WORLDWIDE PDB
PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report ⓘ

Jan 15, 2024 – 11:36 pm GMT

PDB ID : 6TO7

Title : Crystal structure of the Orexin-1 receptor in complex with suvorexant at 2.29 A resolution

Authors : Rappas, M.; Ali, A.; Bennett, K.A.; Brown, J.D.; Bucknell, S.J.; Congreve, M.; Cooke, R.M.; Cseke, G.; de Graaf, C.; Dore, A.S.; Errey, J.C.; Jazayeri, A.; Marshall, F.H.; Mason, J.S.; Mould, R.; Patel, J.C.; Tehan, B.G.; Weir, M.; Christopher, J.A.

Deposited on : 2019-12-11

Resolution : 2.26 Å(reported)

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

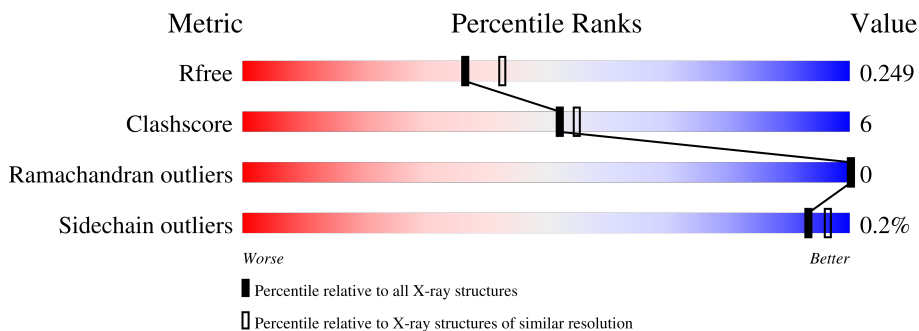|		
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)

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 2.26 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	Percentile Ranks	Value
Rfree		0.249
Clashscore		6
Ramachandran outliers		0
Sidechain outliers		0.2%

Worse — *Better*

▮ Percentile relative to all X-ray structures

❑ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1377 (2.26-2.26)
Clashscore	141614	1487 (2.26-2.26)
Ramachandran outliers	138981	1449 (2.26-2.26)
Sidechain outliers	138945	1450 (2.26-2.26)

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%

Mol	Chain	Length	Quality of chain
1	A	336	82% 7% 11%
1	B	336	86% 5% 9%

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:

Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
5	SOG	B	412	-	-	X	-

2 Entry composition (i)

There are 8 unique types of molecules in this entry. The entry contains 5761 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 Orexin receptor type 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	300	Total	C	N	O	S	0	0	0
			2377	1576	397	387	17			
1	B	307	Total	C	N	O	S	0	0	0
			2451	1631	404	399	17			

There are 116 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	25	ALA	-	expression tag	UNP O43613
A	26	ALA	-	expression tag	UNP O43613
A	27	SER	-	expression tag	UNP O43613
A	46	ALA	GLU	engineered mutation	UNP O43613
A	85	LEU	ILE	engineered mutation	UNP O43613
A	95	ALA	VAL	engineered mutation	UNP O43613
A	162	LEU	ARG	engineered mutation	UNP O43613
A	194	ALA	ASN	engineered mutation	UNP O43613
A	198	ALA	LEU	engineered mutation	UNP O43613
A	211	ALA	TYR	engineered mutation	UNP O43613
A	?	-	ALA	deletion	UNP O43613
A	?	-	LEU	deletion	UNP O43613
A	?	-	VAL	deletion	UNP O43613
A	?	-	ARG	deletion	UNP O43613
A	?	-	ASN	deletion	UNP O43613
A	?	-	TRP	deletion	UNP O43613
A	?	-	LYS	deletion	UNP O43613
A	?	-	ARG	deletion	UNP O43613
A	?	-	PRO	deletion	UNP O43613
A	?	-	SER	deletion	UNP O43613
A	?	-	ASP	deletion	UNP O43613
A	?	-	GLN	deletion	UNP O43613
A	?	-	LEU	deletion	UNP O43613
A	?	-	GLY	deletion	UNP O43613
A	?	-	ASP	deletion	UNP O43613

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| Chain	Residue	Modelled	Actual	Comment	Reference
A	?	-	LEU	deletion	UNP O43613
A	?	-	GLU	deletion	UNP O43613
A	?	-	GLN	deletion	UNP O43613
A	?	-	GLY	deletion	UNP O43613
A	?	-	LEU	deletion	UNP O43613
A	?	-	SER	deletion	UNP O43613
A	?	-	GLY	deletion	UNP O43613
A	?	-	GLU	deletion	UNP O43613
A	?	-	PRO	deletion	UNP O43613
A	?	-	GLN	deletion	UNP O43613
A	?	-	PRO	deletion	UNP O43613
A	?	-	ARG	deletion	UNP O43613
A	?	-	ALA	deletion	UNP O43613
A	?	-	ARG	deletion	UNP O43613
A	?	-	ALA	deletion	UNP O43613
A	?	-	PHE	deletion	UNP O43613
A	?	-	LEU	deletion	UNP O43613
A	304	VAL	LEU	engineered mutation	UNP O43613
A	339	ALA	CYS	engineered mutation	UNP O43613
A	375	TRP	CYS	engineered mutation	UNP O43613
A	376	TRP	CYS	engineered mutation	UNP O43613
A	381	ALA	-	expression tag	UNP O43613
A	382	ALA	-	expression tag	UNP O43613
A	383	ALA	-	expression tag	UNP O43613
A	384	HIS	-	expression tag	UNP O43613
A	385	HIS	-	expression tag	UNP O43613
A	386	HIS	-	expression tag	UNP O43613
A	387	HIS	-	expression tag	UNP O43613
A	388	HIS	-	expression tag	UNP O43613
A	389	HIS	-	expression tag	UNP O43613
A	390	HIS	-	expression tag	UNP O43613
A	391	HIS	-	expression tag	UNP O43613
A	392	HIS	-	expression tag	UNP O43613
B	25	ALA	-	expression tag	UNP O43613
B	26	ALA	-	expression tag	UNP O43613
B	27	SER	-	expression tag	UNP O43613
B	46	ALA	GLU	engineered mutation	UNP O43613
B	85	LEU	ILE	engineered mutation	UNP O43613
B	95	ALA	VAL	engineered mutation	UNP O43613
B	162	LEU	ARG	engineered mutation	UNP O43613
B	194	ALA	ASN	engineered mutation	UNP O43613
B	198	ALA	LEU	engineered mutation	UNP O43613

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Chain	Residue	Modelled	Actual	Comment	Reference
B	211	ALA	TYR	engineered mutation	UNP O43613
B	?	-	ALA	deletion	UNP O43613
B	?	-	LEU	deletion	UNP O43613
B	?	-	VAL	deletion	UNP O43613
B	?	-	ARG	deletion	UNP O43613
B	?	-	ASN	deletion	UNP O43613
B	?	-	TRP	deletion	UNP O43613
B	?	-	LYS	deletion	UNP O43613
B	?	-	ARG	deletion	UNP O43613
B	?	-	PRO	deletion	UNP O43613
B	?	-	SER	deletion	UNP O43613
B	?	-	ASP	deletion	UNP O43613
B	?	-	GLN	deletion	UNP O43613
B	?	-	LEU	deletion	UNP O43613
B	?	-	GLY	deletion	UNP O43613
B	?	-	ASP	deletion	UNP O43613
B	?	-	LEU	deletion	UNP O43613
B	?	-	GLU	deletion	UNP O43613
B	?	-	GLN	deletion	UNP O43613
B	?	-	GLY	deletion	UNP O43613
B	?	-	LEU	deletion	UNP O43613
B	?	-	SER	deletion	UNP O43613
B	?	-	GLY	deletion	UNP O43613
B	?	-	GLU	deletion	UNP O43613
B	?	-	PRO	deletion	UNP O43613
B	?	-	GLN	deletion	UNP O43613
B	?	-	PRO	deletion	UNP O43613
B	?	-	ARG	deletion	UNP O43613
B	?	-	ALA	deletion	UNP O43613
B	?	-	ARG	deletion	UNP O43613
B	?	-	ALA	deletion	UNP O43613
B	?	-	PHE	deletion	UNP O43613
B	?	-	LEU	deletion	UNP O43613
B	304	VAL	LEU	engineered mutation	UNP O43613
B	339	ALA	CYS	engineered mutation	UNP O43613
B	375	TRP	CYS	engineered mutation	UNP O43613
B	376	TRP	CYS	engineered mutation	UNP O43613
B	381	ALA	-	expression tag	UNP O43613
B	382	ALA	-	expression tag	UNP O43613
B	383	ALA	-	expression tag	UNP O43613
B	384	HIS	-	expression tag	UNP O43613
B	385	HIS	-	expression tag	UNP O43613

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Chain	Residue	Modelled	Actual	Comment	Reference
B	386	HIS	-	expression tag	UNP O43613
B	387	HIS	-	expression tag	UNP O43613
B	388	HIS	-	expression tag	UNP O43613
B	389	HIS	-	expression tag	UNP O43613
B	390	HIS	-	expression tag	UNP O43613
B	391	HIS	-	expression tag	UNP O43613
B	392	HIS	-	expression tag	UNP O43613

- Molecule 2 is [(7R)-4-(5-chloro-1,3-benzoxazol-2-yl)-7-methyl-1,4-diazepan-1-yl][5-methyl-2-(2H-1,2,3-triazol-2-yl)phenyl]methanone (three-letter code: SUV) (formula: $C_{23}H_{23}ClN_6O_2$) (labeled as "Ligand of Interest" by depositor).
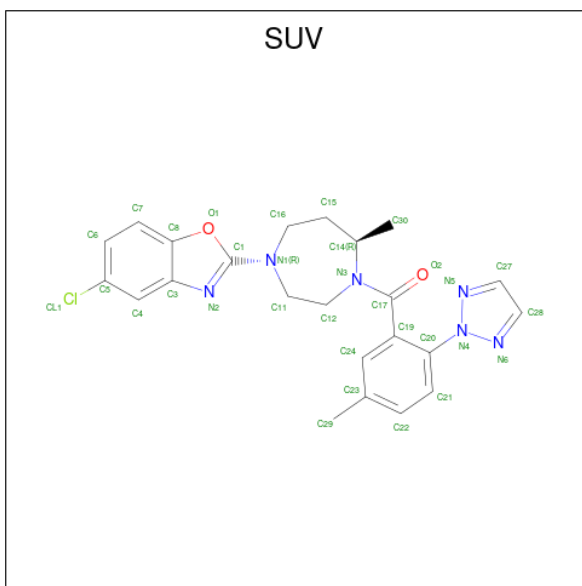
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	Cl	N	O	0	0
			32	23	1	6	2		
2	B	1	Total	C	Cl	N	O	0	0
			32	23	1	6	2		

- Molecule 3 is TETRAETHYLENE GLYCOL (three-letter code: PG4) (formula: $C_8H_{18}O_5$).

PG4

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total 13	C 8	O 5	0	0
3	B	1	Total 13	C 8	O 5	0	0
3	B	1	Total 13	C 8	O 5	0	0
3	B	1	Total 11	C 7	O 4	0	0

- Molecule 4 is CITRIC ACID (three-letter code: CIT) (formula: $C_6H_8O_7$).

CIT
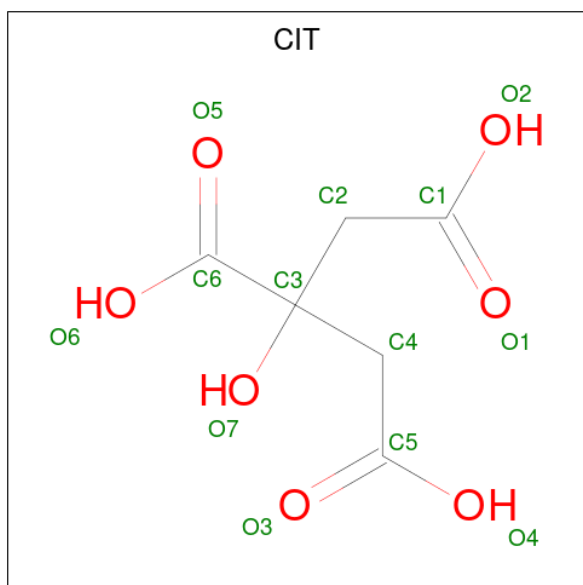
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total 13	C 6	O 7	0	0

- Molecule 5 is octyl 1-thio-beta-D-glucopyranoside (three-letter code: SOG) (formula: $C_{14}H_{28}O_5S$).

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
5	A	1	Total 20	C 14	O 5	S 1	0	0
5	A	1	Total 20	C 14	O 5	S 1	0	0
5	A	1	Total 16	C 10	O 5	S 1	0	0
5	A	1	Total 14	C 8	O 5	S 1	0	0
5	A	1	Total 20	C 14	O 5	S 1	0	0
5	A	1	Total 20	C 14	O 5	S 1	0	0
5	A	1	Total 20	C 14	O 5	S 1	0	0
5	A	1	Total 6	C 5	S 1		0	0
5	A	1	Total 16	C 10	O 5	S 1	0	0
5	A	1	Total 10	C 9	S 1		0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
5	A	1	Total 9	C 8	S 1		0	0
5	A	1	Total 8	C 7	S 1		0	0
5	A	1	Total 5	C 5			0	0
5	A	1	Total 8	C 8			0	0
5	A	1	Total 5	C 5			0	0
5	A	1	Total 9	C 8	S 1		0	0
5	A	1	Total 20	C 14	O 5	S 1	0	0
5	A	1	Total 6	C 5	S 1		0	0
5	A	1	Total 6	C 5	S 1		0	0
5	A	1	Total 4	C 3	S 1		0	0
5	A	1	Total 4	C 3	S 1		0	0
5	A	1	Total 4	C 4			0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 16	C 10	O 5	S 1	0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 9	C 8	S 1		0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 6	C 5	S 1		0	0
5	B	1	Total 4	C 3	S 1		0	0
5	B	1	Total 6	C 5	S 1		0	0
5	B	1	Total 20	C 14	O 5	S 1	0	0
5	B	1	Total 6	C 6			0	0
5	B	1	Total 5	C 5			0	0
5	B	1	Total 6	C 5	S 1		0	0
5	B	1	Total 6	C 6			0	0

- Molecule 6 is (1R)-2-{[(S)-{[(2S)-2,3-dihydroxypropyl]oxy}(hydroxy)phosphoryl]oxy}-1-[(
  hexadecanoyloxy)methyl]ethyl (9Z)-octadec-9-enoate (three-letter code: PGW) (formula:
  $C_{40}H_{77}O_{10}P$).
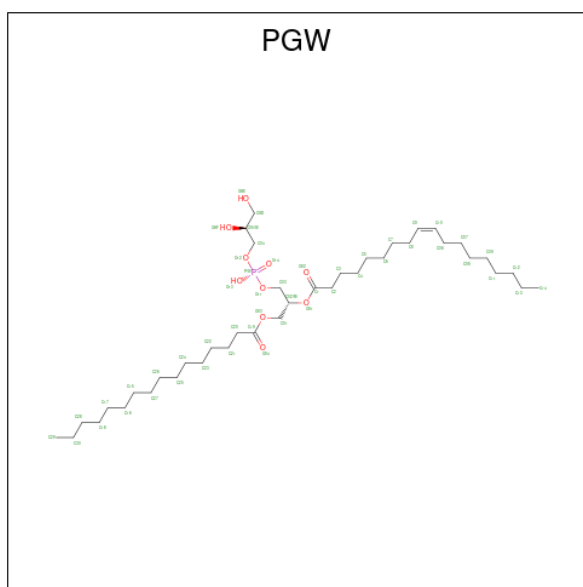
PGW

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

• Molecule 7 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	A	1	Total 1	Na 1	0	0
7	B	1	Total 1	Na 1	0	0

• Molecule 8 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
8	A	84	Total 84	O 84	0	0
8	B	64	Total 64	O 64	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. 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. 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: Orexin receptor type 1

Chain A:
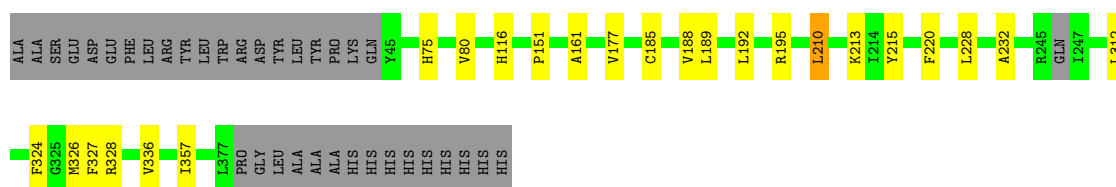
• Molecule 1: Orexin receptor type 1

Chain B:
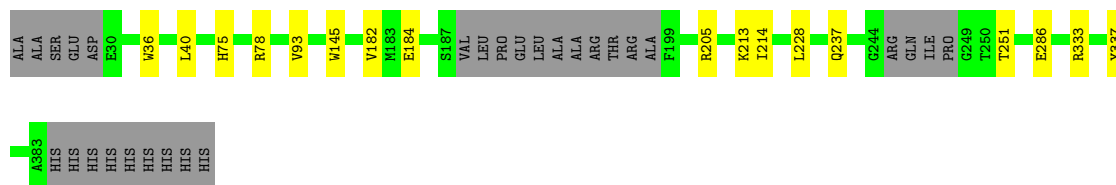
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	I 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	57.90Å 158.47Å 183.62Å 90.00° 95.31° 90.00°	Depositor
Resolution (Å)	44.38 – 2.26 44.38 – 2.25	Depositor EDS
% Data completeness (in resolution range)	58.8 (44.38-2.26) 79.0 (44.38-2.25)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.16 (at 2.24Å)	Xtriage
Refinement program	BUSTER 2.11.7	Depositor
R, R_{free}	0.186 , 0.211 0.224 , 0.249	Depositor DCC
R_{free} test set	3882 reflections (5.01%)	wwPDB-VP
Wilson B-factor (Å^2)	22.0	Xtriage
Anisotropy	0.243	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 62.8	EDS
L-test for twinning[2]	$< |L| > = 0.50, < L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.88	EDS
Total number of atoms	5761	wwPDB-VP
Average B, all atoms (Å^2)	45.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.65% of the height of the origin peak. No significant pseudotranslation is detected.*

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[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 (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: NA, SUV, PGW, PG4, CIT, SOG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$|Z|$>5	RMSZ	#$|Z|$>5
1	A	0.50	0/2442	0.62	0/3330
1	B	0.52	0/2521	0.62	0/3436
All	All	0.51	0/4963	0.62	0/6766

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2377	0	2443	23	0
1	B	2451	0	2498	34	0
2	A	32	0	23	0	0
2	B	32	0	23	0	0
3	A	13	0	18	0	0
3	B	37	0	49	1	0
4	A	13	0	5	0	0
5	A	250	0	348	15	0
5	B	304	0	425	31	0
6	A	51	0	76	1	0
6	B	51	0	76	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	A	1	0	0	0	0
7	B	1	0	0	0	0
8	A	84	0	0	2	0
8	B	64	0	0	0	0
All	All	5761	0	5984	64	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 6.

