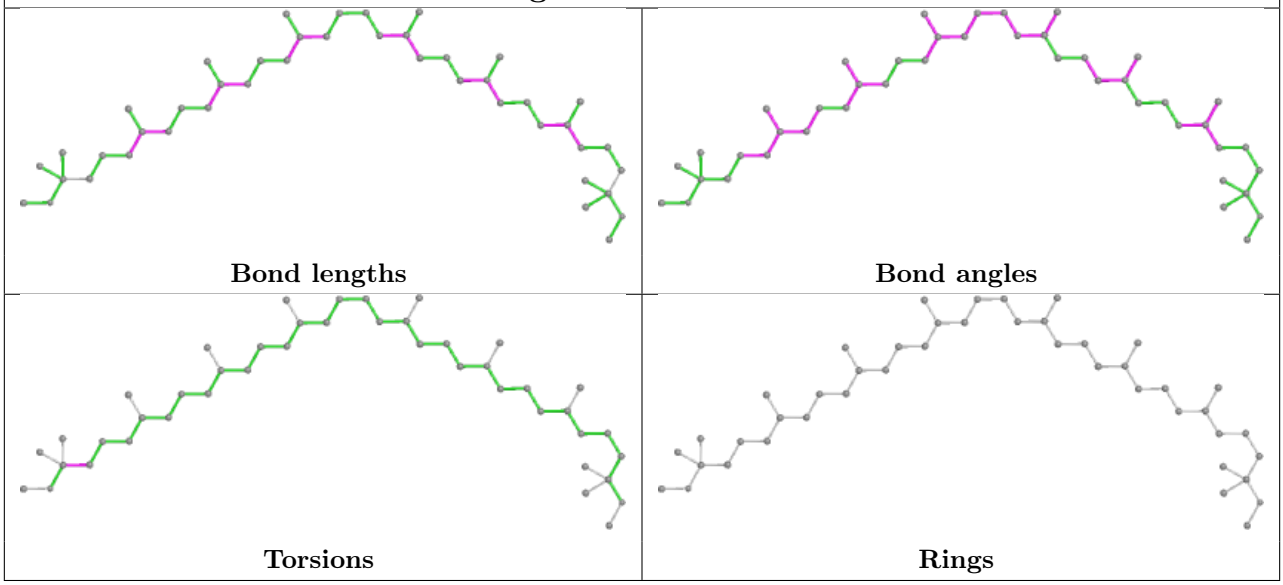
Ligand BCL Q 101



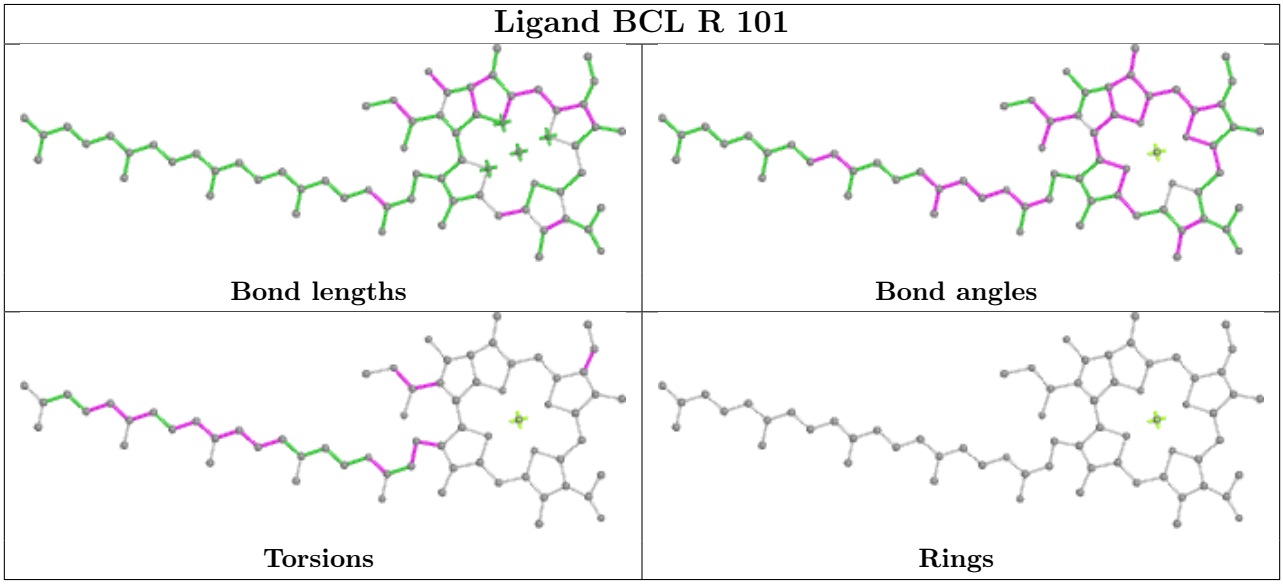
Ligand BCL 5 101



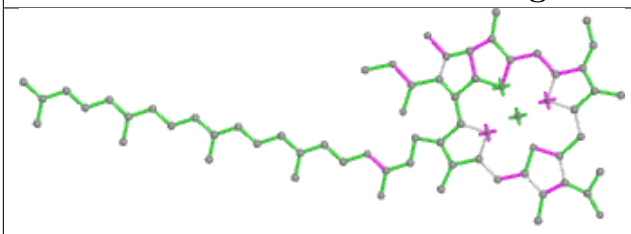
Ligand CRT 7 101



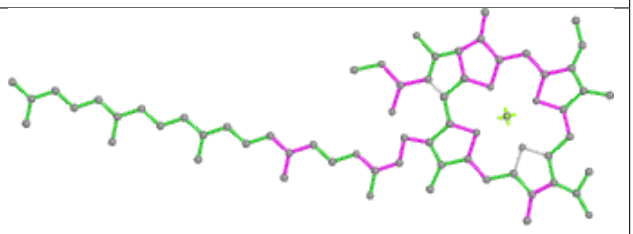
Ligand BCL R 101



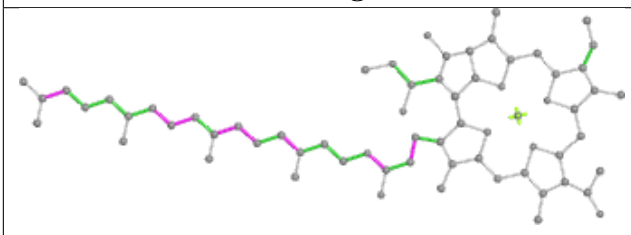
Ligand BCL 1 101



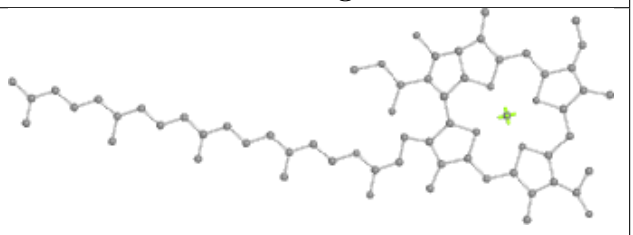
Bond lengths



Bond angles

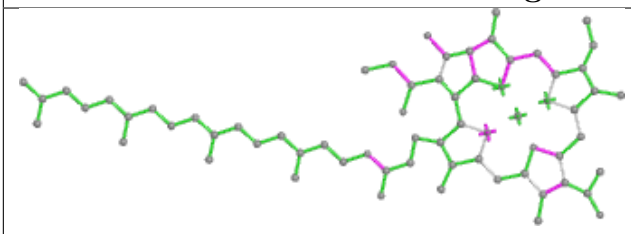


Torsions

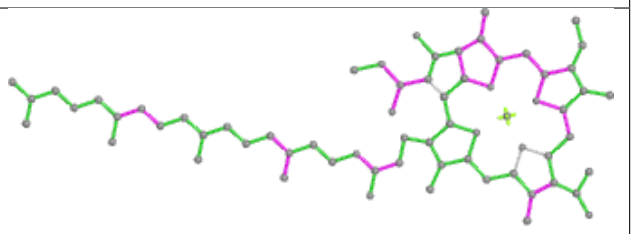


Rings

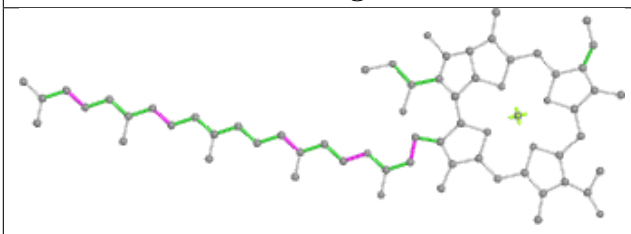
Ligand BCL U 101



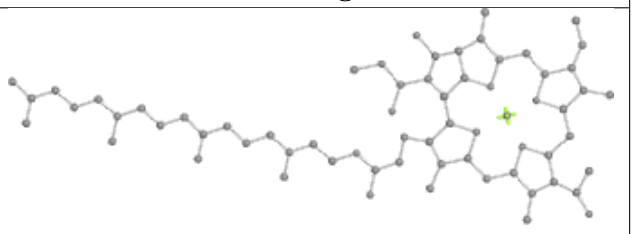
