W O R L D W I D E
wwPDB
P R O T E I N   D A T A   B A N K

wwPDB X-ray Structure Validation Summary Report ⓘ

Jan 5, 2024 – 01:45 am GMT

PDB ID	:	4XTN
Title	:	Crystal structure of the light-driven sodium pump KR2 in the pentameric red form, pH 4.9
Authors	:	Gushchin, I.; Shevchenko, V.; Polovinkin, V.; Gordeliy, V.
Deposited on	:	2015-01-23
Resolution	:	2.20 Å(reported)

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

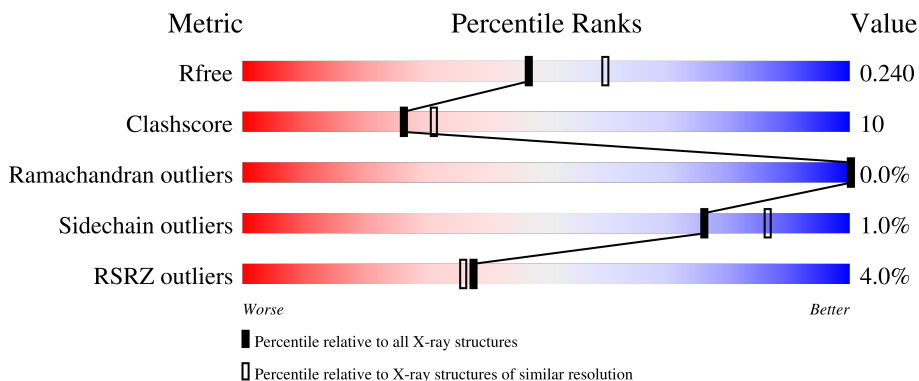|		
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1   Overall quality at a glance ⓘ

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

The reported resolution of this entry is 2.20 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		0.240
Clashscore		10
Ramachandran outliers		0.0%
Sidechain outliers		1.0%
RSRZ outliers		4.0%

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	4898 (2.20-2.20)
Clashscore	141614	5594 (2.20-2.20)
Ramachandran outliers	138981	5503 (2.20-2.20)
Sidechain outliers	138945	5504 (2.20-2.20)
RSRZ outliers	127900	4800 (2.20-2.20)

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	288	2% 81% 14% · 5%
1	B	288	6% 74% 19% · 6%
1	C	288	2% 80% 14% 6%
1	D	288	3% 82% 11% · 6%
1	E	288	3% 78% 16% · 6%

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Mol	Chain	Length	Quality of chain
1	F	288	6% 75% 18% · 6%
1	G	288	2% 78% 15% · 6%
1	H	288	3% 79% 15% · 5%
1	I	288	4% 77% 16% · 6%
1	J	288	6% 78% 16% 6%

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
3	LFA	A	311	-	-	-	X
3	LFA	C	306	-	-	-	X
3	LFA	D	302	-	-	-	X
3	LFA	F	302	-	-	-	X
3	LFA	G	302	-	-	-	X
3	LFA	G	307	-	-	-	X
3	LFA	J	302	-	-	-	X

2 Entry composition ⓘ

There are 5 unique types of molecules in this entry. The entry contains 23361 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 Sodium pumping rhodopsin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	273	Total	C	N	O	S	0	0	0
			2174	1458	329	378	9			
1	B	270	Total	C	N	O	S	0	1	0
			2158	1449	324	376	9			
1	C	271	Total	C	N	O	S	0	2	0
			2170	1457	326	378	9			
1	D	271	Total	C	N	O	S	0	0	0
			2161	1449	326	377	9			
1	E	272	Total	C	N	O	S	0	0	0
			2166	1451	326	380	9			
1	F	271	Total	C	N	O	S	0	1	0
			2166	1454	326	377	9			
1	G	271	Total	C	N	O	S	0	3	0
			2178	1462	328	379	9			
1	H	273	Total	C	N	O	S	0	1	0
			2186	1464	331	382	9			
1	I	271	Total	C	N	O	S	0	0	0
			2152	1444	322	377	9			
1	J	272	Total	C	N	O	S	0	2	0
			2175	1458	328	380	9			

There are 80 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	281	LEU	-	expression tag	UNP N0DKS8
A	282	GLU	-	expression tag	UNP N0DKS8
A	283	HIS	-	expression tag	UNP N0DKS8
A	284	HIS	-	expression tag	UNP N0DKS8
A	285	HIS	-	expression tag	UNP N0DKS8
A	286	HIS	-	expression tag	UNP N0DKS8
A	287	HIS	-	expression tag	UNP N0DKS8
A	288	HIS	-	expression tag	UNP N0DKS8
B	281	LEU	-	expression tag	UNP N0DKS8

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Chain	Residue	Modelled	Actual	Comment	Reference
B	282	GLU	-	expression tag	UNP N0DKS8
B	283	HIS	-	expression tag	UNP N0DKS8
B	284	HIS	-	expression tag	UNP N0DKS8
B	285	HIS	-	expression tag	UNP N0DKS8
B	286	HIS	-	expression tag	UNP N0DKS8
B	287	HIS	-	expression tag	UNP N0DKS8
B	288	HIS	-	expression tag	UNP N0DKS8
C	281	LEU	-	expression tag	UNP N0DKS8
C	282	GLU	-	expression tag	UNP N0DKS8
C	283	HIS	-	expression tag	UNP N0DKS8
C	284	HIS	-	expression tag	UNP N0DKS8
C	285	HIS	-	expression tag	UNP N0DKS8
C	286	HIS	-	expression tag	UNP N0DKS8
C	287	HIS	-	expression tag	UNP N0DKS8
C	288	HIS	-	expression tag	UNP N0DKS8
D	281	LEU	-	expression tag	UNP N0DKS8
D	282	GLU	-	expression tag	UNP N0DKS8
D	283	HIS	-	expression tag	UNP N0DKS8
D	284	HIS	-	expression tag	UNP N0DKS8
D	285	HIS	-	expression tag	UNP N0DKS8
D	286	HIS	-	expression tag	UNP N0DKS8
D	287	HIS	-	expression tag	UNP N0DKS8
D	288	HIS	-	expression tag	UNP N0DKS8
E	281	LEU	-	expression tag	UNP N0DKS8
E	282	GLU	-	expression tag	UNP N0DKS8
E	283	HIS	-	expression tag	UNP N0DKS8
E	284	HIS	-	expression tag	UNP N0DKS8
E	285	HIS	-	expression tag	UNP N0DKS8
E	286	HIS	-	expression tag	UNP N0DKS8
E	287	HIS	-	expression tag	UNP N0DKS8
E	288	HIS	-	expression tag	UNP N0DKS8
F	281	LEU	-	expression tag	UNP N0DKS8
F	282	GLU	-	expression tag	UNP N0DKS8
F	283	HIS	-	expression tag	UNP N0DKS8
F	284	HIS	-	expression tag	UNP N0DKS8
F	285	HIS	-	expression tag	UNP N0DKS8
F	286	HIS	-	expression tag	UNP N0DKS8
F	287	HIS	-	expression tag	UNP N0DKS8
F	288	HIS	-	expression tag	UNP N0DKS8
G	281	LEU	-	expression tag	UNP N0DKS8
G	282	GLU	-	expression tag	UNP N0DKS8
G	283	HIS	-	expression tag	UNP N0DKS8

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Chain	Residue	Modelled	Actual	Comment	Reference
G	284	HIS	-	expression tag	UNP N0DKS8
G	285	HIS	-	expression tag	UNP N0DKS8
G	286	HIS	-	expression tag	UNP N0DKS8
G	287	HIS	-	expression tag	UNP N0DKS8
G	288	HIS	-	expression tag	UNP N0DKS8
H	281	LEU	-	expression tag	UNP N0DKS8
H	282	GLU	-	expression tag	UNP N0DKS8
H	283	HIS	-	expression tag	UNP N0DKS8
H	284	HIS	-	expression tag	UNP N0DKS8
H	285	HIS	-	expression tag	UNP N0DKS8
H	286	HIS	-	expression tag	UNP N0DKS8
H	287	HIS	-	expression tag	UNP N0DKS8
H	288	HIS	-	expression tag	UNP N0DKS8
I	281	LEU	-	expression tag	UNP N0DKS8
I	282	GLU	-	expression tag	UNP N0DKS8
I	283	HIS	-	expression tag	UNP N0DKS8
I	284	HIS	-	expression tag	UNP N0DKS8
I	285	HIS	-	expression tag	UNP N0DKS8
I	286	HIS	-	expression tag	UNP N0DKS8
I	287	HIS	-	expression tag	UNP N0DKS8
I	288	HIS	-	expression tag	UNP N0DKS8
J	281	LEU	-	expression tag	UNP N0DKS8
J	282	GLU	-	expression tag	UNP N0DKS8
J	283	HIS	-	expression tag	UNP N0DKS8
J	284	HIS	-	expression tag	UNP N0DKS8
J	285	HIS	-	expression tag	UNP N0DKS8
J	286	HIS	-	expression tag	UNP N0DKS8
J	287	HIS	-	expression tag	UNP N0DKS8
J	288	HIS	-	expression tag	UNP N0DKS8

- Molecule 2 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	1	Total 1	Na 1	0	0
2	B	1	Total 1	Na 1	0	0
2	C	1	Total 1	Na 1	0	0
2	D	1	Total 1	Na 1	0	0
2	E	1	Total 1	Na 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	F	1	Total 1	Na 1	0	0
2	G	1	Total 1	Na 1	0	0
2	H	1	Total 1	Na 1	0	0
2	I	1	Total 1	Na 1	0	0
2	J	1	Total 1	Na 1	0	0

- Molecule 3 is EICOSANE (three-letter code: LFA) (formula: $C_{20}H_{42}$).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total 14	C 14	0	0
3	A	1	Total 6	C 6	0	0
3	A	1	Total 10	C 10	0	0
3	A	1	Total 10	C 10	0	0
3	A	1	Total 14	C 14	0	0
3	A	1	Total 18	C 18	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total 8	C 8	0	0
3	A	1	Total 8	C 8	0	0
3	A	1	Total 8	C 8	0	0
3	A	1	Total 7	C 7	0	0
3	A	1	Total 5	C 5	0	0
3	B	1	Total 7	C 7	0	0
3	B	1	Total 7	C 7	0	0
3	B	1	Total 14	C 14	0	0
3	B	1	Total 6	C 6	0	0
3	B	1	Total 8	C 8	0	0
3	B	1	Total 16	C 16	0	0
3	B	1	Total 18	C 18	0	0
3	B	1	Total 13	C 13	0	0
3	B	1	Total 11	C 11	0	0
3	B	1	Total 8	C 8	0	0
3	C	1	Total 7	C 7	0	0
3	C	1	Total 10	C 10	0	0
3	C	1	Total 6	C 6	0	0
3	C	1	Total 10	C 10	0	0
3	C	1	Total 16	C 16	0	0
3	C	1	Total 18	C 18	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	C	1	Total 10	C 10	0	0
3	C	1	Total 8	C 8	0	0
3	C	1	Total 13	C 13	0	0
3	C	1	Total 8	C 8	0	0
3	C	1	Total 4	C 4	0	0
3	D	1	Total 7	C 7	0	0
3	D	1	Total 14	C 14	0	0
3	D	1	Total 6	C 6	0	0
3	D	1	Total 10	C 10	0	0
3	D	1	Total 16	C 16	0	0
3	D	1	Total 18	C 18	0	0
3	D	1	Total 10	C 10	0	0
3	D	1	Total 8	C 8	0	0
3	D	1	Total 8	C 8	0	0
3	D	1	Total 7	C 7	0	0
3	D	1	Total 6	C 6	0	0
3	D	1	Total 6	C 6	0	0
3	D	1	Total 7	C 7	0	0
3	D	1	Total 5	C 5	0	0
3	D	1	Total 5	C 5	0	0
3	D	1	Total 5	C 5	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	E	1	Total 14	C 14	0	0
3	E	1	Total 18	C 18	0	0
3	E	1	Total 8	C 8	0	0
3	E	1	Total 6	C 6	0	0
3	E	1	Total 12	C 12	0	0
3	E	1	Total 8	C 8	0	0
3	E	1	Total 14	C 14	0	0
3	E	1	Total 6	C 6	0	0
3	E	1	Total 10	C 10	0	0
3	E	1	Total 8	C 8	0	0
3	E	1	Total 8	C 8	0	0
3	F	1	Total 7	C 7	0	0
3	F	1	Total 14	C 14	0	0
3	F	1	Total 10	C 10	0	0
3	F	1	Total 6	C 6	0	0
3	F	1	Total 10	C 10	0	0
3	F	1	Total 6	C 6	0	0
3	F	1	Total 8	C 8	0	0
3	F	1	Total 10	C 10	0	0
3	F	1	Total 18	C 18	0	0
3	F	1	Total 10	C 10	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	F	1	Total 8	C 8	0	0
3	F	1	Total 14	C 14	0	0
3	F	1	Total 8	C 8	0	0
3	G	1	Total 16	C 16	0	0
3	G	1	Total 7	C 7	0	0
3	G	1	Total 14	C 14	0	0
3	G	1	Total 6	C 6	0	0
3	G	1	Total 10	C 10	0	0
3	G	1	Total 16	C 16	0	0
3	G	1	Total 18	C 18	0	0
3	G	1	Total 8	C 8	0	0
3	G	1	Total 10	C 10	0	0
3	G	1	Total 8	C 8	0	0
3	G	1	Total 8	C 8	0	0
3	G	1	Total 6	C 6	0	0
3	G	1	Total 6	C 6	0	0
3	H	1	Total 13	C 13	0	0
3	H	1	Total 6	C 6	0	0
3	H	1	Total 10	C 10	0	0
3	H	1	Total 16	C 16	0	0
3	H	1	Total 18	C 18	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	H	1	Total 14	C 14	0	0
3	H	1	Total 8	C 8	0	0
3	H	1	Total 5	C 5	0	0
3	H	1	Total 8	C 8	0	0
3	H	1	Total 7	C 7	0	0
3	H	1	Total 6	C 6	0	0
3	I	1	Total 7	C 7	0	0
3	I	1	Total 7	C 7	0	0
3	I	1	Total 14	C 14	0	0
3	I	1	Total 6	C 6	0	0
3	I	1	Total 10	C 10	0	0
3	I	1	Total 6	C 6	0	0
3	I	1	Total 16	C 16	0	0
3	I	1	Total 18	C 18	0	0
3	I	1	Total 14	C 14	0	0
3	I	1	Total 8	C 8	0	0
3	I	1	Total 7	C 7	0	0
3	I	1	Total 4	C 4	0	0
3	J	1	Total 16	C 16	0	0
3	J	1	Total 18	C 18	0	0
3	J	1	Total 8	C 8	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	J	1	Total 14	C 14	0	0
3	J	1	Total 8	C 8	0	0
3	J	1	Total 7	C 7	0	0
3	J	1	Total 14	C 14	0	0
3	J	1	Total 10	C 10	0	0
3	J	1	Total 10	C 10	0	0
3	J	1	Total 4	C 4	0	0

- Molecule 4 is [(Z)-octadec-9-enyl] (2R)-2,3-bis(oxidanyl)propanoate (three-letter code: MPG) (formula: $C_{21}H_{40}O_4$).

MPG
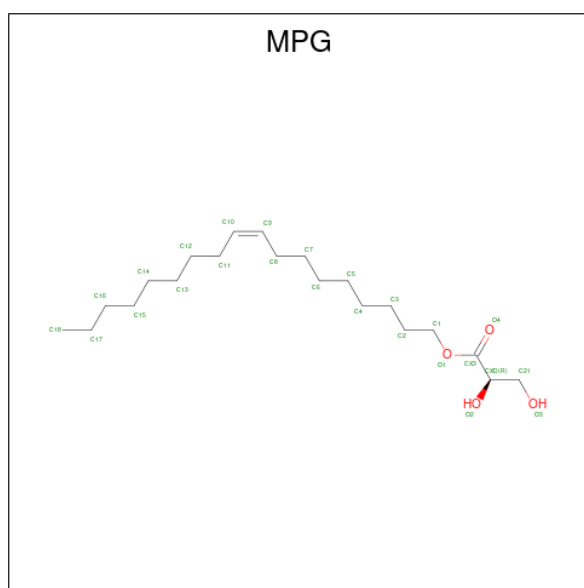
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total 14	C 11	O 3	0	0
4	B	1	Total 14	C 11	O 3	0	0
4	C	1	Total 13	C 10	O 3	0	0
4	D	1	Total 14	C 11	O 3	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	E	1	Total 14	C 11	O 3	0	0
4	F	1	Total 14	C 11	O 3	0	0
4	G	1	Total 14	C 11	O 3	0	0
4	H	1	Total 14	C 11	O 3	0	0
4	I	1	Total 14	C 11	O 3	0	0
4	J	1	Total 14	C 11	O 3	0	0

- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	39	Total 39	O 39	0	0
5	B	30	Total 30	O 30	0	0
5	C	31	Total 31	O 31	0	0
5	D	34	Total 34	O 34	0	0
5	E	30	Total 30	O 30	0	0
5	F	30	Total 30	O 30	0	0
5	G	35	Total 35	O 35	0	0
5	H	45	Total 45	O 45	0	0
5	I	40	Total 40	O 40	0	0
5	J	37	Total 37	O 37	0	0

3 Residue-property plots ⓘ

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and 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: Sodium pumping rhodopsin

Chain A:

• Molecule 1: Sodium pumping rhodopsin

Chain B:

• Molecule 1: Sodium pumping rhodopsin

Chain C:

• Molecule 1: Sodium pumping rhodopsin

Chain D:

• Molecule 1: Sodium pumping rhodopsin

Chain E:

• Molecule 1: Sodium pumping rhodopsin

Chain F:

• Molecule 1: Sodium pumping rhodopsin

Chain G:

• Molecule 1: Sodium pumping rhodopsin

Chain H:

E160 S174 G195 M224 P225 Y226 G229 VAL D231 G232 F233 L234 G239 D251 K255 K271 N272 K273 E274 L275 V276 GLU ALA ASN SER LEU GLU HIS HIS HIS HIS HIS

• Molecule 1: Sodium pumping rhodopsin

Chain I:

4%

77%   16%   6%

MET THR GLN E4 N9 F10 E11 L40 A41 G42 L43 L44 Y45 V66 L73 L74 L75 Y76 F88 E91 V92 G93 S100 G101 D102 Y108 R109 Y110 L111 N112 W113 L114 I115 D116 V117 P118 F122 T132 R139 W143 G146 I150 N163 Y218

P219 L223 M224 P225 T228 G229 VAL D231 G232 F233 L234 G239 A242 R243 Q244 D251 K255 I267 K271 ASN K273 E274 L275 V276 GLU ALA ASN SER LEU GLU HIS HIS HIS HIS HIS

• Molecule 1: Sodium pumping rhodopsin

Chain J:

6%

78%   16%   6%

MET THR Q3 F10 E18 H30 L34 V38 M39 L40 A41 G42 L43 L44 S60 N61 A65 V66 V69 S70 A71 F72 L73 L74 Q78 F88 N89 E90 G93 D98 P99 S100 G101 D102 Y108 R109 Y110 L111 N112 W113 L114 V117 P118 F122

T132 S133 Y159 W170 L182 W183 F211 T216 P219 L223 T228 G229 VAL D231 G232 F233 K255 L269 S270 LYS N272 K273 E274 L275 V276 GLU ALA ASN SER LEU GLU HIS HIS HIS HIS HIS

4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	81.69Å 107.00Å 240.80Å 90.00° 90.11° 90.00°	Depositor
Resolution (Å)	48.90 – 2.20 48.89 – 2.20	Depositor EDS
% Data completeness (in resolution range)	96.2 (48.90-2.20) 96.2 (48.89-2.20)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.42 (at 2.20Å)	Xtriage
Refinement program	REFMAC 5.8.0049	Depositor
R, R_{free}	0.195 , 0.236 0.203 , 0.240	Depositor DCC
R_{free} test set	9797 reflections (4.85%)	wwPDB-VP
Wilson B-factor (Å^2)	33.7	Xtriage
Anisotropy	0.359	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.37 , 61.0	EDS
L-test for twinning[2]	$< |L| > = 0.48, < L^2 > = 0.31$	Xtriage
Estimated twinning fraction	0.034 for h,-k,-l	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	23361	wwPDB-VP
Average B, all atoms (Å^2)	36.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.25% 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 ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: LYR, MPG, LFA, NA

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$|Z|$ >5	RMSZ	#$|Z|$ >5
1	A	0.29	0/2201	0.43	0/2990
1	B	0.28	0/2187	0.42	0/2972
1	C	0.29	0/2202	0.43	0/2992
1	D	0.30	0/2187	0.42	0/2970
1	E	0.29	0/2191	0.44	0/2976
1	F	0.29	0/2195	0.42	0/2982
1	G	0.29	0/2213	0.43	0/3007
1	H	0.30	0/2215	0.43	0/3008
1	I	0.30	0/2178	0.43	0/2963
1	J	0.29	0/2207	0.44	0/3000
All	All	0.29	0/21976	0.43	0/29860

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 ⓘ

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	2174	0	2164	32	0
1	B	2158	0	2144	53	0
1	C	2170	0	2156	50	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	D	2161	0	2145	34	0
1	E	2166	0	2140	67	0
1	F	2166	0	2155	60	0
1	G	2178	0	2174	58	0
1	H	2186	0	2177	51	0
1	I	2152	0	2117	52	0
1	J	2175	0	2156	49	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
2	D	1	0	0	0	0
2	E	1	0	0	0	0
2	F	1	0	0	0	0
2	G	1	0	0	0	0
2	H	1	0	0	0	0
2	I	1	0	0	0	0
2	J	1	0	0	0	0
3	A	108	0	199	3	0
3	B	108	0	200	3	0
3	C	110	0	206	6	0
3	D	138	0	260	10	0
3	E	112	0	204	9	0
3	F	129	0	245	7	0
3	G	133	0	250	5	0
3	H	111	0	208	2	0
3	I	117	0	219	7	0
3	J	109	0	205	5	0
4	A	14	0	19	0	0
4	B	14	0	19	0	0
4	C	13	0	17	1	0
4	D	14	0	19	1	0
4	E	14	0	19	3	0
4	F	14	0	19	1	0
4	G	14	0	19	2	0
4	H	14	0	19	0	0
4	I	14	0	19	0	0
4	J	14	0	19	2	0
5	A	39	0	0	3	0
5	B	30	0	0	2	0
5	C	31	0	0	1	0
5	D	34	0	0	0	0
5	E	30	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	F	30	0	0	3	0
5	G	35	0	0	3	0
5	H	45	0	0	6	0
5	I	40	0	0	3	0
5	J	37	0	0	6	0
All	All	23361	0	23912	482	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 10.
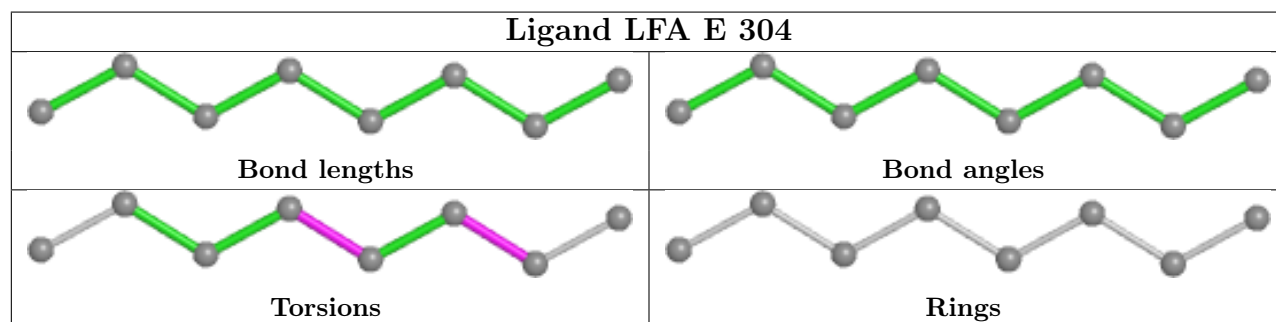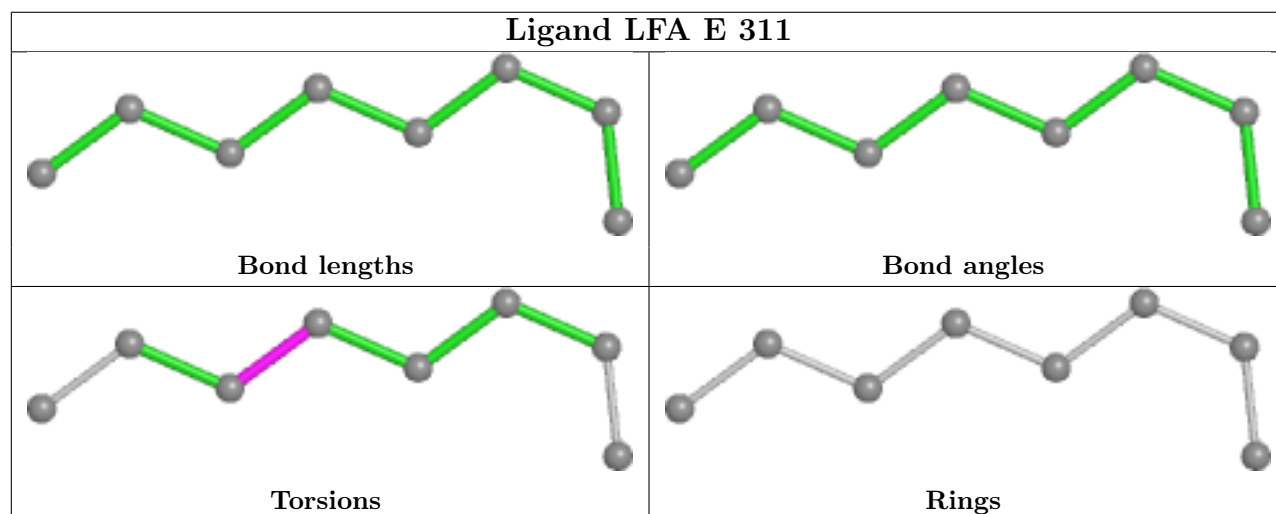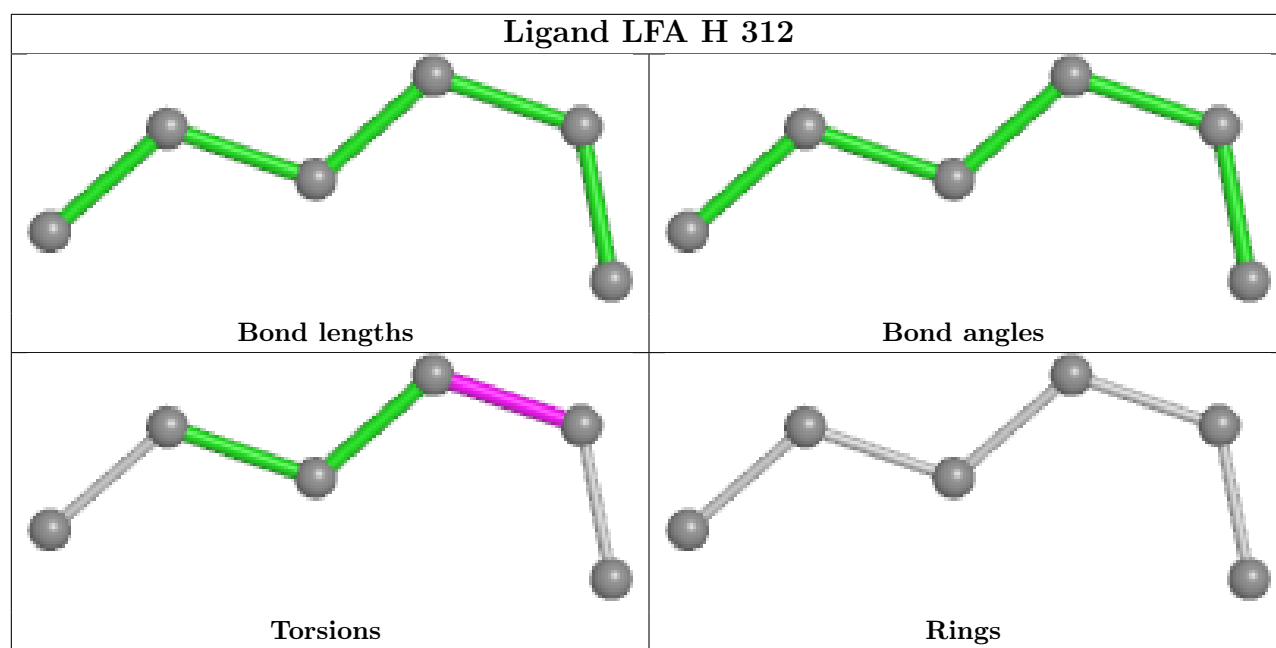
The worst 5 of 482 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:74[B]:LEU:CD2	1:C:112[B]:ASN:CB	1.81	1.56
1:C:74[B]:LEU:CD2	1:C:112[B]:ASN:HB2	1.03	1.48
1:F:74[B]:LEU:CD2	1:F:112:ASN:HB2	1.41	1.48
1:C:74[B]:LEU:HD22	1:C:112[B]:ASN:CG	1.32	1.43
1:G:74[B]:LEU:CD1	1:G:112[B]:ASN:ND2	1.78	1.28

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.

