Full wwPDB X-ray Structure Validation Report (i)

Aug 17, 2022 – 06:09 PM EDT

PDB ID	:	3WG7
Title	:	A 1.9 angstrom radiation damage free X-ray structure of large (420KDa) protein by femtosecond crystallography
Authors	:	Hirata, K.; Shinzawa-Itoh, K.; Yano, N.; Takemura, S.; Kato, K.; Hatanaka, M.; Muramoto, K.; Kawahara, T.; Tsukihara, T.; Yamashita, E.; Tono, K.; Ueno, G.; Hikima, T.; Murakami, H.; Inubushi, Y.; Yabashi, M.; Ishikawa, T.; Yamamoto, M.; Ogura, T.; Sugimoto, H.; Shen, J.R.; Yoshikawa, S.; Ago, H.
Deposited on	:	2013-07-29
Resolution	:	1.90 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp
with specific help available everywhere you see the (i) 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 (1)) were used in the production of this report:

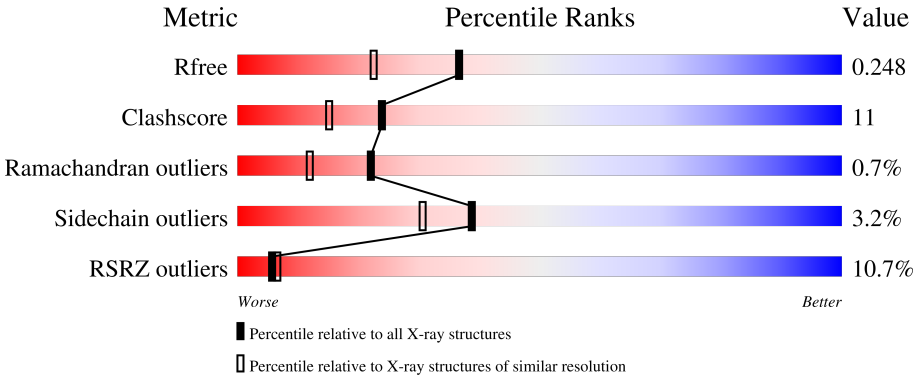
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.29
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.29

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 1.90 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)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	6207 (1.90-1.90)
Clashscore	141614	6847 (1.90-1.90)
Ramachandran outliers	138981	6760 (1.90-1.90)
Sidechain outliers	138945	6760 (1.90-1.90)
RSRZ outliers	127900	6082 (1.90-1.90)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	514	3% 84% 16%
1	N	514	% 82% 16%
2	B	227	6% 75% 22%
2	O	227	10% 74% 25%
3	C	261	3% 84% 15%

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Mol	Chain	Length	Quality of chain
3	P	261	2% 79% 20%
4	D	147	5% 87% 11%
4	Q	147	29% 82% 14%
5	E	109	12% 87% 8%
5	R	109	15% 80% 15%
6	F	98	12% 78% 15% 7%
6	S	98	14% 73% 19% 7%
7	G	85	25% 69% 19% 8%
7	T	85	26% 68% 20% 8%
8	H	85	15% 68% 19% 5% 7%
8	U	85	25% 73% 16% 7%
9	I	73	25% 82% 16%
9	V	73	44% 84% 15%
10	J	59	14% 83% 14%
10	W	59	24% 80% 19%
11	K	56	11% 73% 12% 12%
11	X	56	41% 80% 7% 12%
12	L	47	4% 79% 17%
12	Y	47	9% 72% 23%
13	M	46	17% 74% 15% 7%
13	Z	46	26% 74% 17% 7%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
14	HEA	A	601	X	-	-	-
14	HEA	A	602	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
14	HEA	N	601	X	-	-	-
14	HEA	N	602	X	-	-	-
2	FME	O	1	-	-	X	-
23	PSC	N	610	-	-	X	-
25	CDL	C	304	-	-	X	-
25	CDL	G	101	-	-	X	-
25	CDL	T	102	-	-	X	-
27	DMU	M	101	X	-	-	-
27	DMU	Z	101	X	-	-	-
7	TPO	G	11	-	-	-	X
9	SAC	I	1	-	-	-	X
9	SAC	V	1	-	X	-	X

2 Entry composition (i)

There are 28 unique types of molecules in this entry. The entry contains 33302 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 Cytochrome c oxidase subunit 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	514	Total	C	N	O	S	0	6	0
			4074	2725	629	684	36			
1	N	514	Total	C	N	O	S	0	6	0
			4074	2725	629	684	36			

- Molecule 2 is a protein called Cytochrome c oxidase subunit 2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	227	Total	C	N	O	S	0	1	0
			1832	1189	282	343	18			
2	O	227	Total	C	N	O	S	0	0	0
			1824	1185	281	340	18			

- Molecule 3 is a protein called Cytochrome c oxidase subunit 3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	259	Total	C	N	O	S	0	3	0
			2134	1427	339	353	15			
3	P	259	Total	C	N	O	S	0	3	0
			2134	1427	339	353	15			

- Molecule 4 is a protein called Cytochrome c oxidase subunit 4 isoform 1, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	144	Total	C	N	O	S	0	0	0
			1195	777	196	218	4			
4	Q	144	Total	C	N	O	S	0	0	0
			1195	777	196	218	4			

- Molecule 5 is a protein called Cytochrome c oxidase subunit 5A, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	105	Total	C	N	O	S	0	0	0
			852	544	144	162	2			
5	R	105	Total	C	N	O	S	0	0	0
			852	544	144	162	2			

- Molecule 6 is a protein called Cytochrome c oxidase subunit 5B, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	98	Total	C	N	O	S	0	0	0
			748	464	134	145	5			
6	S	98	Total	C	N	O	S	0	0	0
			748	464	134	145	5			

- Molecule 7 is a protein called Cytochrome c oxidase subunit 6A2, mitochondrial.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
7	G	84	Total	C	N	O	P	S	0	0	0
			675	431	129	113	1	1			
7	T	84	Total	C	N	O	P	S	0	0	0
			675	431	129	113	1	1			

- Molecule 8 is a protein called Cytochrome c oxidase subunit 6B1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	79	Total	C	N	O	S	0	0	0
			662	417	121	119	5			
8	U	79	Total	C	N	O	S	0	0	0
			662	417	121	119	5			

- Molecule 9 is a protein called Cytochrome c oxidase subunit 6C.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	73	Total	C	N	O	S	0	0	0
			601	390	107	100	4			
9	V	73	Total	C	N	O	S	0	0	0
			601	390	107	100	4			

- Molecule 10 is a protein called Cytochrome c oxidase subunit 7A1, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	58	Total	C	N	O	S	0	0	0
			460	297	78	82	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	W	58	Total	C	N	O	S	0	0	0
			460	297	78	82	3			

- Molecule 11 is a protein called Cytochrome c oxidase subunit 7B, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	49	Total	C	N	O	S	0	0	0
			384	250	65	67	2			
11	X	49	Total	C	N	O	S	0	0	0
			384	250	65	67	2			

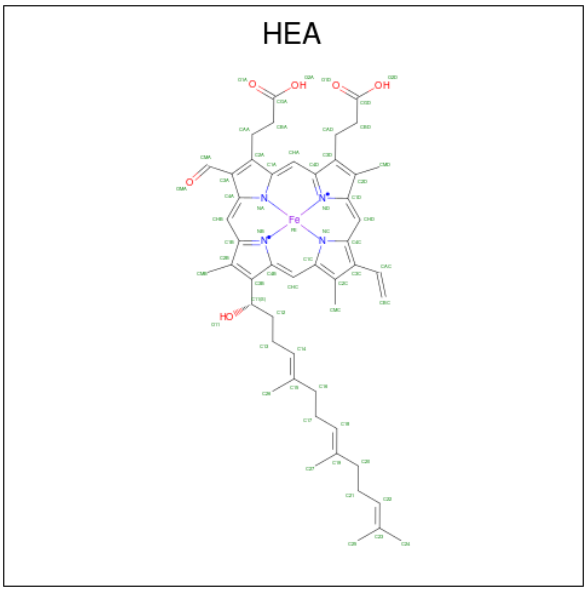
- Molecule 12 is a protein called Cytochrome c oxidase subunit 7C, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	46	Total	C	N	O	S	0	0	0
			380	254	64	60	2			
12	Y	46	Total	C	N	O	S	0	0	0
			380	254	64	60	2			

- Molecule 13 is a protein called Cytochrome c oxidase subunit 8B, mitochondrial.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
13	M	43	Total	C	N	O	0	0	0
			335	223	53	59			
13	Z	43	Total	C	N	O	0	0	0
			335	223	53	59			

- Molecule 14 is HEME-A (three-letter code: HEA) (formula: $C_{49}H_{56}FeN_4O_6$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
14	A	1	Total	C	Fe	N	O	0	0
			60	49	1	4	6		
14	A	1	Total	C	Fe	N	O	0	0
			60	49	1	4	6		
14	N	1	Total	C	Fe	N	O	0	0
			60	49	1	4	6		
14	N	1	Total	C	Fe	N	O	0	0
			60	49	1	4	6		

- Molecule 15 is COPPER (II) ION (three-letter code: CU) (formula: Cu).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
15	A	1	Total	Cu	0	0
			1	1		
15	N	1	Total	Cu	0	0
			1	1		

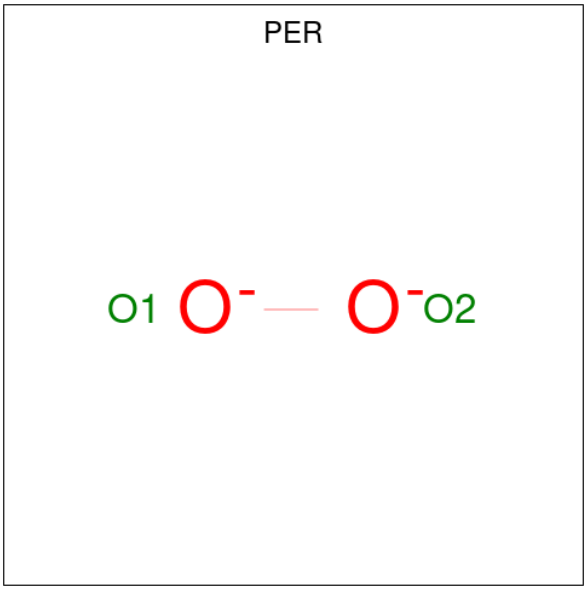
- Molecule 16 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
16	A	1	Total	Mg	0	0
			1	1		
16	N	1	Total	Mg	0	0
			1	1		

- Molecule 17 is SODIUM ION (three-letter code: NA) (formula: Na).

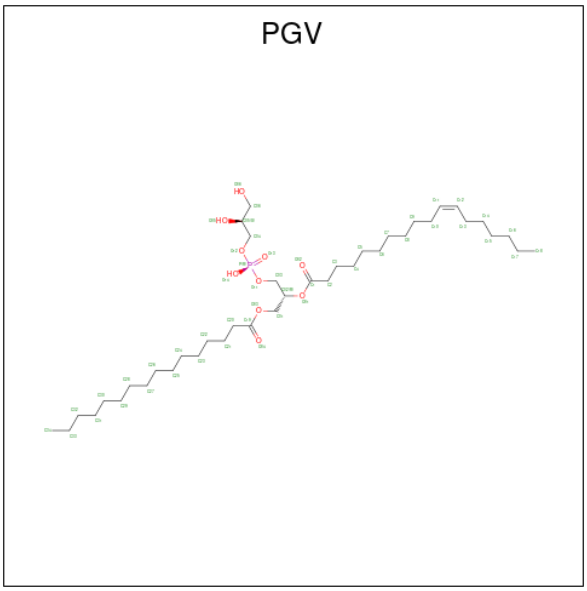
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
17	A	1	Total Na 1 1	0	0
17	C	1	Total Na 1 1	0	0
17	N	1	Total Na 1 1	0	0
17	P	1	Total Na 1 1	0	0

- Molecule 18 is PEROXIDE ION (three-letter code: PER) (formula: O_2).



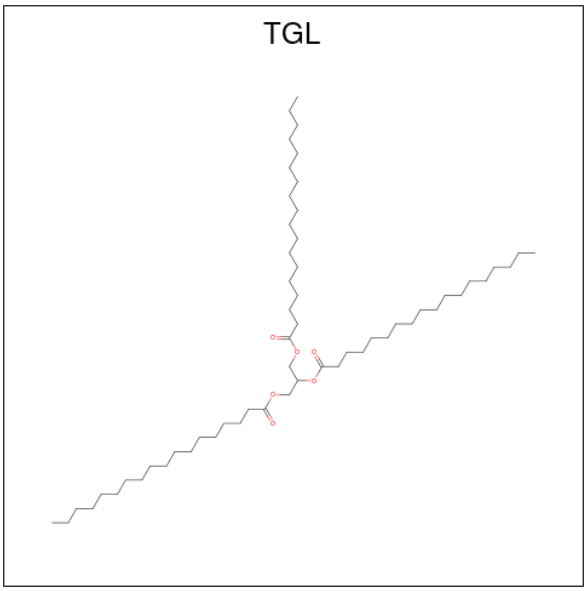
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
18	A	1	Total O 4 4	0	1
18	N	1	Total O 4 4	0	1

- Molecule 19 is (1R)-2-{[{[(2S)-2,3-DIHYDROXYPROPYL]OXY}(HYDROXY)PHOSPHORYL]OXY}-1-[(PALMITOYLOXY)METHYL]ETHYL (11E)-OCTADEC-11-ENOATE (three-letter code: PGV) (formula: $C_{40}H_{77}O_{10}P$).



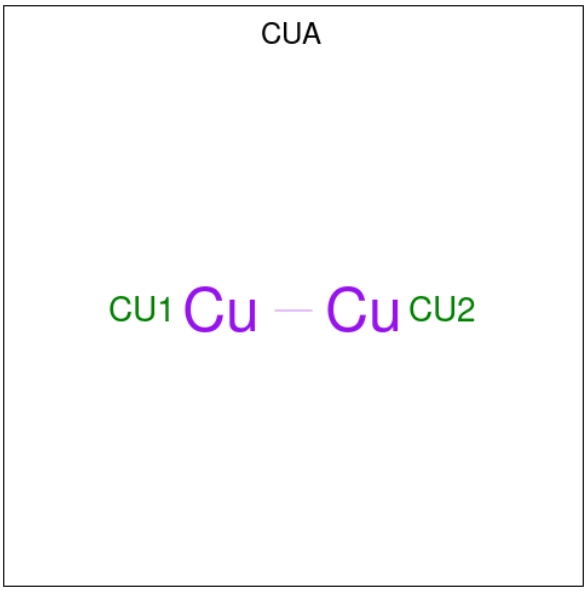
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
19	A	1	Total	C	O	P	0	0
			51	40	10	1		
19	A	1	Total	C	O	P	0	0
			51	40	10	1		
19	C	1	Total	C	O	P	0	0
			51	40	10	1		
19	C	1	Total	C	O	P	0	0
			51	40	10	1		
19	N	1	Total	C	O	P	0	0
			51	40	10	1		
19	N	1	Total	C	O	P	0	0
			51	40	10	1		
19	P	1	Total	C	O	P	0	0
			51	40	10	1		
19	P	1	Total	C	O	P	0	0
			51	40	10	1		

- Molecule 20 is TRISTEAROYLGLYCEROL (three-letter code: TGL) (formula: $C_{57}H_{110}O_6$).



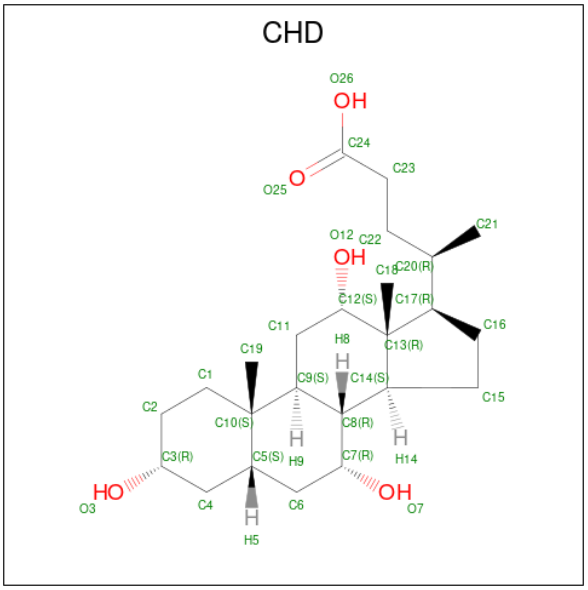
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
20	B	1	Total C O 63 57 6	0	0
20	D	1	Total C O 63 57 6	0	0
20	L	1	Total C O 63 57 6	0	0
20	N	1	Total C O 63 57 6	0	0
20	Q	1	Total C O 63 57 6	0	0
20	Y	1	Total C O 63 57 6	0	0

- Molecule 21 is DINUCLEAR COPPER ION (three-letter code: CUA) (formula: Cu_2).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
21	B	1	Total Cu 2 2	0	0
21	O	1	Total Cu 2 2	0	0

- Molecule 22 is CHOLIC ACID (three-letter code: CHD) (formula: $C_{24}H_{40}O_5$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
22	B	1	Total C O 29 24 5	0	0
22	C	1	Total C O 29 24 5	0	0

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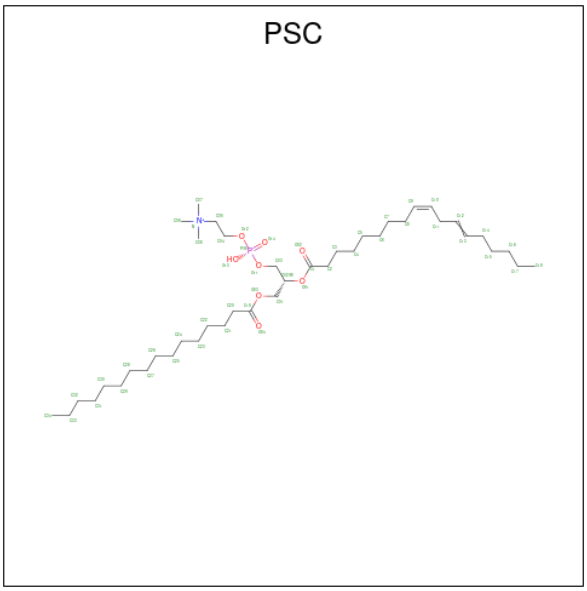
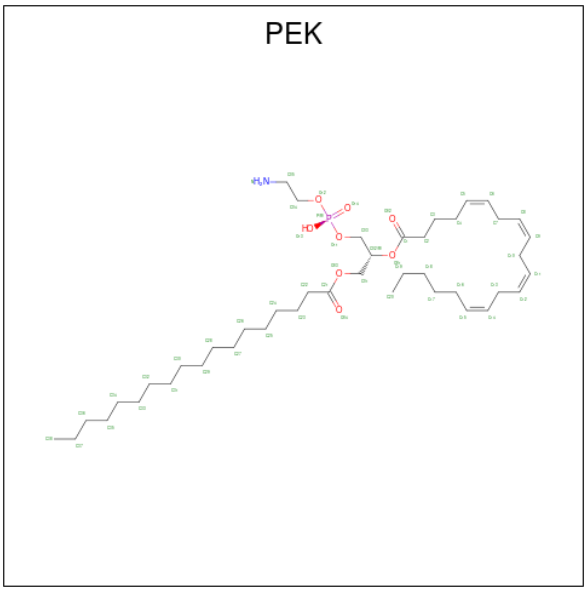
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
22	C	1	Total C O 29 24 5	0	0
22	G	1	Total C O 29 24 5	0	0
22	J	1	Total C O 29 24 5	0	0
22	P	1	Total C O 29 24 5	0	0
22	P	1	Total C O 29 24 5	0	0
22	W	1	Total C O 29 24 5	0	0

- Molecule 23 is (7R,17E,20E)-4-HYDROXY-N,N,N-TRIMETHYL-9-OXO-7-[(PALMITOYLOXY)METHYL]-3,5,8-TRIOXA-4-PHOSPHAHEXACOSA-17,20-DIEN-1-AMINIUM 4-OXIDE (three-letter code: PSC) (formula: $C_{42}H_{81}NO_8P$).



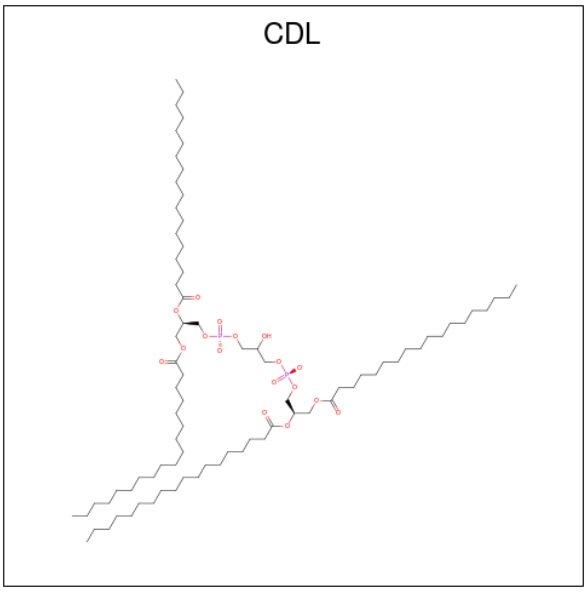
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
23	B	1	Total C N O P 52 42 1 8 1	0	0
23	N	1	Total C N O P 52 42 1 8 1	0	0

- Molecule 24 is (1S)-2-{[(2-AMINOETHOXY)(HYDROXY)PHOSPHORYL]OXY}-1-[(STEAROYLOXY)METHYL]ETHYL (5E,8E,11E,14E)-ICOSA-5,8,11,14-TETRAENOATE (three-letter code: PEK) (formula: $C_{43}H_{78}NO_8P$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
24	C	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
24	C	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
24	G	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
24	P	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
24	P	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
24	T	1	Total	C	N	O	P	0	0
			53	43	1	8	1		

- Molecule 25 is CARDIOLIPIN (three-letter code: CDL) (formula: $C_{81}H_{156}O_{17}P_2$).

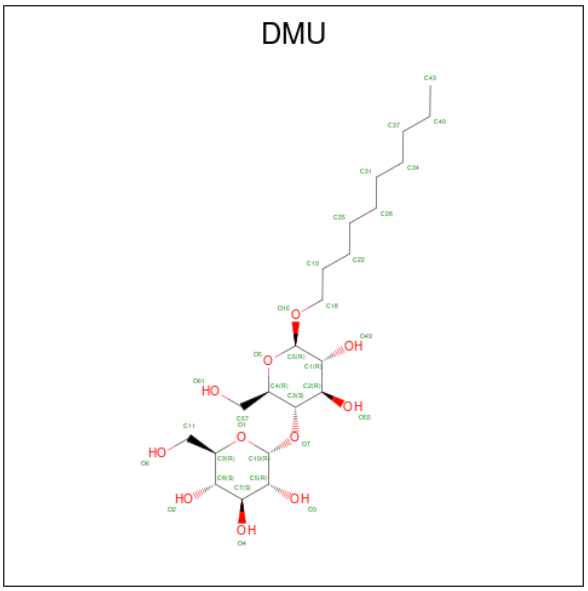


Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
25	C	1	Total	C	O	P	0	0
			100	81	17	2		
25	G	1	Total	C	O	P	0	0
			100	81	17	2		
25	P	1	Total	C	O	P	0	0
			100	81	17	2		
25	T	1	Total	C	O	P	0	0
			100	81	17	2		

- Molecule 26 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
26	F	1	Total	Zn	0	0
			1	1		
26	S	1	Total	Zn	0	0
			1	1		

- Molecule 27 is DECYL-BETA-D-MALTOPYRANOSIDE (three-letter code: DMU) (formula: $C_{22}H_{42}O_{11}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	M	1	Total C O 33 22 11	0	0
27	Z	1	Total C O 33 22 11	0	0

- Molecule 28 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
28	A	265	Total O 265 265	0	0
28	B	194	Total O 194 194	0	0
28	C	141	Total O 141 141	0	0
28	D	160	Total O 160 160	0	0
28	E	125	Total O 125 125	0	0
28	F	112	Total O 112 112	0	0
28	G	70	Total O 70 70	0	0
28	H	70	Total O 70 70	0	0
28	I	52	Total O 52 52	0	0
28	J	31	Total O 31 31	0	0

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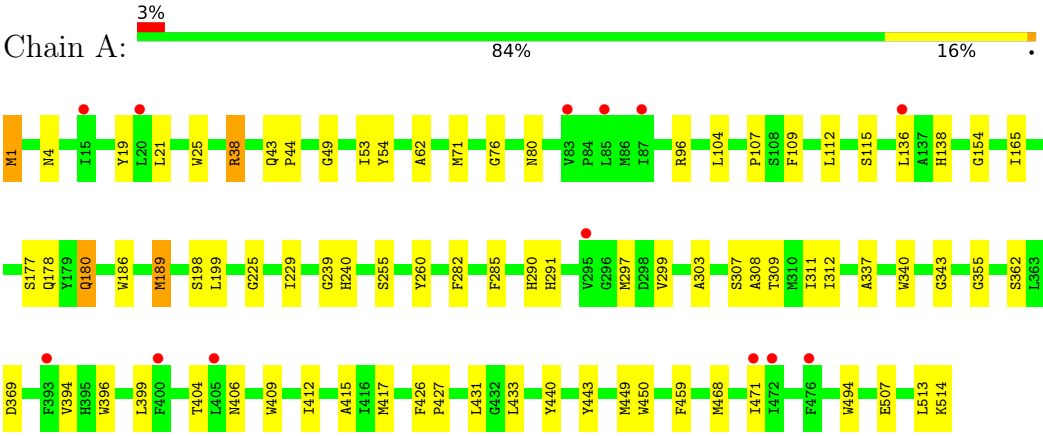
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
28	K	40	Total O 40 40	0	0
28	L	31	Total O 31 31	0	0
28	M	31	Total O 31 31	0	0
28	N	259	Total O 259 259	0	0
28	O	157	Total O 157 157	0	0
28	P	143	Total O 143 143	0	0
28	Q	90	Total O 90 90	0	0
28	R	103	Total O 103 103	0	0
28	S	122	Total O 122 122	0	0
28	T	56	Total O 56 56	0	0
28	U	51	Total O 51 51	0	0
28	V	42	Total O 42 42	0	0
28	W	38	Total O 38 38	0	0
28	X	34	Total O 34 34	0	0
28	Y	37	Total O 37 37	0	0
28	Z	24	Total O 24 24	0	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 electron 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 dot above a residue indicates a poor fit to the electron density (RSRZ > 2). 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.

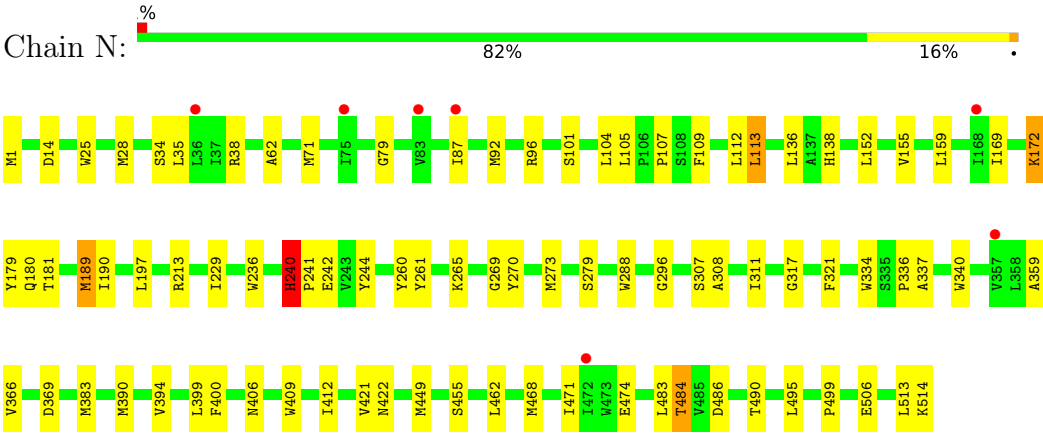
• Molecule 1: Cytochrome c oxidase subunit 1

Chain A:



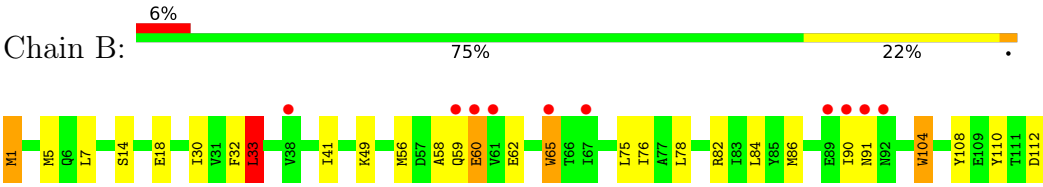
• Molecule 1: Cytochrome c oxidase subunit 1

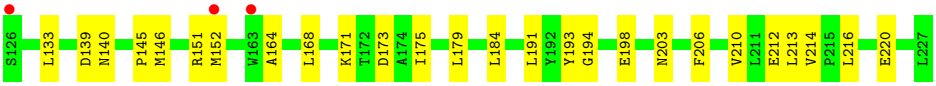
Chain N:



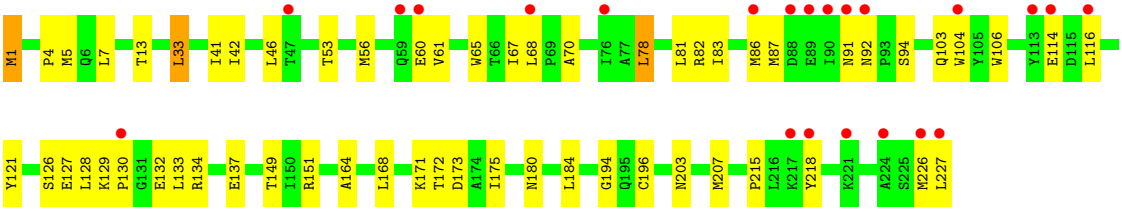
• Molecule 2: Cytochrome c oxidase subunit 2

Chain B:

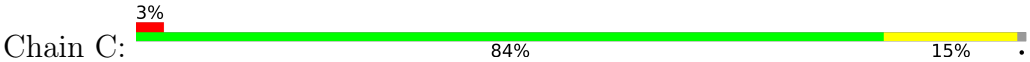


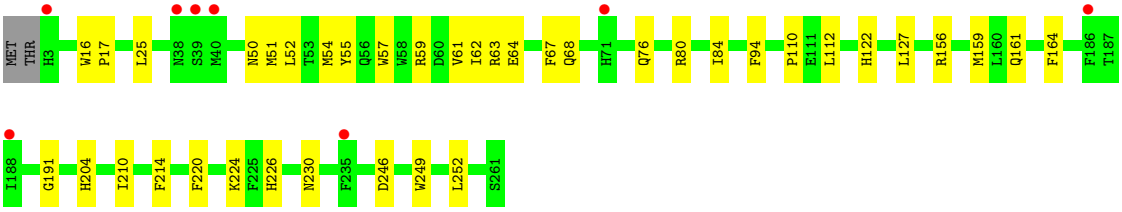


• Molecule 2: Cytochrome c oxidase subunit 2

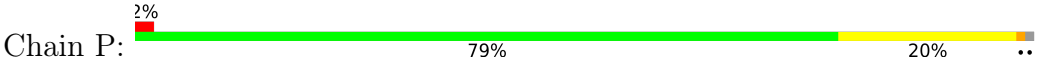


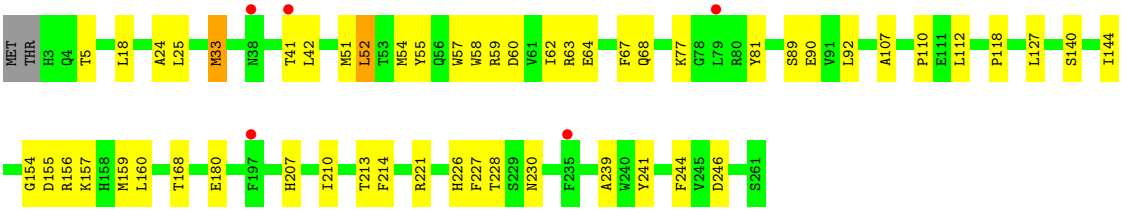
• Molecule 3: Cytochrome c oxidase subunit 3



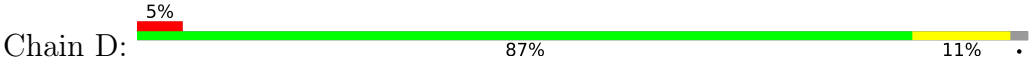


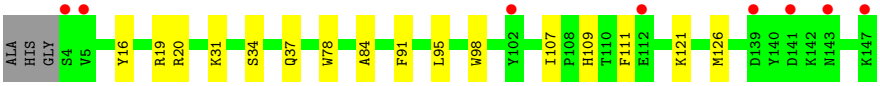
• Molecule 3: Cytochrome c oxidase subunit 3



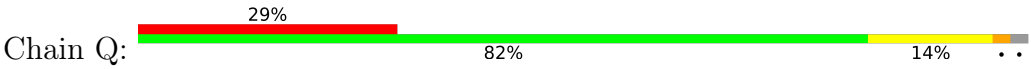


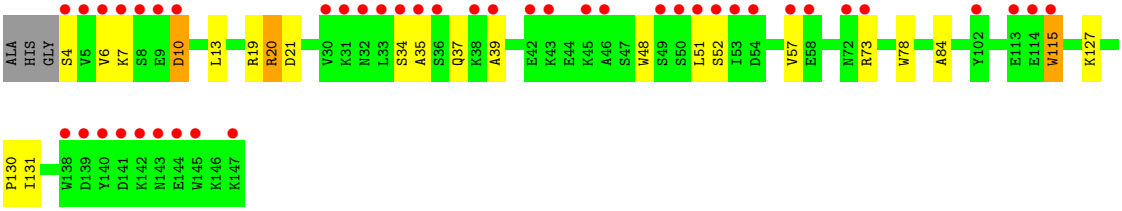
• Molecule 4: Cytochrome c oxidase subunit 4 isoform 1, mitochondrial



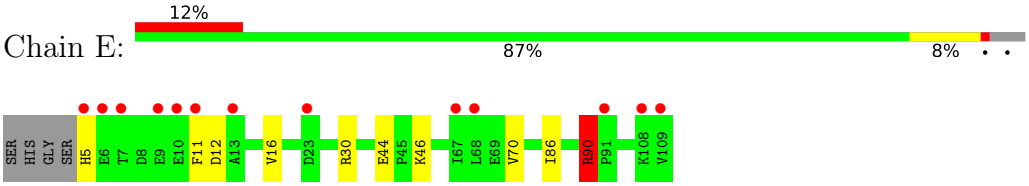


• Molecule 4: Cytochrome c oxidase subunit 4 isoform 1, mitochondrial

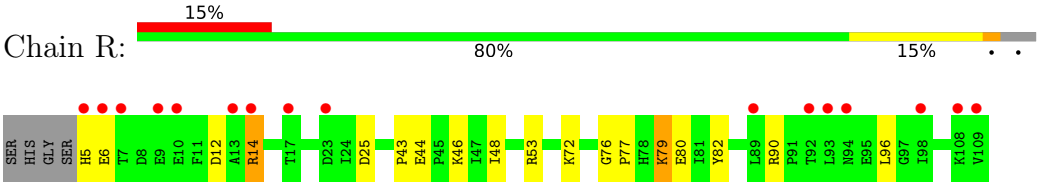




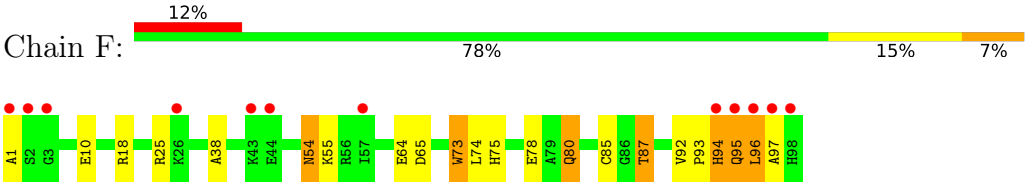
• Molecule 5: Cytochrome c oxidase subunit 5A, mitochondrial



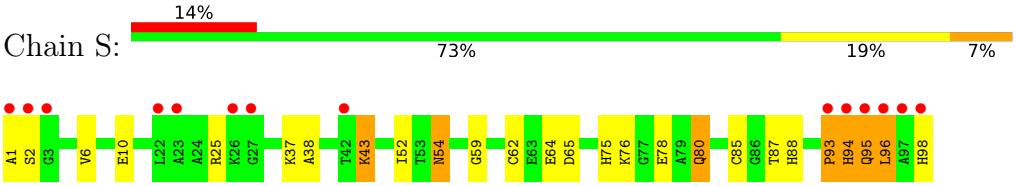
• Molecule 5: Cytochrome c oxidase subunit 5A, mitochondrial



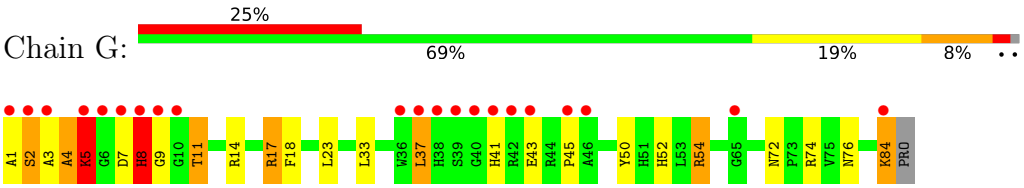
• Molecule 6: Cytochrome c oxidase subunit 5B, mitochondrial



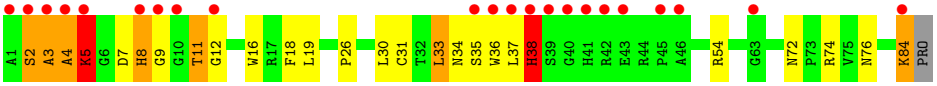
• Molecule 6: Cytochrome c oxidase subunit 5B, mitochondrial



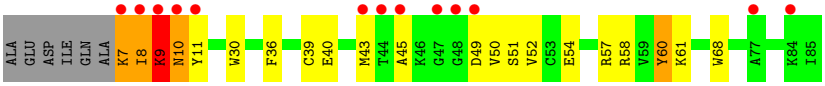
• Molecule 7: Cytochrome c oxidase subunit 6A2, mitochondrial



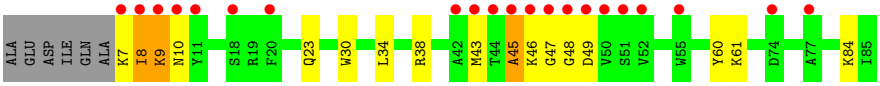
• Molecule 7: Cytochrome c oxidase subunit 6A2, mitochondrial



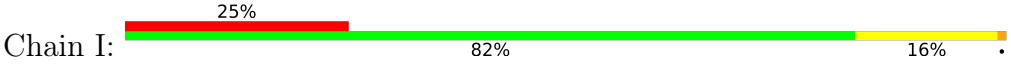
• Molecule 8: Cytochrome c oxidase subunit 6B1

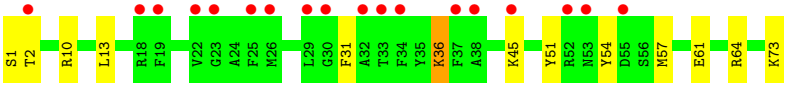


• Molecule 8: Cytochrome c oxidase subunit 6B1

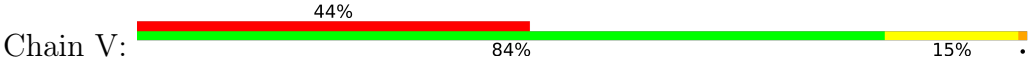


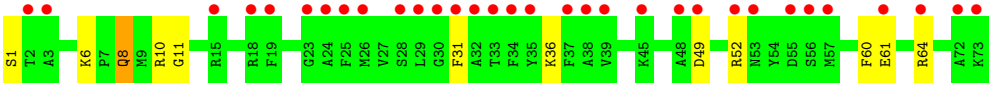
• Molecule 9: Cytochrome c oxidase subunit 6C



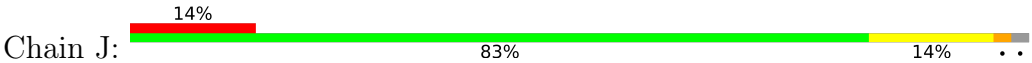


• Molecule 9: Cytochrome c oxidase subunit 6C

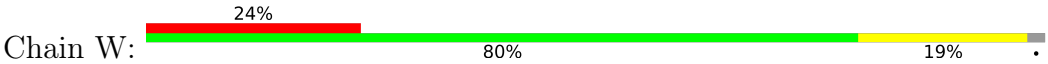


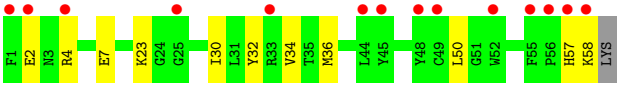


• Molecule 10: Cytochrome c oxidase subunit 7A1, mitochondrial



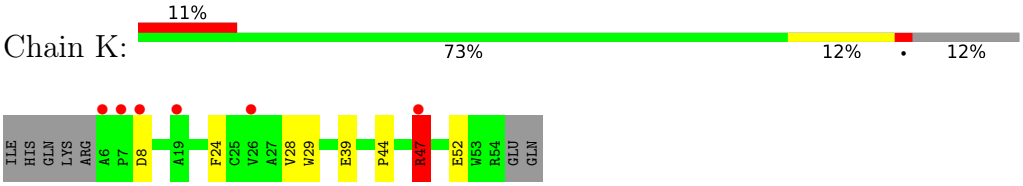
• Molecule 10: Cytochrome c oxidase subunit 7A1, mitochondrial





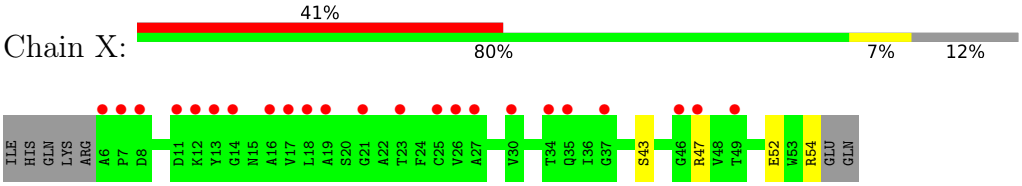
• Molecule 11: Cytochrome c oxidase subunit 7B, mitochondrial

Chain K:



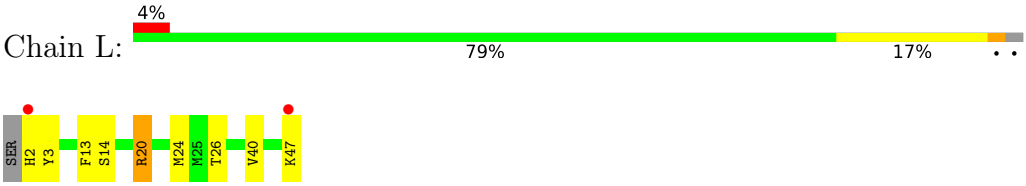
• Molecule 11: Cytochrome c oxidase subunit 7B, mitochondrial

Chain X:



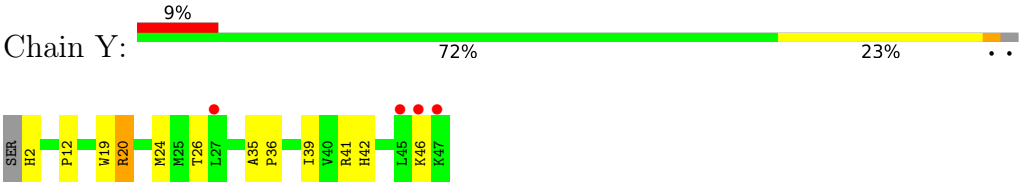
• Molecule 12: Cytochrome c oxidase subunit 7C, mitochondrial

Chain L:



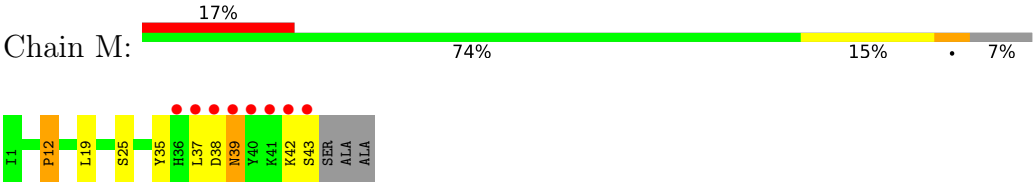
• Molecule 12: Cytochrome c oxidase subunit 7C, mitochondrial

Chain Y:



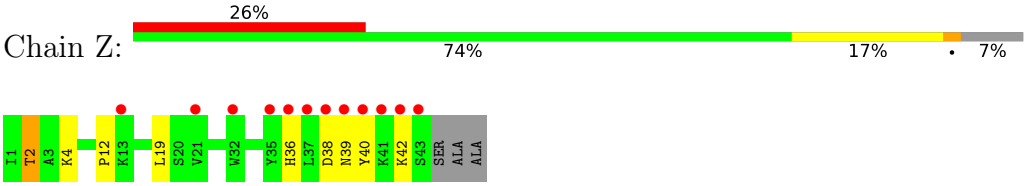
• Molecule 13: Cytochrome c oxidase subunit 8B, mitochondrial

Chain M:



• Molecule 13: Cytochrome c oxidase subunit 8B, mitochondrial

Chain Z:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	182.60Å 204.51Å 178.29Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 1.90 27.31 – 1.89	Depositor EDS
% Data completeness (in resolution range)	96.0 (40.00-1.90) 95.3 (27.31-1.89)	Depositor EDS
R_{merge}	0.24	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.49 (at 1.89Å)	Xtriage
Refinement program	REFMAC 5.8.0048	Depositor
R, R_{free}	0.195 , 0.230 0.218 , 0.248	Depositor DCC
R_{free} test set	25229 reflections (5.04%)	wwPDB-VP
Wilson B-factor (Å^2)	24.9	Xtriage
Anisotropy	0.252	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.44 , 78.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	0.011 for l,-k,h	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	33302	wwPDB-VP
Average B, all atoms (Å^2)	24.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.91% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: CDL, SAC, FME, PGV, PER, TPO, HEA, DMU, ZN, MG, NA, PEK, CHD, PSC, TGL, CUA, CU

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	1.46	22/4203 (0.5%)	1.15	11/5742 (0.2%)
1	N	1.40	17/4203 (0.4%)	1.14	17/5742 (0.3%)
2	B	1.24	4/1868 (0.2%)	1.13	8/2545 (0.3%)
2	O	1.11	2/1860 (0.1%)	1.06	3/2534 (0.1%)
3	C	1.32	3/2221 (0.1%)	0.98	2/3035 (0.1%)
3	P	1.29	7/2221 (0.3%)	1.02	4/3035 (0.1%)
4	D	1.20	2/1229 (0.2%)	1.05	4/1658 (0.2%)
4	Q	0.99	1/1229 (0.1%)	0.90	1/1658 (0.1%)
5	E	1.18	1/871 (0.1%)	1.02	2/1182 (0.2%)
5	R	1.00	0/871	1.07	7/1182 (0.6%)
6	F	1.08	1/765 (0.1%)	1.07	2/1038 (0.2%)
6	S	1.18	1/765 (0.1%)	1.05	0/1038
7	G	1.16	0/690	1.04	5/937 (0.5%)
7	T	1.12	1/690 (0.1%)	1.01	3/937 (0.3%)
8	H	1.14	2/682 (0.3%)	0.95	1/921 (0.1%)
8	U	0.97	0/682	0.95	0/921
9	I	0.94	0/605	1.01	3/802 (0.4%)
9	V	0.87	0/605	0.93	0/802
10	J	0.96	0/471	1.01	1/636 (0.2%)
10	W	0.97	0/471	1.00	0/636
11	K	1.11	1/398 (0.3%)	1.04	1/546 (0.2%)
11	X	0.96	0/398	0.84	0/546
12	L	1.20	0/393	1.20	2/526 (0.4%)
12	Y	1.13	0/393	0.95	1/526 (0.2%)
13	M	1.21	1/345 (0.3%)	1.01	1/470 (0.2%)
13	Z	1.09	0/345	0.90	0/470
All	All	1.24	66/29474 (0.2%)	1.06	79/40065 (0.2%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected

by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	N	0	1
6	F	0	1
6	S	0	1
8	H	0	1
10	J	0	1
10	W	0	1
All	All	0	6

All (66) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	T	36	TRP	CB-CG	8.63	1.65	1.50
1	N	242	GLU	CD-OE1	8.41	1.34	1.25
1	A	154	GLY	N-CA	7.80	1.57	1.46
1	N	236	TRP	CE3-CZ3	7.54	1.51	1.38
1	N	260	TYR	CG-CD2	7.26	1.48	1.39
3	P	227	PHE	CG-CD1	7.24	1.49	1.38
1	N	260	TYR	CE1-CZ	7.22	1.48	1.38
1	N	79	GLY	N-CA	7.13	1.56	1.46
1	N	340	TRP	CB-CG	6.90	1.62	1.50
1	A	260	TYR	CG-CD2	6.88	1.48	1.39
1	N	179	TYR	CE1-CZ	6.82	1.47	1.38
1	A	355	GLY	N-CA	6.67	1.56	1.46
1	A	260	TYR	CE1-CZ	6.66	1.47	1.38
1	A	198	SER	CA-CB	6.60	1.62	1.52
1	N	244	TYR	CG-CD1	6.50	1.47	1.39
1	A	404	THR	C-O	6.26	1.35	1.23
1	A	54	TYR	CE1-CZ	6.12	1.46	1.38
1	A	186	TRP	CE3-CZ3	6.11	1.48	1.38
1	N	474	GLU	CD-OE2	6.11	1.32	1.25
6	S	59	GLY	C-O	6.09	1.33	1.23
1	N	270	TYR	CG-CD1	6.05	1.47	1.39
1	N	337	ALA	N-CA	5.99	1.58	1.46
13	M	35	TYR	CB-CG	5.93	1.60	1.51
1	N	288	TRP	N-CA	5.93	1.58	1.46
2	O	106	TRP	CG-CD1	5.89	1.45	1.36
2	B	18	GLU	CD-OE2	5.86	1.32	1.25
1	A	38	ARG	CZ-NH1	5.85	1.40	1.33
3	P	90	GLU	CD-OE1	5.81	1.32	1.25
3	C	16	TRP	CB-CG	5.75	1.60	1.50
1	N	359	ALA	N-CA	5.75	1.57	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	P	89	SER	CB-OG	5.74	1.49	1.42
1	A	440	TYR	CE1-CZ	5.73	1.46	1.38
3	C	249	TRP	CG-CD1	5.73	1.44	1.36
4	D	16	TYR	CG-CD1	5.70	1.46	1.39
2	O	121	TYR	CE1-CZ	5.70	1.46	1.38
5	E	30	ARG	CZ-NH2	5.69	1.40	1.33
3	P	58	TRP	CZ3-CH2	5.69	1.49	1.40
4	Q	115	TRP	CB-CG	5.67	1.60	1.50
1	A	340	TRP	CB-CG	5.63	1.60	1.50
1	N	362	SER	CB-OG	-5.62	1.34	1.42
2	B	108	TYR	CE1-CZ	5.58	1.45	1.38
11	K	29	TRP	CB-CG	5.57	1.60	1.50
8	H	68	TRP	CG-CD1	5.53	1.44	1.36
1	A	362	SER	CB-OG	-5.52	1.35	1.42
1	A	239	GLY	N-CA	5.49	1.54	1.46
6	F	73	TRP	CG-CD1	5.49	1.44	1.36
1	A	396	TRP	CD1-NE1	5.48	1.47	1.38
1	A	440	TYR	CG-CD2	5.48	1.46	1.39
2	B	198	GLU	C-O	5.45	1.33	1.23
1	A	115	SER	CB-OG	-5.39	1.35	1.42
1	N	506	GLU	CD-OE2	-5.38	1.19	1.25
1	A	19	TYR	CD1-CE1	5.29	1.47	1.39
3	P	228	THR	CB-CG2	5.25	1.69	1.52
2	B	104	TRP	CE3-CZ3	5.25	1.47	1.38
1	A	396	TRP	CE3-CZ3	5.24	1.47	1.38
1	A	255	SER	CA-CB	5.22	1.60	1.52
8	H	68	TRP	CZ3-CH2	5.20	1.48	1.40
3	C	57	TRP	CB-CG	5.17	1.59	1.50
1	A	49	GLY	C-O	5.15	1.31	1.23
1	A	443	TYR	C-O	5.12	1.33	1.23
3	P	226	HIS	N-CA	5.10	1.56	1.46
4	D	91	PHE	CG-CD1	5.08	1.46	1.38
1	A	25	TRP	CG-CD1	5.04	1.43	1.36
1	N	261	TYR	CD1-CE1	5.01	1.46	1.39
3	P	140	SER	CB-OG	5.01	1.48	1.42
1	N	455	SER	CB-OG	5.01	1.48	1.42

All (79) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	96	ARG	NE-CZ-NH2	-13.88	113.36	120.30
5	R	90	ARG	NE-CZ-NH2	-10.73	114.94	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	K	47	ARG	NE-CZ-NH1	10.01	125.31	120.30
12	L	20	ARG	NE-CZ-NH2	-9.56	115.52	120.30
4	D	20	ARG	NE-CZ-NH2	9.53	125.06	120.30
2	O	151	ARG	NE-CZ-NH1	9.28	124.94	120.30
6	F	18	ARG	NE-CZ-NH2	-9.02	115.79	120.30
5	E	90	ARG	NE-CZ-NH1	8.83	124.72	120.30
1	N	71	MET	CG-SD-CE	-8.28	86.95	100.20
1	N	38	ARG	NE-CZ-NH1	8.25	124.42	120.30
5	R	14	ARG	NE-CZ-NH1	7.97	124.29	120.30
1	A	71	MET	CG-SD-CE	-7.92	87.53	100.20
1	N	92	MET	CG-SD-CE	7.84	112.75	100.20
2	O	151	ARG	NE-CZ-NH2	-7.67	116.46	120.30
5	R	90	ARG	NE-CZ-NH1	7.66	124.13	120.30
1	A	96	ARG	NE-CZ-NH1	7.32	123.96	120.30
1	N	38	ARG	NE-CZ-NH2	-7.28	116.66	120.30
6	F	18	ARG	NE-CZ-NH1	7.19	123.90	120.30
1	A	38	ARG	NE-CZ-NH1	7.17	123.89	120.30
2	B	179	LEU	CA-CB-CG	7.04	131.49	115.30
2	B	152	MET	CG-SD-CE	7.00	111.40	100.20
4	D	20	ARG	NE-CZ-NH1	-6.83	116.88	120.30
1	N	363	LEU	CB-CG-CD2	6.74	122.47	111.00
5	E	90	ARG	NE-CZ-NH2	-6.62	116.99	120.30
1	N	96	ARG	NE-CZ-NH1	6.51	123.56	120.30
2	B	173	ASP	CB-CG-OD1	6.48	124.14	118.30
1	N	486	ASP	CB-CG-OD1	6.40	124.06	118.30
9	I	64	ARG	NE-CZ-NH1	6.37	123.49	120.30
8	H	58	ARG	NE-CZ-NH2	-6.37	117.11	120.30
4	D	19	ARG	NE-CZ-NH2	6.25	123.42	120.30
4	Q	51	LEU	CA-CB-CG	6.00	129.10	115.30
1	A	240	HIS	N-CA-CB	6.00	121.40	110.60
12	L	20	ARG	NE-CZ-NH1	5.99	123.29	120.30
1	N	96	ARG	NE-CZ-NH2	-5.98	117.31	120.30
9	I	64	ARG	NE-CZ-NH2	-5.96	117.32	120.30
1	A	199	LEU	CB-CG-CD1	-5.90	100.97	111.00
1	N	213	ARG	NE-CZ-NH1	5.83	123.22	120.30
1	N	113	LEU	CB-CG-CD1	5.81	120.88	111.00
1	A	364	ASP	CB-CG-OD2	-5.80	113.08	118.30
7	T	19	LEU	CB-CG-CD1	-5.78	101.17	111.00
12	Y	19	TRP	CA-CB-CG	-5.78	102.72	113.70
5	R	25	ASP	CB-CG-OD1	5.77	123.49	118.30
1	A	104	LEU	CB-CG-CD1	-5.74	101.23	111.00
7	G	14	ARG	NE-CZ-NH1	-5.74	117.43	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	G	5	LYS	CB-CA-C	5.72	121.84	110.40
1	N	172	LYS	CD-CE-NZ	-5.70	98.59	111.70
1	N	240	HIS	N-CA-CB	5.69	120.85	110.60
3	C	80	ARG	CG-CD-NE	-5.68	99.86	111.80
7	T	5	LYS	CB-CA-C	5.64	121.68	110.40
5	R	53	ARG	NE-CZ-NH2	-5.62	117.49	120.30
1	A	38	ARG	CG-CD-NE	5.59	123.55	111.80
1	A	189	MET	CG-SD-CE	-5.55	91.31	100.20
1	N	366	VAL	CG1-CB-CG2	-5.55	102.02	110.90
13	M	37	LEU	CB-CG-CD1	-5.55	101.57	111.00
2	B	139	ASP	CB-CG-OD2	5.51	123.26	118.30
2	B	65	TRP	CB-CA-C	5.49	121.38	110.40
1	N	14	ASP	CB-CG-OD2	5.44	123.20	118.30
3	P	92	LEU	CB-CG-CD1	-5.42	101.79	111.00
10	J	4	ARG	NE-CZ-NH1	5.41	123.01	120.30
3	P	180	GLU	OE1-CD-OE2	5.39	129.77	123.30
2	B	112	ASP	CB-CG-OD1	5.38	123.14	118.30
3	C	61	VAL	CG1-CB-CG2	-5.36	102.33	110.90
7	G	17	ARG	NE-CZ-NH1	-5.32	117.64	120.30
3	P	18	LEU	CB-CG-CD1	5.31	120.02	111.00
2	B	33	LEU	CA-CB-CG	5.29	127.46	115.30
2	B	151	ARG	NE-CZ-NH1	5.28	122.94	120.30
9	I	13	LEU	CB-CG-CD2	-5.28	102.02	111.00
1	N	189	MET	CB-CG-SD	-5.20	96.80	112.40
2	O	173	ASP	CB-CG-OD1	5.18	122.97	118.30
3	P	52	LEU	CB-CG-CD2	-5.16	102.22	111.00
5	R	12	ASP	CB-CG-OD2	5.16	122.95	118.30
1	A	21	LEU	CB-CG-CD2	-5.16	102.24	111.00
5	R	25	ASP	CB-CG-OD2	-5.13	113.68	118.30
4	D	95	LEU	CB-CG-CD1	-5.13	102.28	111.00
1	N	213	ARG	NE-CZ-NH2	-5.13	117.74	120.30
7	T	74	ARG	NE-CZ-NH2	-5.07	117.77	120.30
7	G	54	ARG	NE-CZ-NH1	5.07	122.83	120.30
7	G	8	HIS	N-CA-C	5.04	124.59	111.00
1	N	101	SER	CA-CB-OG	-5.02	97.64	111.20

There are no chirality outliers.