Bond lengths



Bond angles

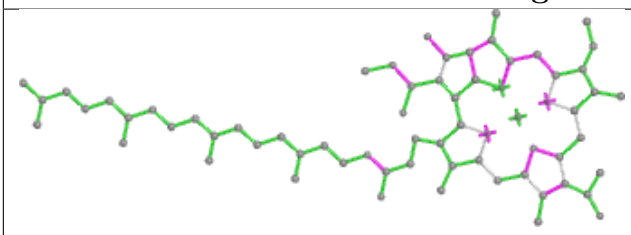


Torsions

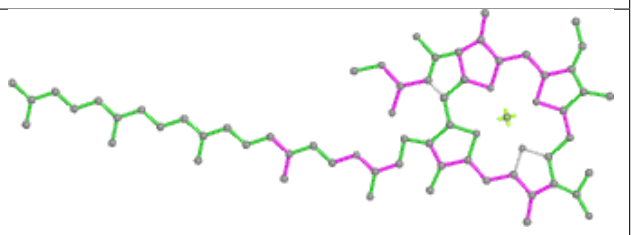


Rings

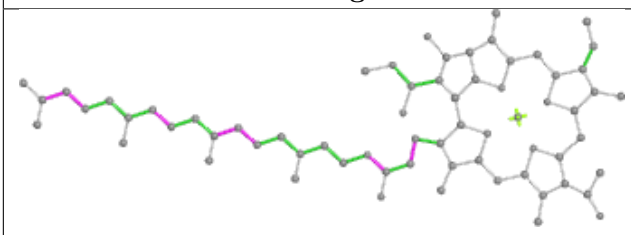
Ligand BCL I 102



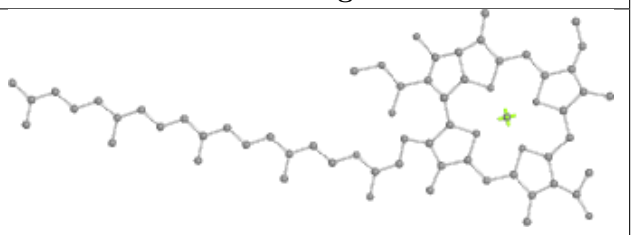
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

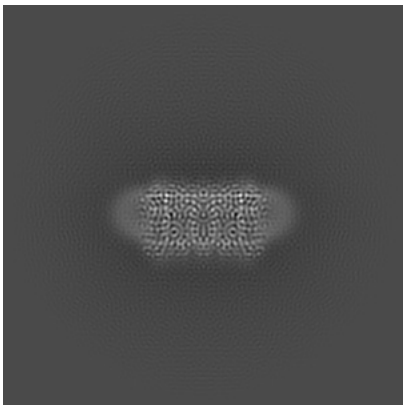
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-36154. These allow visual inspection of the internal detail of the map and identification of artifacts.

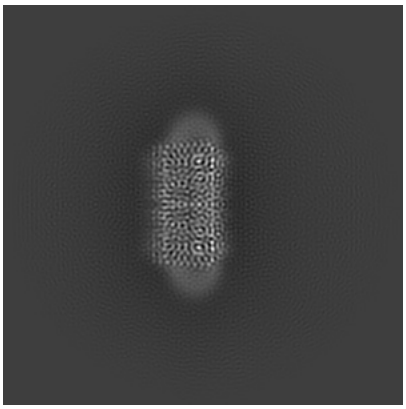
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