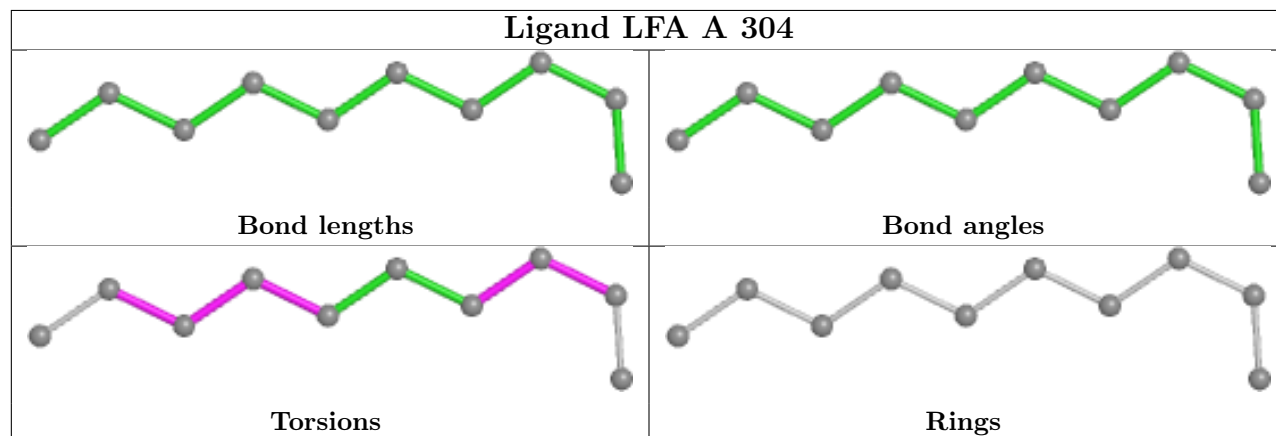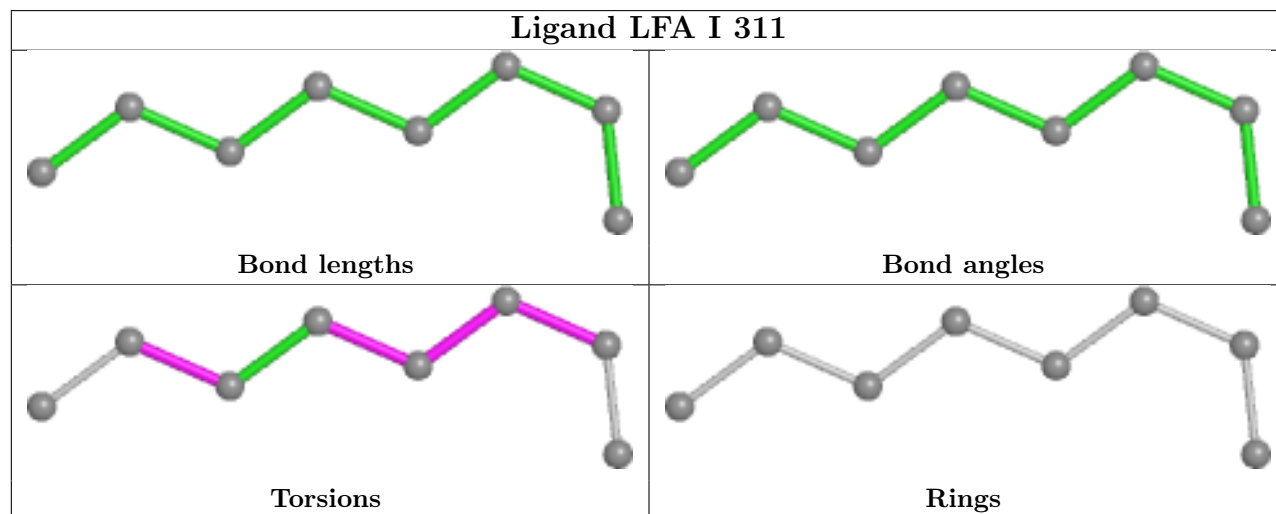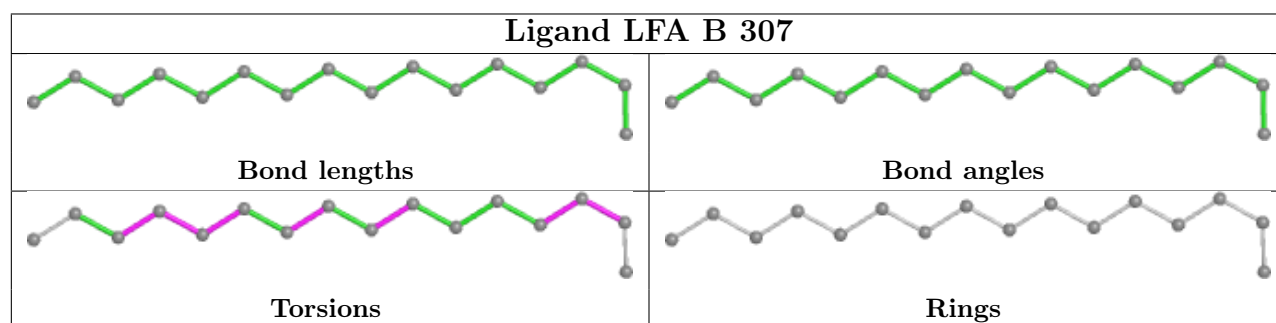| Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	268/288 (93%)	261 (97%)	7 (3%)	0	100	100
1	B	264/288 (92%)	252 (96%)	11 (4%)	1 (0%)	34	37
1	C	266/288 (92%)	261 (98%)	5 (2%)	0	100	100
1	D	264/288 (92%)	258 (98%)	6 (2%)	0	100	100
1	E	265/288 (92%)	259 (98%)	6 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	F	265/288 (92%)	259 (98%)	6 (2%)	0	100	100
1	G	267/288 (93%)	260 (97%)	7 (3%)	0	100	100
1	H	267/288 (93%)	262 (98%)	5 (2%)	0	100	100
1	I	264/288 (92%)	259 (98%)	5 (2%)	0	100	100
1	J	267/288 (93%)	262 (98%)	5 (2%)	0	100	100
All	All	2657/2880 (92%)	2593 (98%)	63 (2%)	1 (0%)	100	100

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	197	SER

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	226/247 (92%)	223 (99%)	3 (1%)	69	81
1	B	224/247 (91%)	221 (99%)	3 (1%)	69	81
1	C	225/247 (91%)	225 (100%)	0	100	100
1	D	224/247 (91%)	222 (99%)	2 (1%)	78	88
1	E	224/247 (91%)	223 (100%)	1 (0%)	91	96
1	F	225/247 (91%)	224 (100%)	1 (0%)	91	96
1	G	228/247 (92%)	224 (98%)	4 (2%)	59	72
1	H	228/247 (92%)	224 (98%)	4 (2%)	59	72
1	I	221/247 (90%)	219 (99%)	2 (1%)	78	88
1	J	226/247 (92%)	224 (99%)	2 (1%)	78	88
All	All	2251/2470 (91%)	2229 (99%)	22 (1%)	76	86

5 of 22 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	H	3	GLN
1	H	111	LEU
1	H	55	LYS
1	I	10	PHE
1	D	91	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 17 such sidechains are listed below:

Mol	Chain	Res	Type
1	H	89	ASN
1	J	180	HIS
1	E	163	ASN
1	E	180	HIS
1	E	190	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

10 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	$\#|Z| > 2$
1	LYR	G	255	1	27,29,30	1.20	3 (11%)	30,37,39	2.03	8 (26%)
1	LYR	J	255	1	27,29,30	1.19	3 (11%)	30,37,39	2.04	8 (26%)
1	LYR	B	255	1	27,29,30	1.21	2 (7%)	30,37,39	1.99	7 (23%)
1	LYR	I	255	1	27,29,30	1.12	4 (14%)	30,37,39	2.11	6 (20%)
1	LYR	D	255	1	27,29,30	1.24	2 (7%)	30,37,39	1.90	7 (23%)
1	LYR	C	255	1	27,29,30	1.19	2 (7%)	30,37,39	2.07	6 (20%)
1	LYR	A	255	1	27,29,30	1.31	2 (7%)	30,37,39	1.86	6 (20%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
1	LYR	E	255	1	27,29,30	1.22	3 (11%)	30,37,39	1.95	6 (20%)
1	LYR	H	255	1	27,29,30	1.25	2 (7%)	30,37,39	1.97	6 (20%)
1	LYR	F	255	1	27,29,30	1.26	3 (11%)	30,37,39	1.99	6 (20%)

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
1	LYR	G	255	1	-	3/22/40/42	0/1/1/1
1	LYR	J	255	1	-	3/22/40/42	0/1/1/1
1	LYR	B	255	1	-	3/22/40/42	0/1/1/1
1	LYR	I	255	1	-	3/22/40/42	0/1/1/1
1	LYR	D	255	1	-	3/22/40/42	0/1/1/1
1	LYR	C	255	1	-	3/22/40/42	0/1/1/1
1	LYR	A	255	1	-	4/22/40/42	0/1/1/1
1	LYR	E	255	1	-	3/22/40/42	0/1/1/1
1	LYR	H	255	1	-	3/22/40/42	0/1/1/1
1	LYR	F	255	1	-	4/22/40/42	0/1/1/1

The worst 5 of 26 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	255	LYR	C7-C80	3.15	1.40	1.35
1	F	255	LYR	C7-C80	2.99	1.39	1.35
1	D	255	LYR	C7-C80	2.96	1.39	1.35
1	B	255	LYR	C7-C80	2.84	1.39	1.35
1	E	255	LYR	C7-C80	2.78	1.39	1.35

The worst 5 of 66 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	G	255	LYR	C13-C12-C11	-5.15	118.74	124.53
1	B	255	LYR	C13-C12-C11	-5.02	118.89	124.53
1	J	255	LYR	C13-C12-C11	-4.93	119.00	124.53
1	C	255	LYR	C13-C12-C11	-4.82	119.11	124.53
1	I	255	LYR	C13-C12-C11	-4.79	119.15	124.53

There are no chirality outliers.

5 of 32 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	B	255	LYR	C2-C1-NZ-CE
1	D	255	LYR	C2-C1-NZ-CE
1	E	255	LYR	C2-C1-NZ-CE
1	G	255	LYR	C2-C1-NZ-CE
1	I	255	LYR	C2-C1-NZ-CE

There are no ring outliers.

10 monomers are involved in 60 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	G	255	LYR	3	0
1	J	255	LYR	6	0
1	B	255	LYR	8	0
1	I	255	LYR	4	0
1	D	255	LYR	6	0
1	C	255	LYR	7	0
1	A	255	LYR	5	0
1	E	255	LYR	7	0
1	H	255	LYR	8	0
1	F	255	LYR	6	0

5.5 Carbohydrates ⓘ

There are no monosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 138 ligands modelled in this entry, 10 are monoatomic - leaving 128 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#|Z| > 2$	Counts	RMSZ	$\#|Z| > 2$
3	LFA	H	307	-	13,13,19	0.26	0	12,12,18	0.52	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
3	LFA	H	312	-	5,5,19	0.27	0	4,4,18	0.38	0
3	LFA	E	311	-	7,7,19	0.27	0	6,6,18	0.46	0
3	LFA	E	304	-	7,7,19	0.31	0	6,6,18	0.44	0
3	LFA	J	302	-	15,15,19	0.26	0	14,14,18	0.54	0
3	LFA	B	307	-	15,15,19	0.27	0	14,14,18	0.56	0
3	LFA	I	311	-	7,7,19	0.27	0	6,6,18	0.47	0
3	LFA	A	304	-	9,9,19	0.27	0	8,8,18	0.48	0
3	LFA	C	312	-	3,3,19	0.37	0	2,2,18	0.59	0
3	LFA	E	306	-	11,11,19	0.28	0	10,10,18	0.49	0
3	LFA	I	308	-	15,15,19	0.24	0	14,14,18	0.59	0
3	LFA	C	304	-	5,5,19	0.28	0	4,4,18	0.34	0
3	LFA	G	306	-	9,9,19	0.28	0	8,8,18	0.43	0
3	LFA	E	308	-	13,13,19	0.27	0	12,12,18	0.50	0
3	LFA	E	307	-	7,7,19	0.25	0	6,6,18	0.48	0
3	LFA	E	312	-	7,7,19	0.26	0	6,6,18	0.44	0
3	LFA	G	315	-	5,5,19	0.27	0	4,4,18	0.36	0
3	LFA	G	307	-	15,15,19	0.26	0	14,14,18	0.58	0
3	LFA	J	307	-	6,6,19	0.26	0	5,5,18	0.41	0
3	LFA	J	311	-	3,3,19	0.38	0	2,2,18	0.61	0
3	LFA	D	304	-	5,5,19	0.25	0	4,4,18	0.41	0
3	LFA	I	306	-	9,9,19	0.25	0	8,8,18	0.51	0
3	LFA	C	303	-	9,9,19	0.29	0	8,8,18	0.42	0
3	LFA	E	305	-	5,5,19	0.30	0	4,4,18	0.35	0
3	LFA	F	303	-	13,13,19	0.27	0	12,12,18	0.50	0
3	LFA	I	312	-	6,6,19	0.24	0	5,5,18	0.46	0
3	LFA	D	311	-	6,6,19	0.25	0	5,5,18	0.44	0
3	LFA	D	307	-	17,17,19	0.26	0	16,16,18	0.48	0
3	LFA	J	308	-	13,13,19	0.32	0	12,12,18	0.42	0
3	LFA	E	302	-	13,13,19	0.28	0	12,12,18	0.56	0
3	LFA	G	309	-	7,7,19	0.27	0	6,6,18	0.46	0
3	LFA	C	311	-	7,7,19	0.27	0	6,6,18	0.45	0
3	LFA	H	304	-	9,9,19	0.28	0	8,8,18	0.51	0
3	LFA	G	302	-	15,15,19	0.25	0	14,14,18	0.57	0
3	LFA	G	314	-	5,5,19	0.26	0	4,4,18	0.37	0
3	LFA	D	308	-	9,9,19	0.28	0	8,8,18	0.47	0
3	LFA	B	306	-	7,7,19	0.31	0	6,6,18	0.42	0
3	LFA	D	318	-	4,4,19	0.29	0	3,3,18	0.35	0
4	MPG	D	315	-	13,13,24	0.44	0	13,13,25	1.01	1 (7%)
3	LFA	I	307	-	5,5,19	0.27	0	4,4,18	0.33	0
3	LFA	D	302	-	6,6,19	0.24	0	5,5,18	0.47	0
3	LFA	H	306	-	17,17,19	0.29	0	16,16,18	0.47	0
3	LFA	C	310	-	12,12,19	0.29	0	11,11,18	0.51	0
3	LFA	I	302	-	6,6,19	0.27	0	5,5,18	0.42	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
3	LFA	A	309	-	7,7,19	0.27	0	6,6,18	0.48	0
4	MPG	C	313	-	12,12,24	0.44	0	12,12,25	0.96	1 (8%)
3	LFA	D	314	-	6,6,19	0.27	0	5,5,18	0.41	0
3	LFA	A	308	-	7,7,19	0.29	0	6,6,18	0.42	0
4	MPG	J	312	-	13,13,24	0.44	0	13,13,25	1.03	1 (7%)
3	LFA	D	313	-	5,5,19	0.27	0	4,4,18	0.36	0
3	LFA	G	305	-	5,5,19	0.28	0	4,4,18	0.35	0
3	LFA	D	305	-	9,9,19	0.27	0	8,8,18	0.51	0
3	LFA	A	305	-	9,9,19	0.28	0	8,8,18	0.44	0
3	LFA	F	308	-	7,7,19	0.29	0	6,6,18	0.40	0
3	LFA	I	309	-	17,17,19	0.30	0	16,16,18	0.45	0
3	LFA	B	308	-	17,17,19	0.28	0	16,16,18	0.50	0
3	LFA	J	309	-	9,9,19	0.25	0	8,8,18	0.50	0
3	LFA	B	302	-	6,6,19	0.26	0	5,5,18	0.41	0
3	LFA	C	307	-	17,17,19	0.27	0	16,16,18	0.48	0
4	MPG	G	312	-	13,13,24	0.45	0	13,13,25	1.03	1 (7%)
4	MPG	B	312	-	13,13,24	0.46	0	13,13,25	0.97	1 (7%)
3	LFA	F	314	-	7,7,19	0.28	0	6,6,18	0.44	0
3	LFA	J	306	-	7,7,19	0.26	0	6,6,18	0.48	0
3	LFA	I	313	-	3,3,19	0.39	0	2,2,18	0.63	0
3	LFA	C	302	-	6,6,19	0.28	0	5,5,18	0.40	0
3	LFA	F	306	-	9,9,19	0.27	0	8,8,18	0.49	0
3	LFA	I	305	-	5,5,19	0.29	0	4,4,18	0.32	0
3	LFA	B	305	-	5,5,19	0.30	0	4,4,18	0.30	0
3	LFA	H	305	-	15,15,19	0.26	0	14,14,18	0.52	0
3	LFA	J	310	-	9,9,19	0.27	0	8,8,18	0.47	0
3	LFA	H	308	-	7,7,19	0.26	0	6,6,18	0.47	0
3	LFA	B	309	-	12,12,19	0.32	0	11,11,18	0.45	0
3	LFA	J	305	-	13,13,19	0.30	0	12,12,18	0.46	0
3	LFA	J	304	-	7,7,19	0.28	0	6,6,18	0.44	0
3	LFA	A	312	-	4,4,19	0.33	0	3,3,18	0.34	0
3	LFA	B	303	-	6,6,19	0.26	0	5,5,18	0.46	0
3	LFA	H	303	-	5,5,19	0.25	0	4,4,18	0.41	0
3	LFA	D	317	-	4,4,19	0.27	0	3,3,18	0.37	0
4	MPG	I	314	-	13,13,24	0.34	0	13,13,25	0.96	1 (7%)
3	LFA	C	308	-	9,9,19	0.29	0	8,8,18	0.45	0
3	LFA	E	303	-	17,17,19	0.26	0	16,16,18	0.50	0
3	LFA	D	309	-	7,7,19	0.26	0	6,6,18	0.45	0
3	LFA	J	303	-	17,17,19	0.27	0	16,16,18	0.50	0
3	LFA	D	310	-	7,7,19	0.27	0	6,6,18	0.46	0
3	LFA	C	309	-	7,7,19	0.27	0	6,6,18	0.45	0
3	LFA	A	306	-	13,13,19	0.28	0	12,12,18	0.51	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
3	LFA	B	311	-	7,7,19	0.28	0	6,6,18	0.44	0
3	LFA	F	312	-	7,7,19	0.25	0	6,6,18	0.48	0
3	LFA	F	302	-	6,6,19	0.24	0	5,5,18	0.47	0
3	LFA	F	304	-	9,9,19	0.28	0	8,8,18	0.46	0
3	LFA	E	309	-	5,5,19	0.29	0	4,4,18	0.34	0
3	LFA	G	310	-	9,9,19	0.30	0	8,8,18	0.43	0
3	LFA	H	311	-	6,6,19	0.21	0	5,5,18	0.53	0
3	LFA	B	304	-	13,13,19	0.29	0	12,12,18	0.49	0
3	LFA	G	308	-	17,17,19	0.28	0	16,16,18	0.49	0
3	LFA	H	302	-	12,12,19	0.28	0	11,11,18	0.50	0
3	LFA	D	306	-	15,15,19	0.28	0	14,14,18	0.51	0
3	LFA	A	310	-	7,7,19	0.26	0	6,6,18	0.45	0
4	MPG	H	313	-	13,13,24	0.42	0	13,13,25	0.96	1 (7%)
3	LFA	D	303	-	13,13,19	0.27	0	12,12,18	0.53	0
3	LFA	C	306	-	15,15,19	0.28	0	14,14,18	0.54	0
3	LFA	F	310	-	17,17,19	0.27	0	16,16,18	0.48	0
3	LFA	F	305	-	5,5,19	0.27	0	4,4,18	0.35	0
3	LFA	D	312	-	5,5,19	0.27	0	4,4,18	0.37	0
3	LFA	I	310	-	13,13,19	0.26	0	12,12,18	0.54	0
3	LFA	A	303	-	5,5,19	0.27	0	4,4,18	0.38	0
3	LFA	B	310	-	10,10,19	0.27	0	9,9,18	0.49	0
3	LFA	E	310	-	9,9,19	0.29	0	8,8,18	0.44	0
3	LFA	D	316	-	4,4,19	0.26	0	3,3,18	0.36	0
3	LFA	H	309	-	4,4,19	0.27	0	3,3,18	0.37	0
3	LFA	H	310	-	7,7,19	0.28	0	6,6,18	0.43	0
3	LFA	I	304	-	13,13,19	0.28	0	12,12,18	0.50	0
3	LFA	C	305	-	9,9,19	0.26	0	8,8,18	0.48	0
3	LFA	F	309	-	9,9,19	0.31	0	8,8,18	0.41	0
3	LFA	G	311	-	7,7,19	0.25	0	6,6,18	0.48	0
3	LFA	A	311	-	6,6,19	0.24	0	5,5,18	0.45	0
4	MPG	E	313	-	13,13,24	0.44	0	13,13,25	0.96	1 (7%)
3	LFA	A	307	-	17,17,19	0.23	0	16,16,18	0.56	0
3	LFA	A	302	-	13,13,19	0.26	0	12,12,18	0.51	0
3	LFA	I	303	-	6,6,19	0.27	0	5,5,18	0.42	0
4	MPG	F	315	-	13,13,24	0.41	0	13,13,25	1.02	1 (7%)
3	LFA	F	313	-	13,13,19	0.29	0	12,12,18	0.49	0
3	LFA	G	303	-	6,6,19	0.26	0	5,5,18	0.41	0
4	MPG	A	313	-	13,13,24	0.47	0	13,13,25	1.01	1 (7%)
3	LFA	F	307	-	5,5,19	0.30	0	4,4,18	0.32	0
3	LFA	G	304	-	13,13,19	0.30	0	12,12,18	0.47	0
3	LFA	F	311	-	9,9,19	0.30	0	8,8,18	0.43	0
3	LFA	G	313	-	7,7,19	0.28	0	6,6,18	0.45	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
3	LFA	H	307	-	-	7/11/11/17	-
3	LFA	H	312	-	-	1/3/3/17	-
3	LFA	E	311	-	-	1/5/5/17	-
3	LFA	E	304	-	-	2/5/5/17	-
3	LFA	J	302	-	-	9/13/13/17	-
3	LFA	B	307	-	-	7/13/13/17	-
3	LFA	I	311	-	-	4/5/5/17	-
3	LFA	A	304	-	-	5/7/7/17	-
3	LFA	C	312	-	-	0/1/1/17	-
3	LFA	E	306	-	-	4/9/9/17	-
3	LFA	I	308	-	-	5/13/13/17	-
3	LFA	C	304	-	-	1/3/3/17	-
3	LFA	G	306	-	-	6/7/7/17	-
3	LFA	E	308	-	-	6/11/11/17	-
3	LFA	E	307	-	-	4/5/5/17	-
3	LFA	E	312	-	-	4/5/5/17	-
3	LFA	G	315	-	-	0/3/3/17	-
3	LFA	G	307	-	-	6/13/13/17	-
3	LFA	J	307	-	-	3/4/4/17	-
3	LFA	J	311	-	-	0/1/1/17	-
3	LFA	D	304	-	-	0/3/3/17	-
3	LFA	I	306	-	-	4/7/7/17	-
3	LFA	C	303	-	-	3/7/7/17	-
3	LFA	E	305	-	-	1/3/3/17	-
3	LFA	F	303	-	-	6/11/11/17	-
3	LFA	I	312	-	-	1/4/4/17	-
3	LFA	D	311	-	-	2/4/4/17	-
3	LFA	D	307	-	-	9/15/15/17	-
3	LFA	J	308	-	-	6/11/11/17	-
3	LFA	E	302	-	-	2/11/11/17	-
3	LFA	G	309	-	-	2/5/5/17	-
3	LFA	C	311	-	-	1/5/5/17	-
3	LFA	H	304	-	-	4/7/7/17	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	LFA	G	302	-	-	5/13/13/17	-
3	LFA	G	314	-	-	1/3/3/17	-
3	LFA	D	308	-	-	4/7/7/17	-
3	LFA	B	306	-	-	1/5/5/17	-
3	LFA	D	318	-	-	0/2/2/17	-
4	MPG	D	315	-	-	9/12/12/25	-
3	LFA	I	307	-	-	1/3/3/17	-
3	LFA	D	302	-	-	3/4/4/17	-
3	LFA	H	306	-	-	9/15/15/17	-
3	LFA	C	310	-	-	4/10/10/17	-
3	LFA	I	302	-	-	2/4/4/17	-
3	LFA	A	309	-	-	2/5/5/17	-
4	MPG	C	313	-	-	7/11/11/25	-
3	LFA	D	314	-	-	1/4/4/17	-
3	LFA	A	308	-	-	2/5/5/17	-
4	MPG	J	312	-	-	8/12/12/25	-
3	LFA	D	313	-	-	0/3/3/17	-
3	LFA	G	305	-	-	1/3/3/17	-
3	LFA	D	305	-	-	4/7/7/17	-
3	LFA	A	305	-	-	5/7/7/17	-
3	LFA	F	308	-	-	4/5/5/17	-
3	LFA	I	309	-	-	12/15/15/17	-
3	LFA	B	308	-	-	11/15/15/17	-
3	LFA	J	309	-	-	3/7/7/17	-
3	LFA	B	302	-	-	2/4/4/17	-
3	LFA	C	307	-	-	11/15/15/17	-
4	MPG	G	312	-	-	5/12/12/25	-
4	MPG	B	312	-	-	7/12/12/25	-
3	LFA	F	314	-	-	0/5/5/17	-
3	LFA	J	306	-	-	2/5/5/17	-
3	LFA	I	313	-	-	0/1/1/17	-
3	LFA	C	302	-	-	3/4/4/17	-
3	LFA	F	306	-	-	2/7/7/17	-
3	LFA	I	305	-	-	1/3/3/17	-
3	LFA	B	305	-	-	1/3/3/17	-
3	LFA	H	305	-	-	5/13/13/17	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	LFA	J	310	-	-	3/7/7/17	-
3	LFA	H	308	-	-	2/5/5/17	-
3	LFA	B	309	-	-	6/10/10/17	-
3	LFA	J	305	-	-	5/11/11/17	-
3	LFA	J	304	-	-	1/5/5/17	-
3	LFA	A	312	-	-	0/2/2/17	-
3	LFA	B	303	-	-	3/4/4/17	-
3	LFA	H	303	-	-	0/3/3/17	-
3	LFA	D	317	-	-	0/2/2/17	-
4	MPG	I	314	-	-	9/12/12/25	-
3	LFA	C	308	-	-	3/7/7/17	-
3	LFA	E	303	-	-	11/15/15/17	-
3	LFA	D	309	-	-	3/5/5/17	-
3	LFA	J	303	-	-	8/15/15/17	-
3	LFA	D	310	-	-	1/5/5/17	-
3	LFA	C	309	-	-	3/5/5/17	-
3	LFA	A	306	-	-	8/11/11/17	-
3	LFA	B	311	-	-	3/5/5/17	-
3	LFA	F	312	-	-	3/5/5/17	-
3	LFA	F	302	-	-	2/4/4/17	-
3	LFA	F	304	-	-	2/7/7/17	-
3	LFA	E	309	-	-	2/3/3/17	-
3	LFA	G	310	-	-	3/7/7/17	-
3	LFA	H	311	-	-	1/4/4/17	-
3	LFA	B	304	-	-	6/11/11/17	-
3	LFA	G	308	-	-	9/15/15/17	-
3	LFA	H	302	-	-	8/10/10/17	-
3	LFA	D	306	-	-	8/13/13/17	-
3	LFA	A	310	-	-	0/5/5/17	-
4	MPG	H	313	-	-	8/12/12/25	-
3	LFA	D	303	-	-	3/11/11/17	-
3	LFA	C	306	-	-	5/13/13/17	-
3	LFA	F	310	-	-	10/15/15/17	-
3	LFA	F	305	-	-	1/3/3/17	-
3	LFA	D	312	-	-	0/3/3/17	-
3	LFA	I	310	-	-	4/11/11/17	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	LFA	A	303	-	-	1/3/3/17	-
3	LFA	B	310	-	-	7/8/8/17	-
3	LFA	E	310	-	-	3/7/7/17	-
3	LFA	D	316	-	-	1/2/2/17	-
3	LFA	H	309	-	-	1/2/2/17	-
3	LFA	H	310	-	-	3/5/5/17	-
3	LFA	I	304	-	-	5/11/11/17	-
3	LFA	C	305	-	-	6/7/7/17	-
3	LFA	F	309	-	-	4/7/7/17	-
3	LFA	G	311	-	-	1/5/5/17	-
3	LFA	A	311	-	-	3/4/4/17	-
4	MPG	E	313	-	-	10/12/12/25	-
3	LFA	A	307	-	-	13/15/15/17	-
3	LFA	A	302	-	-	7/11/11/17	-
3	LFA	I	303	-	-	3/4/4/17	-
4	MPG	F	315	-	-	9/12/12/25	-
3	LFA	F	313	-	-	4/11/11/17	-
3	LFA	G	303	-	-	3/4/4/17	-
4	MPG	A	313	-	-	7/12/12/25	-
3	LFA	F	307	-	-	2/3/3/17	-
3	LFA	G	304	-	-	5/11/11/17	-
3	LFA	F	311	-	-	3/7/7/17	-
3	LFA	G	313	-	-	4/5/5/17	-

There are no bond length outliers.

The worst 5 of 10 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	G	312	MPG	O1-CX3-CXD	3.11	120.03	109.52
4	A	313	MPG	O1-CX3-CXD	3.07	119.91	109.52
4	J	312	MPG	O1-CX3-CXD	3.07	119.89	109.52
4	D	315	MPG	O1-CX3-CXD	2.97	119.56	109.52
4	B	312	MPG	O1-CX3-CXD	2.92	119.39	109.52

There are no chirality outliers.

5 of 503 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	313	MPG	O3-C21-CXD-CX3
4	B	312	MPG	O1-CX3-CXD-O2
4	B	312	MPG	O1-CX3-CXD-C21
4	C	313	MPG	O3-C21-CXD-O2
4	C	313	MPG	O3-C21-CXD-CX3

There are no ring outliers.

43 monomers are involved in 52 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	E	311	LFA	7	0
3	E	304	LFA	1	0
3	J	302	LFA	2	0
3	B	307	LFA	1	0
3	I	308	LFA	1	0
3	G	307	LFA	1	0
3	J	307	LFA	1	0
3	J	311	LFA	1	0
3	I	306	LFA	1	0
3	E	305	LFA	1	0
3	I	312	LFA	1	0
3	D	307	LFA	1	0
3	G	302	LFA	3	0
3	B	306	LFA	2	0
4	D	315	MPG	1	0
3	D	302	LFA	5	0
3	I	302	LFA	1	0
4	C	313	MPG	1	0
4	J	312	MPG	2	0
3	I	309	LFA	2	0
4	G	312	MPG	2	0
3	C	302	LFA	2	0
3	F	306	LFA	1	0
3	H	305	LFA	1	0
3	J	304	LFA	1	0
3	D	317	LFA	2	0
3	F	312	LFA	3	0
3	F	302	LFA	2	0
3	F	304	LFA	1	0
3	G	308	LFA	1	0
3	H	302	LFA	1	0
3	D	306	LFA	2	0
3	C	306	LFA	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	E	310	LFA	1	0
3	D	316	LFA	2	0
3	C	305	LFA	1	0
3	A	311	LFA	2	0
4	E	313	MPG	3	0
3	A	307	LFA	1	0
3	I	303	LFA	1	0
4	F	315	MPG	1	0
3	G	303	LFA	2	0
3	F	311	LFA	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 LFA H 307

Ligand LFA H 312

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA E 311

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA E 304

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA J 302

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA B 307

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA I 311

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA A 304

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA E 306

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA I 308

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA C 304

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA G 306

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA E 308

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA E 307

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA E 312

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA G 307

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA J 307

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA I 306

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA C 303

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA E 305

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA F 303

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA I 312

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA D 311

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA D 307

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA J 308

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA E 302

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA G 309

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA C 311

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA H 304

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA G 302

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA G 314

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA D 308

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA B 306

Bond lengths

Bond angles

Torsions

Rings

Ligand MPG D 315

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA I 307

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA D 302

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA H 306

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA C 310

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA I 302

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA A 309

Bond lengths

Bond angles

Torsions

Rings

Ligand MPG C 313

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA D 314

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA A 308

Bond lengths

Bond angles

Torsions

Rings

Ligand MPG J 312

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA G 305

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA D 305

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA A 305

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA F 308

Bond lengths	Bond angles
Torsions	Rings

Ligand LFA I 309

Bond lengths	Bond angles
Torsions	Rings

Ligand LFA B 308

Bond lengths	Bond angles
Torsions	Rings

Ligand LFA J 309

Bond lengths	Bond angles
Torsions	Rings

wwPDB X-ray Structure Validation Summary Report

Ligand LFA B 302

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA C 307

Bond lengths

Bond angles

Torsions

Rings

Ligand MPG G 312

Bond lengths

Bond angles

Torsions

Rings

Ligand MPG B 312

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA J 306

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA C 302

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA F 306

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA I 305

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA B 305

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA H 305

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Ligand LFA J 310

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Ligand LFA H 308

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Torsions

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Ligand LFA B 309

Bond lengths

Bond angles

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Rings

Ligand LFA J 305

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA J 304

Bond lengths

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Ligand LFA B 303

Bond lengths

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Ligand MPG I 314

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Ligand LFA C 308

Bond lengths

Bond angles

Torsions

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Ligand LFA E 303

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA D 309

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA J 303

Bond lengths

Bond angles

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Ligand LFA D 310

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA C 309

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA A 306

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA B 311

Bond lengths

Bond angles

Torsions

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Ligand LFA F 312

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA F 302

Bond lengths

Bond angles

Torsions

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Ligand LFA F 304

Bond lengths

Bond angles

Torsions

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Ligand LFA E 309

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA G 310

Bond lengths

Bond angles

Torsions

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Ligand LFA H 311

Bond lengths

Bond angles

Torsions

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Ligand LFA B 304

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Ligand LFA G 308

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Ligand LFA H 302

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Ligand MPG H 313

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Ligand LFA D 303

Bond lengths	Bond angles
Torsions	Rings

Ligand LFA C 306

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Torsions

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Ligand LFA F 310

Bond lengths

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Ligand LFA F 305

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Ligand LFA I 310

Bond lengths

Bond angles

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Ligand LFA A 303

Bond lengths

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Ligand LFA B 310

Bond lengths

Bond angles

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Ligand LFA E 310

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Ligand LFA D 316

Bond lengths

Bond angles

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Ligand LFA H 309

Bond lengths

Bond angles

Torsions

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Ligand LFA H 310

Bond lengths

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Ligand LFA I 304

Bond lengths

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Ligand LFA C 305

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Ligand LFA F 309

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Ligand LFA G 311

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Ligand LFA A 311

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Bond lengths	Bond angles
Torsions	Rings

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Torsions	Rings

Ligand LFA A 302	
Bond lengths	Bond angles
Torsions	Rings

Ligand LFA I 303

Bond lengths

Bond angles

Torsions

Rings

Ligand MPG F 315

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA F 313

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA G 303

Bond lengths

Bond angles

Torsions

Rings

Ligand MPG A 313

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA F 307

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA G 304

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA F 311

Bond lengths

Bond angles

Torsions

Rings

Ligand LFA G 313

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 ⓘ

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, 95th 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(Å²)	Q<0.9
1	A	272/288 (94%)	-0.07	5 (1%)	68	66	24, 34, 52, 81	0
1	B	269/288 (93%)	0.15	18 (6%)	17	16	26, 39, 67, 90	0
1	C	270/288 (93%)	-0.04	7 (2%)	56	53	24, 34, 51, 74	0
1	D	270/288 (93%)	0.01	10 (3%)	41	39	22, 32, 49, 73	0
1	E	271/288 (94%)	0.02	8 (2%)	50	48	23, 34, 54, 69	0
1	F	270/288 (93%)	0.08	17 (6%)	20	19	25, 35, 56, 76	0
1	G	270/288 (93%)	-0.09	7 (2%)	56	53	23, 34, 51, 82	0
1	H	272/288 (94%)	-0.06	9 (3%)	46	44	23, 32, 51, 91	0
1	I	270/288 (93%)	-0.09	11 (4%)	37	35	21, 30, 49, 76	0
1	J	271/288 (94%)	0.11	16 (5%)	22	21	23, 32, 49, 76	0
All	All	2705/2880 (93%)	0.00	108 (3%)	38	36	21, 33, 54, 91	0

The worst 5 of 108 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	H	275	LEU	8.4
1	I	275	LEU	7.1
1	I	276	VAL	6.1
1	H	276	VAL	5.9
1	H	272	ASN	5.7

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

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, 95th 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
1	LYR	B	255	29/30	0.91	0.14	31,38,44,49	0
1	LYR	A	255	29/30	0.92	0.14	26,29,34,36	0
1	LYR	E	255	29/30	0.92	0.14	28,34,43,47	0
1	LYR	C	255	29/30	0.93	0.15	29,33,39,43	0
1	LYR	G	255	29/30	0.93	0.14	25,31,38,43	0
1	LYR	H	255	29/30	0.93	0.14	25,30,37,40	0
1	LYR	J	255	29/30	0.93	0.15	22,27,32,35	0
1	LYR	F	255	29/30	0.94	0.14	27,33,37,44	0
1	LYR	I	255	29/30	0.94	0.15	22,26,33,38	0
1	LYR	D	255	29/30	0.94	0.14	25,27,35,36	0

6.3 Carbohydrates ⓘ

There are no monosaccharides in this entry.