All (6) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
6	F	93	PRO	Peptide
8	H	9	LYS	Peptide

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Mol	Chain	Res	Type	Group
10	J	57	HIS	Peptide
1	N	240	HIS	Sidechain
6	S	93	PRO	Peptide
10	W	57	HIS	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4074	0	4058	53	0
1	N	4074	0	4058	73	0
2	B	1832	0	1836	36	0
2	O	1824	0	1833	51	2
3	C	2134	0	2051	39	0
3	P	2134	0	2051	46	0
4	D	1195	0	1183	15	0
4	Q	1195	0	1183	30	0
5	E	852	0	845	7	0
5	R	852	0	845	10	2
6	F	748	0	728	16	1
6	S	748	0	728	36	7
7	G	675	0	643	29	0
7	T	675	0	643	34	0
8	H	662	0	623	19	0
8	U	662	0	623	11	0
9	I	601	0	613	8	2
9	V	601	0	613	8	0
10	J	460	0	459	8	0
10	W	460	0	459	8	0
11	K	384	0	366	7	0
11	X	384	0	366	4	0
12	L	380	0	380	14	0
12	Y	380	0	380	16	0
13	M	335	0	352	10	0
13	Z	335	0	352	9	0
14	A	120	0	108	10	0
14	N	120	0	108	6	0
15	A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	N	1	0	0	0	0
16	A	1	0	0	0	0
16	N	1	0	0	0	0
17	A	1	0	0	0	0
17	C	1	0	0	1	0
17	N	1	0	0	0	0
17	P	1	0	0	0	0
18	A	4	0	0	1	0
18	N	4	0	0	1	0
19	A	102	0	152	10	0
19	C	102	0	152	5	0
19	N	102	0	152	16	0
19	P	102	0	152	10	0
20	B	63	0	110	3	0
20	D	63	0	110	13	0
20	L	63	0	110	12	0
20	N	63	0	110	4	0
20	Q	63	0	110	11	0
20	Y	63	0	110	16	0
21	B	2	0	0	0	0
21	O	2	0	0	0	0
22	B	29	0	39	1	0
22	C	58	0	78	4	0
22	G	29	0	39	0	0
22	J	29	0	39	5	0
22	P	58	0	78	5	0
22	W	29	0	38	5	0
23	B	52	0	80	13	0
23	N	52	0	80	21	0
24	C	106	0	154	23	0
24	G	53	0	77	6	0
24	P	106	0	154	22	0
24	T	53	0	77	12	0
25	C	100	0	156	23	0
25	G	100	0	156	37	0
25	P	100	0	156	17	0
25	T	100	0	156	29	0
26	F	1	0	0	0	0
26	S	1	0	0	0	0
27	M	33	0	42	1	0
27	Z	33	0	42	0	0
28	A	265	0	0	8	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
28	B	194	0	0	10	2
28	C	141	0	0	8	0
28	D	160	0	0	1	1
28	E	125	0	0	3	0
28	F	112	0	0	2	1
28	G	70	0	0	6	0
28	H	70	0	0	5	0
28	I	52	0	0	1	0
28	J	31	0	0	2	0
28	K	40	0	0	3	1
28	L	31	0	0	1	0
28	M	31	0	0	1	2
28	N	259	0	0	11	0
28	O	157	0	0	11	6
28	P	143	0	0	8	0
28	Q	90	0	0	5	0
28	R	103	0	0	3	0
28	S	122	0	0	7	1
28	T	56	0	0	2	0
28	U	51	0	0	2	0
28	V	42	0	0	5	0
28	W	38	0	0	2	0
28	X	34	0	0	3	0
28	Y	37	0	0	4	0
28	Z	24	0	0	1	0
All	All	33302	0	31396	691	14

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 11.

All (691) 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)
6:S:76:LYS:CE	6:S:93:PRO:HG2	1.47	1.41
6:S:43:LYS:H	6:S:43:LYS:CD	1.28	1.39
6:S:43:LYS:HD3	6:S:43:LYS:N	1.33	1.29
6:S:76:LYS:HD3	28:S:271:HOH:O	1.36	1.25
18:A:606[A]:PER:O2	18:A:606[A]:PER:O1	1.55	1.22
18:N:606[A]:PER:O2	18:N:606[A]:PER:O1	1.55	1.19
20:L:101:TGL:OC1	20:L:101:TGL:HC41	1.41	1.18
7:G:5:LYS:HB2	24:G:102:PEK:H362	1.21	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S:76:LYS:HE3	6:S:93:PRO:CG	1.80	1.11
1:N:513:LEU:O	1:N:514:LYS:HB2	1.49	1.07
19:P:304:PGV:H172	25:P:305:CDL:H651	1.35	1.07
20:Q:201:TGL:HA91	20:Q:201:TGL:H231	1.29	1.06
23:N:610:PSC:H342	2:O:41:ILE:HD13	1.36	1.04
7:T:5:LYS:HB2	24:T:101:PEK:H351	1.39	1.03
6:S:76:LYS:HE3	6:S:93:PRO:HG2	1.04	1.02
6:S:76:LYS:HE2	6:S:93:PRO:HG2	1.38	1.01
12:L:20:ARG:HH22	20:L:101:TGL:HC32	1.22	1.01
3:C:67:PHE:HE1	25:C:304:CDL:H1	1.25	1.01
14:N:602:HEA:HBC1	14:N:602:HEA:HMC1	1.46	0.97
6:S:95:GLN:HB2	28:S:240:HOH:O	1.64	0.97
1:N:321:PHE:CD2	23:N:610:PSC:H341	2.00	0.96
10:W:23:LYS:HE3	28:W:221:HOH:O	1.64	0.95
11:X:47:ARG:HD3	28:X:116:HOH:O	1.67	0.95
7:G:5:LYS:HG3	24:G:102:PEK:H383	1.48	0.94
7:G:72:ASN:H	7:G:76:ASN:HD22	1.16	0.93
19:A:608:PGV:H02	19:A:608:PGV:O14	1.67	0.93
6:F:85:CYS:SG	6:F:87:THR:HG23	2.08	0.93
23:N:610:PSC:H22	28:V:101:HOH:O	1.68	0.92
3:C:224:LYS:CD	25:C:304:CDL:HB31	1.98	0.92
3:P:33[A]:MET:HE1	3:P:42:LEU:H	1.34	0.91
24:C:307:PEK:H383	25:G:101:CDL:C27	2.01	0.90
17:C:301:NA:NA	28:C:404:HOH:O	1.45	0.89
14:N:601:HEA:HBC1	14:N:601:HEA:HMC1	1.54	0.89
7:G:5:LYS:HB2	24:G:102:PEK:C36	2.01	0.89
7:T:5:LYS:CB	24:T:101:PEK:H351	2.02	0.89
3:C:67:PHE:CE1	25:C:304:CDL:H1	2.08	0.88
3:P:67:PHE:HE1	25:P:305:CDL:H1	1.36	0.88
6:S:76:LYS:CE	6:S:93:PRO:CG	2.42	0.88
2:O:1:FME:HE1	2:O:133:LEU:HD13	1.55	0.87
19:N:608:PGV:H343	24:P:303:PEK:H382	1.56	0.87
25:G:101:CDL:H202	25:G:101:CDL:H522	1.58	0.86
1:N:514:LYS:HA	6:S:38:ALA:HB3	1.57	0.86
19:P:301:PGV:H11	22:P:307:CHD:H152	1.58	0.86
6:S:98:HIS:HB3	28:S:268:HOH:O	1.76	0.85
12:L:20:ARG:NH2	20:L:101:TGL:HC32	1.91	0.85
25:T:102:CDL:H511	25:T:102:CDL:H202	1.57	0.85
8:U:7:LYS:O	8:U:8:ILE:HG22	1.77	0.84
1:A:513:LEU:O	1:A:514:LYS:HB2	1.74	0.84
4:D:78:TRP:HB3	20:D:201:TGL:HB22	1.56	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:G:101:CDL:H352	2:O:78:LEU:HD12	1.59	0.83
20:L:101:TGL:OC1	20:L:101:TGL:CC4	2.23	0.83
6:S:85:CYS:SG	6:S:87:THR:HG23	2.19	0.83
7:T:72:ASN:H	7:T:76:ASN:HD22	1.23	0.83
3:C:224:LYS:HD2	25:C:304:CDL:HB31	1.59	0.82
6:S:75:HIS:H	6:S:80:GLN:HE22	1.23	0.82
2:O:1:FME:CE	2:O:133:LEU:HD13	2.10	0.81
3:P:63:ARG:HE	25:P:305:CDL:HA22	1.46	0.81
8:H:40:GLU:OE2	28:H:130:HOH:O	1.98	0.80
19:A:608:PGV:H311	13:M:19:LEU:HD23	1.64	0.80
25:C:304:CDL:H522	25:C:304:CDL:OB9	1.81	0.80
12:L:2:HIS:CG	12:L:3:TYR:H	1.99	0.80
7:G:84:LYS:H	7:G:84:LYS:HD2	1.47	0.79
28:A:955:HOH:O	2:B:206:PHE:HE1	1.63	0.79
2:O:1:FME:HE3	2:O:133:LEU:CD2	2.12	0.79
24:C:302:PEK:HN2	7:G:76:ASN:HD21	1.27	0.79
28:C:528:HOH:O	25:G:101:CDL:H673	1.81	0.79
1:N:483:LEU:HD13	4:Q:6:VAL:HB	1.63	0.79
3:P:33[A]:MET:HG2	28:P:455:HOH:O	1.83	0.78
6:F:10:GLU:OE2	6:F:25:ARG:NH2	2.16	0.78
1:N:321:PHE:HD2	23:N:610:PSC:H341	1.48	0.78
24:P:303:PEK:H203	24:P:303:PEK:H15	1.65	0.78
6:S:43:LYS:CD	6:S:43:LYS:N	2.08	0.77
24:C:307:PEK:H361	25:G:101:CDL:H273	1.66	0.77
25:P:305:CDL:OB6	25:P:305:CDL:HB21	1.82	0.77
7:G:11:TPO:HA	7:G:11:TPO:O2P	1.81	0.77
5:E:90:ARG:HD2	28:E:279:HOH:O	1.83	0.77
7:T:5:LYS:HG3	24:T:101:PEK:H371	1.67	0.77
6:S:52:ILE:O	6:S:94:HIS:CE1	2.37	0.77
28:N:953:HOH:O	24:P:303:PEK:H372	1.83	0.77
24:C:307:PEK:C38	25:G:101:CDL:C27	2.62	0.77
23:B:304:PSC:C12	23:B:304:PSC:H342	2.14	0.75
28:P:530:HOH:O	6:S:1:ALA:HB2	1.87	0.75
25:T:102:CDL:H311	25:T:102:CDL:CA5	2.17	0.75
25:P:305:CDL:OB9	25:P:305:CDL:H532	1.87	0.74
1:A:311[A]:ILE:HD13	25:T:102:CDL:H221	1.69	0.74
2:O:1:FME:HE3	2:O:133:LEU:CD1	2.18	0.74
7:G:84:LYS:HD2	7:G:84:LYS:N	2.02	0.74
4:Q:34:SER:H	4:Q:37:GLN:NE2	1.86	0.73
3:C:161:GLN:HE22	24:C:307:PEK:H21	1.52	0.73
8:H:30:TRP:HB2	28:H:158:HOH:O	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:26:THR:HG23	13:M:25:SER:CB	2.19	0.73
19:N:607:PGV:H302	13:Z:19:LEU:CD2	2.19	0.73
4:Q:6:VAL:HG13	4:Q:10:ASP:OD2	1.89	0.72
12:Y:12:PRO:HB2	20:Y:101:TGL:HG11	1.68	0.72
2:O:1:FME:CE	2:O:133:LEU:CD1	2.67	0.72
4:Q:6:VAL:CG1	4:Q:10:ASP:OD2	2.37	0.72
25:G:101:CDL:H111	25:G:101:CDL:HA21	1.71	0.72
28:O:536:HOH:O	4:Q:21:ASP:HB2	1.89	0.72
24:C:307:PEK:C38	25:G:101:CDL:H272	2.20	0.72
25:P:305:CDL:H251	25:P:305:CDL:H391	1.72	0.72
5:R:80:GLU:H	5:R:80:GLU:CD	1.93	0.72
3:C:161:GLN:NE2	24:C:307:PEK:H21	2.05	0.72
25:G:101:CDL:H751	25:G:101:CDL:H561	1.70	0.72
3:P:107:ALA:HB2	19:P:301:PGV:H031	1.72	0.72
19:N:607:PGV:H31	19:N:607:PGV:H202	1.72	0.72
12:Y:20:ARG:HH21	20:Y:101:TGL:HC32	1.55	0.71
5:R:6:GLU:OE1	5:R:14:ARG:NH2	2.20	0.71
4:Q:78:TRP:CA	20:Q:201:TGL:HB22	2.21	0.71
24:P:303:PEK:HN2	7:T:76:ASN:HD21	1.34	0.71
2:B:33:LEU:HD13	9:I:31:PHE:CD1	2.26	0.71
2:B:56:MET:HG2	23:B:304:PSC:H221	1.73	0.70
1:A:311[B]:ILE:HD11	24:P:308:PEK:H342	1.72	0.70
14:A:602:HEA:HBC1	14:A:602:HEA:HMC1	1.73	0.70
12:L:14:SER:H	20:L:101:TGL:HC31	1.55	0.70
14:A:601:HEA:HMC1	14:A:601:HEA:HBC1	1.72	0.70
20:Q:201:TGL:HG32	20:Q:201:TGL:OB1	1.92	0.70
7:T:30:LEU:HD21	25:T:102:CDL:H471	1.74	0.69
4:Q:19:ARG:HD2	4:Q:21:ASP:OD1	1.91	0.69
4:D:78:TRP:N	20:D:201:TGL:HB21	2.06	0.69
24:C:307:PEK:H382	25:G:101:CDL:H272	1.74	0.69
3:C:63:ARG:HE	25:C:304:CDL:HA22	1.56	0.69
1:N:321:PHE:CD2	23:N:610:PSC:C34	2.75	0.69
7:T:3:ALA:O	7:T:4:ALA:CB	2.40	0.69
4:Q:6:VAL:HG12	4:Q:7:LYS:H	1.57	0.69
3:P:63:ARG:HE	25:P:305:CDL:CA2	2.06	0.69
3:C:63:ARG:HE	25:C:304:CDL:CA2	2.06	0.68
1:N:113:LEU:HD12	20:Y:101:TGL:H141	1.75	0.68
4:D:78:TRP:CB	20:D:201:TGL:HB22	2.23	0.68
6:F:1:ALA:HB3	6:S:65:ASP:OD1	1.93	0.68
7:G:2:SER:OG	24:G:102:PEK:H301	1.93	0.68
25:G:101:CDL:H182	25:G:101:CDL:CB5	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:32:PHE:CE2	20:B:301:TGL:HA52	2.29	0.68
3:P:67:PHE:CE1	25:P:305:CDL:H1	2.25	0.67
1:N:321:PHE:CE2	23:N:610:PSC:H341	2.30	0.67
24:P:308:PEK:H382	25:T:102:CDL:H271	1.76	0.67
6:S:64:GLU:O	6:S:65:ASP:HB2	1.94	0.67
23:B:304:PSC:H342	23:B:304:PSC:H12	1.77	0.67
1:N:107:PRO:HB3	3:P:25:LEU:HB2	1.77	0.67
4:D:34:SER:H	4:D:37:GLN:HE21	1.43	0.66
5:R:43:PRO:HB2	5:R:48:ILE:HD11	1.77	0.66
11:K:39:GLU:HB3	28:K:137:HOH:O	1.95	0.66
8:H:9:LYS:O	8:H:10:ASN:HB2	1.94	0.66
1:N:406:ASN:HD21	19:N:607:PGV:H22	1.60	0.66
2:B:115[B]:ASP:OD1	28:B:501:HOH:O	2.13	0.66
1:N:334:TRP:CH2	2:O:46:LEU:HD13	2.31	0.66
19:A:608:PGV:H152	19:A:608:PGV:H322	1.77	0.66
7:G:1:ALA:HB2	19:P:301:PGV:H321	1.76	0.66
4:Q:34:SER:H	4:Q:37:GLN:HE21	1.42	0.66
8:H:7:LYS:O	8:H:8:ILE:HB	1.96	0.66
2:O:218:TYR:HB3	28:O:513:HOH:O	1.94	0.66
20:Q:201:TGL:HA91	20:Q:201:TGL:C23	2.15	0.66
1:A:417:MET:CE	14:A:601:HEA:H263	2.25	0.66
7:T:31:CYS:SG	25:T:102:CDL:H551	2.36	0.66
1:A:417:MET:HE3	14:A:601:HEA:H263	1.77	0.65
1:N:159:LEU:HD21	28:P:499:HOH:O	1.96	0.65
4:Q:78:TRP:CB	20:Q:201:TGL:HB22	2.27	0.65
1:A:406:ASN:HD21	19:A:608:PGV:H22	1.62	0.65
25:C:304:CDL:HB21	25:C:304:CDL:OB6	1.98	0.64
4:Q:20:ARG:HG2	28:Q:317:HOH:O	1.96	0.64
6:S:52:ILE:O	6:S:94:HIS:ND1	2.31	0.64
1:N:273:MET:HE2	28:N:921:HOH:O	1.97	0.63
3:C:224:LYS:HD3	25:C:304:CDL:HB31	1.80	0.63
4:Q:78:TRP:HB3	20:Q:201:TGL:HB22	1.79	0.63
2:O:132:GLU:HB3	2:O:137:GLU:HG3	1.80	0.63
23:N:610:PSC:H342	2:O:41:ILE:CD1	2.23	0.62
3:P:5:THR:HG22	6:S:96:LEU:CD1	2.29	0.62
23:N:610:PSC:C32	23:N:610:PSC:H12	2.29	0.62
4:D:109:HIS:HD2	28:D:306:HOH:O	1.83	0.62
2:O:227:LEU:HD21	28:O:546:HOH:O	2.00	0.61
25:G:101:CDL:H462	2:O:70:ALA:HB1	1.82	0.61
10:J:7:GLU:HG3	28:J:209:HOH:O	2.01	0.61
12:L:26:THR:HG23	13:M:25:SER:HB3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:12:ASP:OD1	5:E:44:GLU:HG3	1.98	0.61
1:N:136[B]:LEU:HD21	28:N:892:HOH:O	2.00	0.61
2:B:140:ASN:HB3	28:B:502:HOH:O	2.00	0.61
7:T:3:ALA:O	7:T:4:ALA:HB3	1.99	0.61
12:Y:12:PRO:CB	20:Y:101:TGL:HG11	2.31	0.61
2:B:7:LEU:HD12	20:B:301:TGL:HC52	1.83	0.61
1:N:136[B]:LEU:CD2	28:N:893:HOH:O	2.48	0.61
4:Q:78:TRP:HA	20:Q:201:TGL:HB22	1.83	0.60
12:Y:24:MET:SD	20:Y:101:TGL:H152	2.41	0.60
7:T:2:SER:OG	24:T:101:PEK:H292	2.00	0.60
1:A:311[A]:ILE:HG13	25:T:102:CDL:H432	1.83	0.60
10:J:33:ARG:HG2	22:J:101:CHD:H152	1.82	0.60
3:P:59:ARG:HA	25:P:305:CDL:H512	1.82	0.60
13:M:42:LYS:HB3	28:M:2326:HOH:O	2.01	0.60
3:P:246:ASP:HB2	28:P:473:HOH:O	2.02	0.60
7:T:31:CYS:SG	25:T:102:CDL:C55	2.90	0.60
6:S:43:LYS:H	6:S:43:LYS:HD3	0.48	0.60
4:D:121:LYS:HD3	11:K:52:GLU:HA	1.83	0.60
3:C:246:ASP:HB2	28:C:459:HOH:O	2.02	0.59
1:N:177:SER:H	1:N:180:GLN:HE21	1.50	0.59
5:R:72:LYS:HB2	5:R:82:TYR:CD2	2.37	0.59
9:I:45:LYS:HG3	28:I:144:HOH:O	2.02	0.59
1:N:484:THR:HG22	13:Z:2:THR:HG23	1.84	0.59
20:D:201:TGL:H242	20:D:201:TGL:H202	1.84	0.59
5:R:80:GLU:HG3	28:R:279:HOH:O	2.02	0.59
2:O:83:ILE:O	2:O:87:MET:HG3	2.02	0.59
3:P:60:ASP:O	3:P:64:GLU:HG3	2.03	0.59
6:F:92:VAL:HG23	6:F:92:VAL:O	2.02	0.59
5:R:79:LYS:HD2	5:R:79:LYS:N	2.16	0.59
7:T:31:CYS:SG	25:T:102:CDL:H532	2.42	0.59
23:B:304:PSC:H22	23:B:304:PSC:H231	1.83	0.59
3:C:161:GLN:HE22	24:C:307:PEK:C2	2.15	0.59
6:S:43:LYS:HD2	6:S:88:HIS:CE1	2.38	0.59
7:G:3:ALA:O	7:G:4:ALA:CB	2.51	0.58
12:Y:12:PRO:CG	20:Y:101:TGL:HG11	2.32	0.58
3:C:210:ILE:HG12	19:C:303:PGV:H132	1.84	0.58
1:N:449:MET:SD	2:O:5:MET:HG2	2.43	0.58
12:Y:20:ARG:NH2	20:Y:101:TGL:HC32	2.18	0.58
4:Q:73:ARG:HH11	4:Q:73:ARG:HG2	1.67	0.58
6:F:75:HIS:H	6:F:80:GLN:HE22	1.51	0.58
20:L:101:TGL:HC61	20:L:101:TGL:HC22	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:177:SER:H	1:N:180:GLN:NE2	2.02	0.58
23:N:610:PSC:H21	23:N:610:PSC:H222	1.84	0.58
4:Q:127:LYS:HD2	28:V:109:HOH:O	2.04	0.58
1:A:136[B]:LEU:HD11	28:A:927:HOH:O	2.04	0.58
2:O:127:GLU:HG2	28:O:543:HOH:O	2.04	0.58
6:S:94:HIS:CD2	6:S:95:GLN:H	2.21	0.58
10:J:37:THR:OG1	22:J:101:CHD:H5	2.04	0.57
25:G:101:CDL:H242	25:G:101:CDL:H542	1.86	0.57
25:G:101:CDL:H171	1:N:307:SER:HB3	1.85	0.57
19:N:607:PGV:H322	13:Z:19:LEU:HD23	1.86	0.57
3:C:161:GLN:NE2	24:C:307:PEK:C2	2.67	0.57
1:N:422:ASN:OD1	20:N:609:TGL:H262	2.03	0.57
3:P:33[A]:MET:HE1	3:P:42:LEU:N	2.13	0.57
2:O:128:LEU:HD11	2:O:134:ARG:HA	1.87	0.57
1:A:431:LEU:HD21	1:A:450:TRP:HB2	1.85	0.57
7:G:72:ASN:H	7:G:76:ASN:ND2	1.96	0.57
28:N:945:HOH:O	2:O:56:MET:SD	2.58	0.57
24:P:308:PEK:H311	7:T:26:PRO:HB3	1.86	0.57
1:A:177:SER:H	1:A:180:GLN:HE21	1.53	0.57
6:F:95:GLN:C	6:F:97:ALA:H	2.06	0.57
1:N:229:ILE:HD11	2:O:175:ILE:HD13	1.87	0.57
7:T:5:LYS:CG	24:T:101:PEK:H371	2.34	0.57
1:N:400:PHE:O	20:Y:101:TGL:H281	2.04	0.57
2:O:1:FME:HE3	2:O:133:LEU:HD22	1.86	0.57
10:W:4:ARG:HD2	10:W:7:GLU:OE2	2.05	0.57
22:C:305:CHD:C23	22:C:305:CHD:H162	2.35	0.57
12:L:13:PHE:HB3	20:L:101:TGL:HG12	1.85	0.57
3:C:50:ASN:HD22	3:C:51[A]:MET:HE2	1.69	0.56
6:F:95:GLN:HB3	28:F:280:HOH:O	2.03	0.56
7:G:45:PRO:HD2	28:G:203:HOH:O	2.06	0.56
4:Q:19:ARG:HG2	4:Q:21:ASP:OD1	2.04	0.56
7:T:84:LYS:HZ3	7:T:84:LYS:H	1.52	0.56
25:G:101:CDL:H561	25:G:101:CDL:H771	1.87	0.56
12:L:26:THR:HG22	28:L:226:HOH:O	2.05	0.56
25:G:101:CDL:H771	25:G:101:CDL:C56	2.35	0.56
6:S:78:GLU:HB2	28:S:317:HOH:O	2.05	0.56
2:B:32:PHE:HE2	20:B:301:TGL:HA52	1.67	0.56
23:B:304:PSC:H241	23:B:304:PSC:H42	1.86	0.56
1:N:169[B]:ILE:HD11	1:N:189:MET:CE	2.36	0.56
8:H:43:MET:HE3	8:H:49:ASP:N	2.21	0.56
7:T:11:TPO:HG22	7:T:16:TRP:HE1	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:C:307:PEK:H361	25:G:101:CDL:C27	2.34	0.56
24:C:307:PEK:H041	7:G:17:ARG:HH22	1.71	0.56
25:G:101:CDL:C35	2:O:78:LEU:HD12	2.35	0.56
12:L:26:THR:HG23	13:M:25:SER:HB2	1.88	0.56
1:N:113:LEU:HD12	20:Y:101:TGL:C14	2.36	0.56
24:P:308:PEK:H383	25:T:102:CDL:H273	1.88	0.56
20:L:101:TGL:HC61	20:L:101:TGL:CC1	2.36	0.56
4:Q:6:VAL:HG12	4:Q:7:LYS:N	2.20	0.56
1:A:297:MET:HG2	28:C:531:HOH:O	2.05	0.56
24:G:102:PEK:H241	28:G:266:HOH:O	2.06	0.56
3:P:210:ILE:HD13	19:P:304:PGV:H301	1.87	0.55
7:T:72:ASN:N	7:T:76:ASN:HD22	1.99	0.55
20:Y:101:TGL:OG3	20:Y:101:TGL:OA1	2.24	0.55
1:N:172:LYS:HD2	1:N:181:THR:CG2	2.36	0.55
1:N:409:TRP:HB3	1:N:471:ILE:HG12	1.88	0.55
1:N:483:LEU:HD21	13:Z:4:LYS:HE3	1.87	0.55
20:N:609:TGL:HC31	28:V:102:HOH:O	2.07	0.55
3:P:5:THR:HG22	6:S:96:LEU:HD13	1.88	0.55
6:S:43:LYS:HE3	28:S:282:HOH:O	2.06	0.55
1:A:225:GLY:HA3	3:C:112:LEU:HD21	1.88	0.55
8:U:48:GLY:HA2	28:U:133:HOH:O	2.06	0.55
12:Y:12:PRO:HG2	20:Y:101:TGL:HG11	1.89	0.54
2:B:33:LEU:HD13	9:I:31:PHE:HD1	1.70	0.54
6:F:64:GLU:O	6:F:65:ASP:HB2	2.07	0.54
3:P:168:THR:HG22	24:P:308:PEK:H14	1.88	0.54
3:C:94:PHE:HD2	28:C:509:HOH:O	1.90	0.54
11:X:52:GLU:HG2	28:X:120:HOH:O	2.06	0.54
1:N:308:ALA:O	1:N:311[B]:ILE:HG22	2.08	0.54
8:H:50:VAL:HG23	28:H:156:HOH:O	2.07	0.54
1:N:321:PHE:HD2	23:N:610:PSC:C34	2.15	0.54
4:Q:10:ASP:HB3	4:Q:13:LEU:HD12	1.88	0.54
1:A:513:LEU:O	1:A:514:LYS:CB	2.46	0.54
1:N:513:LEU:O	1:N:514:LYS:CB	2.31	0.54
7:G:41:HIS:HB3	7:G:74:ARG:CZ	2.37	0.54
2:O:91:ASN:HD22	2:O:149:THR:HG21	1.73	0.54
28:P:529:HOH:O	25:T:102:CDL:H673	2.06	0.54
7:T:5:LYS:HD2	24:T:101:PEK:H371	1.89	0.54
25:G:101:CDL:H171	1:N:307:SER:CB	2.38	0.53
1:N:265:LYS:HB2	1:N:490:THR:HG21	1.90	0.53
2:O:53:THR:HG21	28:Q:344:HOH:O	2.07	0.53
12:Y:12:PRO:HB2	20:Y:101:TGL:CG1	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:B:452:HOH:O	20:D:201:TGL:HC61	2.08	0.53
1:N:113:LEU:HD12	20:Y:101:TGL:C13	2.38	0.53
3:P:77:LYS:NZ	3:P:81:TYR:OH	2.40	0.53
4:Q:19:ARG:CD	4:Q:21:ASP:OD1	2.57	0.53
25:T:102:CDL:H571	25:T:102:CDL:H781	1.91	0.53
25:T:102:CDL:H172	28:T:222:HOH:O	2.07	0.53
1:A:309:THR:O	1:A:312[B]:ILE:HG22	2.08	0.53
7:G:84:LYS:HG2	28:G:253:HOH:O	2.08	0.53
2:O:82:ARG:HG2	2:O:86:MET:HE3	1.91	0.53
1:A:311[B]:ILE:CD1	24:P:308:PEK:H342	2.39	0.53
8:H:43:MET:CE	8:H:49:ASP:H	2.22	0.53
8:U:45:ALA:O	8:U:47:GLY:N	2.42	0.53
2:B:49:LYS:HD3	20:D:201:TGL:HC72	1.91	0.53
3:C:191:GLY:HA3	28:G:204:HOH:O	2.09	0.53
25:G:101:CDL:H542	25:G:101:CDL:C24	2.38	0.53
8:H:36:PHE:CD1	8:H:57:ARG:HB2	2.44	0.53
1:A:165:ILE:HG22	1:A:169[B]:ILE:HD12	1.91	0.53
23:N:610:PSC:H12	23:N:610:PSC:H321	1.90	0.53
4:Q:6:VAL:HG12	4:Q:10:ASP:OD2	2.07	0.53
7:T:5:LYS:HG3	24:T:101:PEK:C37	2.37	0.53
1:N:152:LEU:HD22	3:P:24:ALA:HB1	1.91	0.53
28:O:479:HOH:O	20:Q:201:TGL:HC72	2.09	0.53
12:Y:20:ARG:NH2	12:Y:24:MET:HG3	2.23	0.53
3:C:156:ARG:HE	22:C:305:CHD:C24	2.22	0.53
1:A:112:LEU:HG	28:A:749:HOH:O	2.10	0.52
10:J:55:PHE:HB2	28:J:230:HOH:O	2.09	0.52
12:L:2:HIS:CG	12:L:3:TYR:N	2.70	0.52
2:B:1:FME:HE3	2:B:133:LEU:HD22	1.92	0.52
8:H:8:ILE:HG23	8:H:8:ILE:O	2.09	0.52
1:N:321:PHE:CZ	23:N:610:PSC:H162	2.45	0.52
3:P:207:HIS:HD2	3:P:241:TYR:OH	1.92	0.52
28:B:582:HOH:O	24:P:308:PEK:H301	2.08	0.52
2:O:116:LEU:HD13	2:O:226:MET:HG3	1.91	0.52
2:O:196:CYS:HB2	2:O:207:MET:HG3	1.92	0.52
10:W:2:GLU:HA	28:W:218:HOH:O	2.09	0.52
20:L:101:TGL:HC61	20:L:101:TGL:CC2	2.39	0.52
23:N:610:PSC:H12	23:N:610:PSC:H322	1.92	0.52
2:O:1:FME:HE3	2:O:133:LEU:HD21	1.90	0.52
1:A:43:GLN:HB2	1:A:44:PRO:HD2	1.91	0.52
3:C:84:ILE:HD11	24:T:101:PEK:H031	1.92	0.52
23:B:304:PSC:H342	23:B:304:PSC:C13	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:59:ARG:HG3	25:C:304:CDL:H512	1.90	0.52
1:N:390:MET:O	1:N:394[A]:VAL:HG22	2.10	0.52
3:P:168:THR:CG2	24:P:308:PEK:H14	2.40	0.52
19:P:301:PGV:H21	28:P:512:HOH:O	2.09	0.52
25:T:102:CDL:HA21	25:T:102:CDL:H122	1.93	0.51
9:V:8:GLN:HG3	28:V:116:HOH:O	2.08	0.51
1:A:177:SER:H	1:A:180:GLN:NE2	2.08	0.51
1:N:62:ALA:HB1	14:N:601:HEA:HMD3	1.92	0.51
20:N:609:TGL:H191	28:N:933:HOH:O	2.09	0.51
1:A:76:GLY:O	1:A:80:ASN:HB2	2.11	0.51
1:A:297:MET:HB2	28:A:924:HOH:O	2.11	0.51
7:G:8:HIS:O	7:G:9:GLY:C	2.47	0.51
6:S:76:LYS:CD	28:S:271:HOH:O	2.19	0.51
19:P:301:PGV:H42	22:P:307:CHD:H151	1.93	0.51
19:A:608:PGV:P	19:A:608:PGV:H061	2.50	0.51
1:N:336:PRO:HB2	1:N:394[B]:VAL:HG11	1.93	0.51
3:P:77:LYS:NZ	28:P:482:HOH:O	2.36	0.51
5:E:16:VAL:HG21	5:E:46:LYS:HG3	1.92	0.51
1:N:112:LEU:HD23	1:N:113:LEU:HD23	1.93	0.51
23:B:304:PSC:H042	28:E:217:HOH:O	2.10	0.50
3:P:110:PRO:HB3	8:U:30:TRP:CE3	2.46	0.50
23:N:610:PSC:H21	23:N:610:PSC:C22	2.40	0.50
1:A:308:ALA:HA	25:T:102:CDL:H212	1.94	0.50
24:C:307:PEK:C04	7:G:17:ARG:HH22	2.25	0.50
1:N:136[B]:LEU:HD22	28:N:893:HOH:O	2.09	0.50
1:N:406:ASN:HD21	19:N:607:PGV:C2	2.25	0.50
12:Y:35:ALA:HB3	12:Y:36:PRO:HD3	1.94	0.50
1:A:299:VAL:HG23	2:B:84:LEU:HG	1.94	0.50
28:O:458:HOH:O	8:U:61:LYS:HE3	2.10	0.50
3:P:51[A]:MET:SD	25:P:305:CDL:H621	2.51	0.50
2:B:104:TRP:CG	2:B:203:ASN:HB2	2.46	0.50
3:C:55:TYR:CE1	25:C:304:CDL:H521	2.47	0.50
6:F:87:THR:HG21	28:F:222:HOH:O	2.12	0.50
7:T:2:SER:OG	24:T:101:PEK:C29	2.59	0.50
1:A:285:PHE:CD2	7:T:4:ALA:HB2	2.47	0.50
19:C:303:PGV:H12	25:C:304:CDL:H651	1.93	0.50
23:N:610:PSC:H072	9:V:10:ARG:HH21	1.77	0.50
1:A:343:GLY:HA2	20:D:201:TGL:H211	1.92	0.50
7:G:9:GLY:HA3	28:N:812:HOH:O	2.12	0.50
23:B:304:PSC:H212	23:B:304:PSC:O01	2.12	0.50
8:H:9:LYS:HG3	8:H:11:TYR:H	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:210:ILE:HG21	19:P:304:PGV:H282	1.93	0.50
19:A:608:PGV:H251	13:M:12:PRO:HG3	1.93	0.49
2:B:82:ARG:HG2	2:B:86:MET:HE3	1.94	0.49
3:P:107:ALA:HB2	19:P:301:PGV:C03	2.41	0.49
3:P:207:HIS:CD2	3:P:241:TYR:OH	2.65	0.49
3:C:127:LEU:HD13	25:G:101:CDL:OB3	2.11	0.49
25:C:304:CDL:HB22	25:C:304:CDL:CB5	2.42	0.49
6:F:55:LYS:HG3	6:F:73:TRP:CZ3	2.48	0.49
24:P:303:PEK:H15	24:P:303:PEK:C20	2.36	0.49
3:C:164:PHE:CD1	22:C:305:CHD:H192	2.48	0.49
5:E:86:ILE:O	5:E:90:ARG:HG2	2.12	0.49
1:N:155:VAL:HG21	19:N:608:PGV:H142	1.95	0.49
4:Q:130:PRO:HD2	4:Q:131:ILE:HD12	1.94	0.49
1:A:415:ALA:HB1	20:D:201:TGL:H132	1.94	0.49
19:N:608:PGV:H61	3:P:54:MET:HG2	1.94	0.49
19:N:608:PGV:H21	3:P:57:TRP:CZ2	2.47	0.49
4:Q:7:LYS:HA	28:Q:373:HOH:O	2.13	0.49
1:A:1:FME:HE3	1:A:4:ASN:HD22	1.76	0.49
2:B:58:ALA:O	2:B:62:GLU:HG3	2.12	0.49
4:D:34:SER:H	4:D:37:GLN:NE2	2.10	0.49
25:P:305:CDL:H431	10:W:34:VAL:HG11	1.93	0.49
7:T:2:SER:O	7:T:3:ALA:HB3	2.11	0.49
1:A:514:LYS:HA	6:F:38:ALA:HB3	1.93	0.49
25:G:101:CDL:HA21	25:G:101:CDL:C11	2.39	0.49
2:O:13:THR:HB	2:O:168:LEU:HD23	1.95	0.49
13:Z:40:TYR:O	13:Z:42:LYS:N	2.45	0.49
3:C:224:LYS:HD3	25:C:304:CDL:CB3	2.42	0.49
24:C:307:PEK:H292	28:O:486:HOH:O	2.13	0.49
7:G:3:ALA:O	7:G:4:ALA:HB2	2.11	0.49
1:N:317:GLY:O	1:N:321:PHE:CD1	2.66	0.49
19:N:608:PGV:C34	24:P:303:PEK:H382	2.35	0.48
28:R:294:HOH:O	9:V:11:GLY:HA2	2.12	0.48
1:A:459:PHE:HE2	28:A:949:HOH:O	1.96	0.48
2:B:30:ILE:HD13	28:B:571:HOH:O	2.13	0.48
7:G:2:SER:HB2	1:N:197:LEU:HD21	1.95	0.48
25:G:101:CDL:H522	25:G:101:CDL:C20	2.37	0.48
1:N:28:MET:HE2	14:N:601:HEA:H271	1.95	0.48
3:P:62:ILE:HD12	25:P:305:CDL:H511	1.94	0.48
1:A:1:FME:CE	1:A:4:ASN:HD22	2.27	0.48
1:A:303:ALA:HB1	25:T:102:CDL:H132	1.95	0.48
7:G:2:SER:HB2	1:N:197:LEU:HD11	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:T:102:CDL:H571	25:T:102:CDL:C78	2.43	0.48
1:A:409:TRP:HB3	1:A:471:ILE:HG12	1.95	0.48
4:D:78:TRP:CA	20:D:201:TGL:CB2	2.92	0.48
9:I:57:MET:O	9:I:61:GLU:HG2	2.13	0.48
11:K:44:PRO:CA	11:K:47:ARG:HH21	2.27	0.48
24:P:303:PEK:H11	24:P:303:PEK:H161	1.96	0.48
2:B:41:ILE:HD13	23:B:304:PSC:H341	1.96	0.48
1:A:172:LYS:NZ	1:A:178:GLN:HE22	2.12	0.47
2:B:56:MET:CG	23:B:304:PSC:H221	2.43	0.47
3:C:204:HIS:HB2	3:C:252:LEU:HD11	1.97	0.47
7:G:37:LEU:HD21	25:G:101:CDL:H361	1.96	0.47
23:N:610:PSC:C13	23:N:610:PSC:H343	2.44	0.47
2:O:1:FME:CE	2:O:133:LEU:HD22	2.43	0.47
2:O:1:FME:HE3	2:O:133:LEU:HD11	1.95	0.47
12:Y:46:LYS:HG2	28:Y:229:HOH:O	2.15	0.47
12:L:20:ARG:HH22	20:L:101:TGL:HC52	1.79	0.47
10:W:36:MET:HB3	22:W:101:CHD:H181	1.97	0.47
12:Y:41:ARG:HG3	13:Z:40:TYR:CE1	2.50	0.47
1:N:87:ILE:O	1:N:173:PRO:HD3	2.14	0.47
1:N:172:LYS:NZ	1:N:178:GLN:HE22	2.13	0.47
9:V:61:GLU:OE1	9:V:64:ARG:NE	2.45	0.47
3:C:226:HIS:CE1	25:C:304:CDL:HB32	2.50	0.47
8:U:7:LYS:HB2	28:U:139:HOH:O	2.14	0.47
1:A:229:ILE:HD11	2:B:175:ILE:HD13	1.96	0.47
8:H:9:LYS:O	8:H:10:ASN:CB	2.62	0.47
1:N:169[B]:ILE:HD11	1:N:189:MET:HE3	1.96	0.47
24:P:308:PEK:C38	25:T:102:CDL:C27	2.93	0.47
22:J:101:CHD:H192	22:J:101:CHD:H3	1.96	0.47
23:N:610:PSC:H42	23:N:610:PSC:H241	1.97	0.47
24:P:308:PEK:H362	24:P:308:PEK:H332	1.78	0.47
8:U:43:MET:HE3	8:U:49:ASP:N	2.29	0.47
1:A:311[A]:ILE:HD13	25:T:102:CDL:C22	2.41	0.47
19:N:607:PGV:H302	13:Z:19:LEU:HD22	1.96	0.47
6:S:76:LYS:CE	28:S:271:HOH:O	2.57	0.47
7:T:2:SER:O	24:T:101:PEK:H322	2.15	0.47
3:C:52:LEU:HD23	25:C:304:CDL:H362	1.97	0.47
2:O:42:ILE:HG21	20:Q:201:TGL:H232	1.96	0.47
3:P:127:LEU:HD22	25:T:102:CDL:HB62	1.96	0.47
25:T:102:CDL:H712	25:T:102:CDL:H521	1.97	0.47
2:B:56:MET:HG2	23:B:304:PSC:H201	1.95	0.46
25:G:101:CDL:H732	25:G:101:CDL:H541	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:24:MET:SD	20:L:101:TGL:HC82	2.55	0.46
28:C:536:HOH:O	24:T:101:PEK:H262	2.14	0.46
7:G:23:LEU:HD12	25:G:101:CDL:H271	1.97	0.46
9:I:36:LYS:HB2	9:I:36:LYS:HE3	1.64	0.46
2:O:4:PRO:HB2	11:X:43:SER:HA	1.96	0.46
7:T:7:ASP:O	7:T:9:GLY:N	2.49	0.46
24:C:302:PEK:H102	24:C:302:PEK:H72	1.73	0.46
4:D:78:TRP:N	20:D:201:TGL:CB2	2.77	0.46
19:N:607:PGV:H21	19:N:607:PGV:H52	1.64	0.46
2:B:14:SER:HB3	2:B:168:LEU:CD2	2.46	0.46
24:C:302:PEK:H161	24:C:302:PEK:C12	2.45	0.46
4:D:78:TRP:CA	20:D:201:TGL:HB22	2.45	0.46
25:G:101:CDL:H152	1:N:307:SER:OG	2.15	0.46
1:N:62:ALA:HB2	14:N:601:HEA:HBD1	1.96	0.46
2:O:215:PRO:HD3	9:V:60:PHE:CD2	2.50	0.46
1:A:468:MET:HG3	28:A:937:HOH:O	2.15	0.46
24:C:307:PEK:H383	25:G:101:CDL:H271	1.89	0.46
19:N:608:PGV:H343	24:P:303:PEK:C38	2.36	0.46
2:O:67:ILE:CD1	28:O:486:HOH:O	2.62	0.46
25:T:102:CDL:H342	25:T:102:CDL:OA7	2.16	0.46
19:A:607:PGV:H343	24:C:302:PEK:H382	1.97	0.46
2:B:164:ALA:O	2:B:194:GLY:HA3	2.15	0.46
10:W:32:TYR:OH	22:W:101:CHD:H213	2.15	0.46
3:C:54:MET:HE1	19:C:303:PGV:H142	1.98	0.46
8:H:54:GLU:OE1	8:H:54:GLU:HA	2.16	0.46
5:R:76:GLY:O	5:R:79:LYS:HE3	2.16	0.46
6:F:95:GLN:O	6:F:97:ALA:N	2.40	0.45
7:T:2:SER:O	7:T:3:ALA:CB	2.64	0.45
2:B:30:ILE:CD1	28:B:571:HOH:O	2.63	0.45
3:C:62:ILE:HD12	25:C:304:CDL:H511	1.99	0.45
11:K:44:PRO:HA	11:K:47:ARG:HH21	1.80	0.45
13:M:39:ASN:OD1	13:M:39:ASN:N	2.49	0.45
2:O:129:LYS:O	2:O:132:GLU:HG3	2.17	0.45
22:W:101:CHD:O12	22:W:101:CHD:H222	2.15	0.45
1:A:337:ALA:HB2	1:A:394[A]:VAL:HG23	1.99	0.45
2:O:114:GLU:HG3	28:O:505:HOH:O	2.15	0.45
2:O:128:LEU:HD22	2:O:132:GLU:HB2	1.97	0.45
2:O:130:PRO:HA	4:Q:115:TRP:CZ3	2.52	0.45
25:P:305:CDL:H561	25:P:305:CDL:H531	1.50	0.45
19:A:608:PGV:H311	13:M:19:LEU:CD2	2.41	0.45
1:N:25:TRP:CH2	20:Y:101:TGL:H292	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:98:TRP:CE2	27:M:101:DMU:H11	2.52	0.45
20:Q:201:TGL:HG31	20:Q:201:TGL:HC21	1.77	0.45
5:R:77:PRO:O	5:R:79:LYS:HD2	2.16	0.45
7:T:11:TPO:CG2	7:T:11:TPO:O	2.65	0.45
1:A:307:SER:HB2	25:T:102:CDL:H192	1.99	0.45
1:A:311[B]:ILE:HG12	1:A:311[B]:ILE:O	2.15	0.45
3:C:110:PRO:HB3	8:H:30:TRP:CE3	2.52	0.45
13:M:39:ASN:O	13:M:43:SER:HB2	2.16	0.45
1:N:383:MET:HG2	1:N:421:VAL:HG21	1.97	0.45
3:P:154:GLY:HA2	6:S:6:VAL:HB	1.97	0.45
20:Y:101:TGL:H172	28:Y:235:HOH:O	2.17	0.45
23:B:304:PSC:H073	5:E:11:PHE:CG	2.52	0.45
7:G:43:GLU:HA	28:G:269:HOH:O	2.16	0.45
1:A:290:HIS:CD2	1:A:291:HIS:CD2	3.04	0.45
2:B:168:LEU:HD13	2:B:184:LEU:HG	1.97	0.45
1:N:296:GLY:HA2	8:U:23:GLN:OE1	2.17	0.45
1:A:399:LEU:HB2	1:A:494:TRP:CZ3	2.52	0.45
3:C:50:ASN:HD22	3:C:51[A]:MET:CE	2.30	0.45
5:E:90:ARG:HG3	28:E:239:HOH:O	2.16	0.45
11:K:8:ASP:HB2	28:K:111:HOH:O	2.16	0.45
11:K:24:PHE:CE1	11:K:28:VAL:HG21	2.52	0.45
1:N:468:MET:HG3	28:N:923:HOH:O	2.17	0.45
7:G:2:SER:CB	1:N:197:LEU:HD11	2.47	0.44
28:B:452:HOH:O	20:D:201:TGL:CC6	2.64	0.44
8:H:43:MET:HE3	8:H:49:ASP:H	1.80	0.44
1:N:321:PHE:HD2	23:N:610:PSC:C33	2.30	0.44
2:O:164:ALA:O	2:O:194:GLY:HA3	2.16	0.44
4:Q:73:ARG:HG2	4:Q:73:ARG:NH1	2.32	0.44
22:W:101:CHD:H232	22:W:101:CHD:H211	1.60	0.44
3:C:220:PHE:HB2	25:C:304:CDL:H712	1.99	0.44
2:O:116:LEU:CD2	2:O:226:MET:HG2	2.48	0.44
1:A:53:ILE:HD11	12:L:40:VAL:HG13	2.00	0.44
6:F:64:GLU:O	6:F:65:ASP:CB	2.62	0.44
1:N:334:TRP:HH2	2:O:46:LEU:HD13	1.81	0.44
4:Q:19:ARG:CG	4:Q:21:ASP:OD1	2.65	0.44
3:C:64:GLU:HA	3:C:68:GLN:HE21	1.83	0.44
2:O:33:LEU:HD13	9:V:31:PHE:CD1	2.53	0.44
24:P:308:PEK:C38	25:T:102:CDL:H271	2.46	0.44
22:W:101:CHD:H111	22:W:101:CHD:H12A	1.85	0.44
2:B:1:FME:HE2	28:B:418:HOH:O	2.18	0.44
2:B:76:ILE:HG13	28:B:571:HOH:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:N:607:PGV:H251	13:Z:12:PRO:HB3	2.00	0.44
3:P:52:LEU:HD23	25:P:305:CDL:H362	2.00	0.44
6:S:10:GLU:OE2	6:S:25:ARG:NH1	2.49	0.44
14:A:601:HEA:HHC	14:A:601:HEA:H122	2.00	0.44
28:N:951:HOH:O	6:S:37:LYS:HE2	2.18	0.44
22:C:306:CHD:H212	22:C:306:CHD:H12	1.99	0.44
24:C:307:PEK:H372	1:N:279:SER:OG	2.18	0.44
1:N:321:PHE:HB3	23:N:610:PSC:H331	2.00	0.44
14:A:601:HEA:H212	14:A:601:HEA:H271	1.44	0.43
3:C:55:TYR:CD1	25:C:304:CDL:H181	2.53	0.43
3:C:122:HIS:HD2	28:C:467:HOH:O	2.00	0.43
8:U:34:LEU:O	8:U:38:ARG:HG3	2.19	0.43
12:Y:42:HIS:O	12:Y:46:LYS:HG3	2.18	0.43
25:G:101:CDL:H352	2:O:78:LEU:CD1	2.38	0.43
1:N:105:LEU:HD23	1:N:105:LEU:HA	1.86	0.43
19:N:607:PGV:H211	28:Z:222:HOH:O	2.18	0.43
23:N:610:PSC:H21	23:N:610:PSC:C21	2.48	0.43
24:P:308:PEK:H382	25:T:102:CDL:C27	2.47	0.43
7:T:12:GLY:CA	28:T:207:HOH:O	2.65	0.43
20:Y:101:TGL:H202	20:Y:101:TGL:H231	1.67	0.43
10:J:29:ASN:HD22	10:J:29:ASN:H	1.66	0.43
2:B:146:MET:HA	2:B:213:LEU:HD12	2.01	0.43
8:H:7:LYS:HA	28:H:145:HOH:O	2.18	0.43
3:P:112:LEU:HD13	3:P:118:PRO:HG3	1.99	0.43
5:R:44:GLU:OE1	9:V:6:LYS:NZ	2.40	0.43
1:A:62:ALA:HB2	14:A:601:HEA:HBD1	2.00	0.43
3:P:144:ILE:CD1	3:P:239:ALA:HA	2.48	0.43
6:S:62:CYS:HB3	6:S:85:CYS:HB3	2.01	0.43
2:B:193:TYR:CD1	2:B:210:VAL:HG22	2.54	0.43
1:N:399:LEU:O	1:N:499:PRO:HA	2.18	0.43
6:F:54:ASN:H	6:F:54:ASN:HD22	1.65	0.43
10:J:37:THR:OG1	22:J:101:CHD:H191	2.18	0.43
1:N:240:HIS:O	1:N:241:PRO:C	2.56	0.43
6:S:54:ASN:HD22	6:S:54:ASN:C	2.22	0.43
13:Z:36:HIS:HD2	13:Z:39:ASN:HD22	1.67	0.43
1:A:449:MET:SD	2:B:5:MET:HG2	2.59	0.43
22:B:303:CHD:H12	22:B:303:CHD:H212	2.00	0.43
24:C:302:PEK:H171	24:C:302:PEK:H203	1.81	0.43
8:H:54:GLU:OE2	8:H:57:ARG:NH2	2.44	0.43
12:L:20:ARG:HH22	20:L:101:TGL:CC3	2.11	0.43
19:A:607:PGV:H183	24:C:302:PEK:H322	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:P:308:PEK:H6	24:P:308:PEK:H221	2.01	0.43
14:A:602:HEA:HAD2	14:A:602:HEA:HHA	1.76	0.43
3:P:62:ILE:CD1	3:P:221:ARG:HD2	2.49	0.43
4:Q:48:TRP:HB2	5:R:96:LEU:O	2.18	0.43
4:Q:52:SER:HB2	28:Q:340:HOH:O	2.18	0.43
1:A:309:THR:HG22	14:A:602:HEA:HMB2	2.00	0.42
4:D:78:TRP:CA	20:D:201:TGL:HB21	2.49	0.42
7:G:3:ALA:HA	28:G:261:HOH:O	2.19	0.42
25:C:304:CDL:H182	25:C:304:CDL:H352	2.00	0.42
24:C:307:PEK:H383	25:G:101:CDL:H273	1.93	0.42
19:P:301:PGV:H202	19:P:301:PGV:H231	1.74	0.42
25:T:102:CDL:CB5	25:T:102:CDL:H181	2.50	0.42
12:Y:39:ILE:O	12:Y:42:HIS:HB3	2.19	0.42
25:C:304:CDL:OB6	25:C:304:CDL:CB2	2.67	0.42
25:C:304:CDL:CB5	25:C:304:CDL:CB2	2.98	0.42
25:G:101:CDL:H202	25:G:101:CDL:C52	2.39	0.42
2:O:103:GLN:HB3	2:O:104:TRP:CE2	2.55	0.42
3:P:213:THR:HG23	25:P:305:CDL:H771	2.01	0.42
1:A:367:LEU:HD21	1:A:433:LEU:HD23	2.02	0.42
19:C:308:PGV:H51	19:C:308:PGV:H21	1.88	0.42
25:P:305:CDL:H222	25:P:305:CDL:H192	1.80	0.42
20:Q:201:TGL:HA32	20:Q:201:TGL:HB51	2.00	0.42
12:Y:46:LYS:CD	28:Y:229:HOH:O	2.67	0.42
25:G:101:CDL:H591	25:G:101:CDL:C77	2.49	0.42
8:U:43:MET:HE3	8:U:49:ASP:H	1.85	0.42
10:W:30:ILE:O	10:W:34:VAL:HG23	2.20	0.42
1:A:282:PHE:HA	7:T:4:ALA:CB	2.49	0.42
2:B:216:LEU:O	2:B:220:GLU:HG3	2.20	0.42
1:N:169[B]:ILE:CD1	1:N:189:MET:HE1	2.50	0.42
23:N:610:PSC:H062	23:N:610:PSC:H042	1.85	0.42
28:A:955:HOH:O	2:B:206:PHE:CE1	2.51	0.42
1:N:269:GLY:HA2	28:O:500:HOH:O	2.19	0.42
2:O:168:LEU:HD13	2:O:184:LEU:HG	2.01	0.42
3:P:155:ASP:OD2	6:S:2:SER:HA	2.20	0.42
28:B:580:HOH:O	4:D:126:MET:SD	2.62	0.42
11:K:52:GLU:HG3	28:K:131:HOH:O	2.18	0.42
3:P:5:THR:HG22	6:S:96:LEU:HD11	1.99	0.42
3:P:33[A]:MET:CE	3:P:41:THR:HB	2.50	0.42
6:S:43:LYS:N	6:S:43:LYS:HD2	2.24	0.42
10:W:58:LYS:HD3	10:W:58:LYS:HA	1.70	0.42
25:G:101:CDL:H132	2:O:81:LEU:HD13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:51:TYR:HA	9:I:54:TYR:HB2	2.02	0.42
1:N:104:LEU:C	1:N:107:PRO:HD2	2.40	0.42
4:D:107:ILE:HD12	4:D:111:PHE:CD1	2.54	0.42
1:N:229:ILE:HD11	2:O:175:ILE:CD1	2.50	0.42
3:P:157:LYS:HD3	28:P:520:HOH:O	2.20	0.42
2:B:191:LEU:HD23	2:B:212:GLU:HA	2.01	0.41
25:G:101:CDL:H771	25:G:101:CDL:H591	2.02	0.41
19:A:608:PGV:C31	13:M:19:LEU:HD23	2.42	0.41
7:G:50:TYR:HB3	7:G:52:HIS:CE1	2.55	0.41
8:H:52:VAL:HG12	28:H:166:HOH:O	2.19	0.41
19:N:607:PGV:H131	19:N:607:PGV:H301	2.02	0.41
20:N:609:TGL:H152	2:O:7:LEU:HD11	2.01	0.41
22:P:307:CHD:H212	22:P:307:CHD:H12	2.01	0.41
7:T:38:HIS:HE1	25:T:102:CDL:H121	1.83	0.41
7:G:5:LYS:CG	24:G:102:PEK:H383	2.35	0.41
1:A:426:PHE:HB3	1:A:427:PRO:HD3	2.03	0.41
3:C:63:ARG:HE	25:C:304:CDL:HA21	1.83	0.41
3:C:76:GLN:NE2	28:C:435:HOH:O	2.46	0.41
3:C:210:ILE:HG21	19:C:303:PGV:H281	2.01	0.41
24:C:307:PEK:C36	25:G:101:CDL:H273	2.45	0.41
5:E:12:ASP:HB3	5:E:46:LYS:HE2	2.03	0.41
4:Q:57:VAL:HG21	28:R:258:HOH:O	2.20	0.41
9:V:49:ASP:HB3	28:V:132:HOH:O	2.20	0.41
1:A:513:LEU:HD23	1:A:513:LEU:HA	1.55	0.41
2:O:172:THR:CG2	2:O:180:ASN:HB3	2.50	0.41
24:P:303:PEK:H161	24:P:303:PEK:C11	2.49	0.41
7:T:30:LEU:CD2	25:T:102:CDL:H471	2.44	0.41
7:T:33:LEU:O	7:T:34:ASN:C	2.59	0.41
8:H:60:TYR:CD1	8:H:60:TYR:C	2.93	0.41
2:B:60:GLU:H	2:B:60:GLU:HG3	1.56	0.41
2:B:90:ILE:H	2:B:90:ILE:HG13	1.73	0.41
6:F:55:LYS:HA	6:F:74:LEU:O	2.20	0.41
4:Q:39:ALA:HB1	28:Q:354:HOH:O	2.21	0.41
7:T:11:TPO:HG22	7:T:11:TPO:O	2.20	0.41
12:Y:20:ARG:HD3	28:Y:211:HOH:O	2.20	0.41
25:G:101:CDL:H602	25:G:101:CDL:H631	1.87	0.41
1:N:169[B]:ILE:HD11	1:N:189:MET:HE1	2.02	0.41
8:U:9:LYS:HB3	8:U:10:ASN:H	1.66	0.41
1:A:507:GLU:CD	28:A:945:HOH:O	2.59	0.41
2:B:145:PRO:HA	2:B:214:VAL:O	2.20	0.41
1:N:136[B]:LEU:HD11	28:N:935:HOH:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:33[A]:MET:CE	3:P:42:LEU:H	2.18	0.41
3:P:144:ILE:HD13	3:P:239:ALA:HA	2.03	0.41
1:A:412:ILE:HG12	4:D:84:ALA:HB3	2.03	0.41
6:F:92:VAL:O	6:F:92:VAL:CG2	2.66	0.41
25:G:101:CDL:H541	25:G:101:CDL:H712	2.03	0.41
14:N:601:HEA:HHC	14:N:601:HEA:H122	2.03	0.41
1:A:107:PRO:HB3	3:C:25:LEU:HB2	2.03	0.40
1:N:35:LEU:HD11	1:N:462:LEU:HB2	2.03	0.40
2:O:67:ILE:HD13	28:O:486:HOH:O	2.20	0.40
3:P:64:GLU:HA	3:P:68:GLN:HE21	1.86	0.40
3:P:156:ARG:HE	22:P:306:CHD:C23	2.33	0.40
7:T:5:LYS:CD	24:T:101:PEK:H371	2.49	0.40
25:T:102:CDL:H712	25:T:102:CDL:C52	2.51	0.40
2:B:168:LEU:HD23	2:B:168:LEU:HA	1.94	0.40
9:I:73:LYS:HA	9:I:73:LYS:HD2	1.60	0.40
1:N:189:MET:HG3	1:N:190:ILE:N	2.29	0.40
2:O:104:TRP:CG	2:O:203:ASN:HB2	2.56	0.40
3:P:160:LEU:HD13	22:P:306:CHD:H181	2.03	0.40
1:A:417:MET:HE1	14:A:601:HEA:H263	2.03	0.40
23:B:304:PSC:C07	9:I:10:ARG:HH21	2.34	0.40
10:J:52:TRP:O	10:J:57:HIS:HE1	2.02	0.40
8:H:39:CYS:O	8:H:43:MET:HG2	2.21	0.40
10:J:32:TYR:OH	22:J:101:CHD:H213	2.22	0.40
1:N:412:ILE:HD13	4:Q:84:ALA:HB3	2.04	0.40
3:P:55:TYR:CE1	25:P:305:CDL:H171	2.57	0.40
7:T:72:ASN:H	7:T:76:ASN:ND2	2.03	0.40
11:X:54:ARG:NH2	28:X:130:HOH:O	2.53	0.40

All (14) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:F:294:HOH:O	28:K:114:HOH:O[2_585]	1.63	0.57
9:I:2:THR:CG2	5:R:80:GLU:OE1[3_647]	1.83	0.37
28:B:586:HOH:O	28:M:2318:HOH:O[2_584]	1.90	0.30
2:O:126:SER:O	6:S:94:HIS:CB[2_684]	1.93	0.27
6:S:95:GLN:N	28:O:535:HOH:O[2_685]	1.95	0.25
6:F:94:HIS:CE1	28:D:393:HOH:O[2_585]	1.98	0.22
6:S:94:HIS:CD2	28:O:535:HOH:O[2_685]	2.00	0.20
9:I:2:THR:CB	5:R:80:GLU:OE1[3_647]	2.06	0.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S:94:HIS:CA	28:O:547:HOH:O[2_685]	2.07	0.13
28:B:592:HOH:O	28:M:2318:HOH:O[2_584]	2.09	0.11
28:O:533:HOH:O	28:S:307:HOH:O[2_684]	2.10	0.10
6:S:95:GLN:CA	28:O:535:HOH:O[2_685]	2.10	0.10
2:O:126:SER:O	6:S:94:HIS:CG[2_684]	2.12	0.08
6:S:95:GLN:N	28:O:547:HOH:O[2_685]	2.18	0.02

