



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 23, 2026 – 10:25 AM UTC

PDB ID : 8CP8 / pdb_00008cp8
Title : Crystal structure of an 8-repeat consensus TPR superhelix with Lead
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Deposited on : 2023-03-02
Resolution : 1.68 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

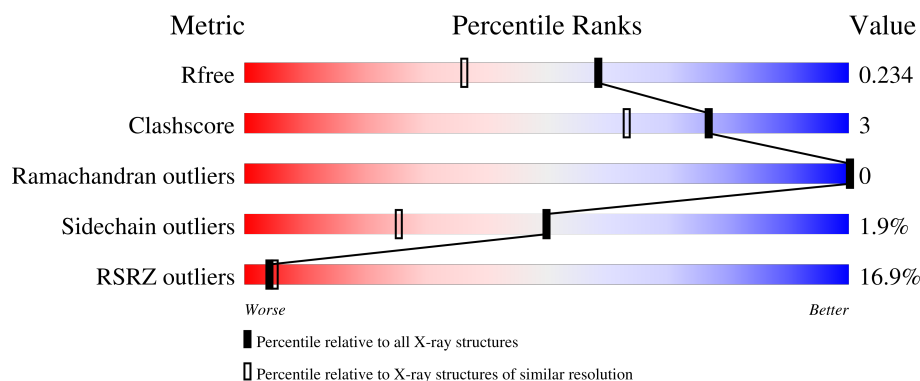
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 1.68 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1054 (1.68-1.68)
Clashscore	190562	1078 (1.68-1.68)
Ramachandran outliers	187476	1068 (1.68-1.68)
Sidechain outliers	187428	1067 (1.68-1.68)
RSRZ outliers	180081	1055 (1.68-1.68)

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 $\leq 5\%$. 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	292	5% 43% 53%
1	B	292	10% 43% 53%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	ACT	A	301	-	-	-	X

2 Entry composition [i](#)

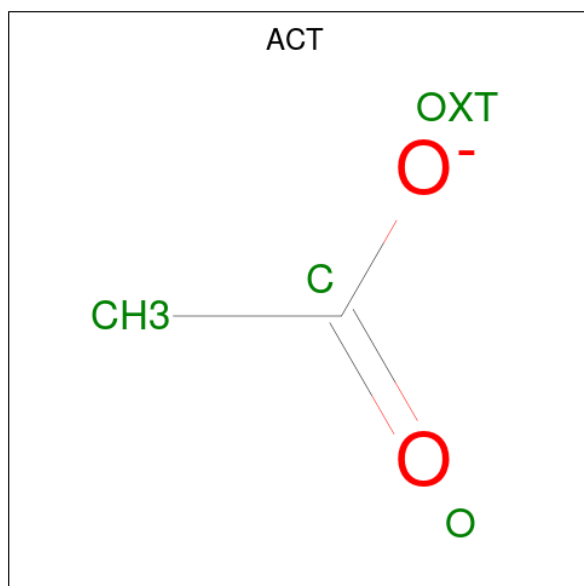
There are 6 unique types of molecules in this entry. The entry contains 2500 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Consensus tetratricopeptide repeat protein.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
1	A	136	Total	C	N	O	0	0	0
			1148	736	176	236			
1	B	136	Total	C	N	O	0	0	0
			1148	736	176	236			

- Molecule 2 is ACETATE ION (CCD ID: ACT) (formula: $C_2H_3O_2^-$).



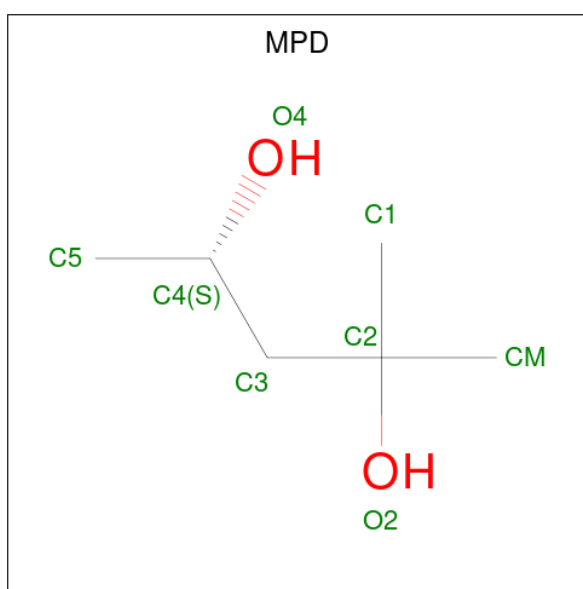
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	A	1	Total	C	O	0	0
			4	2	2		
2	A	1	Total	C	O	0	0
			4	2	2		
2	A	1	Total	C	O	0	0
			4	2	2		
2	B	1	Total	C	O	0	0
			4	2	2		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	B	1	Total	C	O	0	0
			4	2	2		
2	B	1	Total	C	O	0	0
			4	2	2		
2	B	1	Total	C	O	0	0
			4	2	2		
2	B	1	Total	C	O	0	0
			4	2	2		