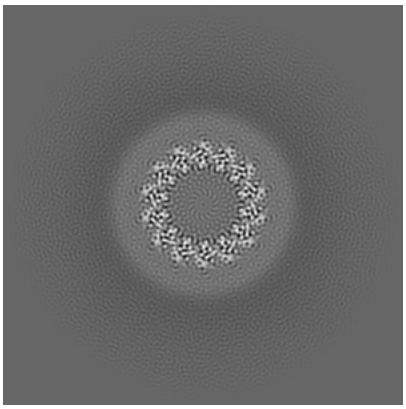
6.1.1 Primary map



X

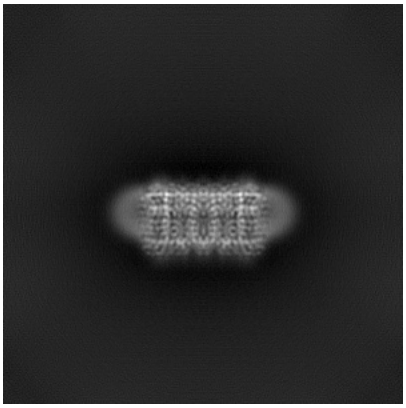


Y

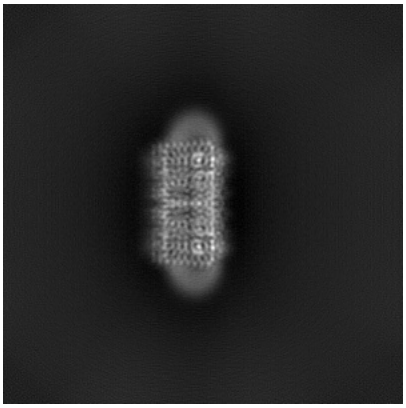


Z

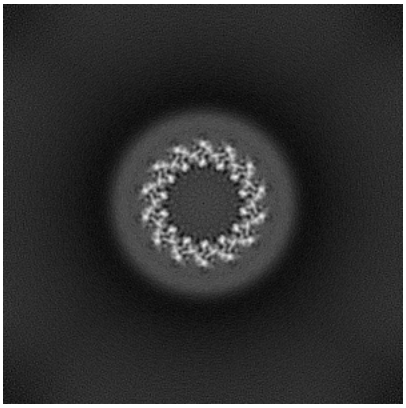
6.1.2 Raw map



X



Y

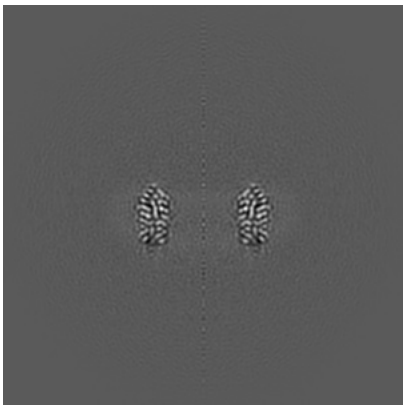


Z

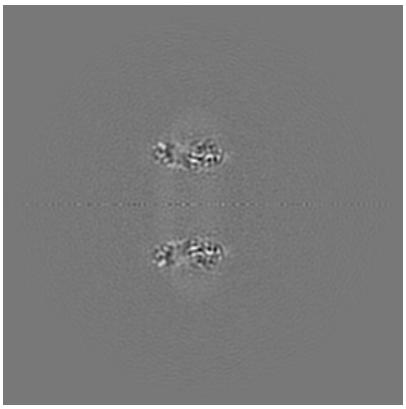
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

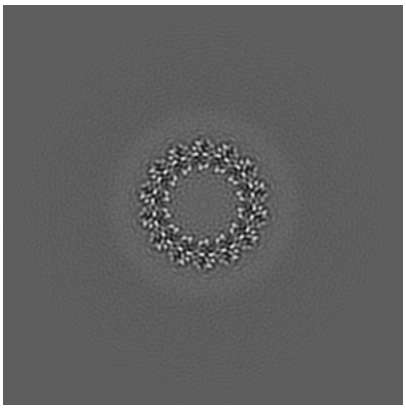
6.2.1 Primary map



X Index: 180

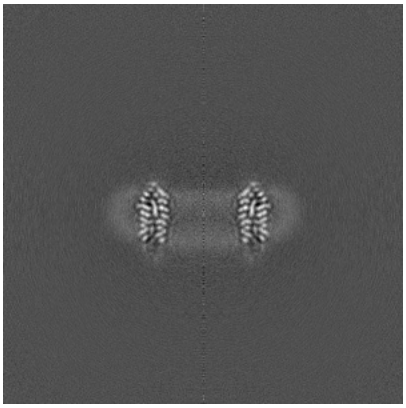


Y Index: 180

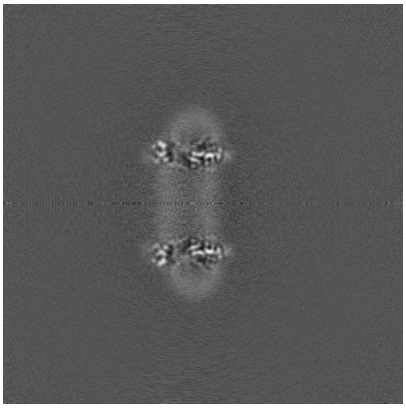


Z Index: 180

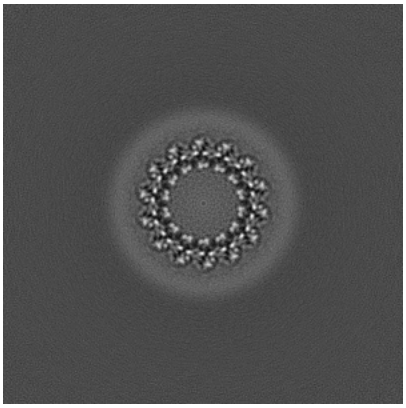
6.2.2 Raw map



X Index: 180



Y Index: 180

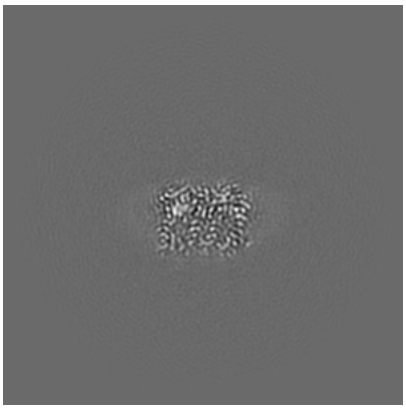


Z Index: 180

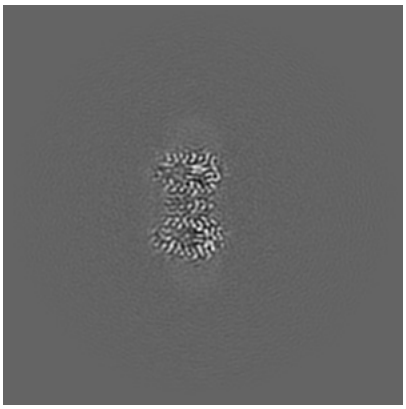
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