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 X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	518/514 (101%)	500 (96%)	18 (4%)	0	100	100
1	N	518/514 (101%)	501 (97%)	17 (3%)	0	100	100
2	B	226/227 (100%)	213 (94%)	13 (6%)	0	100	100
2	O	225/227 (99%)	214 (95%)	10 (4%)	1 (0%)	34	24
3	C	260/261 (100%)	254 (98%)	6 (2%)	0	100	100
3	P	260/261 (100%)	255 (98%)	5 (2%)	0	100	100
4	D	142/147 (97%)	138 (97%)	4 (3%)	0	100	100
4	Q	142/147 (97%)	136 (96%)	5 (4%)	1 (1%)	22	12
5	E	103/109 (94%)	102 (99%)	1 (1%)	0	100	100
5	R	103/109 (94%)	103 (100%)	0	0	100	100
6	F	96/98 (98%)	91 (95%)	2 (2%)	3 (3%)	4	0
6	S	96/98 (98%)	90 (94%)	3 (3%)	3 (3%)	4	0
7	G	81/85 (95%)	69 (85%)	7 (9%)	5 (6%)	1	0
7	T	81/85 (95%)	68 (84%)	8 (10%)	5 (6%)	1	0
8	H	77/85 (91%)	71 (92%)	3 (4%)	3 (4%)	3	0
8	U	77/85 (91%)	70 (91%)	4 (5%)	3 (4%)	3	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	I	71/73 (97%)	69 (97%)	2 (3%)	0	100	100
9	V	71/73 (97%)	70 (99%)	1 (1%)	0	100	100
10	J	56/59 (95%)	55 (98%)	1 (2%)	0	100	100
10	W	56/59 (95%)	55 (98%)	1 (2%)	0	100	100
11	K	47/56 (84%)	46 (98%)	1 (2%)	0	100	100
11	X	47/56 (84%)	46 (98%)	1 (2%)	0	100	100
12	L	44/47 (94%)	42 (96%)	2 (4%)	0	100	100
12	Y	44/47 (94%)	41 (93%)	3 (7%)	0	100	100
13	M	41/46 (89%)	38 (93%)	3 (7%)	0	100	100
13	Z	41/46 (89%)	39 (95%)	2 (5%)	0	100	100
All	All	3523/3614 (98%)	3376 (96%)	123 (4%)	24 (1%)	22	12

All (24) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
6	F	94	HIS
6	F	96	LEU
7	G	4	ALA
7	G	8	HIS
8	H	8	ILE
6	S	94	HIS
6	S	95	GLN
7	T	3	ALA
7	T	5	LYS
7	T	8	HIS
8	U	8	ILE
8	U	46	LYS
6	F	95	GLN
7	G	37	LEU
7	T	38	HIS
7	G	7	ASP
2	O	92	ASN
7	T	4	ALA
8	U	45	ALA
4	Q	35	ALA
6	S	96	LEU
7	G	5	LYS
8	H	10	ASN
8	H	45	ALA

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 X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	432/426 (101%)	426 (99%)	6 (1%)	67 65
1	N	432/426 (101%)	424 (98%)	8 (2%)	57 53
2	B	211/210 (100%)	199 (94%)	12 (6%)	20 11
2	O	210/210 (100%)	202 (96%)	8 (4%)	33 24
3	C	227/226 (100%)	223 (98%)	4 (2%)	59 55
3	P	227/226 (100%)	221 (97%)	6 (3%)	46 39
4	D	128/129 (99%)	127 (99%)	1 (1%)	81 82
4	Q	128/129 (99%)	125 (98%)	3 (2%)	50 45
5	E	92/95 (97%)	89 (97%)	3 (3%)	38 29
5	R	92/95 (97%)	89 (97%)	3 (3%)	38 29
6	F	81/81 (100%)	76 (94%)	5 (6%)	18 9
6	S	81/81 (100%)	78 (96%)	3 (4%)	34 25
7	G	67/68 (98%)	62 (92%)	5 (8%)	13 5
7	T	67/68 (98%)	58 (87%)	9 (13%)	4 1
8	H	71/75 (95%)	66 (93%)	5 (7%)	15 7
8	U	71/75 (95%)	68 (96%)	3 (4%)	30 20
9	I	57/57 (100%)	56 (98%)	1 (2%)	59 55
9	V	57/57 (100%)	54 (95%)	3 (5%)	22 13
10	J	49/50 (98%)	49 (100%)	0	100 100
10	W	49/50 (98%)	48 (98%)	1 (2%)	55 51
11	K	39/46 (85%)	38 (97%)	1 (3%)	46 39
11	X	39/46 (85%)	39 (100%)	0	100 100
12	L	39/40 (98%)	38 (97%)	1 (3%)	46 39
12	Y	39/40 (98%)	36 (92%)	3 (8%)	13 5
13	M	37/38 (97%)	34 (92%)	3 (8%)	11 4
13	Z	37/38 (97%)	35 (95%)	2 (5%)	22 13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	3059/3082 (99%)	2960 (97%)	99 (3%)	39 30

All (99) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	38	ARG
1	A	109	PHE
1	A	138	HIS
1	A	180	GLN
1	A	189	MET
1	A	369	ASP
2	B	33	LEU
2	B	59	GLN
2	B	60	GLU
2	B	65	TRP
2	B	75	LEU
2	B	78	LEU
2	B	91	ASN
2	B	110	TYR
2	B	115[A]	ASP
2	B	115[B]	ASP
2	B	116	LEU
2	B	171	LYS
3	C	17	PRO
3	C	159	MET
3	C	214	PHE
3	C	230	ASN
4	D	31	LYS
5	E	5	HIS
5	E	70	VAL
5	E	90	ARG
6	F	54	ASN
6	F	78	GLU
6	F	80	GLN
6	F	87	THR
6	F	96	LEU
7	G	2	SER
7	G	18	PHE
7	G	33	LEU
7	G	54	ARG
7	G	84	LYS
8	H	7	LYS

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Mol	Chain	Res	Type
8	H	9	LYS
8	H	51	SER
8	H	60	TYR
8	H	61	LYS
9	I	36	LYS
11	K	47	ARG
12	L	47	LYS
13	M	12	PRO
13	M	38	ASP
13	M	39	ASN
1	N	34	SER
1	N	109	PHE
1	N	138	HIS
1	N	362	SER
1	N	363	LEU
1	N	369	ASP
1	N	484	THR
1	N	495	LEU
2	O	33	LEU
2	O	60	GLU
2	O	61	VAL
2	O	65	TRP
2	O	68	LEU
2	O	78	LEU
2	O	94	SER
2	O	171	LYS
3	P	33[A]	MET
3	P	33[B]	MET
3	P	159	MET
3	P	214	PHE
3	P	230	ASN
3	P	244	PHE
4	Q	4	SER
4	Q	10	ASP
4	Q	20	ARG
5	R	5	HIS
5	R	46	LYS
5	R	79	LYS
6	S	43	LYS
6	S	54	ASN
6	S	80	GLN
7	T	2	SER

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Mol	Chain	Res	Type
7	T	8	HIS
7	T	18	PHE
7	T	33	LEU
7	T	35	SER
7	T	37	LEU
7	T	38	HIS
7	T	54	ARG
7	T	84	LYS
8	U	9	LYS
8	U	60	TYR
8	U	84	LYS
9	V	8	GLN
9	V	36	LYS
9	V	52	ARG
10	W	50	LEU
12	Y	2	HIS
12	Y	20	ARG
12	Y	26	THR
13	Z	2	THR
13	Z	38	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (40) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	4	ASN
1	A	178	GLN
1	A	180	GLN
2	B	59	GLN
2	B	91	ASN
2	B	195	GLN
3	C	50	ASN
3	C	68	GLN
3	C	149	HIS
3	C	161	GLN
4	D	37	GLN
4	D	109	HIS
4	D	143	ASN
5	E	94	ASN
6	F	54	ASN
6	F	80	GLN
7	G	76	ASN
8	H	37	HIS

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Mol	Chain	Res	Type
10	J	29	ASN
10	J	57	HIS
11	K	35	GLN
1	N	178	GLN
1	N	180	GLN
2	O	10	GLN
2	O	91	ASN
2	O	181	GLN
2	O	195	GLN
3	P	50	ASN
3	P	68	GLN
3	P	76	GLN
4	Q	32	ASN
4	Q	37	GLN
4	Q	109	HIS
5	R	94	ASN
6	S	54	ASN
6	S	80	GLN
7	T	76	ASN
8	U	37	HIS
10	W	29	ASN
13	Z	36	HIS

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

8 non-standard protein/DNA/RNA residues are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
7	TPO	G	11	7	8,10,11	1.61	2 (25%)	10,14,16	1.48	1 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
9	SAC	I	1	9	7,8,9	2.31	2 (28%)	8,9,11	1.43	2 (25%)
2	FME	O	1	2	8,9,10	0.95	0	7,9,11	1.90	2 (28%)
1	FME	N	1	1	8,9,10	0.92	0	7,9,11	1.64	2 (28%)
2	FME	B	1	2	8,9,10	1.68	1 (12%)	7,9,11	8.05	3 (42%)
9	SAC	V	1	9	7,8,9	2.25	2 (28%)	8,9,11	1.72	3 (37%)
1	FME	A	1	1	8,9,10	0.51	0	7,9,11	1.65	2 (28%)
7	TPO	T	11	7	8,10,11	1.70	1 (12%)	10,14,16	1.31	1 (10%)

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
7	TPO	G	11	7	-	6/9/11/13	-
9	SAC	I	1	9	-	1/7/8/10	-
2	FME	O	1	2	-	2/7/9/11	-
1	FME	N	1	1	-	2/7/9/11	-
2	FME	B	1	2	-	2/7/9/11	-
9	SAC	V	1	9	-	5/7/8/10	-
1	FME	A	1	1	-	3/7/9/11	-
7	TPO	T	11	7	-	3/9/11/13	-

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	I	1	SAC	OAC-C1A	5.09	1.34	1.23
9	V	1	SAC	OAC-C1A	4.82	1.34	1.23
2	B	1	FME	O1-CN	-3.58	1.12	1.22
7	T	11	TPO	P-O1P	3.34	1.61	1.50
9	V	1	SAC	CA-N	3.29	1.51	1.46
9	I	1	SAC	CA-N	2.89	1.50	1.46
7	G	11	TPO	P-O1P	2.70	1.59	1.50
7	G	11	TPO	P-OG1	2.44	1.63	1.59

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	1	FME	CA-N-CN	-20.41	91.43	122.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	1	FME	O1-CN-N	4.65	137.52	125.27
7	T	11	TPO	CG2-CB-CA	3.19	119.47	113.16
2	O	1	FME	CG-CB-CA	-2.98	104.68	112.95
1	N	1	FME	C-CA-N	2.97	115.08	109.73
7	G	11	TPO	CG2-CB-CA	2.95	119.00	113.16
2	O	1	FME	O1-CN-N	-2.95	117.51	125.27
1	A	1	FME	CE-SD-CG	2.92	110.43	100.40
2	B	1	FME	O-C-CA	-2.90	117.18	124.78
9	V	1	SAC	CA-N-C1A	2.66	128.05	123.15
1	A	1	FME	C-CA-N	2.54	114.32	109.73
9	I	1	SAC	C-CA-N	2.52	114.28	109.73
9	V	1	SAC	C2A-C1A-N	2.30	120.00	116.10
9	I	1	SAC	CB-CA-N	-2.08	105.87	110.55
1	N	1	FME	O-C-CA	-2.06	119.39	124.78
9	V	1	SAC	CB-CA-N	-2.03	105.99	110.55

There are no chirality outliers.

All (24) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A	1	FME	N-CA-CB-CG
2	B	1	FME	O1-CN-N-CA
7	G	11	TPO	N-CA-CB-CG2
7	G	11	TPO	N-CA-CB-OG1
7	G	11	TPO	C-CA-CB-CG2
7	G	11	TPO	O-C-CA-CB
7	G	11	TPO	CA-CB-OG1-P
7	G	11	TPO	CB-OG1-P-O1P
9	I	1	SAC	O-C-CA-CB
1	N	1	FME	N-CA-CB-CG
7	T	11	TPO	N-CA-CB-CG2
7	T	11	TPO	N-CA-CB-OG1
7	T	11	TPO	C-CA-CB-CG2
9	V	1	SAC	O-C-CA-CB
9	V	1	SAC	N-CA-CB-OG
9	V	1	SAC	C-CA-CB-OG
9	V	1	SAC	C2A-C1A-N-CA
9	V	1	SAC	OAC-C1A-N-CA
2	B	1	FME	CB-CG-SD-CE
1	A	1	FME	C-CA-CB-CG
2	O	1	FME	C-CA-CB-CG
1	N	1	FME	C-CA-CB-CG

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Mol	Chain	Res	Type	Atoms
2	O	1	FME	CA-CB-CG-SD
1	A	1	FME	CB-CG-SD-CE

There are no ring outliers.

5 monomers are involved in 17 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
7	G	11	TPO	1	0
2	O	1	FME	9	0
2	B	1	FME	2	0
1	A	1	FME	2	0
7	T	11	TPO	3	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 56 ligands modelled in this entry, 10 are monoatomic - leaving 46 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	$\#\|Z\| > 2$
23	PSC	N	610	-	51,51,51	1.24	3 (5%)	57,59,59	1.26	4 (7%)
24	PEK	G	102	-	52,52,52	1.12	2 (3%)	55,57,57	1.23	6 (10%)
25	CDL	G	101	-	99,99,99	1.37	12 (12%)	105,111,111	1.29	9 (8%)
14	HEA	A	601	1	57,67,67	1.57	13 (22%)	61,103,103	2.69	23 (37%)
20	TGL	B	301	-	62,62,62	1.30	6 (9%)	65,65,65	1.66	11 (16%)
18	PER	N	606[A]	15,14	0,1,1	-	-	-		
19	PGV	N	607	-	50,50,50	1.03	2 (4%)	53,56,56	1.31	8 (15%)
19	PGV	P	301	-	50,50,50	1.06	2 (4%)	53,56,56	1.19	5 (9%)
19	PGV	C	308	-	50,50,50	1.18	2 (4%)	53,56,56	1.21	4 (7%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
19	PGV	P	304	-	50,50,50	0.97	2 (4%)	53,56,56	1.04	1 (1%)
27	DMU	Z	101	-	34,34,34	0.75	1 (2%)	45,45,45	1.84	11 (24%)
20	TGL	Y	101	-	62,62,62	1.38	6 (9%)	65,65,65	1.54	11 (16%)
14	HEA	N	602	18,1	57,67,67	1.72	10 (17%)	61,103,103	1.75	17 (27%)
25	CDL	T	102	-	99,99,99	1.35	12 (12%)	105,111,111	1.34	12 (11%)
14	HEA	A	602	18,1	57,67,67	1.88	17 (29%)	61,103,103	2.61	24 (39%)
21	CUA	O	301	2	0,1,1	-	-	-		
22	CHD	P	306	-	32,32,32	0.88	1 (3%)	51,51,51	2.44	19 (37%)
24	PEK	C	302	-	52,52,52	1.00	2 (3%)	55,57,57	1.12	6 (10%)
22	CHD	P	307	-	32,32,32	1.32	4 (12%)	51,51,51	1.40	8 (15%)
24	PEK	P	303	-	52,52,52	1.08	3 (5%)	55,57,57	1.47	6 (10%)
21	CUA	B	302	2	0,1,1	-	-	-		
22	CHD	W	101	-	32,32,32	0.82	0	51,51,51	3.04	17 (33%)
22	CHD	J	101	-	32,32,32	0.70	0	51,51,51	2.62	25 (49%)
22	CHD	C	305	-	32,32,32	0.79	0	51,51,51	2.00	18 (35%)
22	CHD	B	303	-	32,32,32	1.42	4 (12%)	51,51,51	1.92	13 (25%)
27	DMU	M	101	-	34,34,34	0.67	0	45,45,45	2.34	13 (28%)
25	CDL	P	305	-	99,99,99	1.40	15 (15%)	105,111,111	1.38	12 (11%)
22	CHD	G	103	-	32,32,32	1.52	5 (15%)	51,51,51	2.48	18 (35%)
20	TGL	N	609	-	62,62,62	1.34	6 (9%)	65,65,65	1.59	9 (13%)
22	CHD	C	306	-	32,32,32	1.18	3 (9%)	51,51,51	1.77	12 (23%)
14	HEA	N	601	1	57,67,67	1.53	10 (17%)	61,103,103	2.01	19 (31%)
18	PER	A	606[B]	15	0,1,1	-	-	-		
19	PGV	C	303	-	50,50,50	0.95	2 (4%)	53,56,56	1.38	7 (13%)
19	PGV	N	608	-	50,50,50	1.04	2 (4%)	53,56,56	1.48	5 (9%)
23	PSC	B	304	-	51,51,51	1.20	3 (5%)	57,59,59	1.16	4 (7%)
24	PEK	P	308	-	52,52,52	1.14	2 (3%)	55,57,57	1.08	4 (7%)
20	TGL	D	201	-	62,62,62	1.55	7 (11%)	65,65,65	1.62	13 (20%)
24	PEK	T	101	-	52,52,52	1.05	2 (3%)	55,57,57	1.23	4 (7%)
18	PER	A	606[A]	15,14	0,1,1	-	-	-		
25	CDL	C	304	-	99,99,99	1.44	14 (14%)	105,111,111	1.49	12 (11%)
24	PEK	C	307	-	52,52,52	1.10	2 (3%)	55,57,57	1.19	4 (7%)
20	TGL	Q	201	-	62,62,62	1.56	7 (11%)	65,65,65	1.31	11 (16%)
20	TGL	L	101	-	62,62,62	1.41	6 (9%)	65,65,65	1.47	10 (15%)
19	PGV	A	607	-	50,50,50	1.13	4 (8%)	53,56,56	1.29	5 (9%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
19	PGV	A	608	-	50,50,50	1.22	2 (4%)	53,56,56	1.43	6 (11%)
18	PER	N	606[B]	15	0,1,1	-	-	-		

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
23	PSC	N	610	-	-	26/55/55/55	-
24	PEK	G	102	-	-	31/56/56/56	-
25	CDL	G	101	-	-	77/110/110/110	-
14	HEA	A	601	1	2/2/7/16	7/32/76/76	-
20	TGL	B	301	-	-	32/65/65/65	-
19	PGV	N	607	-	-	29/55/55/55	-
19	PGV	P	301	-	-	30/55/55/55	-
19	PGV	C	308	-	-	33/55/55/55	-
19	PGV	P	304	-	-	12/55/55/55	-
27	DMU	Z	101	-	2/2/10/10	7/19/59/59	0/2/2/2
20	TGL	Y	101	-	-	39/65/65/65	-
14	HEA	N	602	18,1	2/2/7/16	5/32/76/76	-
25	CDL	T	102	-	-	65/110/110/110	-
14	HEA	A	602	18,1	1/1/7/16	7/32/76/76	-
22	CHD	P	306	-	-	8/9/74/74	0/4/4/4
24	PEK	C	302	-	-	17/56/56/56	-
22	CHD	P	307	-	-	2/9/74/74	0/4/4/4
24	PEK	P	303	-	-	27/56/56/56	-
22	CHD	W	101	-	-	7/9/74/74	0/4/4/4
22	CHD	J	101	-	-	7/9/74/74	0/4/4/4
22	CHD	C	305	-	-	6/9/74/74	0/4/4/4
22	CHD	B	303	-	-	2/9/74/74	0/4/4/4
27	DMU	M	101	-	2/2/10/10	7/19/59/59	0/2/2/2
25	CDL	P	305	-	-	58/110/110/110	-
22	CHD	G	103	-	-	2/9/74/74	0/4/4/4
20	TGL	N	609	-	-	37/65/65/65	-
22	CHD	C	306	-	-	1/9/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
14	HEA	N	601	1	3/3/7/16	6/32/76/76	-
19	PGV	C	303	-	-	19/55/55/55	-
19	PGV	N	608	-	-	12/55/55/55	-
23	PSC	B	304	-	-	35/55/55/55	-
24	PEK	P	308	-	-	37/56/56/56	-
20	TGL	D	201	-	-	38/65/65/65	-
24	PEK	T	101	-	-	25/56/56/56	-
25	CDL	C	304	-	-	64/110/110/110	-
24	PEK	C	307	-	-	37/56/56/56	-
20	TGL	Q	201	-	-	41/65/65/65	-
20	TGL	L	101	-	-	33/65/65/65	-
19	PGV	A	607	-	-	8/55/55/55	-
19	PGV	A	608	-	-	33/55/55/55	-

All (196) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	L	101	TGL	OG2-CB1	6.00	1.51	1.34
20	D	201	TGL	OB1-CB1	5.46	1.38	1.22
20	Y	101	TGL	OG2-CB1	5.45	1.49	1.34
19	A	608	PGV	O03-C19	5.43	1.49	1.33
20	Q	201	TGL	OG2-CB1	5.42	1.49	1.34
20	D	201	TGL	OG2-CB1	5.39	1.49	1.34
20	B	301	TGL	OG1-CA1	5.31	1.48	1.33
24	P	308	PEK	O01-C1	5.19	1.48	1.34
20	Q	201	TGL	OG1-CA1	5.16	1.48	1.33
20	Y	101	TGL	OG3-CC1	5.15	1.48	1.33
20	Q	201	TGL	OB1-CB1	5.10	1.37	1.22
23	N	610	PSC	O01-C1	5.06	1.48	1.34
25	G	101	CDL	OB8-CB7	5.04	1.48	1.33
20	D	201	TGL	OG1-CA1	5.04	1.48	1.33
25	C	304	CDL	OA8-CA7	5.04	1.48	1.33
20	N	609	TGL	OG3-CC1	5.03	1.48	1.33
24	C	307	PEK	O03-C21	5.00	1.48	1.33
24	C	307	PEK	O01-C1	4.98	1.48	1.34
24	G	102	PEK	O03-C21	4.96	1.47	1.33
14	A	602	HEA	CMD-C2D	4.93	1.61	1.50
25	P	305	CDL	OA8-CA7	4.92	1.47	1.33
20	N	609	TGL	OG1-CA1	4.88	1.47	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	G	102	PEK	O01-C1	4.86	1.48	1.34
19	C	308	PGV	O01-C1	4.85	1.48	1.34
25	G	101	CDL	OA6-CA5	4.83	1.47	1.34
14	N	602	HEA	CHD-C1D	4.82	1.47	1.35
20	B	301	TGL	OG3-CC1	4.82	1.47	1.33
19	N	607	PGV	O03-C19	4.82	1.47	1.33
24	T	101	PEK	O03-C21	4.82	1.47	1.33
23	B	304	PSC	O01-C1	4.81	1.47	1.34
25	T	102	CDL	OA6-CA5	4.80	1.47	1.34
25	T	102	CDL	OA8-CA7	4.80	1.47	1.33
25	C	304	CDL	OA6-CA5	4.74	1.47	1.34
19	P	301	PGV	O03-C19	4.69	1.47	1.33
19	A	608	PGV	O01-C1	4.69	1.47	1.34
24	P	308	PEK	O03-C21	4.67	1.47	1.33
20	L	101	TGL	OG1-CA1	4.63	1.46	1.33
20	L	101	TGL	OG3-CC1	4.60	1.46	1.33
19	C	308	PGV	O03-C19	4.57	1.46	1.33
23	N	610	PSC	O03-C19	4.52	1.46	1.33
24	C	302	PEK	O03-C21	4.49	1.46	1.33
25	P	305	CDL	OB8-CB7	4.48	1.46	1.33
25	P	305	CDL	OA6-CA5	4.47	1.46	1.34
19	N	608	PGV	O03-C19	4.47	1.46	1.33
25	G	101	CDL	OB6-CB5	4.47	1.46	1.34
14	A	602	HEA	C12-C11	4.41	1.60	1.52
25	T	102	CDL	OB6-CB5	4.41	1.46	1.34
24	T	101	PEK	O01-C1	4.39	1.46	1.34
25	C	304	CDL	OB8-CB7	4.37	1.46	1.33
20	Q	201	TGL	OG3-CC1	4.37	1.46	1.33
24	P	303	PEK	O03-C21	4.31	1.45	1.33
14	N	601	HEA	C1D-ND	-4.31	1.32	1.40
20	N	609	TGL	OG2-CB1	4.30	1.46	1.34
25	G	101	CDL	OA8-CA7	4.22	1.45	1.33
23	B	304	PSC	O03-C19	4.20	1.45	1.33
19	P	301	PGV	O01-C1	4.16	1.46	1.34
23	N	610	PSC	C13-C12	4.13	1.55	1.31
19	A	607	PGV	O03-C19	4.13	1.45	1.33
14	N	602	HEA	CMD-C2D	4.10	1.59	1.50
25	T	102	CDL	OB8-CB7	4.09	1.45	1.33
19	N	607	PGV	O01-C1	4.08	1.45	1.34
19	P	304	PGV	O03-C19	4.08	1.45	1.33
23	B	304	PSC	C13-C12	4.04	1.55	1.31
20	D	201	TGL	OG3-CC1	4.03	1.45	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	C	302	PEK	O01-C1	3.99	1.45	1.34
14	N	601	HEA	CHC-C4B	3.97	1.45	1.35
14	N	602	HEA	C1B-C2B	-3.93	1.37	1.44
20	Y	101	TGL	OG1-CA1	3.88	1.44	1.33
14	N	601	HEA	CHD-C1D	3.86	1.44	1.35
14	N	601	HEA	C1B-C2B	-3.83	1.37	1.44
14	N	602	HEA	C4B-C3B	-3.78	1.38	1.44
25	T	102	CDL	C42-C41	-3.77	1.30	1.51
25	P	305	CDL	OB6-CB5	3.75	1.44	1.34
14	A	602	HEA	CMB-C2B	3.75	1.58	1.50
22	G	103	CHD	C10-C5	-3.70	1.49	1.55
19	C	303	PGV	O03-C19	3.68	1.44	1.33
14	A	601	HEA	CMB-C2B	3.67	1.58	1.50
24	P	303	PEK	C2-C1	3.56	1.61	1.50
22	B	303	CHD	C4-C3	3.54	1.58	1.51
14	A	601	HEA	C4B-NB	-3.48	1.34	1.40
25	C	304	CDL	C59-C58	-3.47	1.32	1.51
20	Y	101	TGL	C20-CA9	-3.47	1.32	1.51
25	C	304	CDL	C79-C78	-3.45	1.32	1.51
14	N	602	HEA	CHC-C4B	3.39	1.43	1.35
25	C	304	CDL	OB6-CB5	3.38	1.43	1.34
20	N	609	TGL	C10-CB9	-3.34	1.32	1.51
25	P	305	CDL	C59-C58	-3.34	1.32	1.51
22	P	307	CHD	C8-C7	3.30	1.59	1.53
20	L	101	TGL	C20-CA9	-3.30	1.33	1.51
20	D	201	TGL	C10-CB9	-3.29	1.33	1.51
25	P	305	CDL	C62-C61	-3.27	1.33	1.51
14	A	602	HEA	C4D-ND	-3.25	1.32	1.38
25	T	102	CDL	C39-C38	-3.24	1.33	1.51
20	B	301	TGL	OG2-CB1	3.24	1.43	1.34
20	Q	201	TGL	C10-CB9	-3.23	1.33	1.51
25	P	305	CDL	C79-C78	-3.23	1.33	1.51
25	G	101	CDL	C82-C81	-3.22	1.33	1.51
20	N	609	TGL	C20-CA9	-3.21	1.33	1.51
14	A	602	HEA	C3C-C2C	-3.20	1.35	1.40
14	A	602	HEA	CHC-C4B	3.19	1.43	1.35
25	G	101	CDL	C59-C58	-3.16	1.33	1.51
25	T	102	CDL	C59-C58	-3.16	1.33	1.51
24	P	303	PEK	O01-C1	3.15	1.43	1.34
25	T	102	CDL	C22-C21	-3.15	1.33	1.51
25	C	304	CDL	C82-C81	-3.15	1.33	1.51
25	G	101	CDL	C79-C78	-3.15	1.33	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	P	305	CDL	C39-C38	-3.15	1.33	1.51
25	T	102	CDL	C82-C81	-3.14	1.33	1.51
19	C	303	PGV	O01-C1	3.14	1.43	1.34
25	C	304	CDL	C19-C18	-3.13	1.34	1.51
20	L	101	TGL	C10-CB9	-3.11	1.34	1.51
25	C	304	CDL	C22-C21	-3.11	1.34	1.51
25	C	304	CDL	C39-C38	-3.11	1.34	1.51
19	P	304	PGV	O01-C1	3.10	1.43	1.34
14	N	602	HEA	C1D-C2D	-3.09	1.38	1.44
25	C	304	CDL	C62-C61	-3.09	1.34	1.51
25	C	304	CDL	C42-C41	-3.08	1.34	1.51
25	T	102	CDL	C19-C18	-3.08	1.34	1.51
25	G	101	CDL	C62-C61	-3.07	1.34	1.51
14	A	601	HEA	C1D-ND	-3.07	1.35	1.40
20	Y	101	TGL	C10-CB9	-3.06	1.34	1.51
20	B	301	TGL	C20-CA9	-3.05	1.34	1.51
25	P	305	CDL	C82-C81	-3.05	1.34	1.51
14	N	602	HEA	C4D-ND	-3.04	1.32	1.38
25	T	102	CDL	C79-C78	-3.03	1.34	1.51
20	B	301	TGL	C10-CB9	-3.03	1.34	1.51
25	P	305	CDL	C19-C18	-3.02	1.34	1.51
25	G	101	CDL	C42-C41	-3.02	1.34	1.51
25	P	305	CDL	C42-C41	-2.99	1.34	1.51
22	G	103	CHD	C6-C5	2.96	1.58	1.53
14	A	602	HEA	C18-C19	2.93	1.40	1.33
14	A	602	HEA	CHD-C1D	2.92	1.42	1.35
14	A	601	HEA	C3A-CMA	2.90	1.53	1.46
25	P	305	CDL	C22-C21	-2.90	1.35	1.51
20	Q	201	TGL	C15-CC9	-2.90	1.35	1.51
14	A	602	HEA	C1C-NC	-2.89	1.30	1.36
22	C	306	CHD	C18-C13	2.89	1.59	1.54
25	G	101	CDL	C39-C38	-2.89	1.35	1.51
22	B	303	CHD	C4-C5	2.89	1.58	1.53
20	Y	101	TGL	C15-CC9	-2.88	1.35	1.51
20	D	201	TGL	C15-CC9	-2.87	1.35	1.51
22	G	103	CHD	C18-C13	2.86	1.59	1.54
20	N	609	TGL	C15-CC9	-2.81	1.35	1.51
20	Q	201	TGL	C20-CA9	-2.81	1.35	1.51
25	T	102	CDL	C62-C61	-2.80	1.35	1.51
20	D	201	TGL	C20-CA9	-2.77	1.36	1.51
25	G	101	CDL	C19-C18	-2.76	1.36	1.51
14	A	601	HEA	C1C-CHC	2.73	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	A	602	HEA	CAD-C3D	2.73	1.58	1.51
22	P	307	CHD	C11-C12	2.73	1.57	1.53
20	L	101	TGL	C15-CC9	-2.70	1.36	1.51
20	B	301	TGL	C15-CC9	-2.66	1.36	1.51
14	A	601	HEA	CBD-CGD	2.63	1.56	1.50
25	G	101	CDL	C22-C21	-2.61	1.36	1.51
19	A	607	PGV	O01-C1	2.58	1.41	1.34
22	C	306	CHD	C21-C20	2.52	1.59	1.53
14	A	602	HEA	C4B-NB	-2.49	1.36	1.40
14	N	601	HEA	CMB-C2B	2.46	1.56	1.50
22	G	103	CHD	C13-C12	2.45	1.58	1.54
14	N	601	HEA	O11-C11	2.44	1.48	1.42
25	C	304	CDL	OB6-CB4	-2.40	1.40	1.46
14	A	601	HEA	O1D-CGD	2.39	1.30	1.22
14	A	601	HEA	O11-C11	2.39	1.48	1.42
22	G	103	CHD	C11-C9	2.35	1.57	1.53
14	A	602	HEA	CAA-C2A	-2.33	1.48	1.52
14	A	602	HEA	C20-C19	2.28	1.56	1.51
27	Z	101	DMU	O16-C6	2.28	1.44	1.40
14	A	601	HEA	C1D-C2D	-2.28	1.40	1.44
22	C	306	CHD	C11-C9	2.27	1.57	1.53
14	A	602	HEA	C3A-C2A	2.27	1.43	1.40
14	N	602	HEA	CBD-CGD	2.27	1.55	1.50
14	N	601	HEA	FE-ND	2.25	2.08	1.96
14	N	601	HEA	C4D-ND	-2.23	1.34	1.38
25	P	305	CDL	PB2-OB3	2.22	1.58	1.50
14	N	602	HEA	C16-C15	2.22	1.55	1.51
14	A	602	HEA	C1D-C2D	-2.21	1.40	1.44
19	A	607	PGV	P-O14	-2.21	1.45	1.55
22	P	306	CHD	C8-C9	2.16	1.58	1.53
14	A	602	HEA	CMC-C2C	2.15	1.56	1.51
25	P	305	CDL	O1-C1	2.15	1.49	1.43
14	N	602	HEA	C20-C19	2.14	1.55	1.51
22	B	303	CHD	C11-C9	2.10	1.57	1.53
25	C	304	CDL	CA2-C1	2.10	1.58	1.51
22	P	307	CHD	C21-C20	2.08	1.58	1.53
19	A	607	PGV	C01-C02	2.08	1.57	1.50
19	N	608	PGV	O06-C06	2.07	1.51	1.42
22	B	303	CHD	C13-C12	2.06	1.57	1.54
14	A	601	HEA	CHD-C1D	2.06	1.40	1.35
14	A	601	HEA	FE-NB	2.06	2.07	1.96
25	P	305	CDL	CB2-C1	2.04	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	N	601	HEA	C4D-C3D	-2.03	1.41	1.45
14	A	601	HEA	C3B-C2B	2.03	1.39	1.34
14	A	601	HEA	C1C-NC	-2.03	1.32	1.36
22	P	307	CHD	C6-C5	2.02	1.57	1.53
14	N	601	HEA	C4B-C3B	2.01	1.48	1.44
14	A	602	HEA	C1B-C2B	-2.00	1.40	1.44

All (426) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	A	601	HEA	C4A-CHB-C1B	11.47	137.69	122.56
22	G	103	CHD	C1-C2-C3	-9.84	97.84	110.47
22	W	101	CHD	C17-C13-C12	9.68	126.50	117.67
22	W	101	CHD	C13-C17-C20	8.74	129.93	119.50
14	A	602	HEA	C4A-CHB-C1B	8.70	134.04	122.56
22	W	101	CHD	C18-C13-C12	-7.80	101.13	109.07
22	W	101	CHD	C17-C13-C14	-7.25	92.79	100.09
14	A	601	HEA	OMA-CMA-C3A	-6.84	110.01	124.91
14	N	601	HEA	C4D-CHA-C1A	6.74	131.45	122.56
14	A	602	HEA	CHB-C1B-NB	-6.72	117.13	124.43
20	N	609	TGL	CG2-OG2-CB1	6.66	134.19	117.79
24	P	303	PEK	C2-C3-C4	6.45	124.73	113.23
20	Y	101	TGL	OG2-CB1-CB2	6.43	125.37	111.50
27	M	101	DMU	O7-C10-C5	-6.35	91.64	108.10
22	J	101	CHD	C10-C9-C8	6.28	118.56	111.82
25	T	102	CDL	OA6-CA5-C11	6.27	125.01	111.50
22	C	305	CHD	C23-C22-C20	-6.26	103.09	114.52
22	G	103	CHD	C4-C5-C10	-6.15	106.12	112.66
24	T	101	PEK	O01-C1-C2	6.06	124.56	111.50
25	C	304	CDL	OA6-CA5-C11	6.03	124.51	111.50
25	G	101	CDL	OB6-CB5-C51	5.98	124.38	111.50
20	D	201	TGL	OG2-CB1-CB2	-5.93	98.72	111.50
27	M	101	DMU	O1-C9-C8	5.89	120.38	109.69
22	B	303	CHD	C4-C3-C2	5.87	117.56	110.55
22	P	306	CHD	C18-C13-C12	-5.79	103.18	109.07
22	J	101	CHD	C9-C8-C7	5.66	118.65	111.88
20	D	201	TGL	OG2-CB1-OB1	5.49	136.97	123.70
19	N	608	PGV	O03-C19-O04	-5.34	110.13	123.59
14	N	602	HEA	OMA-CMA-C3A	-5.28	113.40	124.91
27	Z	101	DMU	C10-O1-C9	5.20	123.89	113.69
22	P	306	CHD	C6-C7-C8	5.18	117.01	111.48
22	J	101	CHD	C6-C5-C4	-5.17	105.24	111.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	G	101	CDL	OA6-CA5-C11	5.16	122.62	111.50
24	G	102	PEK	O01-C1-C2	5.15	122.61	111.50
14	A	601	HEA	CHA-C4D-ND	5.13	130.00	124.43
23	N	610	PSC	O01-C1-C2	5.06	122.40	111.50
14	A	602	HEA	CMB-C2B-C1B	5.03	132.70	125.04
20	B	301	TGL	CG2-OG2-CB1	4.97	130.04	117.79
27	M	101	DMU	O1-C10-C5	4.92	120.76	110.35
14	A	601	HEA	C17-C18-C19	4.89	139.42	127.66
22	C	306	CHD	C18-C13-C12	4.85	114.01	109.07
19	C	308	PGV	O01-C1-C2	4.82	121.89	111.50
14	A	602	HEA	OMA-CMA-C3A	-4.82	114.42	124.91
14	A	601	HEA	CHB-C1B-NB	-4.78	119.24	124.43
25	P	305	CDL	CB4-OB6-CB5	-4.78	106.03	117.79
14	A	602	HEA	CHA-C4D-ND	4.77	129.62	124.43
19	P	301	PGV	O03-C19-C20	4.77	126.88	111.91
27	Z	101	DMU	O1-C9-C8	4.77	118.36	109.69
23	B	304	PSC	O01-C1-C2	4.71	121.64	111.50
19	C	303	PGV	O03-C19-O04	-4.69	111.76	123.59
22	J	101	CHD	C4-C5-C10	4.55	117.49	112.66
22	P	306	CHD	C15-C14-C13	4.54	108.00	103.55
22	G	103	CHD	C15-C14-C13	4.53	108.00	103.55
22	J	101	CHD	C14-C8-C7	4.52	117.80	111.81
25	T	102	CDL	OB6-CB5-C51	4.47	121.14	111.50
22	P	306	CHD	C4-C5-C10	4.43	117.37	112.66
22	W	101	CHD	C14-C8-C7	4.43	117.68	111.81
24	P	303	PEK	O01-C1-O02	-4.42	113.02	123.70
14	A	602	HEA	C13-C12-C11	-4.41	107.72	114.35
24	C	307	PEK	O01-C1-C2	4.41	121.01	111.50
22	P	306	CHD	C19-C10-C9	-4.41	105.11	111.18
27	M	101	DMU	C8-C7-C5	4.38	118.47	110.82
25	P	305	CDL	OA6-CA5-C11	4.35	120.88	111.50
22	J	101	CHD	C14-C8-C9	-4.32	103.78	109.71
14	A	601	HEA	C2B-C1B-NB	4.31	115.04	109.88
22	J	101	CHD	C13-C17-C20	4.30	124.63	119.50
22	W	101	CHD	C11-C12-C13	4.29	115.65	111.24
22	G	103	CHD	C18-C13-C14	4.28	117.91	111.21
19	A	608	PGV	C4-C3-C2	-4.26	97.87	113.19
20	N	609	TGL	OG2-CB1-CB2	4.25	120.66	111.50
20	B	301	TGL	CG3-OG3-CC1	4.25	132.85	117.12
22	P	306	CHD	O7-C7-C6	-4.20	99.52	109.94
14	N	601	HEA	O2D-CGD-CBD	4.20	127.53	114.03
19	A	608	PGV	O03-C19-C20	4.13	124.88	111.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	P	305	CDL	OB8-CB7-C71	4.13	124.87	111.91
24	C	307	PEK	O03-C21-C22	4.12	124.83	111.91
22	B	303	CHD	C19-C10-C5	-4.10	103.40	110.36
20	B	301	TGL	OG2-CB1-CB2	4.06	120.25	111.50
14	N	602	HEA	CHA-C4D-ND	4.06	128.84	124.43
20	B	301	TGL	OG1-CA1-CA2	4.05	124.60	111.91
22	J	101	CHD	C14-C13-C12	4.04	111.16	107.40
20	L	101	TGL	OG3-CC1-CC2	4.03	124.55	111.91
22	J	101	CHD	C11-C12-C13	4.03	115.38	111.24
25	C	304	CDL	CB4-OB6-CB5	-3.96	108.03	117.79
14	A	602	HEA	CMD-C2D-C1D	3.96	131.06	125.04
22	W	101	CHD	C18-C13-C17	3.95	117.40	111.21
19	N	608	PGV	O03-C19-C20	3.93	124.24	111.91
19	P	301	PGV	O01-C1-C2	3.91	119.92	111.50
22	W	101	CHD	C15-C14-C8	3.88	123.76	118.33
27	Z	101	DMU	O49-C1-C2	-3.88	101.38	110.35
27	Z	101	DMU	C18-O16-C6	-3.87	107.42	113.84
22	B	303	CHD	C15-C14-C13	3.87	107.35	103.55
22	P	306	CHD	C19-C10-C1	-3.85	102.06	108.26
22	C	305	CHD	C6-C7-C8	3.84	115.58	111.48
22	G	103	CHD	C19-C10-C1	-3.81	102.12	108.26
14	A	601	HEA	CMB-C2B-C1B	3.80	130.82	125.04
19	C	303	PGV	O01-C1-C2	3.79	119.68	111.50
19	C	308	PGV	O03-C19-C20	3.79	123.80	111.91
14	A	602	HEA	CMB-C2B-C3B	-3.79	123.12	130.34
24	P	303	PEK	O03-C21-C22	3.78	123.78	111.91
20	N	609	TGL	CG3-OG3-CC1	3.77	131.09	117.12
22	J	101	CHD	C19-C10-C9	-3.76	106.00	111.18
22	W	101	CHD	C6-C5-C10	3.75	116.64	112.66
14	A	602	HEA	CAD-C3D-C4D	-3.73	118.14	124.66
22	P	306	CHD	C16-C17-C13	3.73	107.21	103.55
22	G	103	CHD	C13-C14-C8	-3.69	110.02	114.74
22	C	306	CHD	C1-C2-C3	-3.68	105.74	110.47
14	A	602	HEA	C2B-C1B-NB	3.68	114.29	109.88
20	B	301	TGL	OG2-CG2-CG1	3.67	121.68	108.40
22	P	306	CHD	O3-C3-C4	-3.66	102.57	109.85
20	Q	201	TGL	OG2-CB1-CB2	-3.65	103.63	111.50
22	B	303	CHD	C18-C13-C12	-3.65	105.36	109.07
24	P	308	PEK	O01-C1-C2	3.63	119.33	111.50
25	P	305	CDL	OB6-CB5-C51	3.62	119.31	111.50
14	A	602	HEA	C1D-C2D-C3D	-3.62	103.15	106.96
14	N	601	HEA	CHC-C4B-NB	3.61	128.84	124.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	M	101	DMU	O3-C5-C7	3.61	118.70	110.35
27	M	101	DMU	O7-C10-O1	-3.59	100.64	110.67
19	A	607	PGV	O03-C19-C20	3.59	123.17	111.91
19	N	607	PGV	O01-C1-C2	3.56	119.17	111.50
14	N	601	HEA	O2D-CGD-O1D	-3.54	114.48	123.30
22	P	306	CHD	C11-C12-C13	3.52	114.86	111.24
22	C	305	CHD	C18-C13-C12	-3.51	105.49	109.07
22	C	306	CHD	C16-C17-C13	-3.51	100.11	103.55
14	N	601	HEA	C2B-C1B-NB	3.48	114.05	109.88
19	N	607	PGV	C4-C3-C2	-3.47	100.70	113.19
14	N	601	HEA	CMD-C2D-C1D	3.47	130.33	125.04
27	M	101	DMU	C10-C5-C7	3.47	117.22	110.00
24	P	308	PEK	O03-C21-C22	3.46	122.75	111.91
22	B	303	CHD	C13-C17-C20	-3.45	115.37	119.50
22	C	305	CHD	C17-C13-C12	-3.45	114.52	117.67
22	P	307	CHD	C19-C10-C1	-3.44	102.72	108.26
27	Z	101	DMU	O2-C8-C9	3.44	117.83	109.30
22	J	101	CHD	C1-C2-C3	3.43	114.87	110.47
20	B	301	TGL	CB3-CB2-CB1	-3.41	101.23	113.62
22	B	303	CHD	C6-C5-C10	3.40	116.27	112.66
19	A	608	PGV	C02-O01-C1	3.40	126.17	117.79
24	G	102	PEK	O03-C21-C22	3.40	122.57	111.91
22	C	305	CHD	C1-C10-C5	3.39	112.79	107.77
25	P	305	CDL	OB8-CB7-OB9	-3.39	115.03	123.59
14	A	601	HEA	CHA-C4D-C3D	-3.39	119.86	124.84
20	Y	101	TGL	OG3-CC1-CC2	3.38	122.50	111.91
22	W	101	CHD	C22-C20-C17	3.37	117.25	110.28
23	N	610	PSC	O03-C19-C20	3.37	122.47	111.91
20	B	301	TGL	OG3-CC1-CC2	3.36	122.45	111.91
19	N	608	PGV	O01-C1-O02	-3.35	115.60	123.70
27	M	101	DMU	C7-C8-C9	3.35	116.21	110.24
19	A	607	PGV	O03-C19-O04	-3.33	115.18	123.59
22	W	101	CHD	C1-C10-C5	3.32	112.67	107.77
20	L	101	TGL	OG1-CA1-CA2	3.31	122.29	111.91
22	G	103	CHD	C17-C13-C12	-3.30	114.65	117.67
24	T	101	PEK	O01-C1-O02	-3.30	115.74	123.70
14	A	602	HEA	CHA-C4D-C3D	-3.29	120.01	124.84
14	A	601	HEA	CAA-CBA-CGA	-3.28	104.56	113.76
20	N	609	TGL	OG2-CG2-CG1	3.28	120.26	108.40
20	D	201	TGL	CB3-CB2-CB1	3.28	125.53	113.62
20	N	609	TGL	OG1-CA1-CA2	3.27	122.19	111.91
22	P	307	CHD	C4-C5-C10	-3.27	109.19	112.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	A	601	HEA	C1B-C2B-C3B	-3.26	102.91	106.80
20	Q	201	TGL	OG1-CA1-CA2	3.25	122.12	111.91
20	Y	101	TGL	OG1-CA1-OA1	-3.25	115.40	123.59
19	N	607	PGV	C3-C2-C1	-3.23	101.87	113.62
24	P	308	PEK	O03-C21-O04	-3.22	115.47	123.59
22	J	101	CHD	C19-C10-C1	-3.22	103.08	108.26
22	B	303	CHD	C1-C10-C5	3.21	112.51	107.77
22	P	306	CHD	C15-C14-C8	3.21	122.81	118.33
22	C	306	CHD	C5-C6-C7	3.20	117.99	114.46
14	A	602	HEA	C16-C15-C14	-3.19	114.66	121.12
14	A	601	HEA	C20-C19-C18	3.18	127.55	121.12
27	M	101	DMU	C10-O1-C9	3.18	119.92	113.69
14	A	601	HEA	C26-C15-C16	-3.18	109.93	115.27
22	W	101	CHD	C6-C5-C4	-3.15	107.56	111.19
25	C	304	CDL	C52-C51-CB5	-3.14	102.22	113.62
22	P	306	CHD	C6-C5-C10	3.14	115.99	112.66
20	Q	201	TGL	OG1-CG1-CG2	3.12	117.53	108.43
25	C	304	CDL	OB6-CB5-C51	3.12	118.23	111.50
19	C	303	PGV	O03-C19-C20	3.09	121.61	111.91
20	B	301	TGL	CG1-OG1-CA1	3.08	128.53	117.12
25	G	101	CDL	OA8-CA7-C31	3.07	121.53	111.91
20	Y	101	TGL	OG1-CA1-CA2	3.06	121.51	111.91
24	T	101	PEK	O03-C21-C22	3.06	121.51	111.91
22	P	306	CHD	C11-C9-C8	3.05	115.34	110.88
22	G	103	CHD	C18-C13-C12	-3.04	105.97	109.07
22	C	306	CHD	C6-C5-C4	-3.04	107.69	111.19
22	J	101	CHD	C15-C14-C8	3.02	122.55	118.33
25	T	102	CDL	OA8-CA7-C31	3.01	121.36	111.91
14	A	601	HEA	CMC-C2C-C3C	3.01	130.30	124.68
20	L	101	TGL	OG2-CB1-CB2	3.00	117.97	111.50
25	P	305	CDL	OA8-CA7-C31	2.99	121.29	111.91
19	N	608	PGV	C01-O03-C19	-2.99	106.05	117.12
14	N	601	HEA	OMA-CMA-C3A	-2.99	118.41	124.91
22	P	306	CHD	C22-C23-C24	-2.98	104.61	112.51
14	A	602	HEA	CAD-C3D-C2D	2.97	133.40	127.88
14	A	601	HEA	CMC-C2C-C1C	-2.96	123.92	128.46
25	C	304	CDL	OB8-CB7-C71	2.95	121.17	111.91
24	G	102	PEK	O03-C01-C02	2.95	117.02	108.43
22	P	306	CHD	C21-C20-C22	-2.92	105.79	110.36
14	N	602	HEA	C13-C12-C11	-2.91	109.98	114.35
25	C	304	CDL	OA8-CA7-C31	2.91	121.03	111.91
19	A	608	PGV	C01-O03-C19	2.90	127.85	117.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	N	602	HEA	CAD-CBD-CGD	-2.89	107.38	113.60
20	N	609	TGL	OG2-CG2-CG3	2.87	118.80	108.40
22	C	306	CHD	C11-C12-C13	2.86	114.18	111.24
20	D	201	TGL	OG3-CG3-CG2	-2.85	100.14	108.43
25	G	101	CDL	OA6-CA5-OA7	-2.83	116.85	123.70
24	C	302	PEK	O03-C21-O04	-2.82	116.47	123.59
14	A	602	HEA	C2D-C1D-ND	2.82	113.18	109.84
20	D	201	TGL	C21-C20-CA9	2.81	128.71	114.42
24	C	302	PEK	C2-C3-C4	-2.81	108.22	113.23
20	D	201	TGL	OG1-CG1-CG2	2.81	116.62	108.43
19	A	607	PGV	C23-C22-C21	-2.81	100.15	114.42
19	C	308	PGV	C01-O03-C19	2.81	127.52	117.12
22	G	103	CHD	C5-C4-C3	-2.80	108.64	112.76
22	C	305	CHD	C21-C20-C17	2.79	117.20	112.92
14	N	601	HEA	CAA-C2A-C3A	2.79	133.73	126.86
22	P	306	CHD	C14-C8-C9	-2.78	105.90	109.71
25	C	304	CDL	OA6-CA5-OA7	-2.77	117.01	123.70
14	N	601	HEA	C17-C18-C19	2.77	134.32	127.66
20	Q	201	TGL	OG3-CC1-CC2	2.77	120.59	111.91
19	P	304	PGV	O01-C1-C2	2.76	117.45	111.50
22	G	103	CHD	C16-C15-C14	-2.75	99.67	105.13
14	N	602	HEA	C4D-CHA-C1A	-2.75	118.93	122.56
25	G	101	CDL	C19-C18-C17	2.74	128.34	114.42
19	A	608	PGV	O03-C19-O04	-2.73	116.69	123.59
22	G	103	CHD	C14-C8-C9	2.72	113.45	109.71
14	N	602	HEA	O2A-CGA-CBA	2.72	122.78	114.03
25	P	305	CDL	C52-C51-CB5	-2.72	103.72	113.62
27	M	101	DMU	C28-C25-C22	-2.72	100.61	114.42
25	G	101	CDL	CB6-OB8-CB7	2.71	127.17	117.12
22	J	101	CHD	C11-C9-C8	-2.69	106.94	110.88
22	W	101	CHD	C11-C9-C10	2.69	116.50	113.73
22	P	306	CHD	C1-C10-C9	2.69	115.59	111.35
22	J	101	CHD	C16-C17-C13	2.68	106.19	103.55
25	T	102	CDL	OA6-CA5-OA7	-2.68	117.23	123.70
14	N	602	HEA	CHB-C1B-C2B	-2.68	120.80	124.98
27	Z	101	DMU	C7-C8-C9	2.67	115.00	110.24
20	Y	101	TGL	OG1-CG1-CG2	2.67	116.20	108.43
22	P	307	CHD	C22-C23-C24	-2.67	105.43	112.51
20	Q	201	TGL	OG2-CB1-OB1	2.67	130.14	123.70
23	B	304	PSC	O03-C19-C20	2.66	120.27	111.91
22	C	305	CHD	C22-C23-C24	-2.64	105.49	112.51
22	W	101	CHD	O12-C12-C11	2.64	114.51	109.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	M	101	DMU	O16-C6-C1	2.63	112.41	108.30
25	G	101	CDL	OA8-CA7-OA9	-2.63	116.95	123.59
22	P	307	CHD	C11-C9-C10	-2.63	111.02	113.73
25	T	102	CDL	OB8-CB7-OB9	-2.63	116.97	123.59
22	C	306	CHD	C5-C4-C3	-2.62	108.91	112.76
24	C	307	PEK	O03-C01-C02	2.61	116.04	108.43
20	D	201	TGL	CG2-OG2-CB1	2.60	124.20	117.79
24	C	302	PEK	O01-C1-C2	2.60	117.10	111.50
14	A	602	HEA	C21-C20-C19	2.60	121.53	112.98
14	N	601	HEA	C13-C12-C11	-2.60	110.45	114.35
22	C	305	CHD	C19-C10-C1	-2.60	104.08	108.26
20	Y	101	TGL	OG3-CG3-CG2	2.59	115.97	108.43
20	D	201	TGL	OG3-CC1-OC1	-2.58	117.08	123.59
27	M	101	DMU	O7-C3-C4	-2.58	102.39	109.45
14	N	601	HEA	C3D-C4D-ND	2.58	112.85	110.36
25	C	304	CDL	OA8-CA6-CA4	2.57	115.91	108.43
22	C	305	CHD	C14-C13-C12	2.55	109.78	107.40
19	C	303	PGV	O01-C1-O02	-2.55	117.53	123.70
25	G	101	CDL	OB6-CB5-OB7	-2.55	117.54	123.70
20	Y	101	TGL	OG2-CB1-OB1	-2.54	117.56	123.70
19	N	607	PGV	C02-O01-C1	2.54	124.05	117.79
20	Y	101	TGL	OG3-CC1-OC1	-2.54	117.18	123.59
14	A	601	HEA	C1D-ND-C4D	2.54	107.69	105.07
22	J	101	CHD	C6-C7-C8	2.53	114.19	111.48
27	M	101	DMU	O6-C11-C9	-2.53	102.60	111.29
19	A	608	PGV	O01-C02-C03	2.53	117.56	108.40
23	N	610	PSC	O01-C1-O02	-2.52	117.61	123.70
25	T	102	CDL	OB8-CB7-C71	2.52	119.82	111.91
20	B	301	TGL	C15-CC9-CC8	2.52	127.22	114.42
25	P	305	CDL	OB2-PB2-OB3	2.52	118.90	109.07
22	J	101	CHD	O7-C7-C8	2.51	115.04	109.43
14	A	602	HEA	CHC-C4B-NB	2.51	127.48	124.38
20	N	609	TGL	OG3-CC1-CC2	2.50	119.75	111.91
14	N	601	HEA	O2A-CGA-CBA	2.50	122.05	114.03
22	B	303	CHD	C4-C5-C10	2.49	115.31	112.66
14	A	601	HEA	C16-C15-C14	2.49	126.16	121.12
19	C	303	PGV	O01-C02-C03	-2.49	99.40	108.40
14	N	601	HEA	O1A-CGA-CBA	-2.48	115.11	123.08
14	N	601	HEA	C3C-C4C-NC	2.47	112.41	109.21
19	P	301	PGV	O01-C1-O02	-2.47	117.74	123.70
24	P	303	PEK	O02-C1-C2	2.46	133.34	123.73
27	Z	101	DMU	O4-C7-C8	-2.46	104.66	110.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	Y	101	TGL	CA4-CA3-CA2	-2.46	104.36	113.19
22	C	305	CHD	C14-C8-C9	-2.46	106.34	109.71
22	J	101	CHD	C23-C22-C20	-2.45	110.04	114.52
19	P	301	PGV	O04-C19-C20	-2.45	114.18	123.73
14	N	601	HEA	CHB-C1B-C2B	-2.45	121.16	124.98
22	C	305	CHD	C5-C6-C7	2.44	117.16	114.46
25	C	304	CDL	CA4-OA6-CA5	2.43	123.78	117.79
19	C	303	PGV	C02-O01-C1	2.43	123.78	117.79
22	C	306	CHD	O25-C24-C23	-2.43	115.27	123.08
22	G	103	CHD	C1-C10-C9	2.43	115.17	111.35
24	C	302	PEK	O01-C02-C01	-2.42	99.65	108.40
14	N	602	HEA	CHC-C4B-NB	2.41	127.36	124.38
20	L	101	TGL	OG3-CC1-OC1	-2.41	117.52	123.59
22	G	103	CHD	C15-C16-C17	2.41	109.90	105.13
22	J	101	CHD	C22-C20-C17	2.40	115.25	110.28
19	N	607	PGV	O03-C19-C20	2.39	119.42	111.91
20	D	201	TGL	C16-C15-CC9	2.39	126.56	114.42
23	N	610	PSC	C21-C20-C19	-2.39	104.94	113.62
20	L	101	TGL	CC4-CC3-CC2	-2.37	104.65	113.19
22	B	303	CHD	C10-C9-C8	-2.37	109.27	111.82
14	A	602	HEA	CBA-CAA-C2A	-2.37	108.61	112.60
22	G	103	CHD	C14-C13-C12	2.37	109.61	107.40
25	P	305	CDL	C57-C56-C55	-2.37	102.41	114.42
14	N	602	HEA	CHA-C4D-C3D	-2.37	121.36	124.84
22	C	305	CHD	C18-C13-C17	2.36	114.91	111.21
22	W	101	CHD	C19-C10-C1	-2.36	104.46	108.26
22	J	101	CHD	C5-C6-C7	-2.36	111.86	114.46
14	A	602	HEA	C1B-C2B-C3B	-2.35	103.99	106.80
22	P	306	CHD	C2-C1-C10	2.35	116.81	112.78
24	C	302	PEK	C23-C22-C21	2.34	122.13	113.62
14	N	602	HEA	C4A-CHB-C1B	2.33	125.63	122.56
14	N	601	HEA	CBA-CAA-C2A	2.32	116.52	112.60
22	W	101	CHD	C16-C17-C20	2.31	115.73	112.15
27	Z	101	DMU	O4-C7-C5	-2.31	105.01	110.35
14	A	601	HEA	CMD-C2D-C1D	2.30	128.55	125.04
19	C	303	PGV	O14-P-O13	2.30	123.62	112.24
14	A	602	HEA	C17-C18-C19	2.30	133.19	127.66
22	C	305	CHD	C16-C17-C13	2.29	105.80	103.55
22	P	307	CHD	O25-C24-C23	-2.29	115.72	123.08
22	G	103	CHD	C19-C10-C5	-2.29	106.48	110.36
20	D	201	TGL	CG3-OG3-CC1	2.28	125.58	117.12
22	C	305	CHD	O12-C12-C11	2.28	113.77	109.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	Q	201	TGL	C15-CC9-CC8	2.28	125.99	114.42
14	A	602	HEA	CHB-C1B-C2B	2.27	128.53	124.98
22	J	101	CHD	C19-C10-C5	2.27	114.22	110.36
22	C	306	CHD	C22-C20-C17	-2.27	105.59	110.28
25	G	101	CDL	OB8-CB6-CB4	2.27	115.05	108.43
20	Q	201	TGL	OG2-CG2-CG1	2.27	116.62	108.40
22	C	306	CHD	C17-C13-C14	-2.27	97.81	100.09
20	Q	201	TGL	C16-C15-CC9	2.26	125.92	114.42
19	N	607	PGV	C9-C8-C7	-2.26	102.95	114.42
14	A	601	HEA	CHC-C4B-NB	-2.25	121.60	124.38
25	P	305	CDL	OA6-CA5-OA7	-2.25	118.27	123.70
14	N	601	HEA	C4D-C3D-C2D	-2.25	103.62	106.90
20	Q	201	TGL	C21-C20-CA9	2.24	125.81	114.42
20	N	609	TGL	CG1-OG1-CA1	2.24	125.43	117.12
25	C	304	CDL	C56-C55-C54	-2.24	103.07	114.42
22	P	307	CHD	C1-C10-C5	2.24	111.07	107.77
19	N	607	PGV	O01-C02-C01	2.24	116.49	108.40
20	Y	101	TGL	CG3-OG3-CC1	2.23	125.38	117.12
22	C	305	CHD	C6-C5-C10	2.23	115.03	112.66
22	C	306	CHD	C14-C8-C9	2.23	112.77	109.71
22	J	101	CHD	C15-C14-C13	2.23	105.74	103.55
27	Z	101	DMU	O1-C10-C5	2.23	115.06	110.35
22	B	303	CHD	C19-C10-C1	-2.22	104.68	108.26
14	N	602	HEA	CHD-C1D-ND	2.22	127.12	124.38
22	B	303	CHD	O26-C24-C23	2.22	121.15	114.03
20	Y	101	TGL	CG2-OG2-CB1	2.21	123.23	117.79
22	P	307	CHD	C23-C22-C20	-2.21	110.49	114.52
25	T	102	CDL	C12-C11-CA5	-2.20	105.61	113.62
25	C	304	CDL	C39-C38-C37	2.20	125.59	114.42
19	A	607	PGV	O01-C1-C2	2.20	116.23	111.50
22	J	101	CHD	C18-C13-C12	-2.19	106.83	109.07
22	B	303	CHD	C16-C17-C20	-2.19	108.75	112.15
23	B	304	PSC	O01-C1-O02	-2.19	118.41	123.70
14	A	601	HEA	C25-C23-C22	-2.19	116.31	122.65
25	T	102	CDL	C83-C82-C81	2.19	125.53	114.42
22	C	305	CHD	C16-C17-C20	2.18	115.52	112.15
14	N	601	HEA	C20-C21-C22	2.16	118.99	111.88
22	G	103	CHD	C6-C5-C10	-2.16	110.36	112.66
20	D	201	TGL	CG1-OG1-CA1	2.16	125.11	117.12
20	B	301	TGL	OA1-CA1-CA2	-2.16	115.31	123.73
14	N	602	HEA	C21-C20-C19	2.15	120.06	112.98
20	L	101	TGL	CG2-OG2-CB1	2.15	123.09	117.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	D	201	TGL	OG1-CA1-CA2	2.15	118.66	111.91
25	T	102	CDL	C59-C58-C57	2.15	125.33	114.42
25	T	102	CDL	C63-C62-C61	2.15	125.32	114.42
14	A	601	HEA	CMB-C2B-C3B	-2.14	126.25	130.34
23	B	304	PSC	O03-C19-O04	-2.14	118.18	123.59
22	P	306	CHD	C1-C10-C5	2.14	110.94	107.77
14	N	602	HEA	C12-C13-C14	-2.14	106.58	112.23
19	N	608	PGV	O01-C1-C2	2.14	116.10	111.50
20	Q	201	TGL	CG2-OG2-CB1	2.13	123.04	117.79
27	Z	101	DMU	C8-C7-C5	2.13	114.55	110.82
25	T	102	CDL	CA4-OA6-CA5	2.13	123.04	117.79
24	G	102	PEK	O01-C02-C01	2.13	116.11	108.40
19	N	607	PGV	C26-C25-C24	-2.13	103.63	114.42
22	B	303	CHD	C11-C12-C13	-2.12	109.06	111.24
24	C	302	PEK	C03-C02-C01	2.12	116.80	111.79
22	P	307	CHD	C1-C2-C3	-2.11	107.76	110.47
14	A	601	HEA	C21-C20-C19	-2.11	106.03	112.98
27	Z	101	DMU	O5-C4-C57	2.11	111.68	106.44
14	A	602	HEA	C27-C19-C20	2.11	118.82	115.27
24	C	307	PEK	O03-C21-O04	-2.11	118.27	123.59
22	C	305	CHD	C11-C9-C8	2.11	113.96	110.88
24	T	101	PEK	C01-O03-C21	2.10	124.90	117.12
24	P	303	PEK	O03-C21-O04	-2.10	118.30	123.59
22	W	101	CHD	C19-C10-C5	-2.09	106.82	110.36
24	P	308	PEK	O03-C01-C02	2.09	114.51	108.43
22	G	103	CHD	C15-C14-C8	2.09	121.25	118.33
22	G	103	CHD	C9-C10-C5	2.09	111.51	108.58
22	J	101	CHD	C2-C1-C10	2.08	116.35	112.78
20	N	609	TGL	C15-CC9-CC8	2.08	124.97	114.42
22	C	305	CHD	C4-C5-C10	2.08	114.86	112.66
19	P	301	PGV	O03-C01-C02	2.07	114.47	108.43
20	Q	201	TGL	OG3-CC1-OC1	-2.07	118.36	123.59
14	N	602	HEA	O2D-CGD-CBD	2.07	120.69	114.03
22	C	306	CHD	C16-C15-C14	-2.07	101.03	105.13
14	N	602	HEA	C2B-C1B-NB	2.07	112.36	109.88
20	D	201	TGL	C11-C10-CB9	2.06	124.90	114.42
20	B	301	TGL	C16-C15-CC9	2.06	124.89	114.42
14	A	602	HEA	C21-C22-C23	-2.06	120.70	127.75
14	N	602	HEA	C3C-C4C-NC	2.06	111.87	109.21
14	N	601	HEA	C4A-CHB-C1B	2.06	125.28	122.56
20	L	101	TGL	C29-C14-C13	-2.06	103.98	114.42
14	A	601	HEA	O2A-CGA-CBA	2.05	120.62	114.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	J	101	CHD	C17-C13-C14	-2.05	98.03	100.09
25	T	102	CDL	C62-C61-C60	2.04	124.80	114.42
24	G	102	PEK	O03-C21-O04	-2.04	118.44	123.59
14	A	601	HEA	C4D-CHA-C1A	2.04	125.24	122.56
14	N	602	HEA	CHD-C1D-C2D	-2.03	121.09	126.72
20	L	101	TGL	CA9-CA8-CA7	-2.03	104.12	114.42
20	L	101	TGL	C16-C15-CC9	2.03	124.72	114.42
24	P	303	PEK	O12-P-O14	2.02	116.97	109.07
19	C	308	PGV	O04-C19-C20	-2.02	115.84	123.73
25	P	305	CDL	OA8-CA7-OA9	-2.01	118.51	123.59
14	A	602	HEA	C4B-NB-C1B	-2.01	102.99	105.07
20	L	101	TGL	OG2-CG2-CG1	2.01	115.67	108.40
25	P	305	CDL	OA4-PA1-OA3	2.01	122.17	112.24
19	A	607	PGV	C02-O01-C1	2.01	122.73	117.79
24	G	102	PEK	C01-O03-C21	2.00	124.54	117.12
25	C	304	CDL	CA6-OA8-CA7	2.00	124.53	117.12