6.4 Ligands ⓘ

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, 95th 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
3	LFA	C	303	10/20	0.49	0.24	61,77,88,94	0
3	LFA	F	313	14/20	0.61	0.27	65,74,78,82	0
3	LFA	E	304	8/20	0.62	0.22	60,64,68,72	0
3	LFA	C	309	8/20	0.62	0.30	66,78,84,92	0
3	LFA	J	305	14/20	0.62	0.25	60,72,80,81	0
3	LFA	C	308	10/20	0.65	0.25	67,74,85,88	0
3	LFA	G	310	10/20	0.65	0.20	53,66,73,74	0
3	LFA	E	306	12/20	0.65	0.27	66,78,86,89	0
3	LFA	D	318	5/20	0.66	0.23	63,66,66,68	0
3	LFA	F	308	8/20	0.68	0.20	47,59,64,65	0
3	LFA	H	304	10/20	0.68	0.18	56,62,64,65	0
3	LFA	B	311	8/20	0.68	0.21	57,70,73,82	0
3	LFA	B	305	6/20	0.69	0.20	50,58,59,64	0
3	LFA	C	310	13/20	0.69	0.27	58,69,79,81	0
3	LFA	E	309	6/20	0.70	0.27	60,66,70,70	0
3	LFA	J	304	8/20	0.71	0.20	46,54,63,63	0
3	LFA	F	311	10/20	0.71	0.20	64,77,86,87	0
3	LFA	A	311	7/20	0.72	1.10	59,61,67,69	0
3	LFA	A	308	8/20	0.73	0.18	55,61,65,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	LFA	D	310	8/20	0.73	0.22	56,69,70,74	0
3	LFA	F	304	10/20	0.73	0.21	58,61,73,73	0
3	LFA	F	314	8/20	0.73	0.17	61,71,76,76	0
3	LFA	C	304	6/20	0.74	0.22	60,63,65,68	0
3	LFA	D	302	7/20	0.74	1.00	57,62,68,69	0
3	LFA	E	310	10/20	0.75	0.16	42,48,60,60	0
3	LFA	G	309	8/20	0.75	0.18	53,59,62,62	0
3	LFA	B	304	14/20	0.75	0.24	50,61,77,78	0
3	LFA	A	310	8/20	0.75	0.25	54,62,70,72	0
3	LFA	B	309	13/20	0.75	0.26	50,69,76,80	0
3	LFA	B	310	11/20	0.75	0.22	50,60,67,69	0
3	LFA	G	302	16/20	0.76	0.46	46,51,57,58	0
3	LFA	D	317	5/20	0.77	0.18	56,64,69,70	0
3	LFA	D	308	10/20	0.77	0.29	56,61,70,70	0
3	LFA	I	304	14/20	0.77	0.22	41,54,62,65	0
3	LFA	F	309	10/20	0.77	0.17	37,42,45,46	0
3	LFA	A	305	10/20	0.77	0.14	45,52,58,58	0
3	LFA	J	306	8/20	0.77	0.20	60,73,81,81	0
3	LFA	B	308	18/20	0.78	0.29	44,58,74,77	0
3	LFA	C	306	16/20	0.79	0.54	49,54,71,77	0
3	LFA	E	305	6/20	0.79	0.18	54,59,67,68	0
3	LFA	J	302	16/20	0.79	0.52	45,53,60,61	0
3	LFA	G	307	16/20	0.79	0.43	48,54,59,59	0
3	LFA	F	302	7/20	0.79	1.31	76,83,88,92	0
3	LFA	D	313	6/20	0.79	0.12	44,51,57,57	0
3	LFA	I	303	7/20	0.80	1.05	52,62,74,80	0
3	LFA	I	310	14/20	0.80	0.19	47,55,63,64	0
3	LFA	B	306	8/20	0.81	0.14	53,63,65,66	0
3	LFA	I	305	6/20	0.81	0.22	48,57,60,61	0
3	LFA	F	312	8/20	0.81	0.17	48,64,82,84	0
3	LFA	D	306	16/20	0.81	0.51	44,56,67,67	0
3	LFA	G	313	8/20	0.81	0.20	48,55,59,65	0
3	LFA	B	307	16/20	0.81	0.53	46,57,66,66	0
3	LFA	C	312	4/20	0.81	0.15	44,46,47,47	0
4	MPG	E	313	14/25	0.81	0.18	48,53,68,72	0
3	LFA	H	307	14/20	0.82	0.20	56,65,71,71	0
3	LFA	F	306	10/20	0.82	0.12	48,54,59,63	0
3	LFA	D	305	10/20	0.82	0.19	51,54,63,64	0
3	LFA	G	304	14/20	0.82	0.25	39,54,62,62	0
4	MPG	A	313	14/25	0.82	0.25	54,60,66,70	0
3	LFA	A	303	6/20	0.82	0.18	52,54,59,63	0
3	LFA	F	307	6/20	0.83	0.19	43,43,46,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	LFA	F	305	6/20	0.83	0.24	54,56,58,58	0
3	LFA	D	309	8/20	0.83	0.26	56,70,81,82	0
3	LFA	G	311	8/20	0.83	0.20	51,62,68,69	0
3	LFA	J	307	7/20	0.83	0.90	56,61,78,83	0
3	LFA	G	305	6/20	0.83	0.21	55,56,58,64	0
4	MPG	D	315	14/25	0.83	0.20	49,54,63,68	0
3	LFA	H	302	13/20	0.83	0.20	41,52,61,61	0
3	LFA	C	302	7/20	0.84	0.93	45,57,66,69	0
3	LFA	J	309	10/20	0.84	0.15	49,52,58,58	0
3	LFA	D	303	14/20	0.84	0.25	40,67,73,73	0
3	LFA	E	302	14/20	0.84	0.56	44,56,65,66	0
3	LFA	H	308	8/20	0.84	0.20	64,70,71,72	0
3	LFA	G	315	6/20	0.85	0.20	45,53,58,59	0
3	LFA	I	302	7/20	0.85	1.29	59,70,82,84	0
3	LFA	B	302	7/20	0.85	1.06	60,62,73,76	0
3	LFA	B	303	7/20	0.85	1.07	54,62,93,97	0
3	LFA	E	307	8/20	0.85	0.19	61,68,70,73	0
4	MPG	J	312	14/25	0.85	0.22	51,59,67,68	0
3	LFA	D	304	6/20	0.86	0.19	47,51,52,57	0
3	LFA	A	302	14/20	0.86	0.24	49,55,63,65	0
3	LFA	G	306	10/20	0.86	0.14	45,54,57,57	0
3	LFA	E	311	8/20	0.86	0.37	40,45,48,50	0
3	LFA	A	304	10/20	0.87	0.16	47,50,55,57	0
3	LFA	J	308	14/20	0.87	0.23	39,52,59,60	0
3	LFA	E	312	8/20	0.87	0.15	47,52,55,57	0
3	LFA	J	310	10/20	0.87	0.12	51,56,58,60	0
3	LFA	D	311	7/20	0.88	0.14	51,53,55,57	0
3	LFA	H	303	6/20	0.88	0.18	54,55,57,63	0
3	LFA	C	311	8/20	0.88	0.24	59,64,67,71	0
3	LFA	I	308	16/20	0.88	0.49	42,53,68,72	0
3	LFA	I	309	18/20	0.88	0.29	32,42,64,75	0
3	LFA	D	314	7/20	0.88	0.12	50,55,59,60	0
3	LFA	D	316	5/20	0.88	0.11	50,52,53,54	0
3	LFA	H	312	6/20	0.88	0.12	51,53,54,56	0
3	LFA	F	303	14/20	0.88	0.27	54,61,66,70	0
3	LFA	C	307	18/20	0.89	0.31	42,48,57,57	0
3	LFA	E	308	14/20	0.89	0.20	51,56,64,65	0
3	LFA	J	303	18/20	0.89	0.30	37,45,57,62	0
3	LFA	H	305	16/20	0.89	0.44	40,51,56,59	0
4	MPG	C	313	13/25	0.89	0.12	46,53,64,74	0
3	LFA	G	303	7/20	0.89	1.08	57,59,75,79	0
3	LFA	G	308	18/20	0.89	0.28	43,48,60,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	LFA	F	310	18/20	0.89	0.29	39,51,65,66	0
3	LFA	I	307	6/20	0.90	0.15	38,41,44,47	0
3	LFA	A	309	8/20	0.90	0.17	55,61,70,73	0
4	MPG	B	312	14/25	0.90	0.23	50,62,71,72	0
3	LFA	H	306	18/20	0.90	0.25	42,46,52,53	0
3	LFA	G	314	6/20	0.90	0.22	50,54,54,55	0
3	LFA	A	306	14/20	0.90	0.49	47,51,56,56	0
4	MPG	F	315	14/25	0.90	0.18	41,51,57,62	0
4	MPG	G	312	14/25	0.90	0.20	48,54,62,64	0
3	LFA	H	309	5/20	0.90	0.17	41,42,45,47	0
3	LFA	C	305	10/20	0.91	0.12	41,47,51,52	0
3	LFA	E	303	18/20	0.91	0.29	35,46,62,66	0
3	LFA	I	306	10/20	0.91	0.12	37,39,41,42	0
4	MPG	H	313	14/25	0.91	0.21	49,62,72,75	0
3	LFA	A	312	5/20	0.91	0.11	43,45,50,54	0
3	LFA	A	307	18/20	0.92	0.25	37,45,63,71	0
3	LFA	H	310	8/20	0.92	0.12	39,46,48,50	0
4	MPG	I	314	14/25	0.92	0.16	35,42,60,72	0
3	LFA	I	311	8/20	0.92	0.12	45,54,56,59	0
3	LFA	D	307	18/20	0.93	0.26	34,39,50,60	0
3	LFA	I	313	4/20	0.93	0.09	38,42,43,44	0
3	LFA	H	311	7/20	0.93	0.18	44,44,53,57	0
3	LFA	D	312	6/20	0.94	0.14	40,45,49,52	0
3	LFA	I	312	7/20	0.95	0.12	30,34,45,48	0
3	LFA	J	311	4/20	0.96	0.09	33,35,36,37	0
2	NA	B	301	1/1	0.97	0.06	29,29,29,29	0
2	NA	H	301	1/1	0.97	0.08	30,30,30,30	0
2	NA	E	301	1/1	0.98	0.10	27,27,27,27	0
2	NA	F	301	1/1	0.98	0.12	29,29,29,29	0
2	NA	D	301	1/1	0.98	0.09	29,29,29,29	0
2	NA	I	301	1/1	0.98	0.07	23,23,23,23	0
2	NA	G	301	1/1	0.99	0.17	26,26,26,26	0
2	NA	C	301	1/1	0.99	0.14	28,28,28,28	0
2	NA	A	301	1/1	0.99	0.15	34,34,34,34	0
2	NA	J	301	1/1	0.99	0.09	28,28,28,28	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.
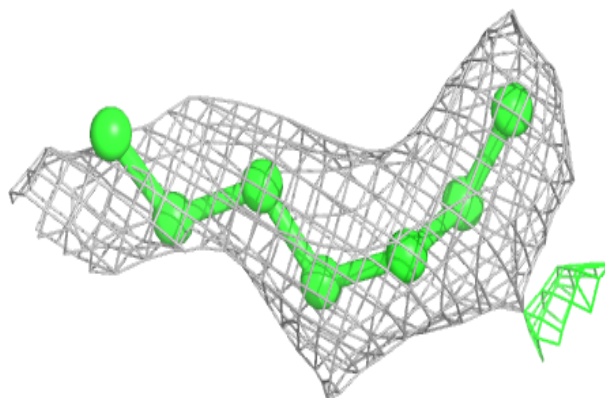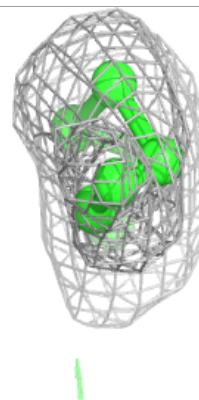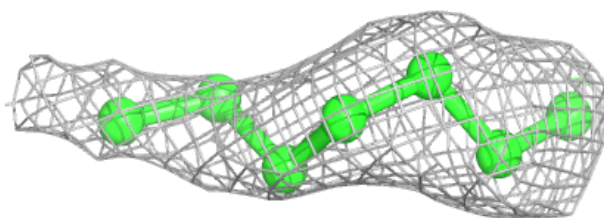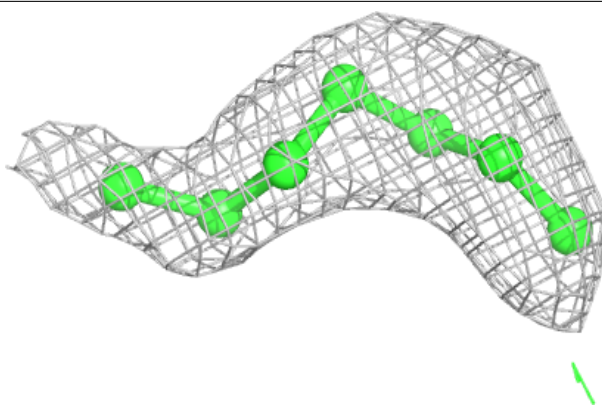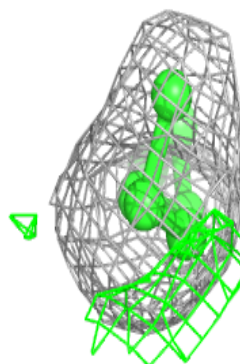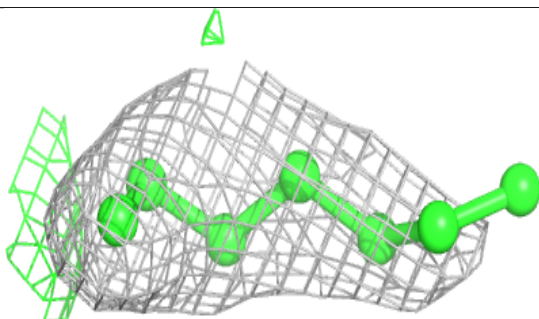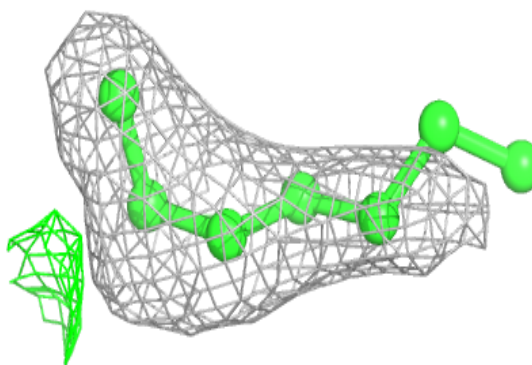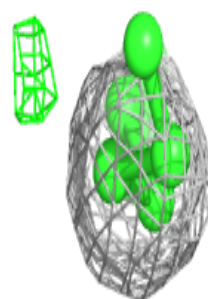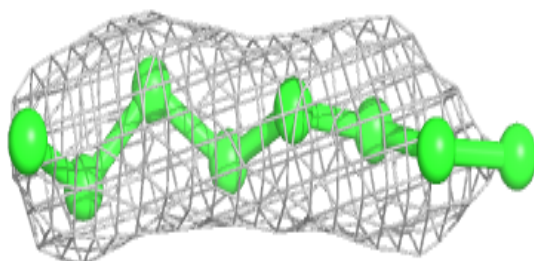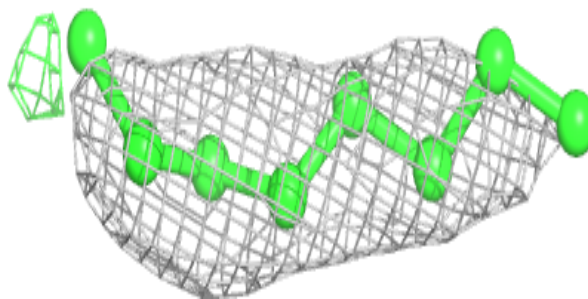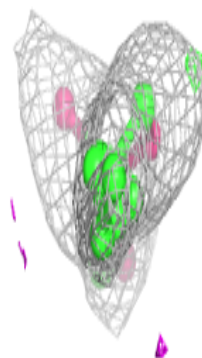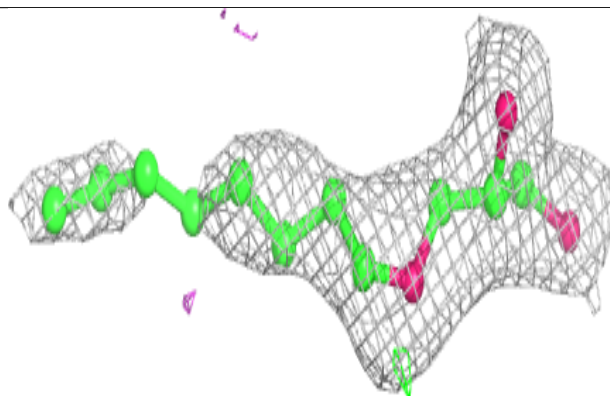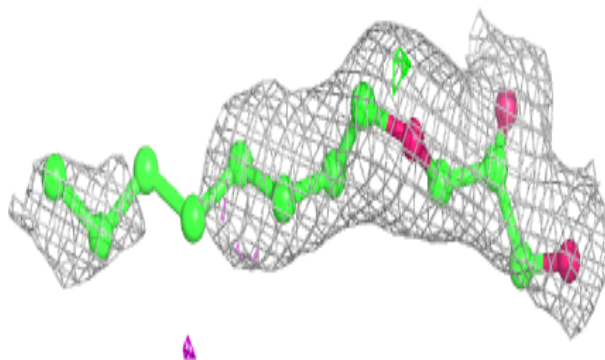