All (64) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:205:ARG:NH2	5:B:412:SOG:H3'1	1.31	1.43
1:B:205:ARG:NH2	5:B:412:SOG:C3'	2.10	1.14
1:B:205:ARG:HH21	5:B:412:SOG:C3'	1.62	1.12
1:B:205:ARG:NE	5:B:412:SOG:H4'2	1.64	1.12
1:B:205:ARG:HE	5:B:412:SOG:H4'2	0.95	1.09
1:B:184:GLU:OE2	1:B:205:ARG:HD3	1.54	1.08
1:B:205:ARG:HE	5:B:412:SOG:C4'	1.76	0.97
1:B:145:TRP:HE1	1:B:237:GLN:HE21	1.20	0.85
1:B:184:GLU:CD	1:B:205:ARG:HD3	1.99	0.83
1:B:205:ARG:HH21	5:B:412:SOG:H3'1	0.99	0.82
1:B:184:GLU:OE2	1:B:205:ARG:CD	2.27	0.82
1:B:205:ARG:HH21	5:B:412:SOG:C4'	1.93	0.81
1:A:188:VAL:C	1:A:189:LEU:HD12	2.02	0.79
1:B:251:THR:HG22	1:B:286:GLU:OE1	1.83	0.79
1:B:205:ARG:NE	5:B:412:SOG:C4'	2.42	0.78
1:B:205:ARG:CZ	5:B:412:SOG:H4'2	2.15	0.77
1:A:210:LEU:HD12	1:A:210:LEU:O	1.86	0.75
1:B:251:THR:CG2	1:B:286:GLU:OE1	2.37	0.72
1:B:205:ARG:NH2	5:B:412:SOG:C4'	2.54	0.68
1:B:205:ARG:NH2	5:B:412:SOG:H4'2	2.11	0.65
1:B:184:GLU:HG3	5:B:412:SOG:H6'1	1.81	0.62
1:B:205:ARG:HH21	5:B:412:SOG:H4'2	1.65	0.61
5:A:407:SOG:H3	5:B:410:SOG:H2	1.82	0.60
1:A:189:LEU:HD12	1:A:189:LEU:N	2.17	0.60
1:A:151:PRO:HD2	5:A:425:SOG:H8'3	1.85	0.58
6:A:426:PGW:H26	1:B:214:ILE:HG22	1.83	0.58
1:B:36:TRP:HA	1:B:40:LEU:HB2	1.83	0.58
1:A:215:TYR:HB2	6:B:426:PGW:H7	1.85	0.58
1:B:75:HIS:HE1	5:B:417:SOG:H5'1	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:189:LEU:N	1:A:189:LEU:CD1	2.69	0.55
1:B:205:ARG:CZ	5:B:412:SOG:C4'	2.82	0.54
5:A:410:SOG:H3	5:B:414:SOG:H2	1.89	0.54
1:B:75:HIS:HB3	5:B:417:SOG:O5	2.07	0.54
1:B:182:VAL:HA	5:B:412:SOG:H2'1	1.89	0.53
1:B:75:HIS:CE1	1:B:78:ARG:HH12	2.26	0.53
1:A:192:LEU:HD23	1:A:195:ARG:HD2	1.91	0.52
1:B:93:VAL:HG21	5:B:419:SOG:C1	2.40	0.52
1:B:205:ARG:CZ	5:B:412:SOG:C3'	2.84	0.50
5:B:406:SOG:H61	5:B:407:SOG:H3	1.94	0.50
1:A:116:HIS:ND1	1:A:185:CYS:HB3	2.27	0.50
1:A:228:LEU:HB3	5:A:413:SOG:H6'2	1.94	0.49
5:A:405:SOG:H3'2	5:B:425:SOG:H6'1	1.94	0.48
1:A:327:PHE:H	5:A:412:SOG:C6	2.26	0.48
5:A:405:SOG:H3'1	5:B:405:SOG:H6'1	1.95	0.47
5:A:410:SOG:H5'1	5:B:414:SOG:H4'2	1.97	0.46
1:A:232:ALA:HB2	5:A:413:SOG:H7'1	1.98	0.46
1:B:145:TRP:HE1	1:B:237:GLN:NE2	2.01	0.45
1:A:75:HIS:HB2	8:A:563:HOH:O	2.17	0.45
1:A:357:ILE:HG12	5:A:422:SOG:H2'1	1.98	0.45
1:B:228:LEU:HB3	3:B:403:PG4:H81	1.98	0.45
1:A:177:VAL:HG11	5:B:413:SOG:H61	2.00	0.44
1:A:327:PHE:HB3	1:A:336:VAL:HG21	2.00	0.44
1:B:213:LYS:NZ	5:B:405:SOG:H61	2.32	0.44
1:A:324:PHE:HB3	5:A:408:SOG:H5	2.01	0.43
1:A:326:MET:HB3	5:A:412:SOG:H61	2.01	0.42
1:A:312:LEU:HD23	5:A:419:SOG:H2'2	2.01	0.42
1:A:213:LYS:HD3	5:A:410:SOG:H2'2	2.02	0.42
1:A:80:VAL:HG13	1:A:161:ALA:HB2	2.02	0.42
1:A:328:ARG:HD2	8:A:502:HOH:O	2.20	0.42
1:A:210:LEU:HD12	1:A:210:LEU:C	2.37	0.41
1:B:333:ARG:O	1:B:337:TYR:HD2	2.03	0.41
5:A:405:SOG:H3	5:B:408:SOG:H3	2.02	0.41
1:B:75:HIS:HB3	5:B:417:SOG:C1	2.50	0.41
1:A:220:PHE:HE2	5:B:425:SOG:H8'1	1.84	0.41

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	296/336 (88%)	292 (99%)	4 (1%)	0	100	100
1	B	301/336 (90%)	293 (97%)	8 (3%)	0	100	100
All	All	597/672 (89%)	585 (98%)	12 (2%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	249/279 (89%)	248 (100%)	1 (0%)	91	94
1	B	255/279 (91%)	255 (100%)	0	100	100
All	All	504/558 (90%)	503 (100%)	1 (0%)	93	96

All (1) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	210	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	75	HIS
1	B	150	HIS

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Mol	Chain	Res	Type
1	B	237	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no monosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 54 ligands modelled in this entry, 2 are monoatomic - leaving 52 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#$|Z| > 2$	Counts	RMSZ	#$|Z| > 2$
5	SOG	B	415	-	20,20,20	1.03	1 (5%)	24,25,25	1.55	5 (20%)
5	SOG	A	412	-	16,16,20	1.15	1 (6%)	20,21,25	1.43	2 (10%)
5	SOG	B	422	-	5,5,20	0.26	0	4,4,25	0.38	0
5	SOG	B	423	-	4,4,20	0.27	0	3,3,25	0.34	0
5	SOG	B	413	-	20,20,20	1.05	2 (10%)	24,25,25	1.53	3 (12%)
5	SOG	A	408	-	20,20,20	1.10	2 (10%)	24,25,25	1.73	5 (20%)
5	SOG	A	406	-	16,16,20	1.09	1 (6%)	20,21,25	1.35	3 (15%)
5	SOG	B	418	-	5,5,20	0.46	0	4,4,25	0.33	0
6	PGW	A	426	-	50,50,50	0.95	2 (4%)	53,56,56	1.00	3 (5%)
5	SOG	B	412	-	20,20,20	1.04	2 (10%)	24,25,25	1.37	3 (12%)
5	SOG	B	414	-	20,20,20	0.97	1 (5%)	24,25,25	0.86	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
3	PG4	A	402	-	12,12,12	0.52	0	11,11,11	0.24	0
5	SOG	A	413	-	9,9,20	0.38	0	8,8,25	0.43	0
5	SOG	A	417	-	7,7,20	0.31	0	6,6,25	0.43	0
2	SUV	B	401	-	31,36,36	0.95	1 (3%)	32,52,52	1.03	2 (6%)
5	SOG	A	410	-	20,20,20	0.94	1 (5%)	24,25,25	1.11	1 (4%)
5	SOG	A	422	-	5,5,20	0.56	0	4,4,25	0.40	0
5	SOG	B	409	-	20,20,20	1.00	1 (5%)	24,25,25	0.92	2 (8%)
5	SOG	A	407	-	14,14,20	0.92	1 (7%)	18,19,25	1.16	1 (5%)
5	SOG	A	404	-	20,20,20	1.03	2 (10%)	24,25,25	1.02	1 (4%)
5	SOG	A	420	-	20,20,20	1.04	2 (10%)	24,25,25	0.98	2 (8%)
5	SOG	A	414	-	8,8,20	0.18	0	7,7,25	0.36	0
5	SOG	B	410	-	20,20,20	0.92	2 (10%)	24,25,25	1.03	2 (8%)
5	SOG	B	424	-	5,5,20	0.55	0	4,4,25	0.78	0
5	SOG	A	423	-	3,3,20	0.66	0	2,2,25	2.31	1 (50%)
5	SOG	A	416	-	4,4,20	0.30	0	3,3,25	0.33	0
5	SOG	B	411	-	20,20,20	1.12	2 (10%)	24,25,25	0.95	1 (4%)
5	SOG	A	405	-	20,20,20	1.04	1 (5%)	24,25,25	1.64	6 (25%)
5	SOG	B	419	-	3,3,20	0.26	0	2,2,25	0.07	0
5	SOG	A	409	-	20,20,20	1.28	2 (10%)	24,25,25	1.38	3 (12%)
5	SOG	A	421	-	5,5,20	0.56	0	4,4,25	0.48	0
5	SOG	A	411	-	5,5,20	0.60	0	4,4,25	0.80	0
2	SUV	A	401	-	31,36,36	0.92	1 (3%)	32,52,52	1.03	2 (6%)
5	SOG	A	415	-	7,7,20	0.47	0	6,6,25	0.63	0
5	SOG	B	421	-	20,20,20	0.99	1 (5%)	24,25,25	1.05	1 (4%)
5	SOG	B	425	-	5,5,20	0.22	0	4,4,25	0.54	0
4	CIT	A	403	-	12,12,12	1.07	0	17,17,17	1.32	2 (11%)
5	SOG	B	416	-	8,8,20	0.53	0	7,7,25	0.50	0
5	SOG	A	424	-	3,3,20	0.85	0	2,2,25	0.44	0
6	PGW	B	426	-	50,50,50	0.97	2 (4%)	53,56,56	0.96	3 (5%)
3	PG4	B	404	-	10,10,12	0.56	0	9,9,11	0.40	0
5	SOG	A	419	-	8,8,20	0.46	0	7,7,25	0.58	0
5	SOG	A	418	-	4,4,20	0.27	0	3,3,25	0.41	0
3	PG4	B	403	-	12,12,12	0.66	0	11,11,11	0.47	0
5	SOG	B	407	-	20,20,20	0.96	1 (5%)	24,25,25	0.91	2 (8%)
5	SOG	B	408	-	20,20,20	1.22	2 (10%)	24,25,25	1.30	2 (8%)
5	SOG	B	406	-	16,16,20	1.25	2 (12%)	20,21,25	1.01	0
5	SOG	B	405	-	20,20,20	0.98	1 (5%)	24,25,25	1.34	3 (12%)
5	SOG	A	425	-	3,3,20	0.33	0	2,2,25	0.69	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
5	SOG	B	417	-	20,20,20	1.10	2 (10%)	24,25,25	1.45	6 (25%)
5	SOG	B	420	-	5,5,20	0.60	0	4,4,25	0.97	0
3	PG4	B	402	-	12,12,12	0.61	0	11,11,11	0.53	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	SOG	B	415	-	-	7/11/31/31	0/1/1/1
5	SOG	A	412	-	-	4/7/27/31	0/1/1/1
5	SOG	B	422	-	-	1/3/3/31	-
5	SOG	B	423	-	-	2/2/2/31	-
5	SOG	B	413	-	-	4/11/31/31	0/1/1/1
5	SOG	A	408	-	-	9/11/31/31	0/1/1/1
5	SOG	A	406	-	-	5/7/27/31	0/1/1/1
5	SOG	B	418	-	-	2/3/3/31	-
6	PGW	A	426	-	-	29/55/55/55	-
5	SOG	B	412	-	-	6/11/31/31	0/1/1/1
5	SOG	B	414	-	-	7/11/31/31	0/1/1/1
3	PG4	A	402	-	-	6/10/10/10	-
5	SOG	A	413	-	-	4/7/7/31	-
5	SOG	A	417	-	-	4/5/5/31	-
2	SUV	B	401	-	-	0/10/30/30	0/4/5/5
5	SOG	A	410	-	-	4/11/31/31	0/1/1/1
5	SOG	A	422	-	-	3/3/3/31	-
5	SOG	B	409	-	-	5/11/31/31	0/1/1/1
5	SOG	A	407	-	-	3/5/25/31	0/1/1/1
5	SOG	A	404	-	-	4/11/31/31	0/1/1/1
5	SOG	A	420	-	-	4/11/31/31	0/1/1/1
5	SOG	A	414	-	-	1/6/6/31	-
5	SOG	B	410	-	-	4/11/31/31	0/1/1/1
5	SOG	B	424	-	-	2/3/3/31	-
5	SOG	A	423	-	-	1/1/1/31	-
5	SOG	A	416	-	-	1/2/2/31	-
5	SOG	B	411	-	-	6/11/31/31	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	SOG	A	405	-	-	7/11/31/31	0/1/1/1
5	SOG	B	419	-	-	0/0/1/31	-
5	SOG	A	409	-	-	8/11/31/31	0/1/1/1
5	SOG	A	421	-	-	3/3/3/31	-
5	SOG	A	411	-	-	0/3/3/31	-
2	SUV	A	401	-	-	2/10/30/30	0/4/5/5
5	SOG	A	415	-	-	3/5/5/31	-
5	SOG	B	421	-	-	8/11/31/31	0/1/1/1
5	SOG	B	425	-	-	3/3/3/31	-
4	CIT	A	403	-	-	1/16/16/16	-
5	SOG	B	416	-	-	3/6/6/31	-
5	SOG	A	424	-	-	0/0/1/31	-
6	PGW	B	426	-	-	22/55/55/55	-
3	PG4	B	404	-	-	4/8/8/10	-
5	SOG	A	419	-	-	3/6/6/31	-
5	SOG	A	418	-	-	1/2/2/31	-
3	PG4	B	403	-	-	8/10/10/10	-
5	SOG	B	407	-	-	6/11/31/31	0/1/1/1
5	SOG	B	408	-	-	4/11/31/31	0/1/1/1
5	SOG	B	406	-	-	3/7/27/31	0/1/1/1
5	SOG	B	405	-	-	1/11/31/31	0/1/1/1
5	SOG	A	425	-	-	0/1/1/31	-
5	SOG	B	417	-	-	9/11/31/31	0/1/1/1
5	SOG	B	420	-	-	2/3/3/31	-
3	PG4	B	402	-	-	3/10/10/10	-