All (12) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
14	A	601	HEA	NB
14	A	601	HEA	ND
14	A	602	HEA	NB
14	N	601	HEA	NB
14	N	601	HEA	NA
14	N	601	HEA	ND
14	N	602	HEA	NB
14	N	602	HEA	ND
27	M	101	DMU	C9
27	M	101	DMU	C5
27	Z	101	DMU	C9
27	Z	101	DMU	C5

All (969) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
14	A	601	HEA	C18-C19-C20-C21
14	A	601	HEA	C27-C19-C20-C21
19	A	608	PGV	C04-O12-P-O13
19	A	608	PGV	C04-O12-P-O14
19	A	608	PGV	C02-C03-O11-P
19	A	608	PGV	C05-C04-O12-P

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Mol	Chain	Res	Type	Atoms
19	A	608	PGV	C2-C1-O01-C02
19	A	608	PGV	O04-C19-O03-C01
19	A	608	PGV	C20-C19-O03-C01
19	C	308	PGV	C03-O11-P-O13
19	N	607	PGV	O12-C04-C05-C06
19	N	607	PGV	O02-C1-O01-C02
19	N	607	PGV	C2-C1-O01-C02
19	P	301	PGV	C03-O11-P-O13
19	P	301	PGV	C03-O11-P-O14
19	P	301	PGV	C04-O12-P-O14
19	P	301	PGV	O01-C02-C03-O11
19	P	301	PGV	C02-C03-O11-P
20	D	201	TGL	OG1-CG1-CG2-OG2
20	L	101	TGL	CB2-CB1-OG2-CG2
20	Q	201	TGL	CC2-CC1-OG3-CG3
20	Q	201	TGL	OC1-CC1-OG3-CG3
20	Y	101	TGL	CB2-CB1-OG2-CG2
22	J	101	CHD	C13-C17-C20-C21
22	J	101	CHD	C13-C17-C20-C22
22	J	101	CHD	C16-C17-C20-C21
22	W	101	CHD	C13-C17-C20-C22
22	W	101	CHD	C16-C17-C20-C21
22	W	101	CHD	C16-C17-C20-C22
23	B	304	PSC	C03-O11-P-O13
23	B	304	PSC	C04-O12-P-O13
23	B	304	PSC	C04-O12-P-O14
23	N	610	PSC	C03-O11-P-O13
23	N	610	PSC	C2-C1-O01-C02
23	N	610	PSC	O04-C19-O03-C01
23	N	610	PSC	C20-C19-O03-C01
23	N	610	PSC	C11-C12-C13-C14
24	C	302	PEK	C5-C6-C7-C8
24	C	307	PEK	O03-C01-C02-O01
24	C	307	PEK	O12-C04-C05-N
24	C	307	PEK	C4-C5-C6-C7
24	G	102	PEK	O12-C04-C05-N
24	G	102	PEK	C2-C1-O01-C02
24	G	102	PEK	C9-C10-C11-C12
24	P	303	PEK	C13-C14-C15-C16
24	P	308	PEK	C03-O11-P-O12
24	P	308	PEK	C03-O11-P-O13
24	P	308	PEK	C03-O11-P-O14

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Mol	Chain	Res	Type	Atoms
24	P	308	PEK	C04-O12-P-O11
24	P	308	PEK	O12-C04-C05-N
24	P	308	PEK	C10-C11-C12-C13
24	P	308	PEK	C13-C14-C15-C16
24	T	101	PEK	C03-O11-P-O12
24	T	101	PEK	O12-C04-C05-N
24	T	101	PEK	C11-C12-C13-C14
25	C	304	CDL	CA2-OA2-PA1-OA4
25	C	304	CDL	CA3-OA5-PA1-OA3
25	C	304	CDL	CA4-CA3-OA5-PA1
25	C	304	CDL	OA7-CA5-OA6-CA4
25	C	304	CDL	C11-CA5-OA6-CA4
25	C	304	CDL	CB2-OB2-PB2-OB4
25	G	101	CDL	O1-C1-CA2-OA2
25	G	101	CDL	CB2-C1-CA2-OA2
25	G	101	CDL	CA2-OA2-PA1-OA3
25	G	101	CDL	OA7-CA5-OA6-CA4
25	G	101	CDL	C11-CA5-OA6-CA4
25	G	101	CDL	C31-CA7-OA8-CA6
25	G	101	CDL	C1-CB2-OB2-PB2
25	G	101	CDL	CB2-OB2-PB2-OB5
25	G	101	CDL	CB3-OB5-PB2-OB3
25	G	101	CDL	C51-CB5-OB6-CB4
25	P	305	CDL	CA2-OA2-PA1-OA4
25	P	305	CDL	CA3-OA5-PA1-OA2
25	P	305	CDL	CA3-OA5-PA1-OA3
25	P	305	CDL	C11-CA5-OA6-CA4
25	P	305	CDL	CB2-OB2-PB2-OB3
25	P	305	CDL	CB3-OB5-PB2-OB3
25	P	305	CDL	CB3-OB5-PB2-OB4
25	P	305	CDL	OB7-CB5-OB6-CB4
25	P	305	CDL	C51-CB5-OB6-CB4
25	T	102	CDL	CA3-OA5-PA1-OA3
25	T	102	CDL	CA3-OA5-PA1-OA4
25	T	102	CDL	OA7-CA5-OA6-CA4
25	T	102	CDL	OA9-CA7-OA8-CA6
25	T	102	CDL	C31-CA7-OA8-CA6
25	T	102	CDL	C1-CB2-OB2-PB2
25	T	102	CDL	CB2-OB2-PB2-OB4
25	T	102	CDL	CB3-OB5-PB2-OB3
25	G	101	CDL	OA9-CA7-OA8-CA6
19	N	607	PGV	O04-C19-O03-C01

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Mol	Chain	Res	Type	Atoms
20	D	201	TGL	OC1-CC1-OG3-CG3
22	J	101	CHD	C16-C17-C20-C22
20	L	101	TGL	OB1-CB1-OG2-CG2
20	Y	101	TGL	OB1-CB1-OG2-CG2
24	G	102	PEK	O02-C1-O01-C02
25	G	101	CDL	OB7-CB5-OB6-CB4
25	P	305	CDL	OA7-CA5-OA6-CA4
19	N	607	PGV	C20-C19-O03-C01
20	D	201	TGL	CC2-CC1-OG3-CG3
20	L	101	TGL	CA2-CA1-OG1-CG1
23	B	304	PSC	C20-C19-O03-C01
25	T	102	CDL	C11-CA5-OA6-CA4
22	C	305	CHD	C20-C22-C23-C24
25	C	304	CDL	C31-CA7-OA8-CA6
19	C	303	PGV	C10-C11-C12-C13
19	P	301	PGV	C10-C11-C12-C13
24	C	302	PEK	C10-C11-C12-C13
24	C	307	PEK	C10-C11-C12-C13
24	C	307	PEK	C13-C14-C15-C16
24	T	101	PEK	C7-C8-C9-C10
19	A	608	PGV	O02-C1-O01-C02
23	N	610	PSC	O02-C1-O01-C02
20	L	101	TGL	OA1-CA1-OG1-CG1
20	N	609	TGL	OC1-CC1-OG3-CG3
25	C	304	CDL	OA9-CA7-OA8-CA6
19	N	607	PGV	O12-C04-C05-O05
23	B	304	PSC	O04-C19-O03-C01
27	M	101	DMU	O6-C11-C9-C8
27	Z	101	DMU	O6-C11-C9-O1
25	C	304	CDL	C80-C81-C82-C83
25	P	305	CDL	C19-C20-C21-C22
19	A	607	PGV	C26-C27-C28-C29
19	C	308	PGV	C20-C21-C22-C23
24	P	308	PEK	C33-C34-C35-C36
25	G	101	CDL	C58-C59-C60-C61
25	P	305	CDL	C53-C54-C55-C56
20	D	201	TGL	C20-C21-C22-C23
22	C	305	CHD	C17-C20-C22-C23
20	N	609	TGL	CC2-CC1-OG3-CG3
20	Y	101	TGL	C20-C21-C22-C23
23	N	610	PSC	C20-C21-C22-C23
14	N	601	HEA	C19-C20-C21-C22

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Mol	Chain	Res	Type	Atoms
23	B	304	PSC	C22-C23-C24-C25
19	C	308	PGV	O12-C04-C05-C06
25	C	304	CDL	CB2-C1-CA2-OA2
25	G	101	CDL	CA2-C1-CB2-OB2
25	P	305	CDL	CB2-C1-CA2-OA2
25	P	305	CDL	CA2-C1-CB2-OB2
25	G	101	CDL	C71-CB7-OB8-CB6
25	T	102	CDL	C71-CB7-OB8-CB6
24	G	102	PEK	C33-C34-C35-C36
27	Z	101	DMU	O6-C11-C9-C8
20	Q	201	TGL	C16-C15-CC9-CC8
25	G	101	CDL	C60-C61-C62-C63
25	T	102	CDL	C79-C80-C81-C82
19	C	308	PGV	O12-C04-C05-O05
25	C	304	CDL	O1-C1-CA2-OA2
25	P	305	CDL	CB5-C51-C52-C53
23	N	610	PSC	C22-C23-C24-C25
25	G	101	CDL	CA5-C11-C12-C13
22	P	306	CHD	C17-C20-C22-C23
20	D	201	TGL	CB1-CB2-CB3-CB4
24	G	102	PEK	C21-C22-C23-C24
24	P	303	PEK	C4-C5-C6-C7
19	C	308	PGV	O05-C05-C06-O06
19	C	308	PGV	C1-C2-C3-C4
19	N	607	PGV	C19-C20-C21-C22
20	B	301	TGL	CB1-CB2-CB3-CB4
20	Y	101	TGL	CA1-CA2-CA3-CA4
20	Y	101	TGL	CB1-CB2-CB3-CB4
24	C	307	PEK	C1-C2-C3-C4
24	P	303	PEK	C1-C2-C3-C4
24	T	101	PEK	C1-C2-C3-C4
25	T	102	CDL	CA7-C31-C32-C33
25	T	102	CDL	CB5-C51-C52-C53
25	T	102	CDL	CB7-C71-C72-C73
25	C	304	CDL	C61-C62-C63-C64
20	B	301	TGL	OB1-CB1-OG2-CG2
22	C	305	CHD	C21-C20-C22-C23
19	C	303	PGV	C24-C25-C26-C27
25	T	102	CDL	OB9-CB7-OB8-CB6
19	N	607	PGV	C02-C01-O03-C19
20	B	301	TGL	CC2-CC1-OG3-CG3
22	P	306	CHD	C21-C20-C22-C23

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Mol	Chain	Res	Type	Atoms
24	C	307	PEK	C24-C25-C26-C27
20	Q	201	TGL	CB1-CB2-CB3-CB4
25	G	101	CDL	O1-C1-CB2-OB2
25	P	305	CDL	O1-C1-CA2-OA2
25	P	305	CDL	O1-C1-CB2-OB2
25	T	102	CDL	O1-C1-CB2-OB2
22	W	101	CHD	C13-C17-C20-C21
20	B	301	TGL	OC1-CC1-OG3-CG3
25	G	101	CDL	OB9-CB7-OB8-CB6
23	B	304	PSC	C11-C12-C13-C14
24	C	307	PEK	C7-C8-C9-C10
24	G	102	PEK	C10-C11-C12-C13
19	A	608	PGV	C04-O12-P-O11
19	C	308	PGV	C03-O11-P-O12
19	P	301	PGV	C03-O11-P-O12
19	P	301	PGV	C04-O12-P-O11
23	B	304	PSC	C03-O11-P-O12
23	B	304	PSC	C04-O12-P-O11
23	N	610	PSC	C03-O11-P-O12
24	C	307	PEK	C04-O12-P-O11
25	C	304	CDL	CA2-OA2-PA1-OA5
25	C	304	CDL	CA3-OA5-PA1-OA2
25	C	304	CDL	CB2-OB2-PB2-OB5
25	G	101	CDL	CA3-OA5-PA1-OA2
25	G	101	CDL	CB3-OB5-PB2-OB2
25	P	305	CDL	CA2-OA2-PA1-OA5
25	P	305	CDL	CB2-OB2-PB2-OB5
25	P	305	CDL	CB3-OB5-PB2-OB2
25	T	102	CDL	CA3-OA5-PA1-OA2
25	T	102	CDL	CB2-OB2-PB2-OB5
24	P	308	PEK	C1-C2-C3-C4
25	T	102	CDL	CA2-C1-CB2-OB2
27	Z	101	DMU	O16-C18-C19-C22
20	L	101	TGL	C11-C10-CB9-CB8
24	C	307	PEK	C2-C3-C4-C5
20	L	101	TGL	CB1-CB2-CB3-CB4
19	N	607	PGV	C4-C5-C6-C7
20	B	301	TGL	C10-C11-C12-C13
20	D	201	TGL	CC7-CC8-CC9-C15
20	L	101	TGL	C21-C22-C23-C24
20	Q	201	TGL	CA6-CA7-CA8-CA9
23	B	304	PSC	C29-C30-C31-C32

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Mol	Chain	Res	Type	Atoms
25	C	304	CDL	C23-C24-C25-C26
20	B	301	TGL	CB2-CB1-OG2-CG2
23	B	304	PSC	C2-C1-O01-C02
25	C	304	CDL	C51-CB5-OB6-CB4
19	C	303	PGV	C13-C14-C15-C16
19	P	301	PGV	C24-C25-C26-C27
20	L	101	TGL	CB4-CB5-CB6-CB7
20	N	609	TGL	CC2-CC3-CC4-CC5
20	N	609	TGL	CC5-CC6-CC7-CC8
20	Q	201	TGL	CB5-CB6-CB7-CB8
20	Y	101	TGL	CA7-CA8-CA9-C20
20	Y	101	TGL	CB6-CB7-CB8-CB9
20	Y	101	TGL	C18-C19-C33-C34
25	C	304	CDL	C59-C60-C61-C62
25	C	304	CDL	C79-C80-C81-C82
25	G	101	CDL	C23-C24-C25-C26
25	G	101	CDL	C36-C37-C38-C39
25	G	101	CDL	C37-C38-C39-C40
25	P	305	CDL	C72-C73-C74-C75
25	P	305	CDL	C74-C75-C76-C77
24	C	307	PEK	C22-C21-O03-C01
20	L	101	TGL	CC5-CC6-CC7-CC8
20	N	609	TGL	C15-C16-C17-C18
24	C	302	PEK	C32-C33-C34-C35
24	P	303	PEK	C16-C17-C18-C19
24	P	303	PEK	C31-C32-C33-C34
25	G	101	CDL	C16-C17-C18-C19
25	G	101	CDL	C20-C21-C22-C23
25	P	305	CDL	C22-C23-C24-C25
25	T	102	CDL	C72-C73-C74-C75
25	T	102	CDL	C76-C77-C78-C79
19	A	608	PGV	C03-C02-O01-C1
20	D	201	TGL	CG3-CG2-OG2-CB1
20	Q	201	TGL	CG3-CG2-OG2-CB1
23	N	610	PSC	C01-C02-O01-C1
20	N	609	TGL	OB1-CB1-OG2-CG2
23	B	304	PSC	O02-C1-O01-C02
19	P	301	PGV	C26-C27-C28-C29
24	G	102	PEK	C34-C35-C36-C37
25	G	101	CDL	C76-C77-C78-C79
25	T	102	CDL	C75-C76-C77-C78
24	G	102	PEK	C7-C8-C9-C10

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Mol	Chain	Res	Type	Atoms
24	P	308	PEK	C7-C8-C9-C10
19	N	608	PGV	C23-C24-C25-C26
20	B	301	TGL	C16-C15-CC9-CC8
20	L	101	TGL	CB3-CB4-CB5-CB6
20	N	609	TGL	CB5-CB6-CB7-CB8
20	N	609	TGL	CB6-CB7-CB8-CB9
20	N	609	TGL	C12-C13-C14-C29
20	N	609	TGL	CC4-CC5-CC6-CC7
20	Q	201	TGL	CC5-CC6-CC7-CC8
24	P	303	PEK	C28-C29-C30-C31
25	C	304	CDL	C36-C37-C38-C39
25	C	304	CDL	C72-C73-C74-C75
25	G	101	CDL	C63-C64-C65-C66
27	M	101	DMU	C19-C22-C25-C28
25	C	304	CDL	O1-C1-CB2-OB2
19	N	607	PGV	C25-C26-C27-C28
20	D	201	TGL	CB9-C10-C11-C12
20	D	201	TGL	C11-C12-C13-C14
24	T	101	PEK	C27-C28-C29-C30
19	A	608	PGV	C20-C21-C22-C23
19	C	303	PGV	C27-C28-C29-C30
19	N	608	PGV	C13-C14-C15-C16
19	P	301	PGV	C30-C31-C32-C33
20	B	301	TGL	CA6-CA7-CA8-CA9
20	B	301	TGL	C22-C23-C24-C25
20	N	609	TGL	CA4-CA5-CA6-CA7
23	B	304	PSC	C30-C31-C32-C33
24	G	102	PEK	C23-C24-C25-C26
25	G	101	CDL	C77-C78-C79-C80
25	G	101	CDL	C80-C81-C82-C83
25	P	305	CDL	C16-C17-C18-C19
27	M	101	DMU	C22-C25-C28-C31
19	A	608	PGV	C7-C8-C9-C10
19	N	607	PGV	C14-C15-C16-C17
20	B	301	TGL	C11-C12-C13-C14
24	P	308	PEK	C28-C29-C30-C31
25	C	304	CDL	C63-C64-C65-C66
27	Z	101	DMU	C22-C25-C28-C31
19	C	308	PGV	C14-C15-C16-C17
19	N	607	PGV	C28-C29-C30-C31
19	P	301	PGV	C4-C5-C6-C7
19	P	301	PGV	C22-C23-C24-C25

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Mol	Chain	Res	Type	Atoms
20	Q	201	TGL	CB9-C10-C11-C12
23	B	304	PSC	C27-C28-C29-C30
25	C	304	CDL	C78-C79-C80-C81
25	G	101	CDL	C73-C74-C75-C76
25	G	101	CDL	C79-C80-C81-C82
20	N	609	TGL	C16-C15-CC9-CC8
24	G	102	PEK	C26-C27-C28-C29
25	C	304	CDL	C60-C61-C62-C63
25	T	102	CDL	C20-C21-C22-C23
25	T	102	CDL	C54-C55-C56-C57
19	C	308	PGV	C04-C05-C06-O06
19	P	301	PGV	C2-C1-O01-C02
19	A	608	PGV	C14-C15-C16-C17
19	C	308	PGV	C30-C31-C32-C33
20	D	201	TGL	C18-C19-C33-C34
23	N	610	PSC	C2-C3-C4-C5
24	C	307	PEK	C28-C29-C30-C31
25	C	304	CDL	C20-C21-C22-C23
25	C	304	CDL	C82-C83-C84-C85
25	T	102	CDL	C55-C56-C57-C58
25	T	102	CDL	C62-C63-C64-C65
19	A	608	PGV	C11-C10-C9-C8
19	C	303	PGV	C12-C13-C14-C15
19	N	608	PGV	C11-C10-C9-C8
24	P	303	PEK	C2-C3-C4-C5
23	B	304	PSC	C19-C20-C21-C22
19	A	608	PGV	C24-C25-C26-C27
19	P	301	PGV	C20-C21-C22-C23
20	B	301	TGL	C17-C18-C19-C33
20	D	201	TGL	CA3-CA4-CA5-CA6
20	D	201	TGL	C13-C14-C29-C30
20	L	101	TGL	CA3-CA4-CA5-CA6
20	L	101	TGL	CB2-CB3-CB4-CB5
20	L	101	TGL	C16-C15-CC9-CC8
20	N	609	TGL	C21-C20-CA9-CA8
20	Q	201	TGL	C23-C24-C25-C26
20	Y	101	TGL	CB3-CB4-CB5-CB6
20	Y	101	TGL	C19-C33-C34-C35
23	B	304	PSC	C5-C6-C7-C8
23	B	304	PSC	C28-C29-C30-C31
23	N	610	PSC	C29-C30-C31-C32
24	C	302	PEK	C28-C29-C30-C31

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Mol	Chain	Res	Type	Atoms
24	C	307	PEK	C22-C23-C24-C25
24	P	308	PEK	C32-C33-C34-C35
25	C	304	CDL	C57-C58-C59-C60
25	G	101	CDL	C31-C32-C33-C34
25	G	101	CDL	C33-C34-C35-C36
25	G	101	CDL	C83-C84-C85-C86
25	T	102	CDL	C11-C12-C13-C14
19	C	303	PGV	C26-C27-C28-C29
20	Y	101	TGL	C10-C11-C12-C13
20	Y	101	TGL	C22-C23-C24-C25
24	C	302	PEK	C16-C17-C18-C19
24	P	308	PEK	C26-C27-C28-C29
25	T	102	CDL	C13-C14-C15-C16
19	C	308	PGV	C2-C3-C4-C5
19	C	308	PGV	C5-C6-C7-C8
19	P	304	PGV	C30-C31-C32-C33
20	B	301	TGL	C16-C17-C18-C19
20	N	609	TGL	CA5-CA6-CA7-CA8
20	N	609	TGL	C14-C29-C30-C31
25	G	101	CDL	C82-C83-C84-C85
25	T	102	CDL	C57-C58-C59-C60
19	P	304	PGV	C1-C2-C3-C4
24	C	307	PEK	O04-C21-O03-C01
19	N	607	PGV	C7-C8-C9-C10
19	N	608	PGV	C27-C28-C29-C30
20	L	101	TGL	C21-C20-CA9-CA8
20	Q	201	TGL	CC6-CC7-CC8-CC9
20	Y	101	TGL	CA9-C20-C21-C22
25	C	304	CDL	C53-C54-C55-C56
25	C	304	CDL	C74-C75-C76-C77
25	G	101	CDL	C81-C82-C83-C84
25	P	305	CDL	C14-C15-C16-C17
25	P	305	CDL	C37-C38-C39-C40
19	P	301	PGV	C20-C19-O03-C01
20	D	201	TGL	C14-C29-C30-C31
20	N	609	TGL	CB4-CB5-CB6-CB7
20	Q	201	TGL	C19-C33-C34-C35
23	N	610	PSC	C3-C4-C5-C6
25	T	102	CDL	C73-C74-C75-C76
20	B	301	TGL	CC4-CC5-CC6-CC7
20	N	609	TGL	C10-C11-C12-C13
20	Q	201	TGL	C21-C20-CA9-CA8

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Mol	Chain	Res	Type	Atoms
20	Q	201	TGL	C12-C13-C14-C29
20	Q	201	TGL	C21-C22-C23-C24
24	T	101	PEK	C32-C33-C34-C35
25	T	102	CDL	C31-C32-C33-C34
25	T	102	CDL	C42-C43-C44-C45
20	B	301	TGL	C12-C13-C14-C29
24	C	307	PEK	C16-C17-C18-C19
25	P	305	CDL	C36-C37-C38-C39
19	A	608	PGV	C10-C11-C12-C13
24	T	101	PEK	C13-C14-C15-C16
19	N	607	PGV	C20-C21-C22-C23
20	Q	201	TGL	C16-C17-C18-C19
24	C	302	PEK	C23-C24-C25-C26
25	P	305	CDL	C35-C36-C37-C38
19	P	304	PGV	C24-C25-C26-C27
20	B	301	TGL	CB4-CB5-CB6-CB7
24	C	307	PEK	C2-C1-O01-C02
19	P	301	PGV	C29-C30-C31-C32
25	T	102	CDL	C41-C42-C43-C44
19	C	308	PGV	C26-C27-C28-C29
19	N	607	PGV	C13-C14-C15-C16
20	B	301	TGL	CA5-CA6-CA7-CA8
20	D	201	TGL	CA7-CA8-CA9-C20
24	P	308	PEK	C29-C30-C31-C32
25	C	304	CDL	C41-C42-C43-C44
25	G	101	CDL	C14-C15-C16-C17
20	L	101	TGL	C10-C11-C12-C13
25	P	305	CDL	C59-C60-C61-C62
20	B	301	TGL	C20-C21-C22-C23
20	N	609	TGL	C23-C24-C25-C26
25	C	304	CDL	C58-C59-C60-C61
19	C	308	PGV	C24-C25-C26-C27
23	B	304	PSC	C26-C27-C28-C29
25	P	305	CDL	C41-C42-C43-C44
19	P	301	PGV	O02-C1-O01-C02
24	C	307	PEK	O02-C1-O01-C02
25	C	304	CDL	OB7-CB5-OB6-CB4
20	D	201	TGL	CC5-CC6-CC7-CC8
25	C	304	CDL	C51-C52-C53-C54
25	G	101	CDL	C38-C39-C40-C41
19	N	607	PGV	C29-C30-C31-C32
20	D	201	TGL	CC6-CC7-CC8-CC9

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Mol	Chain	Res	Type	Atoms
20	D	201	TGL	C19-C33-C34-C35
20	L	101	TGL	C24-C25-C26-C27
25	P	305	CDL	C42-C43-C44-C45
20	N	609	TGL	CB7-CB8-CB9-C10
25	C	304	CDL	C38-C39-C40-C41
25	T	102	CDL	C59-C60-C61-C62
24	G	102	PEK	C22-C21-O03-C01
20	Y	101	TGL	C13-C14-C29-C30
24	C	307	PEK	C32-C33-C34-C35
24	P	303	PEK	C26-C27-C28-C29
20	Y	101	TGL	C11-C12-C13-C14
24	P	308	PEK	C16-C17-C18-C19
24	T	101	PEK	C26-C27-C28-C29
25	C	304	CDL	C42-C43-C44-C45
20	Q	201	TGL	CB4-CB5-CB6-CB7
24	G	102	PEK	C4-C5-C6-C7
20	Y	101	TGL	CC3-CC4-CC5-CC6
25	P	305	CDL	C81-C82-C83-C84
24	G	102	PEK	C15-C16-C17-C18
19	P	301	PGV	C1-C2-C3-C4
24	C	302	PEK	C24-C25-C26-C27
25	G	101	CDL	C43-C44-C45-C46
20	Y	101	TGL	CB7-CB8-CB9-C10
19	P	301	PGV	C5-C6-C7-C8
20	Y	101	TGL	CA4-CA5-CA6-CA7
25	G	101	CDL	C53-C54-C55-C56
25	P	305	CDL	C40-C41-C42-C43
20	Q	201	TGL	CC2-CC3-CC4-CC5
25	P	305	CDL	C79-C80-C81-C82
24	C	307	PEK	C25-C26-C27-C28
25	G	101	CDL	C59-C60-C61-C62
19	A	608	PGV	C19-C20-C21-C22
20	N	609	TGL	CB2-CB1-OG2-CG2
20	L	101	TGL	C18-C19-C33-C34
23	B	304	PSC	C24-C25-C26-C27
24	C	307	PEK	C33-C34-C35-C36
19	C	303	PGV	C20-C21-C22-C23
19	N	607	PGV	C26-C27-C28-C29
20	Q	201	TGL	CC7-CC8-CC9-C15
20	Q	201	TGL	OG1-CG1-CG2-OG2
24	G	102	PEK	O03-C01-C02-O01
24	P	308	PEK	O03-C01-C02-O01

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Mol	Chain	Res	Type	Atoms
25	C	304	CDL	OA6-CA4-CA6-OA8
25	G	101	CDL	OA6-CA4-CA6-OA8
19	A	608	PGV	C4-C5-C6-C7
20	N	609	TGL	CA3-CA4-CA5-CA6
25	G	101	CDL	C62-C63-C64-C65
24	G	102	PEK	O04-C21-O03-C01
19	P	301	PGV	C13-C14-C15-C16
20	L	101	TGL	CA6-CA7-CA8-CA9
19	P	301	PGV	C11-C10-C9-C8
19	P	304	PGV	C11-C10-C9-C8
23	B	304	PSC	C6-C7-C8-C9
24	C	302	PEK	C15-C16-C17-C18
25	C	304	CDL	C17-C18-C19-C20
20	B	301	TGL	CA4-CA5-CA6-CA7
24	P	308	PEK	C31-C32-C33-C34
24	T	101	PEK	C25-C26-C27-C28
25	P	305	CDL	C76-C77-C78-C79
25	P	305	CDL	C73-C74-C75-C76
24	T	101	PEK	C31-C32-C33-C34
25	P	305	CDL	C21-C22-C23-C24
19	P	301	PGV	O04-C19-O03-C01
24	P	303	PEK	C2-C1-O01-C02
20	D	201	TGL	C16-C15-CC9-CC8
25	T	102	CDL	CB3-OB5-PB2-OB2
19	A	607	PGV	C29-C30-C31-C32
24	T	101	PEK	C22-C21-O03-C01
19	A	608	PGV	C01-C02-C03-O11
19	N	607	PGV	C01-C02-C03-O11
19	P	301	PGV	C01-C02-C03-O11
24	P	308	PEK	C01-C02-C03-O11
25	C	304	CDL	OA5-CA3-CA4-CA6
19	A	608	PGV	C29-C30-C31-C32
25	G	101	CDL	C52-C53-C54-C55
19	C	303	PGV	C19-C20-C21-C22
20	N	609	TGL	C16-C17-C18-C19
19	P	301	PGV	C28-C29-C30-C31
20	D	201	TGL	CC3-CC4-CC5-CC6
20	D	201	TGL	C23-C24-C25-C26
20	L	101	TGL	CC9-C15-C16-C17
20	Y	101	TGL	C14-C29-C30-C31
20	Y	101	TGL	CB9-C10-C11-C12
24	C	302	PEK	C25-C26-C27-C28

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Mol	Chain	Res	Type	Atoms
20	D	201	TGL	CA2-CA3-CA4-CA5
25	T	102	CDL	C36-C37-C38-C39
19	C	303	PGV	C28-C29-C30-C31
20	Q	201	TGL	CB6-CB7-CB8-CB9
20	Q	201	TGL	CA9-C20-C21-C22
27	M	101	DMU	O6-C11-C9-O1
19	N	607	PGV	O03-C01-C02-C03
20	Q	201	TGL	OG1-CG1-CG2-CG3
20	Q	201	TGL	CG1-CG2-CG3-OG3
23	N	610	PSC	O03-C01-C02-C03
24	C	307	PEK	O03-C01-C02-C03
24	G	102	PEK	O03-C01-C02-C03
24	P	308	PEK	O03-C01-C02-C03
25	C	304	CDL	CA3-CA4-CA6-OA8
25	C	304	CDL	C40-C41-C42-C43
25	C	304	CDL	C84-C85-C86-C87
25	T	102	CDL	CA3-CA4-CA6-OA8
25	T	102	CDL	C81-C82-C83-C84
19	N	608	PGV	C31-C32-C33-C34
24	C	307	PEK	C26-C27-C28-C29
24	P	308	PEK	C35-C36-C37-C38
20	L	101	TGL	CB7-CB8-CB9-C10
20	Q	201	TGL	CB7-CB8-CB9-C10
25	P	305	CDL	C77-C78-C79-C80
25	T	102	CDL	C63-C64-C65-C66
25	T	102	CDL	C84-C85-C86-C87
19	C	308	PGV	O01-C1-C2-C3
19	P	304	PGV	C19-C20-C21-C22
19	C	303	PGV	C31-C32-C33-C34
20	L	101	TGL	CB6-CB7-CB8-CB9
24	C	307	PEK	C35-C36-C37-C38
20	D	201	TGL	OG2-CB1-CB2-CB3
19	C	303	PGV	C23-C24-C25-C26
25	G	101	CDL	C42-C43-C44-C45
27	Z	101	DMU	C25-C28-C31-C34
19	C	303	PGV	C7-C8-C9-C10
20	B	301	TGL	CA3-CA4-CA5-CA6
20	B	301	TGL	C29-C30-C31-C32
20	D	201	TGL	CC1-CC2-CC3-CC4
24	T	101	PEK	C33-C34-C35-C36
19	N	607	PGV	C5-C6-C7-C8
20	B	301	TGL	C18-C19-C33-C34

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Mol	Chain	Res	Type	Atoms
20	B	301	TGL	C21-C22-C23-C24
20	Q	201	TGL	C11-C12-C13-C14
19	N	608	PGV	C15-C16-C17-C18
20	Q	201	TGL	CC3-CC4-CC5-CC6
20	Q	201	TGL	CC9-C15-C16-C17
19	A	607	PGV	C31-C32-C33-C34
19	P	301	PGV	C14-C15-C16-C17
25	C	304	CDL	C24-C25-C26-C27
25	G	101	CDL	C71-C72-C73-C74
25	P	305	CDL	C58-C59-C60-C61
20	L	101	TGL	CC3-CC4-CC5-CC6
19	C	308	PGV	O01-C02-C03-O11
19	A	608	PGV	C22-C23-C24-C25
19	N	607	PGV	C15-C16-C17-C18
19	P	304	PGV	C22-C23-C24-C25
20	B	301	TGL	CA9-C20-C21-C22
22	P	306	CHD	C16-C17-C20-C21
14	A	602	HEA	C4D-C3D-CAD-CBD
20	N	609	TGL	C29-C30-C31-C32
20	L	101	TGL	OG2-CG2-CG3-OG3
20	N	609	TGL	OG1-CG1-CG2-OG2
25	C	304	CDL	OB6-CB4-CB6-OB8
25	G	101	CDL	C51-C52-C53-C54
20	Y	101	TGL	C29-C30-C31-C32
19	P	304	PGV	C7-C8-C9-C10
19	C	308	PGV	C27-C28-C29-C30
24	G	102	PEK	C22-C23-C24-C25
25	C	304	CDL	C73-C74-C75-C76
25	G	101	CDL	C55-C56-C57-C58
20	B	301	TGL	C21-C20-CA9-CA8
20	B	301	TGL	C15-C16-C17-C18
24	P	303	PEK	C30-C31-C32-C33
25	C	304	CDL	C64-C65-C66-C67
24	P	303	PEK	C33-C34-C35-C36
25	C	304	CDL	C35-C36-C37-C38
24	T	101	PEK	O04-C21-O03-C01
19	N	607	PGV	C10-C11-C12-C13
25	P	305	CDL	C63-C64-C65-C66
19	C	308	PGV	C01-C02-C03-O11
25	G	101	CDL	OA5-CA3-CA4-CA6
25	P	305	CDL	OA5-CA3-CA4-CA6
20	N	609	TGL	C22-C23-C24-C25

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Mol	Chain	Res	Type	Atoms
19	A	607	PGV	C23-C24-C25-C26
25	T	102	CDL	C12-C13-C14-C15
25	T	102	CDL	C22-C23-C24-C25
19	N	608	PGV	C30-C31-C32-C33
24	C	302	PEK	C27-C28-C29-C30
20	Y	101	TGL	C24-C25-C26-C27
20	Y	101	TGL	CB2-CB3-CB4-CB5
19	N	607	PGV	C02-C03-O11-P
23	B	304	PSC	C21-C22-C23-C24
27	Z	101	DMU	C34-C37-C40-C43
19	C	303	PGV	C22-C23-C24-C25
19	A	608	PGV	O03-C01-C02-C03
25	C	304	CDL	CB3-CB4-CB6-OB8
24	P	303	PEK	C27-C28-C29-C30
19	P	304	PGV	C10-C11-C12-C13
24	P	303	PEK	C7-C8-C9-C10
24	P	308	PEK	C4-C5-C6-C7
20	L	101	TGL	C20-C21-C22-C23
23	N	610	PSC	C15-C16-C17-C18
25	G	101	CDL	C41-C42-C43-C44
14	A	602	HEA	C2D-C3D-CAD-CBD
20	L	101	TGL	CC1-CC2-CC3-CC4
19	P	301	PGV	C2-C3-C4-C5
25	P	305	CDL	C52-C53-C54-C55
24	G	102	PEK	C24-C25-C26-C27
24	P	308	PEK	C30-C31-C32-C33
25	G	101	CDL	C21-C22-C23-C24
27	M	101	DMU	C34-C37-C40-C43
23	B	304	PSC	C9-C10-C11-C12
23	B	304	PSC	C10-C11-C12-C13
23	N	610	PSC	C9-C10-C11-C12
24	C	307	PEK	C03-O11-P-O12
24	C	307	PEK	C6-C7-C8-C9
24	C	307	PEK	C9-C10-C11-C12
24	G	102	PEK	C03-O11-P-O12
24	G	102	PEK	C5-C6-C7-C8
24	P	303	PEK	C11-C10-C9-C8
24	P	303	PEK	C11-C12-C13-C14
24	P	308	PEK	C9-C10-C11-C12
24	P	308	PEK	C12-C13-C14-C15
24	T	101	PEK	C12-C13-C14-C15
20	B	301	TGL	CA1-CA2-CA3-CA4

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Mol	Chain	Res	Type	Atoms
20	Y	101	TGL	CB4-CB5-CB6-CB7
20	D	201	TGL	CB4-CB5-CB6-CB7
24	C	307	PEK	O01-C02-C03-O11
24	P	308	PEK	O01-C02-C03-O11
25	C	304	CDL	OA5-CA3-CA4-OA6
25	P	305	CDL	OA5-CA3-CA4-OA6
25	P	305	CDL	OB5-CB3-CB4-OB6
19	C	308	PGV	C20-C19-O03-C01
25	T	102	CDL	C77-C78-C79-C80
25	P	305	CDL	CA5-C11-C12-C13
19	A	608	PGV	C2-C3-C4-C5
20	Q	201	TGL	C25-C26-C27-C28
19	C	308	PGV	O03-C01-C02-O01
20	B	301	TGL	OG1-CG1-CG2-OG2
25	G	101	CDL	OB6-CB4-CB6-OB8
20	B	301	TGL	CC9-C15-C16-C17
19	N	607	PGV	C30-C31-C32-C33
20	Y	101	TGL	C25-C26-C27-C28
23	B	304	PSC	C15-C16-C17-C18
24	T	101	PEK	C29-C30-C31-C32
25	T	102	CDL	C78-C79-C80-C81
19	C	308	PGV	C4-C5-C6-C7
20	D	201	TGL	C17-C18-C19-C33
20	D	201	TGL	CB5-CB6-CB7-CB8
25	T	102	CDL	C21-C22-C23-C24
22	P	306	CHD	C20-C22-C23-C24
19	A	608	PGV	C31-C32-C33-C34
25	G	101	CDL	C17-C18-C19-C20
25	C	304	CDL	C62-C63-C64-C65
20	N	609	TGL	C18-C19-C33-C34
24	T	101	PEK	C01-C02-C03-O11
19	C	308	PGV	C25-C26-C27-C28
20	N	609	TGL	C21-C22-C23-C24
23	N	610	PSC	C31-C32-C33-C34
25	C	304	CDL	C71-C72-C73-C74
25	T	102	CDL	C56-C57-C58-C59
19	N	608	PGV	C24-C25-C26-C27
20	Y	101	TGL	CA2-CA1-OG1-CG1
20	L	101	TGL	OG1-CA1-CA2-CA3
20	B	301	TGL	C23-C24-C25-C26
25	C	304	CDL	C13-C14-C15-C16
20	L	101	TGL	CA2-CA3-CA4-CA5

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Mol	Chain	Res	Type	Atoms
25	P	305	CDL	C80-C81-C82-C83
19	N	607	PGV	C03-C02-O01-C1
23	B	304	PSC	C01-C02-O01-C1
19	A	607	PGV	C27-C28-C29-C30
20	D	201	TGL	CA9-C20-C21-C22
25	P	305	CDL	C34-C35-C36-C37
25	G	101	CDL	C12-C13-C14-C15
20	D	201	TGL	C11-C10-CB9-CB8
20	L	101	TGL	C22-C23-C24-C25
19	P	304	PGV	C02-C03-O11-P
20	D	201	TGL	OG1-CG1-CG2-CG3
25	G	101	CDL	CB4-CB3-OB5-PB2
19	N	607	PGV	O01-C02-C03-O11
24	T	101	PEK	O01-C02-C03-O11
25	T	102	CDL	C52-C53-C54-C55
19	C	308	PGV	O04-C19-O03-C01
20	Y	101	TGL	OA1-CA1-OG1-CG1
20	Q	201	TGL	OG2-CG2-CG3-OG3
20	Y	101	TGL	OG2-CG2-CG3-OG3
23	B	304	PSC	O03-C01-C02-O01
23	N	610	PSC	O03-C01-C02-O01
19	A	608	PGV	O05-C05-C06-O06
20	N	609	TGL	C13-C14-C29-C30
24	C	307	PEK	C31-C32-C33-C34
24	C	302	PEK	C30-C31-C32-C33
19	C	308	PGV	C31-C32-C33-C34
25	P	305	CDL	C11-C12-C13-C14
20	D	201	TGL	CA4-CA5-CA6-CA7
25	G	101	CDL	C15-C16-C17-C18
25	T	102	CDL	C33-C34-C35-C36
19	P	304	PGV	C11-C12-C13-C14
19	A	608	PGV	C03-O11-P-O12
19	N	607	PGV	C03-O11-P-O12
19	A	608	PGV	C1-C2-C3-C4
19	N	607	PGV	C31-C32-C33-C34
25	G	101	CDL	C57-C58-C59-C60
14	A	601	HEA	C26-C15-C16-C17
19	C	303	PGV	C02-C03-O11-P
25	C	304	CDL	C1-CA2-OA2-PA1
25	P	305	CDL	C20-C21-C22-C23
19	C	308	PGV	C03-O11-P-O14
24	C	307	PEK	C04-O12-P-O14

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Mol	Chain	Res	Type	Atoms
24	P	308	PEK	C04-O12-P-O13
24	T	101	PEK	C03-O11-P-O13
25	C	304	CDL	CB2-OB2-PB2-OB3
25	G	101	CDL	CA3-OA5-PA1-OA3
25	G	101	CDL	CA3-OA5-PA1-OA4
25	G	101	CDL	CB2-OB2-PB2-OB4
25	G	101	CDL	CB3-OB5-PB2-OB4
25	P	305	CDL	CB2-OB2-PB2-OB4
25	T	102	CDL	CB3-OB5-PB2-OB4
20	L	101	TGL	C17-C18-C19-C33
19	P	301	PGV	C31-C32-C33-C34
20	N	609	TGL	C24-C25-C26-C27
23	B	304	PSC	C23-C24-C25-C26
20	Y	101	TGL	CA6-CA7-CA8-CA9
24	P	303	PEK	C32-C33-C34-C35
19	C	303	PGV	C1-C2-C3-C4
19	P	301	PGV	C23-C24-C25-C26
25	C	304	CDL	C16-C17-C18-C19
25	T	102	CDL	C37-C38-C39-C40
20	Y	101	TGL	CC5-CC6-CC7-CC8
23	B	304	PSC	C4-C5-C6-C7
19	A	608	PGV	O01-C02-C03-O11
25	G	101	CDL	OA5-CA3-CA4-OA6
20	L	101	TGL	C23-C24-C25-C26
20	Q	201	TGL	CA5-CA6-CA7-CA8
19	A	608	PGV	C11-C12-C13-C14
19	C	308	PGV	C15-C16-C17-C18
20	D	201	TGL	CA6-CA7-CA8-CA9
20	L	101	TGL	CG1-CG2-CG3-OG3
23	B	304	PSC	O03-C01-C02-C03
25	G	101	CDL	CA3-CA4-CA6-OA8
25	T	102	CDL	OA6-CA4-CA6-OA8
25	G	101	CDL	C34-C35-C36-C37
24	P	303	PEK	C15-C16-C17-C18
25	T	102	CDL	C53-C54-C55-C56
25	C	304	CDL	C12-C13-C14-C15
27	M	101	DMU	C25-C28-C31-C34
25	T	102	CDL	CB4-CB3-OB5-PB2
22	P	306	CHD	C16-C17-C20-C22
27	M	101	DMU	C18-C19-C22-C25
24	P	303	PEK	C23-C24-C25-C26
14	N	601	HEA	C15-C16-C17-C18

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Mol	Chain	Res	Type	Atoms
24	P	303	PEK	C29-C30-C31-C32
23	N	610	PSC	C04-C05-N-C06
19	A	608	PGV	C27-C28-C29-C30
24	P	308	PEK	C17-C18-C19-C20
20	B	301	TGL	C13-C14-C29-C30
24	G	102	PEK	C25-C26-C27-C28
20	D	201	TGL	CC9-C15-C16-C17
24	C	302	PEK	C34-C35-C36-C37
23	N	610	PSC	C30-C31-C32-C33
20	Y	101	TGL	C12-C13-C14-C29
25	G	101	CDL	CA4-CA3-OA5-PA1
23	N	610	PSC	C04-C05-N-C07
19	C	303	PGV	C14-C15-C16-C17
20	Q	201	TGL	CB2-CB3-CB4-CB5
25	C	304	CDL	C34-C35-C36-C37
25	T	102	CDL	C60-C61-C62-C63
19	A	608	PGV	C9-C10-C11-C12
19	C	308	PGV	C04-O12-P-O11
24	G	102	PEK	C04-O12-P-O11
25	C	304	CDL	C76-C77-C78-C79
25	C	304	CDL	C12-C11-CA5-OA6
20	Y	101	TGL	CG1-CG2-CG3-OG3
19	N	608	PGV	C25-C26-C27-C28
24	T	101	PEK	C28-C29-C30-C31
20	D	201	TGL	OB1-CB1-CB2-CB3
20	Q	201	TGL	C10-C11-C12-C13
19	A	608	PGV	O12-C04-C05-O05
19	C	308	PGV	C05-C04-O12-P
25	P	305	CDL	CA4-CA3-OA5-PA1
19	A	608	PGV	O12-C04-C05-C06
22	C	305	CHD	C16-C17-C20-C22
24	C	302	PEK	C13-C14-C15-C16
20	Q	201	TGL	OG2-CB1-CB2-CB3
25	T	102	CDL	C44-C45-C46-C47
25	T	102	CDL	C80-C81-C82-C83
19	C	308	PGV	C23-C24-C25-C26
22	J	101	CHD	C17-C20-C22-C23
24	P	308	PEK	C15-C16-C17-C18
25	T	102	CDL	C58-C59-C60-C61
24	P	308	PEK	C23-C24-C25-C26
22	J	101	CHD	C22-C23-C24-O25
25	G	101	CDL	C61-C62-C63-C64

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Mol	Chain	Res	Type	Atoms
19	C	308	PGV	O02-C1-C2-C3
22	B	303	CHD	C22-C23-C24-O25
22	G	103	CHD	C22-C23-C24-O25
25	P	305	CDL	C43-C44-C45-C46
24	P	303	PEK	O02-C1-O01-C02
25	P	305	CDL	C60-C61-C62-C63
25	C	304	CDL	C14-C15-C16-C17
14	A	601	HEA	CAD-CBD-CGD-O1D
14	N	602	HEA	CAA-CBA-CGA-O1A
20	D	201	TGL	C12-C13-C14-C29
25	T	102	CDL	C43-C44-C45-C46
14	N	602	HEA	CAA-CBA-CGA-O2A
14	N	602	HEA	CAD-CBD-CGD-O1D
24	P	303	PEK	C35-C36-C37-C38
20	B	301	TGL	CG1-CG2-OG2-CB1
20	N	609	TGL	CG1-CG2-OG2-CB1
24	G	102	PEK	C01-C02-O01-C1
25	C	304	CDL	CA3-CA4-OA6-CA5
23	B	304	PSC	C04-C05-N-C08
23	N	610	PSC	C04-C05-N-C08
19	C	303	PGV	C11-C12-C13-C14
24	T	101	PEK	C3-C4-C5-C6
20	L	101	TGL	CA9-C20-C21-C22
20	N	609	TGL	C11-C10-CB9-CB8
23	N	610	PSC	C10-C11-C12-C13
24	C	302	PEK	C6-C7-C8-C9
24	C	307	PEK	C11-C10-C9-C8
24	C	307	PEK	C12-C13-C14-C15
24	G	102	PEK	C12-C13-C14-C15
24	P	303	PEK	C5-C6-C7-C8
24	P	308	PEK	C5-C6-C7-C8
24	P	308	PEK	C6-C7-C8-C9
24	P	308	PEK	C11-C10-C9-C8
24	T	101	PEK	C5-C6-C7-C8
24	T	101	PEK	C11-C10-C9-C8
20	N	609	TGL	C17-C18-C19-C33
20	Y	101	TGL	C17-C18-C19-C33
25	P	305	CDL	C51-C52-C53-C54
24	C	302	PEK	C21-C22-C23-C24
24	C	302	PEK	C7-C8-C9-C10
14	A	602	HEA	CAA-CBA-CGA-O2A
14	A	602	HEA	CAD-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
24	C	302	PEK	C17-C18-C19-C20
24	P	308	PEK	C24-C25-C26-C27
24	C	307	PEK	C01-C02-C03-O11
14	A	602	HEA	CAD-CBD-CGD-O1D
22	G	103	CHD	C22-C23-C24-O26
22	J	101	CHD	C22-C23-C24-O26
25	P	305	CDL	C55-C56-C57-C58
25	T	102	CDL	O1-C1-CA2-OA2
22	C	306	CHD	C22-C23-C24-O25
20	Q	201	TGL	C20-C21-C22-C23
20	Q	201	TGL	CA1-CA2-CA3-CA4
22	P	306	CHD	C22-C23-C24-O25
20	Y	101	TGL	C15-C16-C17-C18
19	C	308	PGV	C29-C30-C31-C32
14	A	601	HEA	C14-C15-C16-C17
22	C	305	CHD	C22-C23-C24-O26
24	T	101	PEK	C21-C22-C23-C24
22	P	306	CHD	C13-C17-C20-C21
20	D	201	TGL	C29-C30-C31-C32
14	N	602	HEA	CAD-CBD-CGD-O2D
20	D	201	TGL	C16-C17-C18-C19
19	N	608	PGV	O03-C19-C20-C21
19	C	308	PGV	O03-C01-C02-C03
20	D	201	TGL	C21-C22-C23-C24
22	B	303	CHD	C22-C23-C24-O26
20	Y	101	TGL	C23-C24-C25-C26
22	W	101	CHD	C21-C20-C22-C23
24	P	303	PEK	O03-C21-C22-C23
19	N	607	PGV	C22-C23-C24-C25
25	T	102	CDL	C82-C83-C84-C85
19	A	607	PGV	C11-C12-C13-C14
19	C	303	PGV	C9-C10-C11-C12
24	T	101	PEK	O01-C1-C2-C3
25	P	305	CDL	OB5-CB3-CB4-CB6
14	A	602	HEA	C26-C15-C16-C17
14	N	602	HEA	C26-C15-C16-C17
25	P	305	CDL	C18-C19-C20-C21
22	C	305	CHD	C22-C23-C24-O25
20	N	609	TGL	C19-C33-C34-C35
22	W	101	CHD	C22-C23-C24-O25
25	G	101	CDL	C22-C23-C24-C25
20	Y	101	TGL	C16-C15-CC9-CC8

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Mol	Chain	Res	Type	Atoms
25	G	101	CDL	C84-C85-C86-C87
25	T	102	CDL	C83-C84-C85-C86
24	P	308	PEK	O01-C1-C2-C3
20	B	301	TGL	C19-C33-C34-C35
24	C	307	PEK	C17-C18-C19-C20
22	W	101	CHD	C22-C23-C24-O26
25	T	102	CDL	C32-C31-CA7-OA8
23	N	610	PSC	C6-C7-C8-C9
20	N	609	TGL	CC7-CC8-CC9-C15
20	N	609	TGL	C25-C26-C27-C28
19	P	301	PGV	C11-C12-C13-C14
24	P	308	PEK	C3-C4-C5-C6
14	A	601	HEA	CAD-CBD-CGD-O2D
14	A	602	HEA	CAA-CBA-CGA-O1A
25	C	304	CDL	CA6-CA4-OA6-CA5
25	P	305	CDL	C84-C85-C86-C87
14	N	601	HEA	CAD-CBD-CGD-O1D
22	P	306	CHD	C22-C23-C24-O26
24	P	303	PEK	O01-C1-C2-C3
25	G	101	CDL	C12-C11-CA5-OA6
25	G	101	CDL	C32-C31-CA7-OA8
20	N	609	TGL	CA6-CA7-CA8-CA9
23	B	304	PSC	C12-C13-C14-C15
23	N	610	PSC	C12-C13-C14-C15
25	G	101	CDL	C13-C14-C15-C16
20	Y	101	TGL	OG1-CG1-CG2-CG3
25	G	101	CDL	CB3-CB4-CB6-OB8
24	C	307	PEK	C21-C22-C23-C24
23	B	304	PSC	O03-C19-C20-C21
19	A	607	PGV	C11-C10-C9-C8
20	Q	201	TGL	OG3-CC1-CC2-CC3
25	G	101	CDL	C52-C51-CB5-OB6
24	G	102	PEK	C31-C32-C33-C34
20	Y	101	TGL	OG1-CG1-CG2-OG2
14	N	601	HEA	CAD-CBD-CGD-O2D
24	G	102	PEK	C3-C4-C5-C6
14	N	601	HEA	CAA-CBA-CGA-O1A
20	Y	101	TGL	C33-C34-C35-C36
19	C	308	PGV	C12-C13-C14-C15
20	Q	201	TGL	CA3-CA4-CA5-CA6
19	N	608	PGV	C4-C5-C6-C7
22	P	307	CHD	C22-C23-C24-O25

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Mol	Chain	Res	Type	Atoms
24	G	102	PEK	C35-C36-C37-C38
19	N	608	PGV	C11-C12-C13-C14
24	P	308	PEK	O02-C1-C2-C3
20	Q	201	TGL	C17-C18-C19-C33
20	L	101	TGL	OA1-CA1-CA2-CA3
23	B	304	PSC	O04-C19-C20-C21
25	T	102	CDL	C32-C31-CA7-OA9
20	N	609	TGL	CA7-CA8-CA9-C20
25	T	102	CDL	CA4-CA6-OA8-CA7
19	P	304	PGV	C05-C04-O12-P
20	D	201	TGL	CB2-CB3-CB4-CB5
24	G	102	PEK	C03-O11-P-O14
24	G	102	PEK	C04-O12-P-O14
25	G	101	CDL	CA2-OA2-PA1-OA4
19	A	607	PGV	C19-C20-C21-C22
25	G	101	CDL	C32-C31-CA7-OA9
24	P	303	PEK	O12-C04-C05-N
20	Q	201	TGL	OC1-CC1-CC2-CC3
24	P	303	PEK	O02-C1-C2-C3
24	C	307	PEK	O01-C1-C2-C3
27	Z	101	DMU	C19-C22-C25-C28
25	G	101	CDL	C12-C11-CA5-OA7
24	G	102	PEK	C28-C29-C30-C31
24	C	307	PEK	C14-C15-C16-C17
22	P	307	CHD	C22-C23-C24-O26
25	T	102	CDL	C64-C65-C66-C67
14	N	601	HEA	CAA-CBA-CGA-O2A
23	N	610	PSC	C05-C04-O12-P
24	P	303	PEK	C05-C04-O12-P
24	P	308	PEK	C05-C04-O12-P
24	C	307	PEK	O02-C1-C2-C3
20	Q	201	TGL	C13-C14-C29-C30
14	A	601	HEA	CAA-CBA-CGA-O1A
19	P	304	PGV	C23-C24-C25-C26
19	C	303	PGV	C05-C04-O12-P
25	C	304	CDL	C52-C51-CB5-OB6
25	C	304	CDL	C31-C32-C33-C34
23	B	304	PSC	C04-C05-N-C06
23	B	304	PSC	C04-C05-N-C07

There are no ring outliers.