- Molecule 3 is (4S)-2-METHYL-2,4-PENTANEDIOL (CCD ID: MPD) (formula: C₆H₁₄O₂).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total	C	O	0	0
			8	6	2		
3	A	1	Total	C	O	0	0
			8	6	2		
3	A	1	Total	C	O	0	0
			8	6	2		
3	A	1	Total	C	O	0	0
			8	6	2		
3	B	1	Total	C	O	0	0
			8	6	2		

- Molecule 4 is CHLORIDE ION (CCD ID: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	13	Total 13	Cl 13	0	0
4	B	7	Total 7	Cl 7	0	0

- Molecule 5 is LEAD (II) ION (CCD ID: PB) (formula: Pb) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	7	Total 7	Pb 7	0	0
5	B	6	Total 6	Pb 6	0	0

- Molecule 6 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	A	47	Total 47	O 47	0	0
6	B	52	Total 52	O 52	0	0

4 Data and refinement statistics

Property	Value	Source
Space group	P 31 2 1	Depositor
Cell constants a, b, c, α , β , γ	73.26Å 73.26Å 117.61Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	55.90 – 1.68 55.90 – 1.68	Depositor EDS
% Data completeness (in resolution range)	100.0 (55.90-1.68) 100.0 (55.90-1.68)	Depositor EDS
R_{merge}	0.28	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.52 (at 1.68Å)	Xtriage
Refinement program	REFMAC 5	Depositor
R, R_{free}	0.204 , 0.234 0.205 , 0.234	Depositor DCC
R_{free} test set	2166 reflections (5.15%)	wwPDB-VP
Wilson B-factor (Å ²)	31.0	Xtriage
Anisotropy	0.005	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 26.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	0.046 for -h,-k,l	Xtriage
F_o, F_c correlation	0.96	EDS
Total number of atoms	2500	wwPDB-VP
Average B, all atoms (Å ²)	38.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.68% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: ACT, PB, CL, MPD

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	0.93	0/1183	1.47	0/1609
1	B	0.91	0/1183	1.44	0/1609
All	All	0.92	0/2366	1.46	0/3218

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1148	0	1018	5	0
1	B	1148	0	1018	6	0
2	A	12	0	9	1	0
2	B	20	0	15	1	0
3	A	32	0	56	1	0
3	B	8	0	14	0	0
4	A	13	0	0	0	0
4	B	7	0	0	2	0
5	A	7	0	0	0	0
5	B	6	0	0	0	0
6	A	47	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	B	52	0	0	2	0
All	All	2500	0	2130	13	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 3.

All (13) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:305:MPD:H11	3:A:305:MPD:H52	1.70	0.72
1:B:53:GLU:HG3	6:B:445:HOH:O	1.91	0.70
1:A:73:TYR:OH	1:A:108:ASN:ND2	2.35	0.59
1:B:5:TYR:OH	1:B:40:ASN:ND2	2.42	0.52
4:B:311:CL:CL	6:B:404:HOH:O	2.56	0.52
1:B:108:ASN:HD21	2:B:305:ACT:H1	1.77	0.49
1:B:16:ASP:HB3	1:B:19:GLU:OE1	2.14	0.47
1:A:9:ASN:ND2	1:A:24:TYR:OH	2.51	0.44
1:A:86:ASP:CG	1:A:116:GLN:HE22	2.26	0.43
1:A:121:GLU:CG	2:A:306:ACT:H2	2.48	0.43
1:B:119:TYR:N	4:B:308:CL:CL	2.87	0.42
1:A:62:LEU:HD22	1:A:72:TRP:CE2	2.55	0.42
1:B:28:LEU:HD13	1:B:28:LEU:HA	1.92	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	134/292 (46%)	131 (98%)	3 (2%)	0	100	100
1	B	134/292 (46%)	131 (98%)	3 (2%)	0	100	100
All	All	268/584 (46%)	262 (98%)	6 (2%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	108/227 (48%)	107 (99%)	1 (1%)	70	55
1	B	108/227 (48%)	105 (97%)	3 (3%)	38	12
All	All	216/454 (48%)	212 (98%)	4 (2%)	50	25