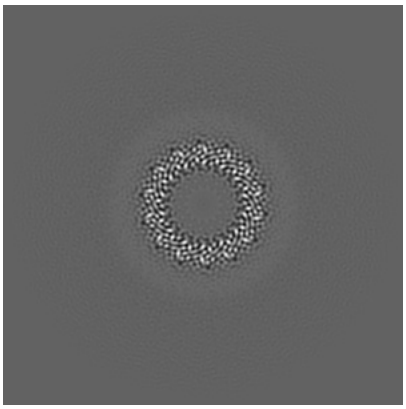
6.3.1 Primary map



X Index: 219

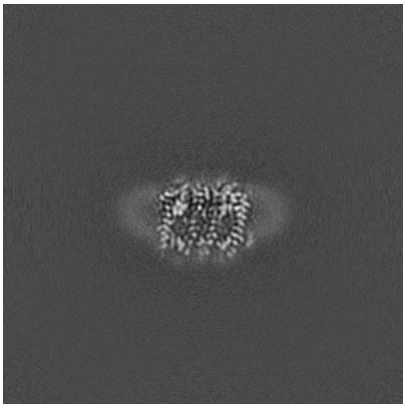


Y Index: 213

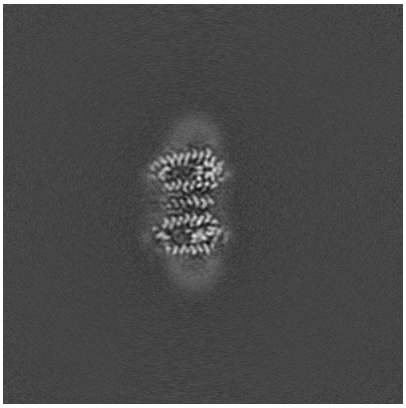


Z Index: 176

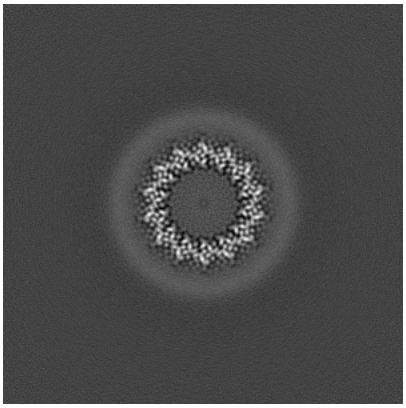
6.3.2 Raw map



X Index: 220



Y Index: 146

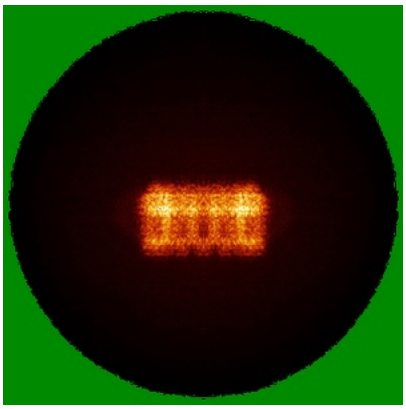


Z Index: 176

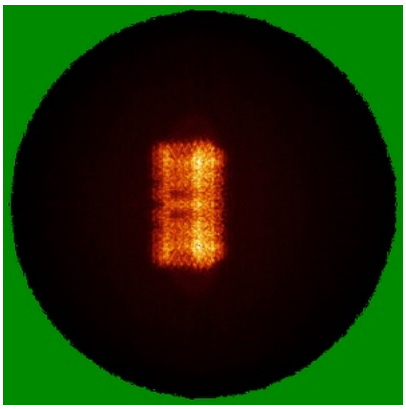
The images above show the largest variance slices of the map in three orthogonal directions.

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

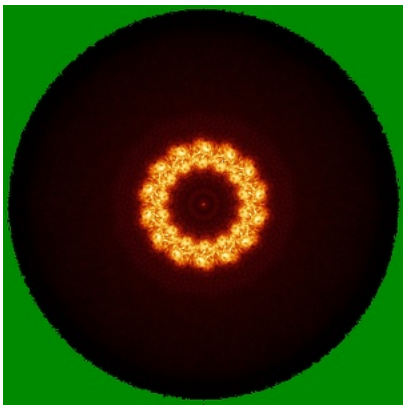
6.4.1 Primary map



X

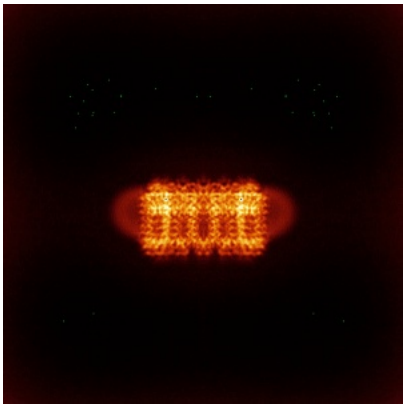


Y

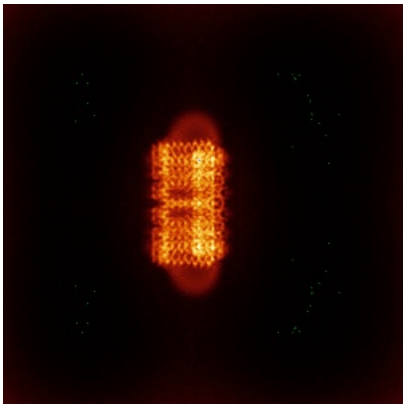


Z

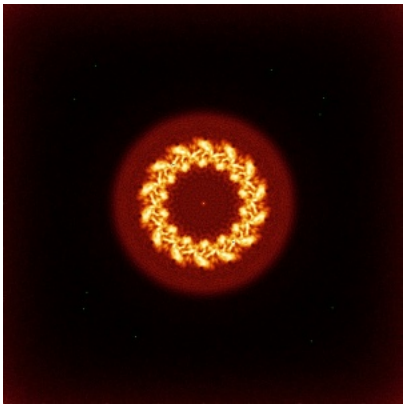
6.4.2 Raw map



X



Y

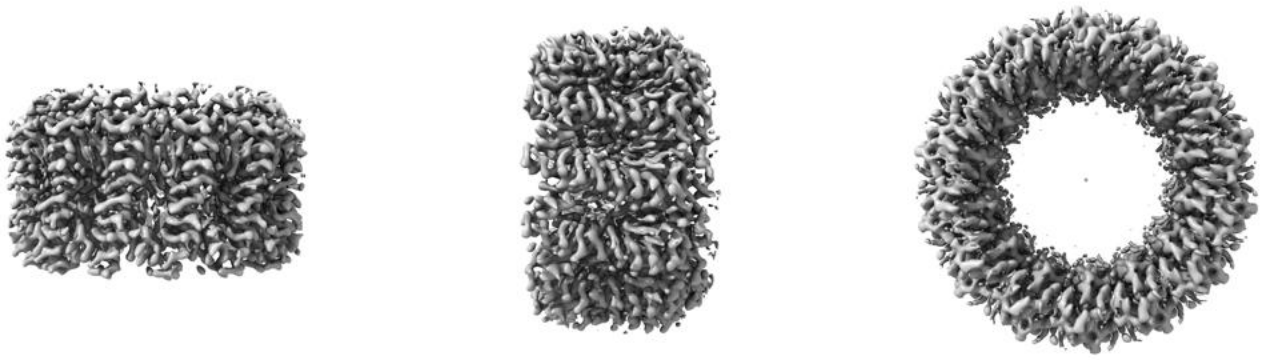


Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.27. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map