Electron density around LFA C 303:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
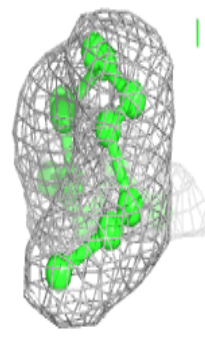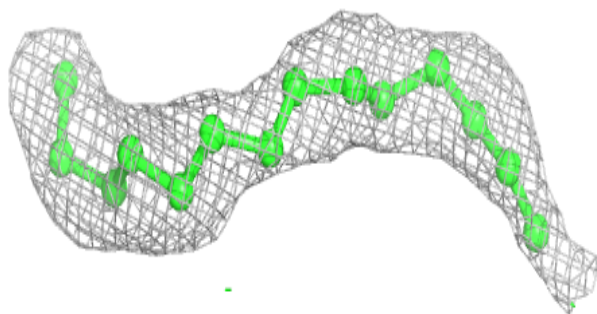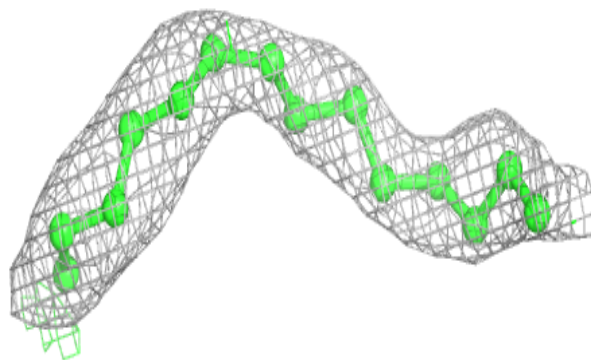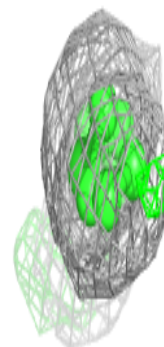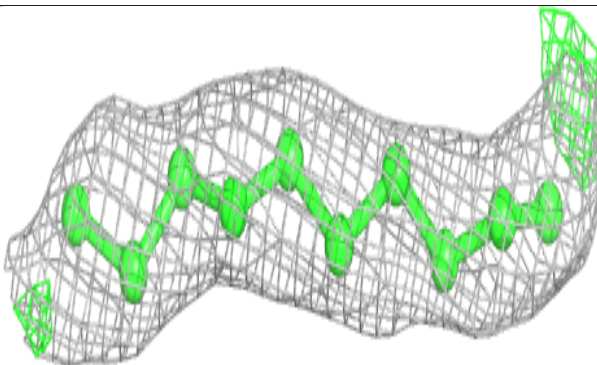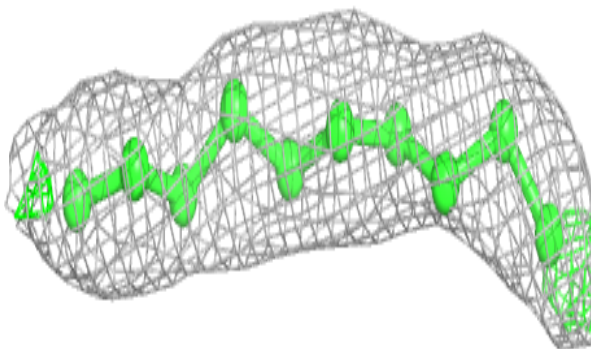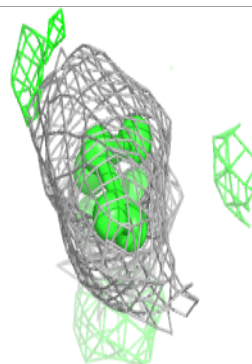and green (positive)
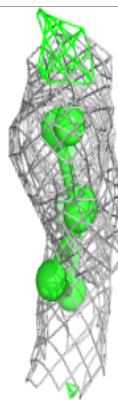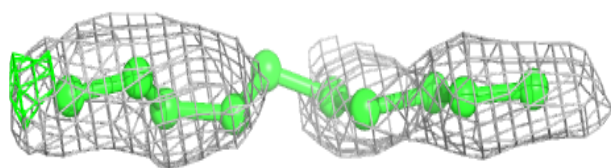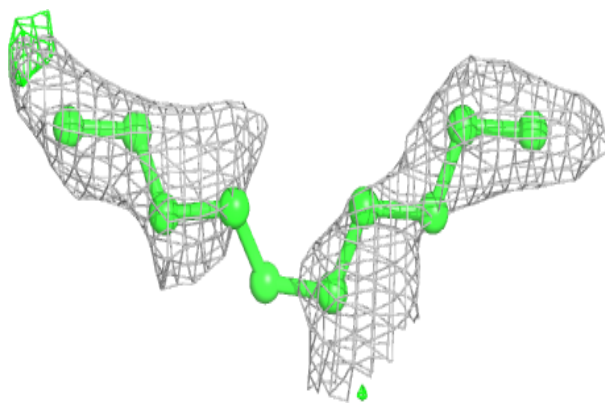
Electron density around LFA F 313:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
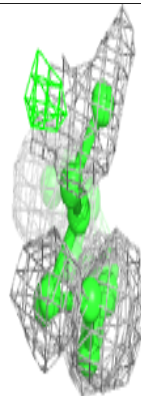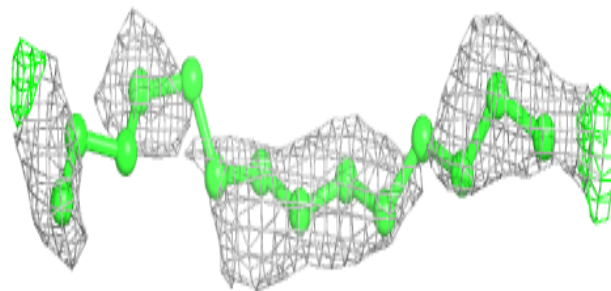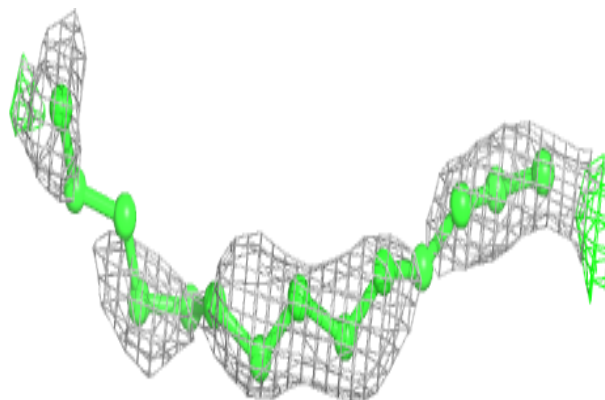
Electron density around LFA E 304:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
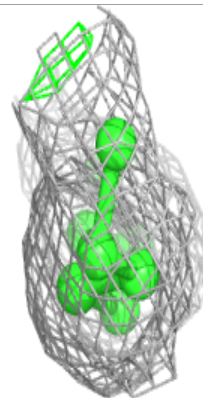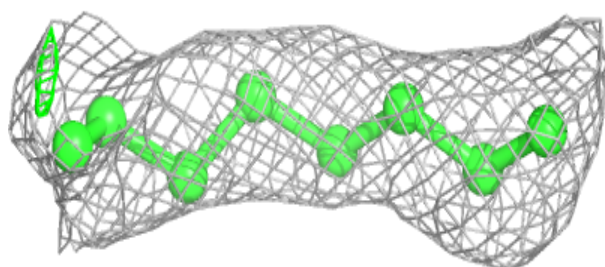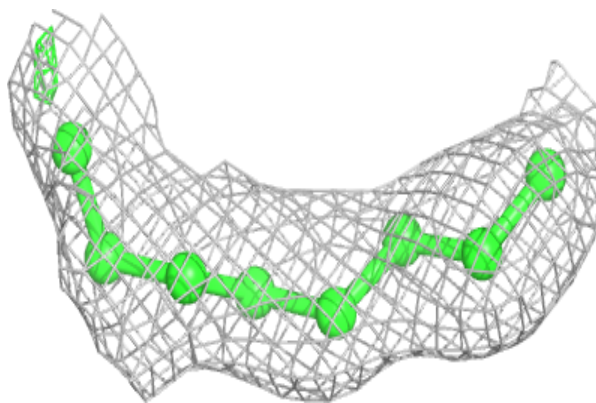
Electron density around LFA C 309:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
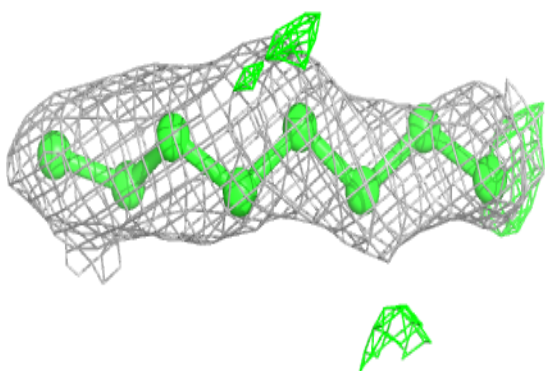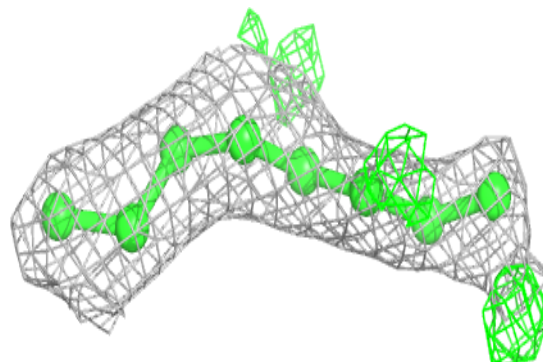$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
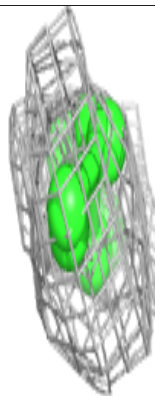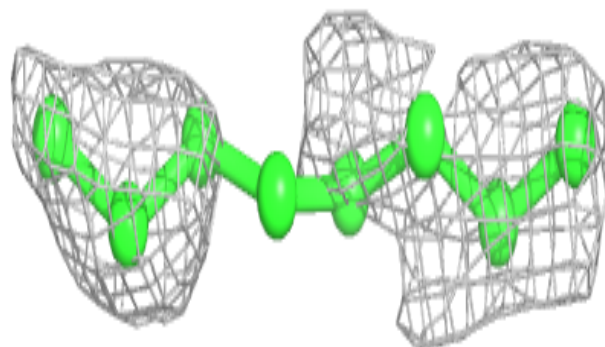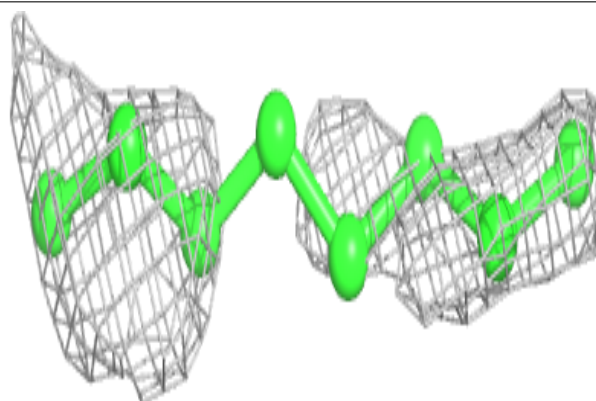
Electron density around LFA J 305:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
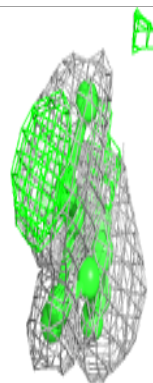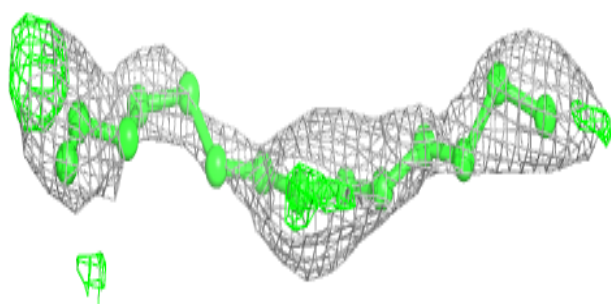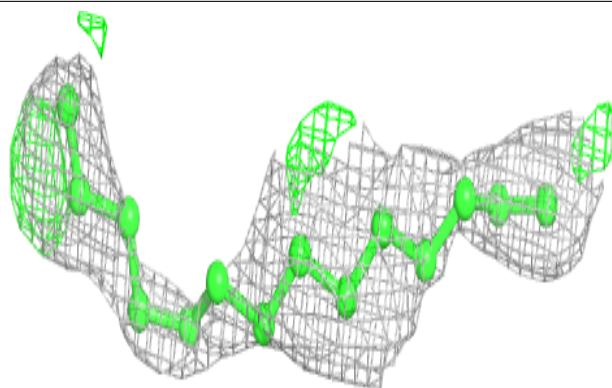
Electron density around LFA C 308:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
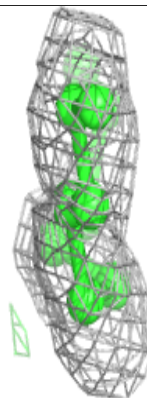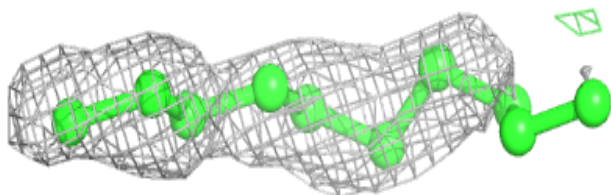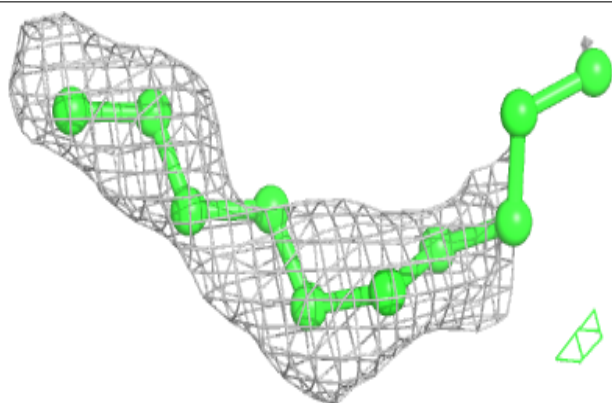
Electron density around LFA G 310:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
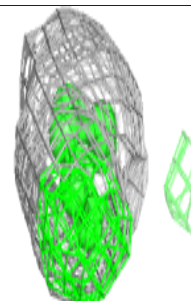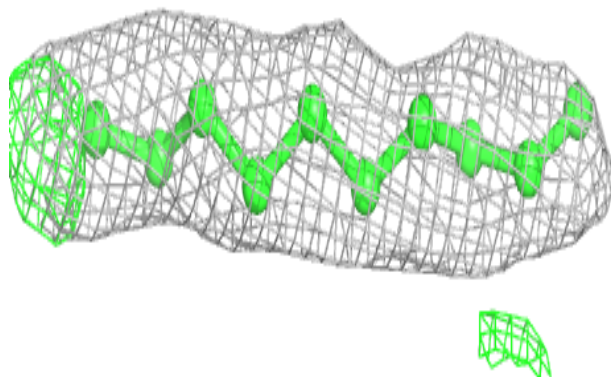mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
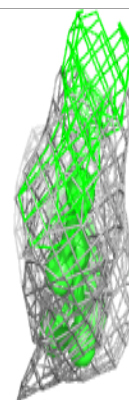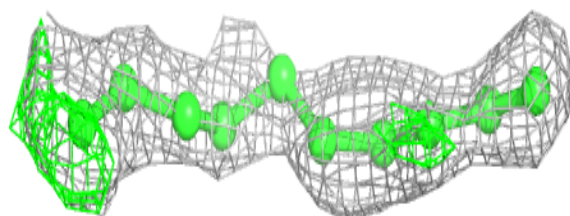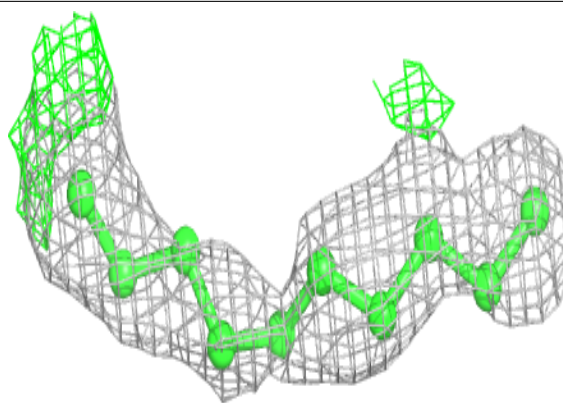
Electron density around LFA E 306:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
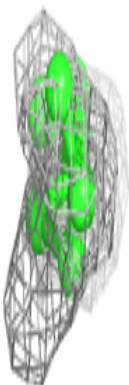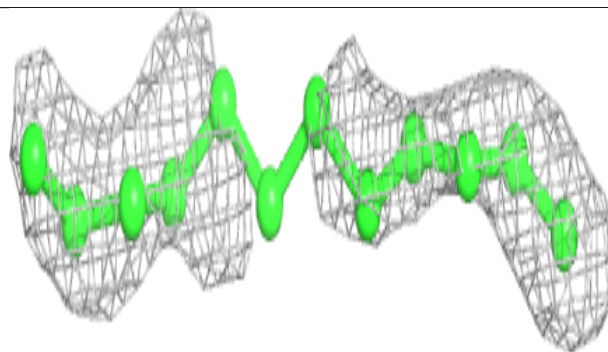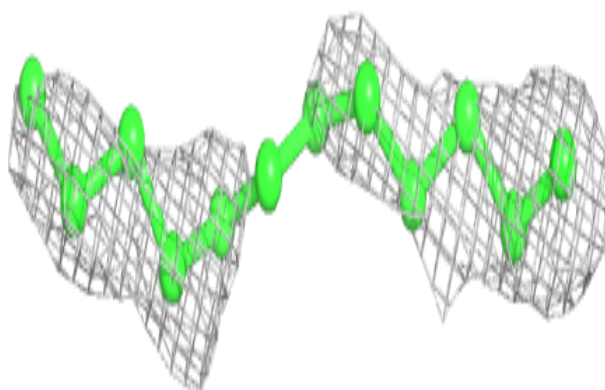
Electron density around LFA F 308:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
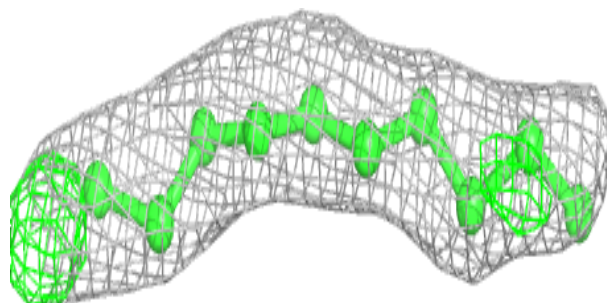mF_o-DF_c (at 3 rmsd) in purple (negative)
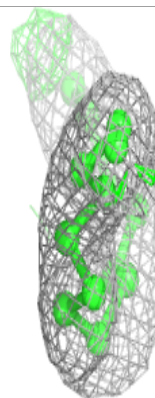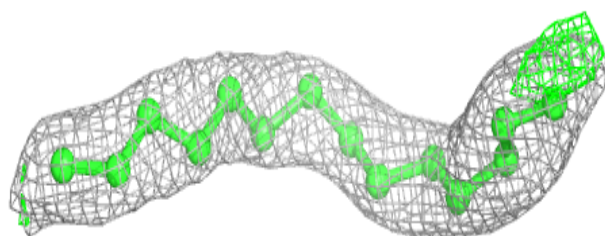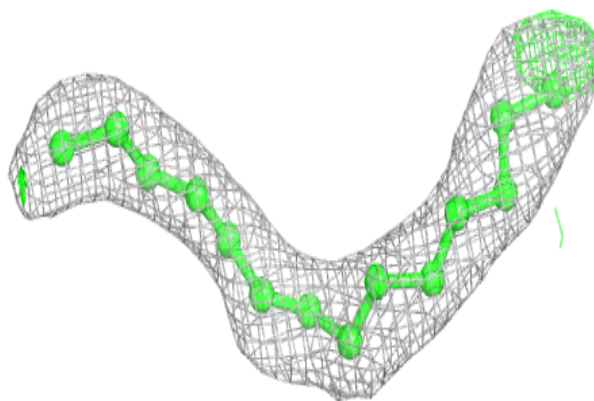and green (positive)
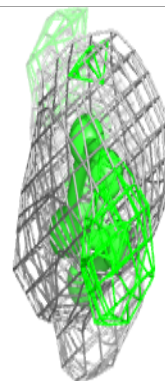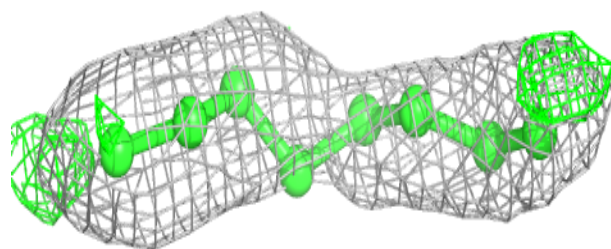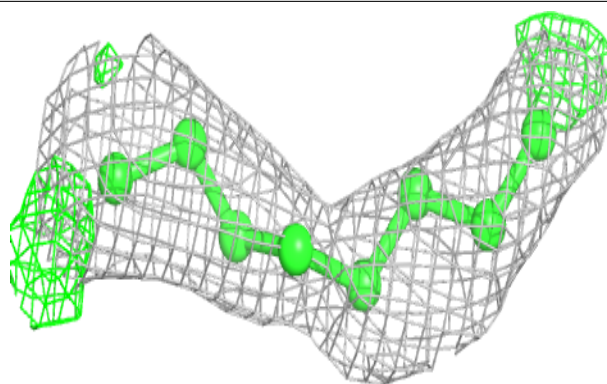
Electron density around LFA H 304:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
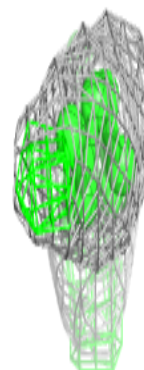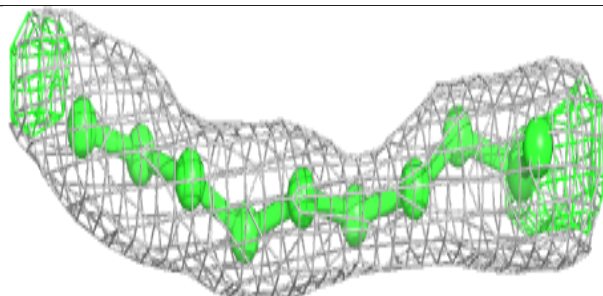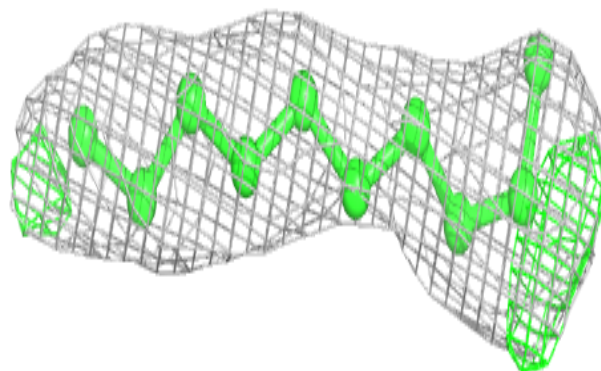
Electron density around LFA B 311:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
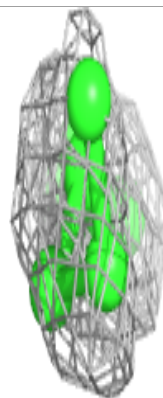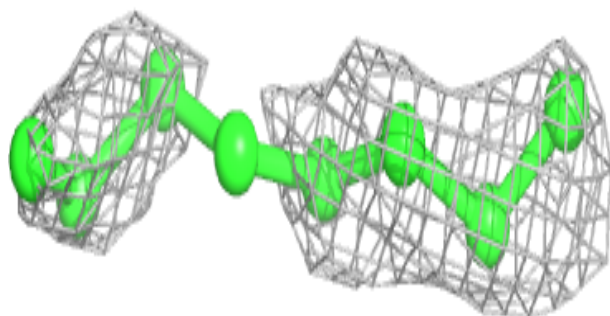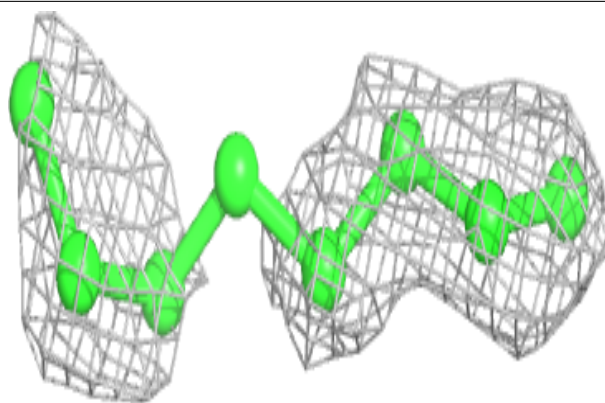
Electron density around LFA B 305:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
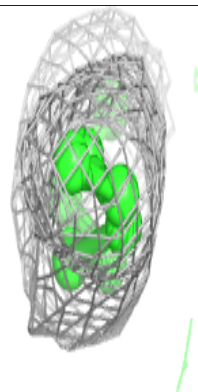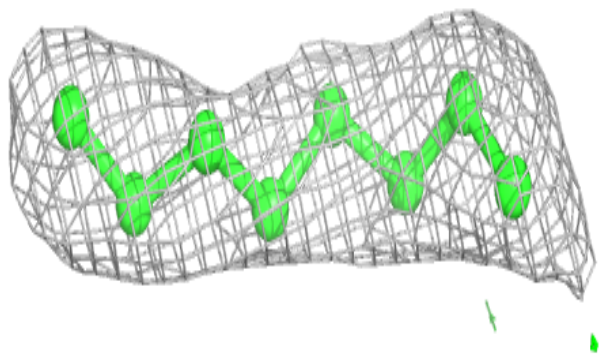mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
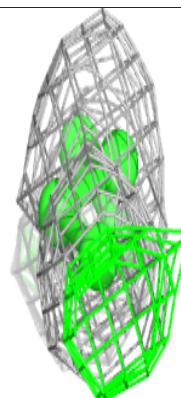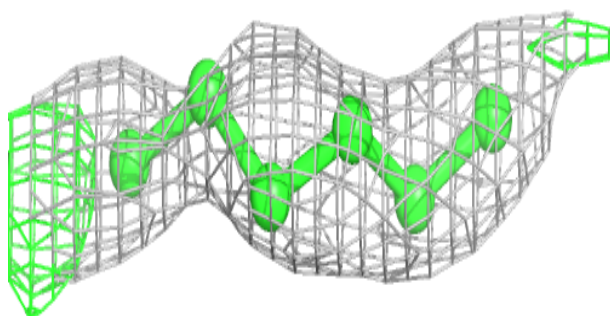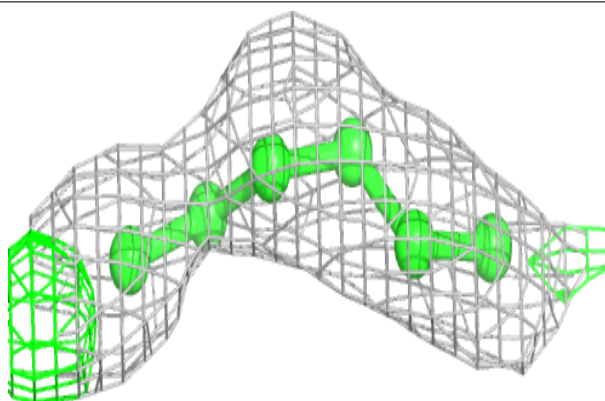
Electron density around LFA C 310:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
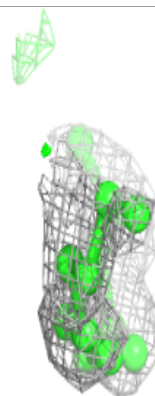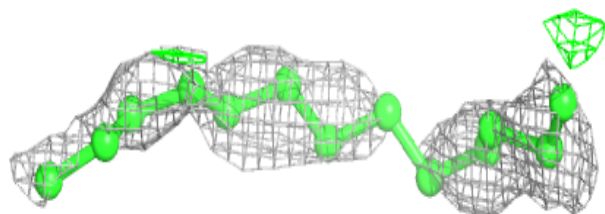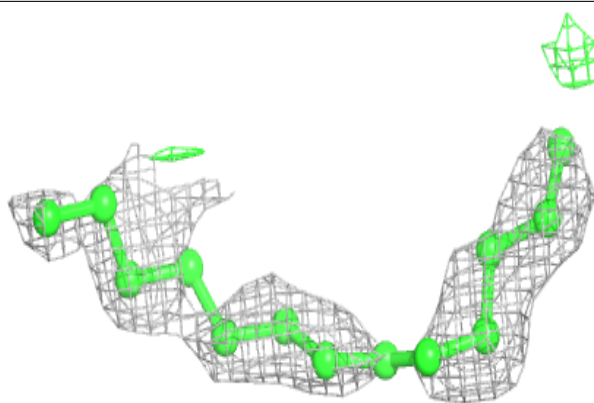
Electron density around LFA E 309:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
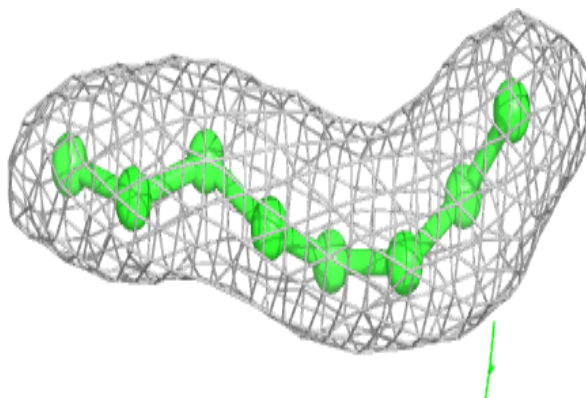$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
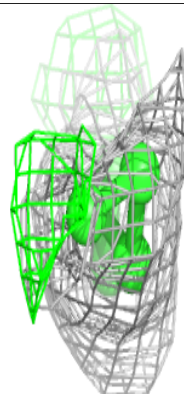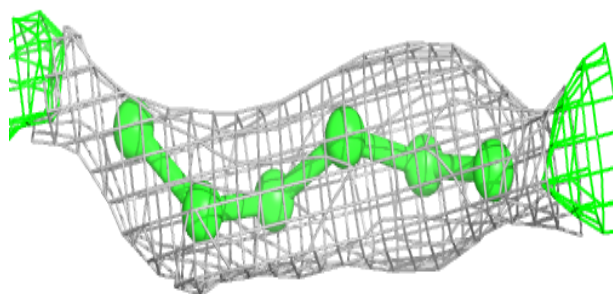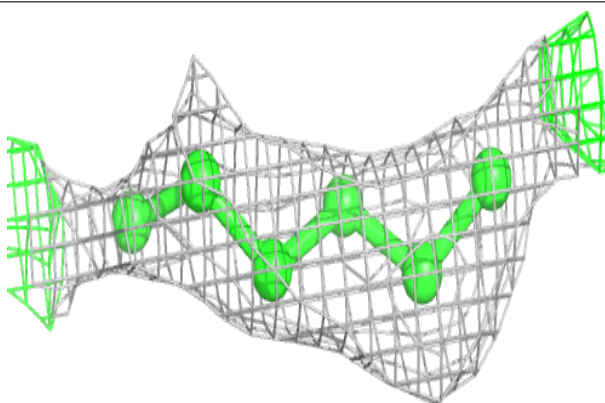
Electron density around LFA J 304:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
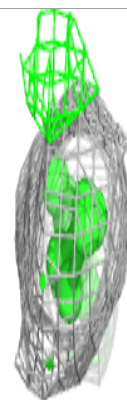mF_o-DF_c (at 3 rmsd) in purple (negative)
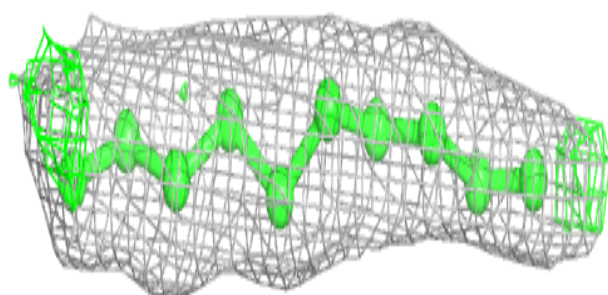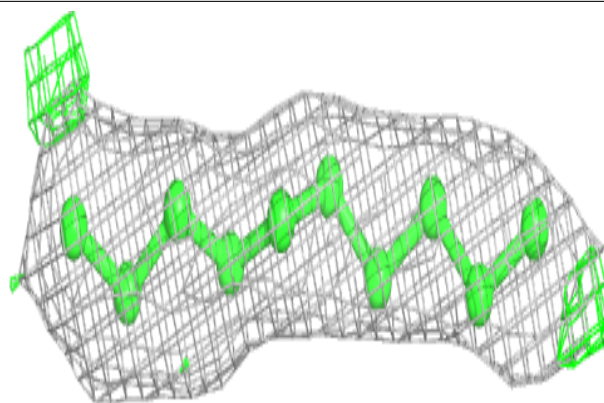and green (positive)
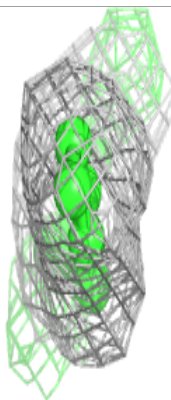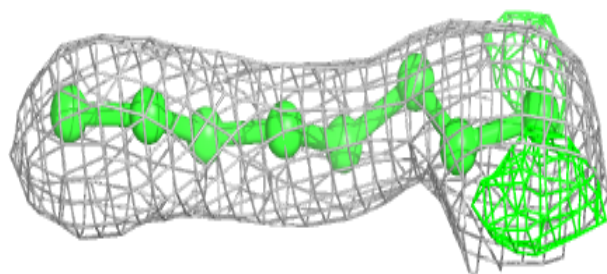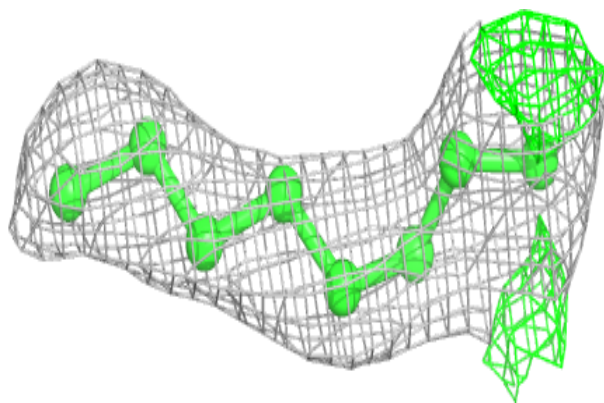
Electron density around LFA F 311:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
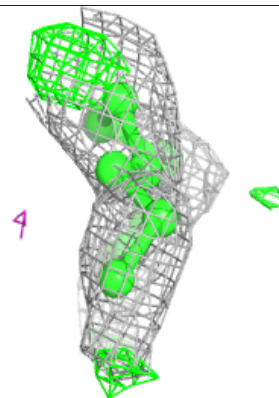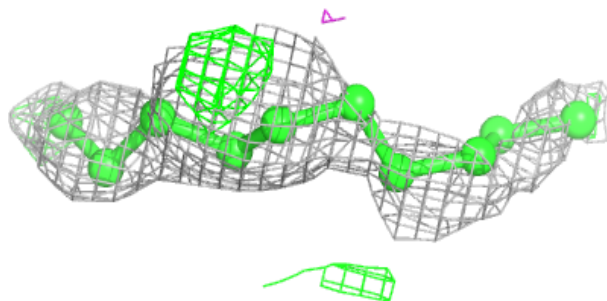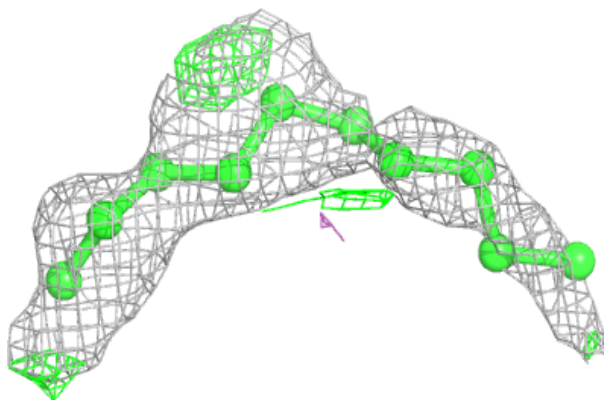
Electron density around LFA A 311:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
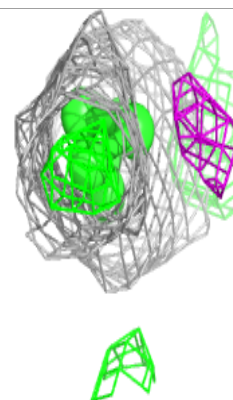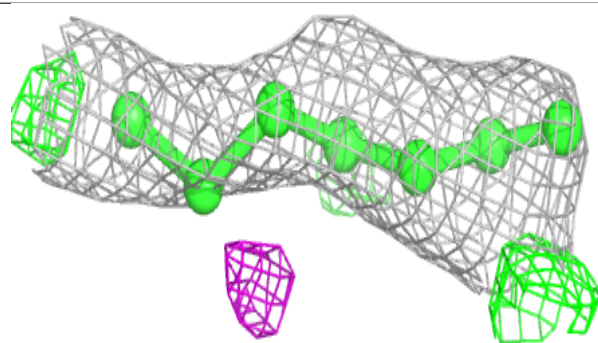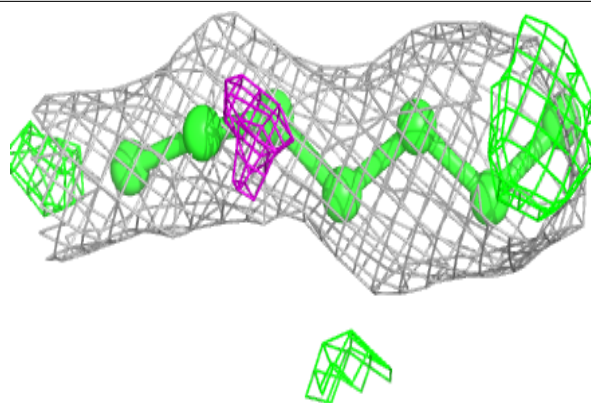
Electron density around LFA A 308:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
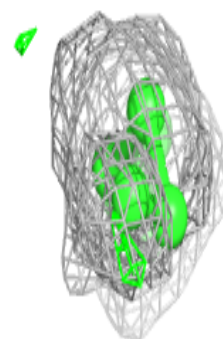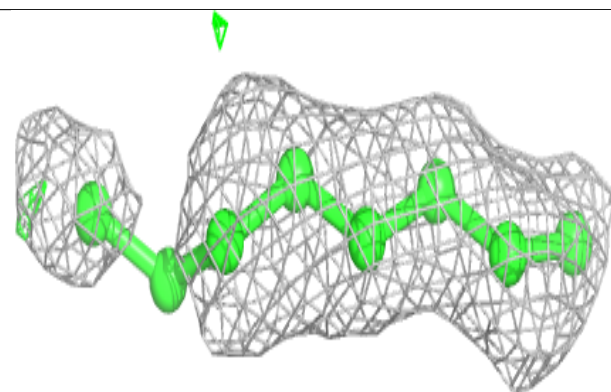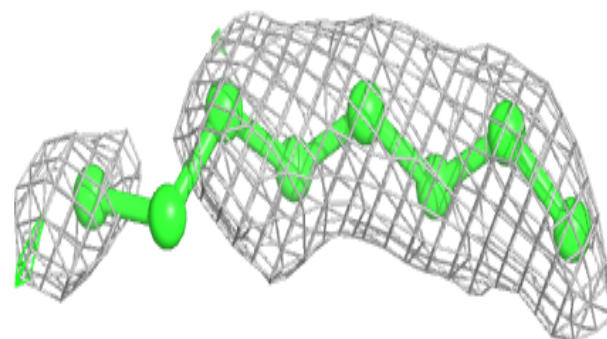
Electron density around LFA D 310:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
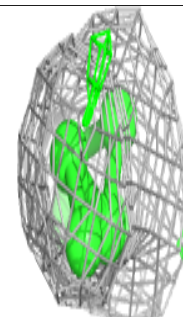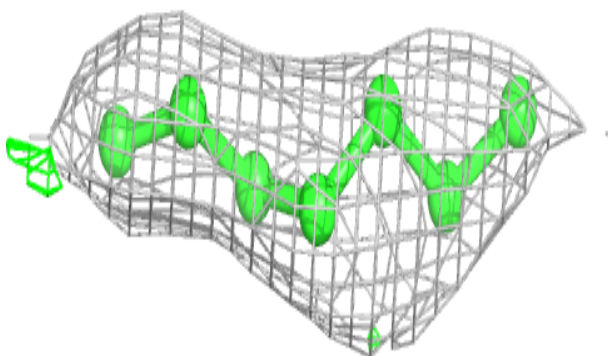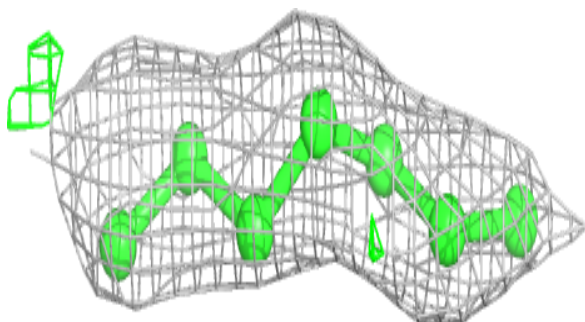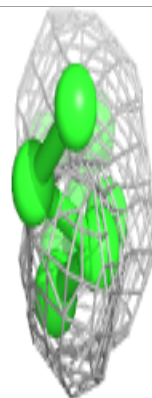mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
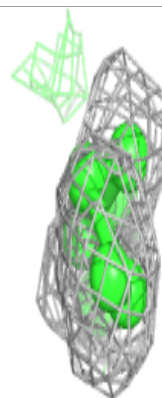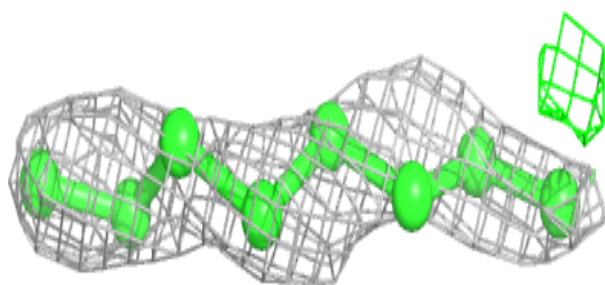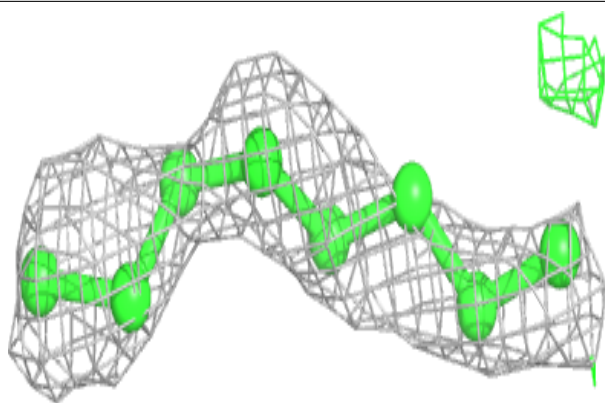
Electron density around LFA F 304:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
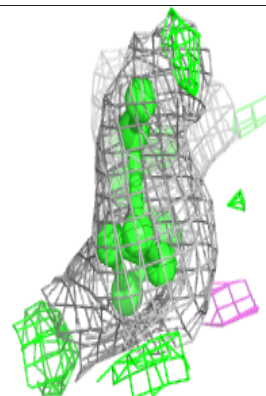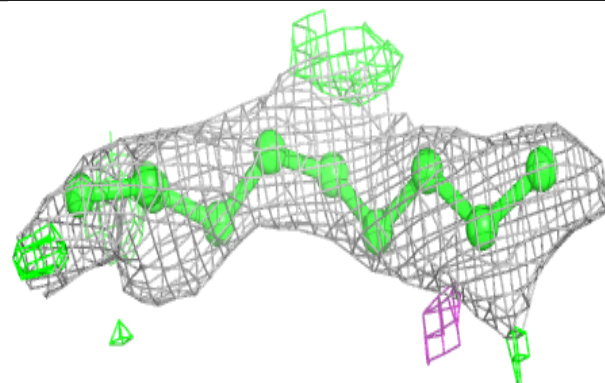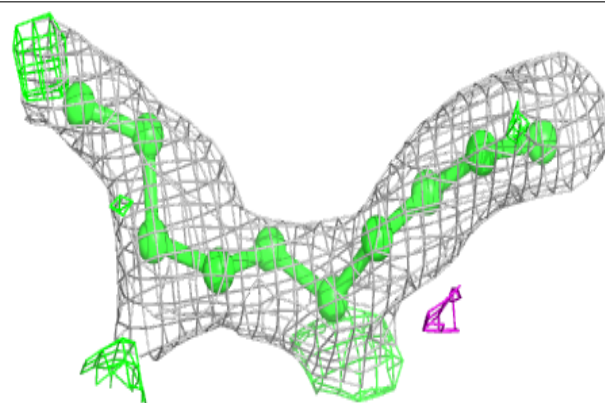
Electron density around LFA C 304:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
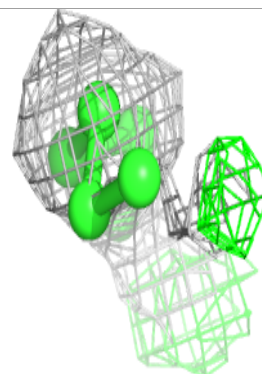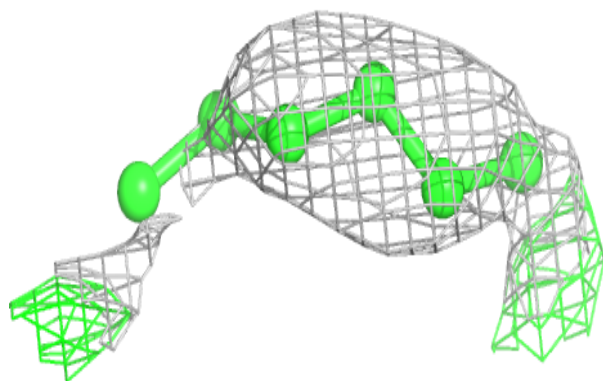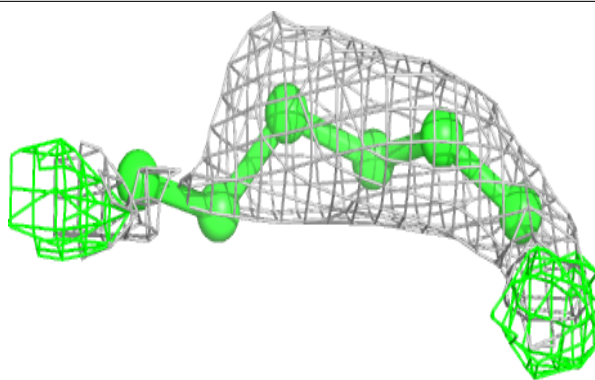
Electron density around LFA D 302:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
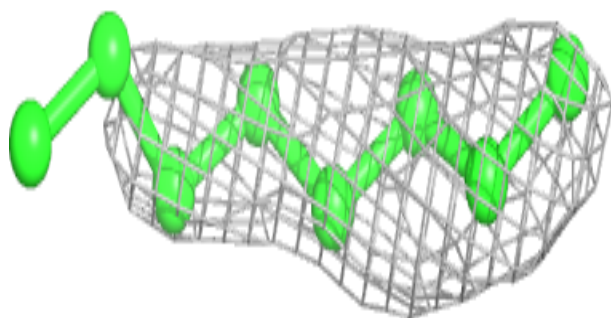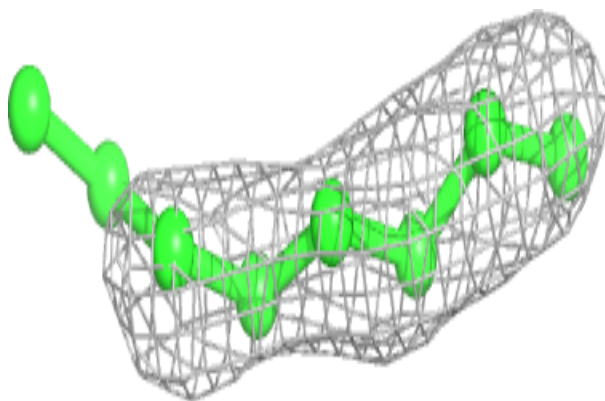$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
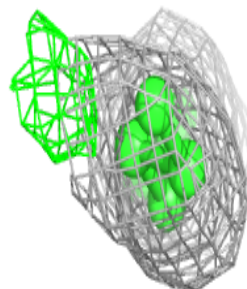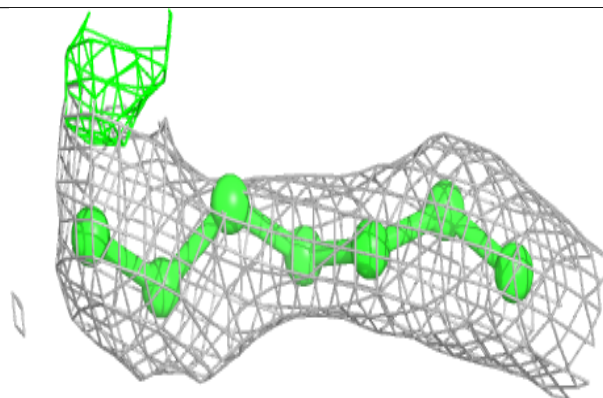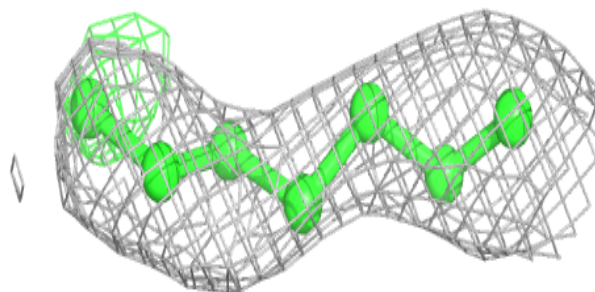
Electron density around LFA E 310:

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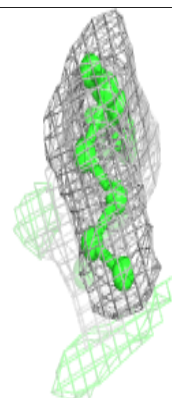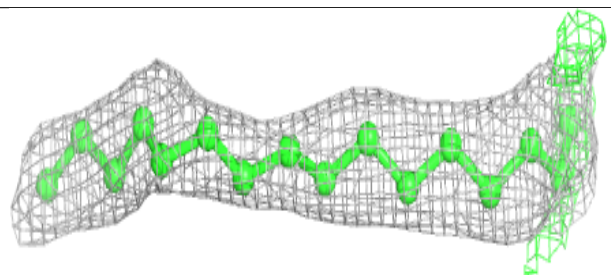mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
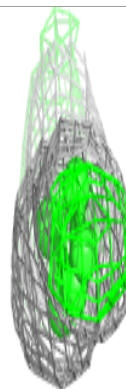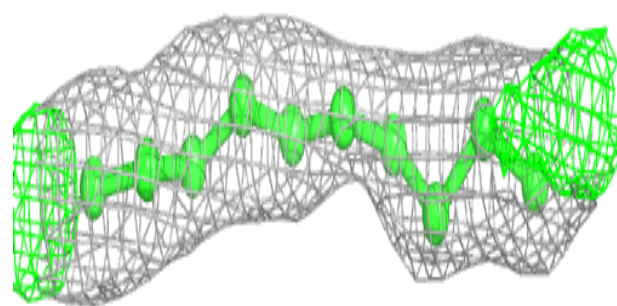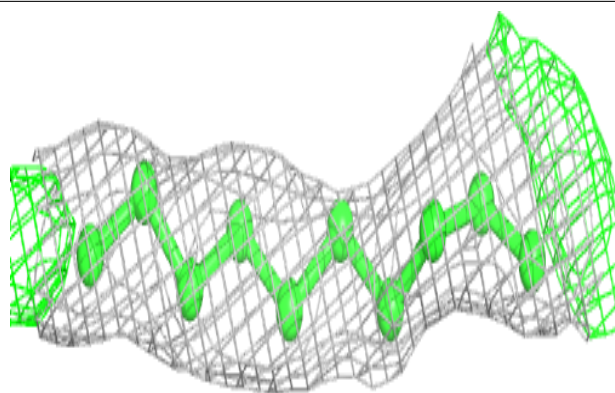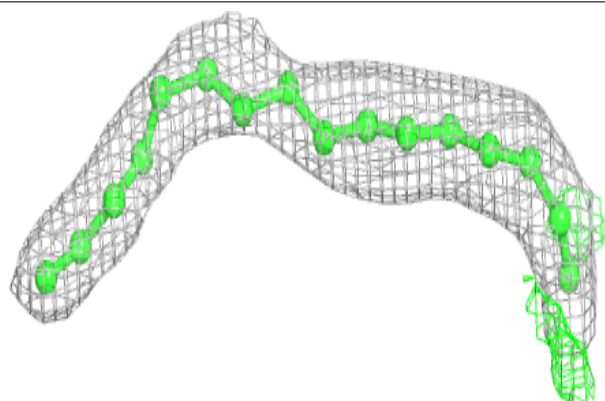

Electron density around LFA G 309:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
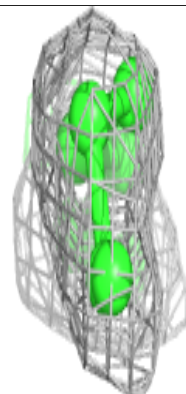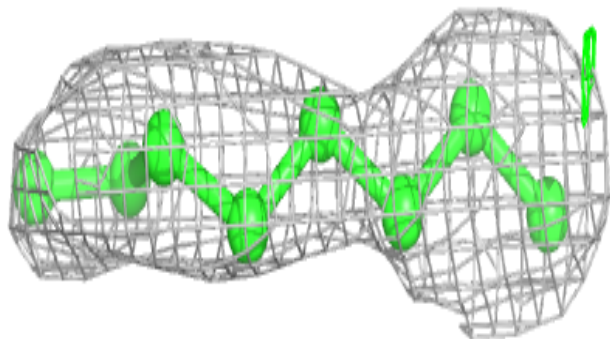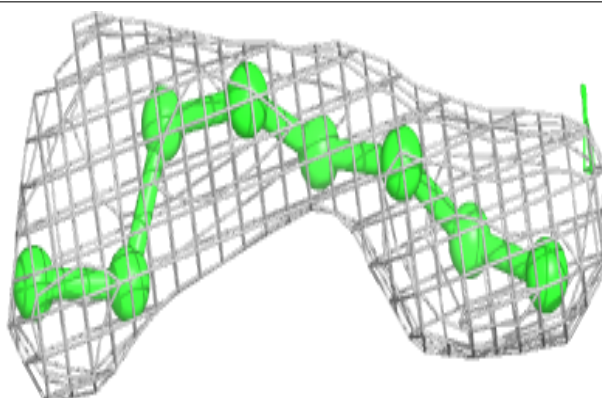
Electron density around LFA B 304:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
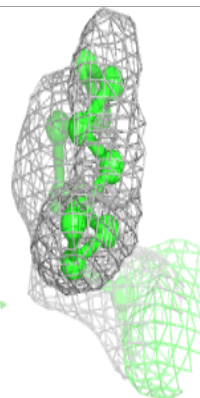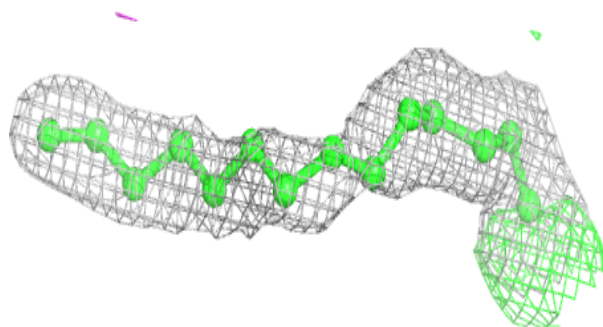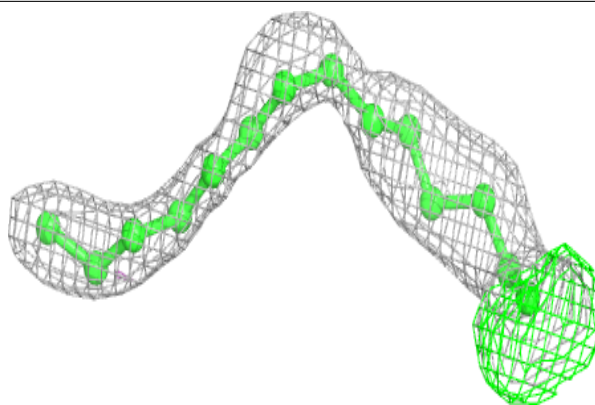
Electron density around LFA B 309:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
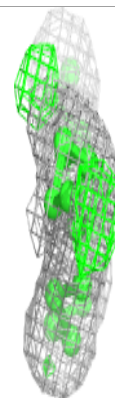$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
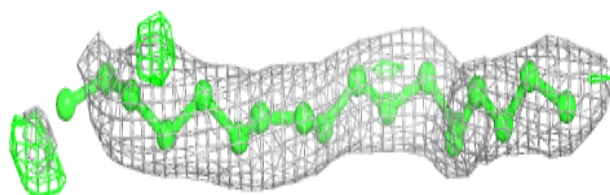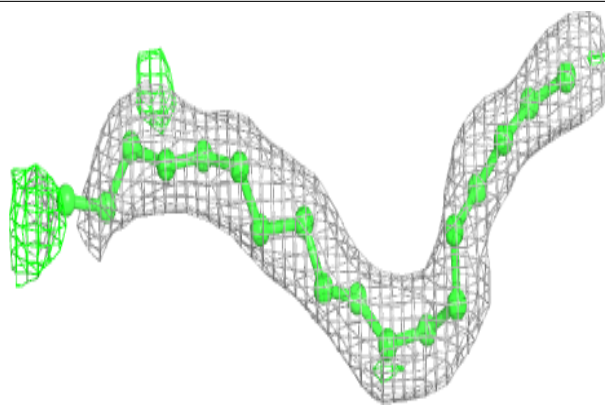and green (positive)
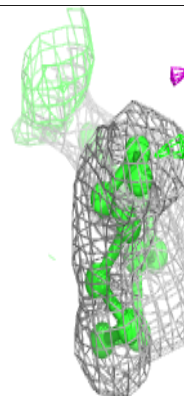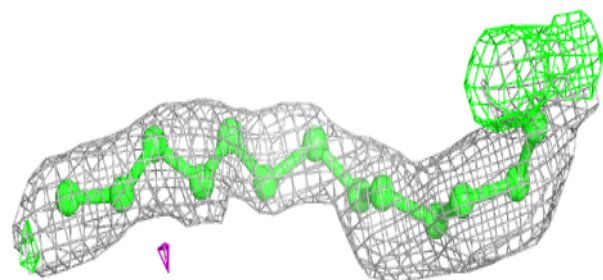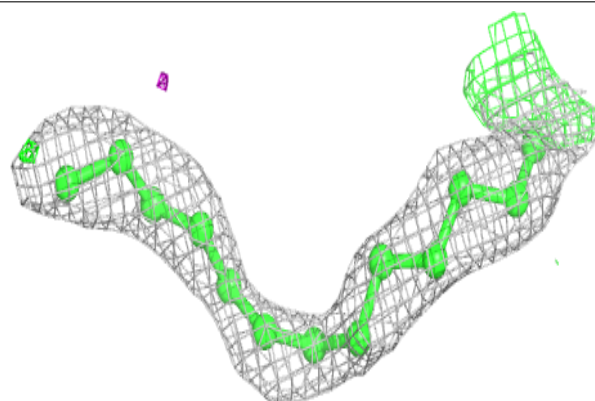
Electron density around LFA B 310:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
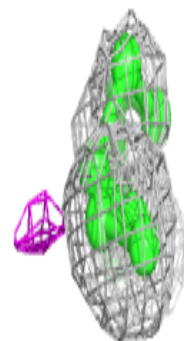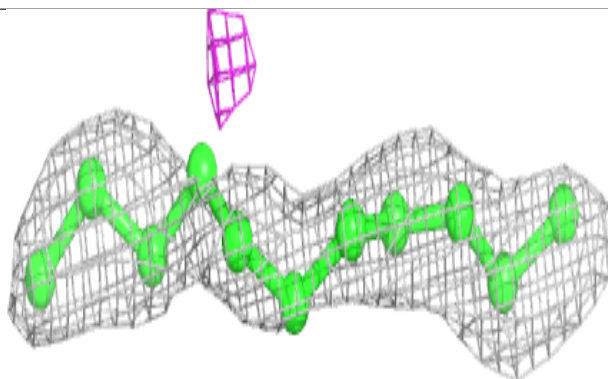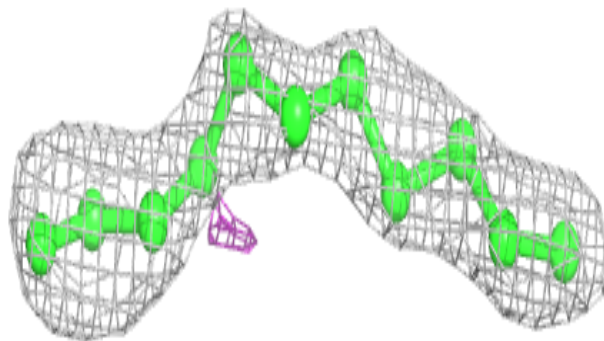
Electron density around LFA G 302:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
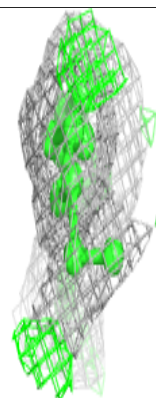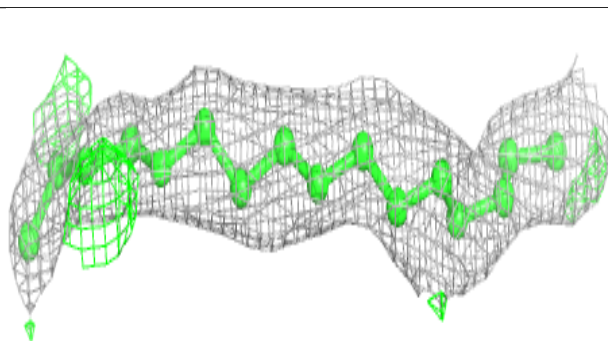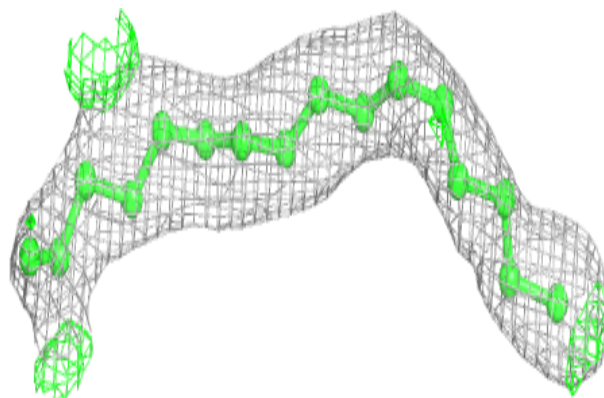
Electron density around LFA D 308:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
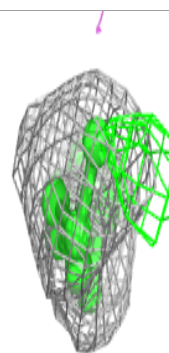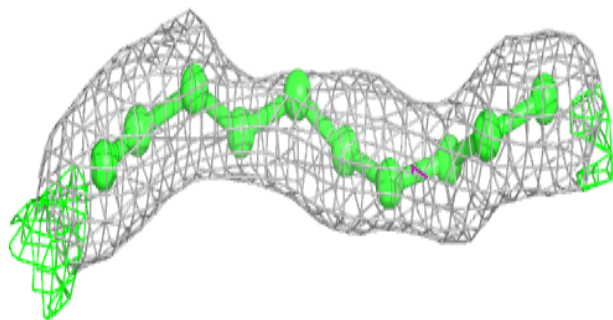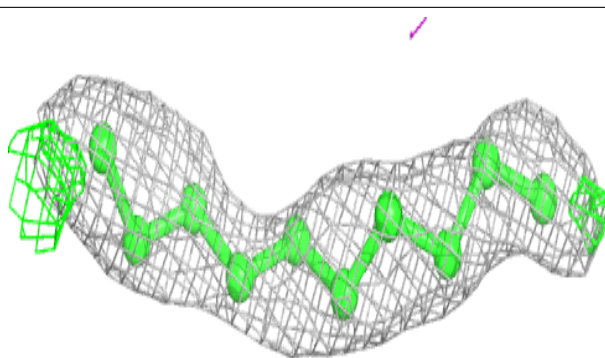
Electron density around LFA I 304:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
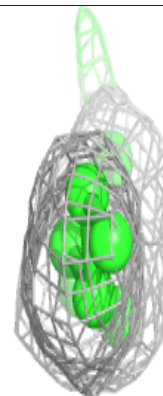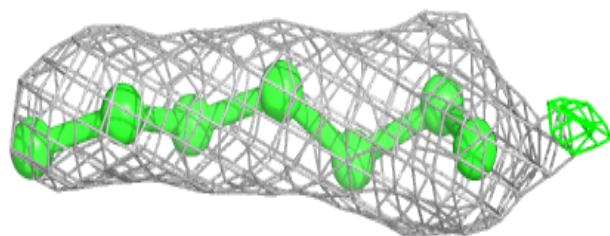$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
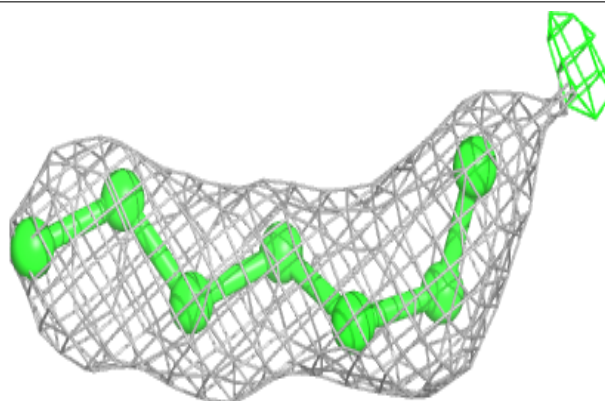and green (positive)
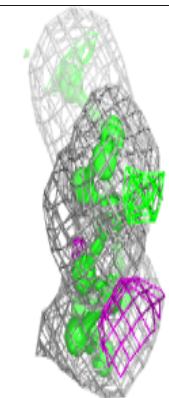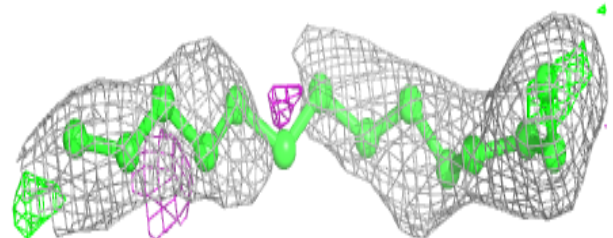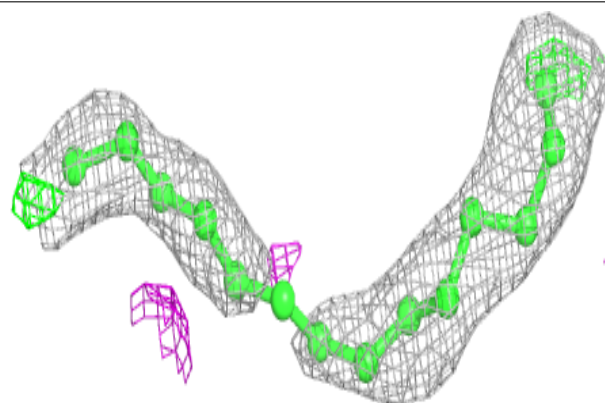
Electron density around LFA F 309:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
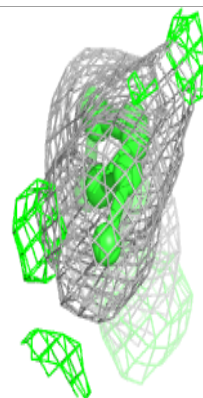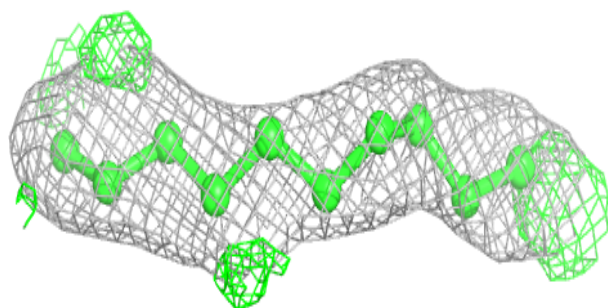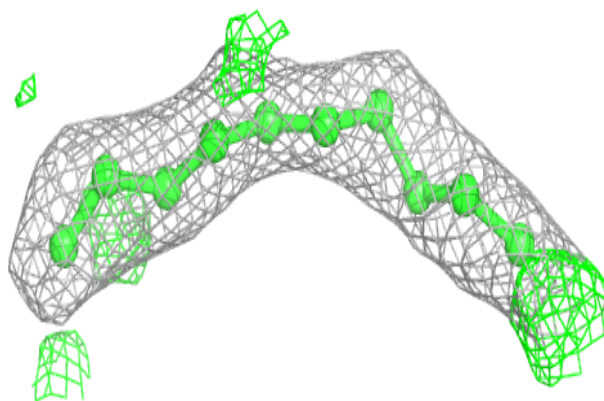
Electron density around LFA A 305:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
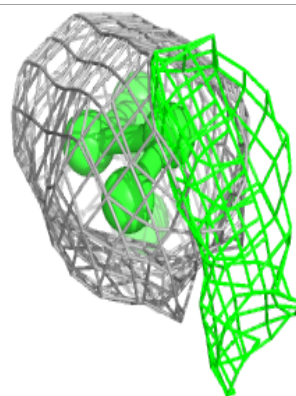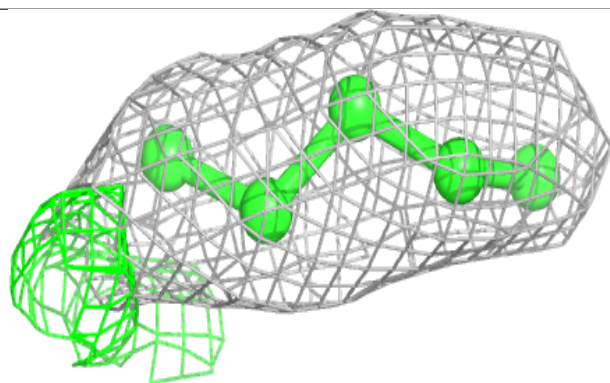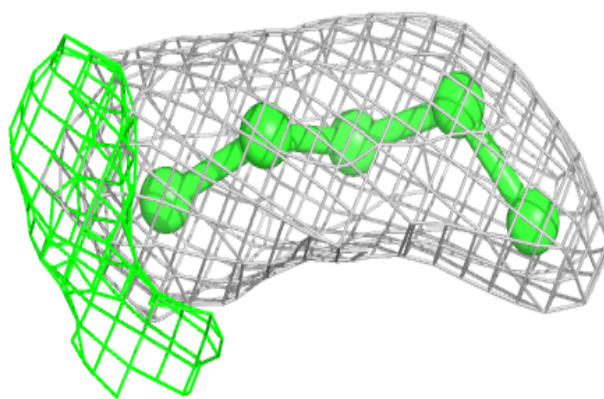and green (positive)
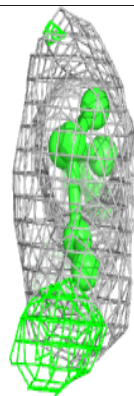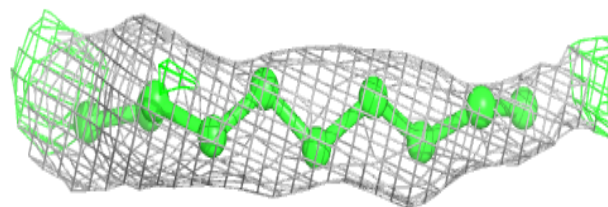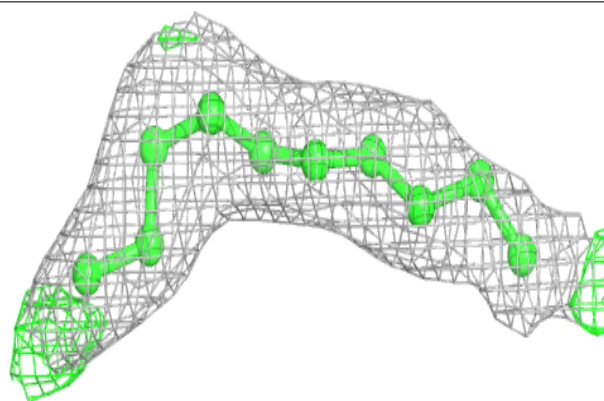
Electron density around LFA J 306:

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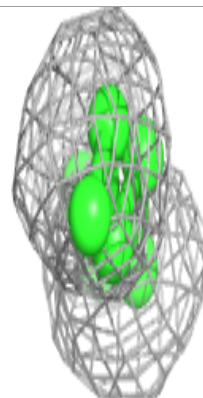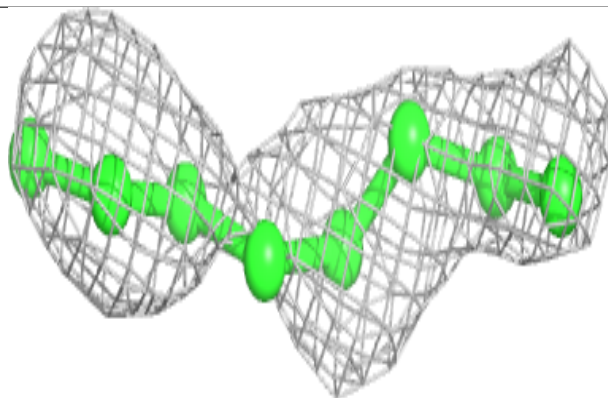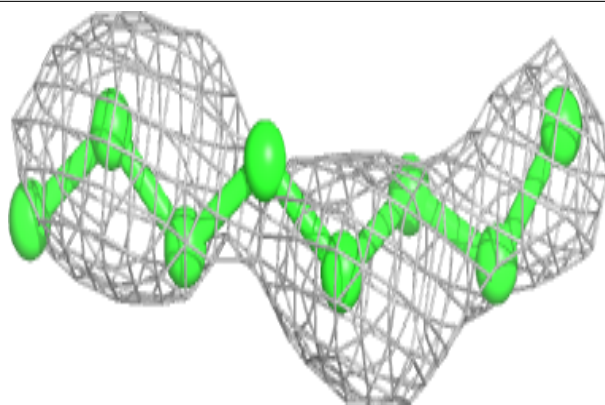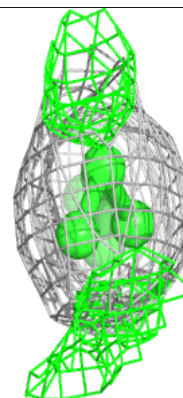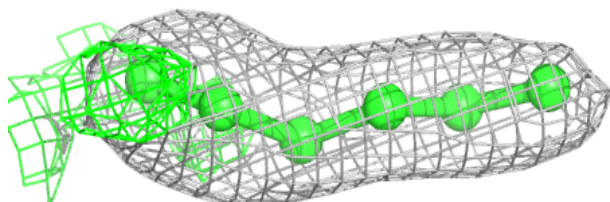