All (4) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	109	LEU
1	B	26	LYS
1	B	28	LEU
1	B	34	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (15) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	6	ASN
1	A	9	ASN
1	A	14	GLN
1	A	25	GLN
1	A	74	ASN
1	A	82	GLN
1	A	108	ASN
1	A	116	GLN
1	B	6	ASN
1	B	9	ASN
1	B	40	ASN
1	B	43	ASN
1	B	59	GLN
1	B	74	ASN
1	B	108	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 46 ligands modelled in this entry, 33 are monoatomic - leaving 13 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	$\# Z > 2$
2	ACT	B	301	-	3,3,3	1.02	0	3,3,3	0.79	0
3	MPD	A	304	-	7,7,7	0.12	0	9,10,10	0.33	0
3	MPD	A	303	-	7,7,7	0.11	0	9,10,10	0.30	0
2	ACT	B	305	-	3,3,3	1.01	0	3,3,3	0.81	0
2	ACT	A	302	-	3,3,3	1.02	0	3,3,3	0.83	0
2	ACT	B	306	-	3,3,3	1.02	0	3,3,3	0.83	0
2	ACT	A	306	-	3,3,3	1.12	0	3,3,3	0.71	0
3	MPD	A	305	-	7,7,7	0.11	0	9,10,10	0.48	0
3	MPD	B	302	-	7,7,7	0.14	0	9,10,10	0.30	0
2	ACT	B	304	-	3,3,3	1.06	0	3,3,3	0.77	0
3	MPD	A	307	-	7,7,7	0.13	0	9,10,10	0.38	0
2	ACT	B	303	-	3,3,3	1.02	0	3,3,3	0.82	0
2	ACT	A	301	-	3,3,3	1.03	0	3,3,3	0.75	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	MPD	A	304	-	-	2/5/5/5	-
3	MPD	A	303	-	-	0/5/5/5	-
3	MPD	B	302	-	-	0/5/5/5	-
3	MPD	A	305	-	-	3/5/5/5	-
3	MPD	A	307	-	-	1/5/5/5	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	305	MPD	C2-C3-C4-O4
3	A	305	MPD	C2-C3-C4-C5
3	A	305	MPD	O2-C2-C3-C4
3	A	304	MPD	C1-C2-C3-C4
3	A	304	MPD	CM-C2-C3-C4
3	A	307	MPD	C1-C2-C3-C4

There are no ring outliers.

3 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	305	ACT	1	0
2	A	306	ACT	1	0
3	A	305	MPD	1	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 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(Å ²)	Q<0.9
1	A	136/292 (46%)	1.11	16 (11%) 9 11	26, 37, 57, 68	0
1	B	136/292 (46%)	1.27	30 (22%) 2 3	22, 32, 56, 73	0
All	All	272/584 (46%)	1.19	46 (16%) 4 5	22, 34, 57, 73	0

All (46) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	1	ALA	7.6
1	B	136	SER	5.1
1	B	30	LEU	4.1
1	B	34	SER	3.6
1	B	134	PRO	3.6
1	B	132	LEU	3.3
1	B	28	LEU	3.2
1	B	33	ARG	3.0
1	B	14	GLN	3.0
1	B	130	LEU	2.9
1	A	32	PRO	2.8
1	B	64	LEU	2.8
1	B	100	PRO	2.8
1	A	34	SER	2.7
1	A	62	LEU	2.7
1	B	63	GLU	2.6
1	A	30	LEU	2.6
1	A	35	ALA	2.6
1	B	27	ALA	2.6
1	A	101	ARG	2.6
1	A	136	SER	2.5
1	B	98	LEU	2.5
1	A	132	LEU	2.5
1	A	28	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
1	A	64	LEU	2.5
1	B	107	TYR	2.4
1	B	127	GLN	2.4
1	A	53	GLU	2.3
1	B	2	GLU	2.3
1	A	1	ALA	2.3
1	B	16	ASP	2.3
1	B	101	ARG	2.3
1	B	104	GLU	2.3
1	B	26	LYS	2.3
1	B	59	GLN	2.3
1	B	135	ARG	2.3
1	A	95	ALA	2.2
1	B	37	ALA	2.2
1	B	120	ASP	2.2
1	B	102	SER	2.2
1	A	67	ARG	2.1
1	B	106	TRP	2.1
1	A	22	GLU	2.1
1	A	57	TYR	2.1
1	B	82	GLN	2.0
1	B	105	ALA	2.0

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

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

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
2	ACT	A	301	4/4	0.50	0.40	53,53,54,56	4