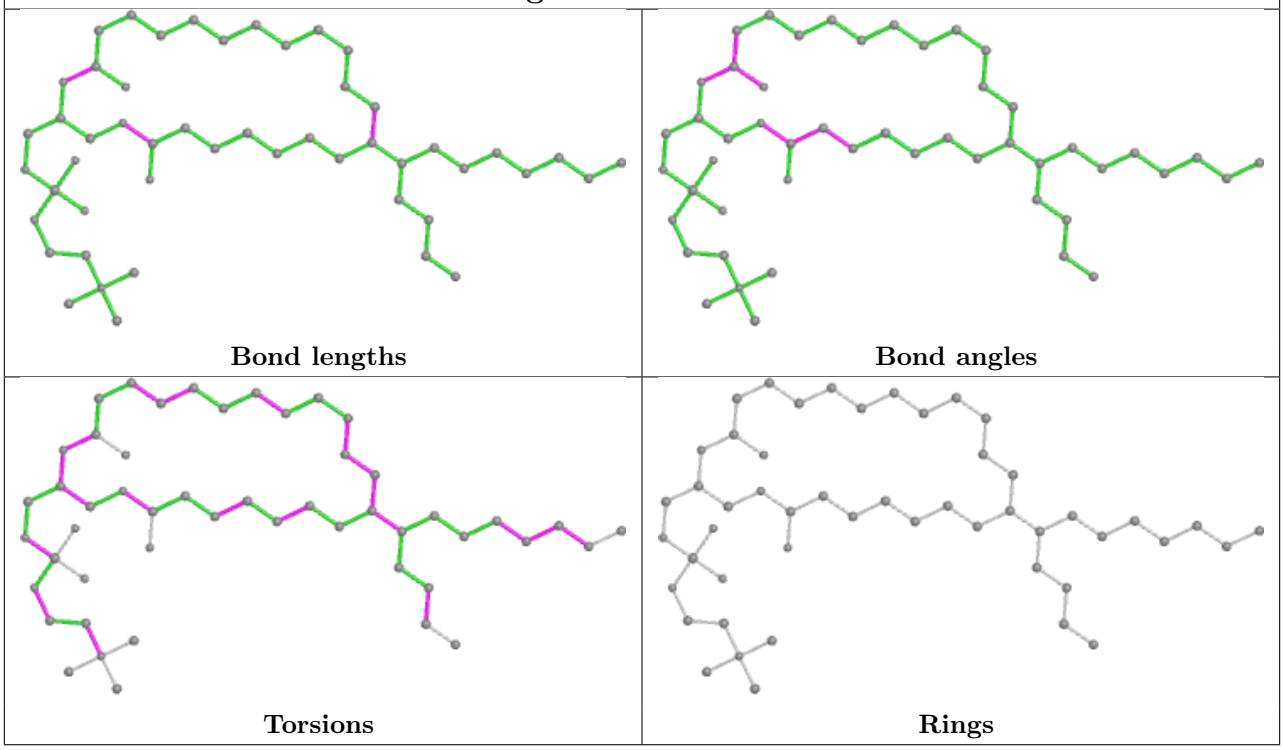
40 monomers are involved in 319 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	N	610	PSC	21	0
24	G	102	PEK	6	0
25	G	101	CDL	37	0
14	A	601	HEA	7	0
20	B	301	TGL	3	0
18	N	606[A]	PER	1	0
19	N	607	PGV	10	0
19	P	301	PGV	7	0
19	C	308	PGV	1	0
19	P	304	PGV	3	0
20	Y	101	TGL	16	0
14	N	602	HEA	1	0
25	T	102	CDL	29	0
14	A	602	HEA	3	0
22	P	306	CHD	2	0
24	C	302	PEK	6	0
22	P	307	CHD	3	0
24	P	303	PEK	9	0
22	W	101	CHD	5	0
22	J	101	CHD	5	0
22	C	305	CHD	3	0
22	B	303	CHD	1	0
27	M	101	DMU	1	0
25	P	305	CDL	17	0
20	N	609	TGL	4	0
22	C	306	CHD	1	0
14	N	601	HEA	5	0
19	C	303	PGV	4	0
19	N	608	PGV	6	0
23	B	304	PSC	13	0
24	P	308	PEK	13	0
20	D	201	TGL	13	0
24	T	101	PEK	12	0
18	A	606[A]	PER	1	0
25	C	304	CDL	23	0
24	C	307	PEK	17	0
20	Q	201	TGL	11	0
20	L	101	TGL	12	0
19	A	607	PGV	2	0
19	A	608	PGV	8	0

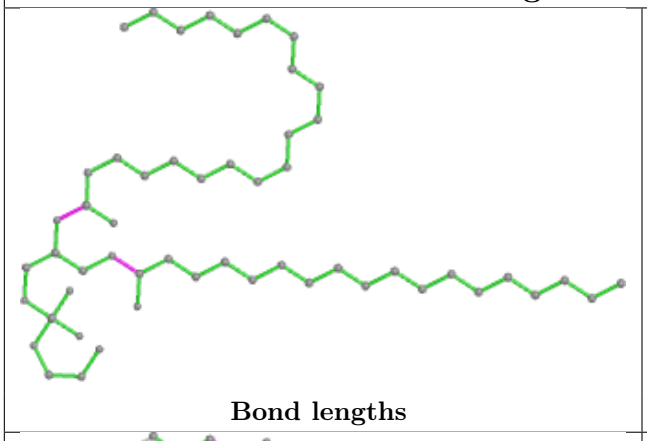
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will

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.

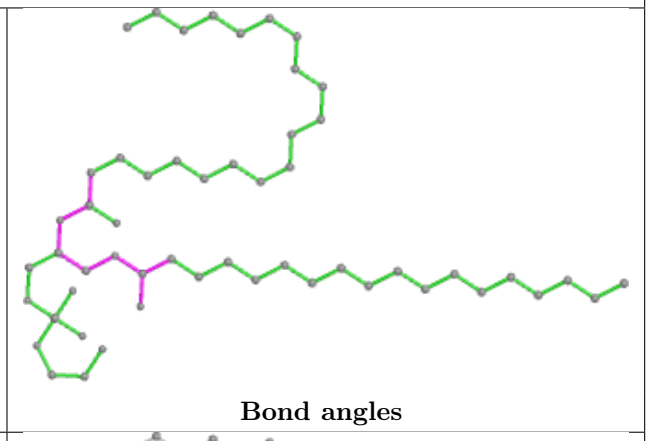
Ligand PSC N 610



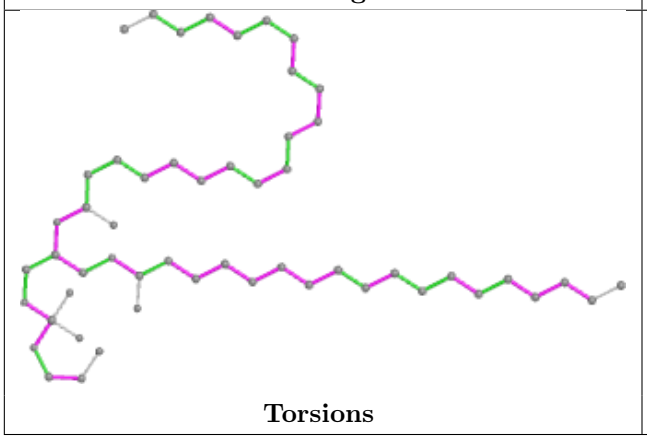
Ligand PEK G 102



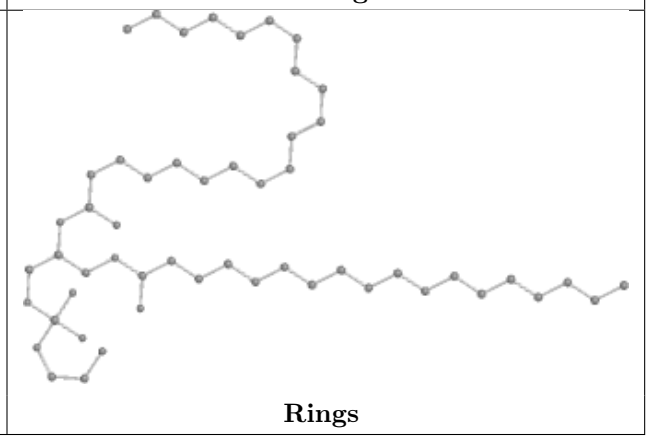
Bond lengths



Bond angles

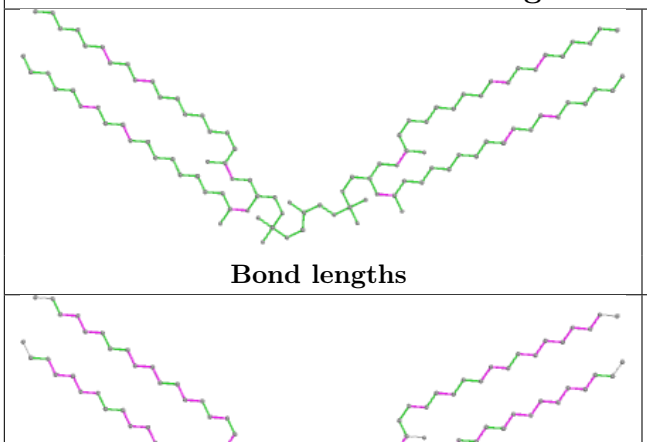


Torsions

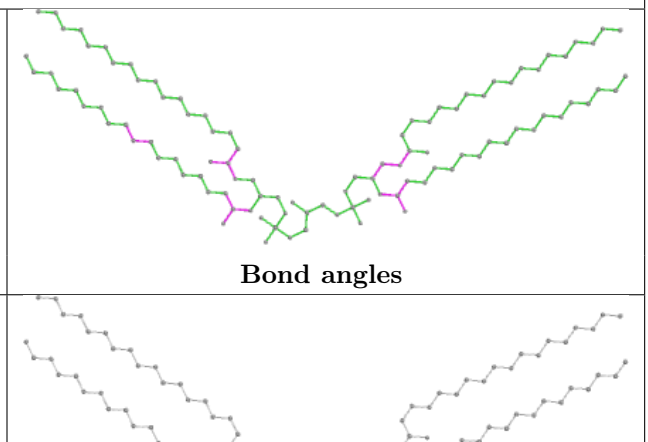


Rings

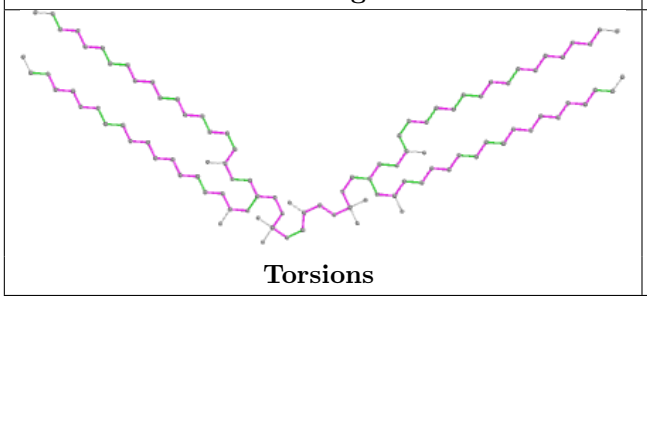
Ligand CDL G 101



Bond lengths



Bond angles



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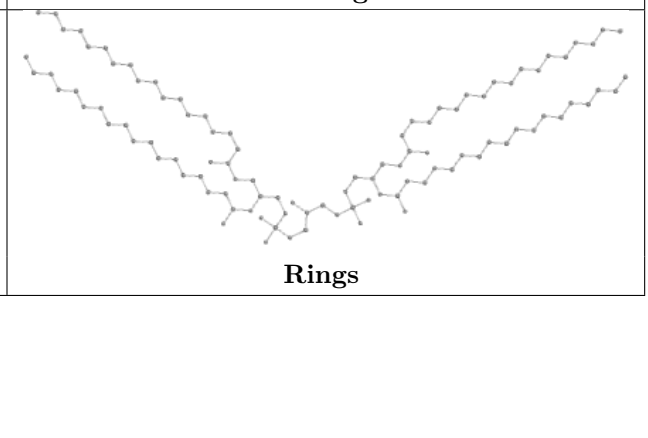
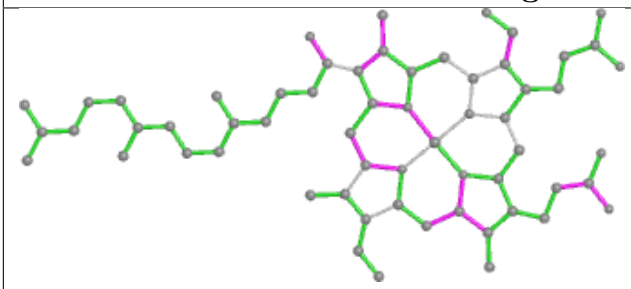
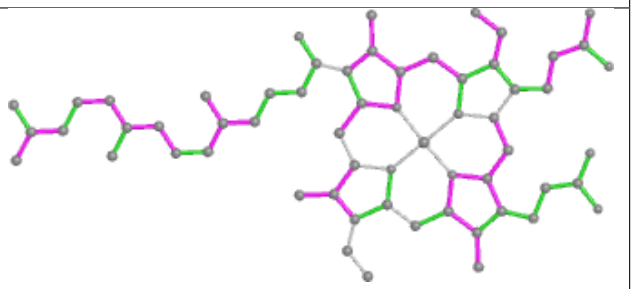


Rings

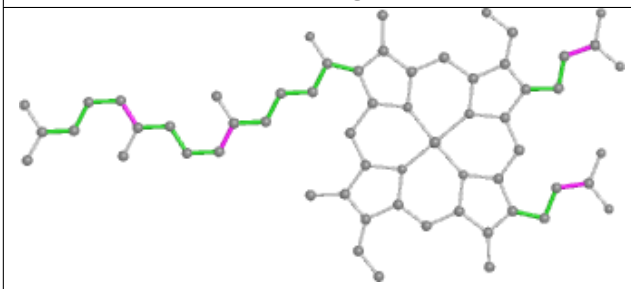
Ligand HEA A 601



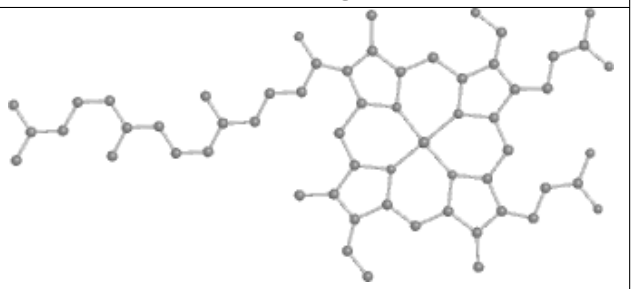
Bond lengths



Bond angles

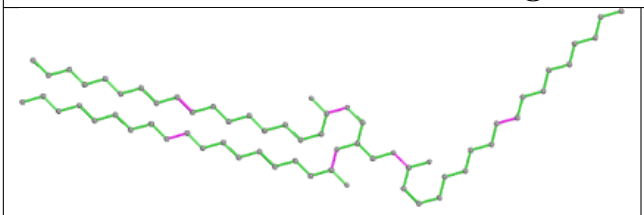


Torsions

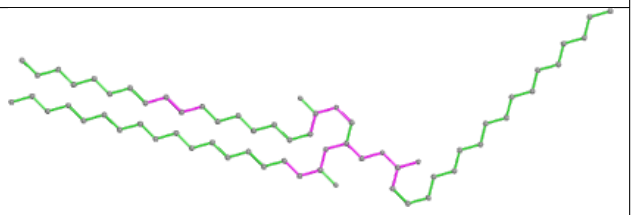


Rings

Ligand TGL B 301



Bond lengths



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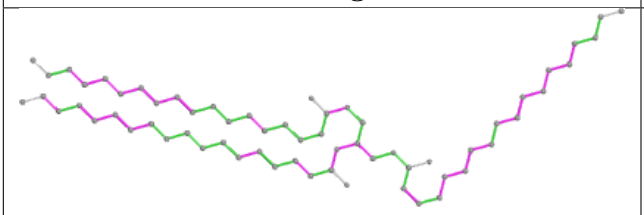

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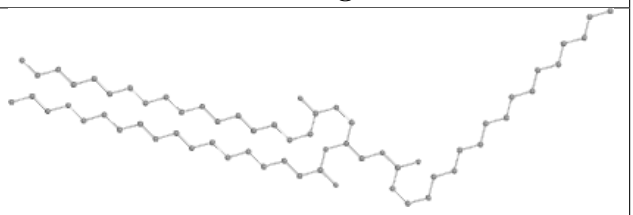
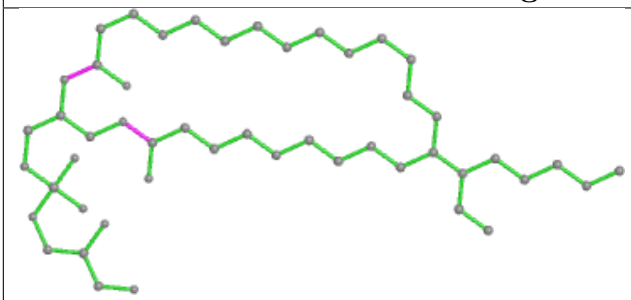


Rings

Ligand PGV N 607



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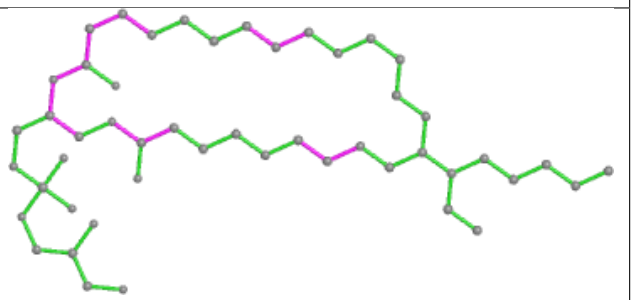
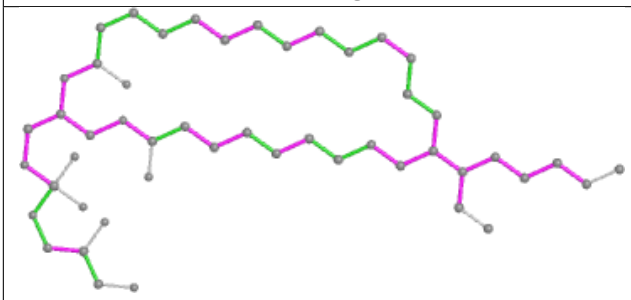


Bond angles



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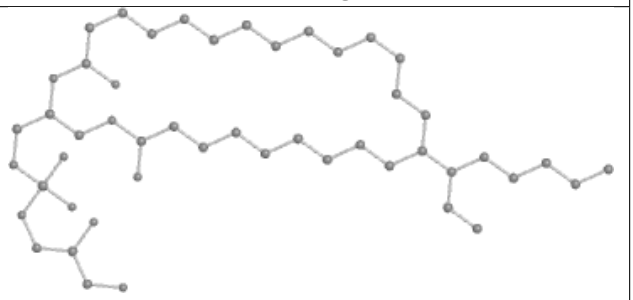
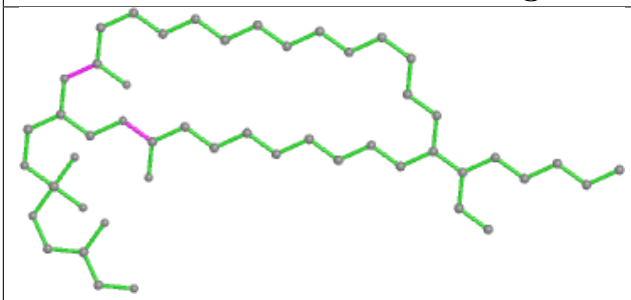


Rings

Ligand PGV P 301



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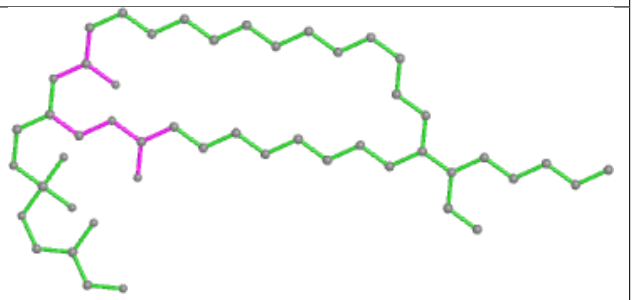
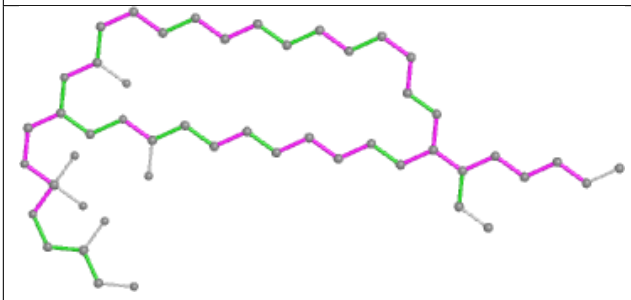


Bond angles



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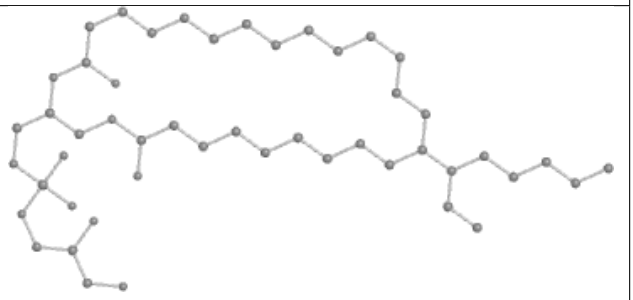
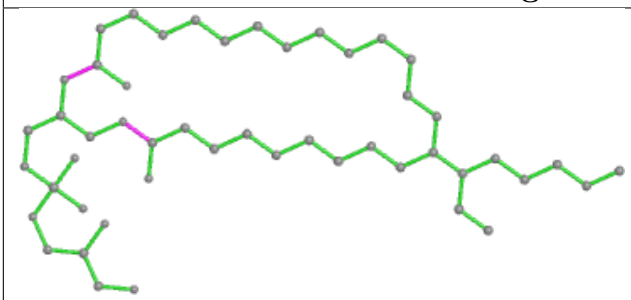


Rings

Ligand PGV C 308



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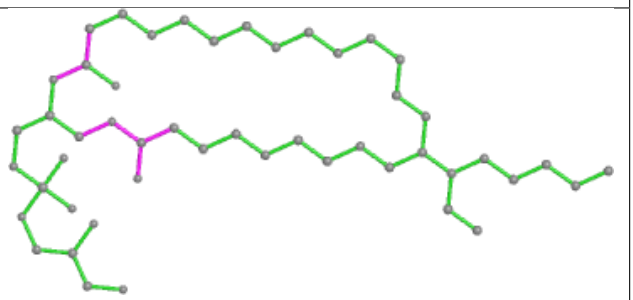
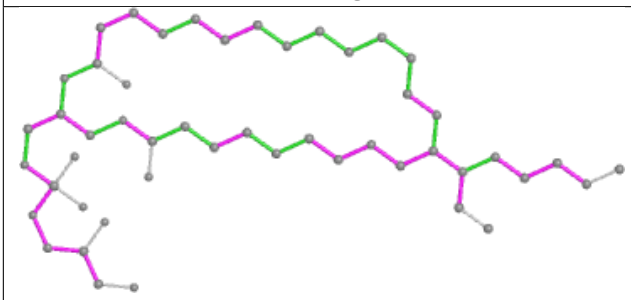


Bond angles



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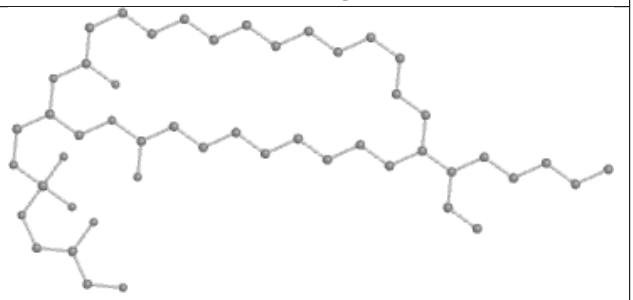
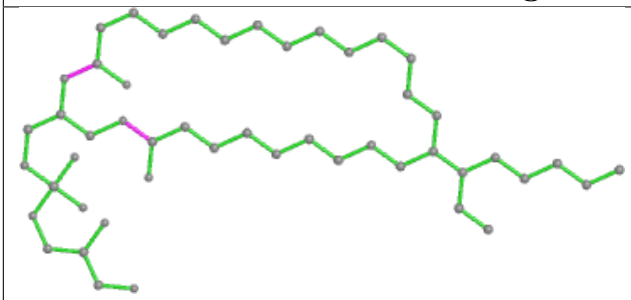


Rings

Ligand PGV P 304



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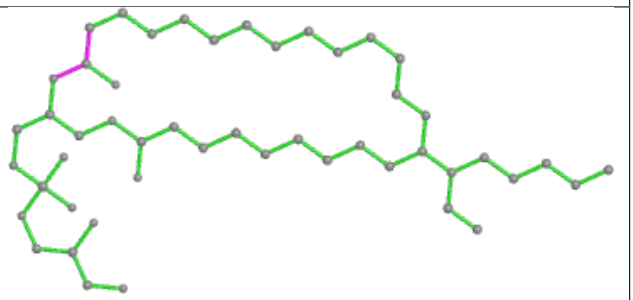
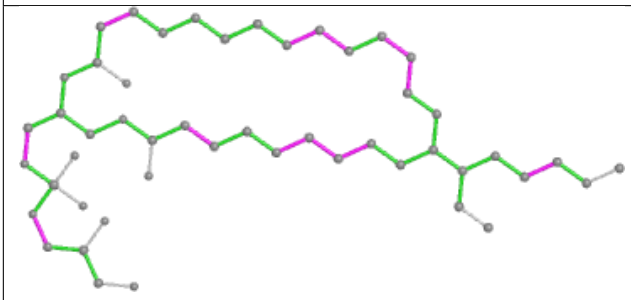


Bond angles



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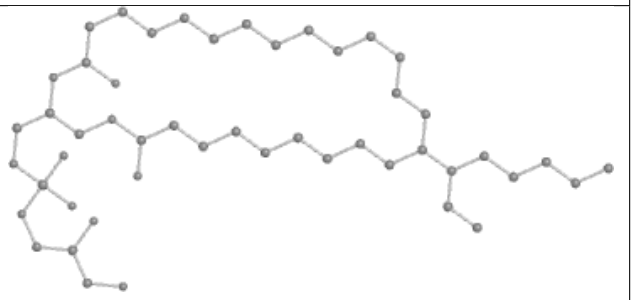
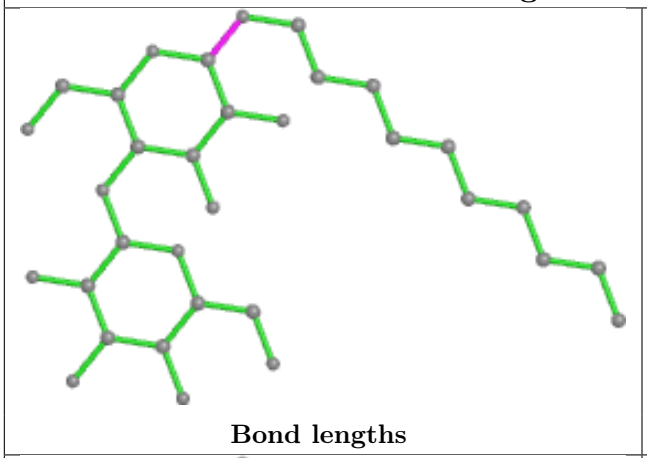


Rings

Ligand DMU Z 101



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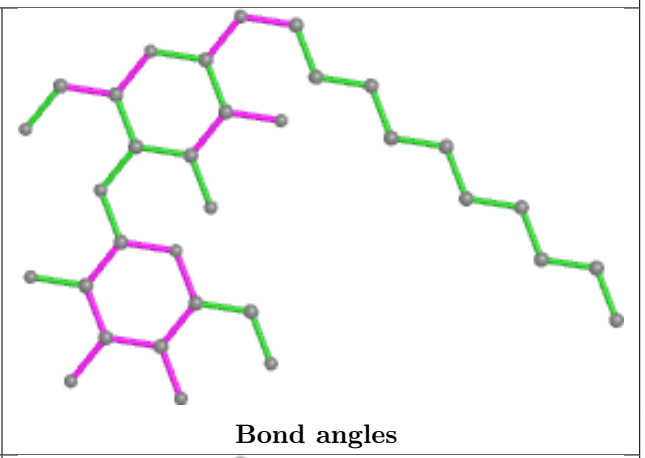
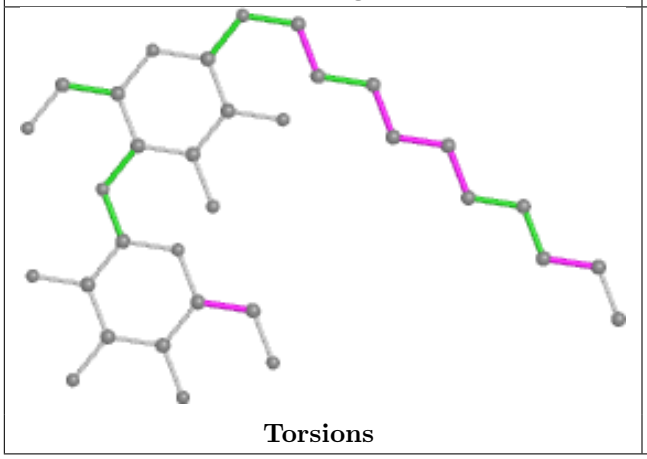


Bond angles



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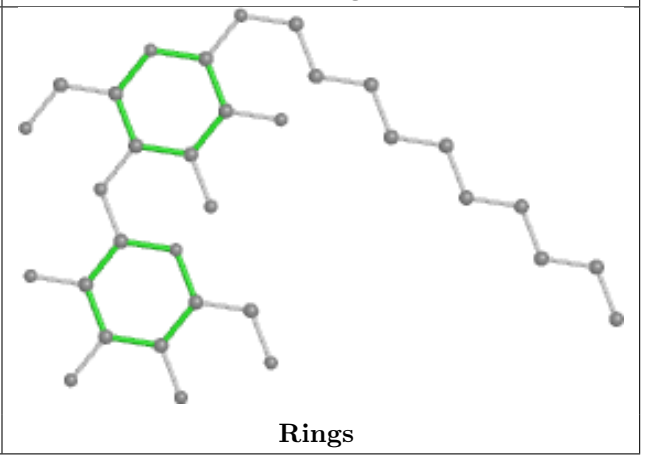
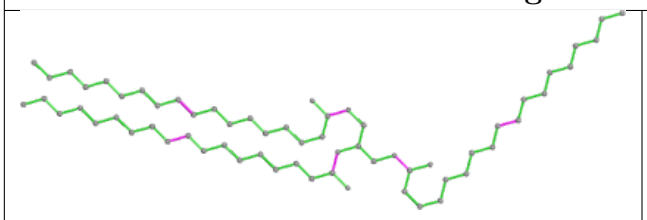


Rings

Ligand TGL Y 101



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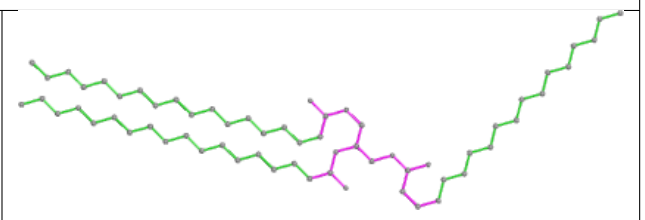
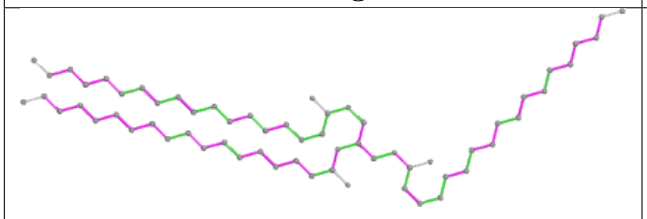


Bond angles



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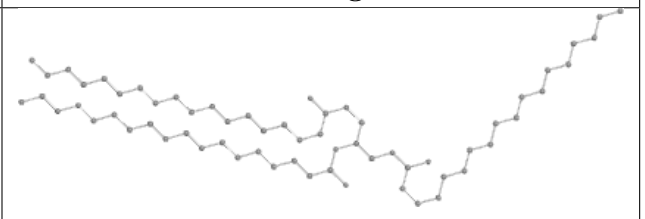
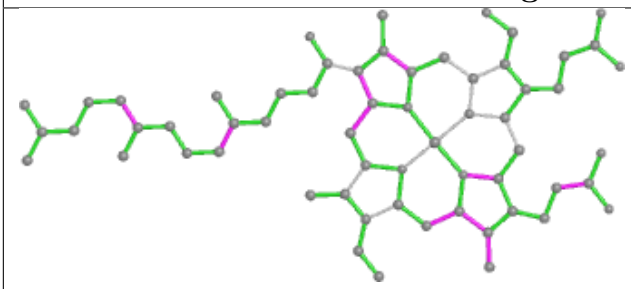
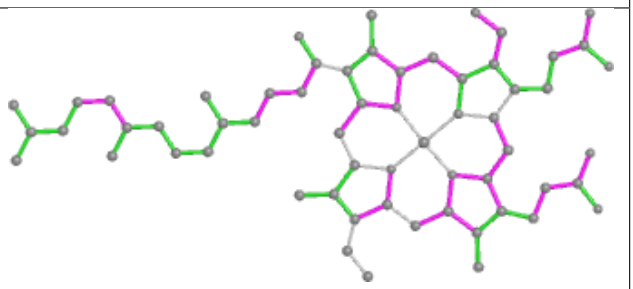


Rings

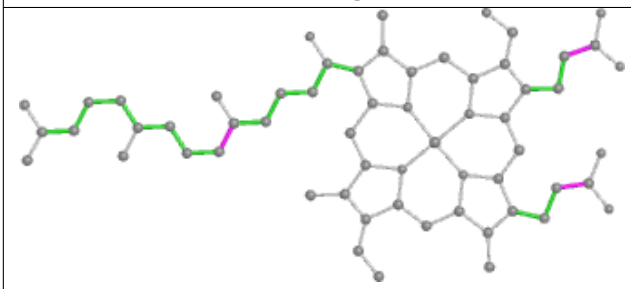
Ligand HEA N 602



Bond lengths



Bond angles



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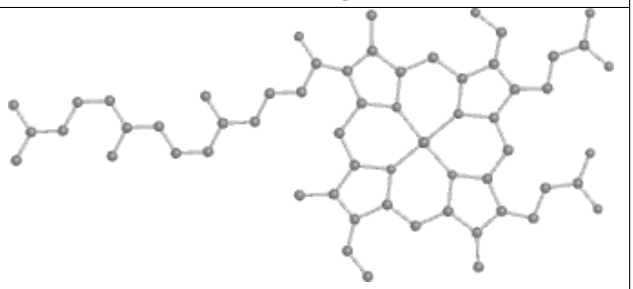
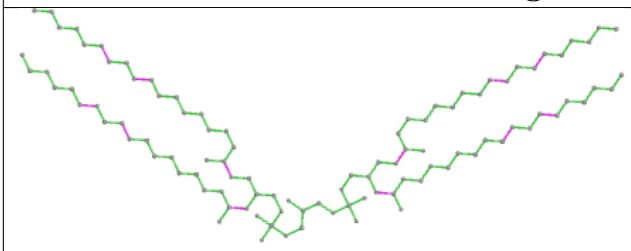


Rings

Ligand CDL T 102



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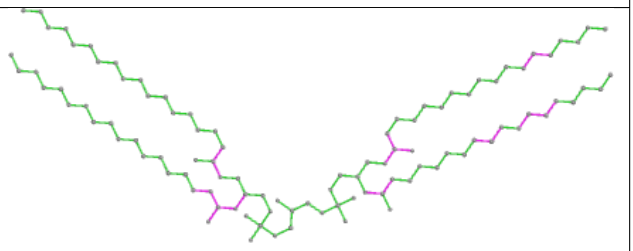
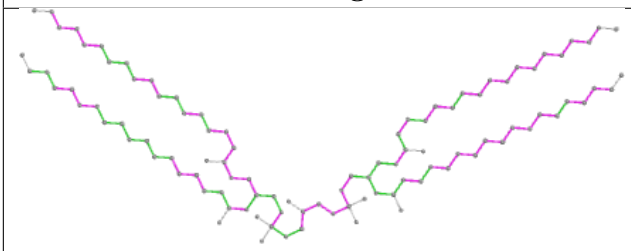


Bond angles



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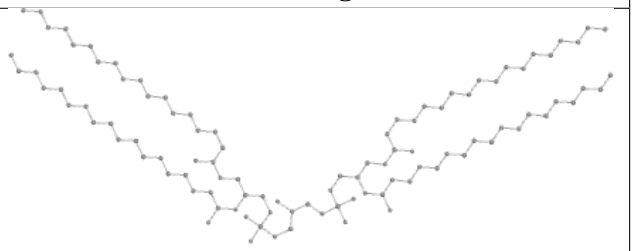
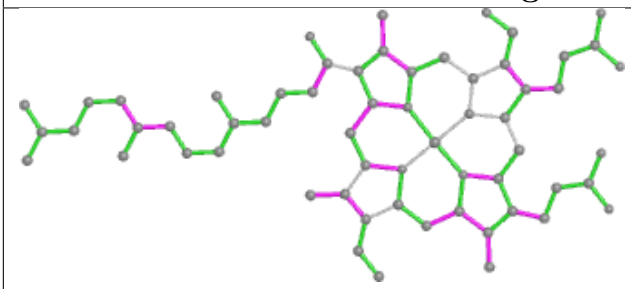


Rings

Ligand HEA A 602



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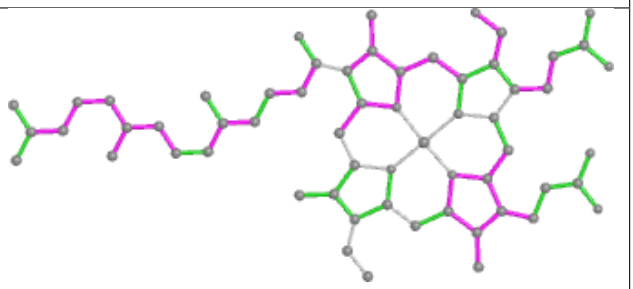
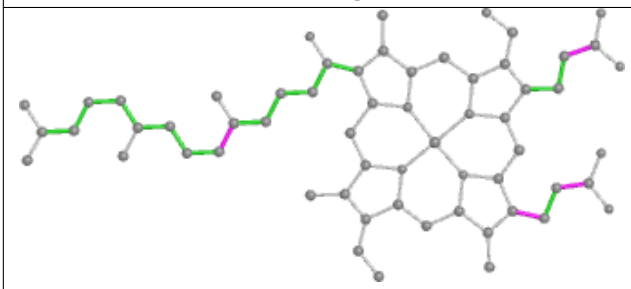


Bond angles



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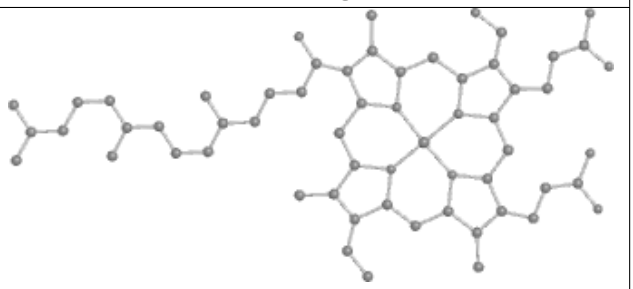
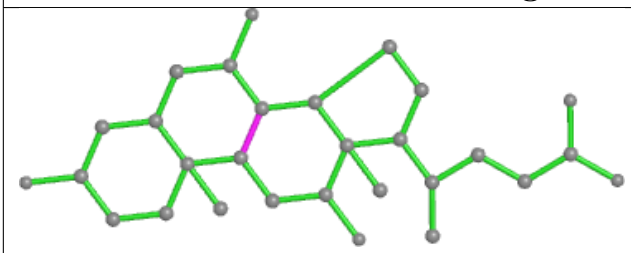


Rings

Ligand CHD P 306



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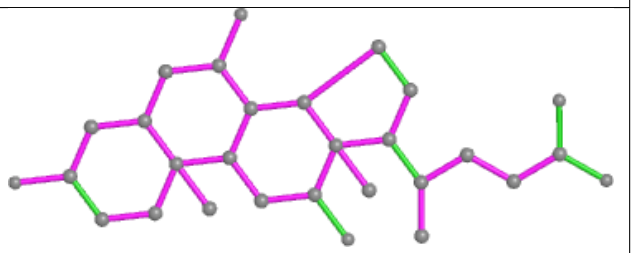
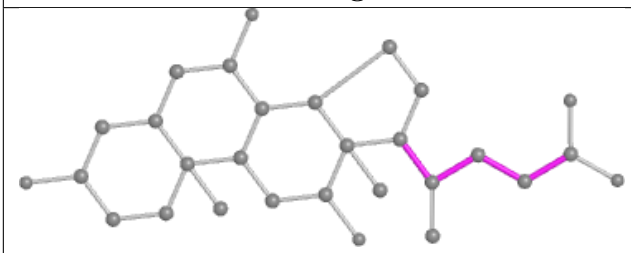


Bond angles



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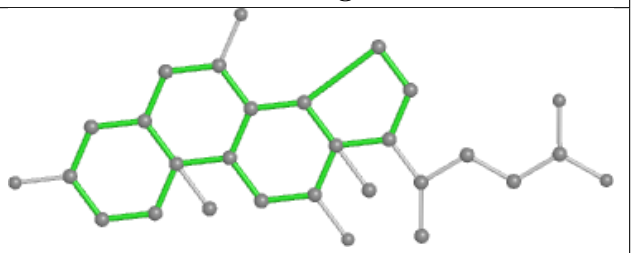
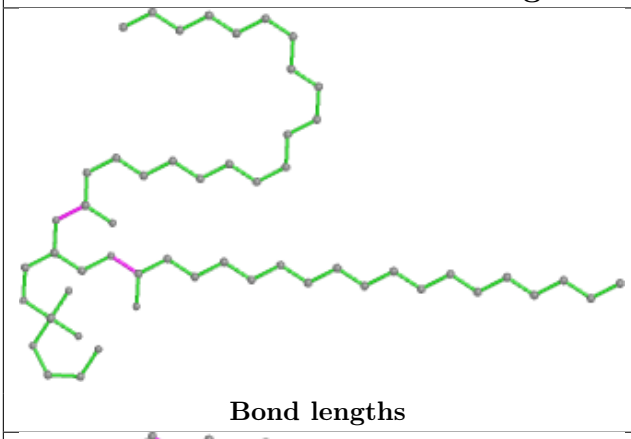


Rings

Ligand PEK C 302



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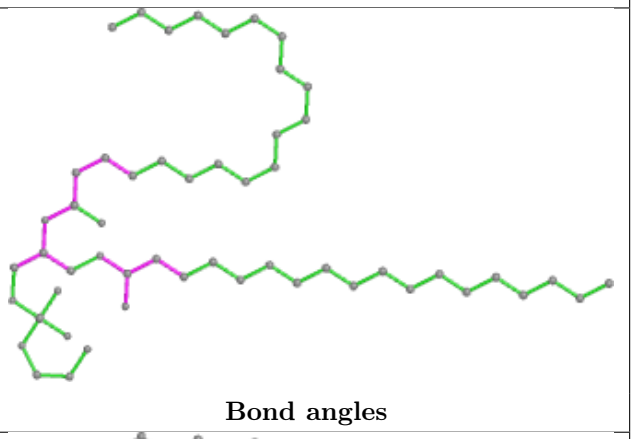
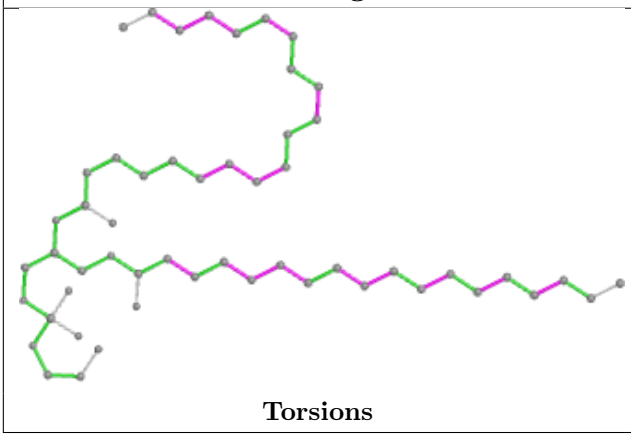
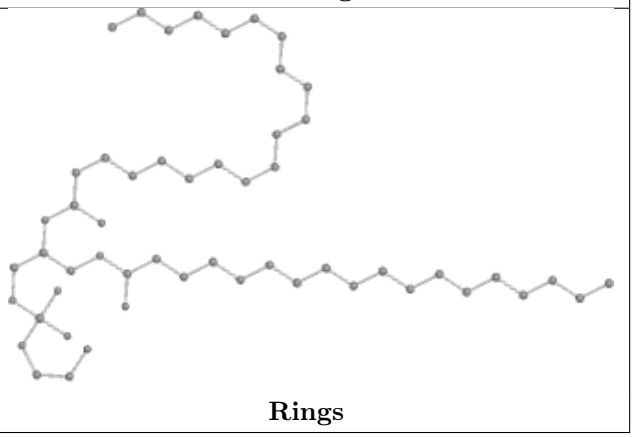


Bond angles

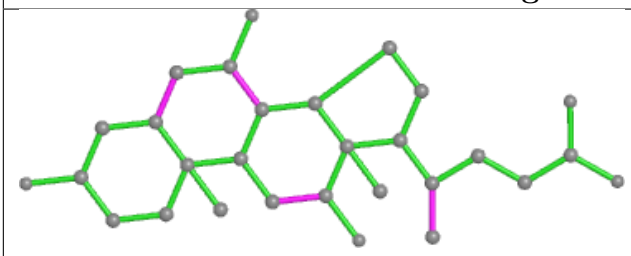


Torsions



Rings

Ligand CHD P 307



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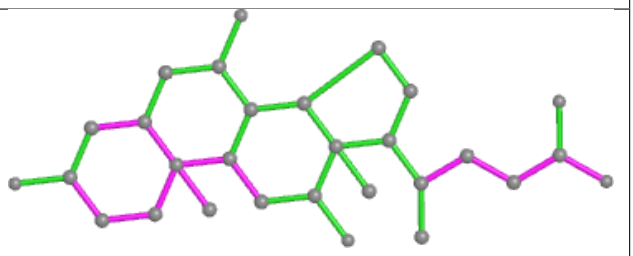
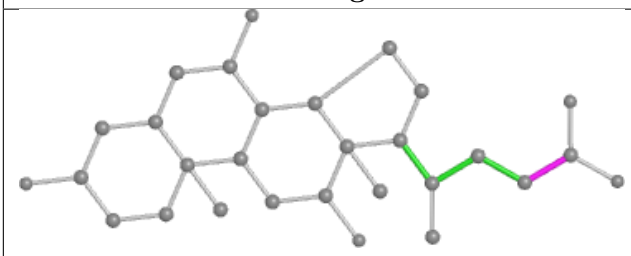


Bond angles



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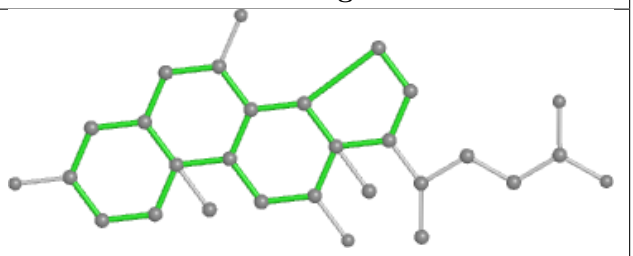
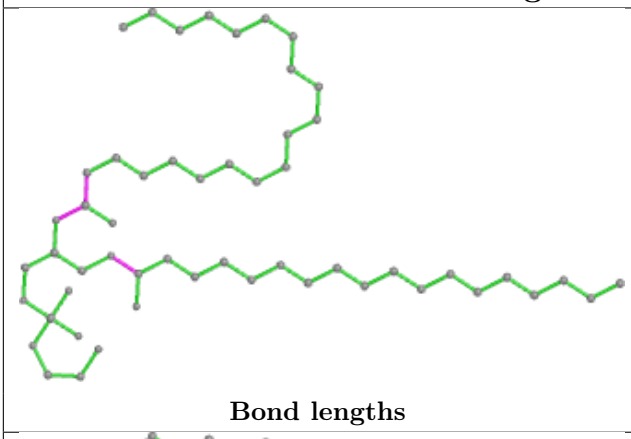
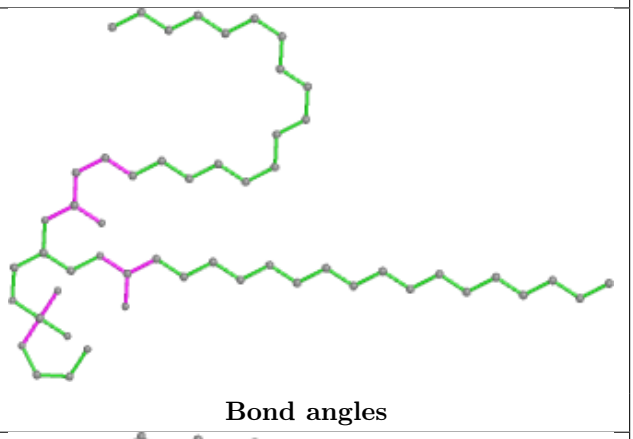


Rings

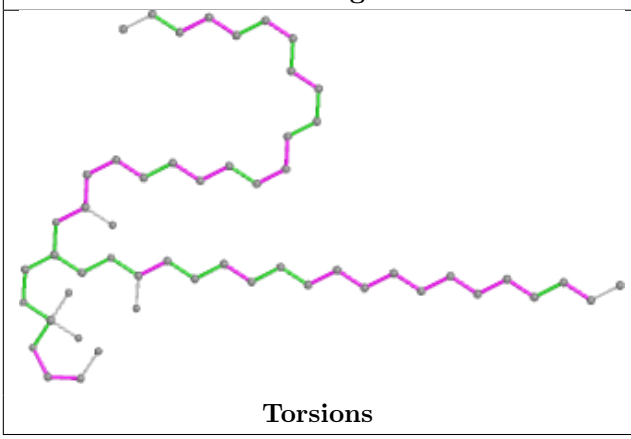
Ligand PEK P 303



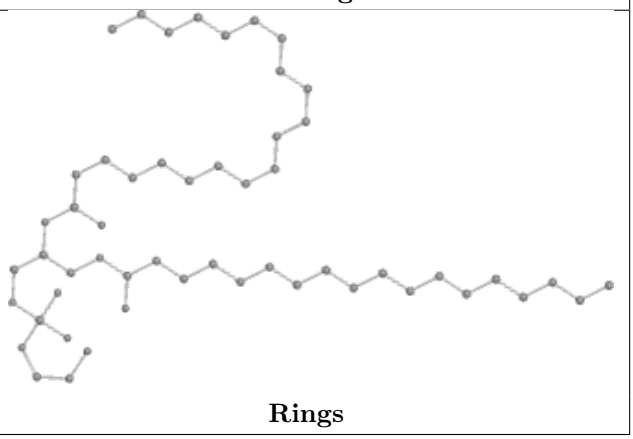
Bond lengths



Bond angles

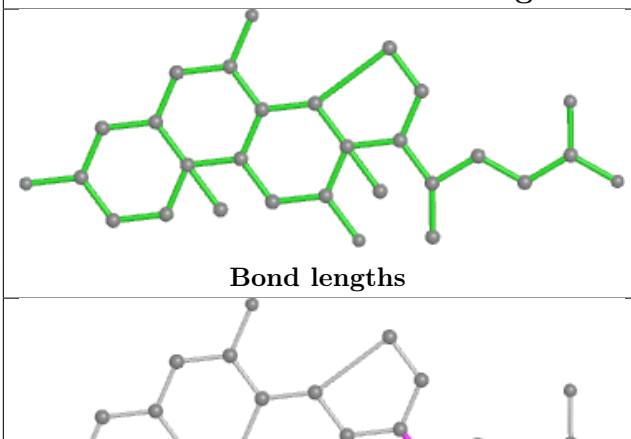


Torsions

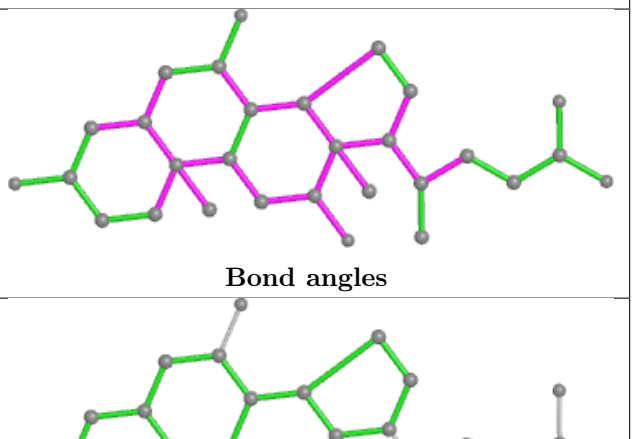


Rings

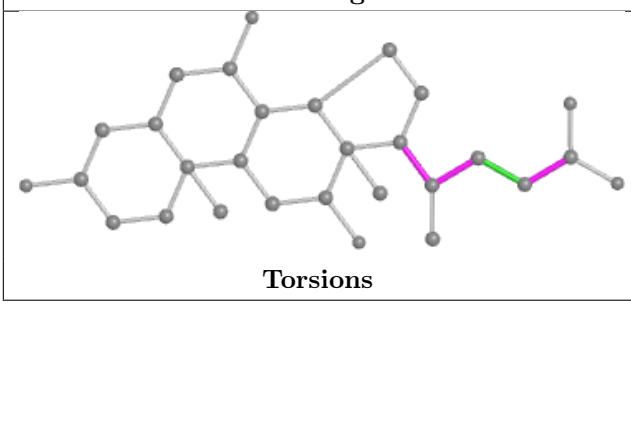
Ligand CHD W 101



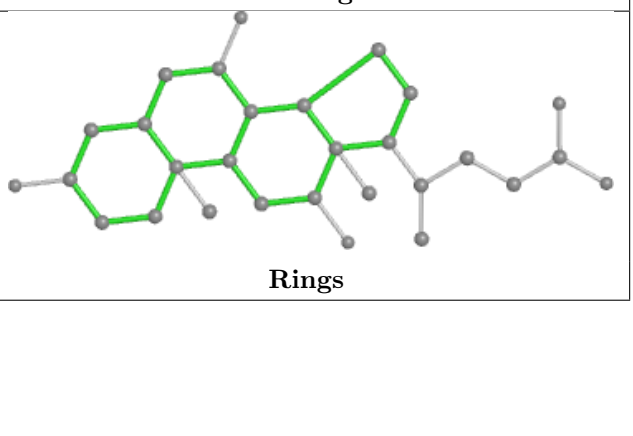
Bond lengths



Bond angles

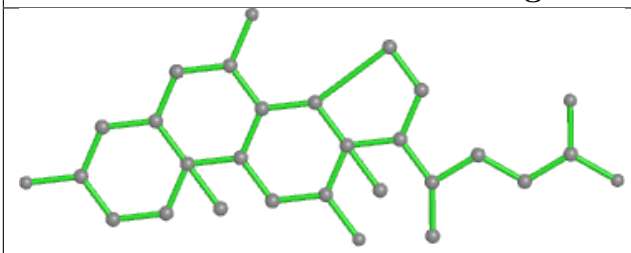


Torsions



Rings

Ligand CHD J 101



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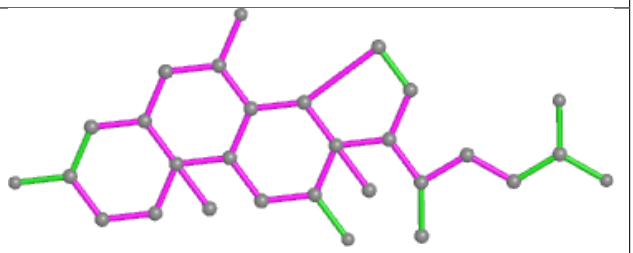
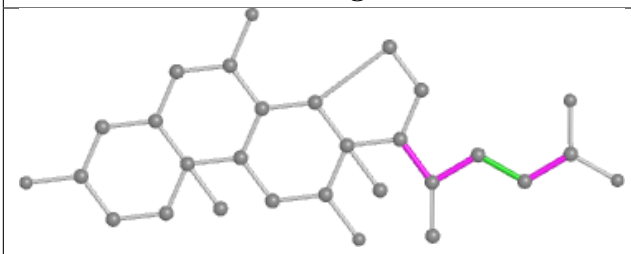


Bond angles



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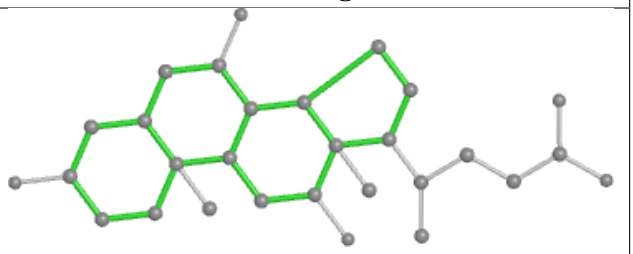
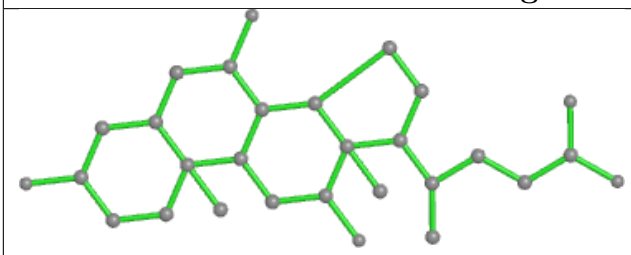


Rings

Ligand CHD C 305



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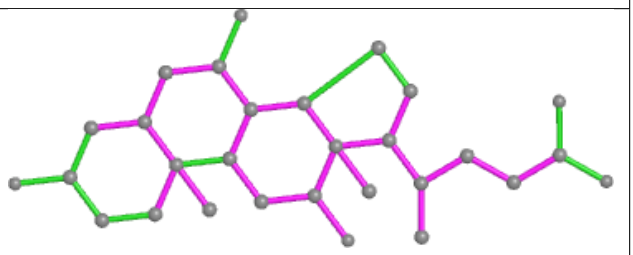
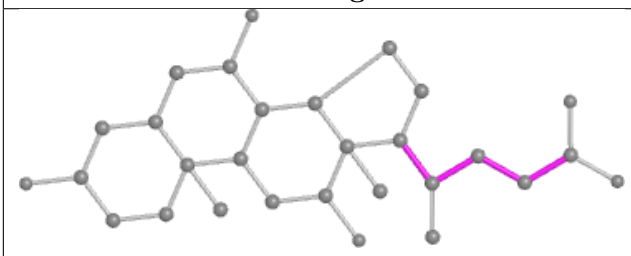