All (39) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	A	426	PGW	O03-C19	4.56	1.46	1.33
6	B	426	PGW	O03-C19	4.38	1.46	1.33
6	B	426	PGW	O01-C1	4.33	1.46	1.34
5	A	409	SOG	C1'-S1	-4.13	1.76	1.81
5	B	408	SOG	C1'-S1	-4.10	1.76	1.81
5	B	406	SOG	C1'-S1	-3.86	1.76	1.81
5	A	408	SOG	C1'-S1	-3.82	1.76	1.81
5	B	411	SOG	C1'-S1	-3.81	1.76	1.81
6	A	426	PGW	O01-C1	3.79	1.45	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	412	SOG	C1'-S1	-3.71	1.76	1.81
5	A	405	SOG	C1'-S1	-3.66	1.76	1.81
5	B	412	SOG	C1'-S1	-3.53	1.76	1.81
5	A	420	SOG	C1'-S1	-3.52	1.76	1.81
5	B	413	SOG	C1'-S1	-3.48	1.77	1.81
5	B	415	SOG	C1'-S1	-3.45	1.77	1.81
5	A	406	SOG	C1'-S1	-3.44	1.77	1.81
5	B	417	SOG	C1'-S1	-3.40	1.77	1.81
5	B	409	SOG	C1'-S1	-3.35	1.77	1.81
5	A	404	SOG	C1'-S1	-3.32	1.77	1.81
5	B	421	SOG	C1'-S1	-3.32	1.77	1.81
5	B	405	SOG	C1'-S1	-3.28	1.77	1.81
5	A	410	SOG	C1'-S1	-3.15	1.77	1.81
5	B	414	SOG	C1'-S1	-3.14	1.77	1.81
5	B	407	SOG	C1'-S1	-3.10	1.77	1.81
5	A	409	SOG	C1-S1	-3.05	1.76	1.80
2	B	401	SUV	C1-N2	-3.04	1.31	1.35
2	A	401	SUV	C1-N2	-2.83	1.31	1.35
5	B	410	SOG	C1-S1	-2.62	1.76	1.80
5	B	417	SOG	C1-S1	-2.59	1.76	1.80
5	B	406	SOG	C1-S1	-2.49	1.76	1.80
5	A	407	SOG	C1-S1	-2.38	1.77	1.80
5	B	408	SOG	C1-S1	-2.38	1.77	1.80
5	B	410	SOG	C1'-S1	-2.34	1.78	1.81
5	B	412	SOG	C1-S1	-2.31	1.77	1.80
5	A	408	SOG	C1-S1	-2.22	1.77	1.80
5	B	413	SOG	C1-S1	-2.18	1.77	1.80
5	B	411	SOG	C1-S1	-2.13	1.77	1.80
5	A	404	SOG	C1-S1	-2.10	1.77	1.80
5	A	420	SOG	C1-S1	-2.07	1.77	1.80

All (67) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	408	SOG	C1-O5-C5	6.20	124.02	112.58
5	B	405	SOG	C1'-S1-C1	4.43	108.38	100.09
5	B	413	SOG	C1-O5-C5	4.11	120.16	112.58
5	A	404	SOG	C1-O5-C5	4.02	119.99	112.58
5	A	409	SOG	C4-C3-C2	4.00	117.81	110.82
5	B	415	SOG	C1-C2-C3	3.98	118.44	110.59
5	B	415	SOG	C4-C3-C2	3.96	117.74	110.82
5	A	412	SOG	C4-C3-C2	3.82	117.49	110.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	A	426	PGW	O01-C1-C2	3.71	119.49	111.50
2	A	401	SUV	C21-C20-C19	-3.60	119.66	122.95
5	A	405	SOG	C1-O5-C5	3.54	119.11	112.58
6	B	426	PGW	O01-C1-C2	3.54	119.13	111.50
2	B	401	SUV	C21-C20-C19	-3.51	119.75	122.95
5	B	413	SOG	O5-C5-C4	3.49	116.02	109.69
5	A	405	SOG	C4-C3-C2	3.45	116.85	110.82
4	A	403	CIT	O6-C6-C3	3.45	119.04	113.05
5	B	413	SOG	C3-C4-C5	3.39	116.28	110.24
5	A	405	SOG	C1-C2-C3	3.32	117.15	110.59
5	B	412	SOG	O5-C5-C4	3.29	115.67	109.69
5	B	412	SOG	C1-O5-C5	3.29	118.64	112.58
5	A	423	SOG	C2'-C1'-S1	-3.27	110.34	113.74
5	B	408	SOG	C3-C4-C5	3.17	115.90	110.24
5	A	412	SOG	C3-C4-C5	3.15	115.85	110.24
5	A	408	SOG	O5-C5-C4	3.13	115.38	109.69
5	B	417	SOG	C4-C3-C2	3.09	116.22	110.82
5	B	421	SOG	C1'-S1-C1	3.07	105.84	100.09
5	A	410	SOG	C4-C3-C2	3.07	116.17	110.82
6	B	426	PGW	O03-C19-C20	3.06	121.53	111.91
5	B	412	SOG	C3-C4-C5	3.02	115.63	110.24
5	B	417	SOG	O5-C5-C6	2.94	113.75	106.44
2	B	401	SUV	C5-C4-C3	-2.92	117.03	119.50
5	B	409	SOG	C1'-S1-C1	2.82	105.37	100.09
4	A	403	CIT	O5-C6-C3	-2.77	118.33	122.25
5	B	417	SOG	C1-O5-C5	2.70	117.56	112.58
5	A	406	SOG	C3-C4-C5	2.69	115.04	110.24
5	A	406	SOG	C4-C3-C2	2.66	115.46	110.82
5	A	407	SOG	C6-C5-C4	2.64	119.19	113.00
5	A	406	SOG	C1-O5-C5	2.63	117.44	112.58
5	A	409	SOG	C1-C2-C3	2.63	115.78	110.59
5	B	408	SOG	O5-C5-C4	2.63	114.47	109.69
5	B	405	SOG	O5-C5-C6	2.62	112.96	106.44
5	B	411	SOG	C4-C3-C2	2.60	115.36	110.82
2	A	401	SUV	C5-C4-C3	-2.59	117.31	119.50
5	B	415	SOG	C3-C4-C5	2.57	114.83	110.24
5	B	407	SOG	C1'-S1-C1	2.56	104.88	100.09
5	B	410	SOG	C3-C4-C5	2.53	114.75	110.24
6	A	426	PGW	C4-C3-C2	-2.51	104.18	113.19
5	A	405	SOG	O5-C1-C2	2.41	113.34	110.31
5	B	417	SOG	C3-C4-C5	2.41	114.53	110.24
5	A	408	SOG	C1'-S1-C1	2.39	104.56	100.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	417	SOG	C1'-S1-C1	2.38	104.55	100.09
5	A	408	SOG	C3-C4-C5	2.35	114.42	110.24
5	B	410	SOG	C4-C3-C2	2.32	114.88	110.82
6	B	426	PGW	O03-C19-O04	-2.31	117.75	123.59
5	B	407	SOG	C1-O5-C5	2.28	116.79	112.58
5	A	420	SOG	C1'-S1-C1	2.28	104.36	100.09
6	A	426	PGW	O03-C19-C20	2.27	119.03	111.91
5	B	417	SOG	O5-C1-C2	2.27	113.16	110.31
5	A	405	SOG	O2-C2-C1	-2.22	106.18	110.27
5	A	405	SOG	C3-C4-C5	2.13	114.04	110.24
5	A	409	SOG	C1-O5-C5	-2.11	108.69	112.58
5	B	405	SOG	O5-C1-S1	2.11	114.87	109.82
5	B	415	SOG	O5-C5-C6	2.10	111.67	106.44
5	B	409	SOG	C1-O5-C5	2.08	116.42	112.58
5	B	415	SOG	O5-C1-C2	2.08	112.93	110.31
5	A	408	SOG	O5-C1-C2	2.07	112.92	110.31
5	A	420	SOG	C4-C3-C2	2.03	114.36	110.82

There are no chirality outliers.

All (232) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	401	SUV	C21-C20-N4-N6
5	A	405	SOG	C2-C1-S1-C1'
5	A	405	SOG	O5-C1-S1-C1'
5	A	405	SOG	C2'-C1'-S1-C1
5	A	408	SOG	O5-C1-S1-C1'
5	A	408	SOG	C2'-C1'-S1-C1
5	A	409	SOG	C2'-C1'-S1-C1
5	A	414	SOG	S1-C1'-C2'-C3'
5	A	419	SOG	S1-C1'-C2'-C3'
5	B	407	SOG	O5-C1-S1-C1'
5	B	408	SOG	C2'-C1'-S1-C1
5	B	409	SOG	C2'-C1'-S1-C1
5	B	410	SOG	C2'-C1'-S1-C1
5	B	414	SOG	O5-C1-S1-C1'
5	B	415	SOG	C2'-C1'-S1-C1
5	B	417	SOG	C2-C1-S1-C1'
5	B	417	SOG	O5-C1-S1-C1'
5	B	424	SOG	S1-C1'-C2'-C3'
6	A	426	PGW	OAF-C05-CAD-OAE
6	A	426	PGW	C04-C05-CAD-OAE

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Mol	Chain	Res	Type	Atoms
6	A	426	PGW	C03-O11-P-O13
6	A	426	PGW	C04-O12-P-O13
6	A	426	PGW	C04-O12-P-O14
6	B	426	PGW	C04-O12-P-O14
5	A	412	SOG	C4-C5-C6-O6
5	A	409	SOG	O5-C5-C6-O6
5	A	405	SOG	S1-C1'-C2'-C3'
5	A	406	SOG	S1-C1'-C2'-C3'
5	B	408	SOG	S1-C1'-C2'-C3'
5	A	420	SOG	O5-C5-C6-O6
5	B	415	SOG	O5-C5-C6-O6
5	A	407	SOG	C4-C5-C6-O6
5	B	417	SOG	C4-C5-C6-O6
5	A	407	SOG	O5-C5-C6-O6
5	B	421	SOG	O5-C5-C6-O6
3	A	402	PG4	O2-C3-C4-O3
5	B	407	SOG	S1-C1'-C2'-C3'
5	A	408	SOG	O5-C5-C6-O6
3	B	404	PG4	O2-C3-C4-O3
5	A	412	SOG	O5-C5-C6-O6
5	B	411	SOG	O5-C5-C6-O6
5	B	414	SOG	O5-C5-C6-O6
5	B	412	SOG	C4-C5-C6-O6
5	B	411	SOG	C4-C5-C6-O6
3	B	404	PG4	O3-C5-C6-O4
5	B	412	SOG	O5-C5-C6-O6
5	A	419	SOG	C1'-C2'-C3'-C4'
5	B	417	SOG	O5-C5-C6-O6
5	A	409	SOG	C4-C5-C6-O6
5	B	414	SOG	C4-C5-C6-O6
5	B	415	SOG	C4-C5-C6-O6
5	B	413	SOG	C1'-C2'-C3'-C4'
5	B	420	SOG	C1'-C2'-C3'-C4'
6	B	426	PGW	OAF-C05-CAD-OAE
3	B	403	PG4	O2-C3-C4-O3
5	A	412	SOG	S1-C1'-C2'-C3'
5	B	408	SOG	O5-C5-C6-O6
5	A	406	SOG	C4-C5-C6-O6
5	A	420	SOG	C4-C5-C6-O6
6	A	426	PGW	C03-O11-P-O12
6	A	426	PGW	C04-O12-P-O11
6	A	426	PGW	C19-C20-C21-C22

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Mol	Chain	Res	Type	Atoms
5	A	406	SOG	O5-C5-C6-O6
5	B	407	SOG	C1'-C2'-C3'-C4'
5	B	409	SOG	C1'-C2'-C3'-C4'
3	A	402	PG4	O4-C7-C8-O5
3	B	402	PG4	O1-C1-C2-O2
3	B	403	PG4	O3-C5-C6-O4
5	A	410	SOG	C1'-C2'-C3'-C4'
5	A	413	SOG	C1'-C2'-C3'-C4'
5	B	417	SOG	C1'-C2'-C3'-C4'
5	A	413	SOG	C2'-C3'-C4'-C5'
5	B	411	SOG	C4'-C5'-C6'-C7'
5	A	413	SOG	S1-C1'-C2'-C3'
5	B	407	SOG	C3'-C4'-C5'-C6'
5	B	412	SOG	C3'-C4'-C5'-C6'
5	A	417	SOG	C3'-C4'-C5'-C6'
6	B	426	PGW	C25-C26-C27-C15
5	A	404	SOG	C4'-C5'-C6'-C7'
6	A	426	PGW	C23-C24-C25-C26
5	B	421	SOG	C4'-C5'-C6'-C7'
5	A	409	SOG	C1'-C2'-C3'-C4'
6	B	426	PGW	C04-C05-CAD-OAE
3	B	402	PG4	O3-C5-C6-O4
5	B	413	SOG	C2'-C3'-C4'-C5'
5	B	413	SOG	C4'-C5'-C6'-C7'
6	A	426	PGW	C06-C07-C08-C09
3	B	403	PG4	O1-C1-C2-O2
6	A	426	PGW	C24-C25-C26-C27
6	A	426	PGW	C07-C08-C09-C11
5	A	409	SOG	S1-C1'-C2'-C3'
5	A	410	SOG	S1-C1'-C2'-C3'
5	B	412	SOG	S1-C1'-C2'-C3'
5	B	410	SOG	C4'-C5'-C6'-C7'
5	A	408	SOG	C1'-C2'-C3'-C4'
5	B	409	SOG	C2'-C3'-C4'-C5'
5	B	417	SOG	C2'-C3'-C4'-C5'
6	B	426	PGW	C06-C07-C08-C09
5	A	408	SOG	C3'-C4'-C5'-C6'
5	B	406	SOG	C4-C5-C6-O6
6	A	426	PGW	C21-C22-C23-C24
5	A	415	SOG	C2'-C3'-C4'-C5'
5	B	418	SOG	S1-C1'-C2'-C3'
6	A	426	PGW	C10-C06-C07-C08

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Mol	Chain	Res	Type	Atoms
5	A	404	SOG	C3'-C4'-C5'-C6'
5	B	421	SOG	C2'-C3'-C4'-C5'
5	A	417	SOG	C2'-C3'-C4'-C5'
5	A	413	SOG	C3'-C4'-C5'-C6'
5	B	425	SOG	C4'-C5'-C6'-C7'
5	B	414	SOG	C3'-C4'-C5'-C6'
6	B	426	PGW	C10-C06-C07-C08
5	B	414	SOG	C4'-C5'-C6'-C7'
6	B	426	PGW	C21-C22-C23-C24
5	B	412	SOG	C2'-C3'-C4'-C5'
3	A	402	PG4	O3-C5-C6-O4
5	B	406	SOG	O5-C5-C6-O6
5	A	408	SOG	C4-C5-C6-O6
5	B	416	SOG	C3'-C4'-C5'-C6'
6	A	426	PGW	C08-C09-C11-C12
3	A	402	PG4	O1-C1-C2-O2
5	A	421	SOG	C2'-C3'-C4'-C5'
5	B	406	SOG	C1'-C2'-C3'-C4'
5	A	408	SOG	C5'-C6'-C7'-C8'
5	B	411	SOG	C3'-C4'-C5'-C6'
5	A	404	SOG	S1-C1'-C2'-C3'
5	B	417	SOG	C5'-C6'-C7'-C8'
5	A	409	SOG	C2'-C3'-C4'-C5'
5	A	410	SOG	C3'-C4'-C5'-C6'
6	B	426	PGW	C1-C2-C3-C4
5	B	407	SOG	C5'-C6'-C7'-C8'
5	B	409	SOG	O5-C5-C6-O6
5	A	405	SOG	C4'-C5'-C6'-C7'
5	B	405	SOG	O5-C5-C6-O6
5	B	412	SOG	C5'-C6'-C7'-C8'
2	A	401	SUV	C21-C20-N4-N5
5	B	416	SOG	C5'-C6'-C7'-C8'
5	A	404	SOG	O5-C5-C6-O6
5	B	414	SOG	C1'-C2'-C3'-C4'
5	A	412	SOG	C1'-C2'-C3'-C4'
5	B	421	SOG	C4-C5-C6-O6
5	B	410	SOG	C5'-C6'-C7'-C8'
6	B	426	PGW	C16-C17-C18-C28
5	B	414	SOG	C5'-C6'-C7'-C8'
5	A	410	SOG	C4'-C5'-C6'-C7'
5	A	409	SOG	C5'-C6'-C7'-C8'
5	B	418	SOG	C1'-C2'-C3'-C4'

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Mol	Chain	Res	Type	Atoms
5	B	421	SOG	C5'-C6'-C7'-C8'
5	B	423	SOG	C4'-C5'-C6'-C7'
6	A	426	PGW	C11-C12-C13-C14
5	A	420	SOG	C5'-C6'-C7'-C8'
5	B	415	SOG	C4'-C5'-C6'-C7'
5	B	415	SOG	C3'-C4'-C5'-C6'
5	B	411	SOG	S1-C1'-C2'-C3'
5	A	406	SOG	O5-C1-S1-C1'
5	B	415	SOG	S1-C1'-C2'-C3'
3	B	403	PG4	C3-C4-O3-C5
3	B	403	PG4	C5-C6-O4-C7
3	B	403	PG4	C1-C2-O2-C3
3	B	404	PG4	C3-C4-O3-C5
6	B	426	PGW	O03-C01-C02-C03
6	B	426	PGW	O01-C02-C03-O11
5	B	425	SOG	C3'-C4'-C5'-C6'
3	A	402	PG4	C8-C7-O4-C6
6	A	426	PGW	C6-C7-C8-C9
5	B	410	SOG	C3'-C4'-C5'-C6'
5	A	422	SOG	S1-C1'-C2'-C3'
5	B	416	SOG	S1-C1'-C2'-C3'
6	B	426	PGW	C04-O12-P-O11
6	A	426	PGW	C20-C21-C22-C23
6	B	426	PGW	C05-C04-O12-P
6	A	426	PGW	C03-O11-P-O14
6	B	426	PGW	C03-O11-P-O14
6	B	426	PGW	C04-O12-P-O13
6	B	426	PGW	C01-C02-C03-O11
5	A	405	SOG	C1'-C2'-C3'-C4'
5	B	421	SOG	S1-C1'-C2'-C3'
5	A	406	SOG	C2-C1-S1-C1'
5	B	413	SOG	C2-C1-S1-C1'
3	B	404	PG4	C6-C5-O3-C4
5	A	418	SOG	C5'-C6'-C7'-C8'
5	A	420	SOG	C3'-C4'-C5'-C6'
5	B	417	SOG	C3'-C4'-C5'-C6'
6	B	426	PGW	C27-C15-C16-C17
3	B	403	PG4	O4-C7-C8-O5
5	A	408	SOG	S1-C1'-C2'-C3'
6	A	426	PGW	O02-C1-O01-C02
5	A	417	SOG	C4'-C5'-C6'-C7'
5	A	423	SOG	S1-C1'-C2'-C3'