X Y Z

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

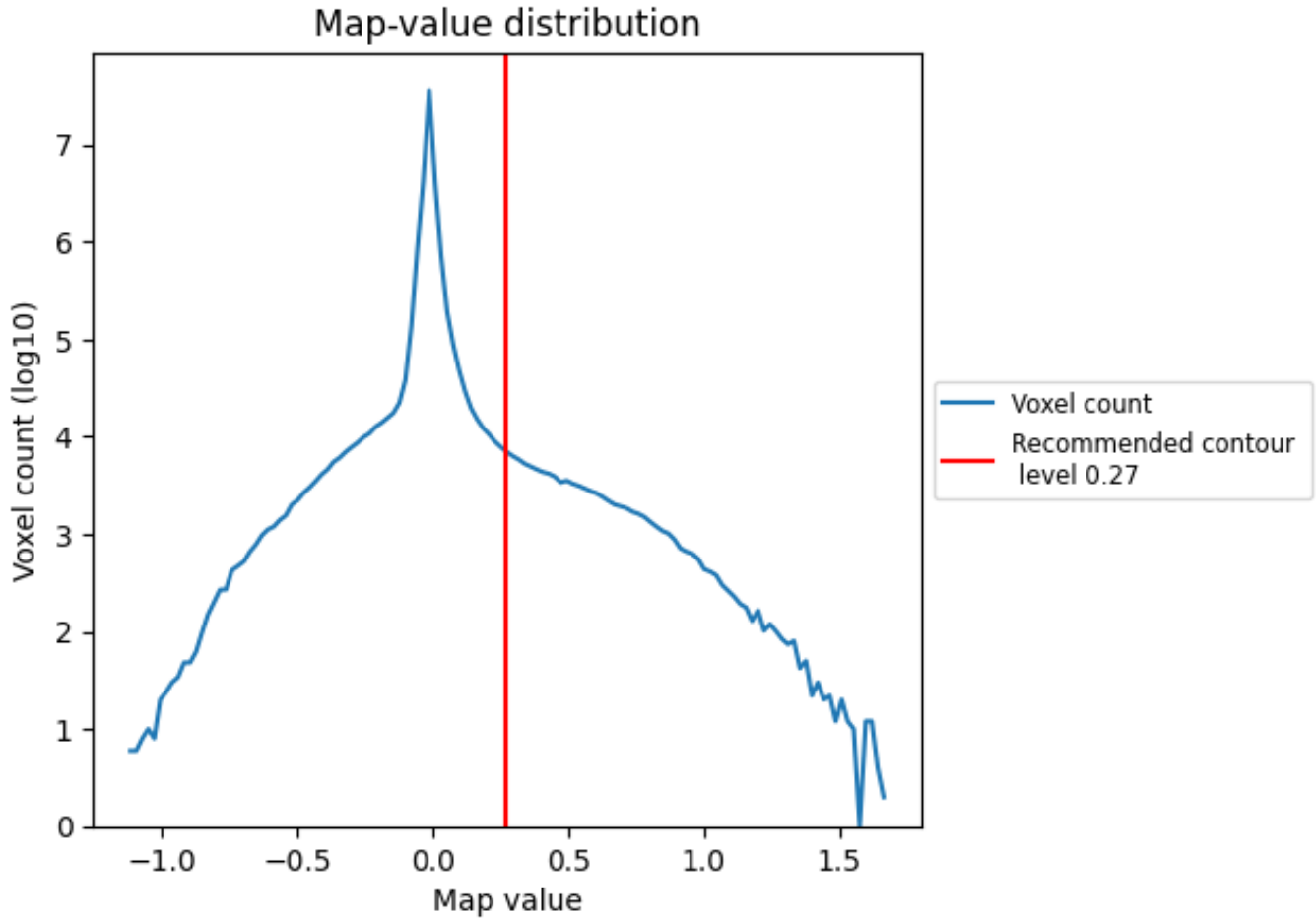
6.6 Mask visualisation (i)

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

7 Map analysis

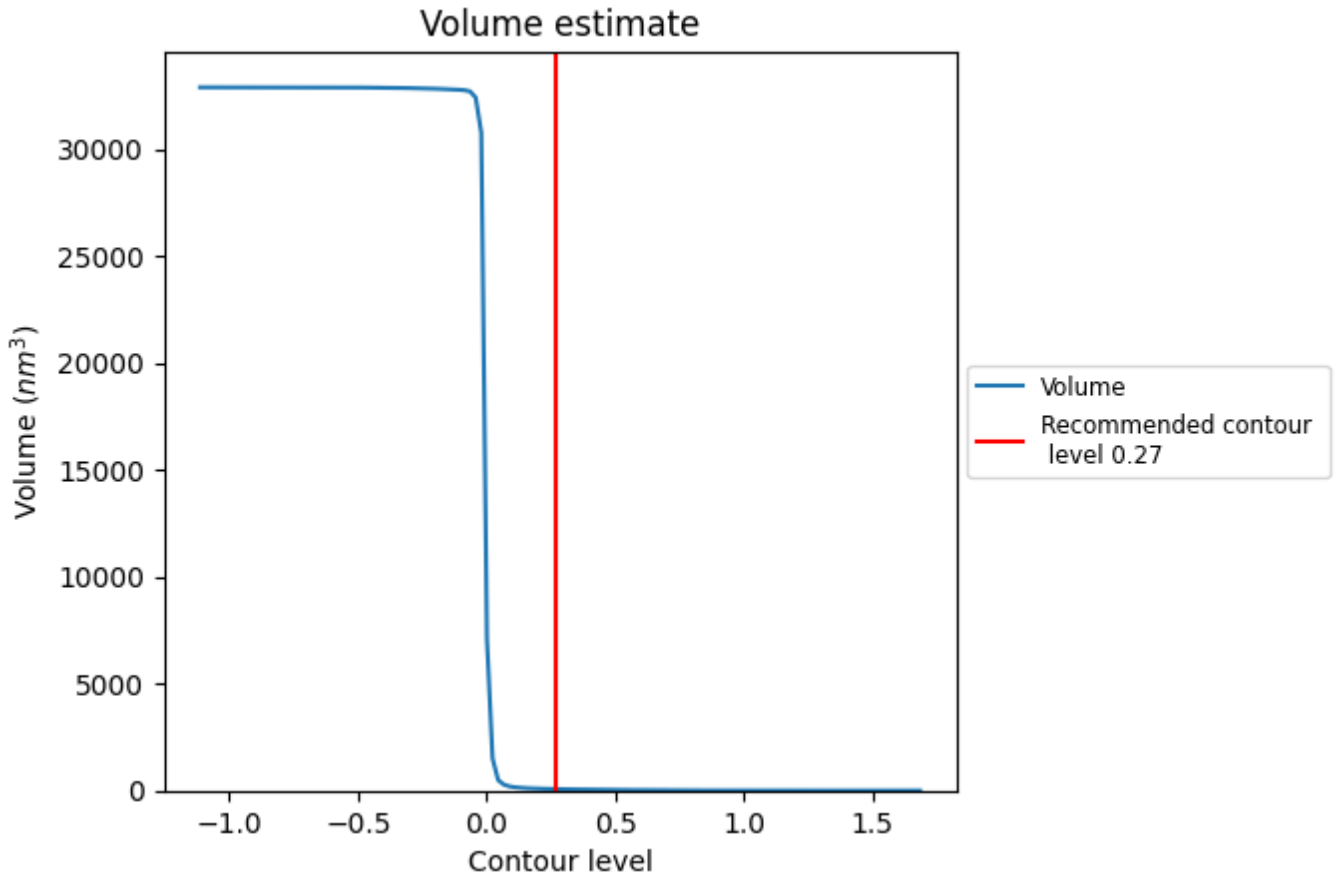
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