Bond angles



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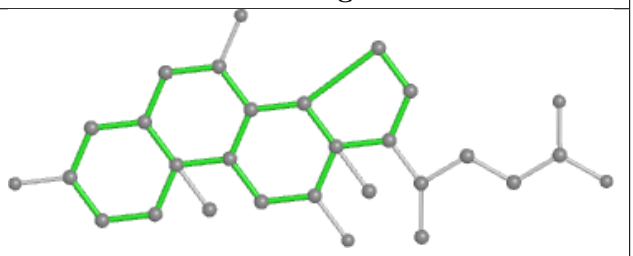
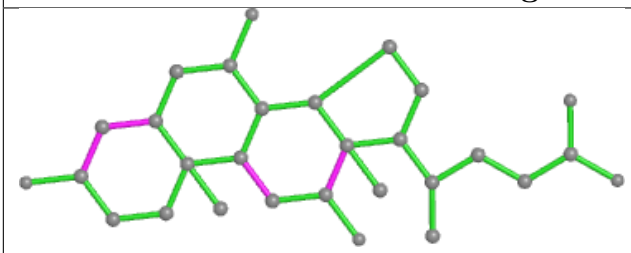


Rings

Ligand CHD B 303



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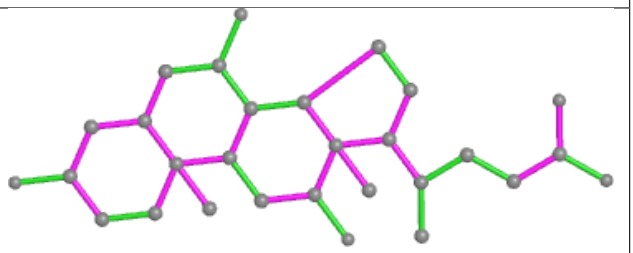
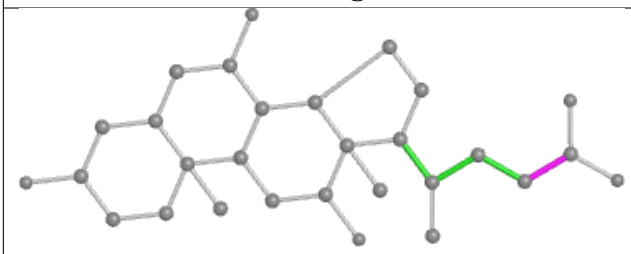


Bond angles



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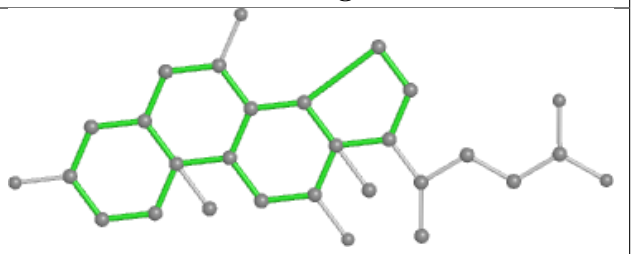
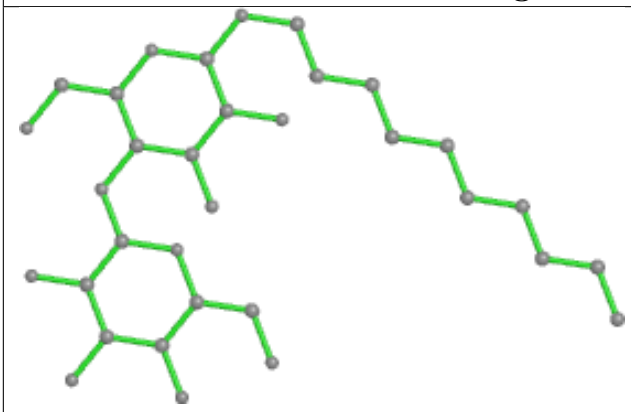


Rings

Ligand DMU M 101



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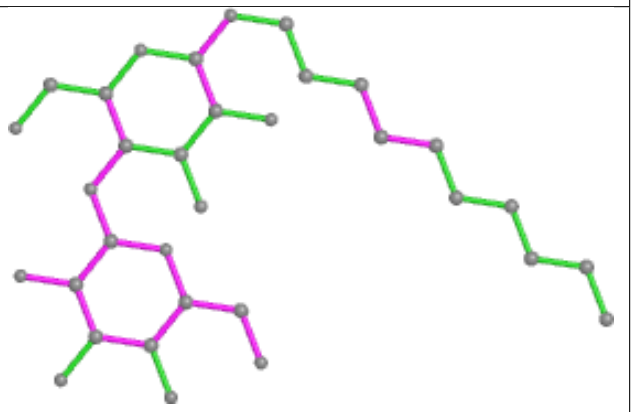
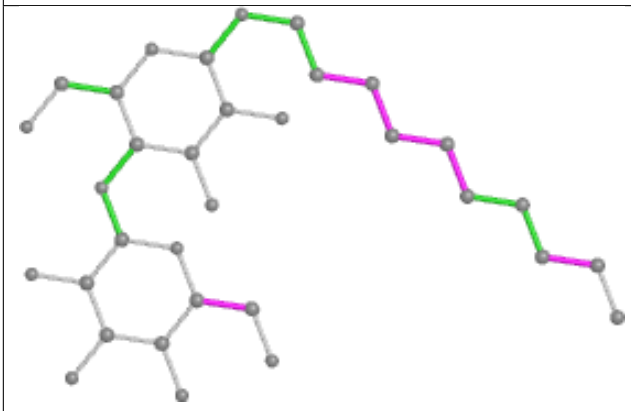


Bond angles



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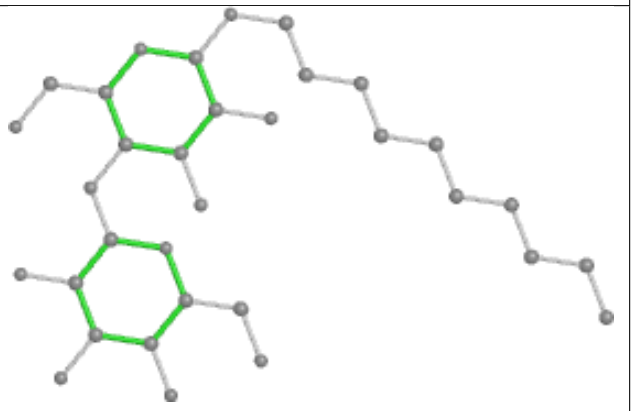
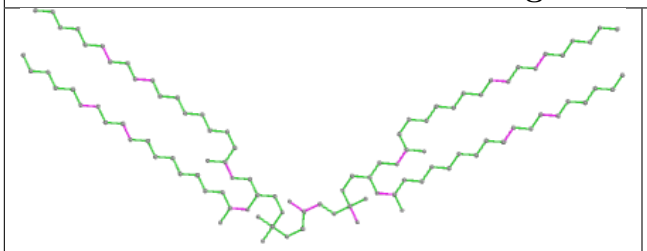


Rings

Ligand CDL P 305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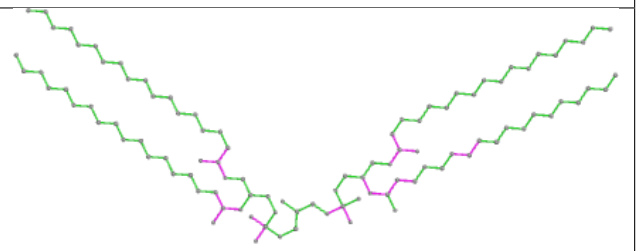
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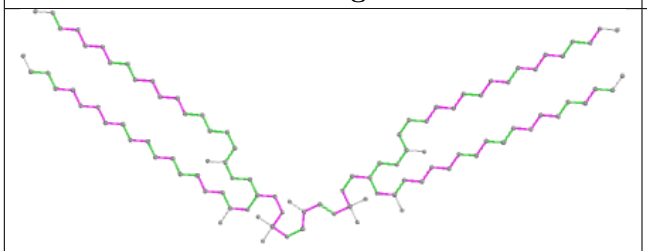
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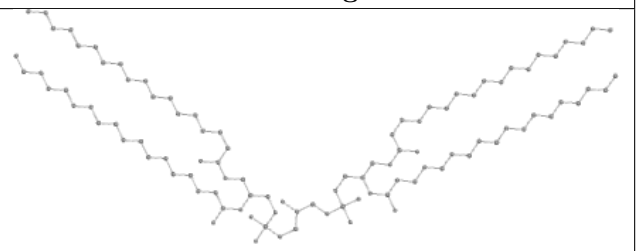
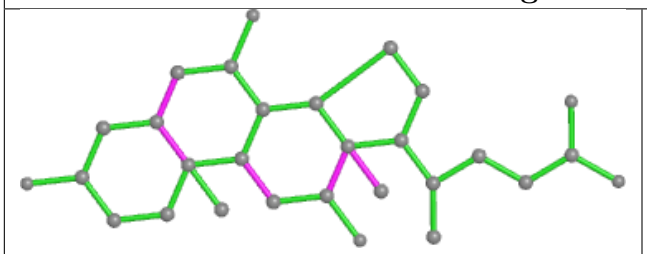

Rings

Ligand CHD G 103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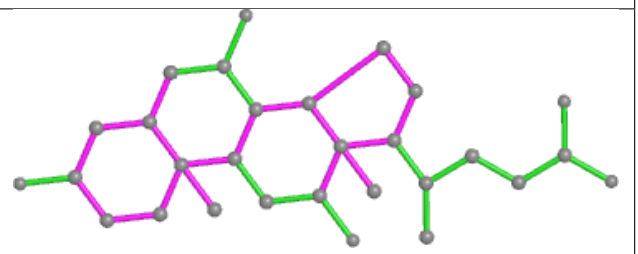
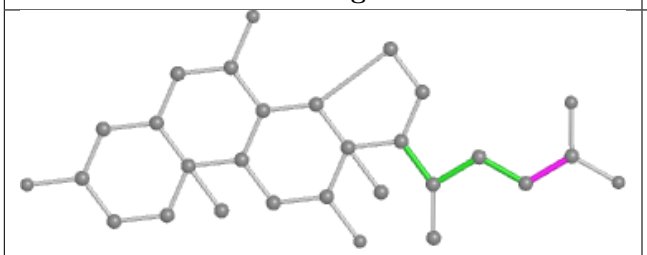

Bond angles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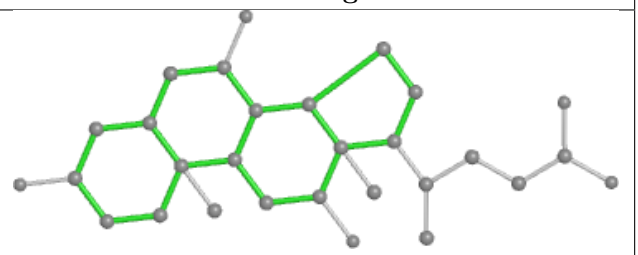
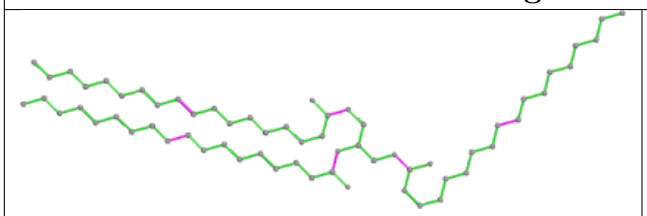
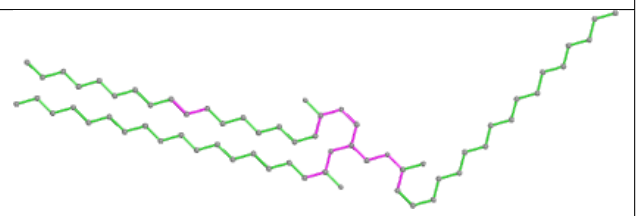
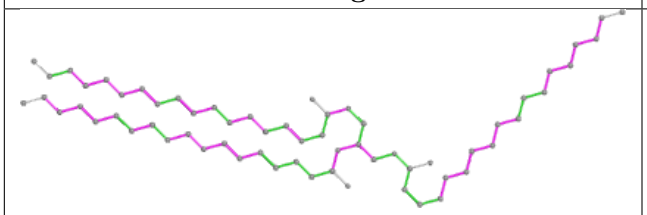

Rings

Ligand TGL N 609


Bond lengths


Bond angles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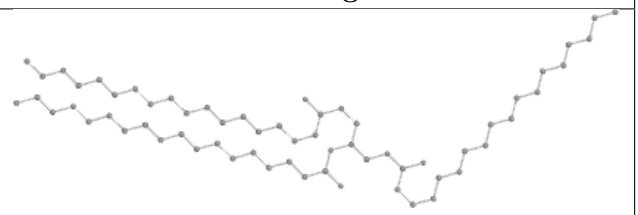
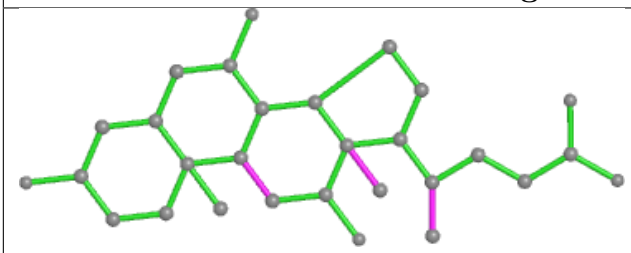

Rings

Ligand CHD C 306



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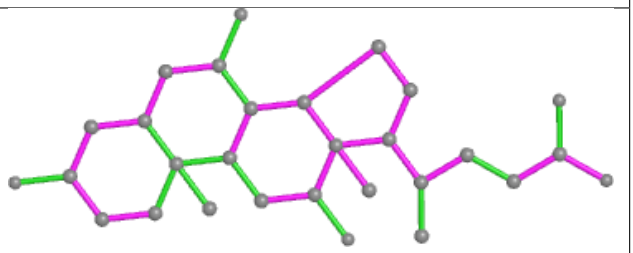
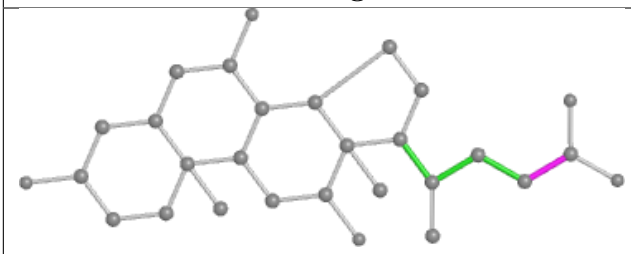


Bond angles



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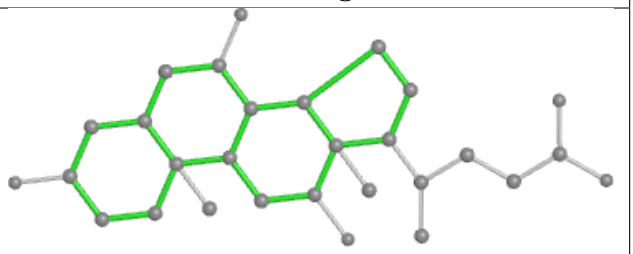
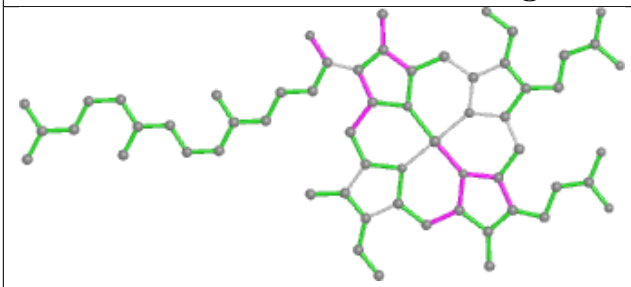


Rings

Ligand HEA N 601



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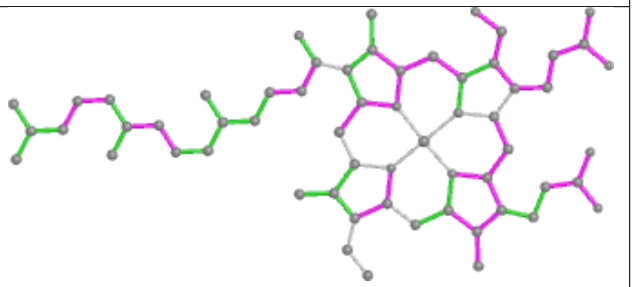
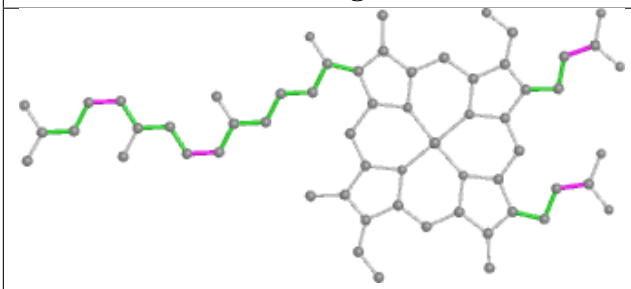


Bond angles



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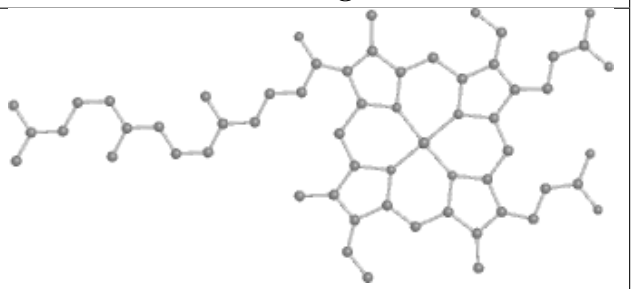
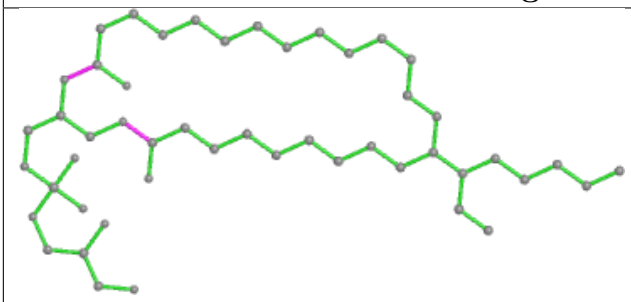


Rings

Ligand PGV C 303



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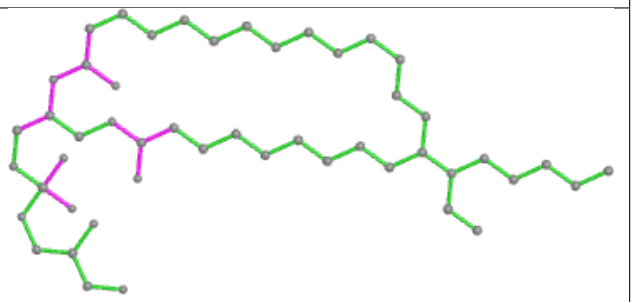
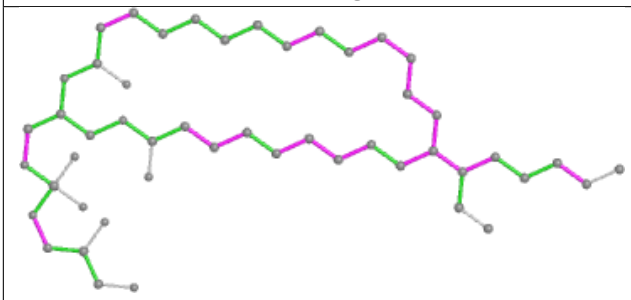


Bond angles



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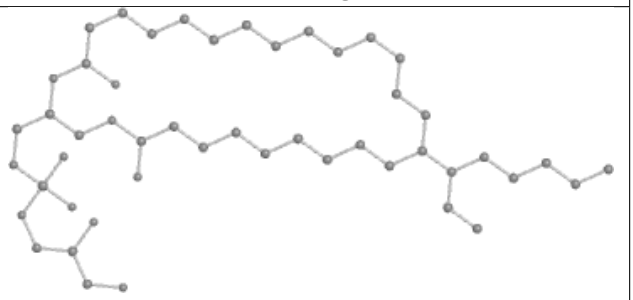
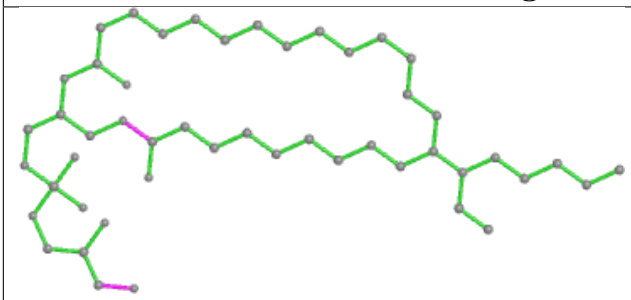


Rings

Ligand PGV N 608



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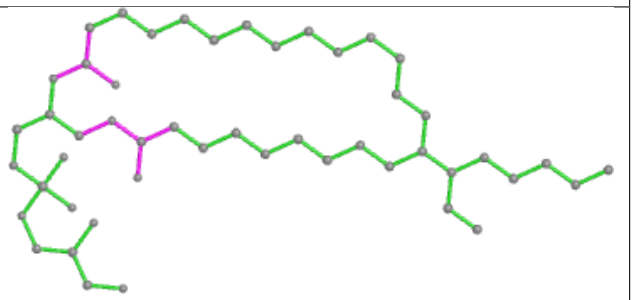
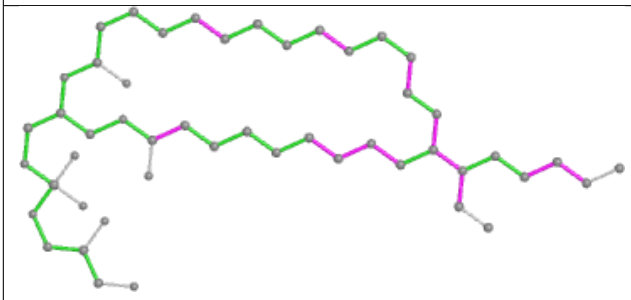
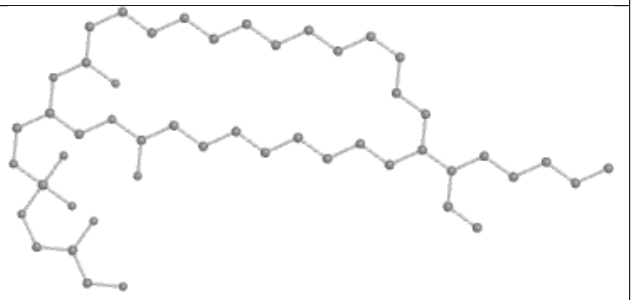


Bond angles

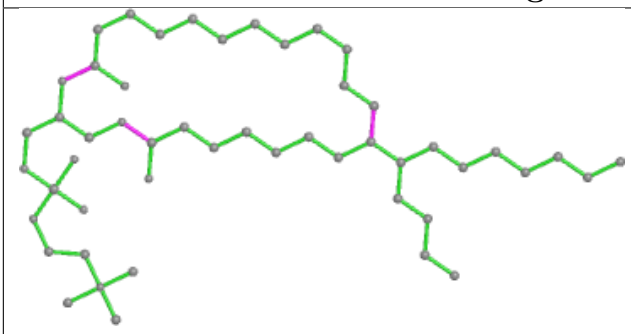


Torsions

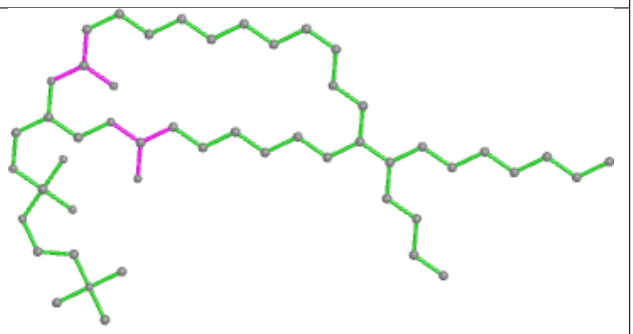


Rings

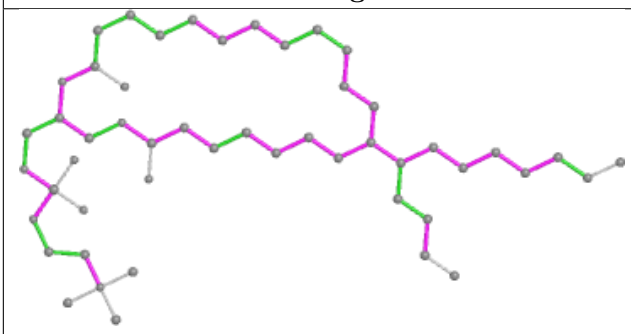
Ligand PSC B 304



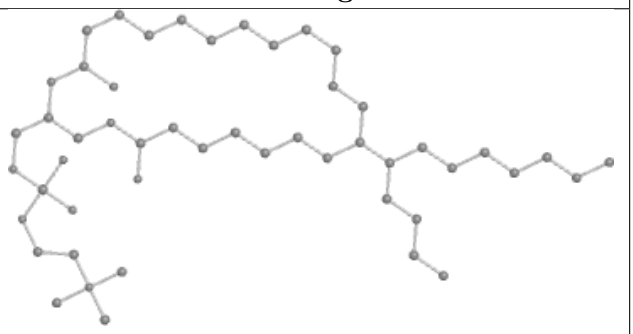
Bond lengths



Bond angles

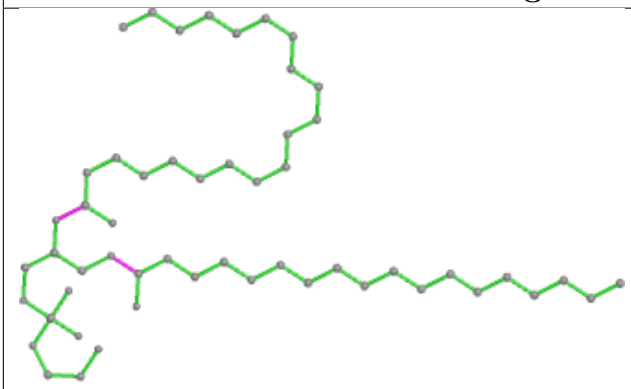


Torsions

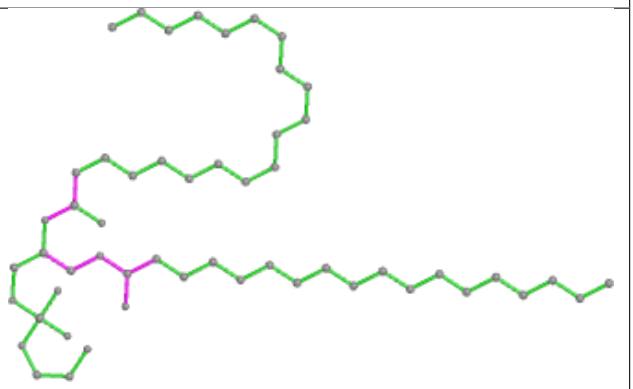


Rings

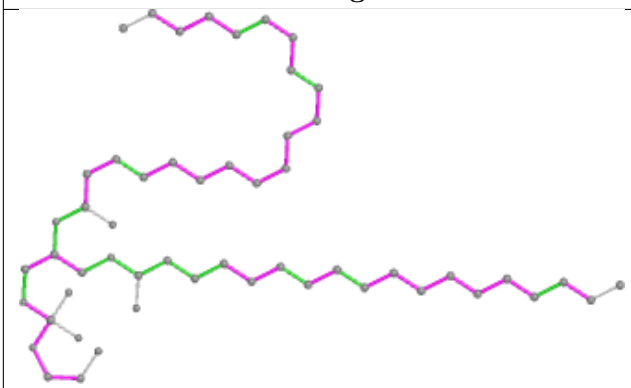
Ligand PEK P 308



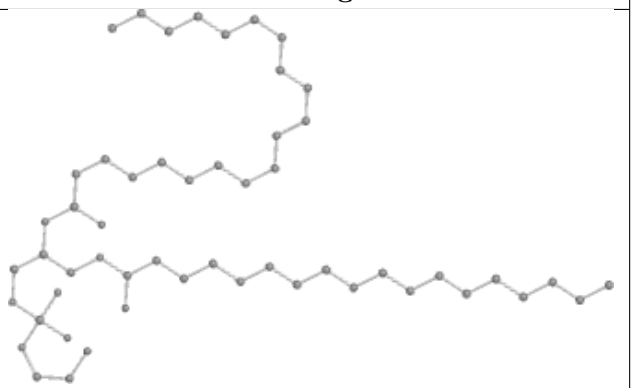
Bond lengths



Bond angles

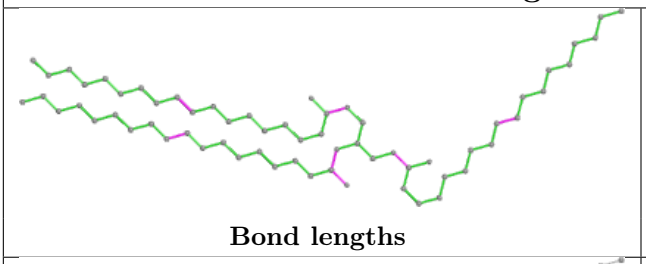


Torsions

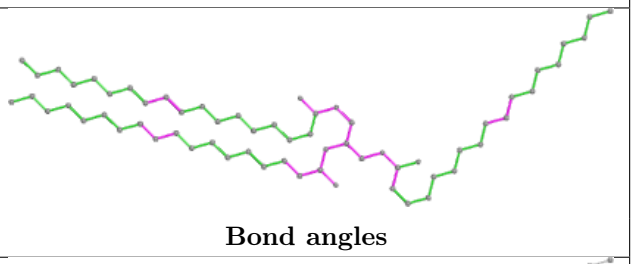


Rings

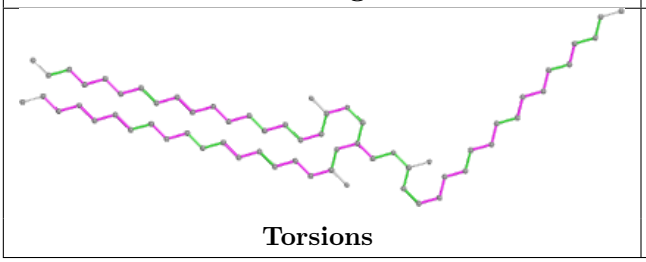
Ligand TGL D 201



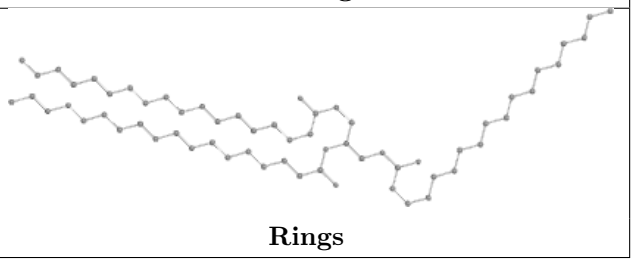
Bond lengths



Bond angles

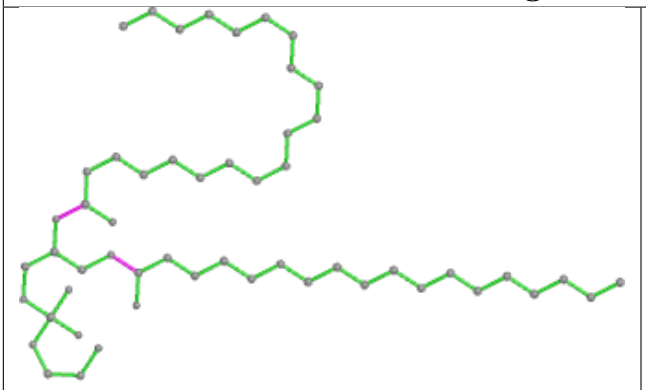


Torsions

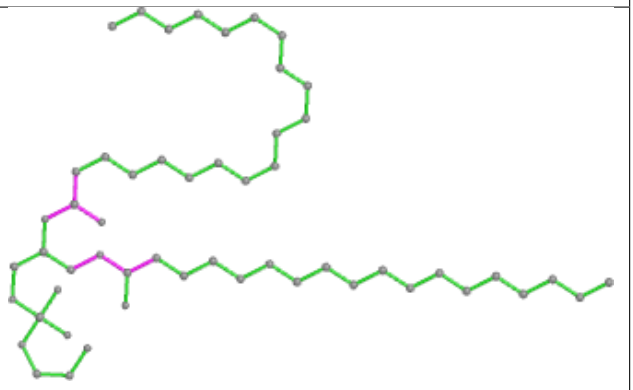


Rings

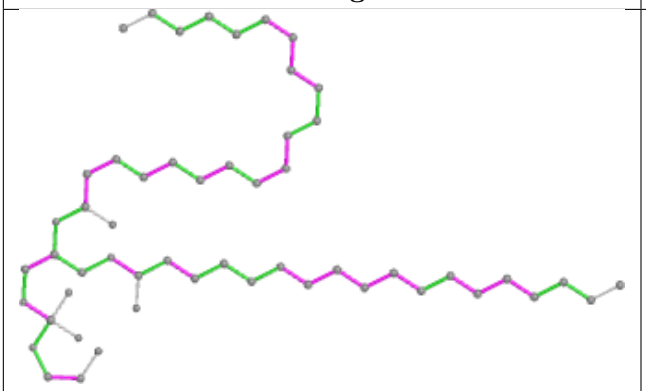
Ligand PEK T 101



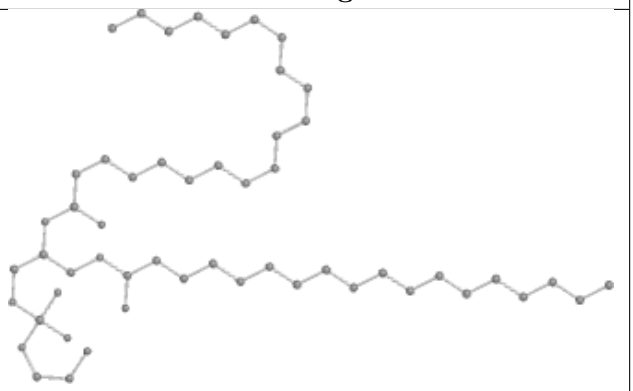
Bond lengths



Bond angles

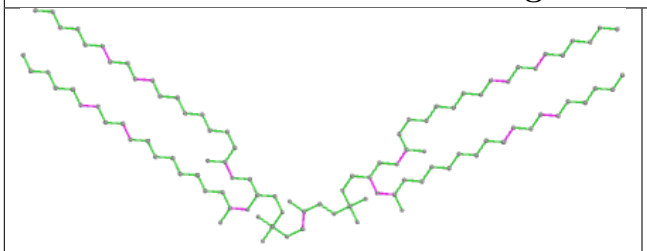


Torsions

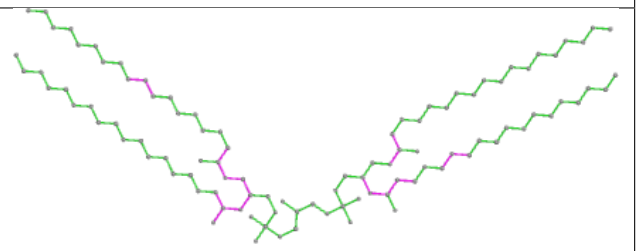


Rings

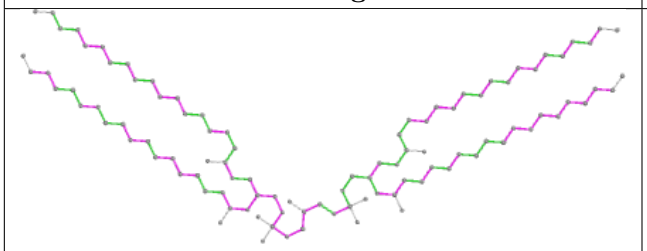
Ligand CDL C 304



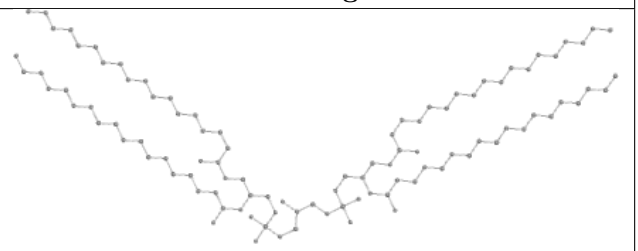
Bond lengths



Bond angles

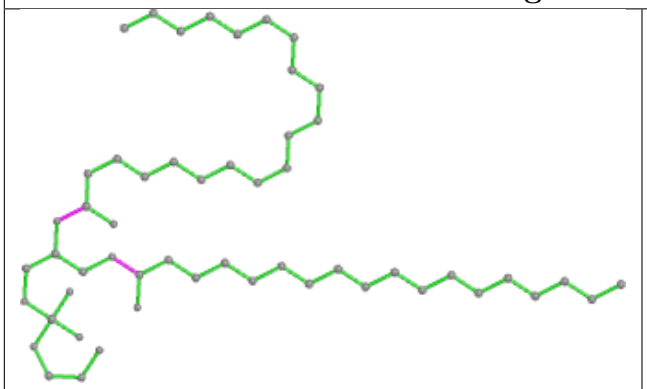


Torsions

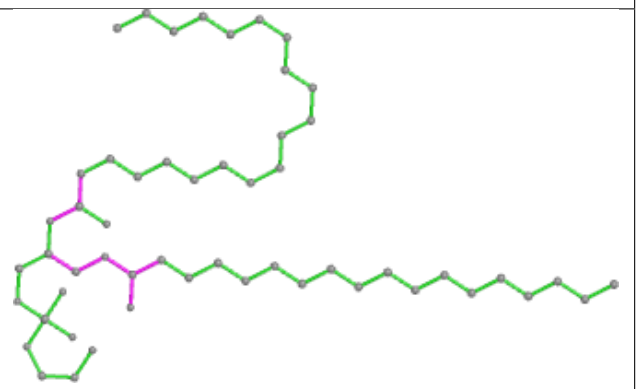


Rings

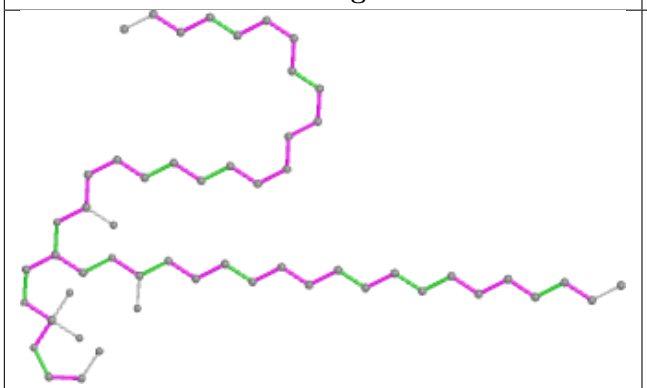
Ligand PEK C 307



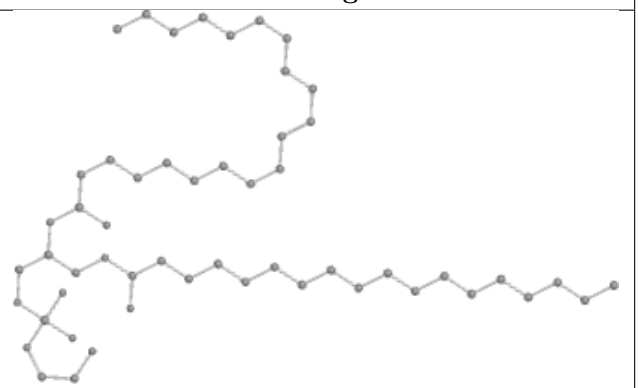
Bond lengths



Bond angles

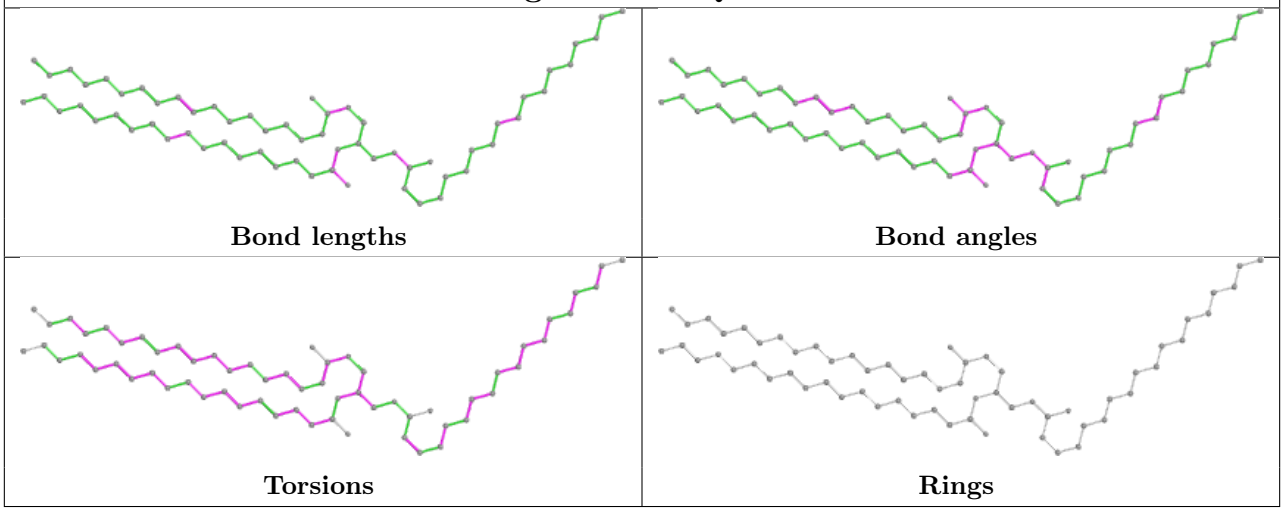


Torsions

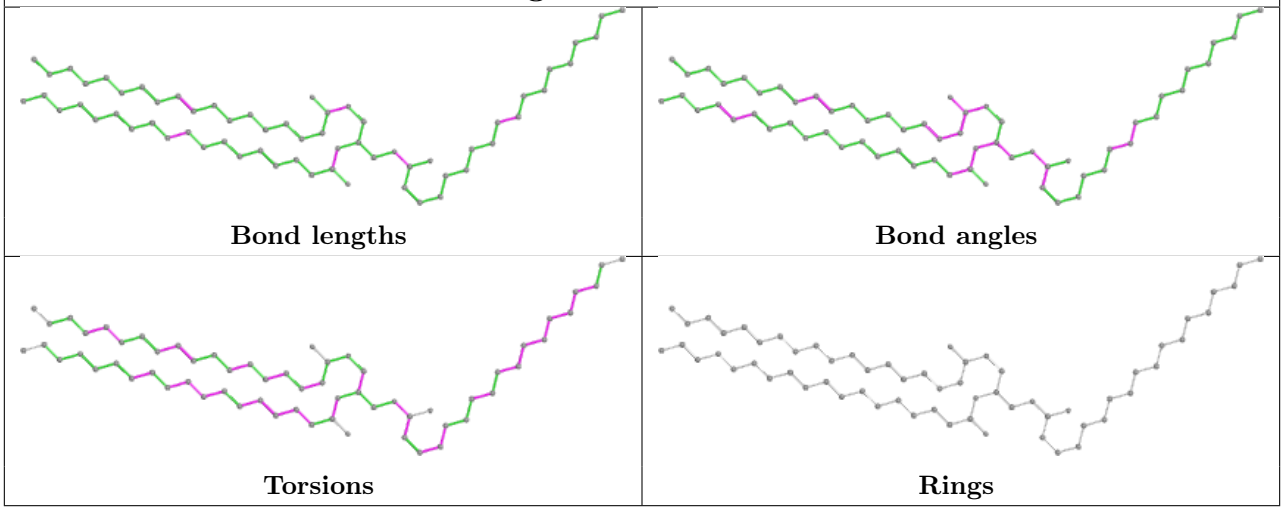


Rings

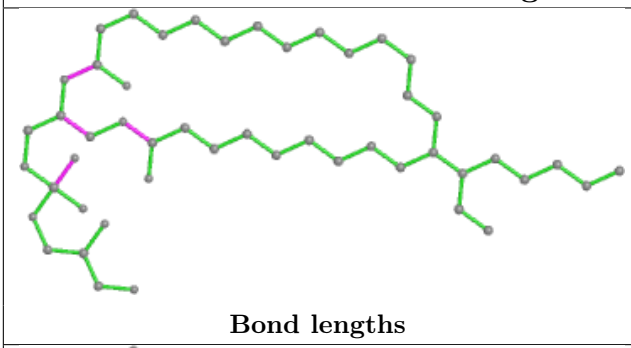
Ligand TGL Q 201



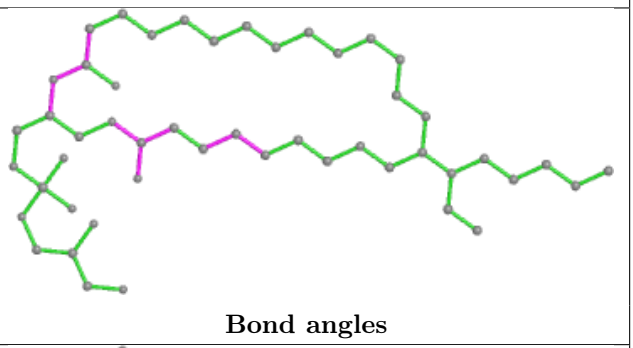
Ligand TGL L 101



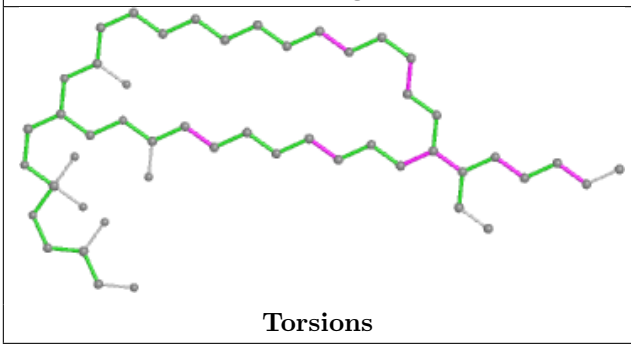
Ligand PGV A 607



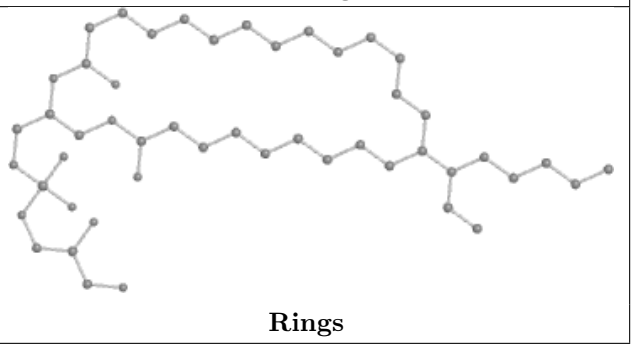
Bond lengths



Bond angles

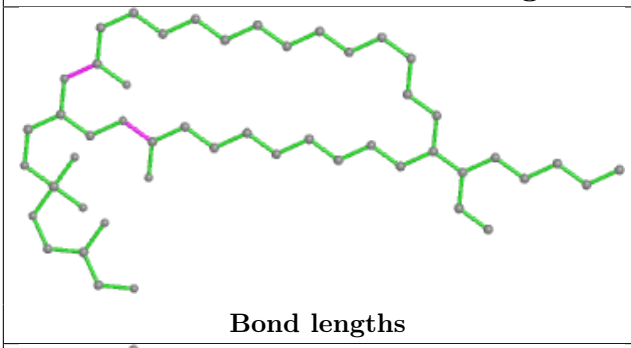


Torsions

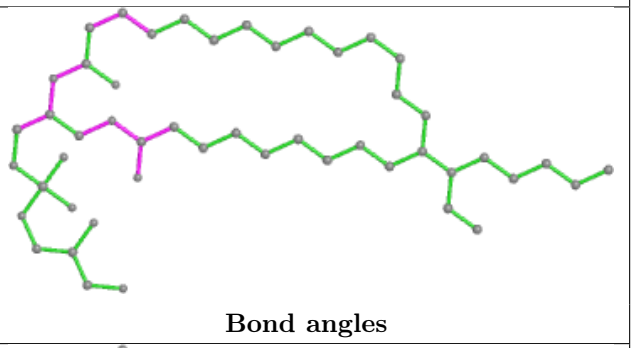


Rings

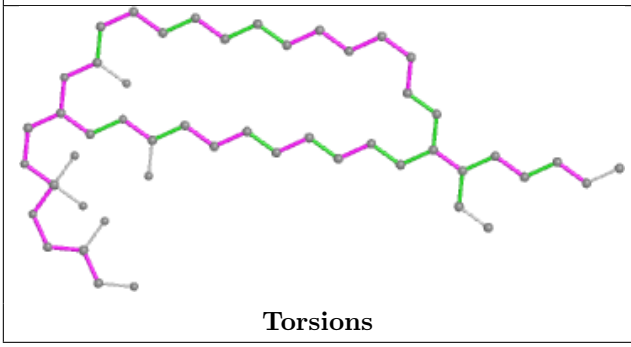
Ligand PGV A 608



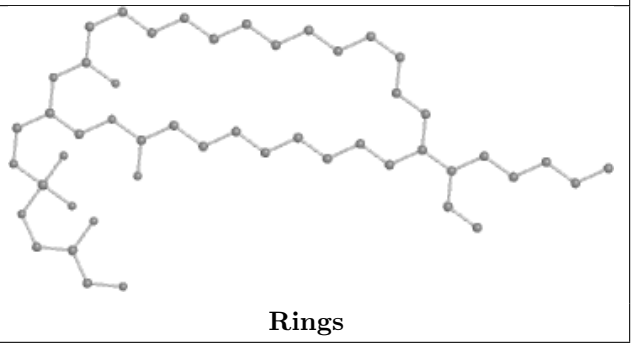
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	513/514 (99%)	0.39	14 (2%) 54 57	12, 15, 22, 51	0
1	N	513/514 (99%)	0.08	7 (1%) 75 77	9, 14, 20, 51	0
2	B	226/227 (99%)	0.30	13 (5%) 23 25	9, 18, 39, 65	0
2	O	226/227 (99%)	0.52	22 (9%) 7 9	11, 17, 41, 62	0
3	C	259/261 (99%)	0.17	8 (3%) 49 51	11, 17, 26, 59	0
3	P	259/261 (99%)	0.12	5 (1%) 66 69	10, 16, 26, 46	0
4	D	144/147 (97%)	0.29	8 (5%) 24 27	12, 18, 35, 57	0
4	Q	144/147 (97%)	1.57	43 (29%) 0 0	13, 23, 48, 106	0
5	E	105/109 (96%)	0.57	13 (12%) 4 4	11, 17, 41, 88	0
5	R	105/109 (96%)	1.06	16 (15%) 2 2	13, 18, 36, 89	0
6	F	98/98 (100%)	0.94	12 (12%) 4 4	15, 23, 68, 118	0
6	S	98/98 (100%)	0.89	14 (14%) 2 2	13, 20, 61, 97	0
7	G	83/85 (97%)	1.19	21 (25%) 0 0	11, 20, 73, 90	0
7	T	83/85 (97%)	1.51	22 (26%) 0 0	10, 20, 77, 101	0
8	H	79/85 (92%)	0.98	13 (16%) 1 1	16, 24, 62, 76	0
8	U	79/85 (92%)	1.33	21 (26%) 0 0	14, 22, 63, 76	0
9	I	72/73 (98%)	1.16	18 (25%) 0 0	15, 26, 53, 63	0
9	V	72/73 (98%)	2.03	32 (44%) 0 0	13, 26, 47, 58	0
10	J	58/59 (98%)	0.73	8 (13%) 2 3	17, 25, 45, 86	0
10	W	58/59 (98%)	1.19	14 (24%) 0 0	13, 22, 51, 91	0
11	K	49/56 (87%)	0.95	6 (12%) 4 4	16, 22, 36, 42	0
11	X	49/56 (87%)	2.14	23 (46%) 0 0	16, 21, 37, 43	0
12	L	46/47 (97%)	0.32	2 (4%) 35 38	15, 19, 37, 64	0
12	Y	46/47 (97%)	0.66	4 (8%) 10 11	12, 19, 38, 70	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	M	43/46 (93%)	0.70	8 (18%) 1 1	14, 18, 44, 77	0
13	Z	43/46 (93%)	1.56	12 (27%) 0 0	12, 18, 48, 66	0
All	All	3550/3614 (98%)	0.61	379 (10%) 6 6	9, 17, 43, 118	0

All (379) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
4	Q	5	VAL	16.5
6	F	97	ALA	15.4
6	S	97	ALA	14.7
4	Q	6	VAL	13.8
7	G	10	GLY	12.3
6	F	98	HIS	12.2
6	F	1	ALA	11.0
8	H	8	ILE	10.7
8	U	8	ILE	10.0
2	O	90	ILE	9.9
9	V	37	PHE	9.7
5	R	5	HIS	9.1
7	T	40	GLY	9.0
8	U	44	THR	8.8
6	S	1	ALA	8.8
7	T	8	HIS	8.5
8	H	44	THR	8.5
10	W	58	LYS	8.3
5	E	5	HIS	8.1
7	T	39	SER	8.1
9	I	37	PHE	8.0
13	M	42	LYS	7.8
8	U	10	ASN	7.6
6	S	96	LEU	7.6
7	T	36	TRP	7.6
8	H	45	ALA	7.6
6	F	96	LEU	7.5
10	W	57	HIS	7.5
11	X	6	ALA	7.5
2	B	90	ILE	7.4
8	H	10	ASN	7.4
4	Q	35	ALA	7.4
7	T	84	LYS	7.2
9	V	2	THR	7.2

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Mol	Chain	Res	Type	RSRZ
4	D	4	SER	7.1
7	G	40	GLY	6.8
10	J	58	LYS	6.7
4	Q	8	SER	6.7
6	S	95	GLN	6.6
6	F	95	GLN	6.6
12	Y	47	LYS	6.5
13	Z	39	ASN	6.5
5	E	109	VAL	6.4
6	S	98	HIS	6.4
9	I	25	PHE	6.4
6	S	94	HIS	6.3
7	G	84	LYS	6.2
7	T	9	GLY	6.1
4	Q	7	LYS	6.0
9	V	25	PHE	5.8
13	M	43	SER	5.8
6	F	94	HIS	5.7
11	K	7	PRO	5.6
7	G	9	GLY	5.6
4	Q	4	SER	5.6
2	O	224	ALA	5.6
8	H	47	GLY	5.6
5	R	7	THR	5.5
10	W	1	PHE	5.5
9	V	34	PHE	5.4
7	T	10	GLY	5.3
7	T	42	ARG	5.3
13	Z	43	SER	5.3
9	V	33	THR	5.3
9	V	3	ALA	5.3
13	Z	42	LYS	5.3
9	V	30	GLY	5.2
7	T	41	HIS	5.2
7	G	42	ARG	5.2
7	T	2	SER	5.2
2	O	227	LEU	5.2
10	W	56	PRO	5.2
6	S	2	SER	5.2
7	T	43	GLU	5.1
2	B	60	GLU	5.1
4	Q	36	SER	5.1

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Mol	Chain	Res	Type	RSRZ
9	I	33	THR	4.9
9	V	26	MET	4.9
5	R	109	VAL	4.9
7	G	8	HIS	4.9
6	F	3	GLY	4.9
11	K	6	ALA	4.9
4	D	5	VAL	4.9
7	G	2	SER	4.9
12	Y	27	LEU	4.8
4	Q	32	ASN	4.8
12	L	2	HIS	4.8
2	O	91	ASN	4.7
4	Q	147	LYS	4.7
11	X	27	ALA	4.7
4	Q	33	LEU	4.7
8	U	11	TYR	4.7
9	I	30	GLY	4.6
9	V	29	LEU	4.6
7	T	3	ALA	4.6
8	U	49	ASP	4.6
2	O	113	TYR	4.6
7	T	38	HIS	4.6
4	Q	53	ILE	4.5
10	W	52	TRP	4.5
9	I	29	LEU	4.5
6	F	2	SER	4.5
7	G	39	SER	4.4
8	U	18	SER	4.4
13	Z	32	TRP	4.4
8	U	48	GLY	4.3
11	X	13	TYR	4.3
2	O	60	GLU	4.3
10	J	52	TRP	4.2
5	R	6	GLU	4.2
6	S	3	GLY	4.2
7	T	46	ALA	4.2
7	G	38	HIS	4.2
11	X	34	THR	4.2
9	I	26	MET	4.2
5	E	7	THR	4.2
4	Q	102	TYR	4.2
8	U	7	LYS	4.1

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Mol	Chain	Res	Type	RSRZ
7	G	41	HIS	4.1
5	R	13	ALA	4.1
7	G	37	LEU	4.1
2	O	217	LYS	4.1
7	G	43	GLU	4.1
5	R	10	GLU	4.0
10	W	48	TYR	4.0
4	Q	140	TYR	3.9
4	Q	31	LYS	3.9
11	X	30	VAL	3.9
11	X	23	THR	3.9
9	I	22	VAL	3.9
4	Q	46	ALA	3.9
4	Q	50	SER	3.9
2	O	59	GLN	3.8
9	I	18	ARG	3.8
6	S	93	PRO	3.8
8	U	51	SER	3.8
12	L	47	LYS	3.8
8	H	43	MET	3.8
5	R	108	LYS	3.8
11	X	7	PRO	3.7
12	Y	45	LEU	3.7
4	Q	39	ALA	3.7
13	M	38	ASP	3.7
13	Z	35	TYR	3.7
13	Z	38	ASP	3.7
4	Q	34	SER	3.7
4	Q	52	SER	3.7
3	P	235	PHE	3.6
13	M	39	ASN	3.6
2	O	221	LYS	3.6
4	Q	9	GLU	3.6
4	Q	30	VAL	3.6
4	Q	49	SER	3.5
9	V	19	PHE	3.5
8	H	9	LYS	3.5
8	U	46	LYS	3.5
8	U	45	ALA	3.5
5	R	23	ASP	3.5
9	V	53	ASN	3.4
11	X	21	GLY	3.4

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Mol	Chain	Res	Type	RSRZ
11	X	19	ALA	3.4
9	V	73	LYS	3.4
13	Z	41	LYS	3.4
2	O	116	LEU	3.4
8	U	52	VAL	3.4
8	U	47	GLY	3.3
1	N	36	LEU	3.3
10	J	56	PRO	3.3
10	W	25	GLY	3.3
4	Q	54	ASP	3.3
4	D	147	LYS	3.3
5	R	17	THR	3.3
7	G	3	ALA	3.3
11	X	14	GLY	3.2
2	B	91	ASN	3.2
10	J	57	HIS	3.2
8	U	9	LYS	3.2
8	U	42	ALA	3.2
7	T	45	PRO	3.2
9	V	57	MET	3.2
4	Q	10	ASP	3.2
4	Q	42	GLU	3.2
5	E	6	GLU	3.2
3	C	38	ASN	3.2
5	R	94	ASN	3.2
4	Q	73	ARG	3.2
11	K	19	ALA	3.2
4	Q	58	GLU	3.2
4	Q	144	GLU	3.1
11	X	37	GLY	3.1
7	G	7	ASP	3.1
2	B	59	GLN	3.1
2	O	86	MET	3.1
10	J	14	GLU	3.1
13	Z	40	TYR	3.1
13	Z	13	LYS	3.1
5	E	10	GLU	3.1
9	I	19	PHE	3.1
9	I	23	GLY	3.1
9	V	23	GLY	3.1
4	Q	51	LEU	3.0
6	F	44	GLU	3.0