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Mol	Chain	Res	Type	Atoms
5	A	417	SOG	C1'-C2'-C3'-C4'
3	B	402	PG4	C3-C4-O3-C5
5	A	421	SOG	C1'-C2'-C3'-C4'
5	B	424	SOG	C1'-C2'-C3'-C4'
6	A	426	PGW	C2-C1-O01-C02
6	B	426	PGW	O03-C01-C02-O01
5	B	411	SOG	C2'-C3'-C4'-C5'
5	A	409	SOG	C4'-C5'-C6'-C7'
5	B	408	SOG	C5'-C6'-C7'-C8'
5	A	405	SOG	C2'-C3'-C4'-C5'
6	A	426	PGW	C09-C11-C12-C13
5	A	422	SOG	C2'-C3'-C4'-C5'
5	B	417	SOG	C4'-C5'-C6'-C7'
5	B	421	SOG	C1'-C2'-C3'-C4'
3	B	403	PG4	C4-C3-O2-C2
5	A	416	SOG	C5'-C6'-C7'-C8'
5	A	422	SOG	C1'-C2'-C3'-C4'
5	A	419	SOG	C2'-C3'-C4'-C5'
5	B	420	SOG	C2'-C3'-C4'-C5'
6	A	426	PGW	C16-C17-C18-C28
5	B	415	SOG	C1'-C2'-C3'-C4'
5	B	425	SOG	C5'-C6'-C7'-C8'
5	B	407	SOG	C4'-C5'-C6'-C7'
5	A	415	SOG	C1'-C2'-C3'-C4'
5	A	408	SOG	C2'-C3'-C4'-C5'
5	B	421	SOG	O5-C1-S1-C1'
6	B	426	PGW	O01-C1-C2-C3
5	B	423	SOG	C5'-C6'-C7'-C8'
5	B	422	SOG	C3'-C4'-C5'-C6'
6	A	426	PGW	C18-C28-C30-C29
6	A	426	PGW	O03-C19-C20-C21
5	A	415	SOG	S1-C1'-C2'-C3'
5	A	421	SOG	S1-C1'-C2'-C3'
3	A	402	PG4	C1-C2-O2-C3
4	A	403	CIT	O7-C3-C4-C5
6	B	426	PGW	C23-C24-C25-C26
6	B	426	PGW	C15-C16-C17-C18
6	A	426	PGW	O04-C19-C20-C21
6	A	426	PGW	C05-C04-O12-P
6	B	426	PGW	O02-C1-C2-C3
6	A	426	PGW	C22-C23-C24-C25
5	A	407	SOG	C2-C1-S1-C1'

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Mol	Chain	Res	Type	Atoms
5	B	409	SOG	S1-C1'-C2'-C3'
6	A	426	PGW	O01-C1-C2-C3

There are no ring outliers.

23 monomers are involved in 43 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	A	412	SOG	2	0
5	B	413	SOG	1	0
5	A	408	SOG	1	0
6	A	426	PGW	1	0
5	B	412	SOG	17	0
5	B	414	SOG	2	0
5	A	413	SOG	2	0
5	A	410	SOG	3	0
5	A	422	SOG	1	0
5	A	407	SOG	1	0
5	B	410	SOG	1	0
5	A	405	SOG	3	0
5	B	419	SOG	1	0
5	B	425	SOG	2	0
6	B	426	PGW	1	0
5	A	419	SOG	1	0
3	B	403	PG4	1	0
5	B	407	SOG	1	0
5	B	408	SOG	1	0
5	B	406	SOG	1	0
5	B	405	SOG	2	0
5	A	425	SOG	1	0
5	B	417	SOG	3	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 SOG B 415	
Bond lengths	Bond angles
Torsions	Rings

Ligand SOG A 412	
Bond lengths	Bond angles
Torsions	Rings

Ligand SOG B 422	
Bond lengths	Bond angles
Torsions	Rings

Ligand SOG B 423

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 413

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 408

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 406

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 418

Bond lengths

Bond angles

Torsions

Rings

Ligand PGW A 426

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 412

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 414

Bond lengths	Bond angles
Torsions	Rings

Ligand SOG A 413

Bond lengths	Bond angles
Torsions	Rings

Ligand SOG A 417

Bond lengths	Bond angles
Torsions	Rings

Ligand SUV B 401

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 410

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 422

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 409

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 407

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 404

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 420

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 414

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 410

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 424

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 423

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 416

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 411

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 405

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 409	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand SOG A 421	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand SUV A 401

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 415

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 421

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 425

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 416

Bond lengths

Bond angles

Torsions

Rings

Ligand PGW B 426

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 419

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG A 418

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 407

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 408

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 406

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 405

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 417

Bond lengths

Bond angles

Torsions

Rings

Ligand SOG B 420

Bond lengths

Bond angles

Torsions

Rings

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

Unable to reproduce the depositors R factor - this section is therefore empty.

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

Unable to reproduce the depositors R factor - this section is therefore empty.

6.3 Carbohydrates ⓘ

Unable to reproduce the depositors R factor - this section is therefore empty.

6.4 Ligands ⓘ

Unable to reproduce the depositors R factor - this section is therefore empty.

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.
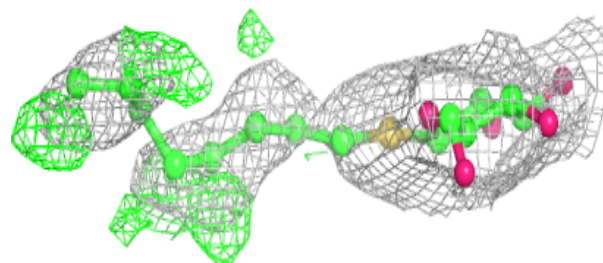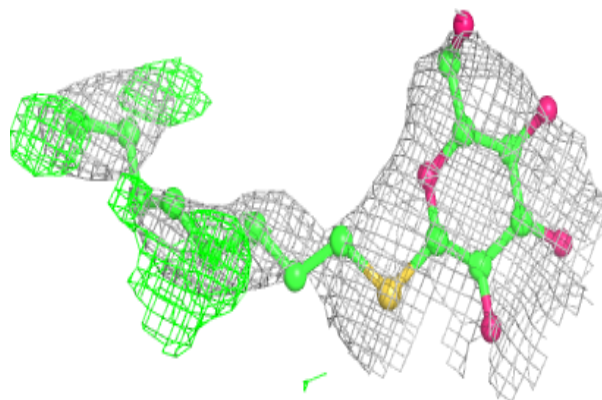

Electron density around SUV A 401:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)
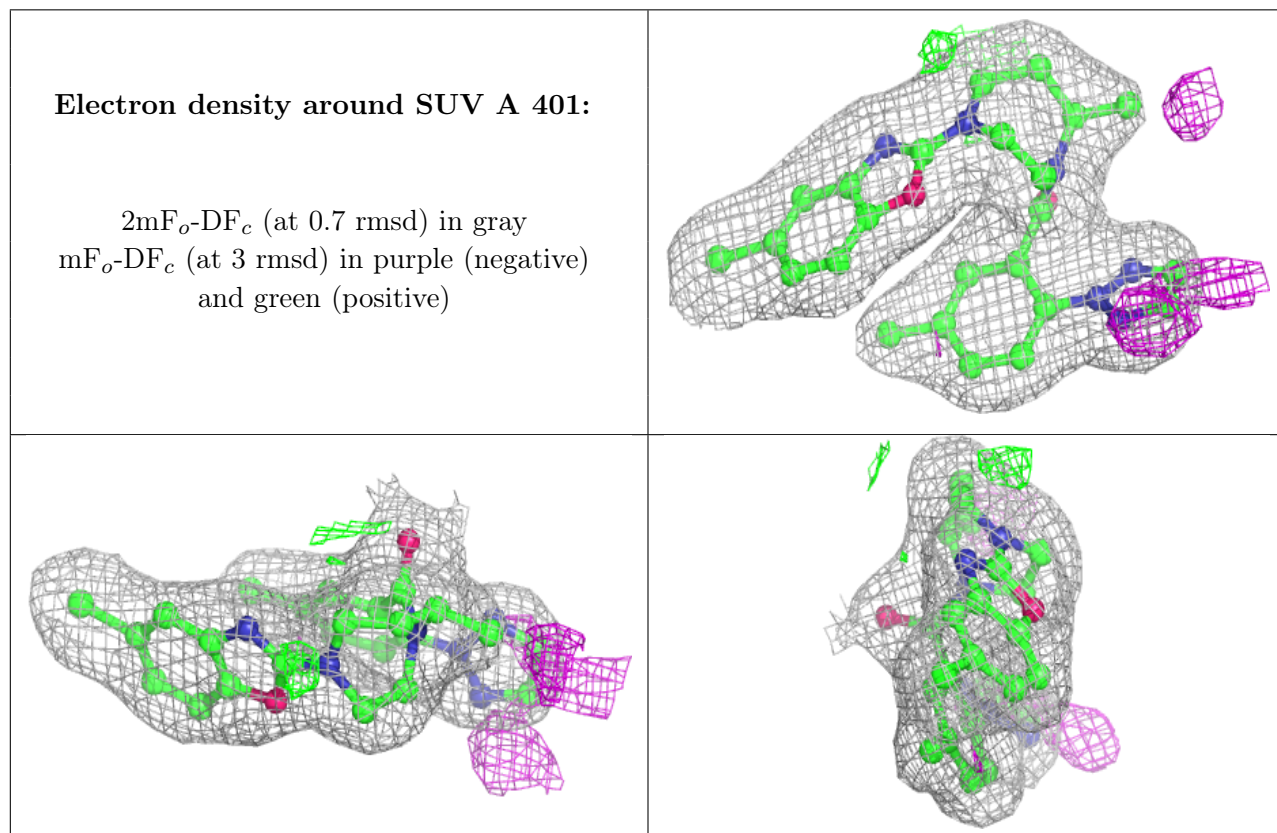
Electron density around SUV B 401:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
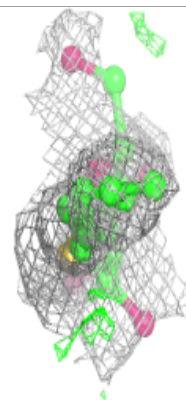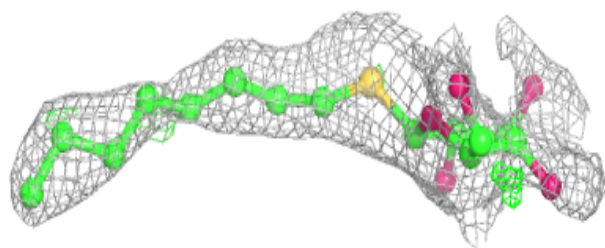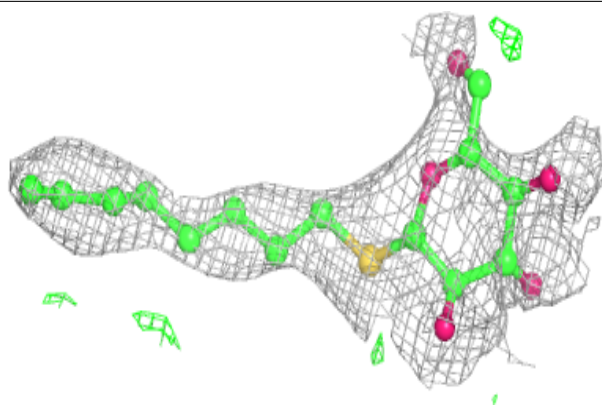mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
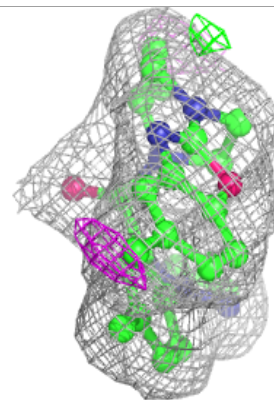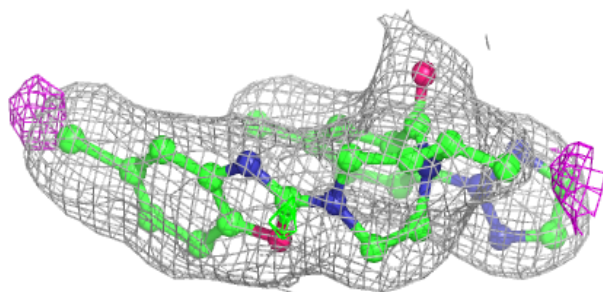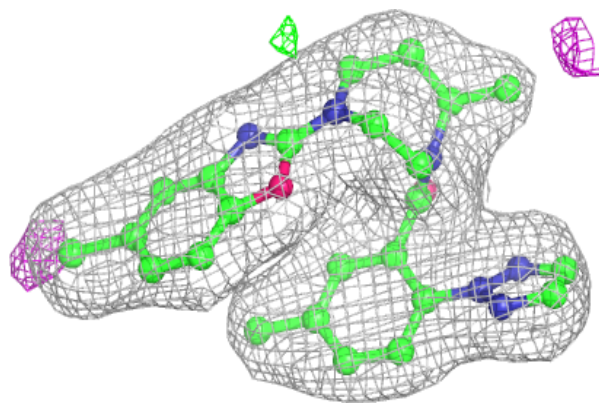
Electron density around SOG A 404:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
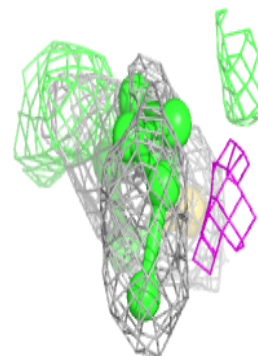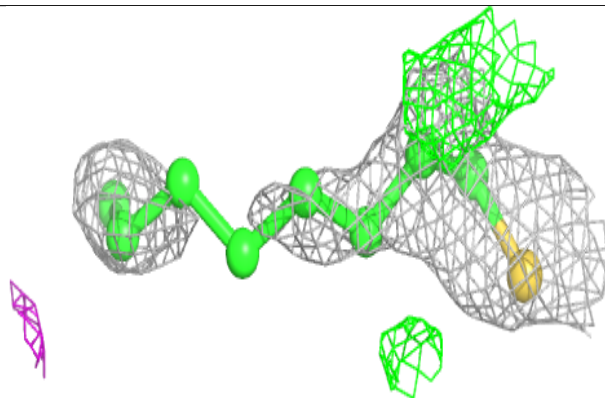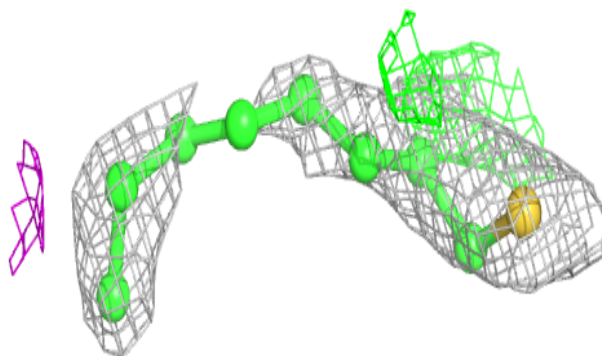mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
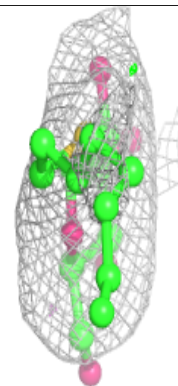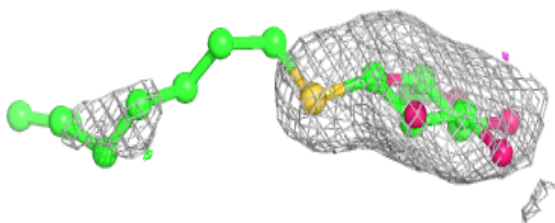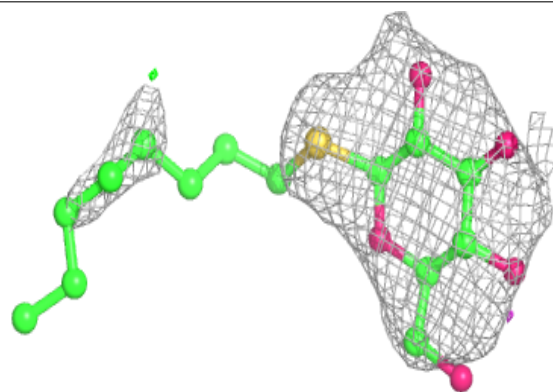
Electron density around SOG A 405:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
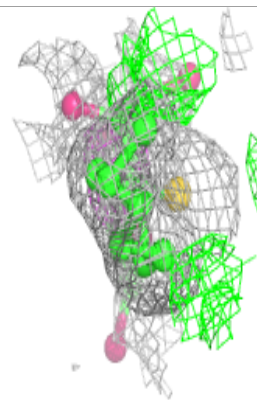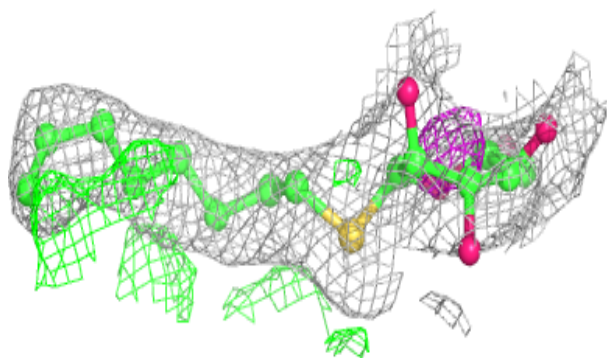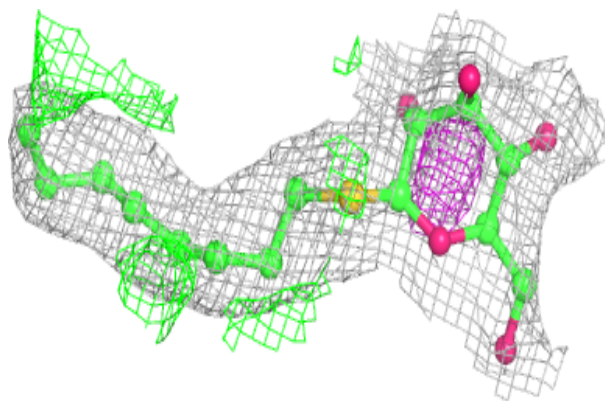
Electron density around SOG A 406:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
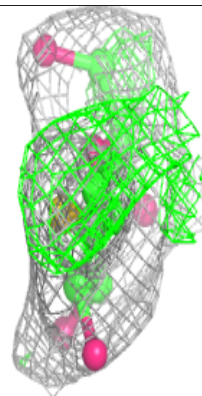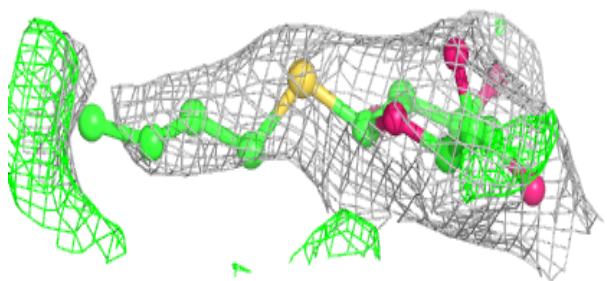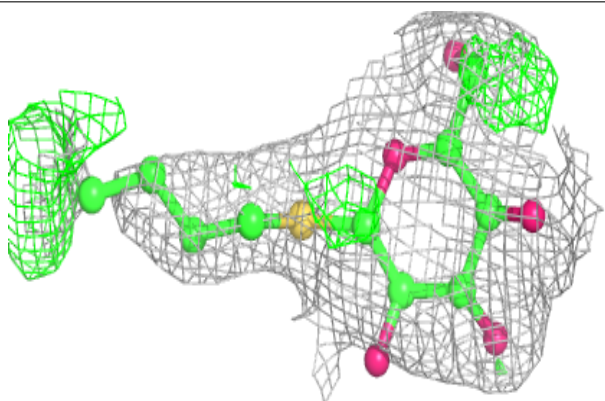
Electron density around SOG A 407:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
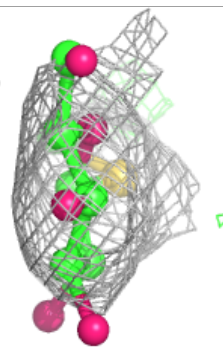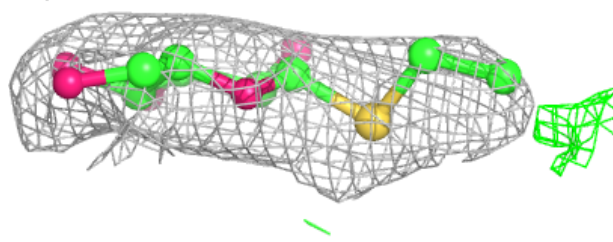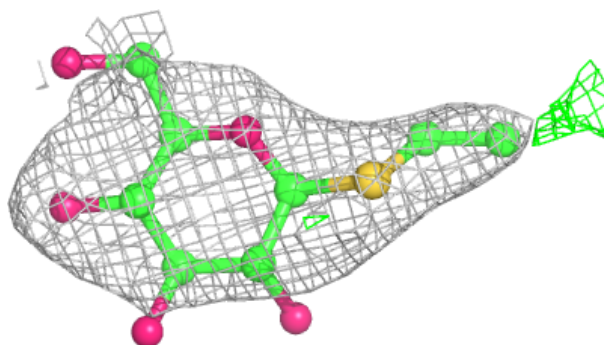
Electron density around SOG A 408:

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

Electron density around SOG A 409:

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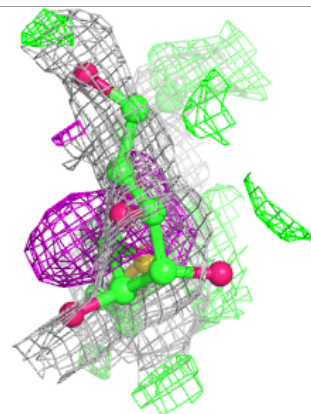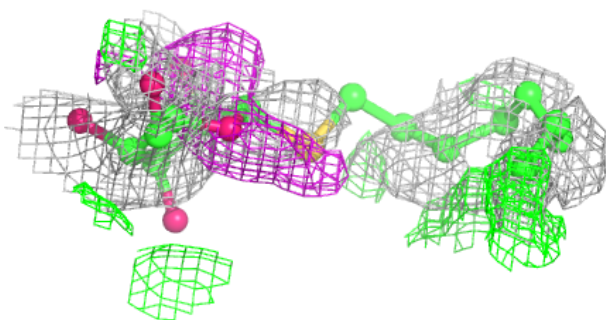mF_o-DF_c (at 3 rmsd) in purple (negative)
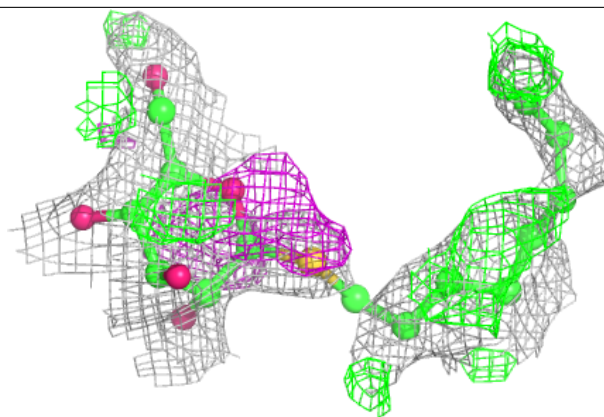and green (positive)

Electron density around SOG A 410:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
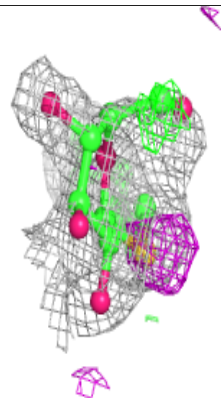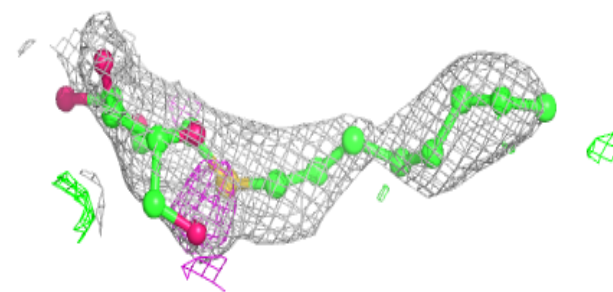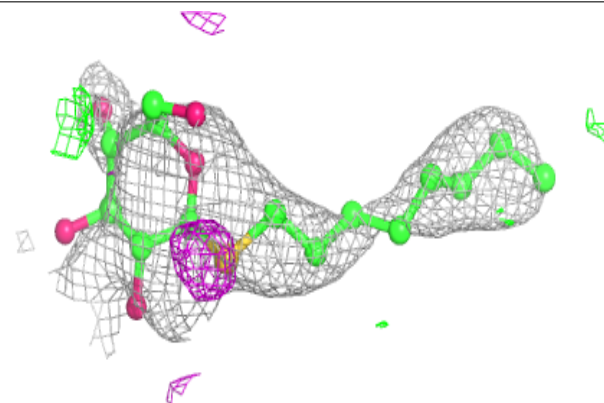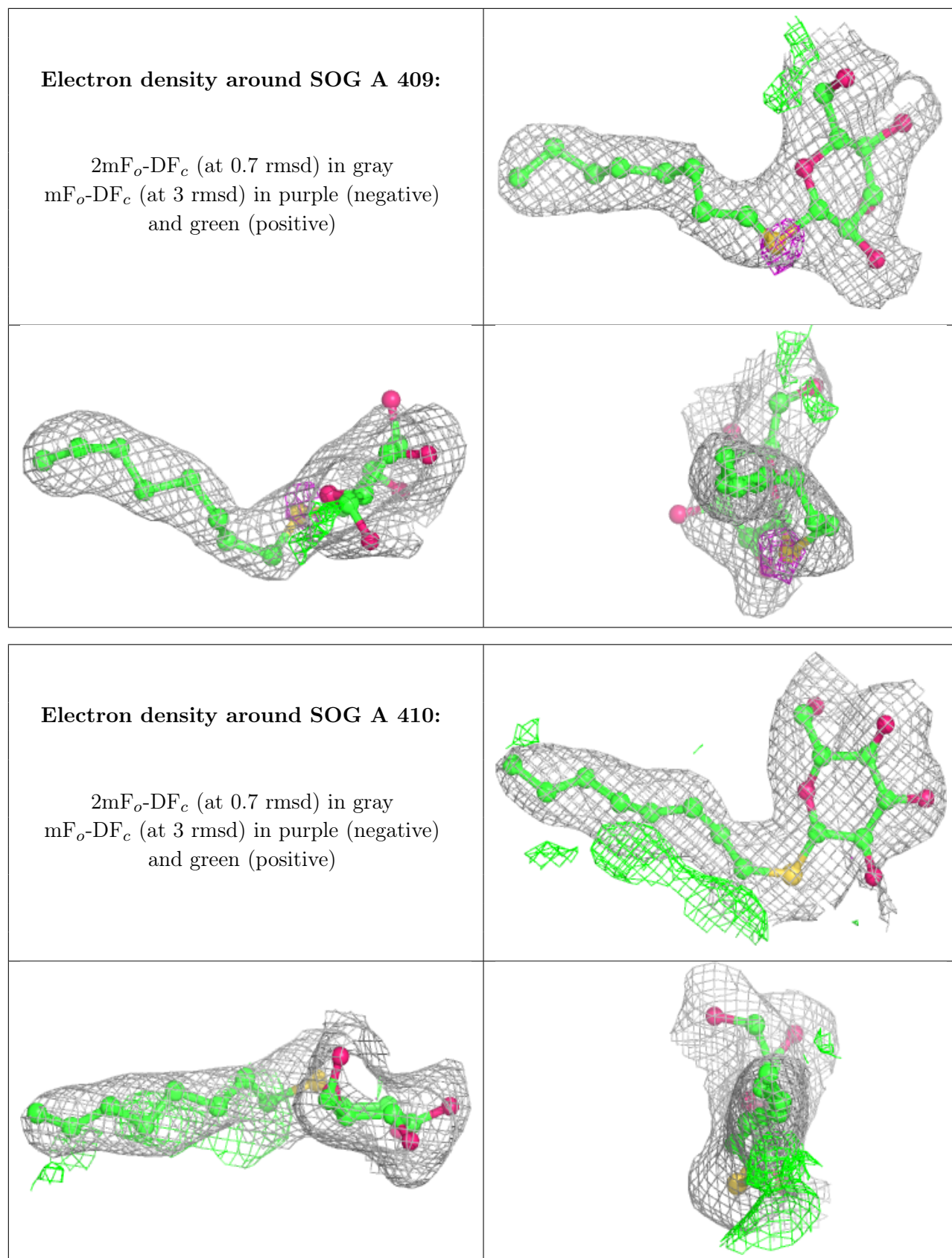
Electron density around SOG A 412:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
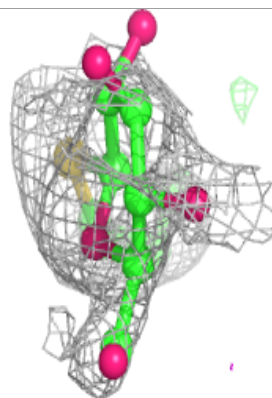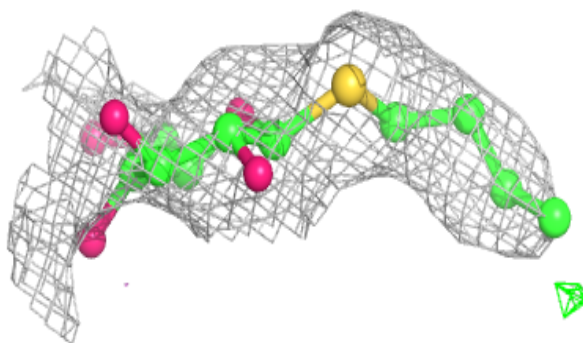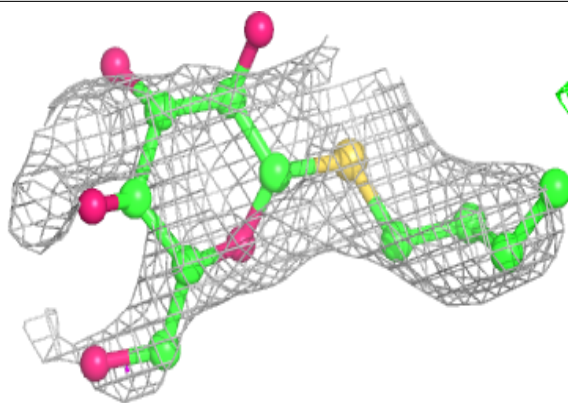
Electron density around SOG A 413:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
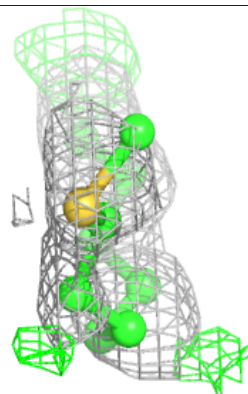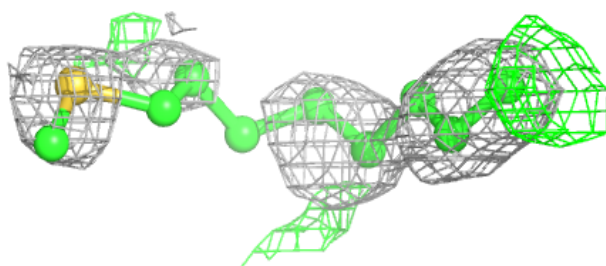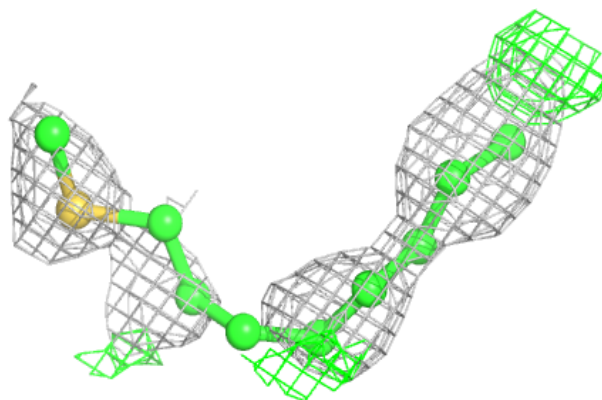
Electron density around SOG A 414:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
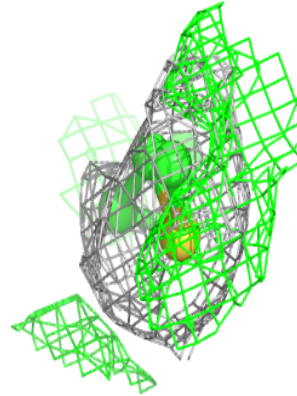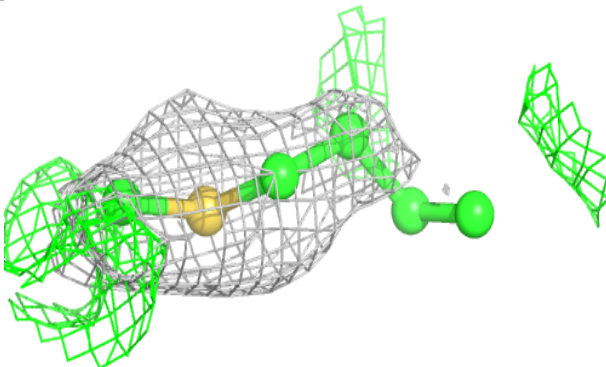mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
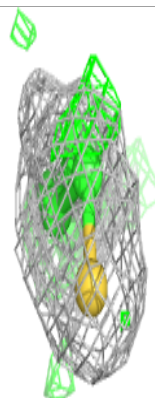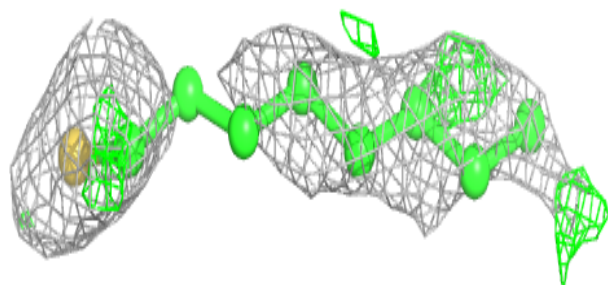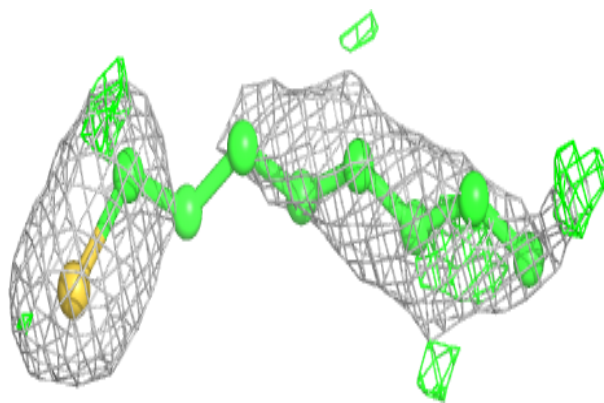
Electron density around SOG A 415:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
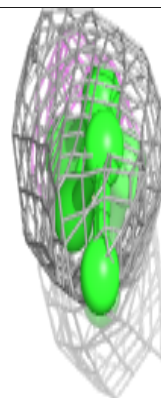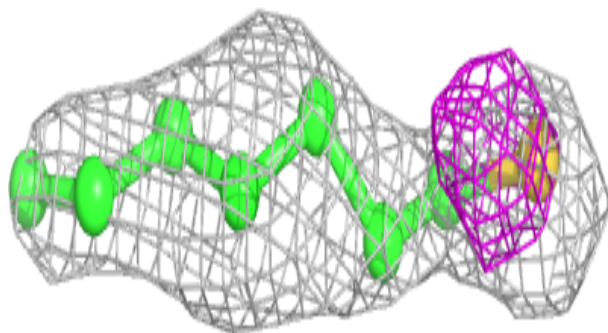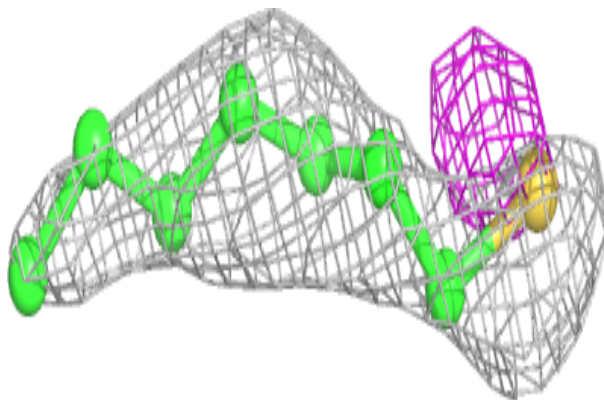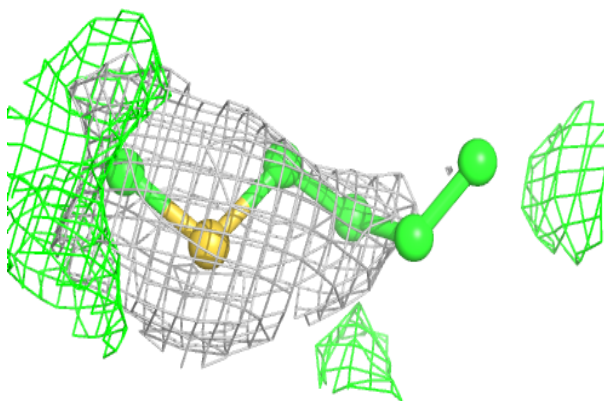
Electron density around SOG A 416:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
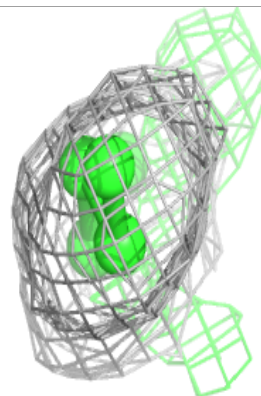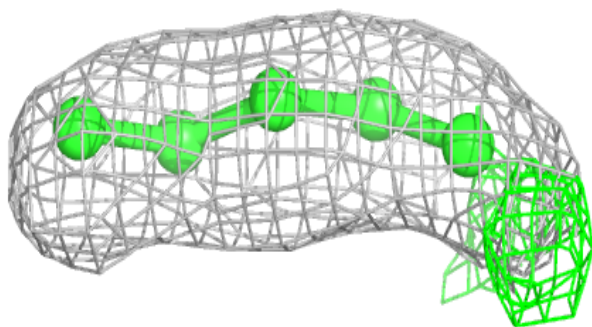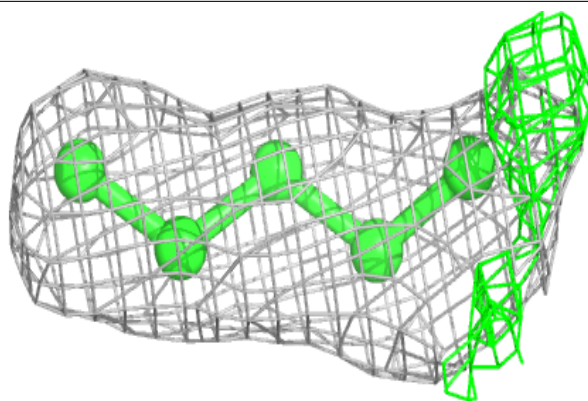
Electron density around SOG A 417:

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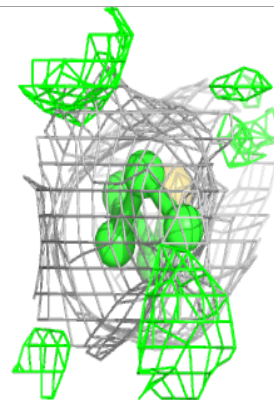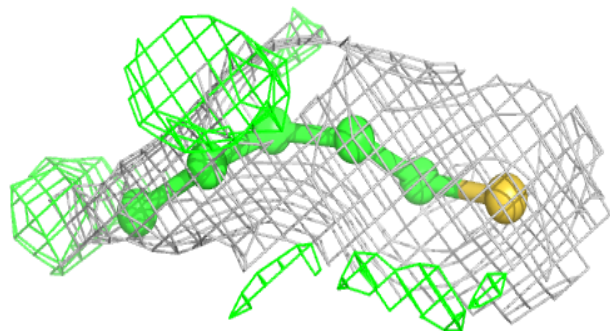$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
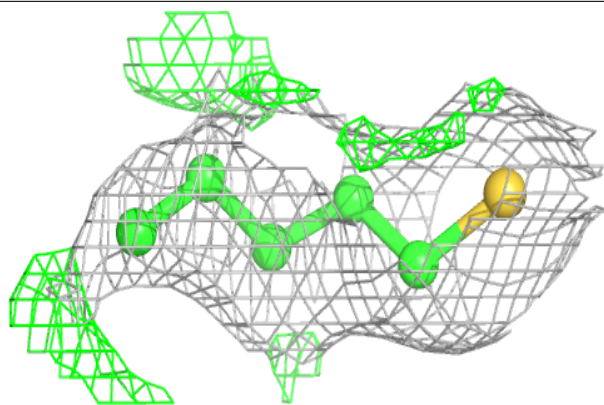and green (positive)

Electron density around SOG A 418:

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

Electron density around SOG A 419:

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

Electron density around SOG A 420:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
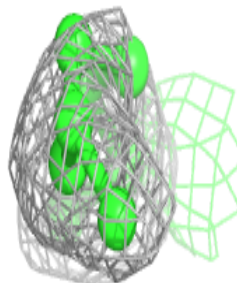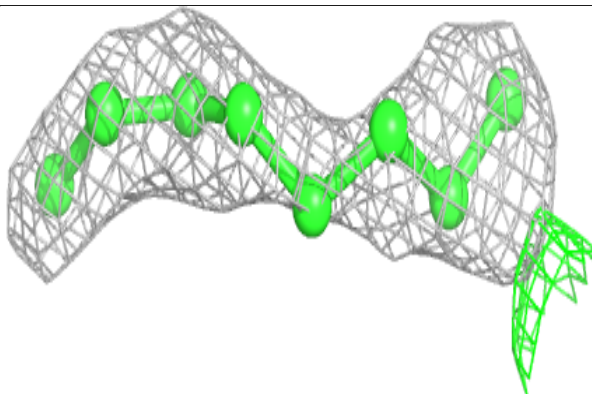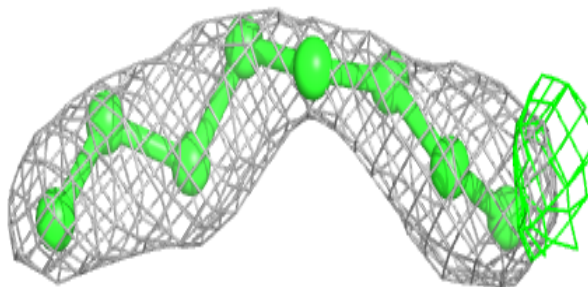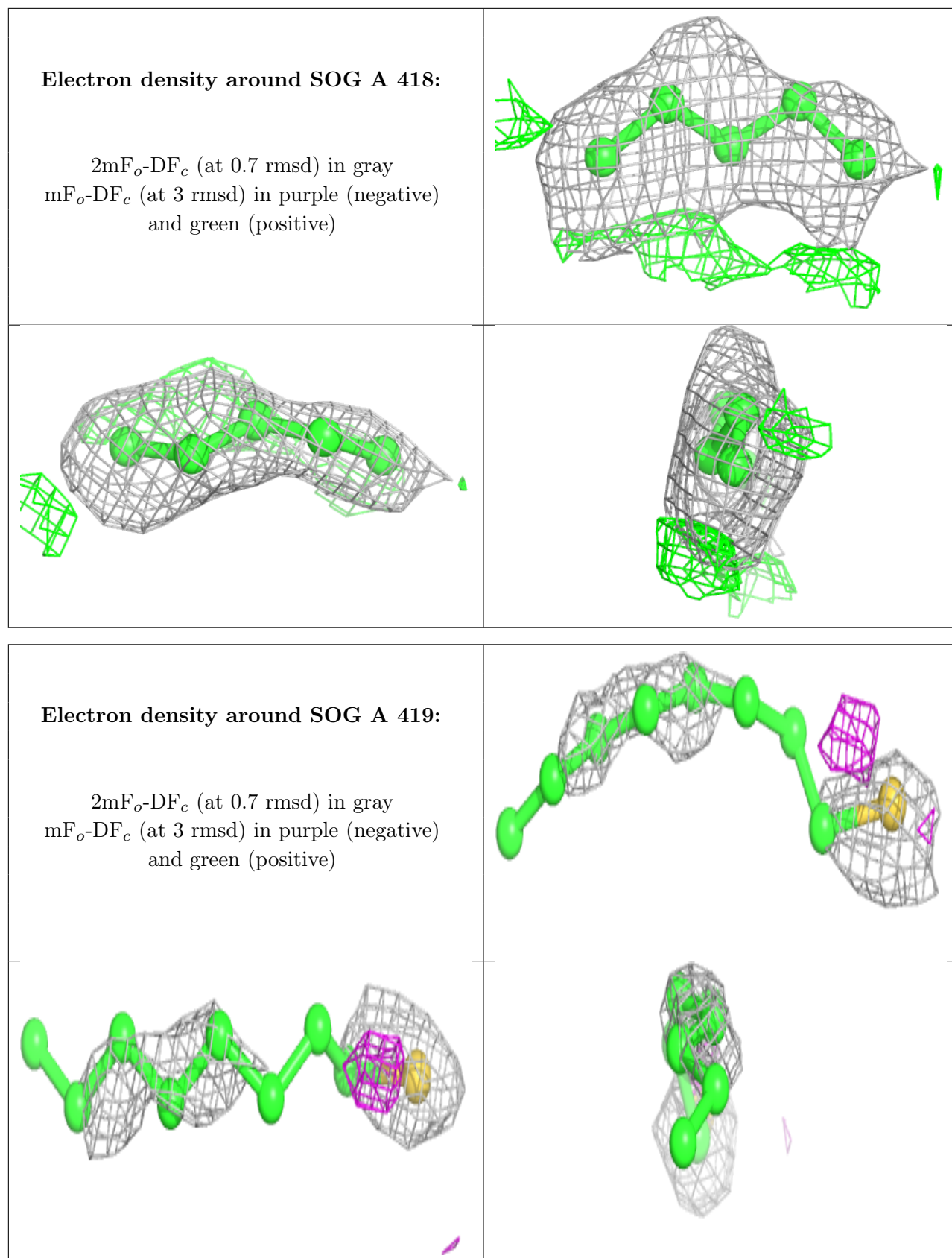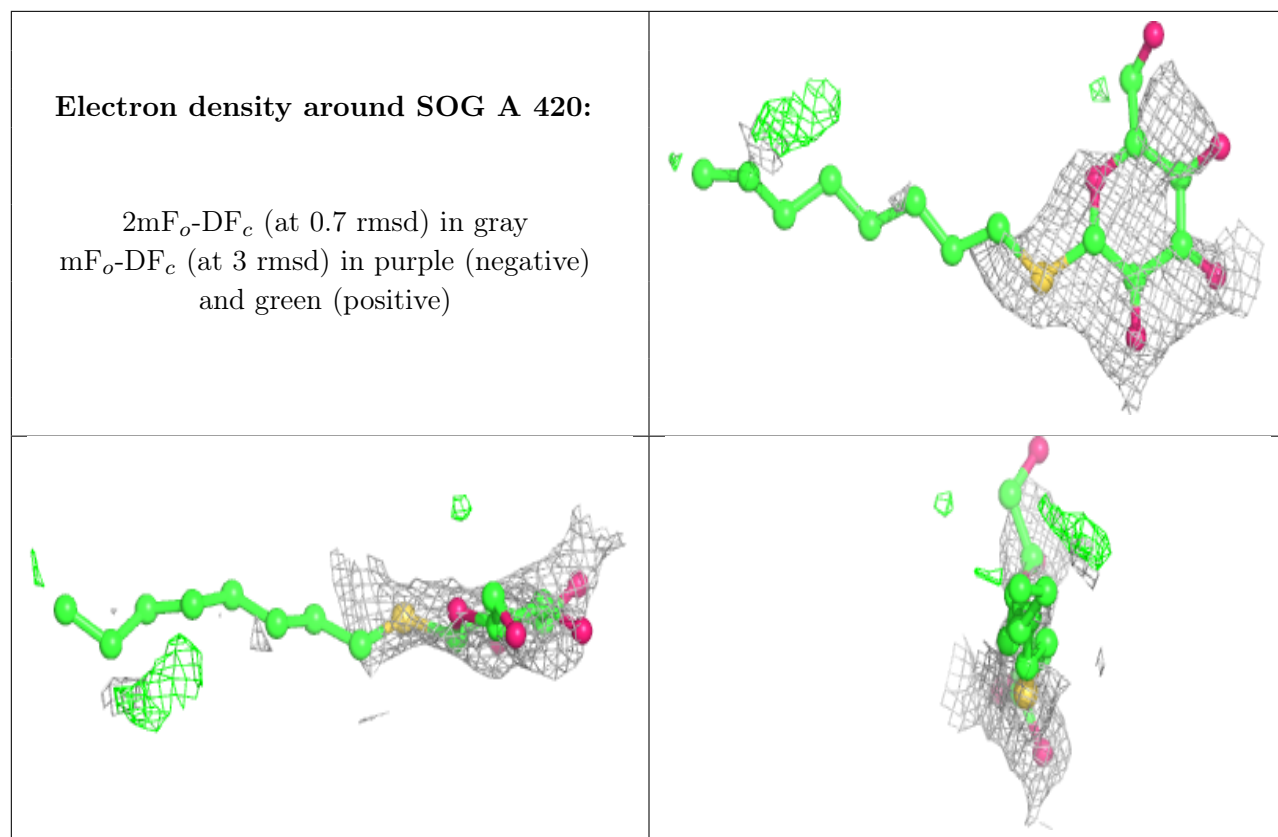
Electron density around SOG A 421:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
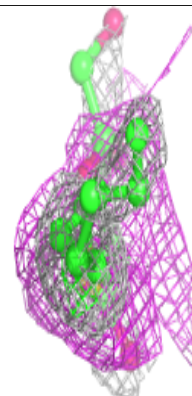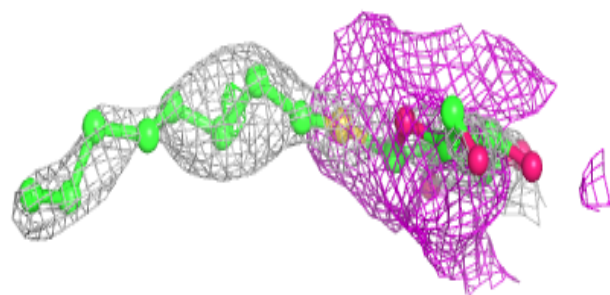mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
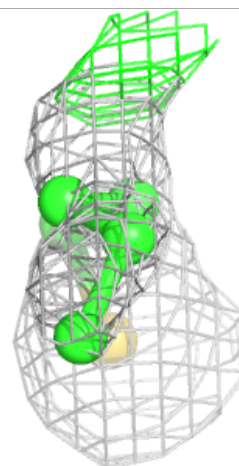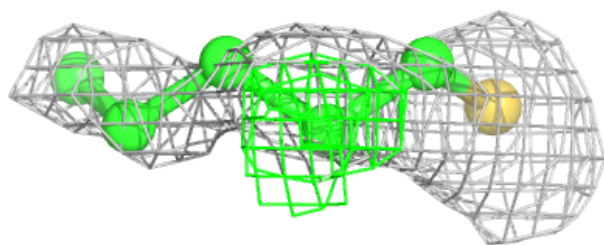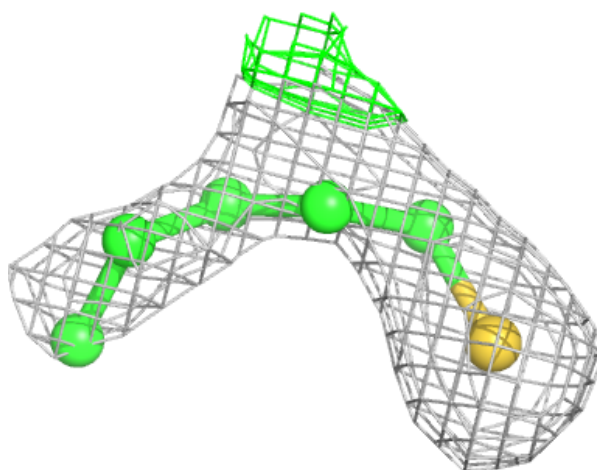
Electron density around SOG A 422:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
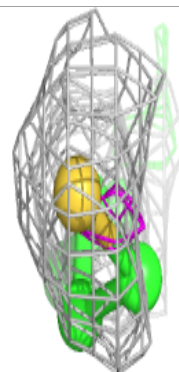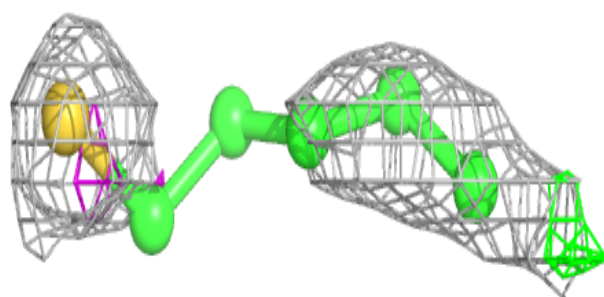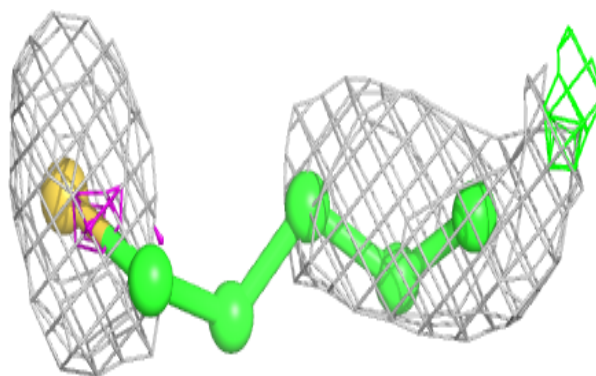
Electron density around SOG A 423:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
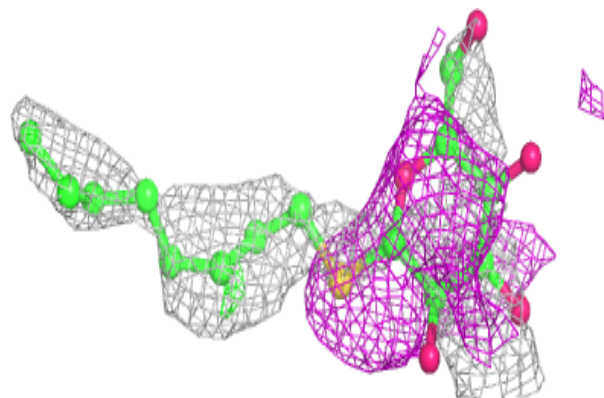$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
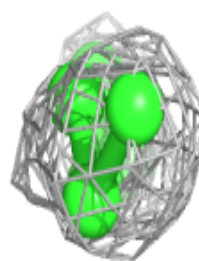and green (positive)
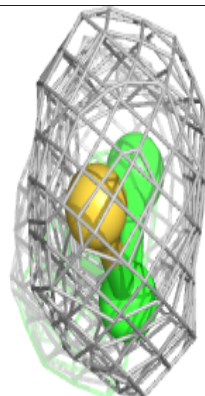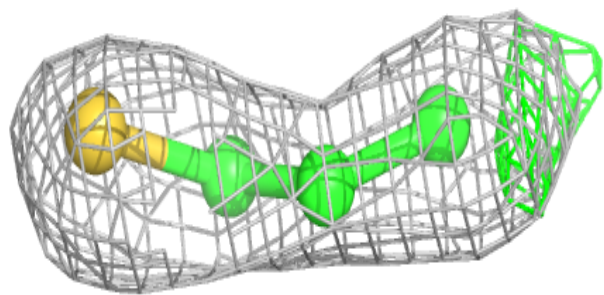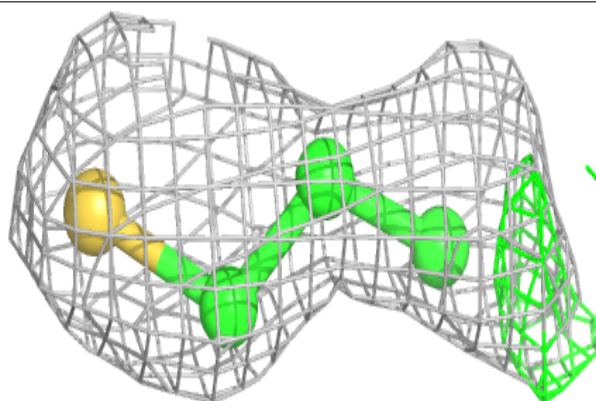
Electron density around SOG B 405:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
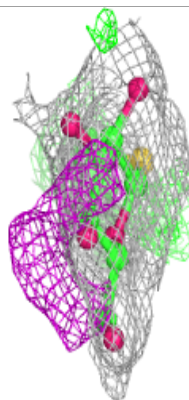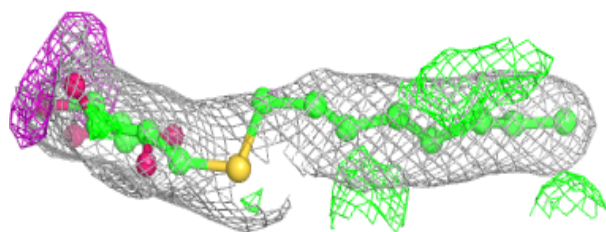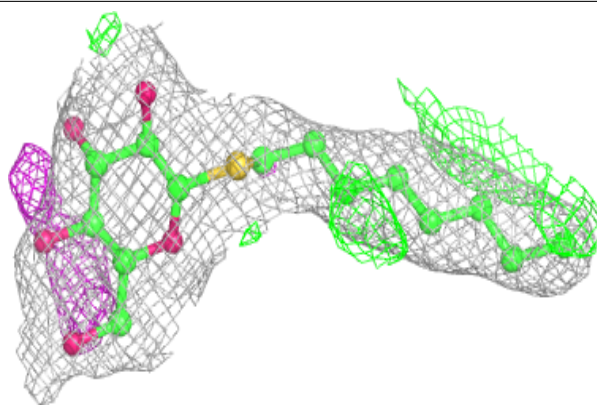
Electron density around SOG B 406:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
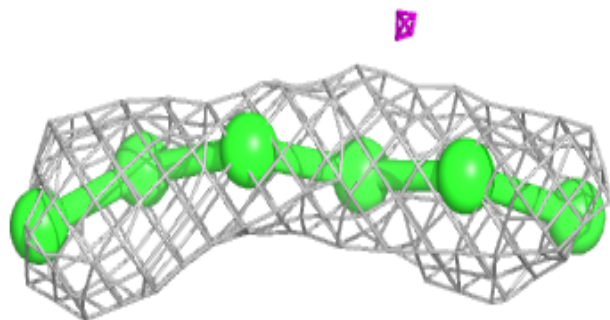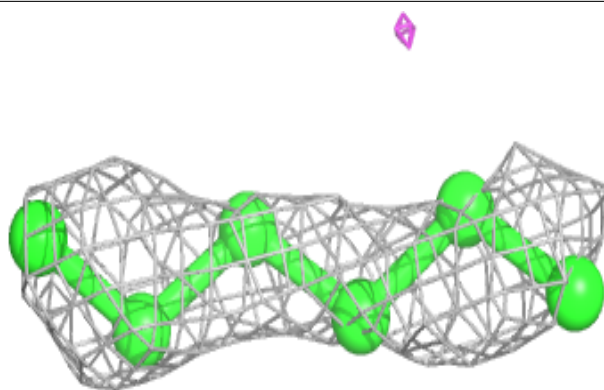and green (positive)
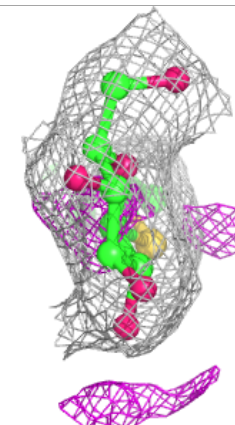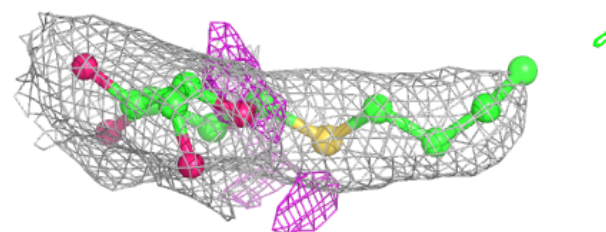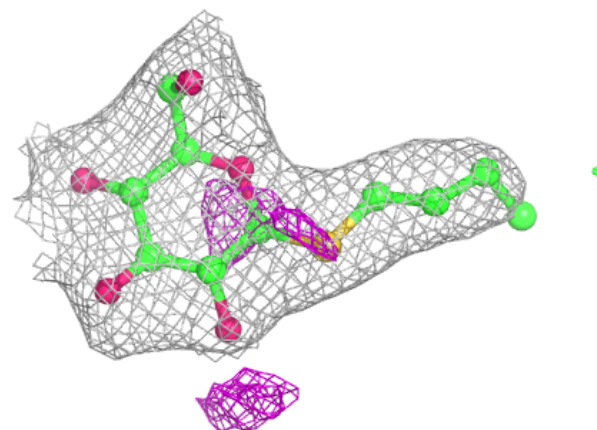
Electron density around SOG B 407:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
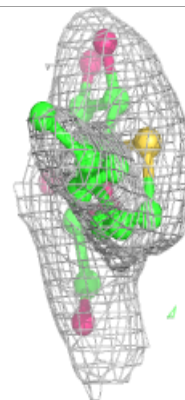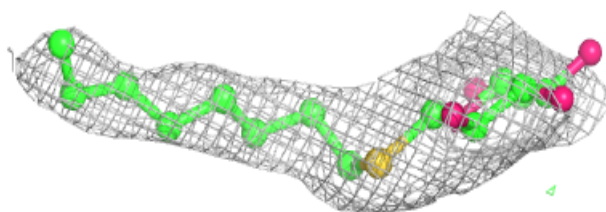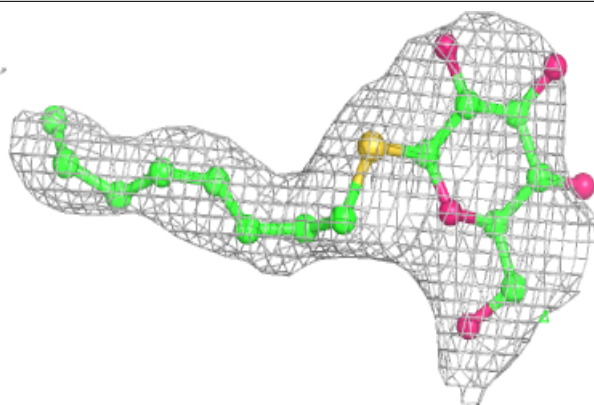
Electron density around SOG B 408:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
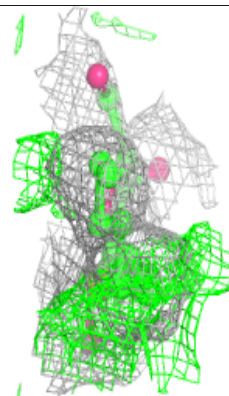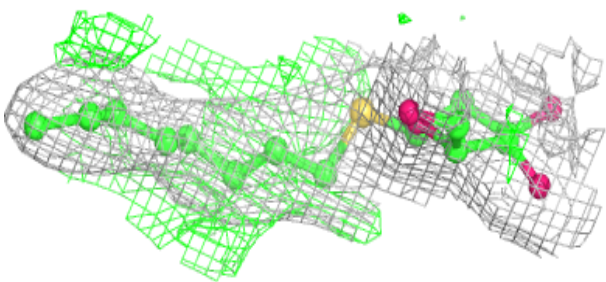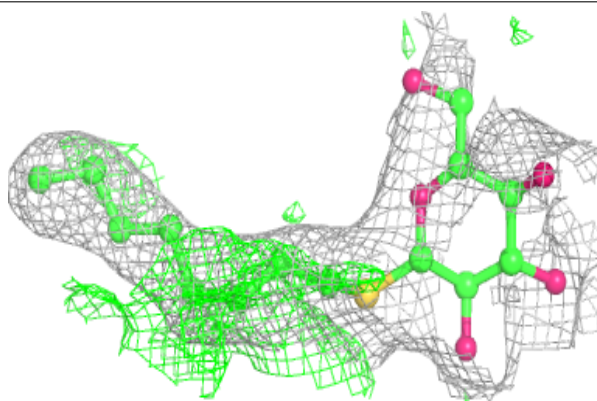
Electron density around SOG B 409:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
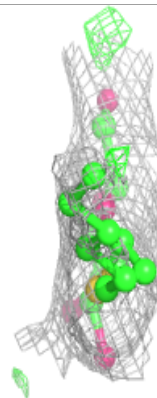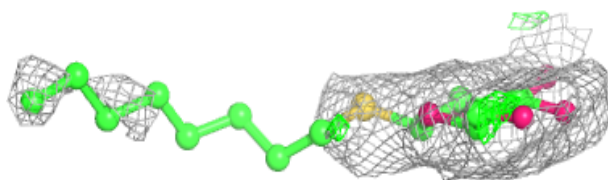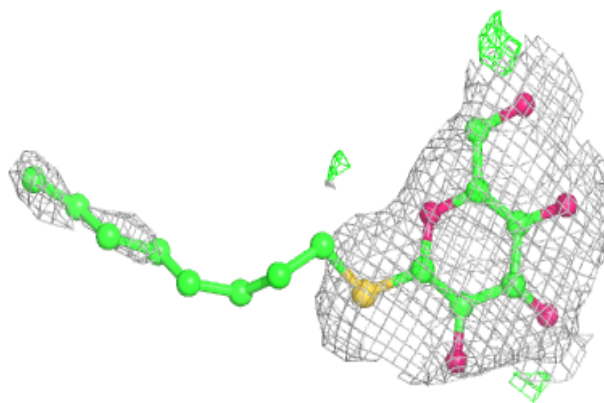
Electron density around SOG B 410:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
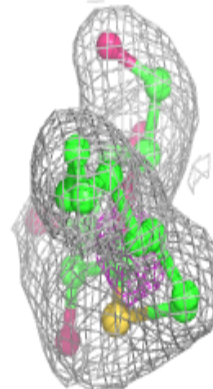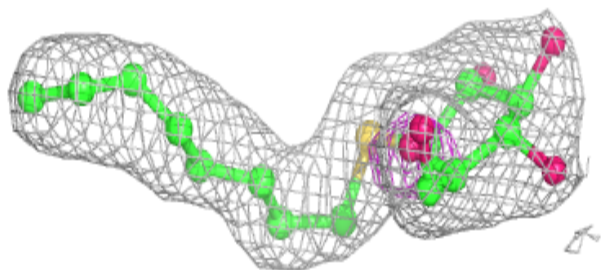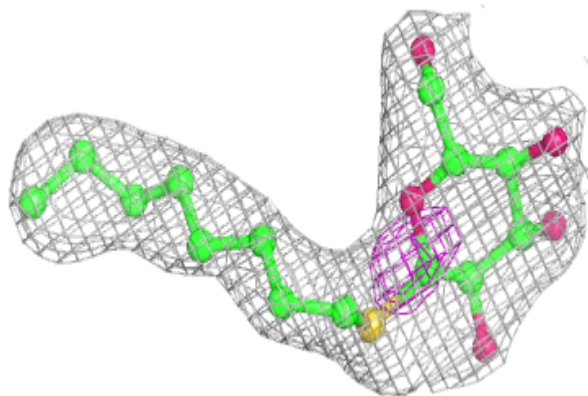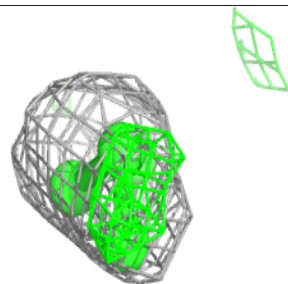
Electron density around SOG B 411:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
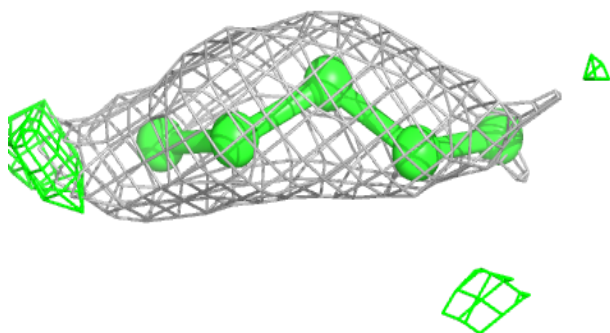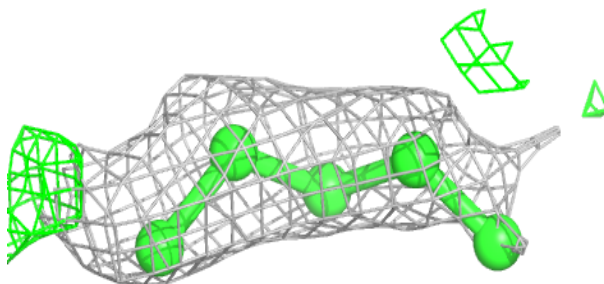and green (positive)
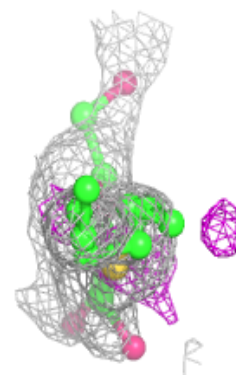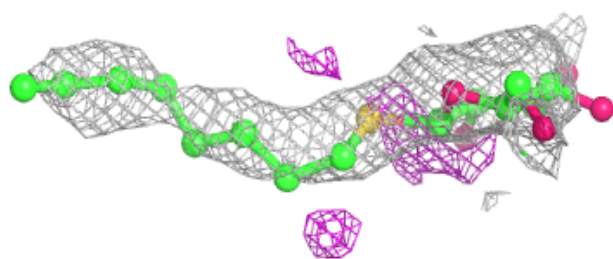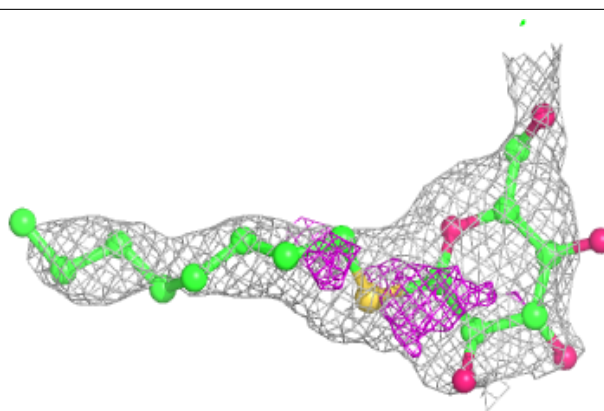
Electron density around SOG B 412:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
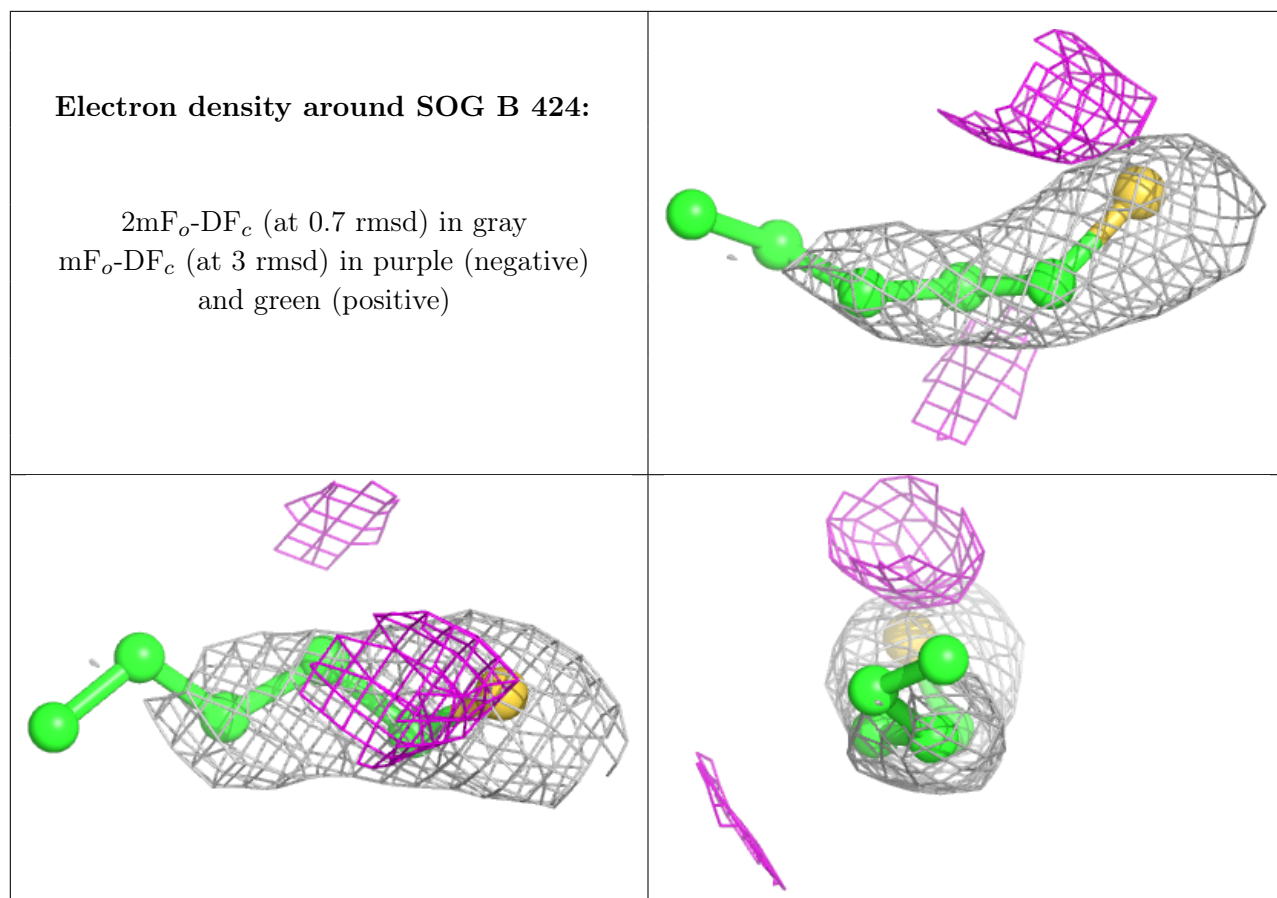mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
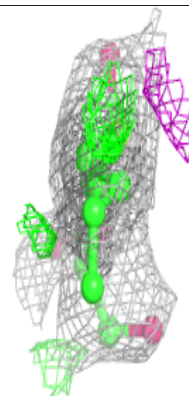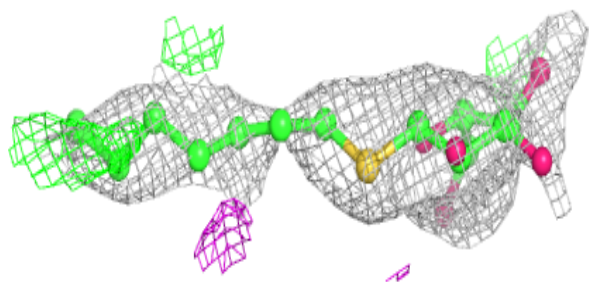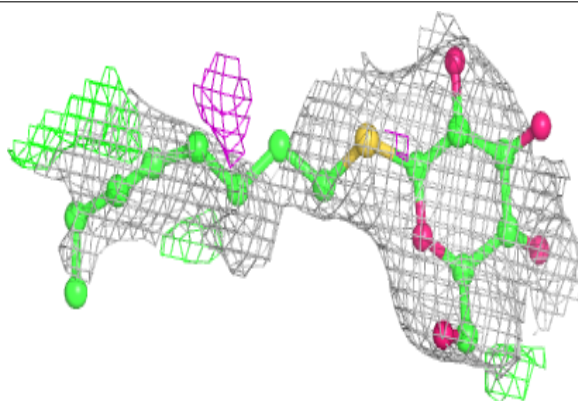
Electron density around SOG B 413:

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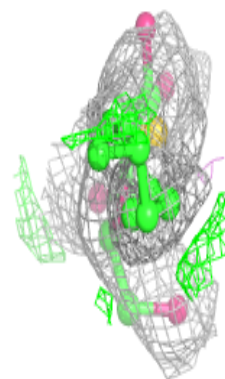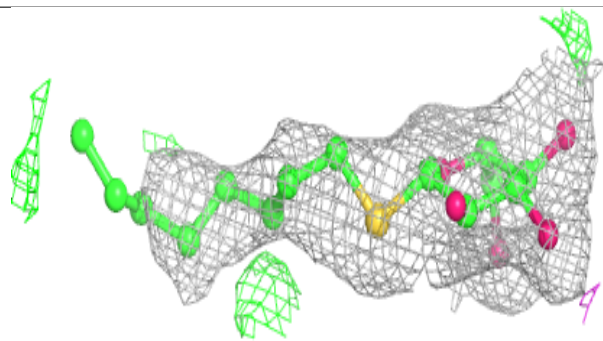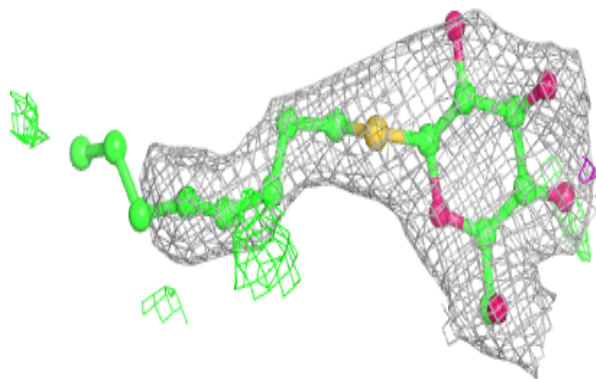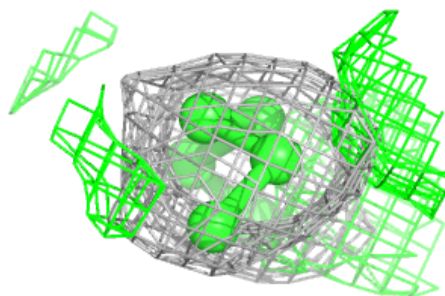

Electron density around SOG B 414:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
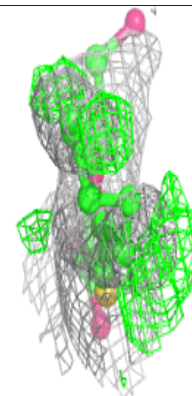
Electron density around SOG B 415:

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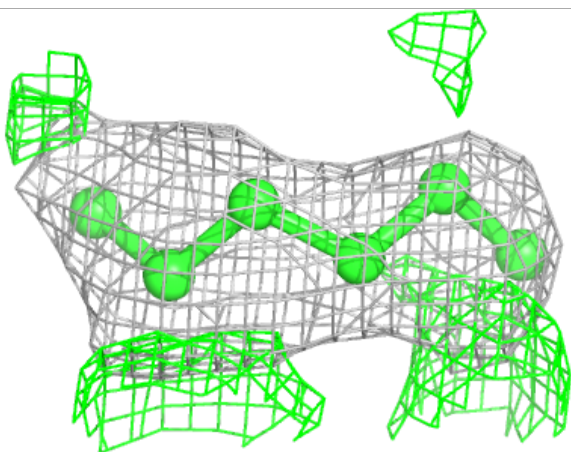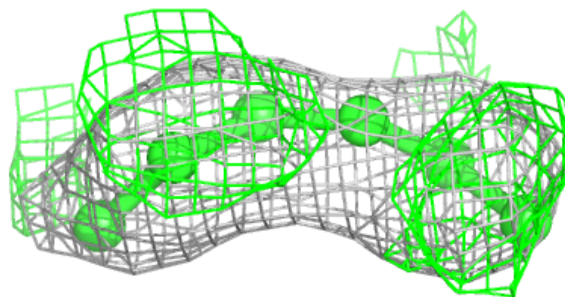

Electron density around SOG B 416:

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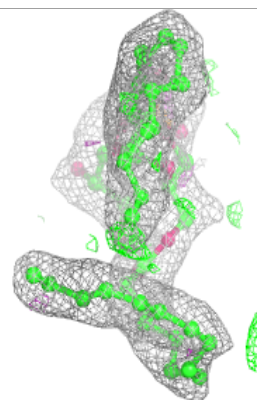and green (positive)

Electron density around SOG B 417:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
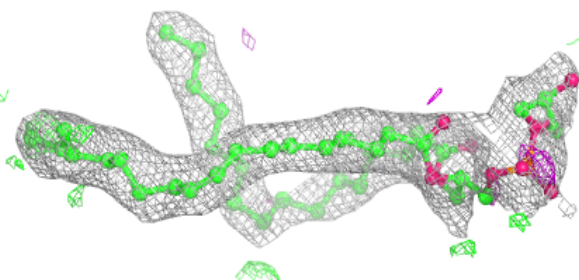and green (positive)

Electron density around SOG B 418:

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 SOG B 420:

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

Electron density around SOG B 421:

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

Electron density around SOG B 422:

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

Electron density around SOG B 423:

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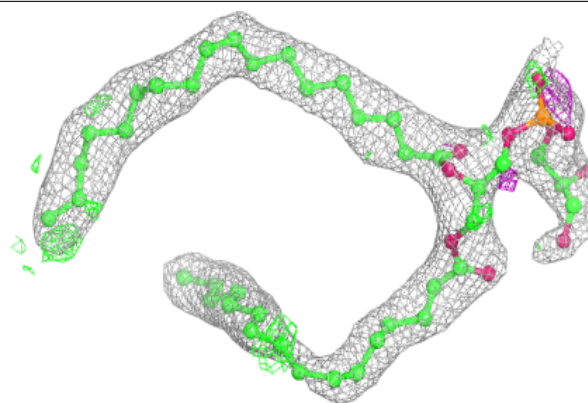$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around SOG B 424:

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

Electron density around SOG B 425:

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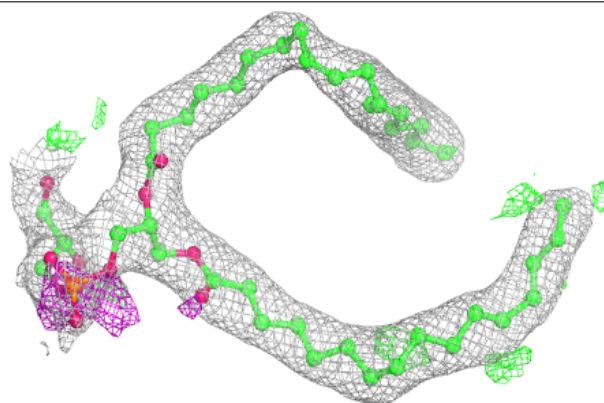and green (positive)

Electron density around PGW A 426:

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

Electron density around PGW B 426:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
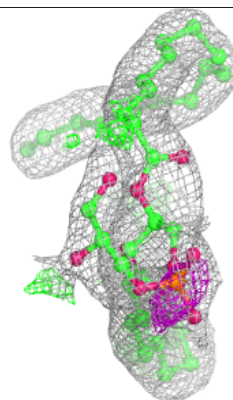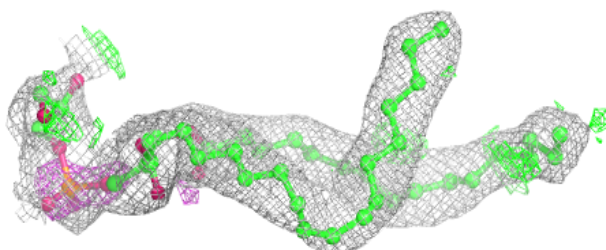
6.5 Other polymers ⓘ

Unable to reproduce the depositors R factor - this section is therefore empty.