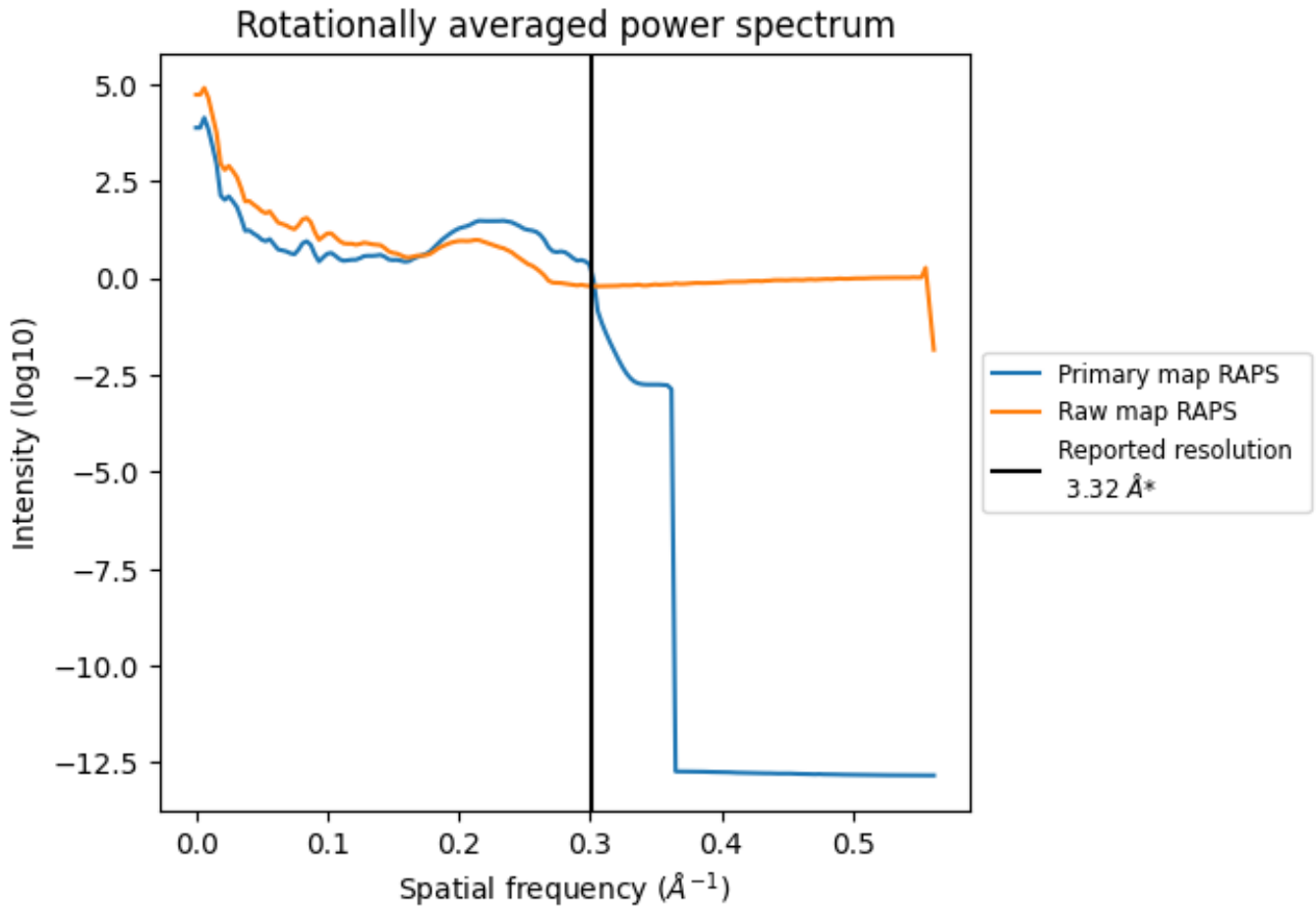
7.2 Volume estimate



The volume at the recommended contour level is 68 nm^3; this corresponds to an approximate mass of 61 kDa.