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Mol	Chain	Res	Type	RSRZ
9	V	48	ALA	3.0
5	R	9	GLU	3.0
10	W	2	GLU	3.0
11	X	26	VAL	3.0
5	R	89	LEU	3.0
4	Q	38	LYS	3.0
11	X	47	ARG	2.9
2	B	67	ILE	2.9
3	C	235	PHE	2.9
2	O	89	GLU	2.9
8	U	50	VAL	2.9
5	R	98	ILE	2.9
11	K	8	ASP	2.9
13	Z	37	LEU	2.9
9	V	61	GLU	2.9
7	G	36	TRP	2.9
11	X	25	CYS	2.9
8	H	11	TYR	2.9
5	E	9	GLU	2.9
5	E	11	PHE	2.9
10	J	1	PHE	2.9
4	Q	115	TRP	2.8
9	V	52	ARG	2.8
3	C	186	PHE	2.8
4	Q	139	ASP	2.8
4	Q	43	LYS	2.8
9	V	49	ASP	2.8
2	O	218	TYR	2.8
7	T	5	LYS	2.8
7	T	37	LEU	2.8
1	A	471	ILE	2.8
7	G	5	LYS	2.8
13	M	40	TYR	2.8
9	V	28	SER	2.8
4	Q	113	GLU	2.8
9	I	52	ARG	2.8
4	D	102	TYR	2.8
9	V	15	ARG	2.7
8	H	48	GLY	2.7
1	A	83	VAL	2.7
1	A	295	VAL	2.7
9	V	45	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
11	K	47	ARG	2.7
9	V	24	ALA	2.7
11	X	12	LYS	2.7
7	T	35	SER	2.7
1	N	83	VAL	2.7
1	N	87	ILE	2.6
9	I	32	ALA	2.6
3	P	38	ASN	2.6
4	Q	143	ASN	2.6
1	A	393	PHE	2.6
8	H	49	ASP	2.6
7	T	4	ALA	2.6
2	O	226	MET	2.6
4	Q	57	VAL	2.6
10	W	55	PHE	2.6
2	O	68	LEU	2.6
12	Y	46	LYS	2.6
9	V	32	ALA	2.6
1	A	472	ILE	2.6
11	X	8	ASP	2.6
5	E	13	ALA	2.6
6	S	26	LYS	2.6
11	X	46	GLY	2.6
2	O	92	ASN	2.5
4	D	143	ASN	2.5
13	Z	36	HIS	2.5
3	C	188	ILE	2.5
8	U	20	PHE	2.5
4	D	112	GLU	2.5
8	U	77	ALA	2.5
1	A	405	LEU	2.5
2	O	47	THR	2.5
9	V	18	ARG	2.5
2	O	76	ILE	2.5
7	G	46	ALA	2.5
11	X	16	ALA	2.5
7	G	65	GLY	2.5
11	K	26	VAL	2.5
8	H	7	LYS	2.5
1	A	20	LEU	2.5
7	G	6	GLY	2.4
1	A	87	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
13	M	36	HIS	2.4
1	A	476	PHE	2.4
5	E	108	LYS	2.4
6	F	26	LYS	2.4
11	X	11	ASP	2.4
5	E	67	ILE	2.4
5	E	23	ASP	2.4
11	X	35	GLN	2.4
4	Q	114	GLU	2.4
4	Q	138	TRP	2.4
9	I	2	THR	2.4
13	Z	21	VAL	2.4
4	Q	141	ASP	2.3
1	N	168	ILE	2.3
8	U	43	MET	2.3
13	M	37	LEU	2.3
8	U	55	TRP	2.3
8	U	74	ASP	2.3
9	I	45	LYS	2.3
3	P	79	LEU	2.3
9	V	56	SER	2.3
1	N	472	ILE	2.3
4	Q	142	LYS	2.3
1	A	136[A]	LEU	2.3
1	A	168	ILE	2.3
10	W	44	LEU	2.3
11	X	18	LEU	2.3
5	R	92	THR	2.2
9	V	38	ALA	2.2
9	V	72	ALA	2.2
4	Q	145	TRP	2.2
5	E	68	LEU	2.2
4	Q	72	ASN	2.2
3	C	40	MET	2.2
2	O	88	ASP	2.2
3	P	41	THR	2.2
9	I	55	ASP	2.2
9	V	35	TYR	2.2
11	X	49	THR	2.2
2	B	61	VAL	2.2
6	F	57	ILE	2.2
7	G	45	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
9	I	38	ALA	2.2
10	W	33	ARG	2.2
5	E	91	PRO	2.1
1	A	15	ILE	2.1
10	J	2	GLU	2.1
2	B	163	TRP	2.1
2	O	104	TRP	2.1
4	D	139	ASP	2.1
9	I	34	PHE	2.1
9	V	39	VAL	2.1
11	X	17	VAL	2.1
2	O	130	PRO	2.1
1	A	85	LEU	2.1
8	H	77	ALA	2.1
2	B	126	SER	2.1
9	V	64	ARG	2.1
2	B	65	TRP	2.1
6	S	27	GLY	2.1
8	H	84	LYS	2.1
10	W	4	ARG	2.1
2	B	38	VAL	2.1
2	B	89	GLU	2.1
2	B	92	ASN	2.1
2	O	114	GLU	2.1
3	C	3	HIS	2.1
6	S	23	ALA	2.1
1	N	75	ILE	2.1
6	S	22	LEU	2.1
6	F	43	LYS	2.1
7	T	12	GLY	2.1
7	T	63	GLY	2.1
4	D	141	ASP	2.0
10	W	45	TYR	2.0
9	I	53	ASN	2.0
1	N	357	VAL	2.0
3	C	71	HIS	2.0
3	P	197	PHE	2.0
7	T	1	ALA	2.0
5	R	93	LEU	2.0
9	V	55	ASP	2.0
4	Q	45	LYS	2.0
1	A	400	PHE	2.0

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Mol	Chain	Res	Type	RSRZ
7	G	1	ALA	2.0
9	V	31	PHE	2.0
10	J	25	GLY	2.0
13	M	41	LYS	2.0
2	B	152	MET	2.0
3	C	39	SER	2.0
6	S	42	THR	2.0
5	R	14	ARG	2.0
10	W	49	CYS	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
9	SAC	V	1	9/10	0.38	0.69	63,69,72,74	0
7	TPO	T	11	11/12	0.53	0.34	52,69,96,97	0
7	TPO	G	11	11/12	0.59	0.45	65,74,106,115	0
9	SAC	I	1	9/10	0.68	0.47	43,49,64,67	0
1	FME	N	1	10/11	0.93	0.21	18,28,48,58	0
1	FME	A	1	10/11	0.94	0.17	25,33,52,71	0
2	FME	B	1	10/11	0.96	0.15	15,16,24,33	0
2	FME	O	1	10/11	0.97	0.12	15,16,24,24	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
22	CHD	J	101	29/29	0.43	0.37	56,93,101,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
20	TGL	Y	101	63/63	0.46	0.33	33,49,76,81	0
23	PSC	B	304	52/52	0.48	0.36	36,84,130,137	0
24	PEK	P	308	53/53	0.50	0.27	25,55,100,118	0
20	TGL	L	101	63/63	0.53	0.31	28,44,70,80	0
24	PEK	T	101	53/53	0.54	0.32	36,76,114,118	0
24	PEK	C	307	53/53	0.56	0.24	34,59,94,103	0
24	PEK	G	102	53/53	0.57	0.29	37,71,111,121	0
25	CDL	T	102	100/100	0.57	0.29	31,67,118,128	0
19	PGV	N	607	51/51	0.58	0.29	27,49,103,114	0
22	CHD	W	101	29/29	0.58	0.39	52,82,95,101	0
20	TGL	Q	201	63/63	0.60	0.26	30,47,66,71	0
25	CDL	G	101	100/100	0.63	0.24	34,66,99,138	0
19	PGV	P	301	51/51	0.65	0.25	45,70,102,114	0
19	PGV	A	608	51/51	0.68	0.26	24,51,72,84	0
19	PGV	C	308	51/51	0.68	0.25	34,64,99,101	0
27	DMU	M	101	33/33	0.68	0.22	25,29,39,40	0
23	PSC	N	610	52/52	0.71	0.29	24,61,117,126	0
25	CDL	P	305	100/100	0.71	0.26	28,60,102,116	0
20	TGL	D	201	63/63	0.72	0.21	23,45,66,74	0
27	DMU	Z	101	33/33	0.73	0.27	18,31,34,39	0
25	CDL	C	304	100/100	0.74	0.23	26,59,88,108	0
20	TGL	N	609	63/63	0.74	0.20	31,54,73,76	0
20	TGL	B	301	63/63	0.76	0.20	28,51,75,84	0
22	CHD	C	305	29/29	0.77	0.29	41,47,53,59	0
22	CHD	P	306	29/29	0.82	0.20	34,44,49,56	0
16	MG	N	604	1/1	0.90	0.15	17,17,17,17	0
24	PEK	P	303	53/53	0.91	0.17	13,29,70,77	0
17	NA	P	302	1/1	0.92	0.10	29,29,29,29	0
24	PEK	C	302	53/53	0.93	0.21	13,33,60,65	0
19	PGV	P	304	51/51	0.93	0.24	12,27,51,54	0
17	NA	C	301	1/1	0.94	0.26	37,37,37,37	0
22	CHD	C	306	29/29	0.94	0.09	17,21,25,29	0
19	PGV	C	303	51/51	0.94	0.23	13,22,55,63	0
14	HEA	N	601	60/60	0.94	0.14	10,13,32,39	0
22	CHD	P	307	29/29	0.94	0.09	12,19,23,26	0
19	PGV	N	608	51/51	0.95	0.23	12,30,49,58	0
22	CHD	G	103	29/29	0.95	0.09	8,10,12,16	0
22	CHD	B	303	29/29	0.95	0.09	8,10,13,19	0
14	HEA	A	602	60/60	0.95	0.16	9,12,18,19	0
19	PGV	A	607	51/51	0.96	0.24	13,26,49,57	0
14	HEA	N	602	60/60	0.96	0.14	9,12,18,21	0
14	HEA	A	601	60/60	0.96	0.15	10,12,37,46	0

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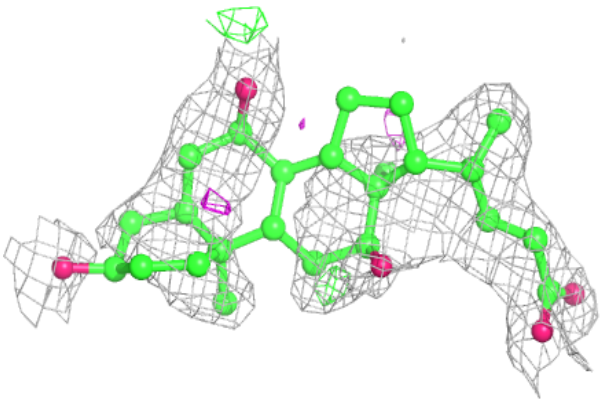
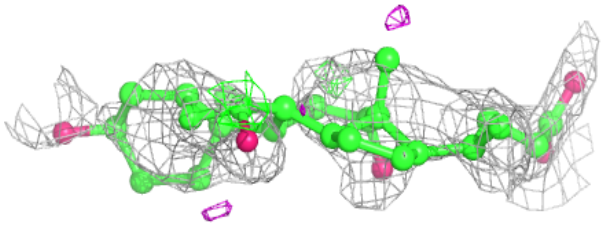
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
16	MG	A	604	1/1	0.97	0.11	14,14,14,14	0
17	NA	A	605	1/1	0.98	0.08	14,14,14,14	0
21	CUA	O	301	2/2	0.98	0.05	14,14,14,15	0
17	NA	N	605	1/1	0.98	0.05	12,12,12,12	0
18	PER	A	606[B]	2/2	0.99	0.17	11,11,11,11	2
21	CUA	B	302	2/2	0.99	0.04	14,14,14,15	0
18	PER	N	606[A]	2/2	0.99	0.12	10,10,10,12	0
26	ZN	S	101	1/1	0.99	0.04	18,18,18,18	0
18	PER	N	606[B]	2/2	0.99	0.12	11,11,11,11	2
18	PER	A	606[A]	2/2	0.99	0.17	10,10,10,12	0
15	CU	A	603	1/1	1.00	0.09	15,15,15,15	0
15	CU	N	603	1/1	1.00	0.07	14,14,14,14	0
26	ZN	F	101	1/1	1.00	0.02	19,19,19,19	0

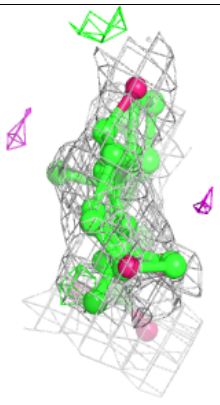
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around CHD J 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

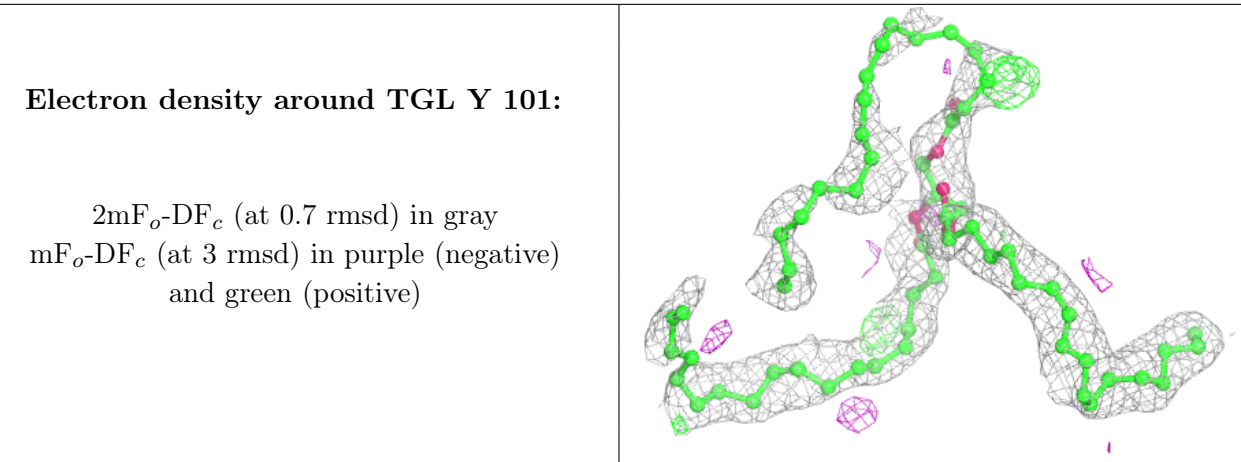


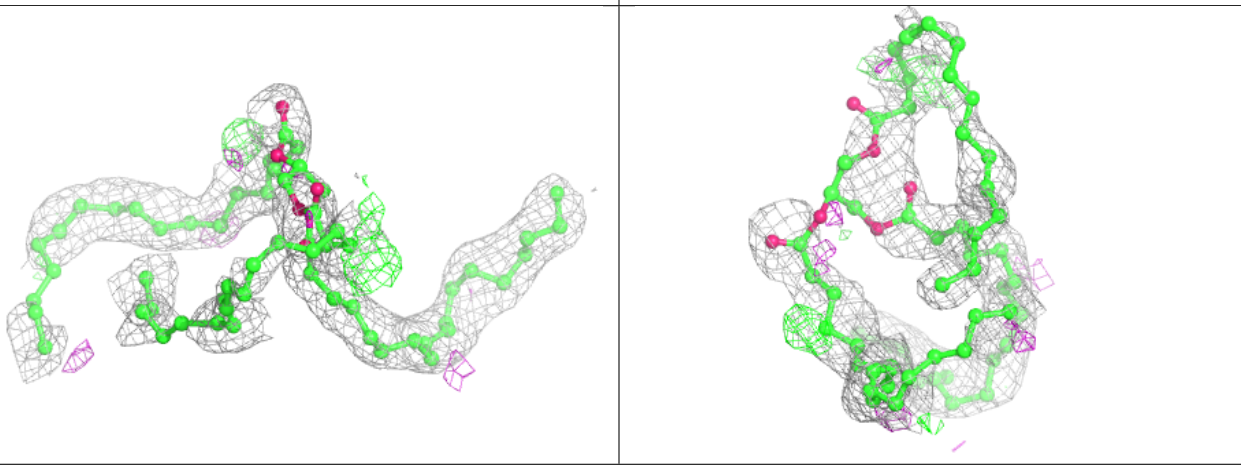




Electron density around TGL Y 101:

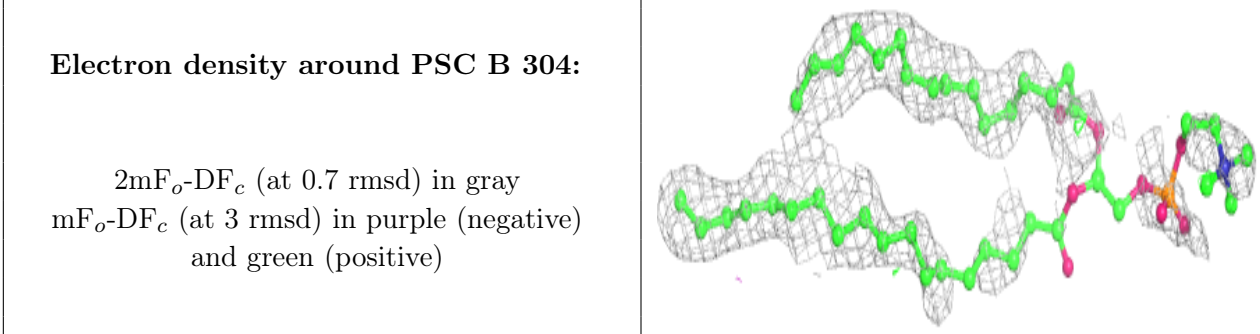
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

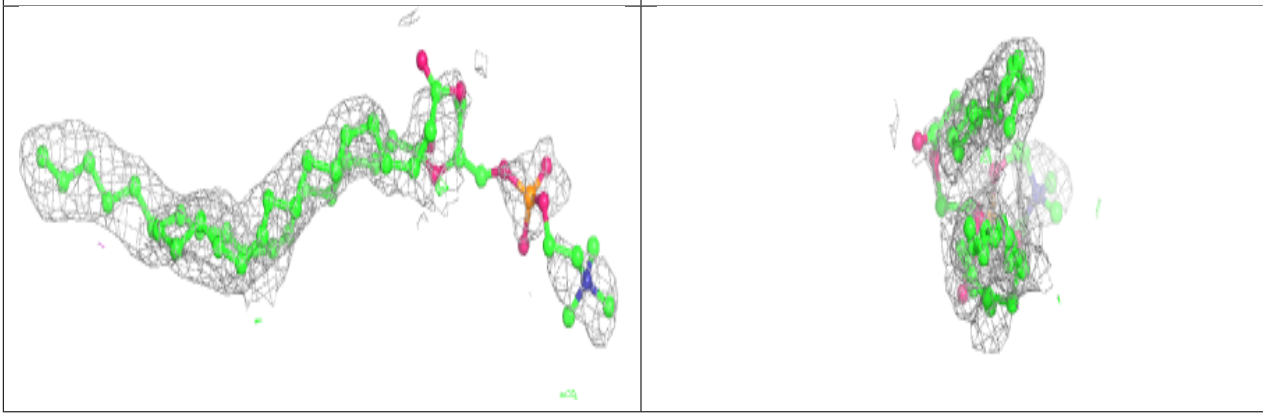




Electron density around PSC B 304:

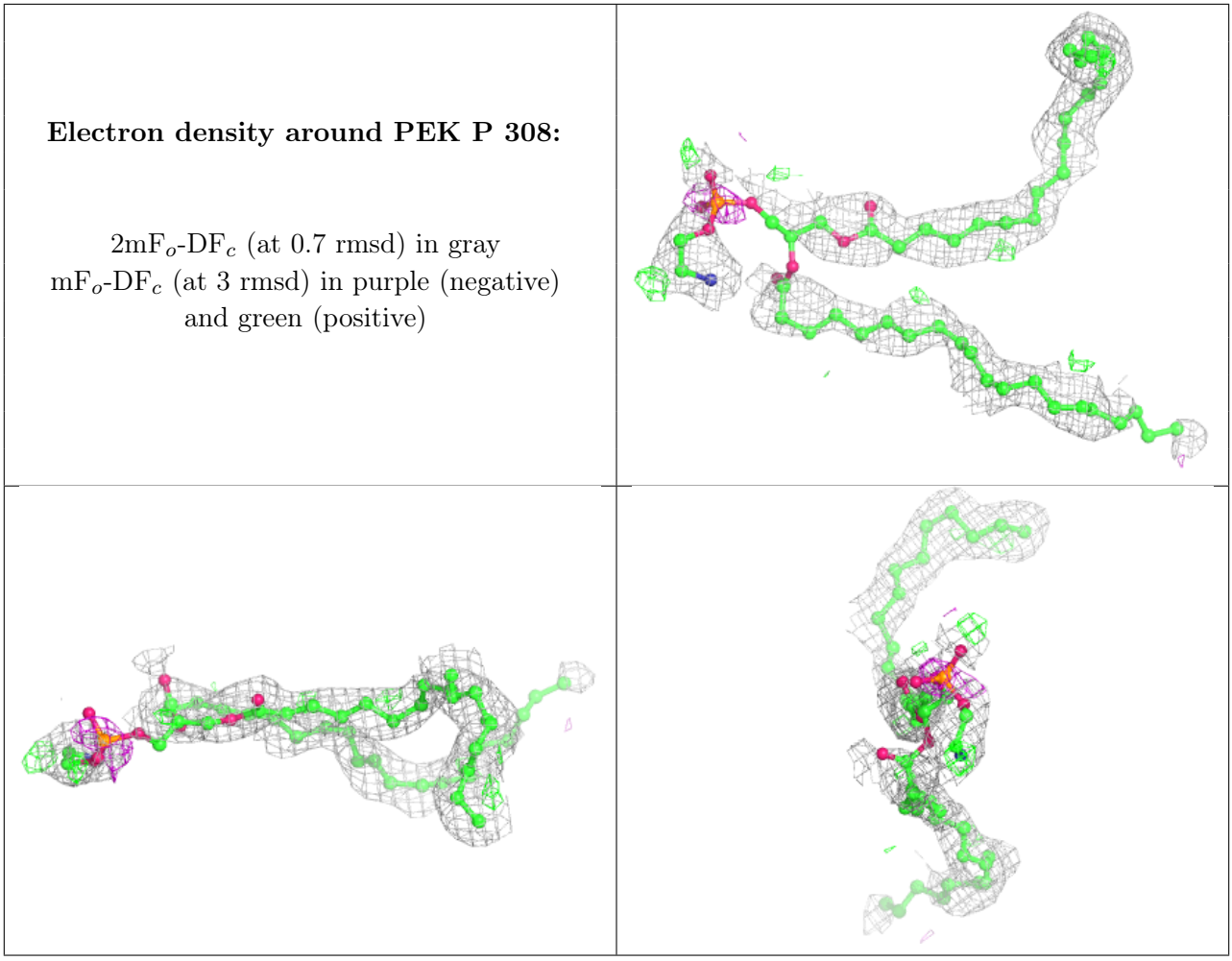
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





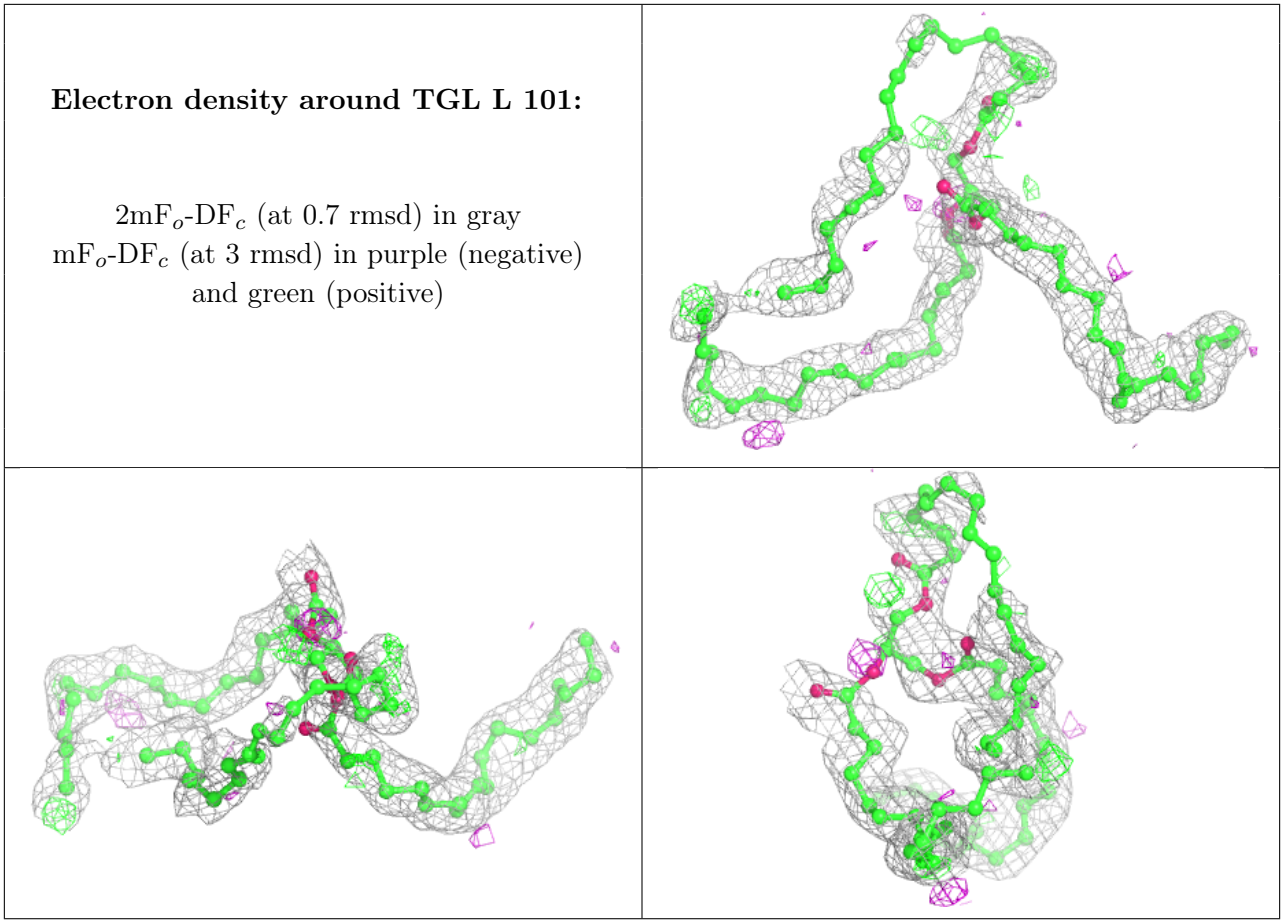
Electron density around PEK P 308:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



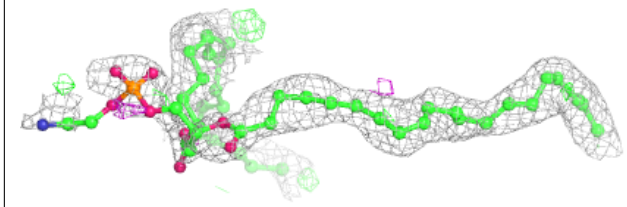
Electron density around TGL L 101:

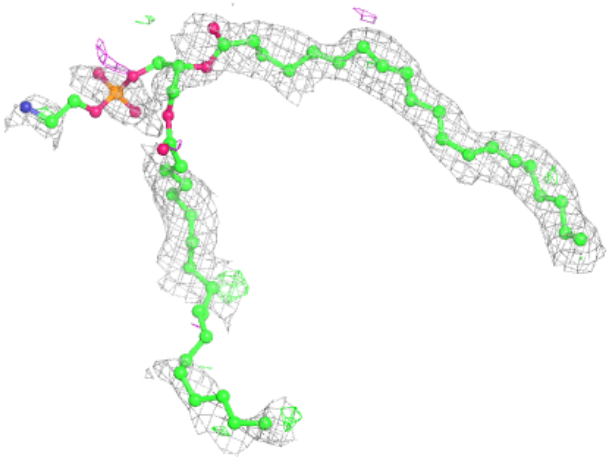
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

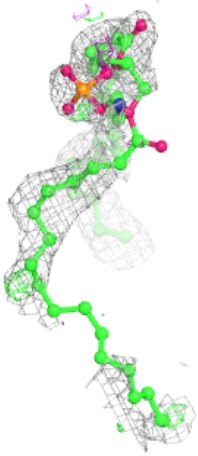


Electron density around PEK T 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

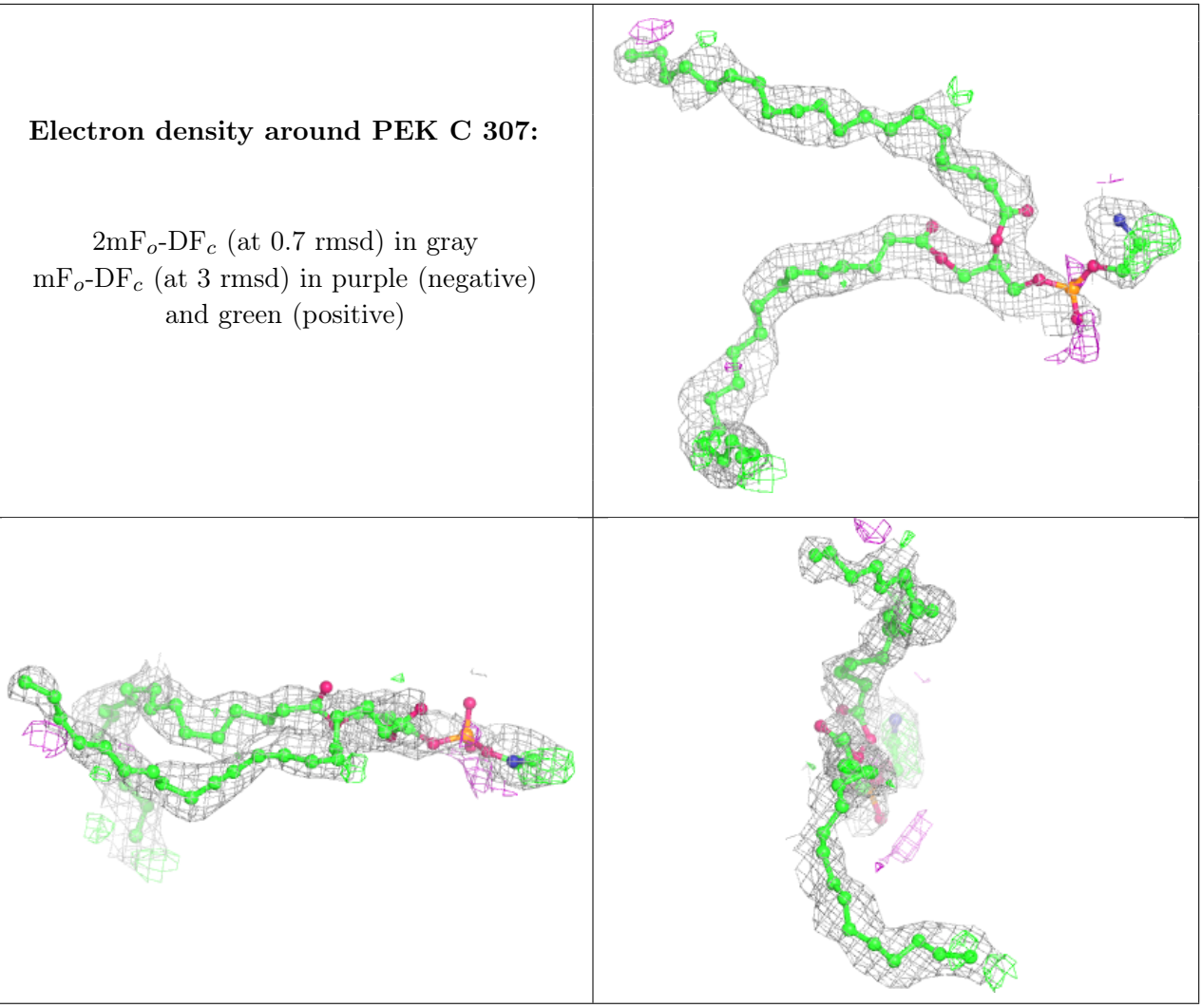






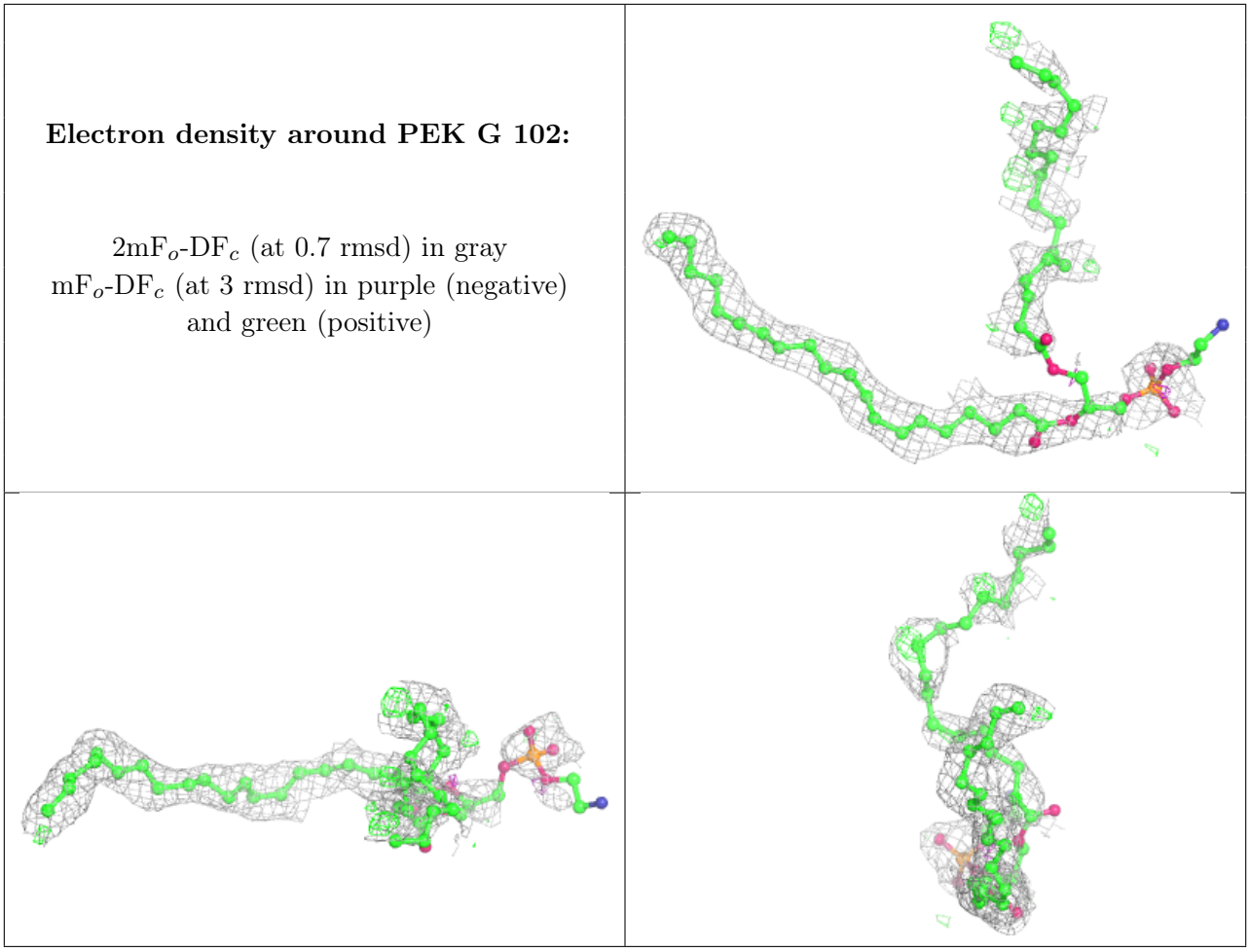
Electron density around PEK C 307:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



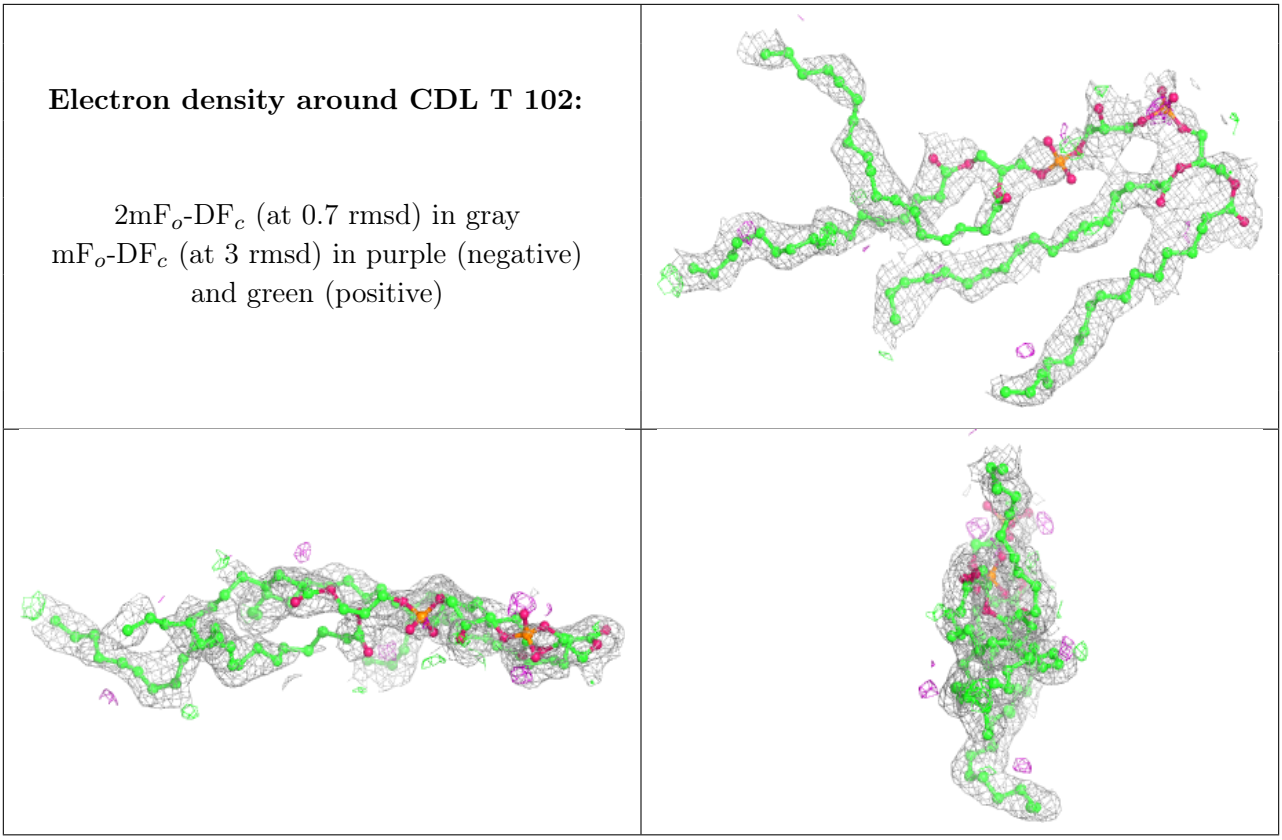
Electron density around PEK G 102:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



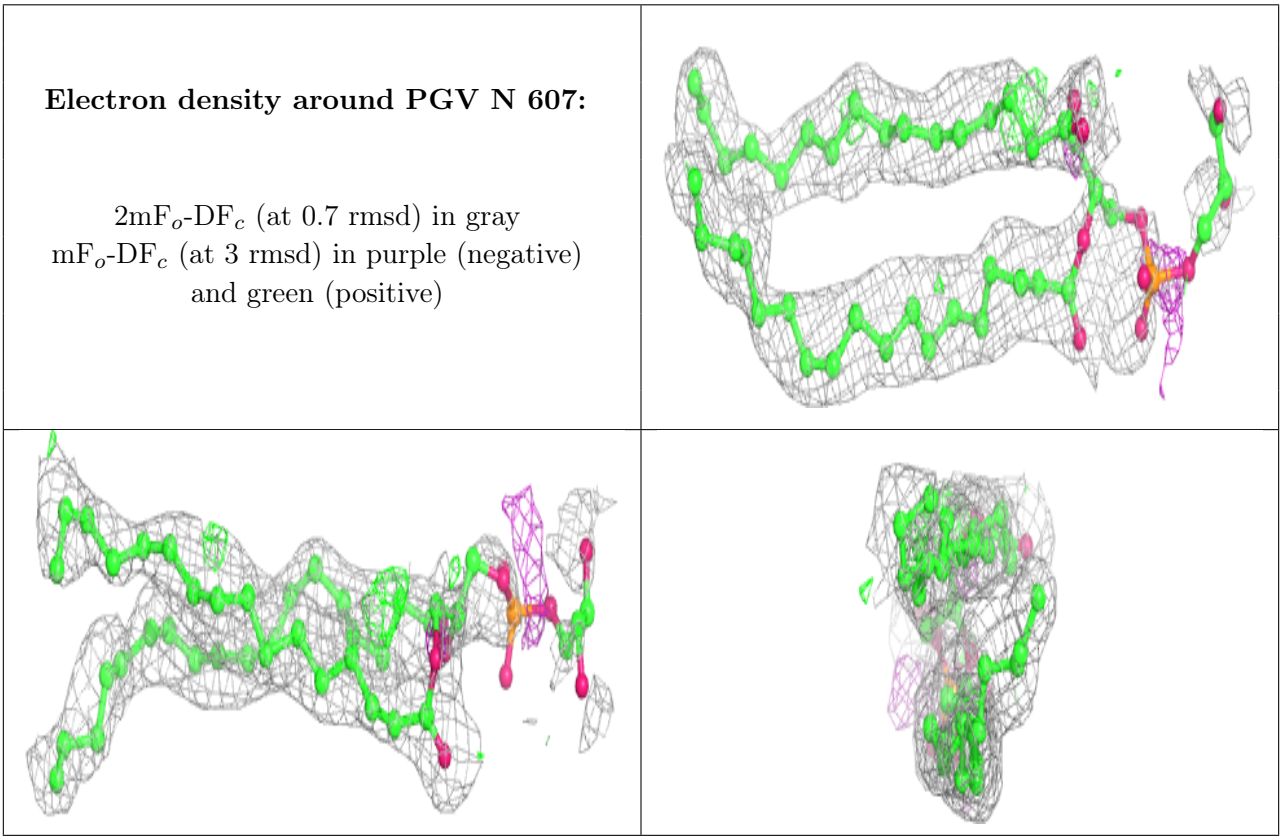
Electron density around CDL T 102:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



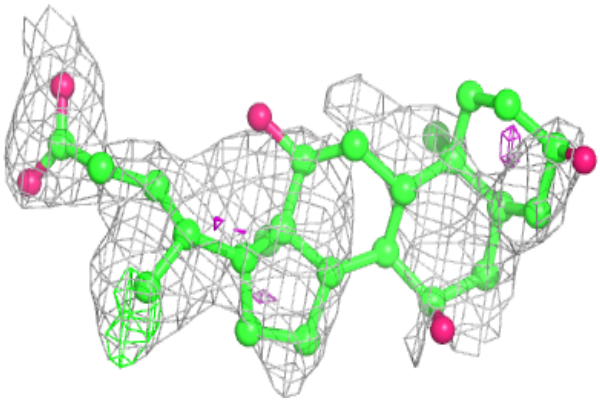
Electron density around PGV N 607:

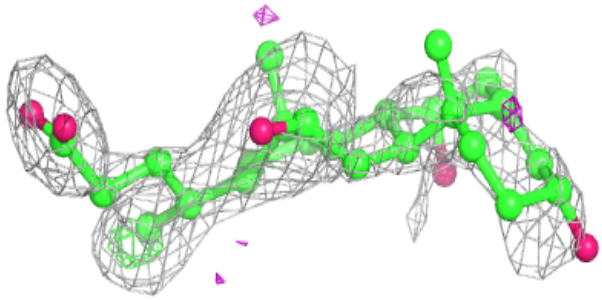
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

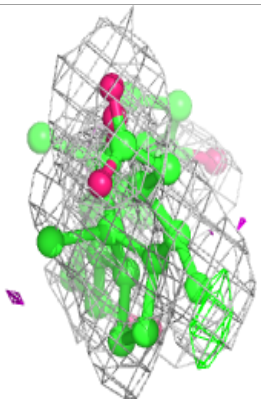


Electron density around CHD W 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

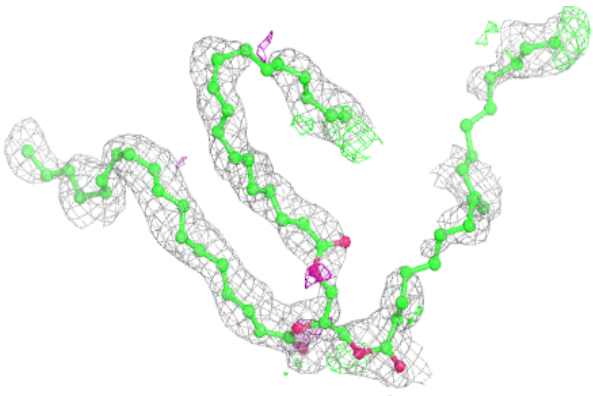


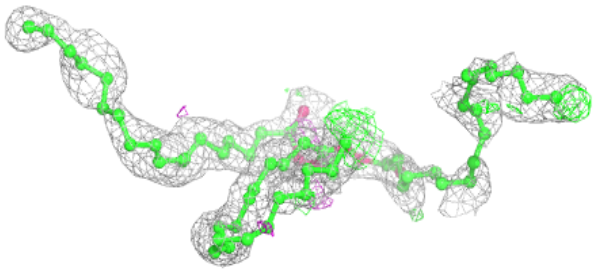


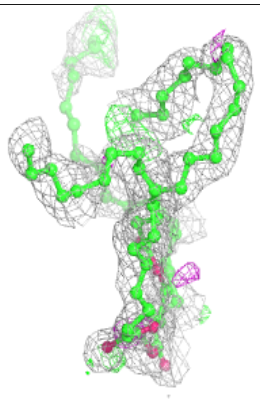


Electron density around TGL Q 201:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

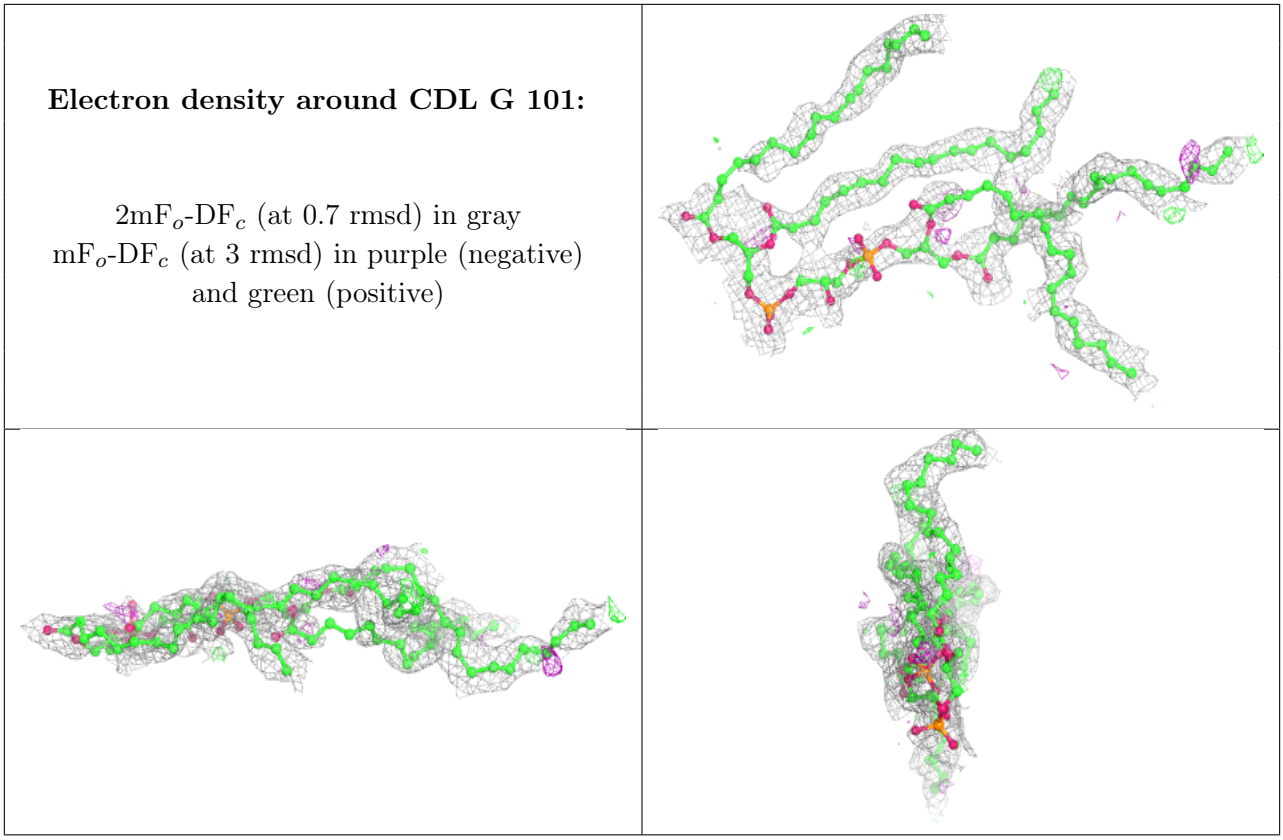






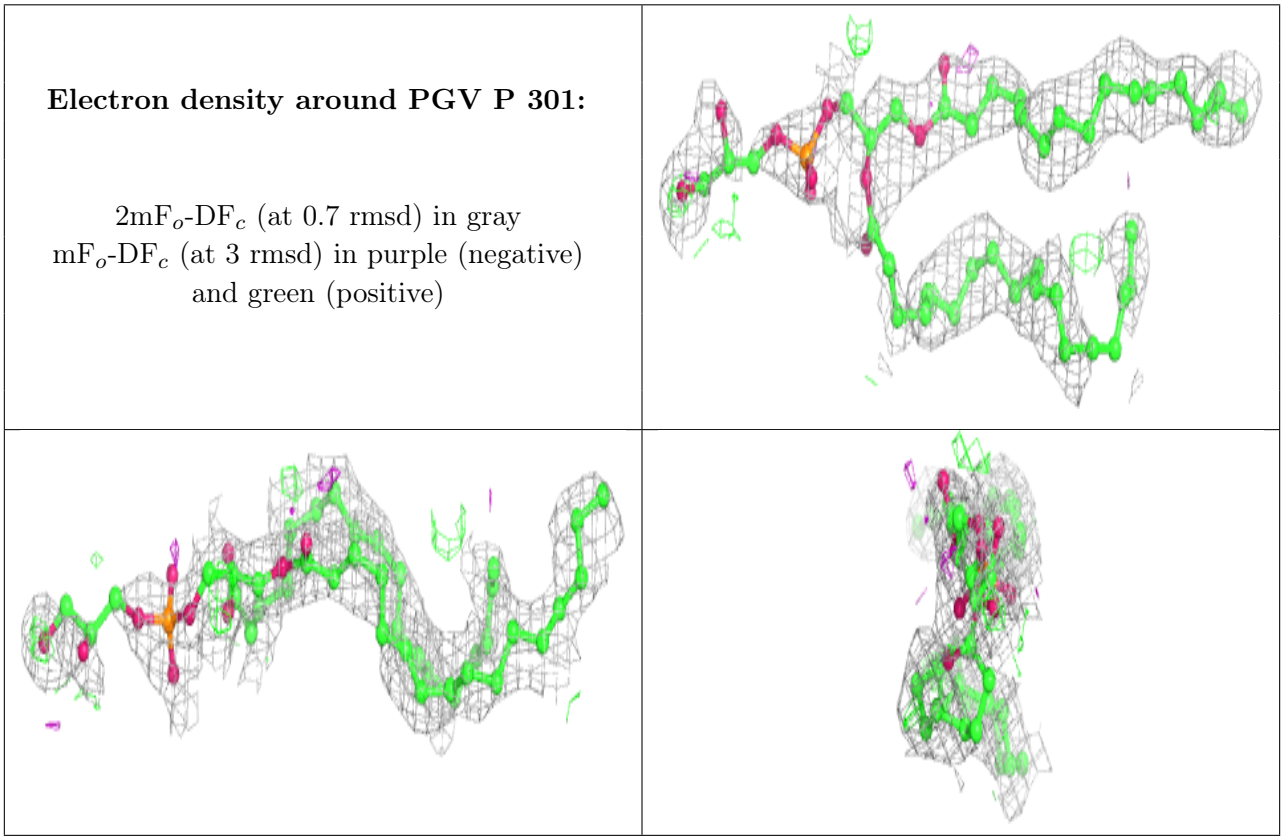
Electron density around CDL G 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



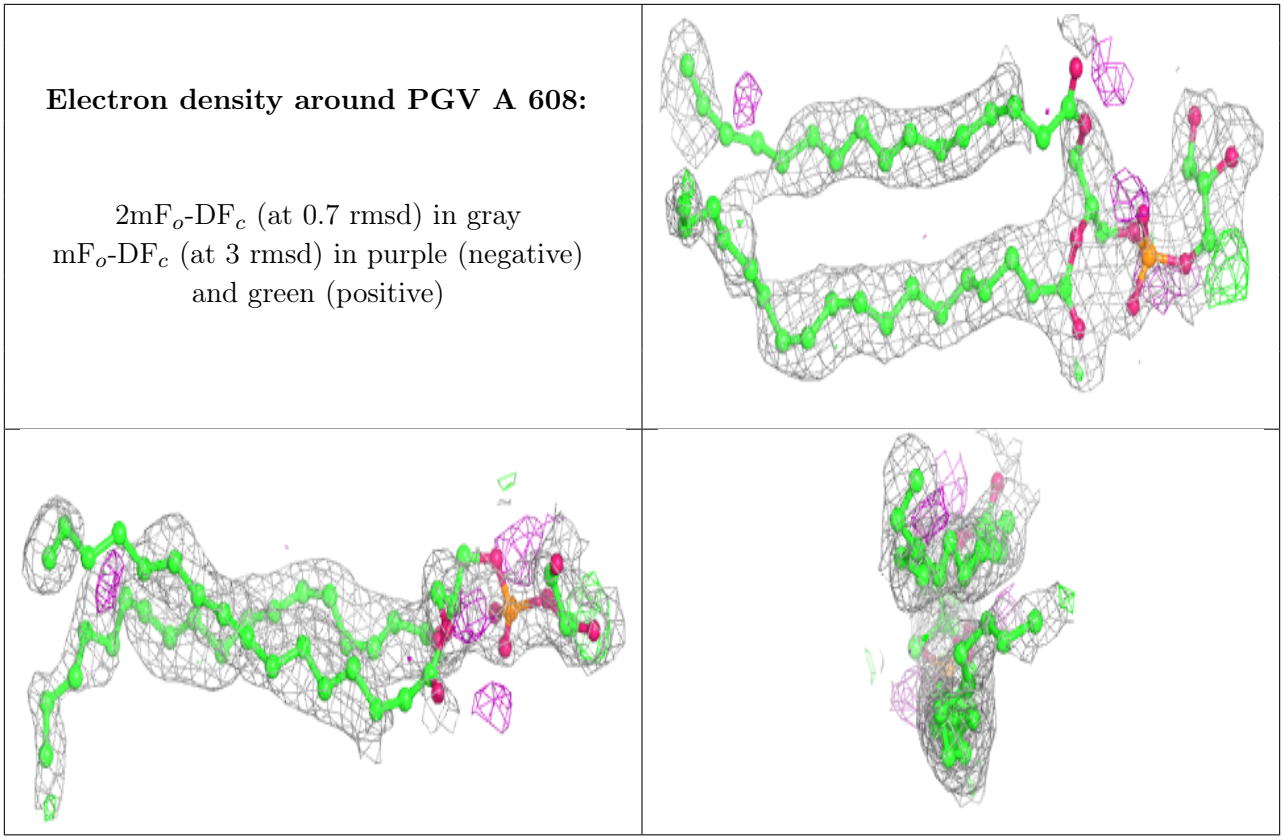
Electron density around PGV P 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



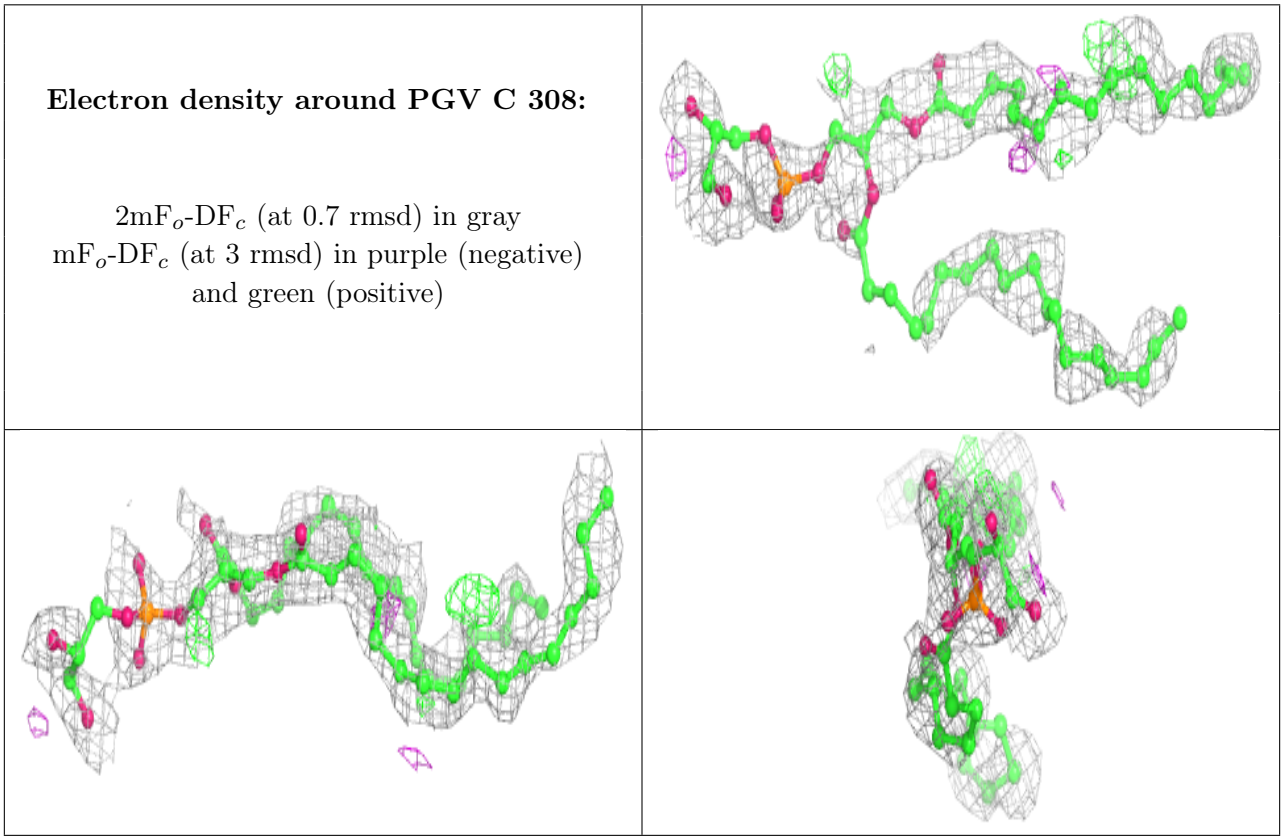
Electron density around PGV A 608:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



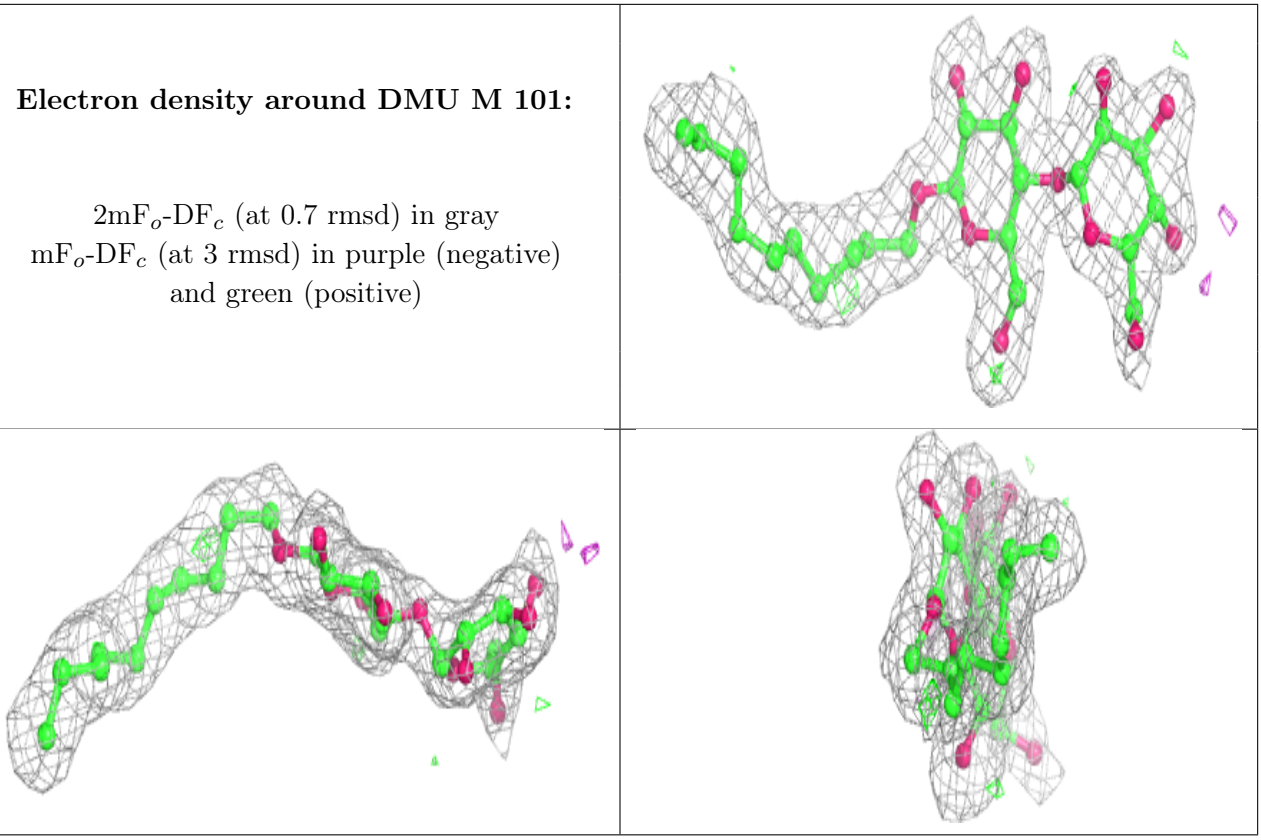
Electron density around PGV C 308:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