Electron density around LFA B 308:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
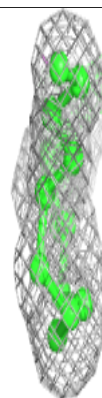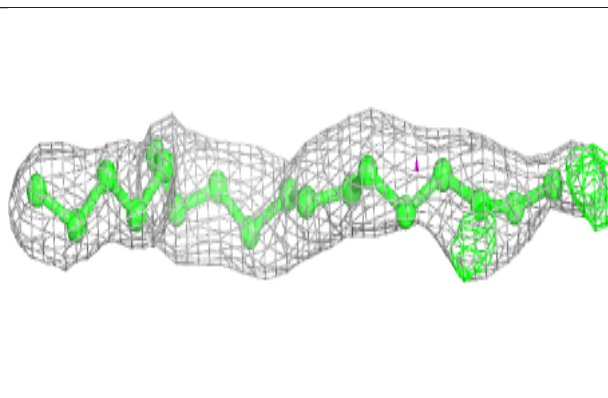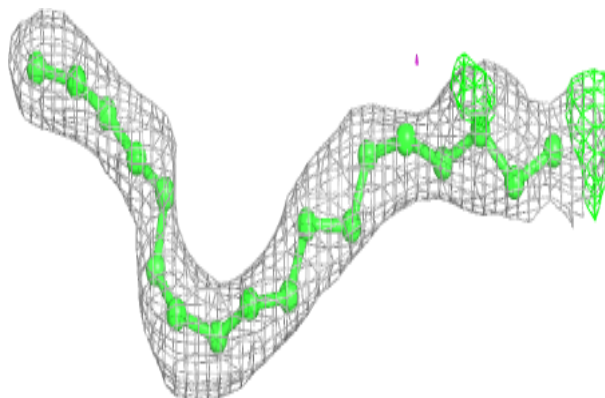
Electron density around LFA C 306:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
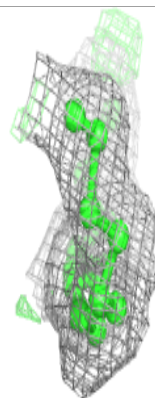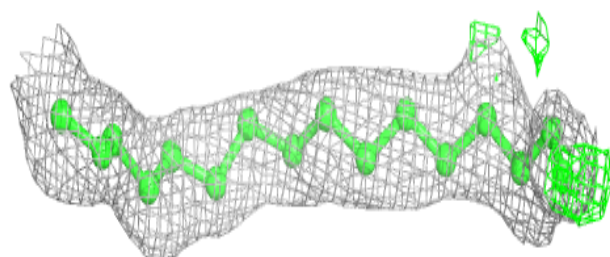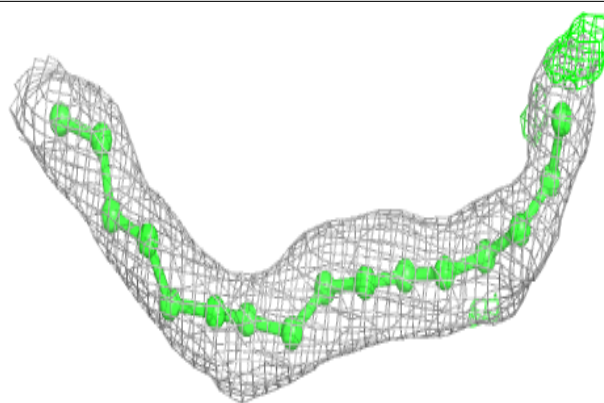
Electron density around LFA E 305:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
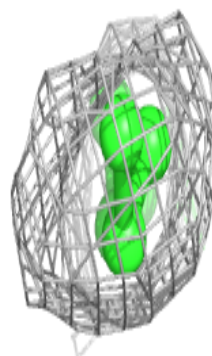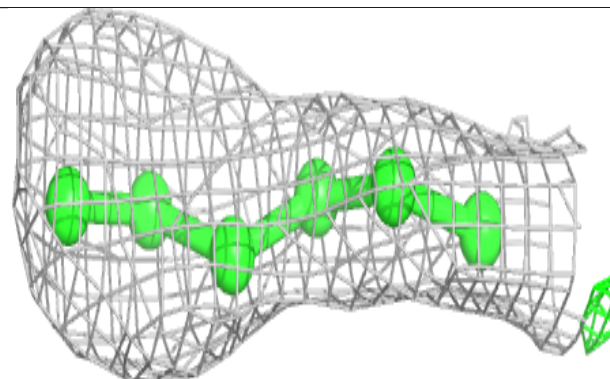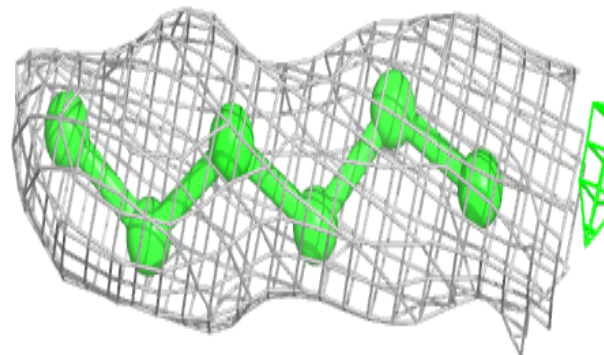
Electron density around LFA J 302:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
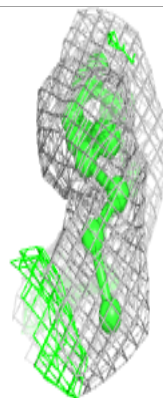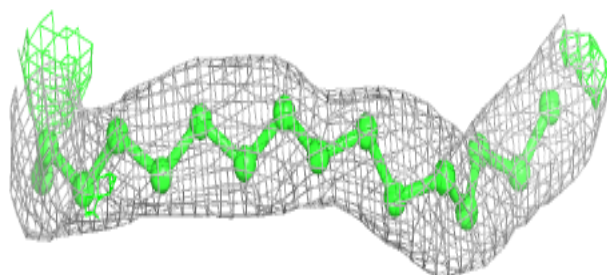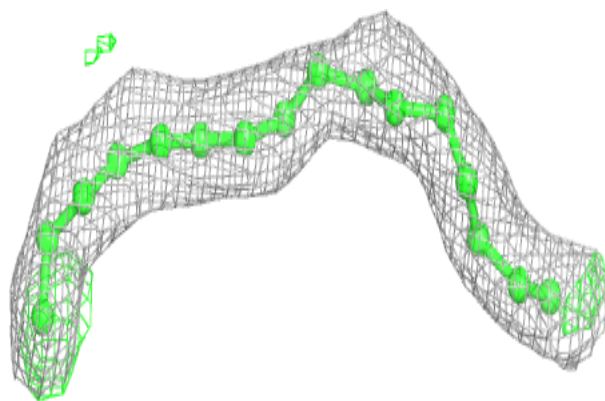
Electron density around LFA G 307:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
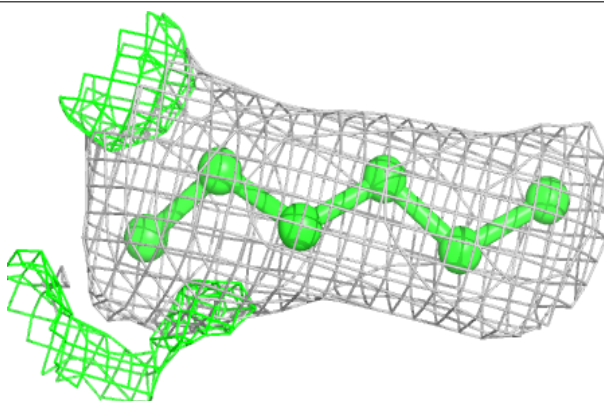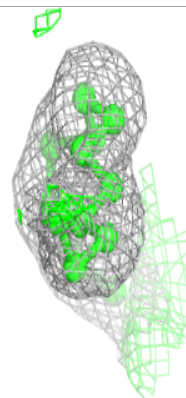$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
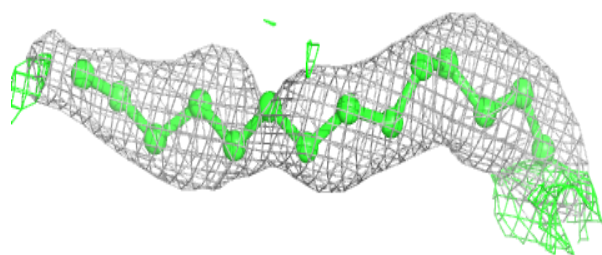and green (positive)
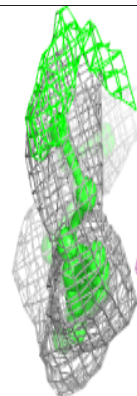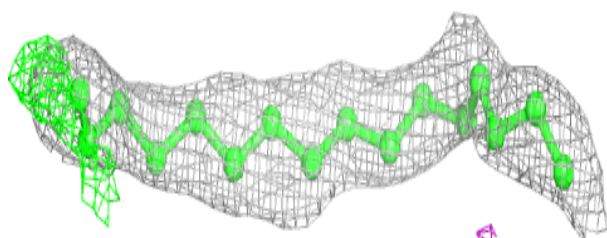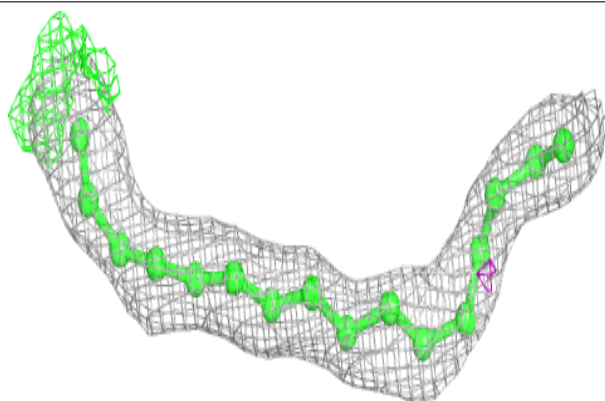
Electron density around LFA F 302:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
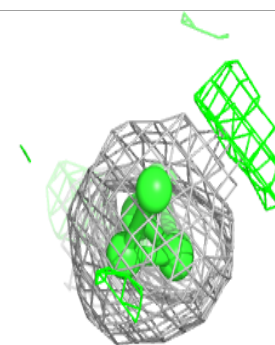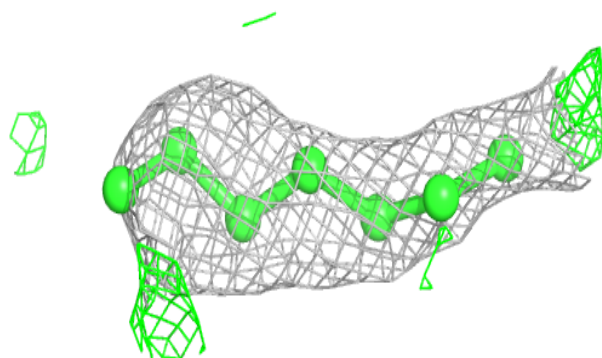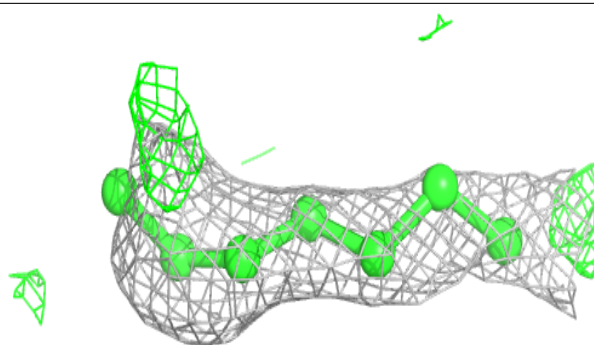
Electron density around LFA I 303:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
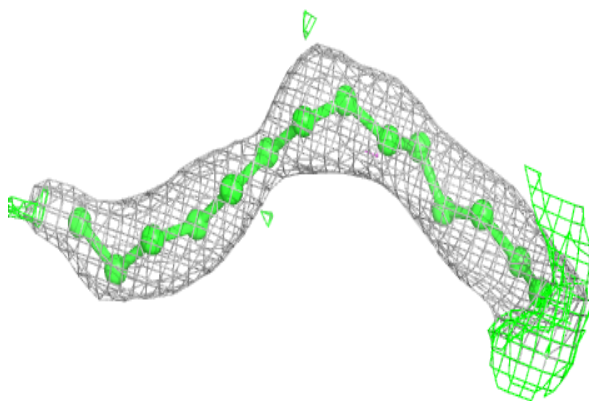and green (positive)
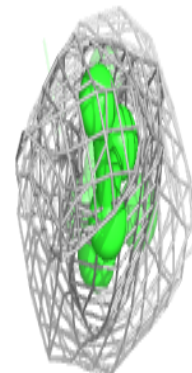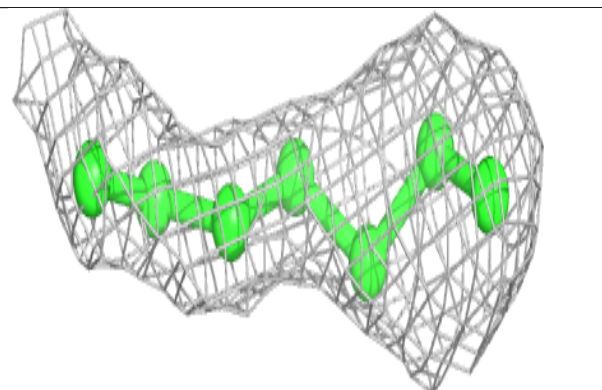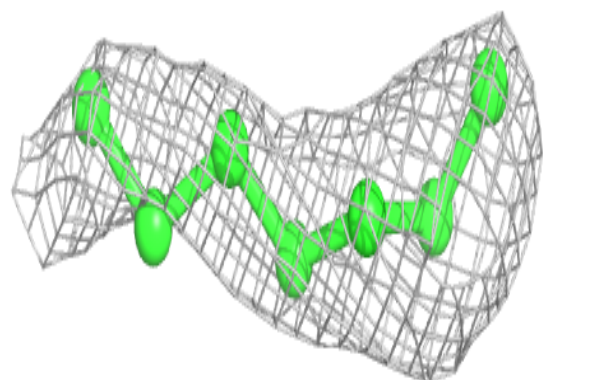
Electron density around LFA I 310:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
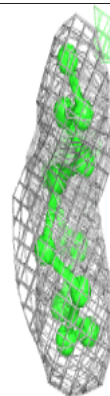mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
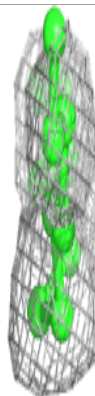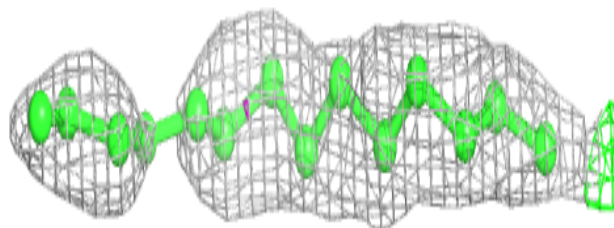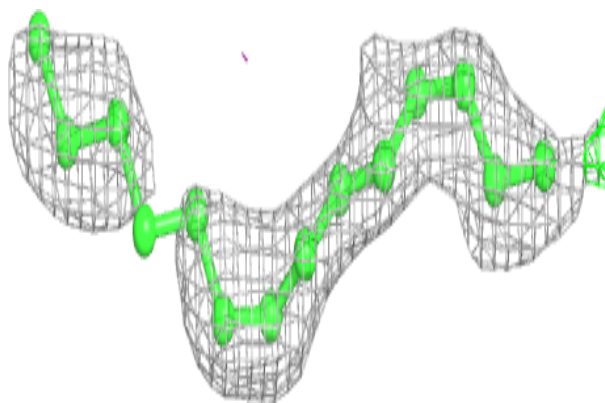
Electron density around LFA B 306:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
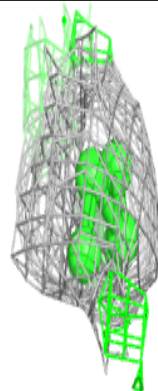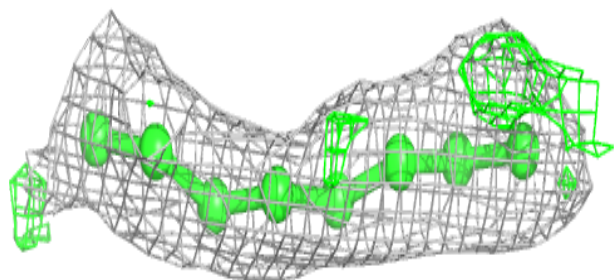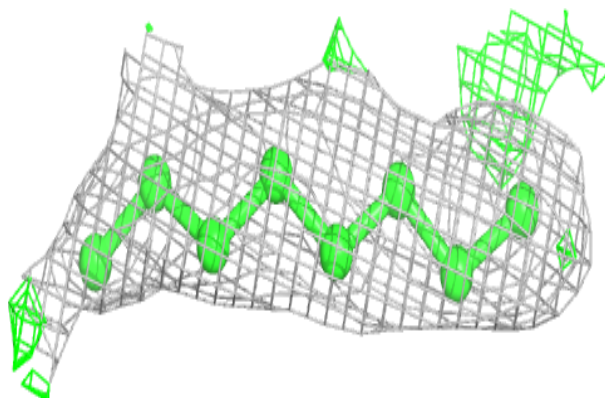
Electron density around LFA I 305:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
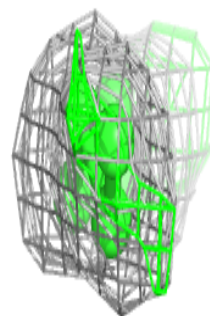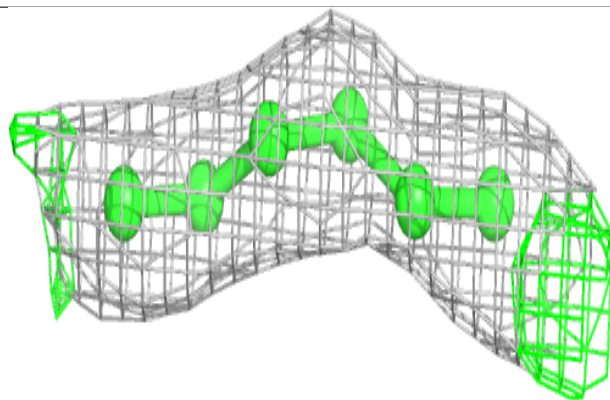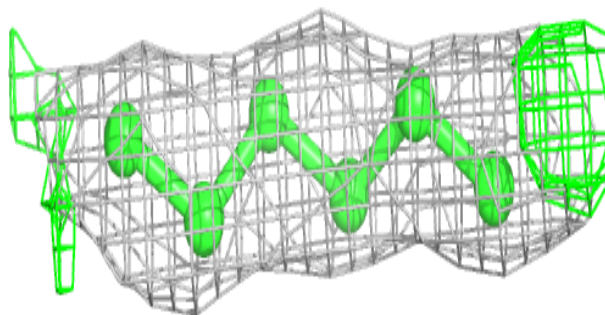
Electron density around LFA F 312:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
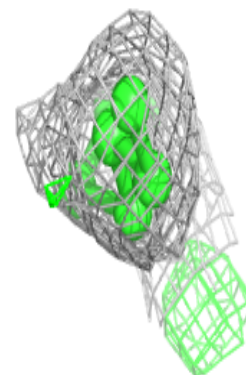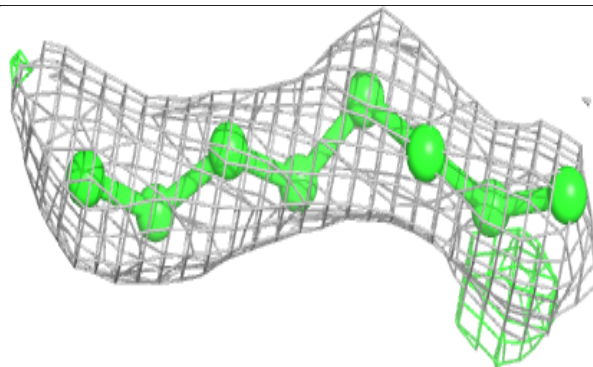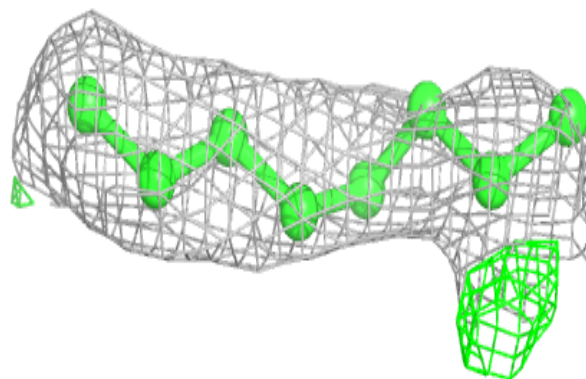
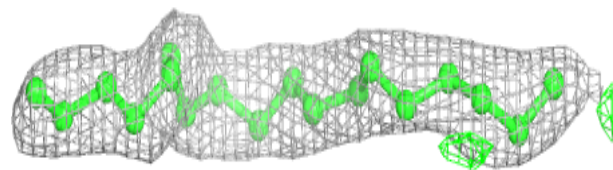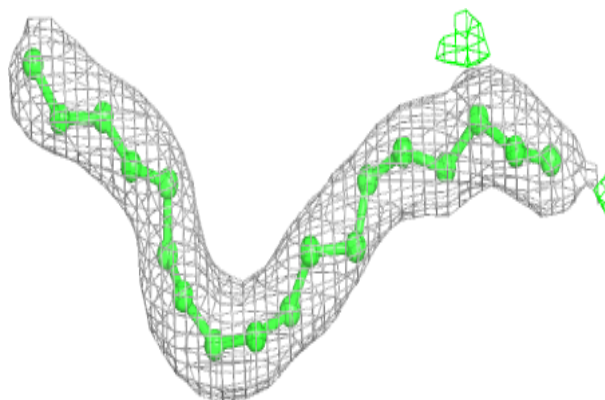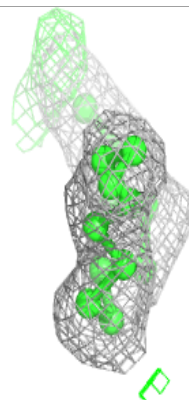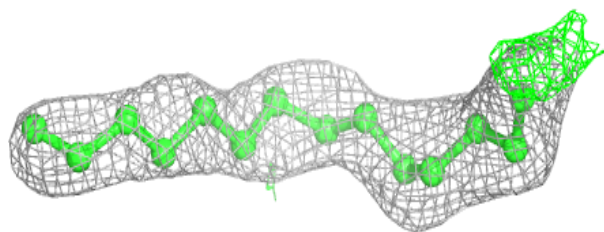**Electron density around LFA D 306:**