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

7.3 Rotationally averaged power spectrum (i)

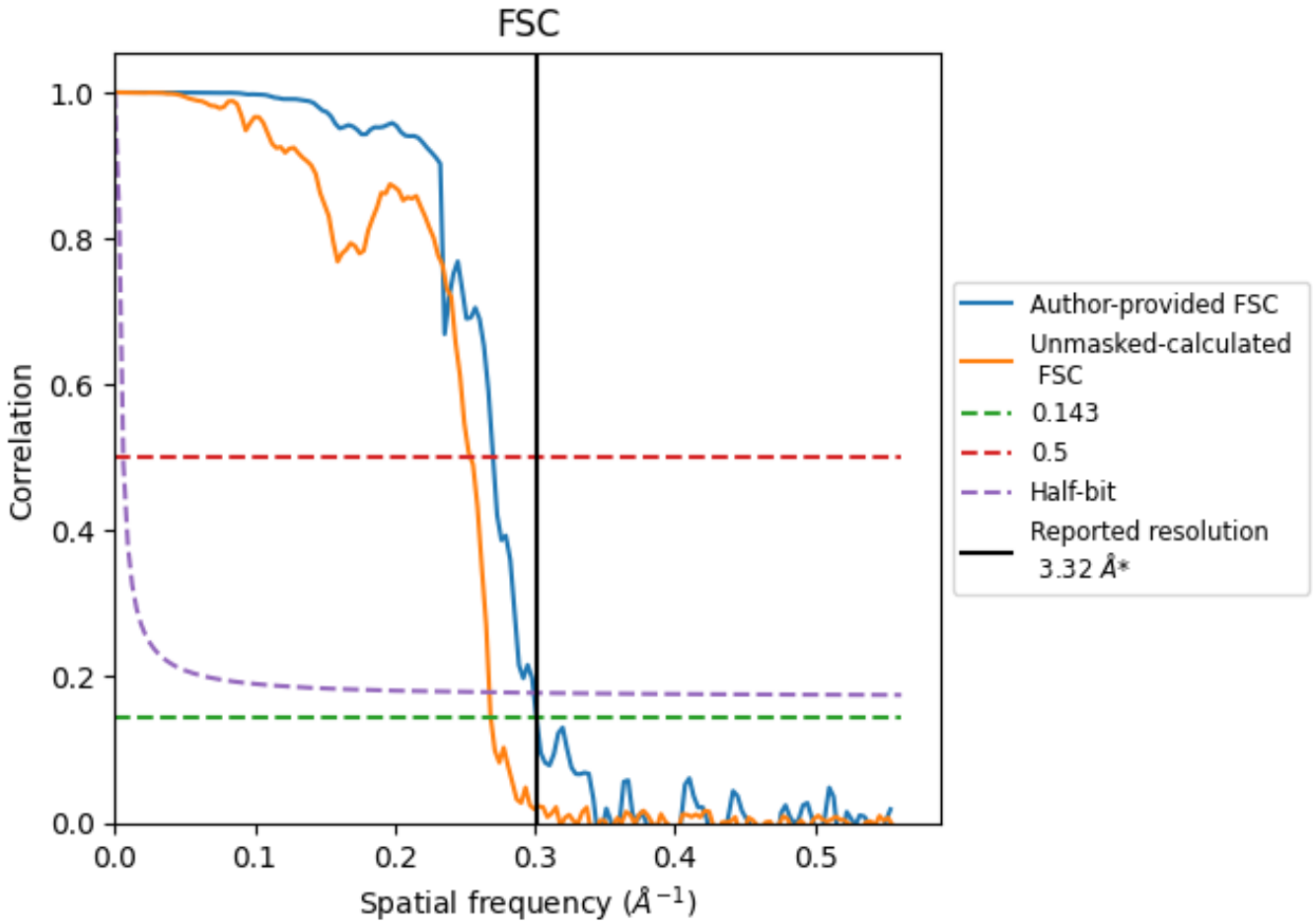


*Reported resolution corresponds to spatial frequency of 0.301 $Å^{-1}$

8 Fourier-Shell correlation

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



*Reported resolution corresponds to spatial frequency of 0.301 Å^{-1}

8.2 Resolution estimates (i)

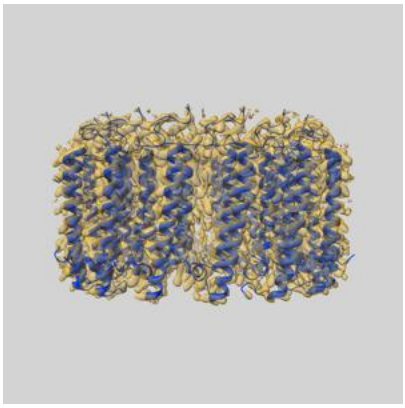
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.32	-	-
Author-provided FSC curve	3.32	3.70	3.34
Unmasked-calculated*	3.72	3.94	3.74

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.72 differs from the reported value 3.32 by more than 10 %

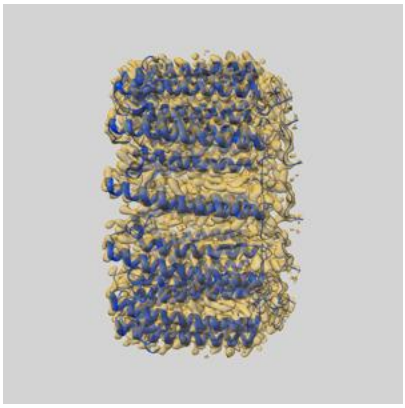
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-36154 and PDB model 8JC9. Per-residue inclusion information can be found in section 3 on page 11.

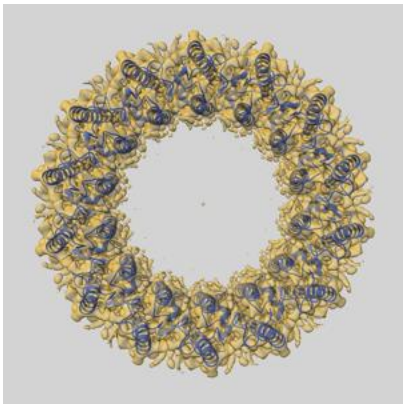
9.1 Map-model overlay



X



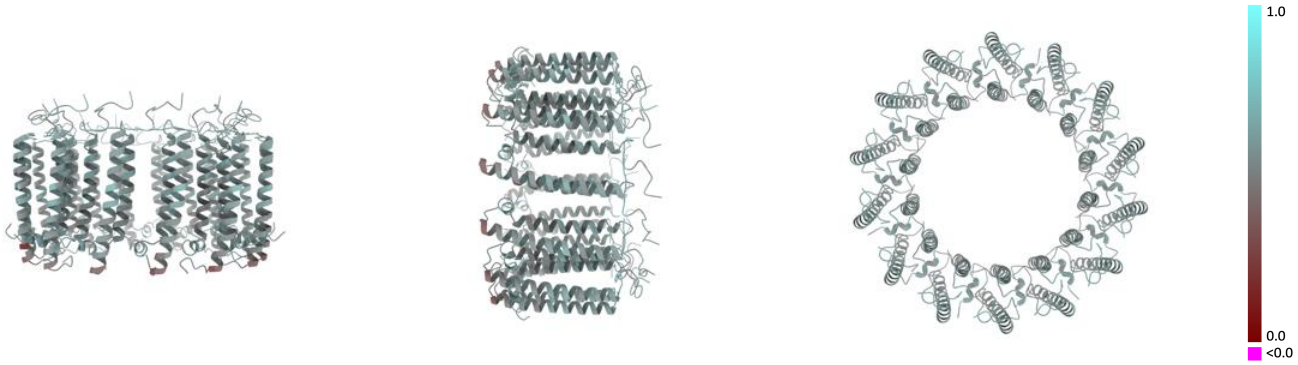
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.27 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.