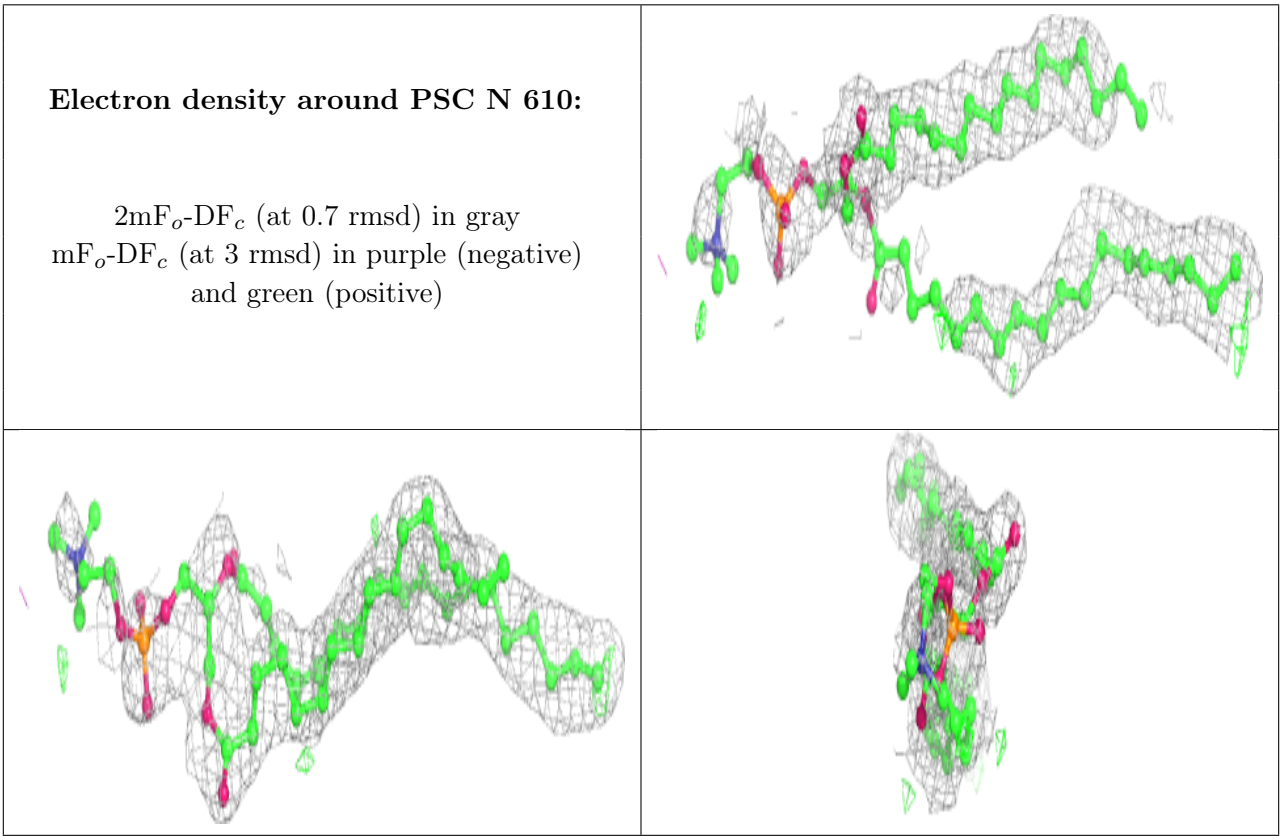
Electron density around DMU M 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



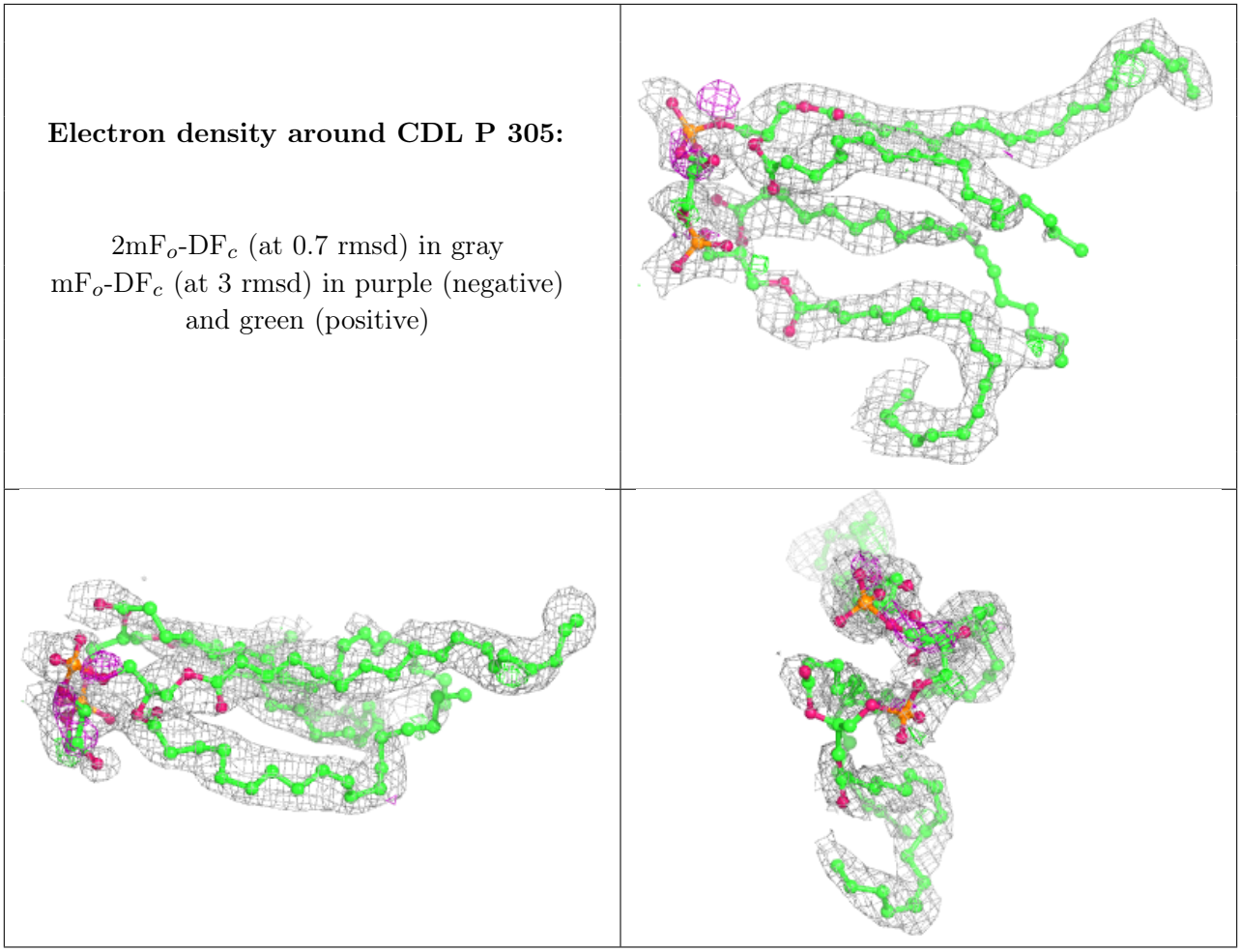
Electron density around PSC N 610:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



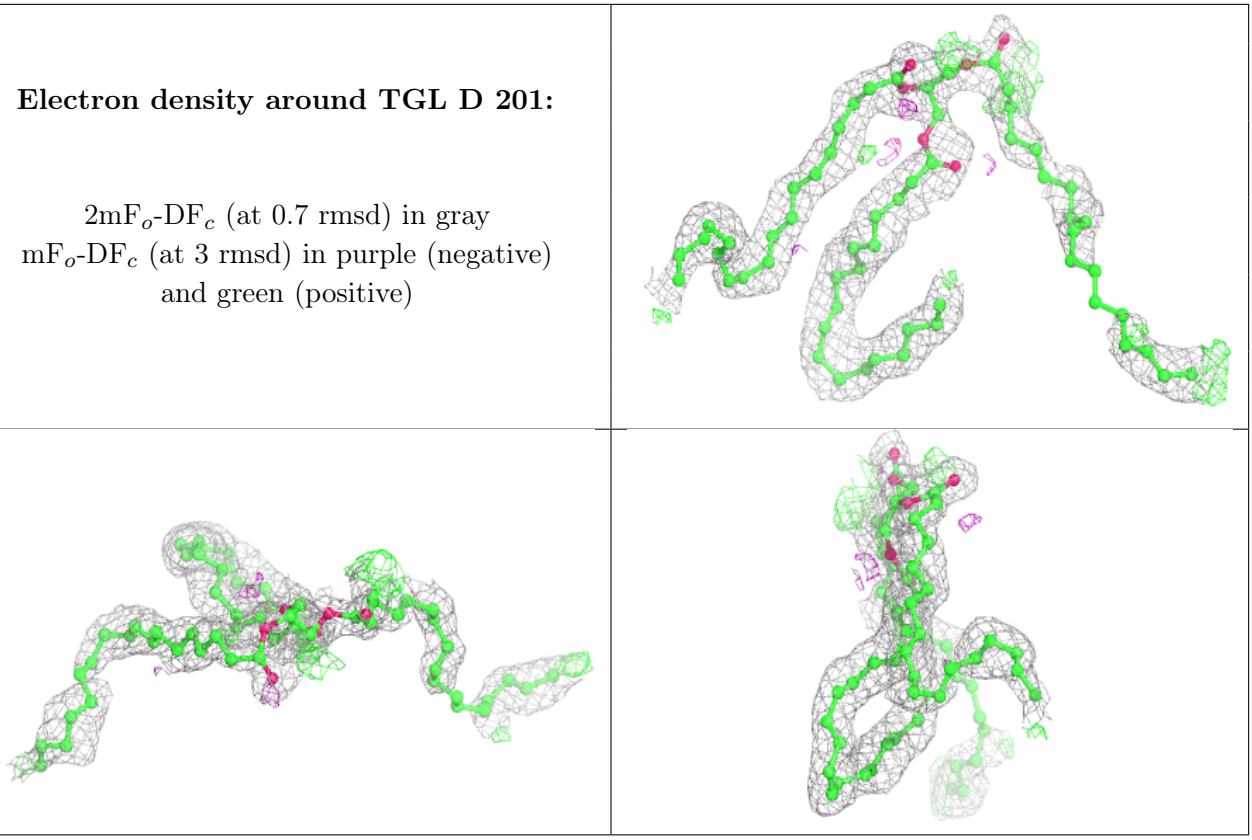
Electron density around CDL P 305:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



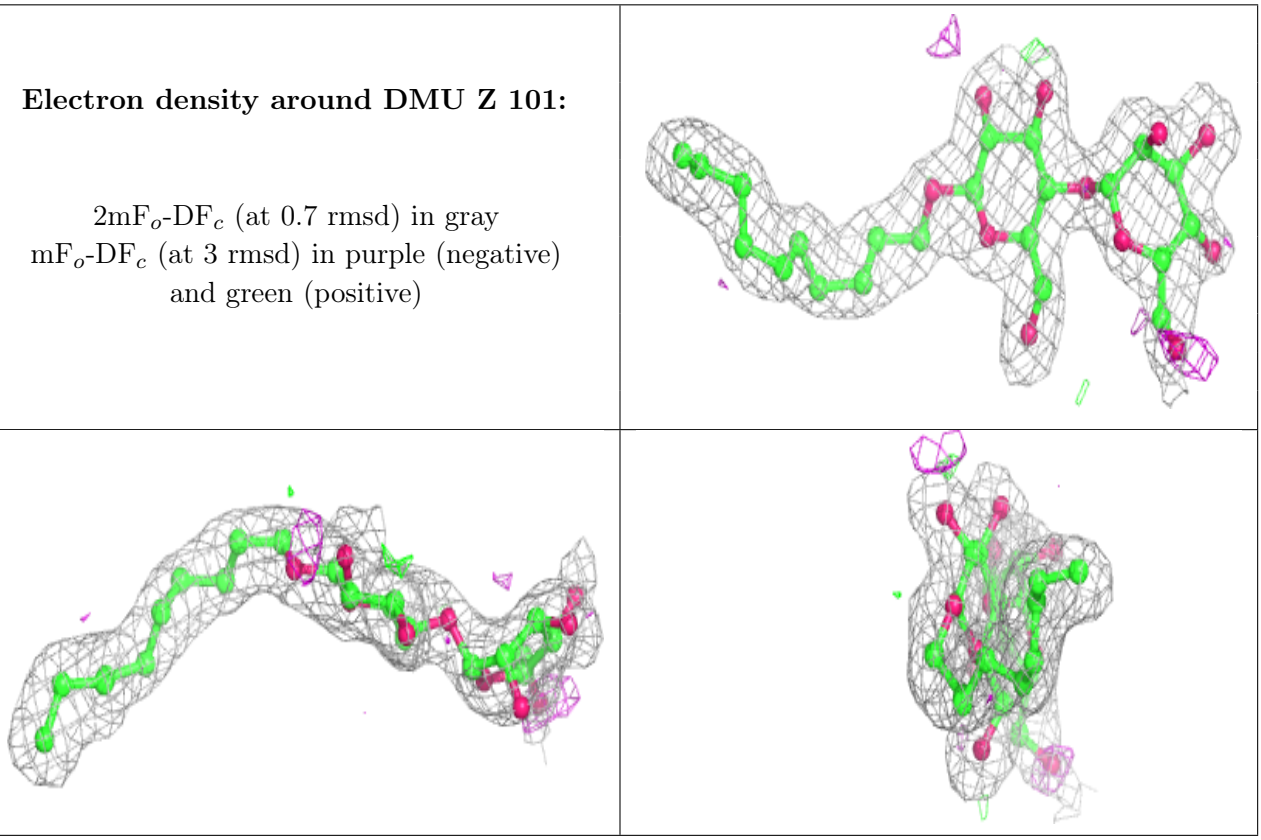
Electron density around TGL D 201:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



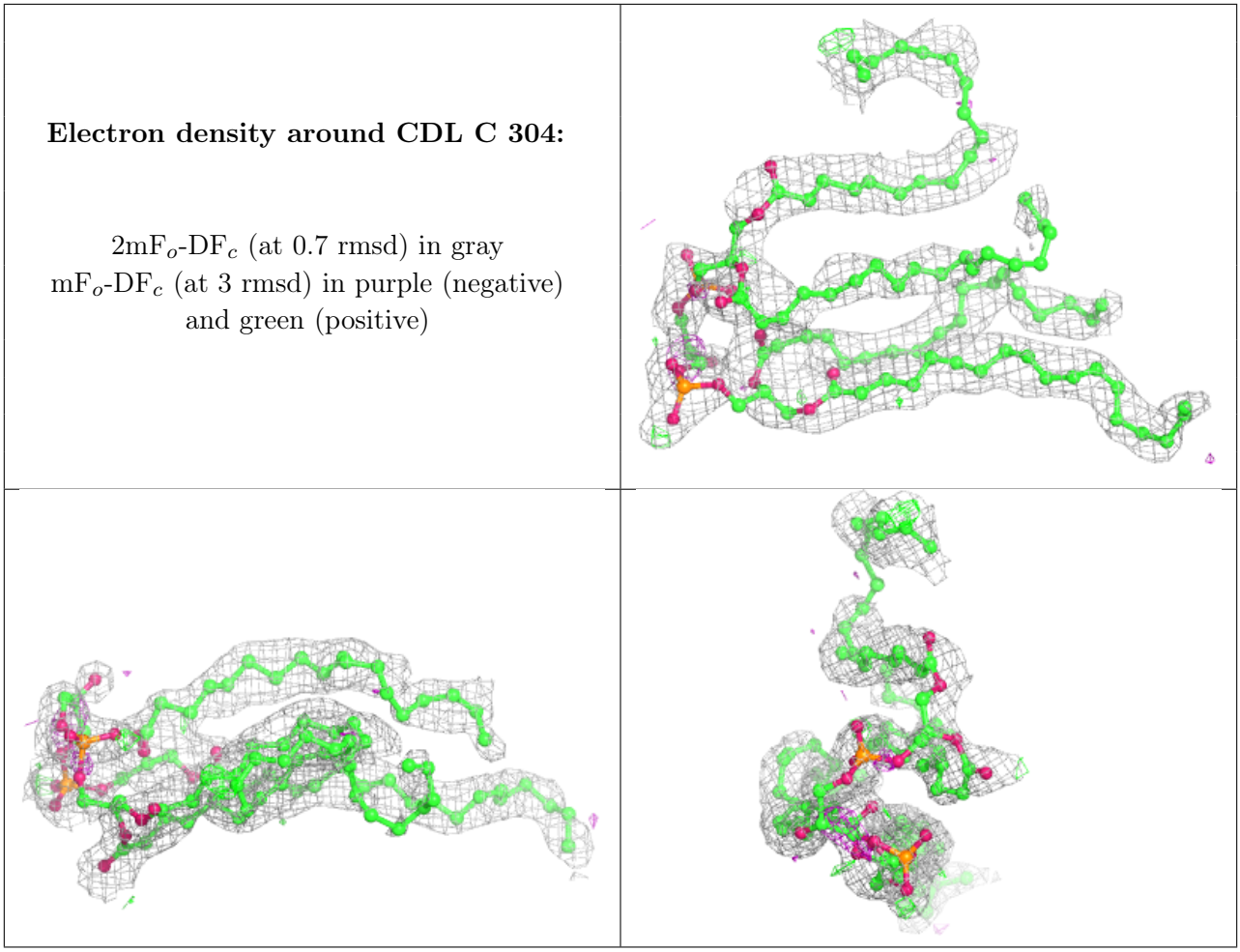
Electron density around DMU Z 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



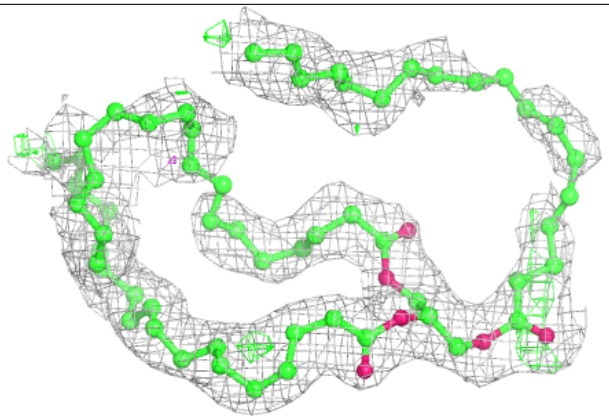
Electron density around CDL C 304:

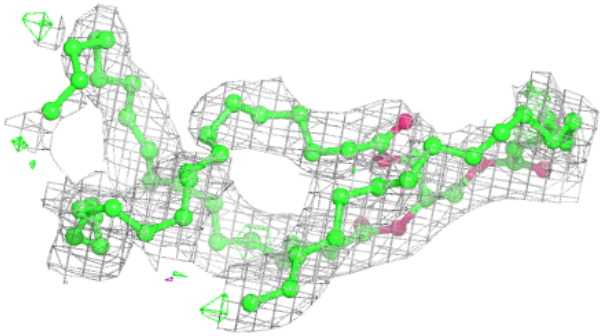
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

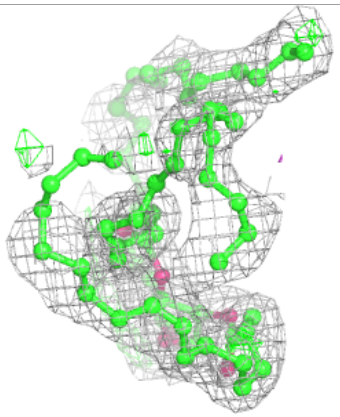


Electron density around TGL N 609:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

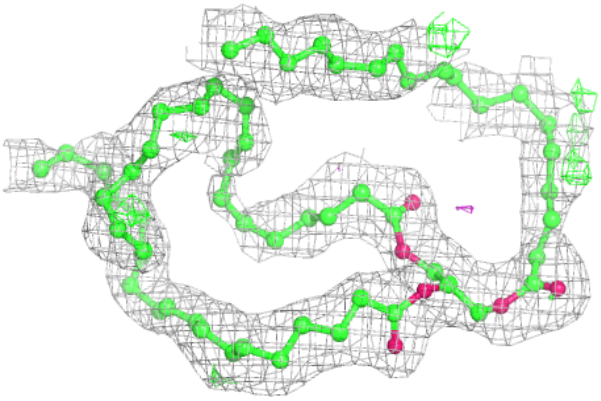


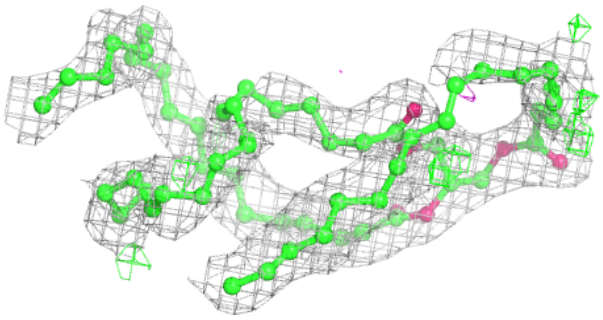


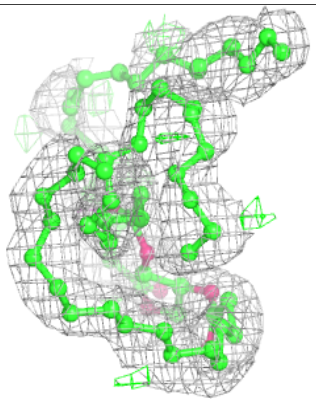


Electron density around TGL B 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

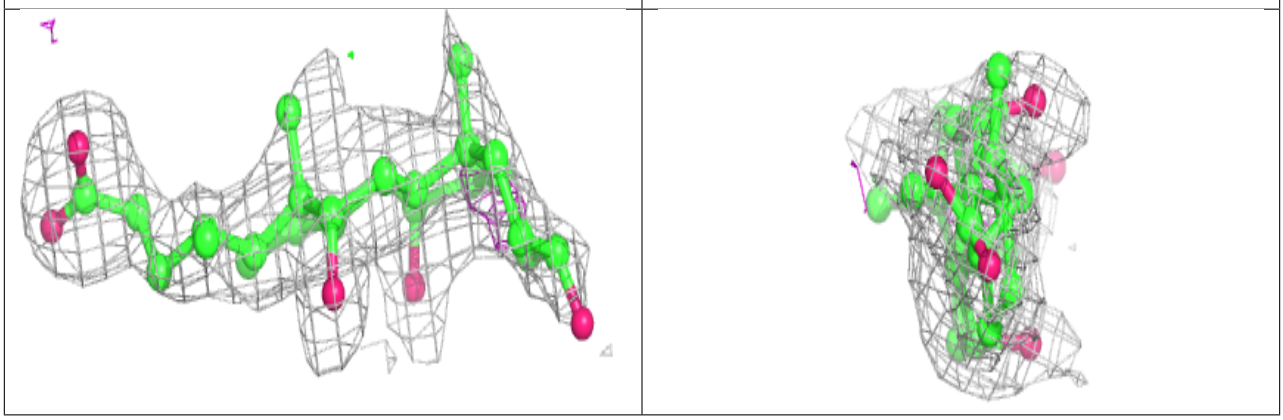






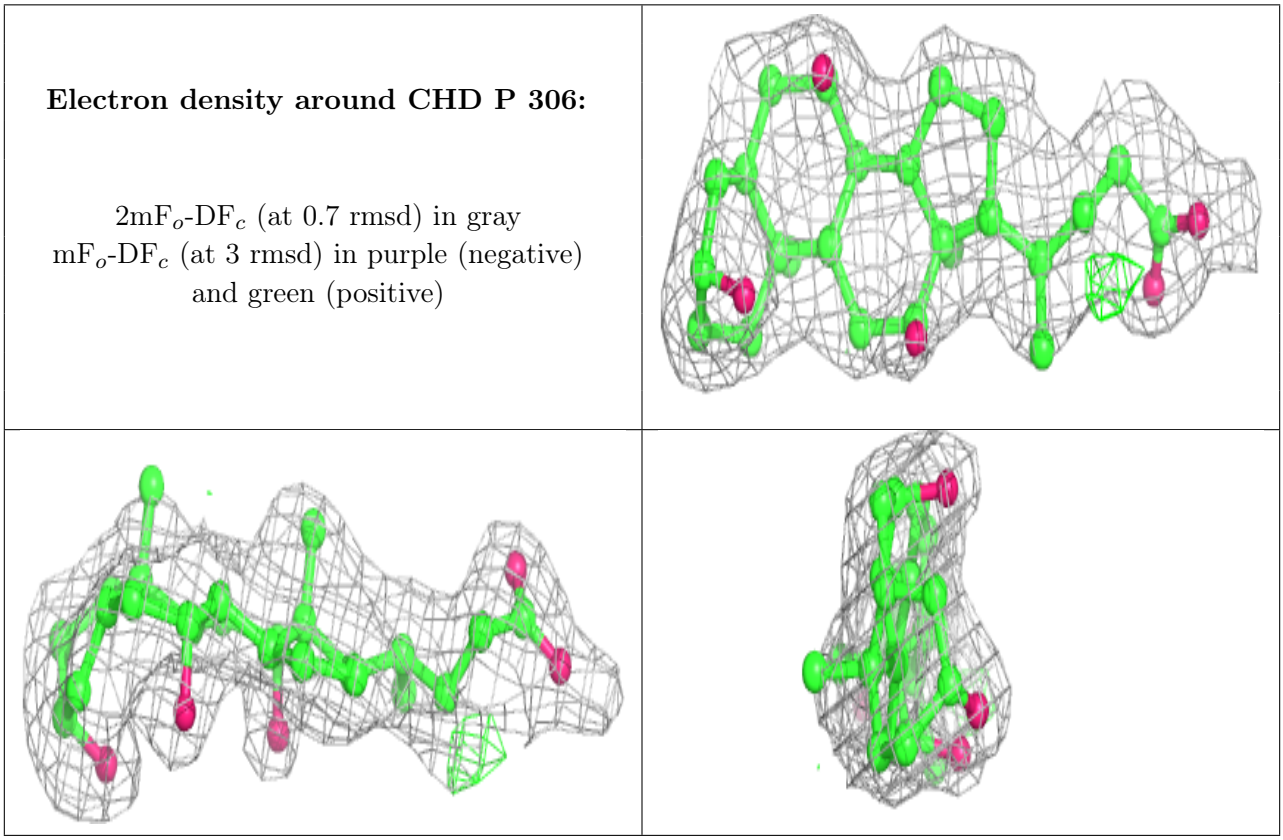
Electron density around CHD C 305:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



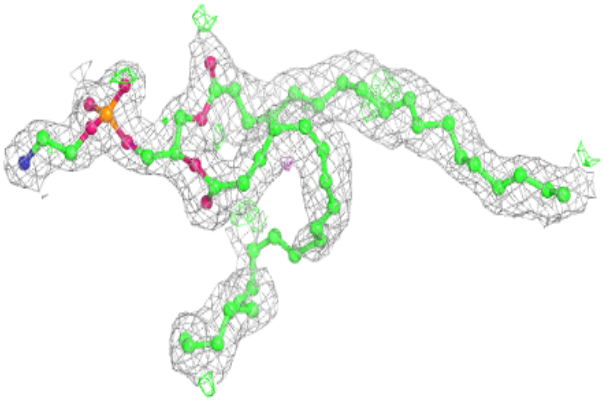
Electron density around CHD P 306:

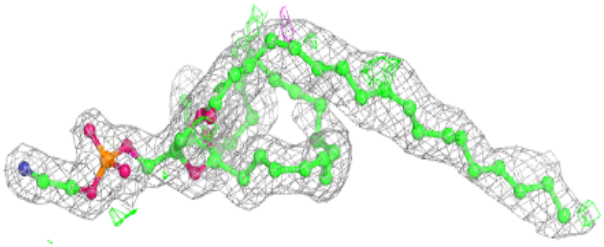
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

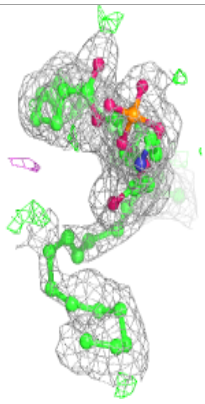


Electron density around PEK P 303:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

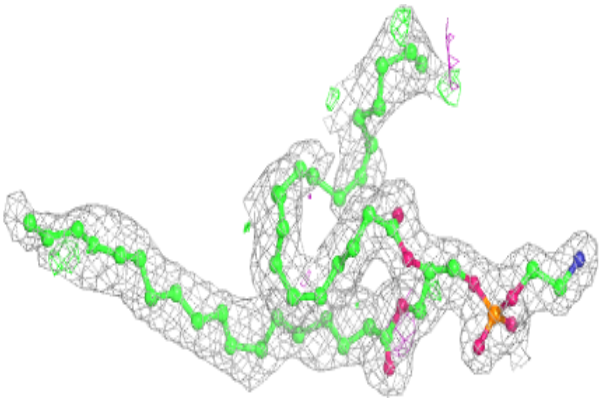


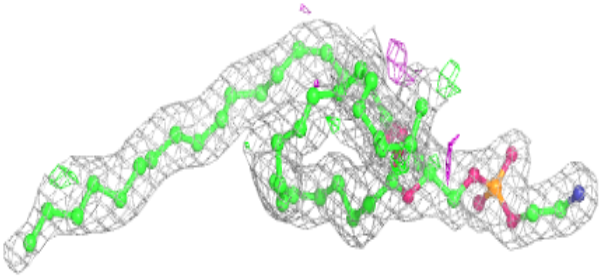


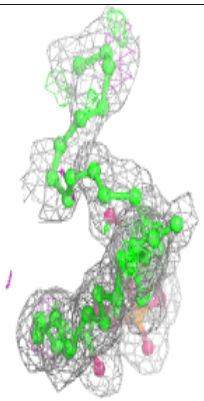


Electron density around PEK C 302:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

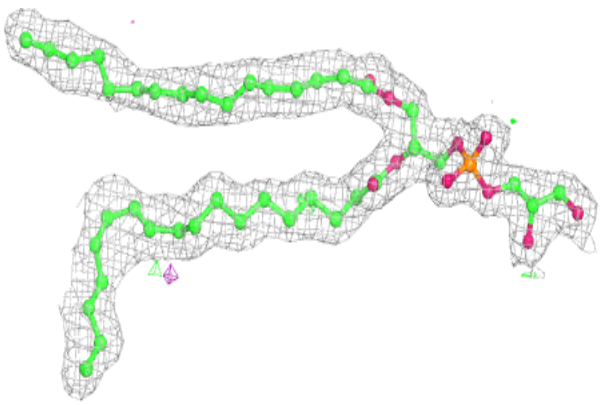


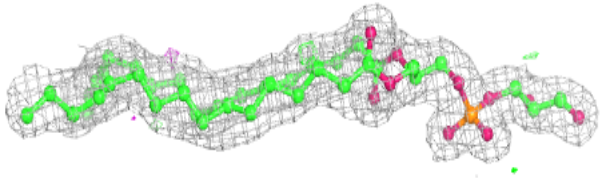


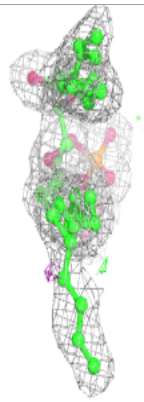


Electron density around PGV P 304:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

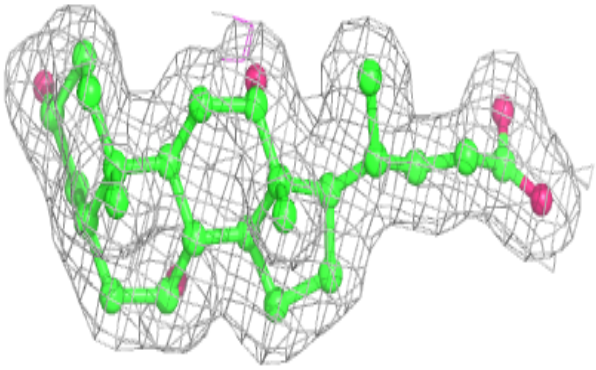


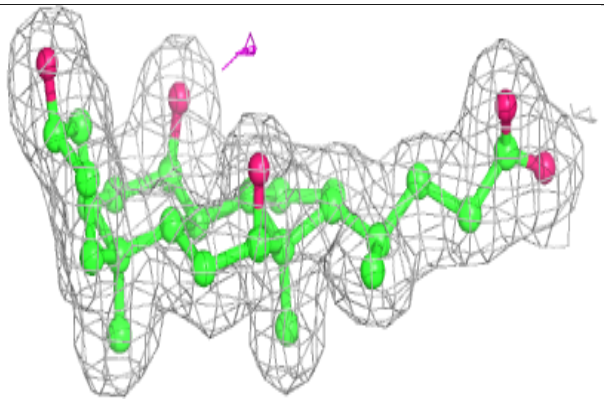


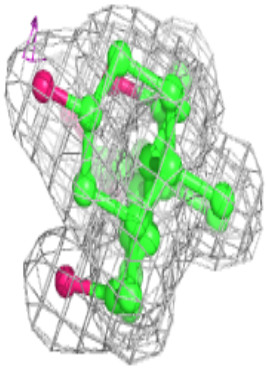


Electron density around CHD C 306:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

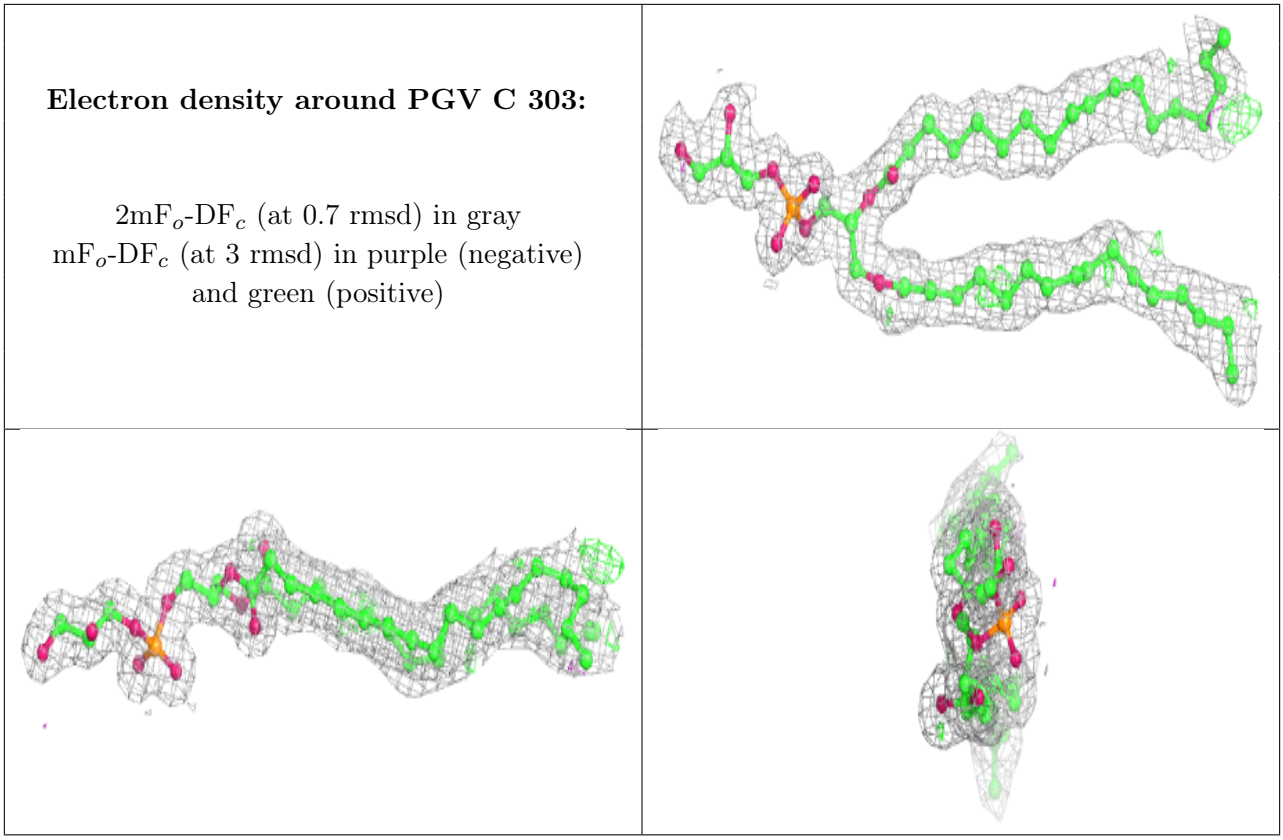






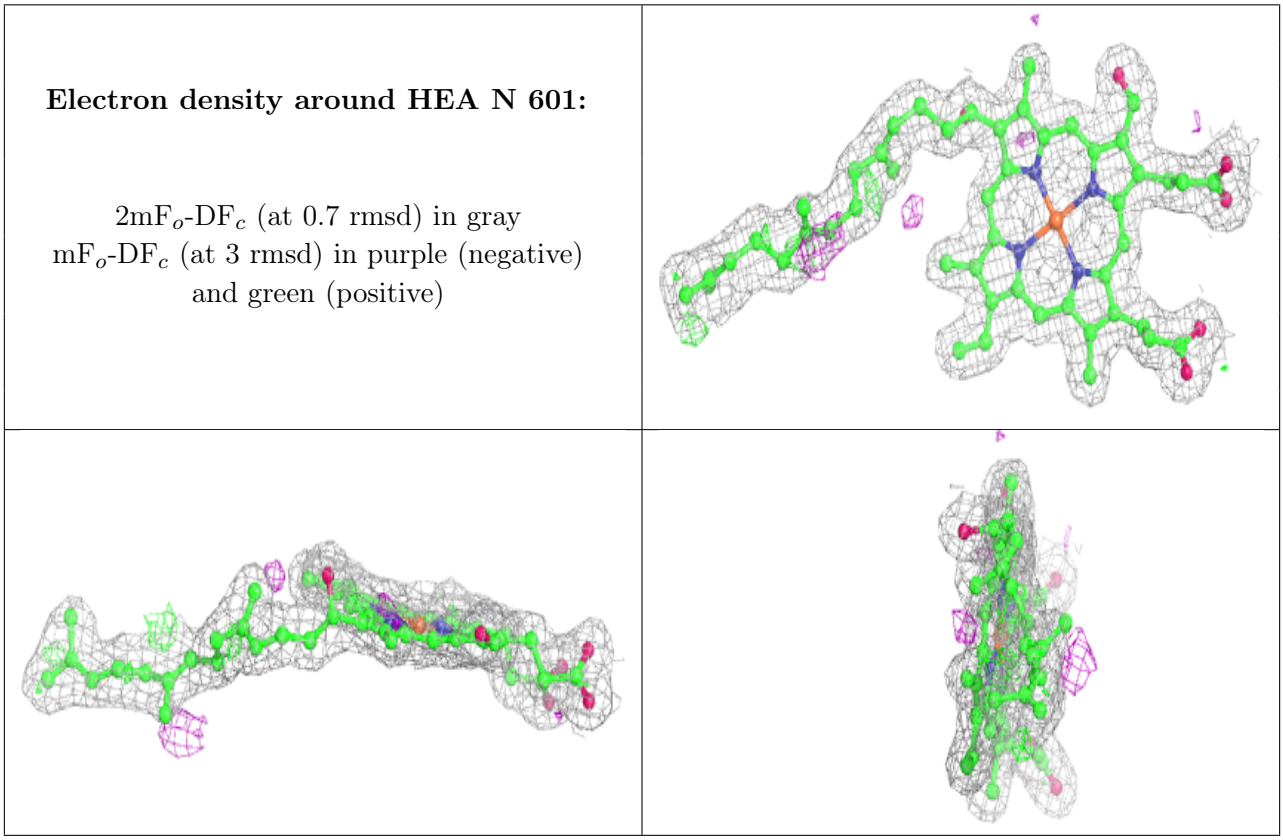
Electron density around PGV C 303:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



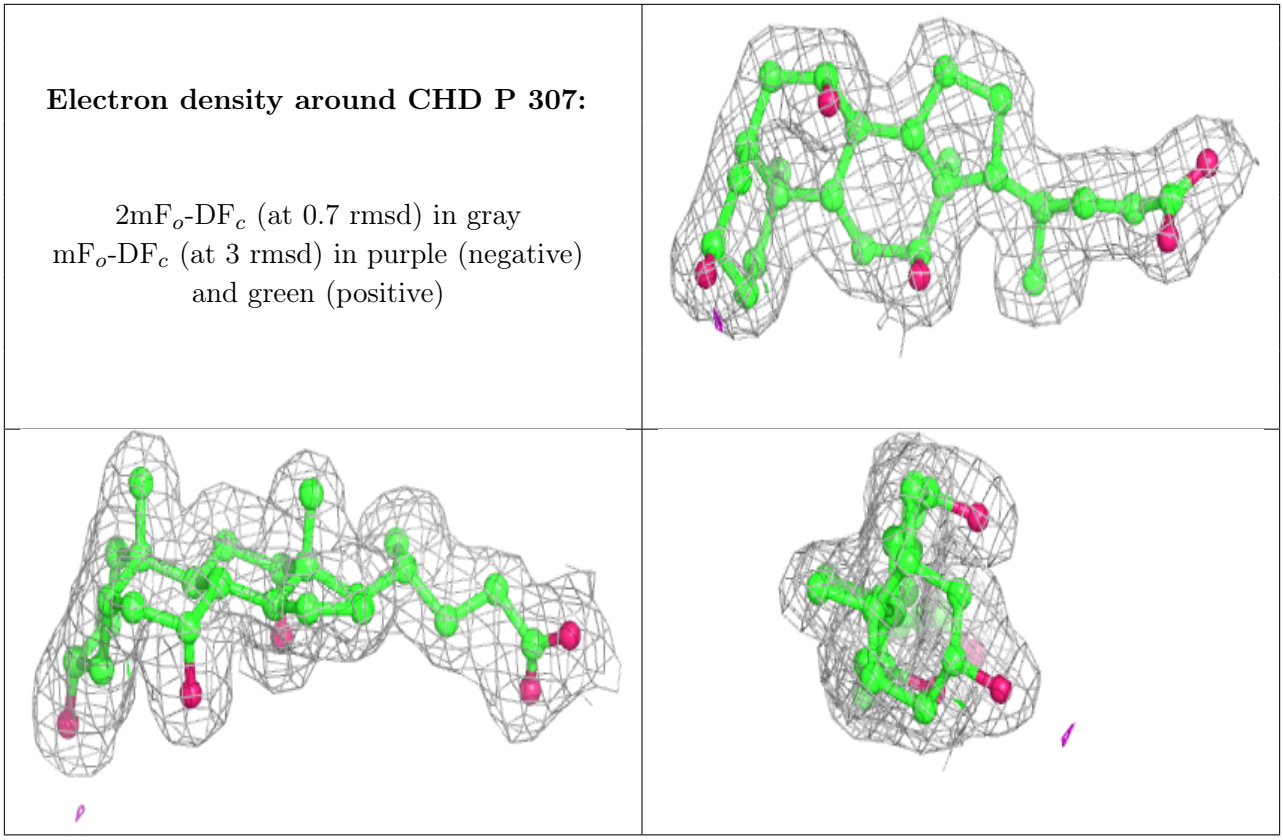
Electron density around HEA N 601:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



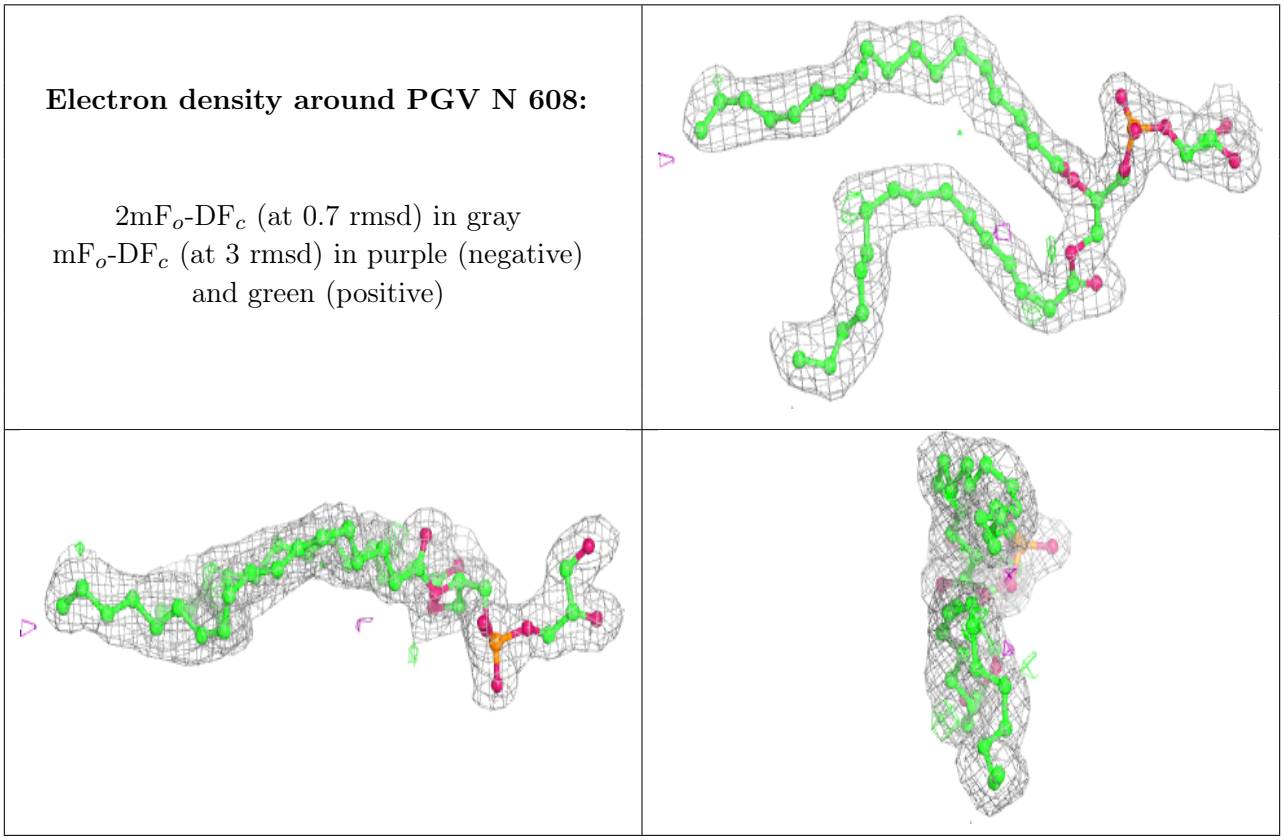
Electron density around CHD P 307:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



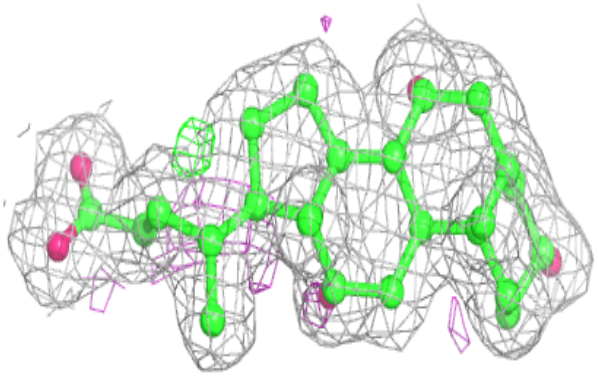
Electron density around PGV N 608:

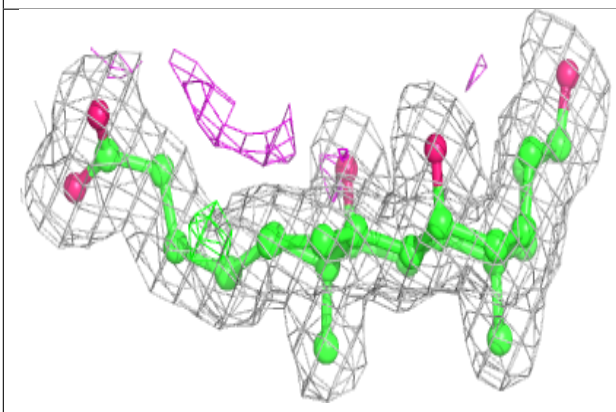
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

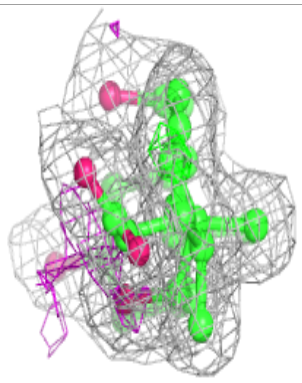


Electron density around CHD G 103:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

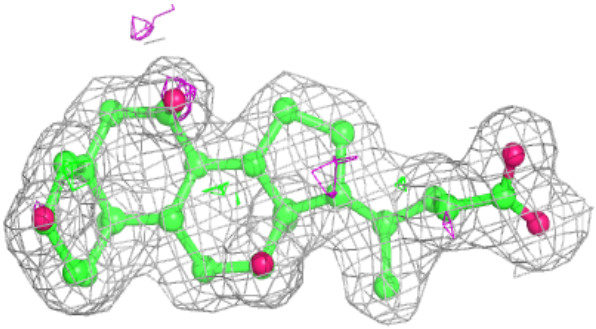


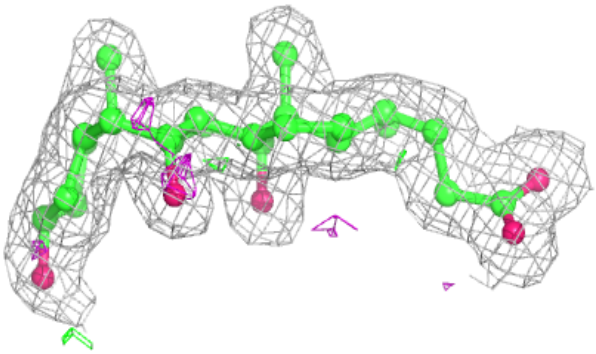


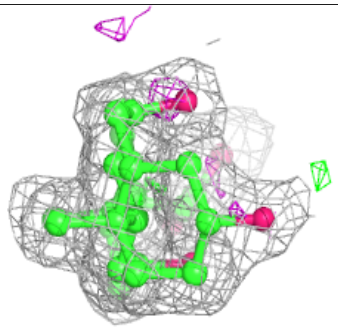


Electron density around CHD B 303:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

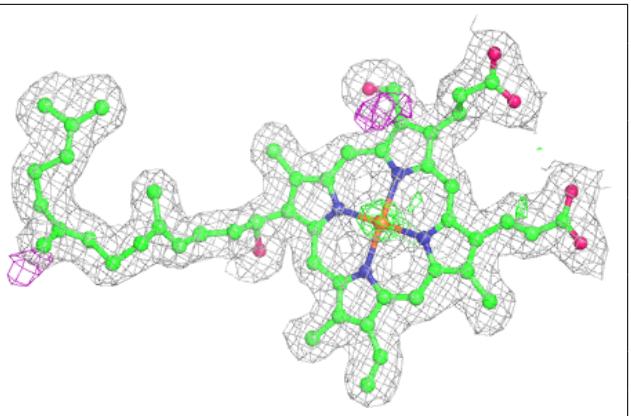


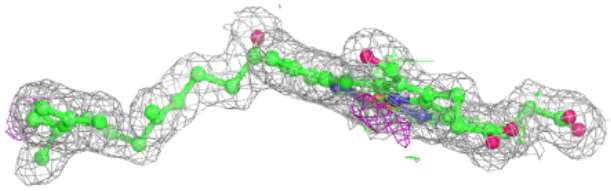


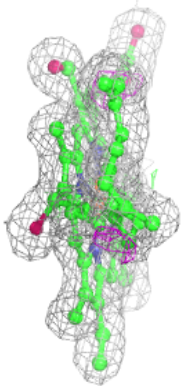


Electron density around HEA A 602:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

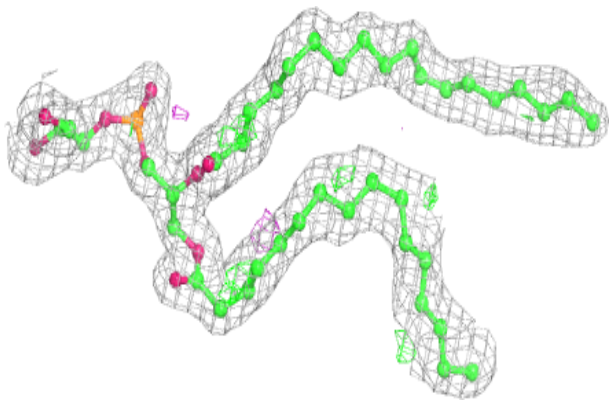


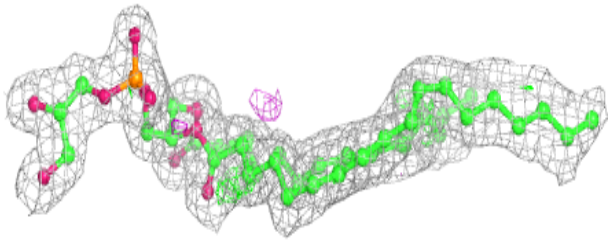


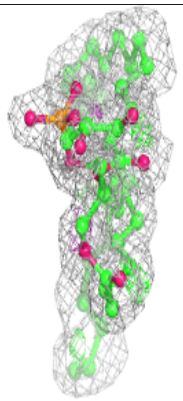


Electron density around PGV A 607:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

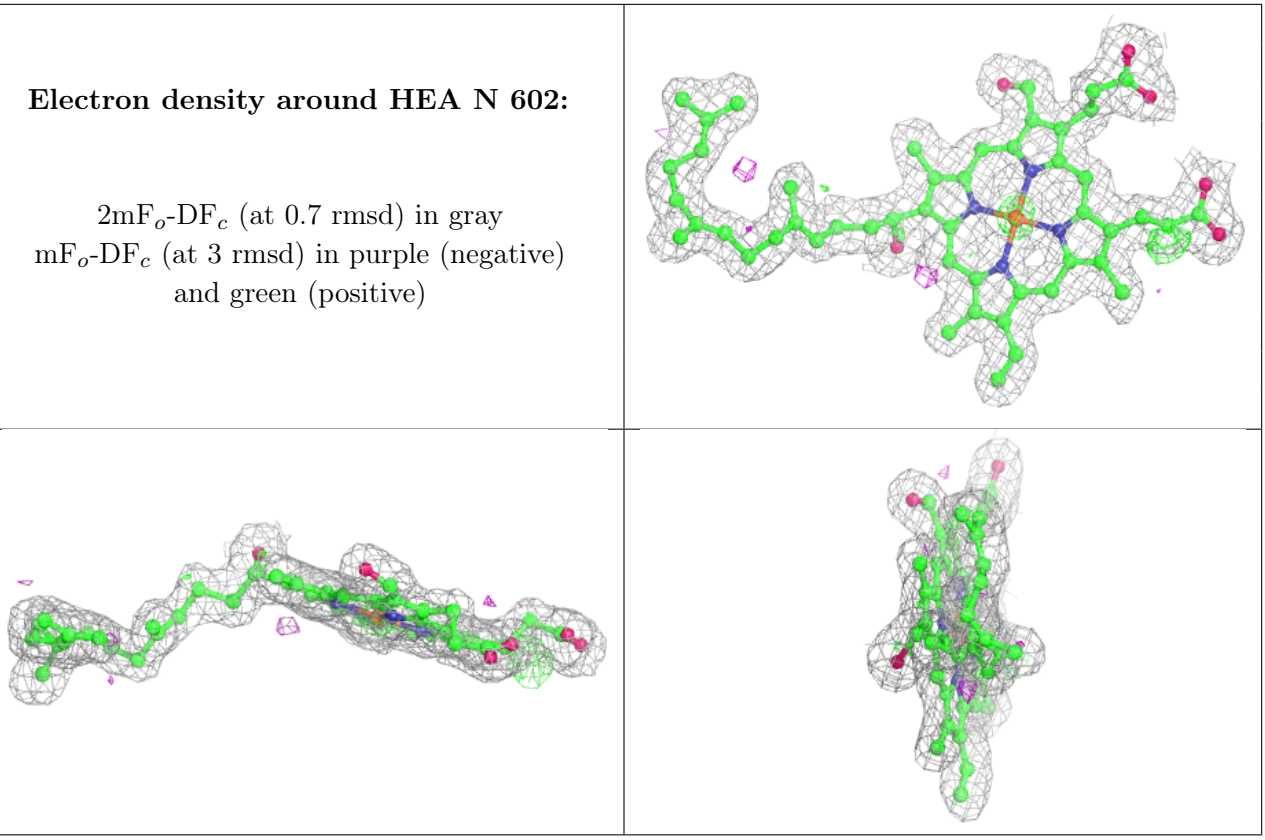






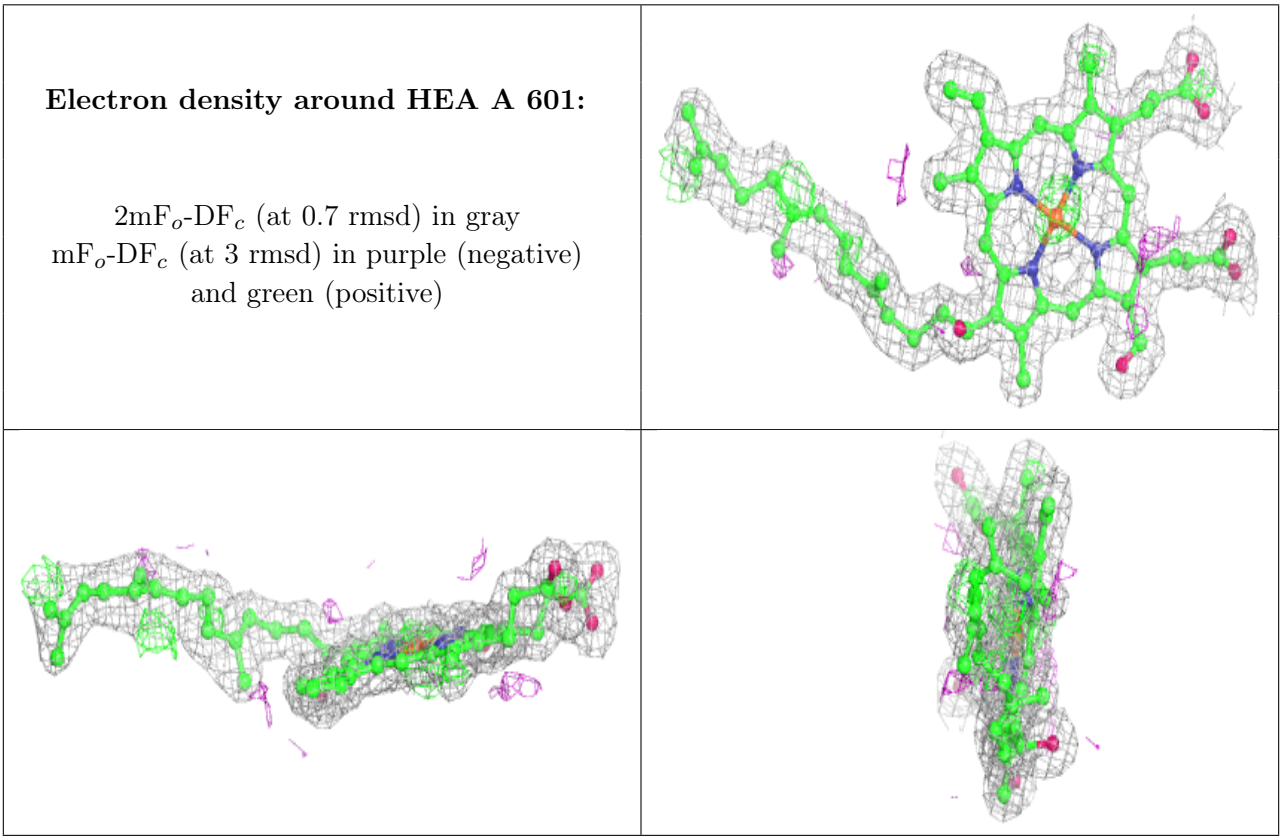
Electron density around HEA N 602:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around HEA A 601:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



6.5 Other polymers (i)

There are no such residues in this entry.