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
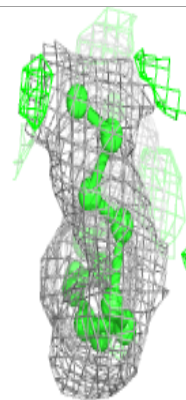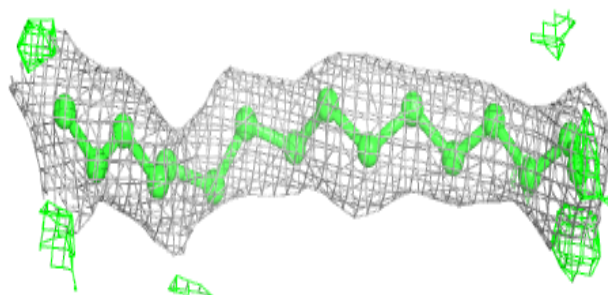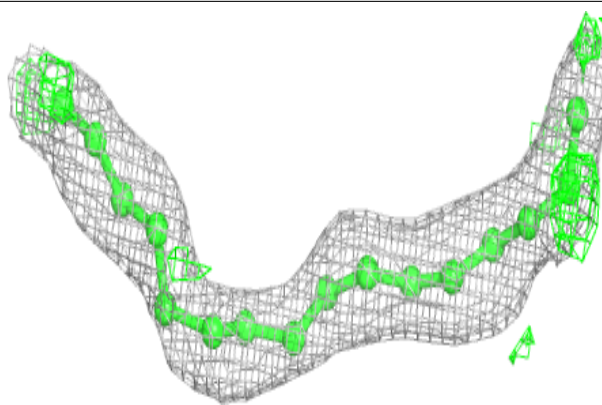
Electron density around LFA G 313:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
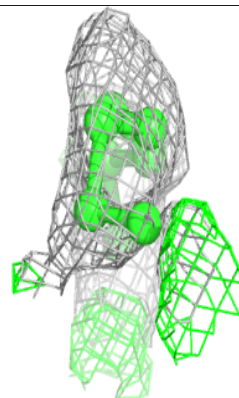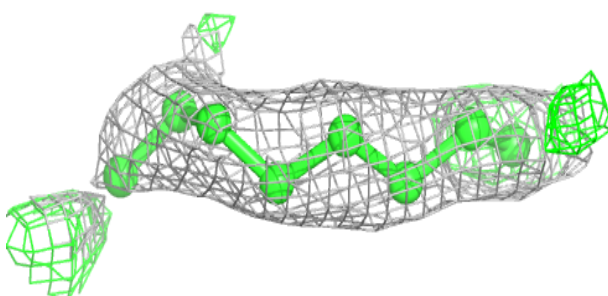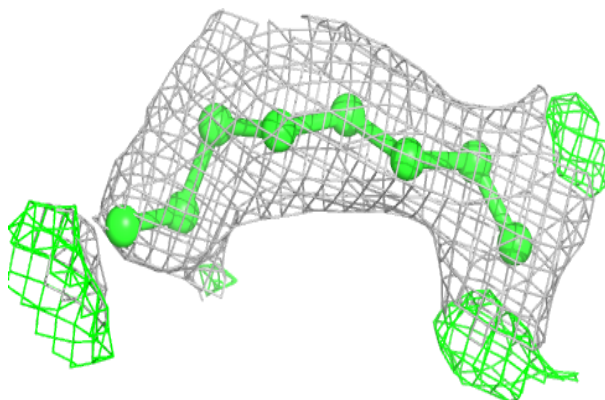
Electron density around LFA B 307:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
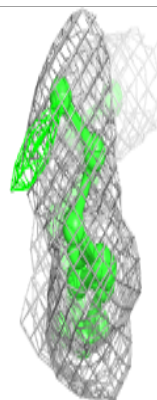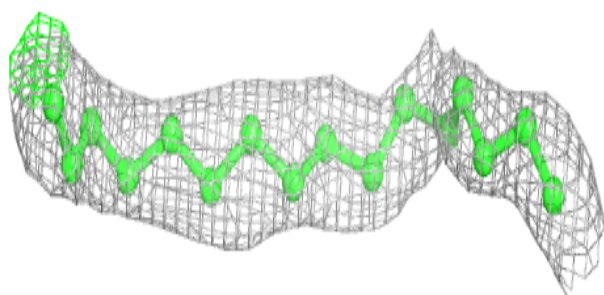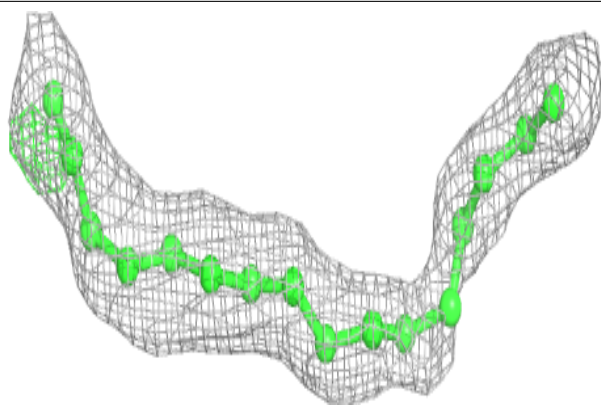
Electron density around MPG E 313:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
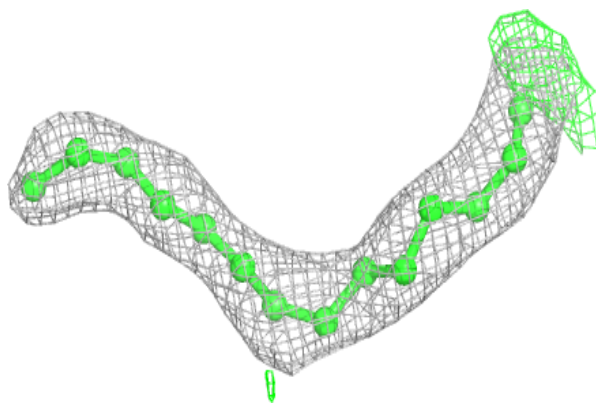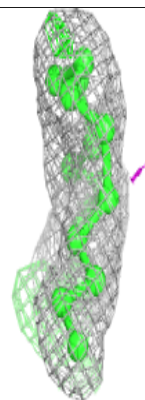$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
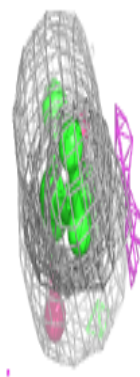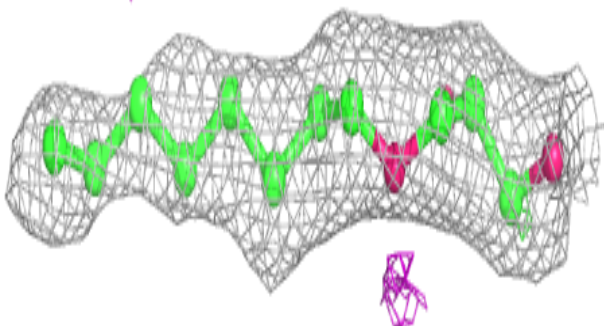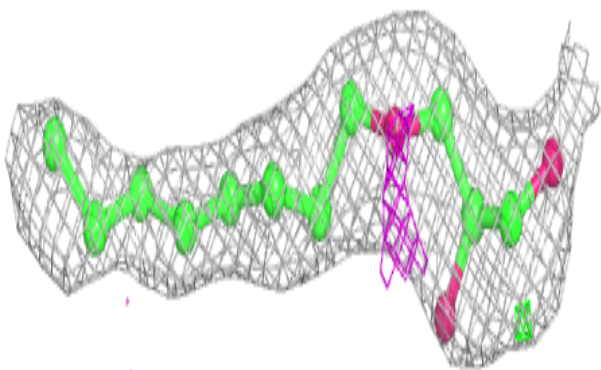
Electron density around LFA H 307:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
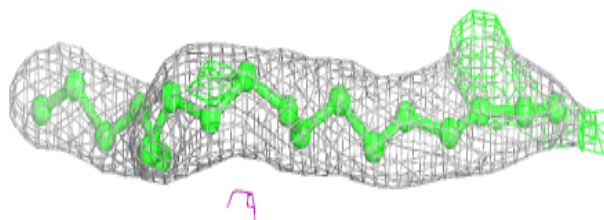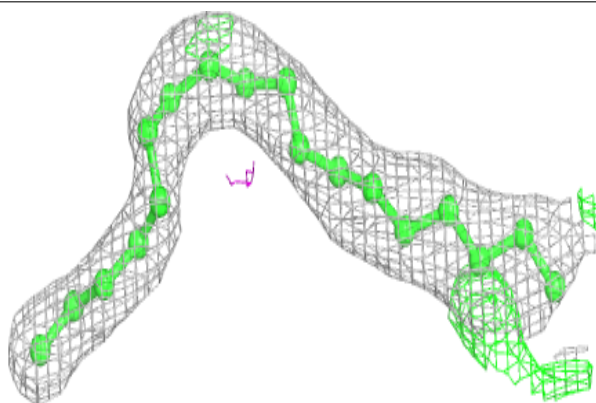mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
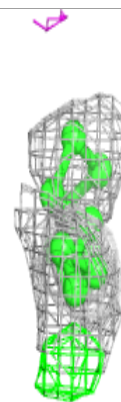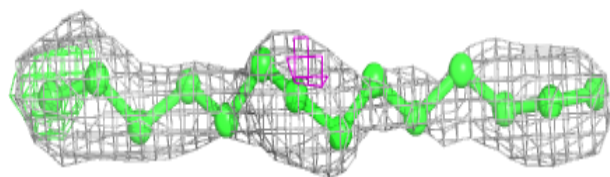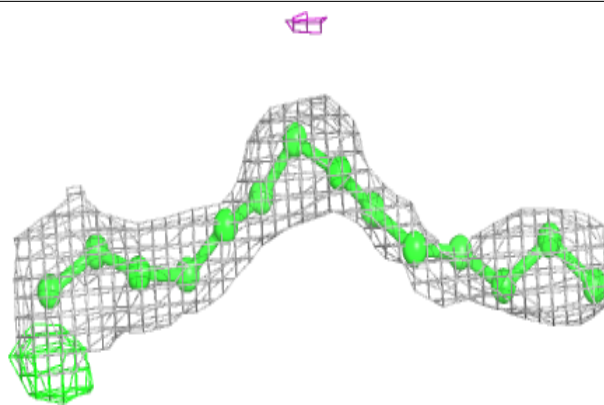
Electron density around LFA F 306:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
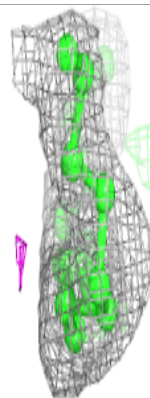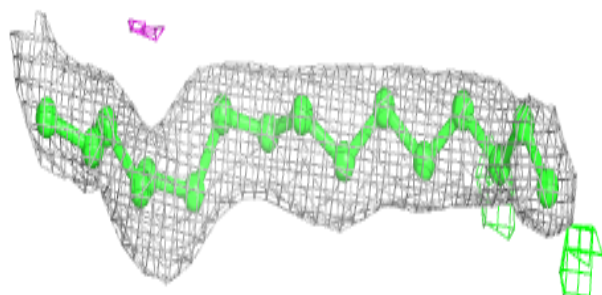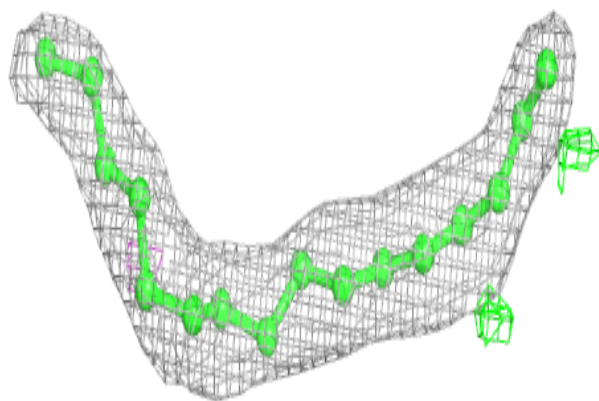and green (positive)
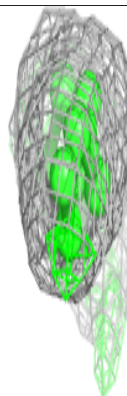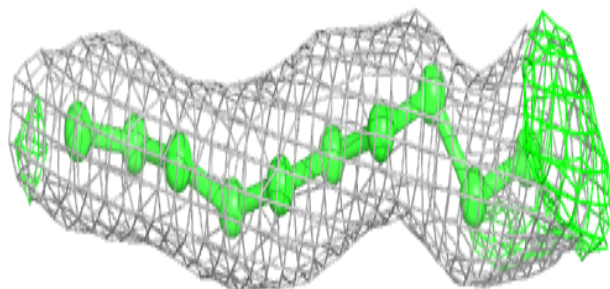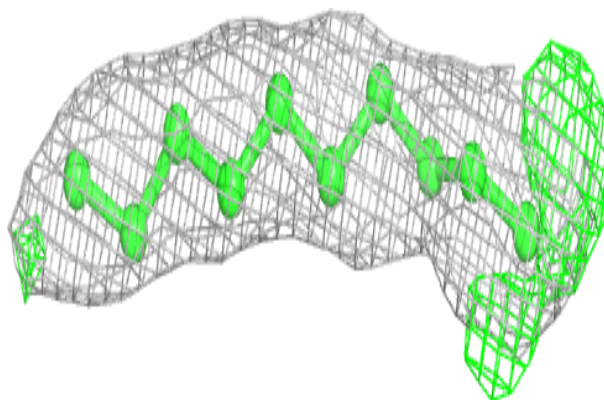
Electron density around LFA D 305:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
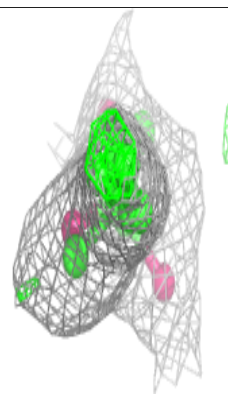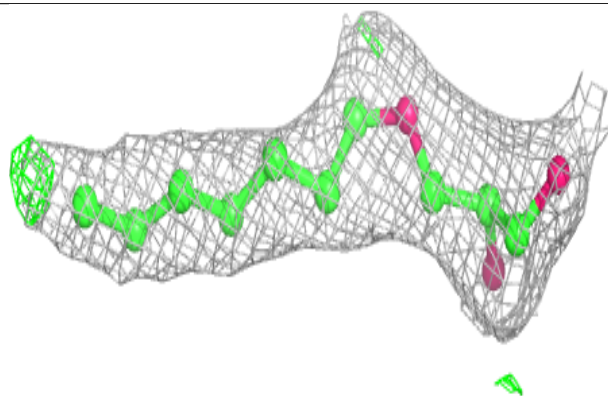and green (positive)
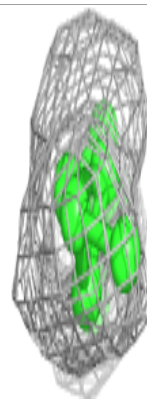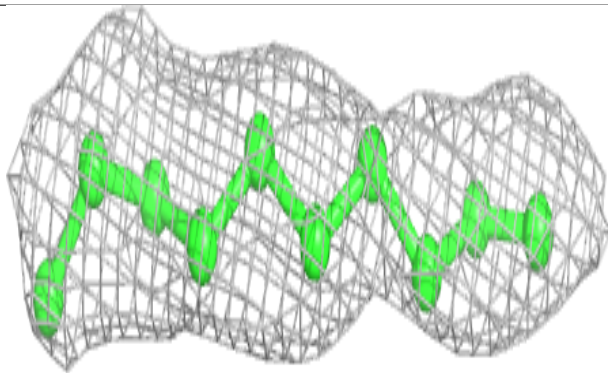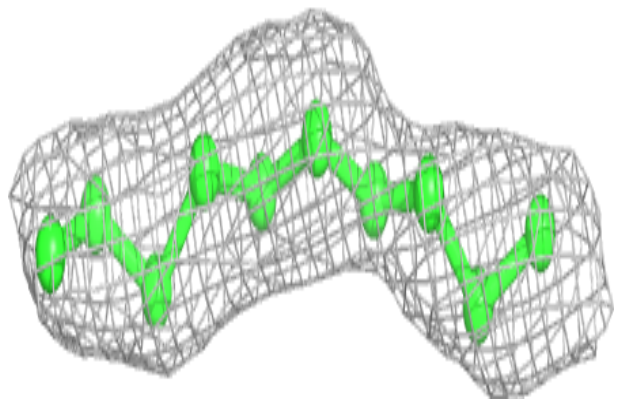
Electron density around LFA G 304:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
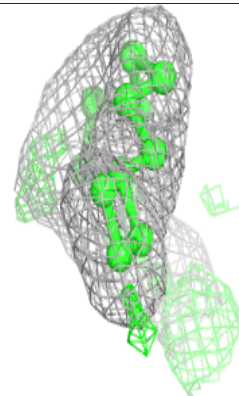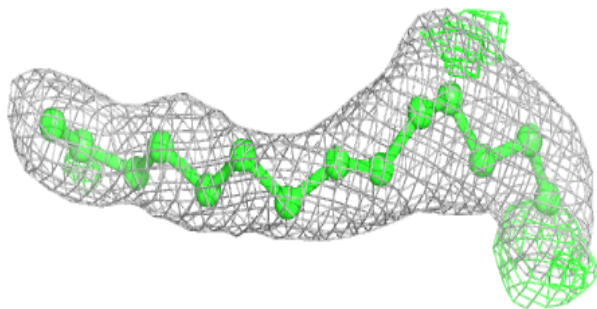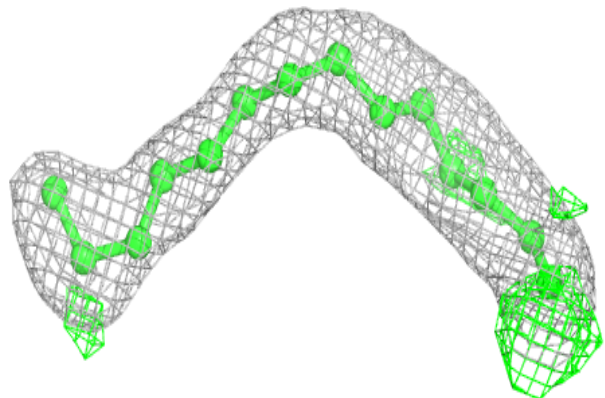
Electron density around MPG A 313:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
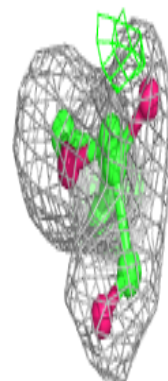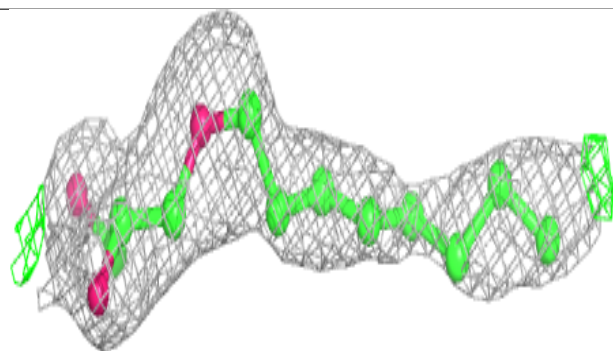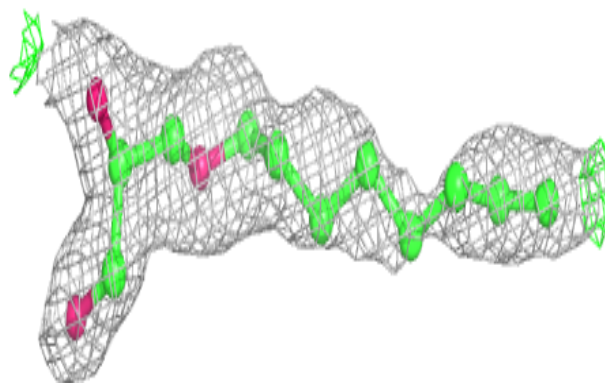
Electron density around LFA A 303:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
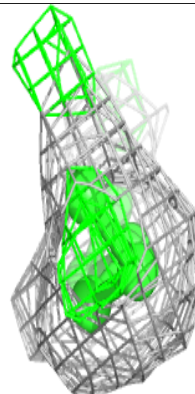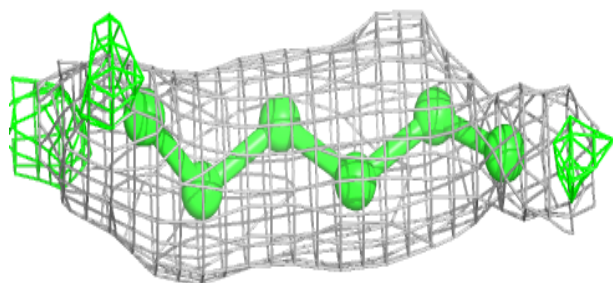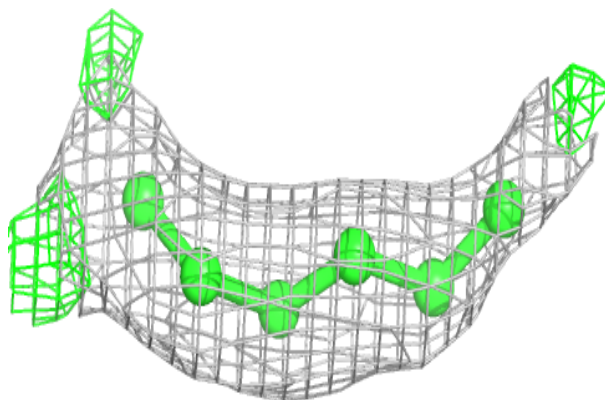
Electron density around LFA F 307:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative) and green (positive)
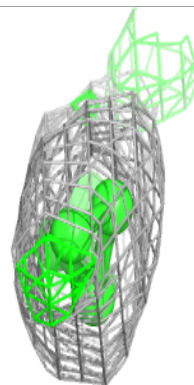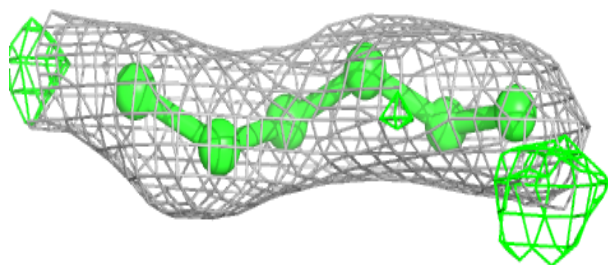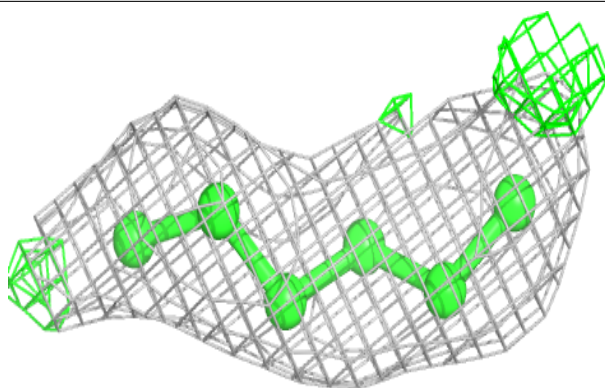
Electron density around LFA F 305:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
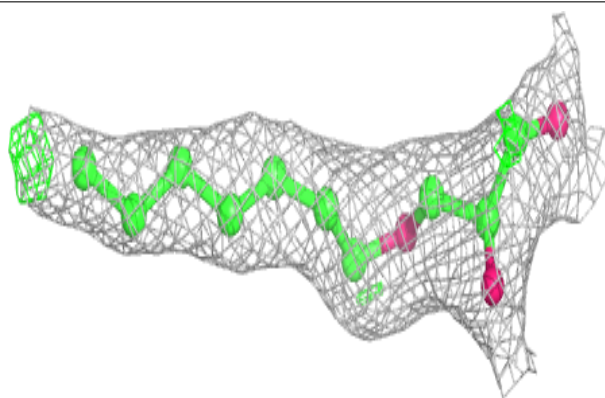$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative) and green (positive)
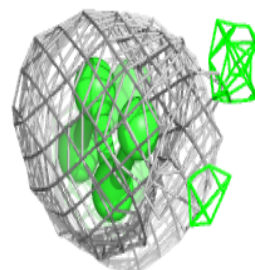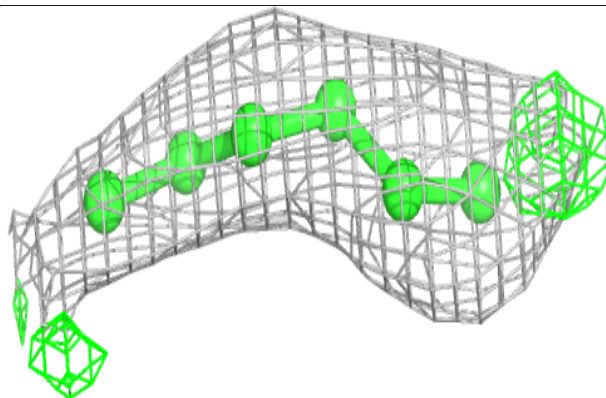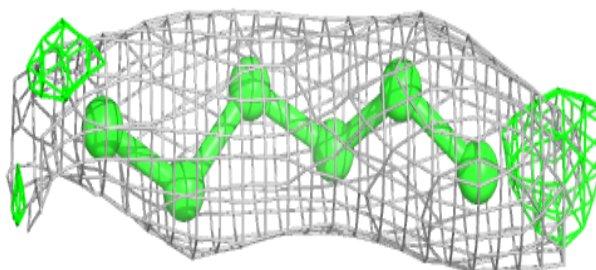
Electron density around LFA D 309:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
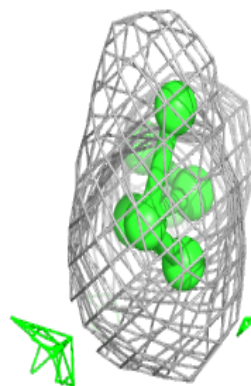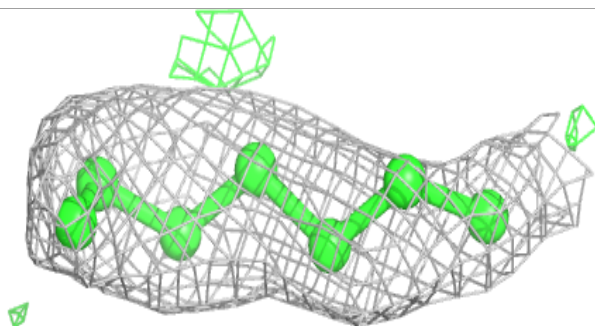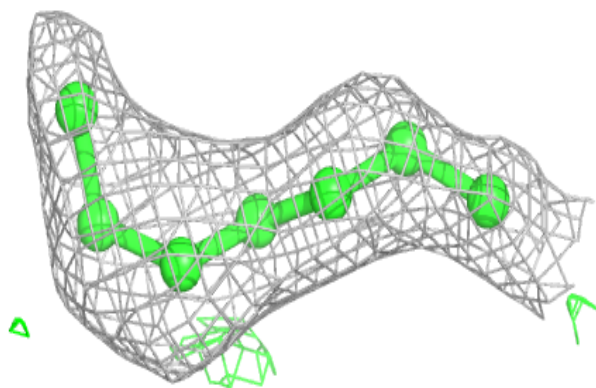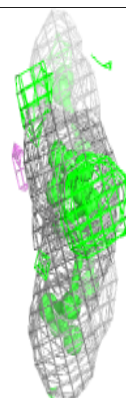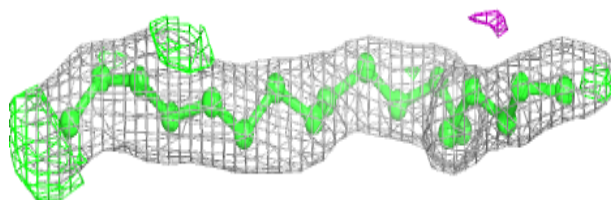and green (positive)
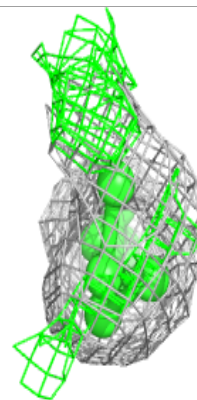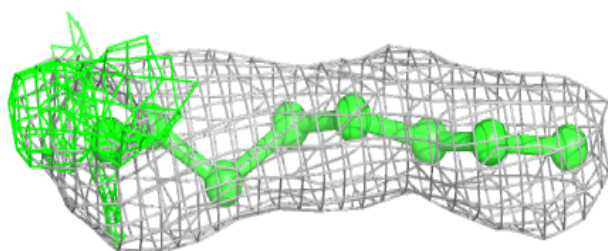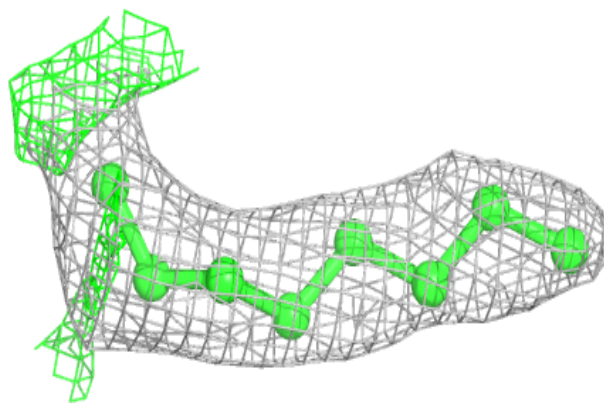
Electron density around LFA G 311:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
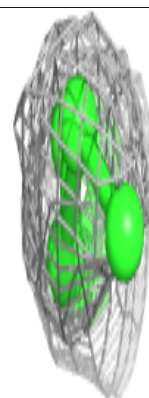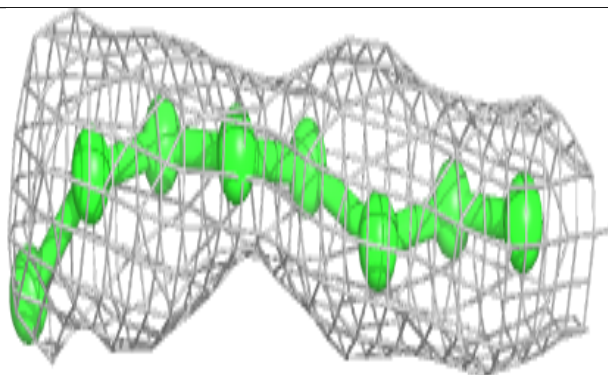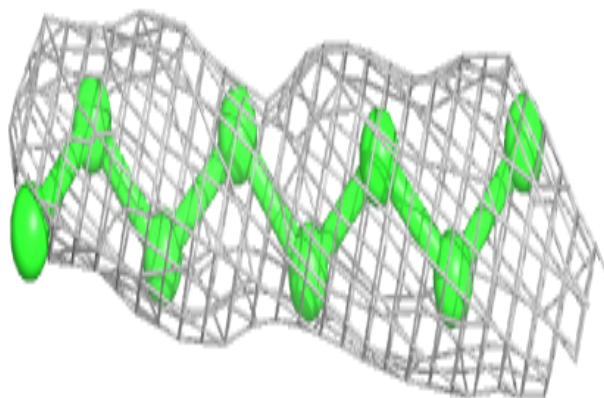
Electron density around LFA J 307:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
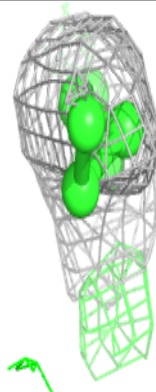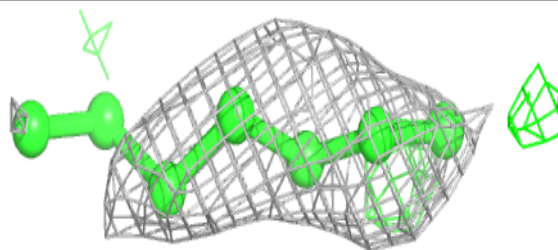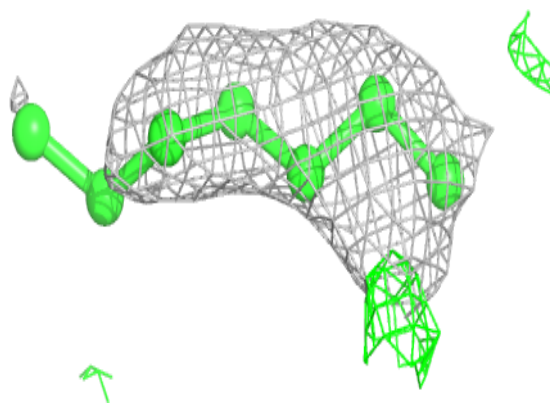
Electron density around LFA G 305:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
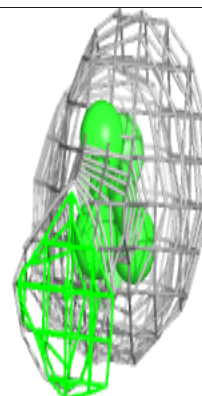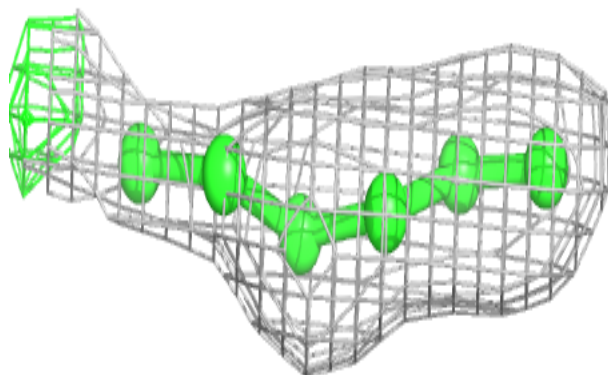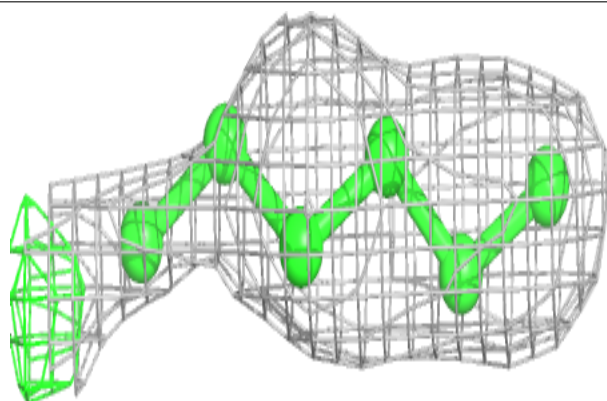
Electron density around MPG D 315:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
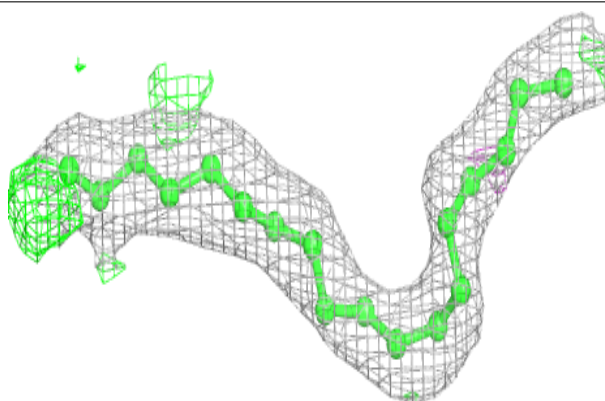mF_o-DF_c (at 3 rmsd) in purple (negative)
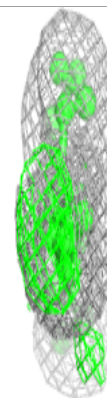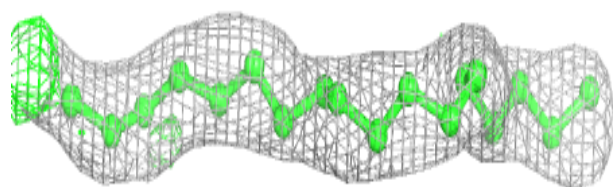and green (positive)
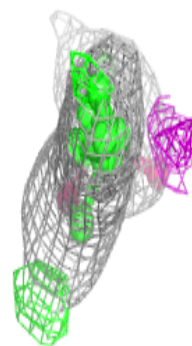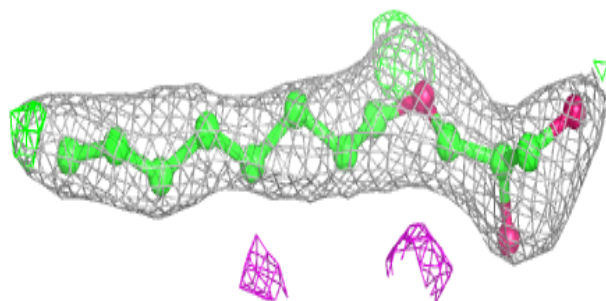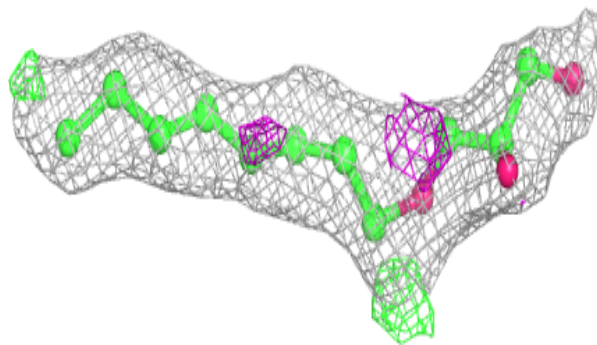
Electron density around LFA H 302:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
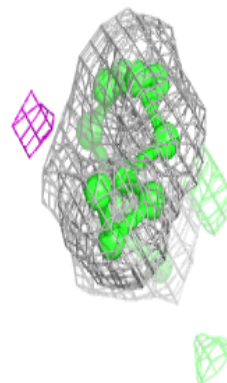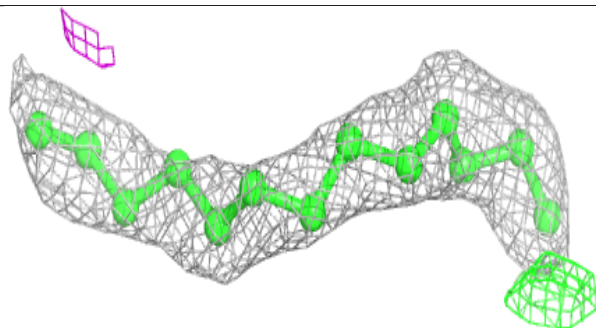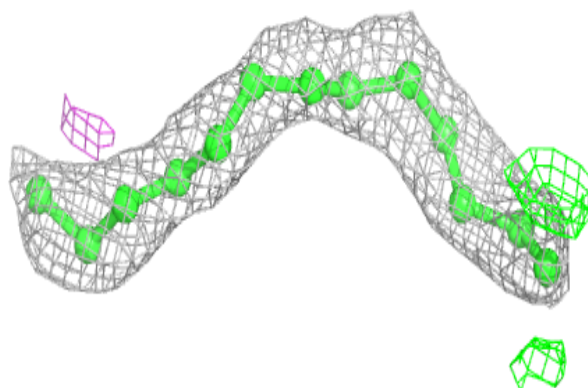
Electron density around LFA C 302:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
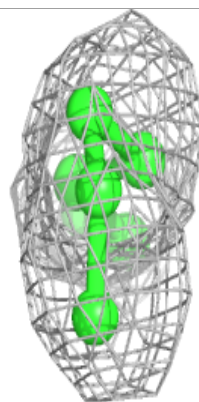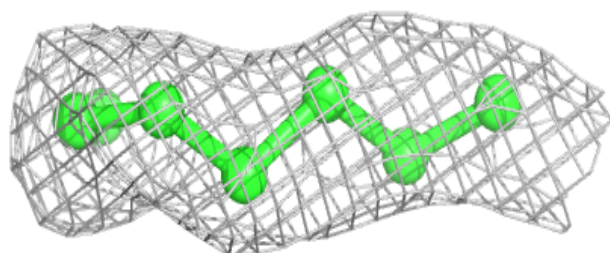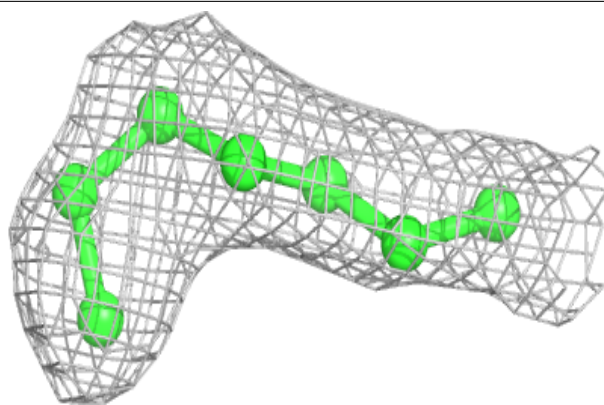
Electron density around LFA J 309:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
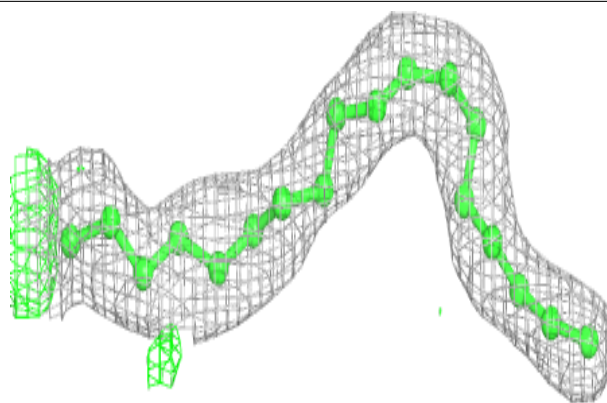$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
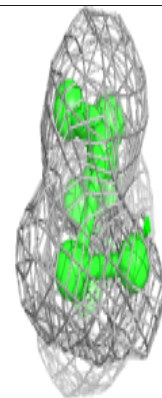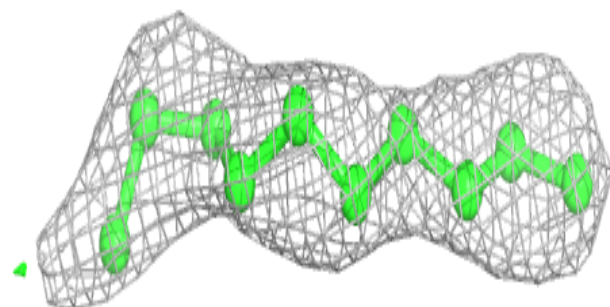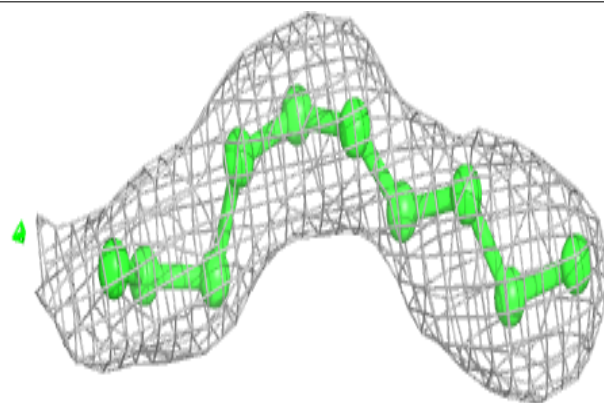
Electron density around LFA D 303:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
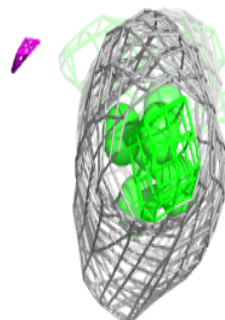mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
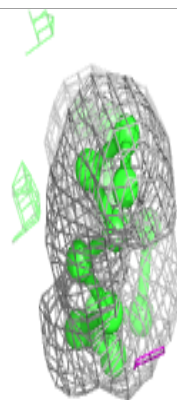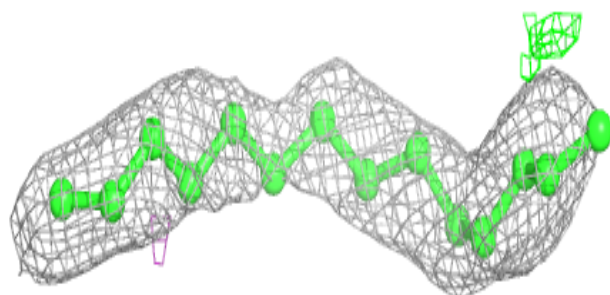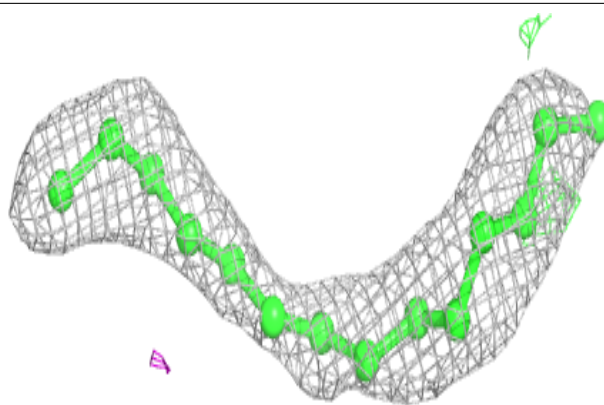
Electron density around LFA E 302:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
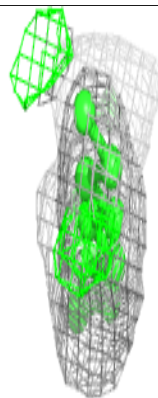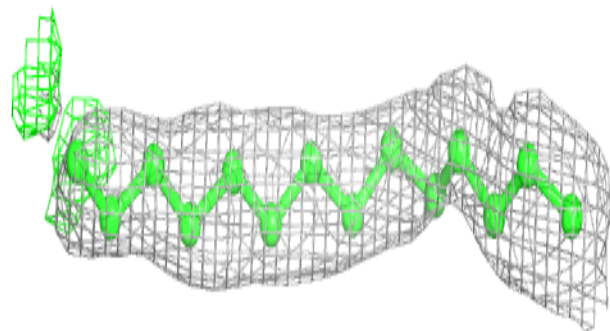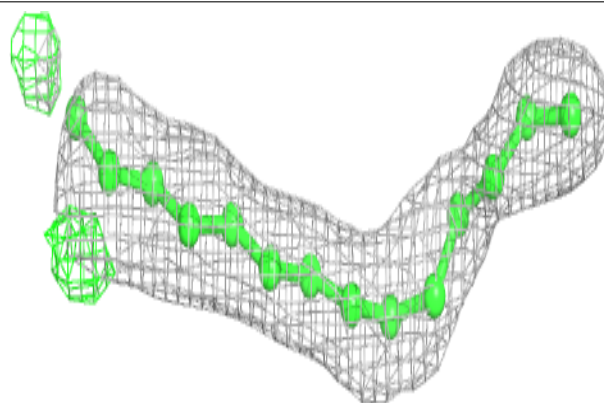
Electron density around LFA H 308:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
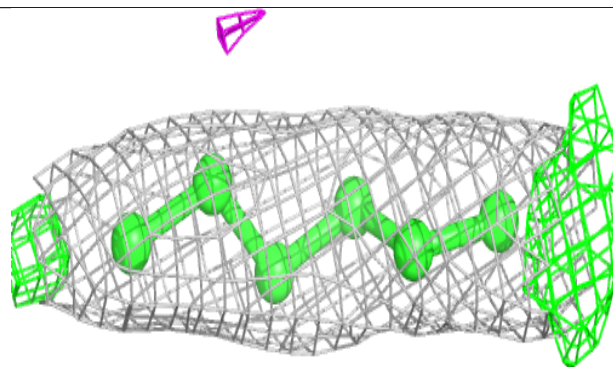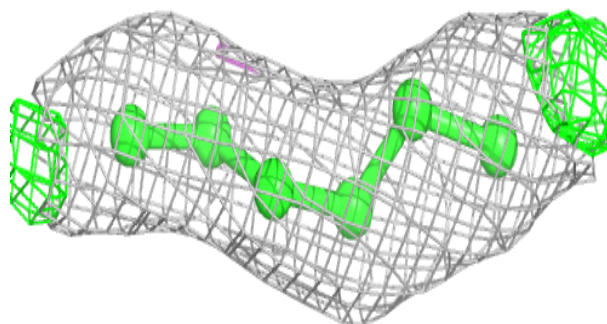mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
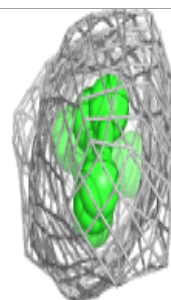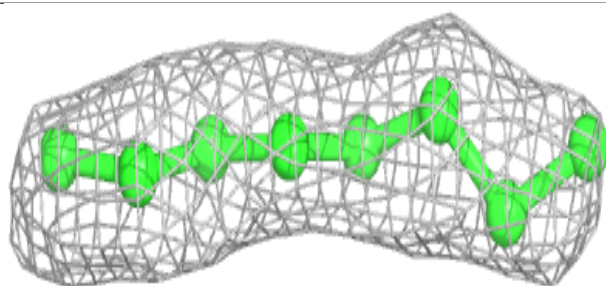and green (positive)
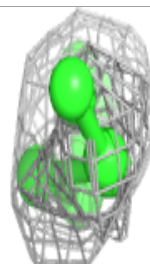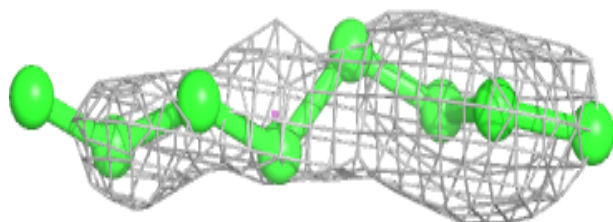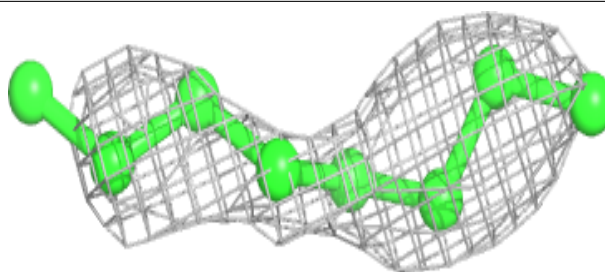
Electron density around LFA I 302:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
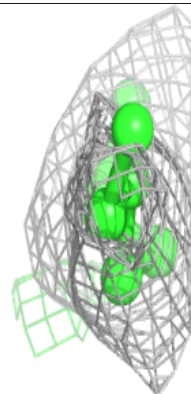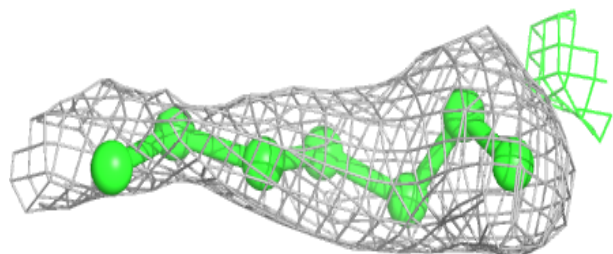
Electron density around LFA B 302:

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

Electron density around LFA B 303:

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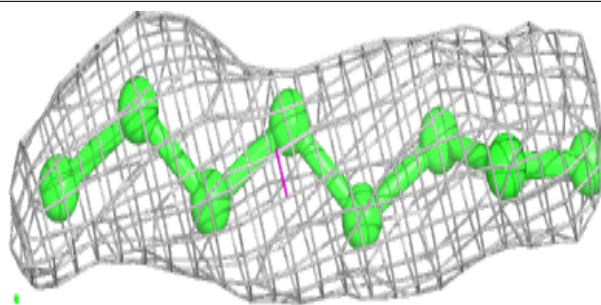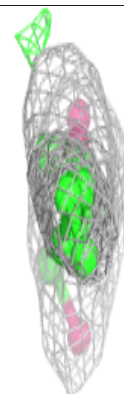$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
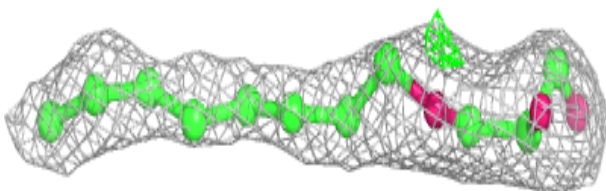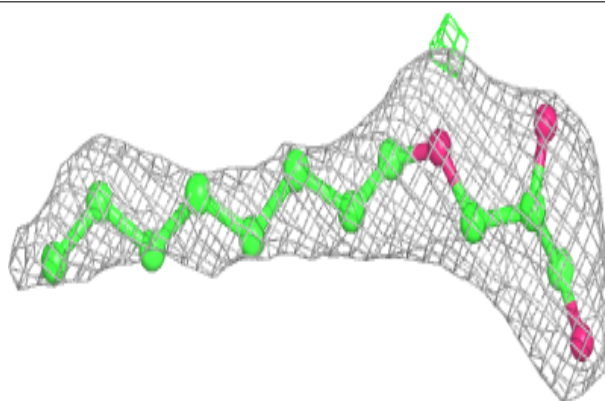and green (positive)

Electron density around LFA E 307:

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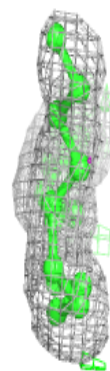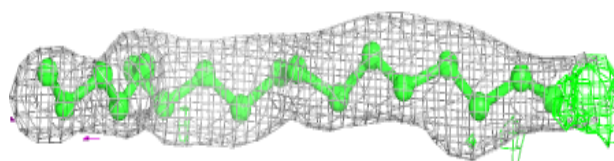mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around MPG J 312:

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

Electron density around LFA A 302:

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

Electron density around LFA G 306:

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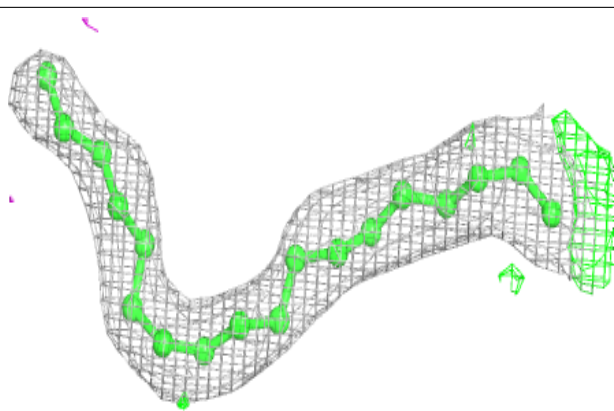and green (positive)

Electron density around LFA E 311:

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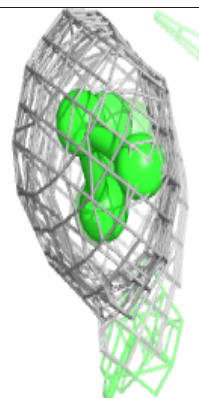and green (positive)

Electron density around LFA A 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 LFA J 308:

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

Electron density around LFA E 312:

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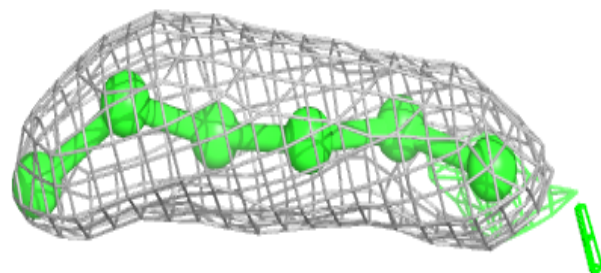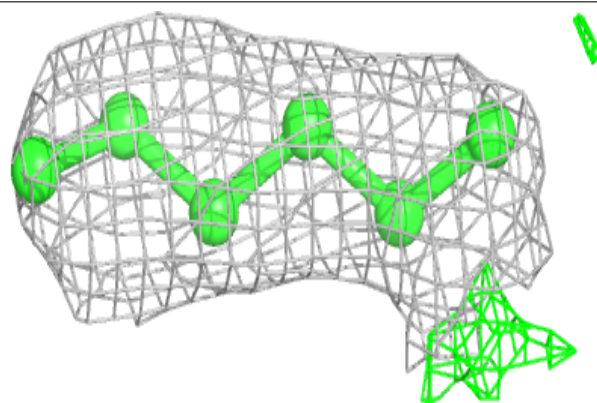$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
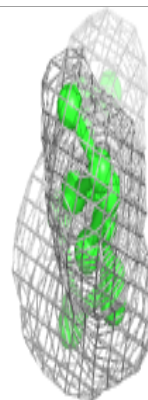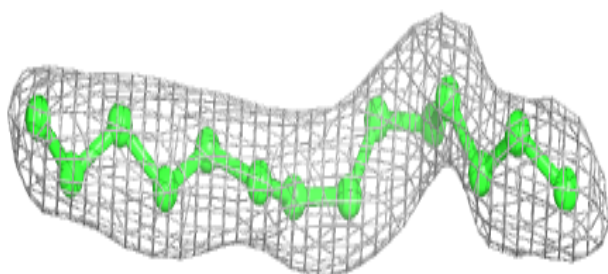and green (positive)

Electron density around LFA J 310:

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 LFA D 311:

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 LFA C 311:

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

Electron density around LFA I 308:

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

Electron density around LFA I 309:

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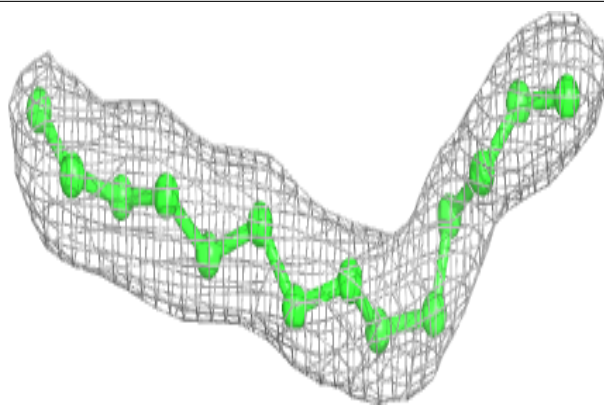mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around LFA D 314:

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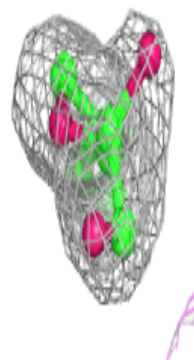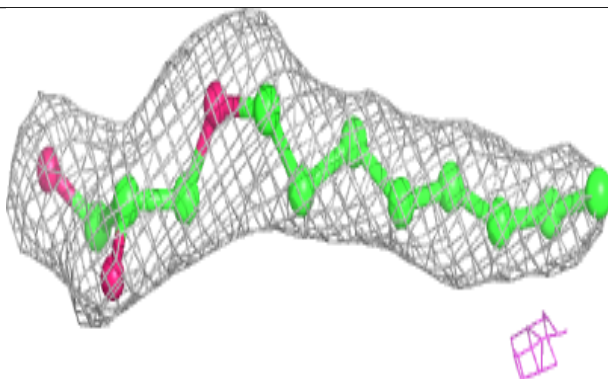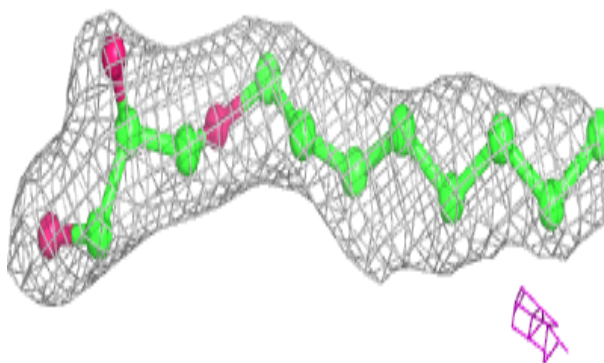mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

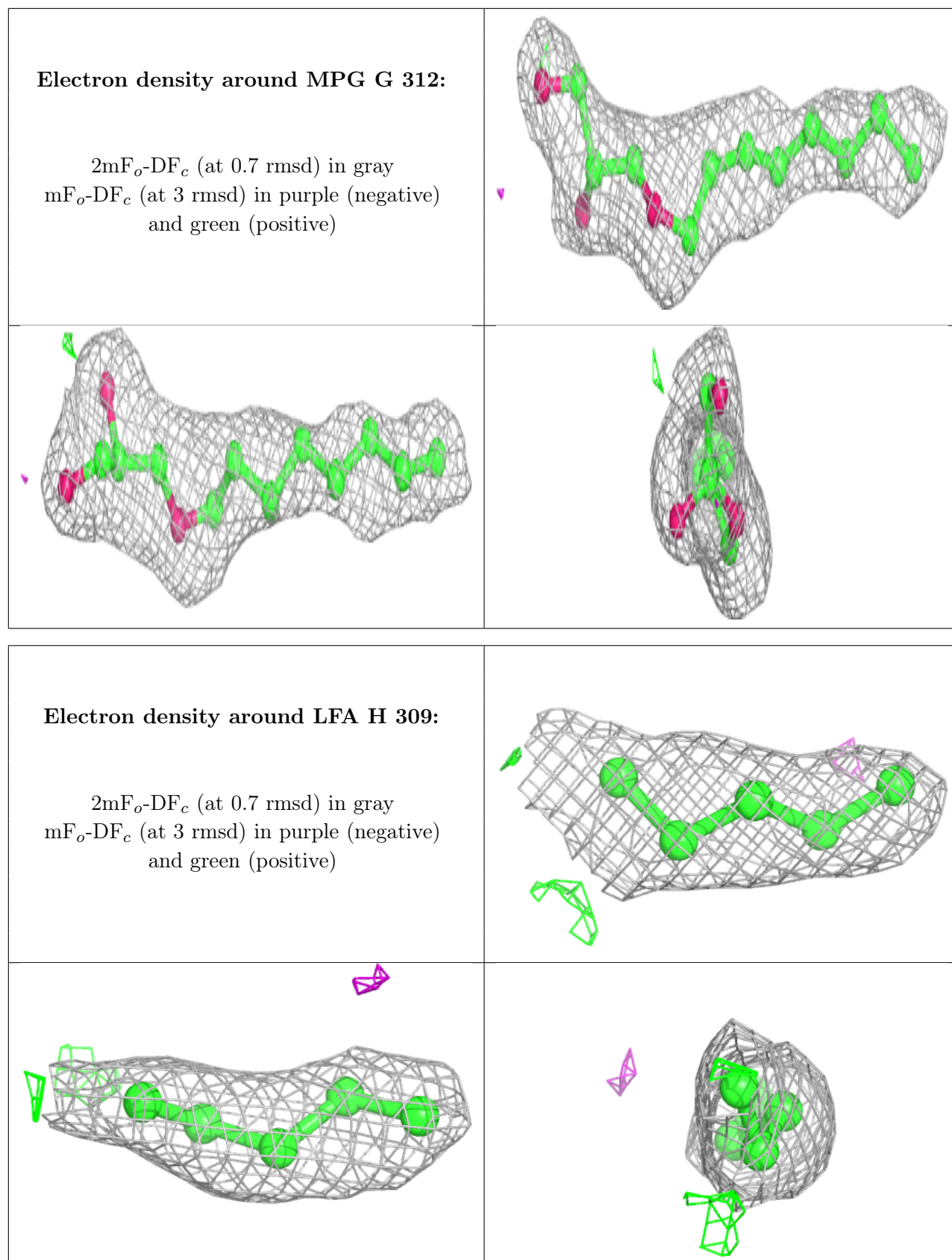**Electron density around LFA D 316:**

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

Electron density around LFA H 312:

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

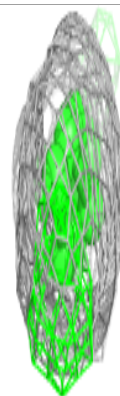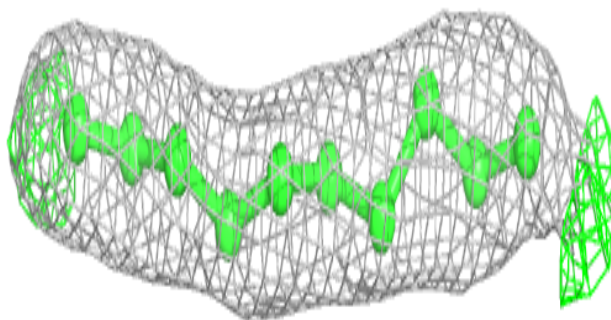**Electron density around LFA F 303:**

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

Electron density around LFA C 307:
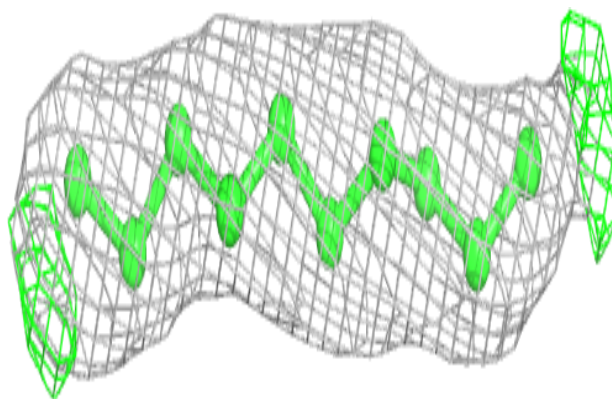
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around LFA E 308:

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

Electron density around LFA J 303:

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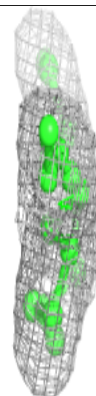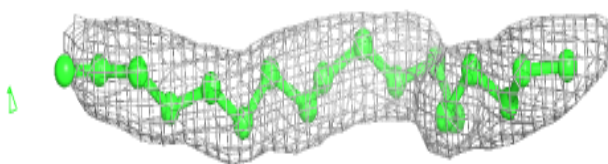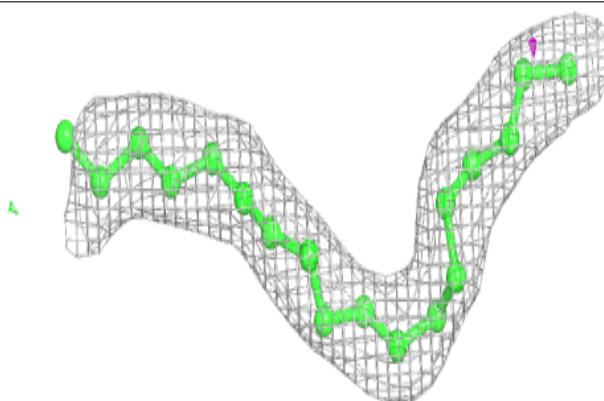$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
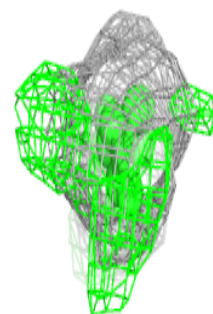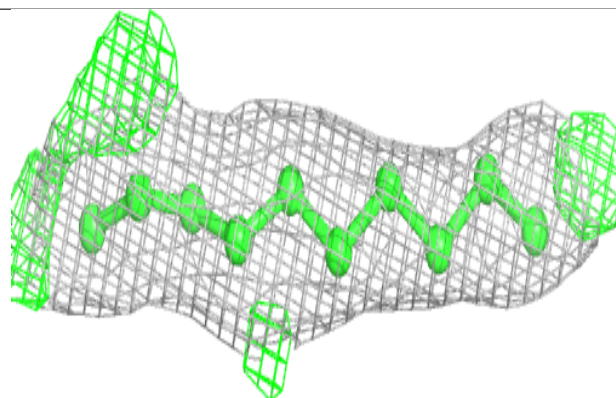and green (positive)

Electron density around LFA H 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 MPG C 313:

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 LFA G 303:

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

Electron density around LFA G 308:

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

Electron density around LFA F 310:

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

Electron density around LFA I 307:

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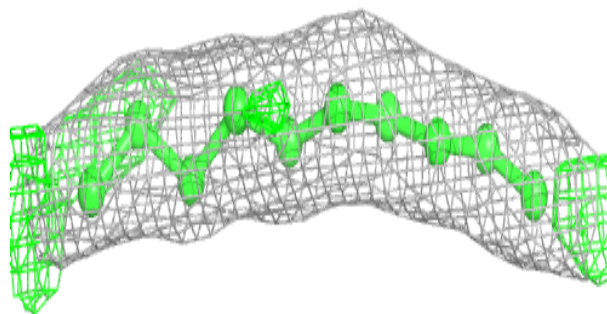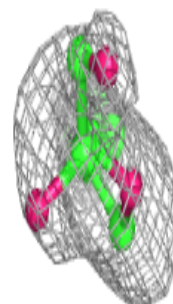$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around LFA A 309:

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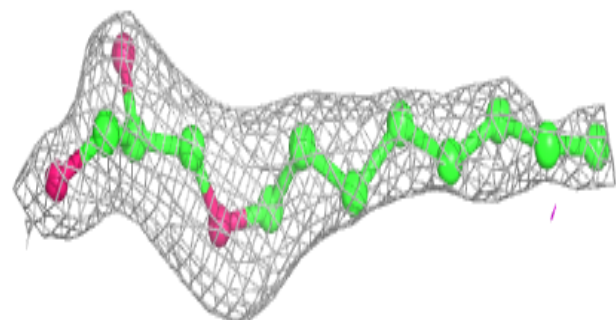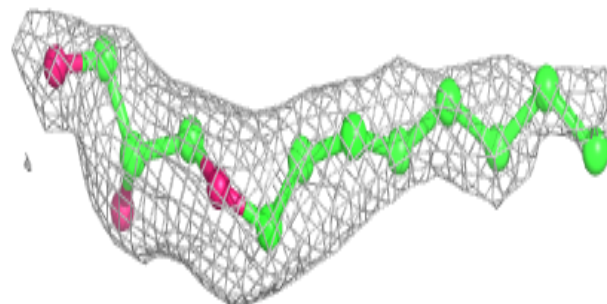mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
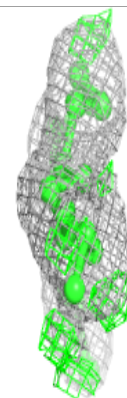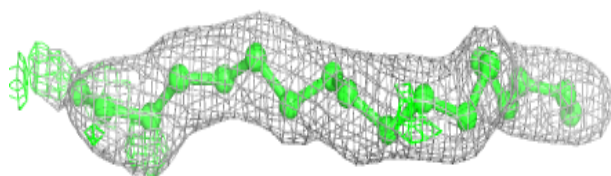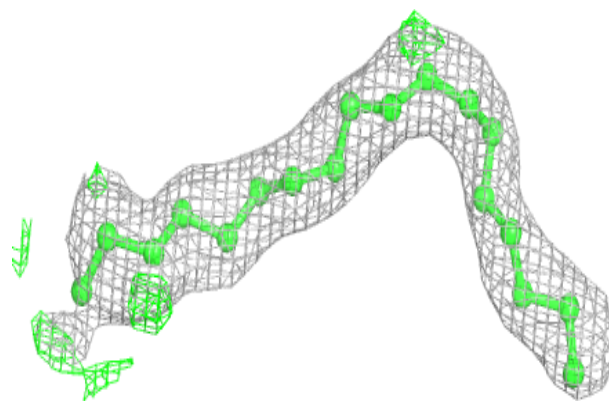and green (positive)

Electron density around MPG B 312:

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 LFA H 306:

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

Electron density around LFA G 314:

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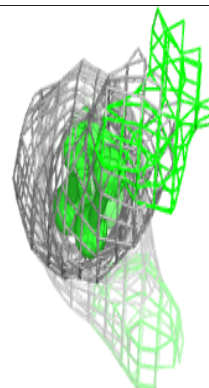$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
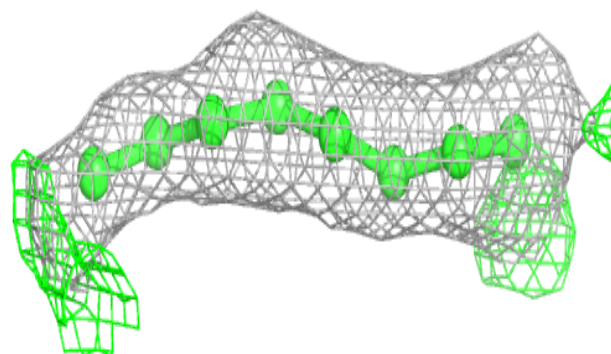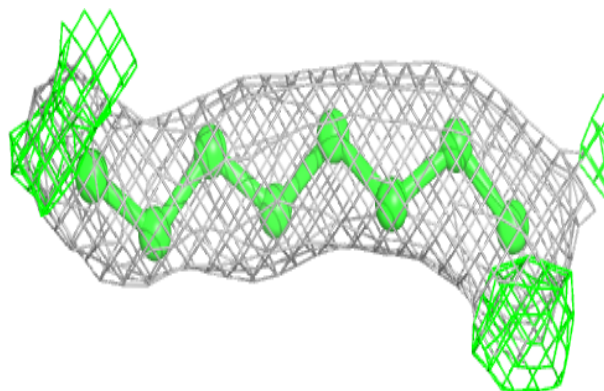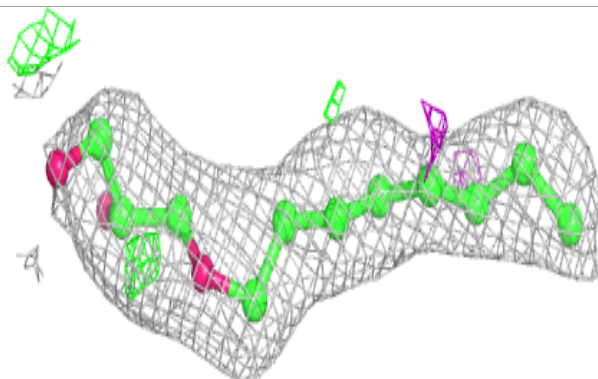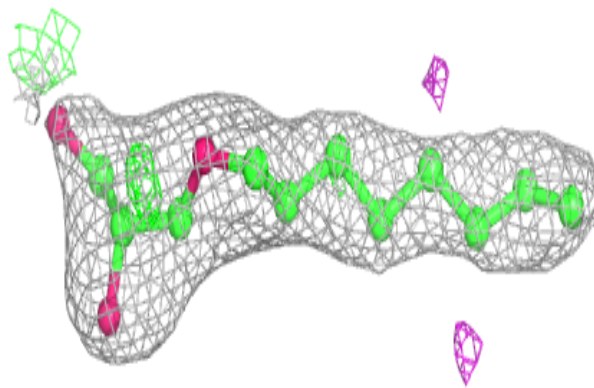and green (positive)

Electron density around LFA A 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 MPG F 315:

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 MPG G 312:

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

Electron density around LFA H 309:

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

Electron density around LFA C 305:

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

Electron density around LFA E 303:

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

Electron density around LFA I 306:

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

Electron density around MPG H 313:

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

Electron density around LFA A 307:

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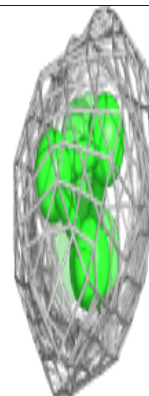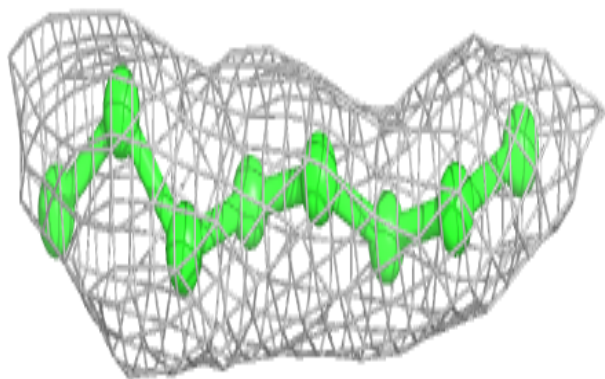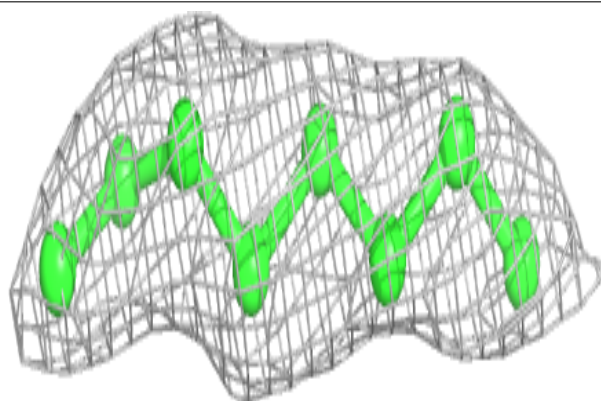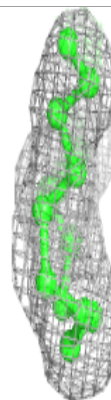mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
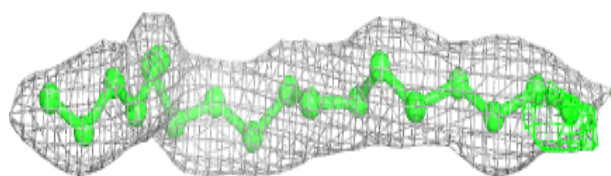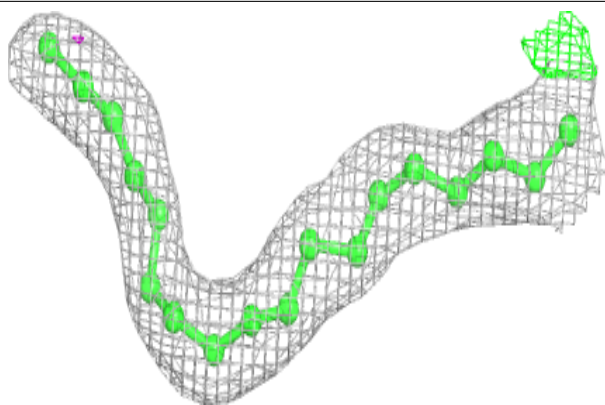and green (positive)

Electron density around LFA H 310:

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 MPG I 314:

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

Electron density around LFA I 311:

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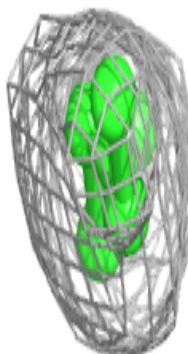$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
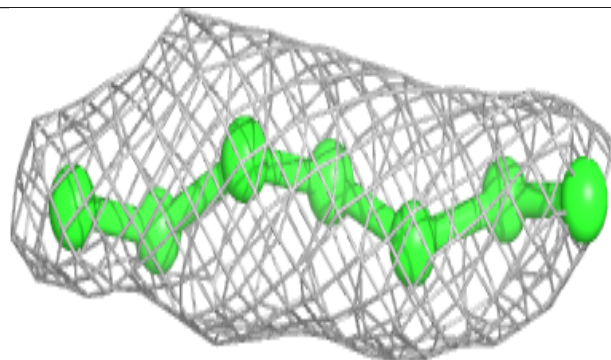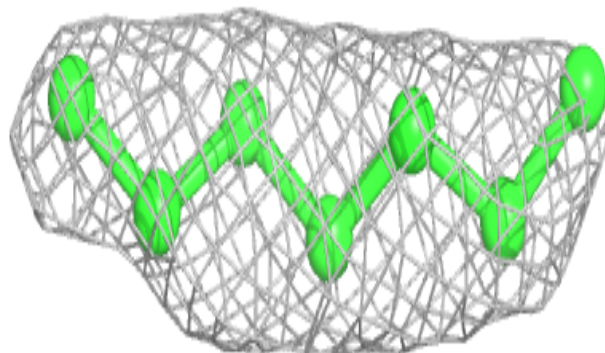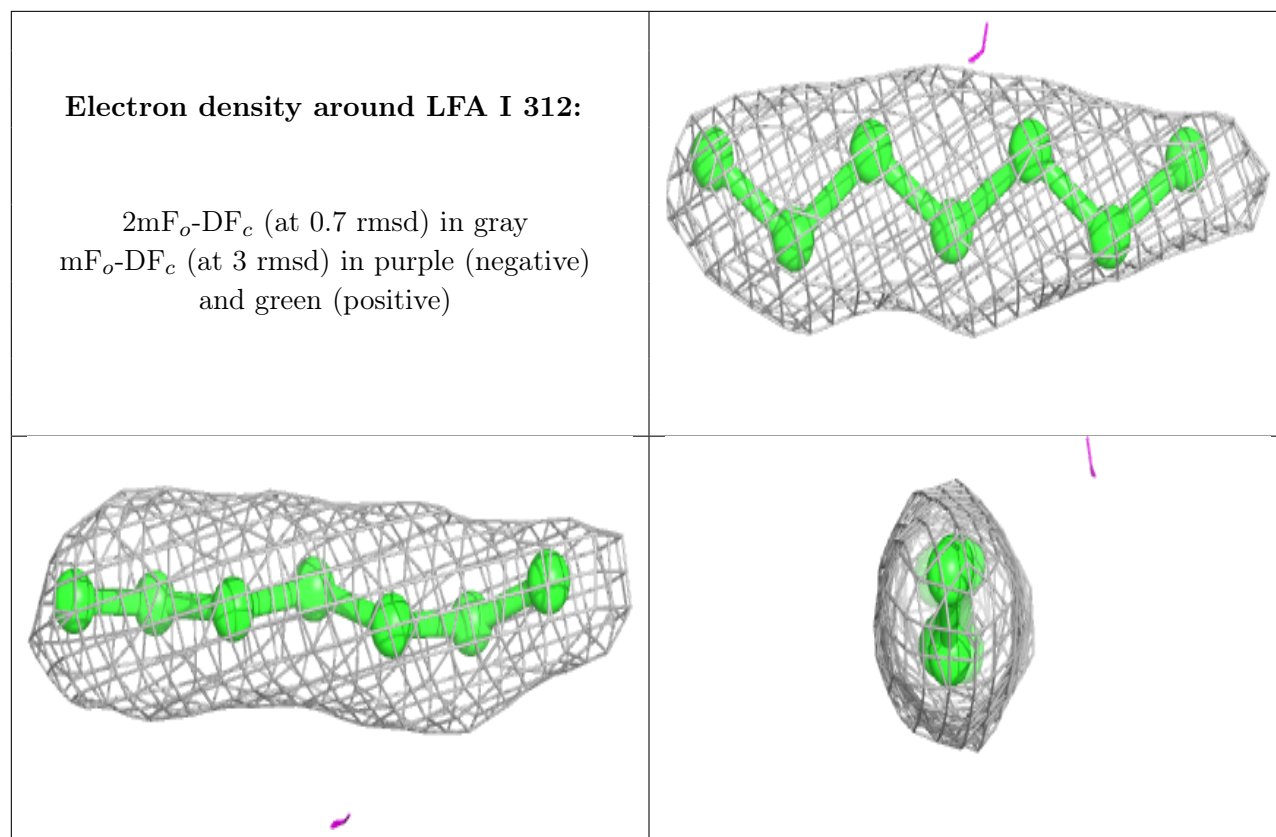and green (positive)

Electron density around LFA D 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 LFA H 311:

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

Electron density around LFA I 312:

$2mF_o$-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 ⓘ

There are no such residues in this entry.