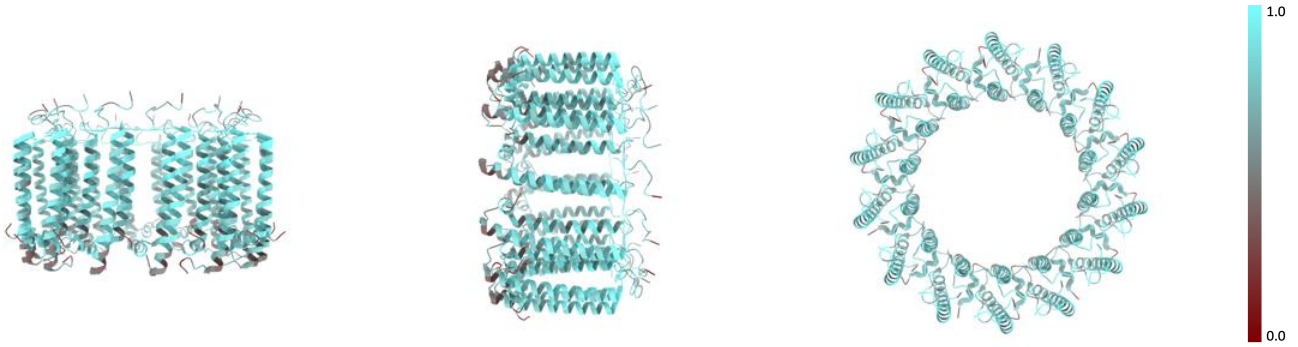
9.2 Q-score mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according 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.

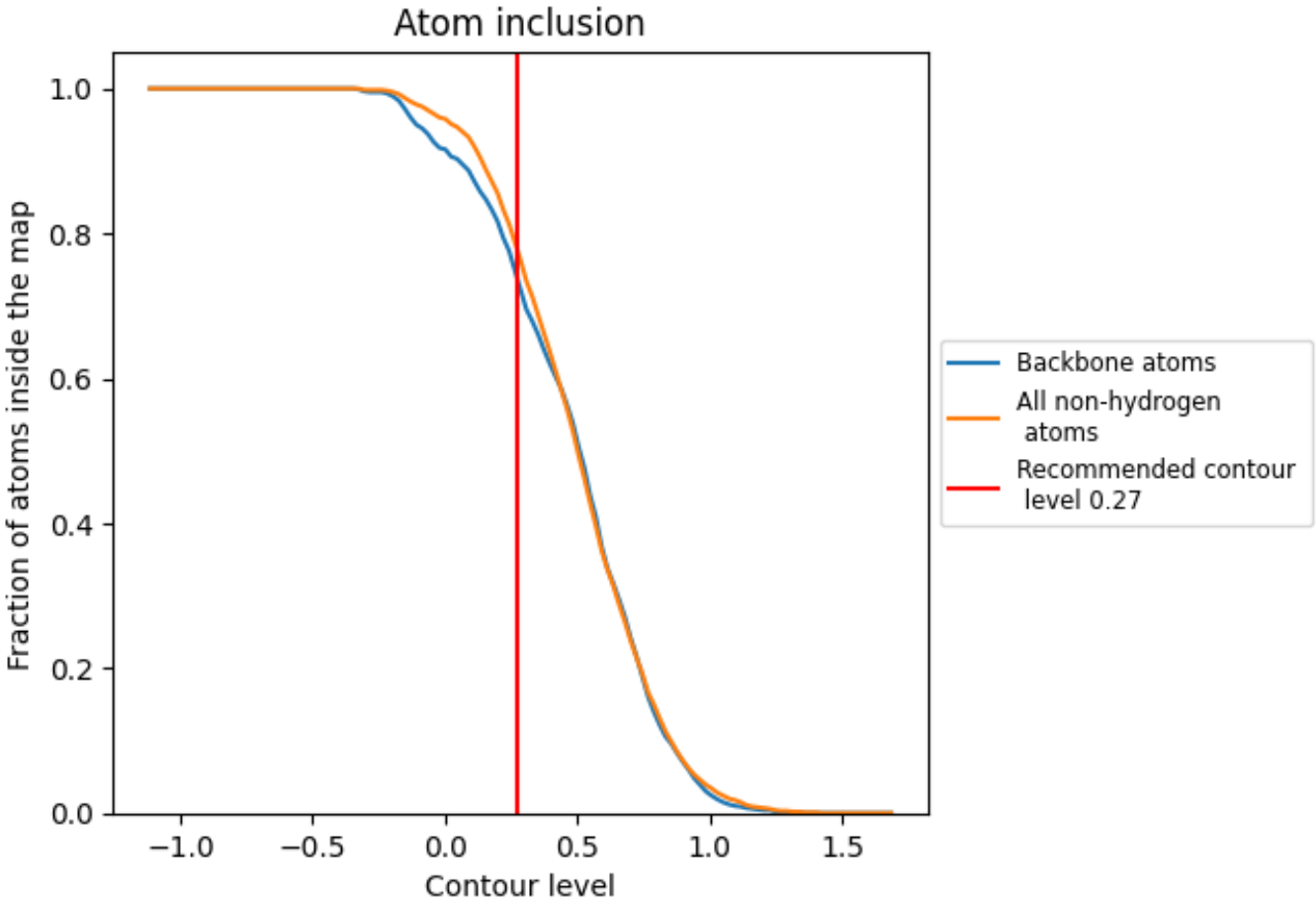
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.27).

9.4 Atom inclusion (i)



At the recommended contour level, 74% of all backbone atoms, 78% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.27) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7810	0.5490
1	0.7890	0.5610
2	0.8090	0.5580
3	0.7630	0.5530
4	0.7680	0.5350
5	0.7780	0.5510
6	0.7700	0.5450
7	0.7900	0.5540
8	0.7900	0.5430
A	0.7890	0.5570
B	0.7920	0.5450
D	0.7670	0.5490
E	0.8080	0.5500
F	0.7670	0.5510
G	0.7700	0.5430
I	0.7710	0.5500
J	0.8020	0.5480
K	0.7730	0.5570
N	0.7870	0.5480
O	0.7730	0.5470
P	0.7970	0.5470
Q	0.7550	0.5490
R	0.7900	0.5420
S	0.7750	0.5540
T	0.7660	0.5440
U	0.7730	0.5480
V	0.8040	0.5450
Y	0.7660	0.5520
Z	0.7900	0.5470