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
2	ACT	B	305	4/4	0.54	0.40	51,52,52,53	4
4	CL	A	319	1/1	0.54	0.23	93,93,93,93	0
2	ACT	B	306	4/4	0.64	0.36	79,79,80,81	0
4	CL	A	317	1/1	0.68	0.17	70,70,70,70	0
2	ACT	B	303	4/4	0.71	0.30	64,64,65,66	0
3	MPD	A	305	8/8	0.72	0.23	59,60,60,60	0
4	CL	B	308	1/1	0.72	0.23	74,74,74,74	0
2	ACT	B	301	4/4	0.75	0.26	57,58,59,60	0
3	MPD	A	304	8/8	0.75	0.22	69,70,70,72	0
4	CL	A	315	1/1	0.76	0.21	71,71,71,71	0
2	ACT	B	304	4/4	0.76	0.21	45,47,47,49	0
3	MPD	A	303	8/8	0.80	0.21	67,68,69,70	0
2	ACT	A	302	4/4	0.81	0.24	70,71,71,71	0
3	MPD	A	307	8/8	0.82	0.26	55,58,59,60	0
4	CL	A	309	1/1	0.82	0.19	52,52,52,52	0
2	ACT	A	306	4/4	0.82	0.20	40,46,47,51	0
4	CL	B	309	1/1	0.82	0.12	60,60,60,60	0
3	MPD	B	302	8/8	0.83	0.31	61,62,63,63	8
4	CL	A	312	1/1	0.84	0.20	74,74,74,74	0
4	CL	A	318	1/1	0.85	0.15	74,74,74,74	0
4	CL	B	311	1/1	0.86	0.13	56,56,56,56	0
4	CL	B	312	1/1	0.86	0.27	64,64,64,64	0
4	CL	B	310	1/1	0.87	0.18	58,58,58,58	0
4	CL	A	308	1/1	0.88	0.12	52,52,52,52	0
4	CL	A	316	1/1	0.88	0.12	65,65,65,65	0
4	CL	A	320	1/1	0.89	0.15	75,75,75,75	0
4	CL	B	313	1/1	0.89	0.16	66,66,66,66	0
4	CL	A	311	1/1	0.91	0.10	68,68,68,68	0
4	CL	A	310	1/1	0.92	0.11	54,54,54,54	0
4	CL	A	313	1/1	0.92	0.12	62,62,62,62	0
4	CL	A	314	1/1	0.93	0.28	52,52,52,52	0
5	PB	B	318	1/1	0.93	0.10	65,65,65,65	1
5	PB	A	324	1/1	0.96	0.07	46,46,46,46	1
5	PB	B	316	1/1	0.97	0.05	40,40,40,40	1
5	PB	A	326	1/1	0.97	0.06	46,46,46,46	1
5	PB	A	322	1/1	0.98	0.07	56,56,56,56	1
5	PB	A	327	1/1	0.98	0.04	55,55,55,55	1
5	PB	B	319	1/1	0.98	0.04	31,31,31,31	1
5	PB	B	315	1/1	0.99	0.03	37,37,37,37	1
5	PB	A	325	1/1	0.99	0.02	29,29,29,29	0
5	PB	B	317	1/1	0.99	0.04	33,33,33,33	1
5	PB	A	323	1/1	0.99	0.02	31,31,31,31	0

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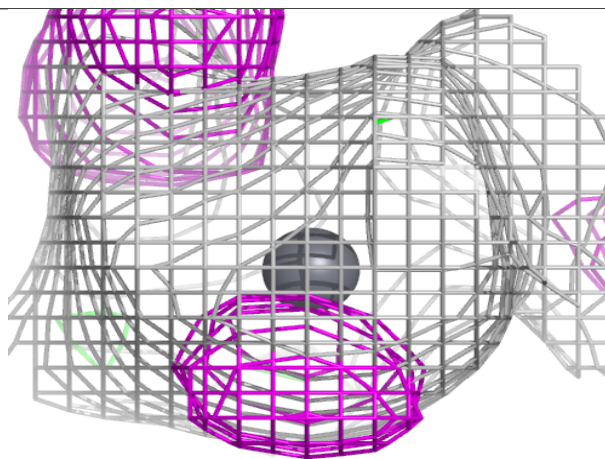
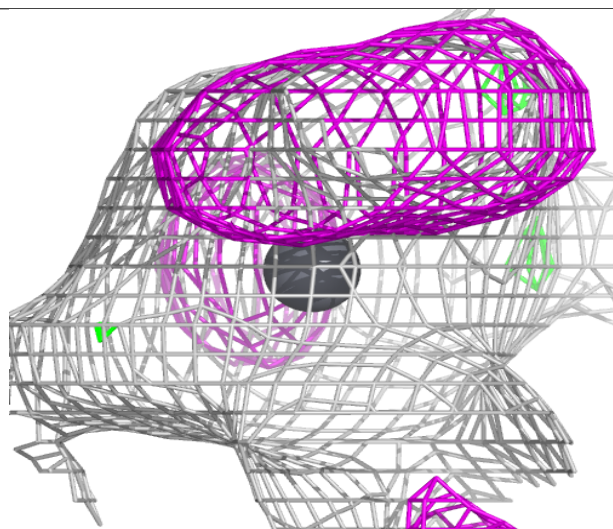
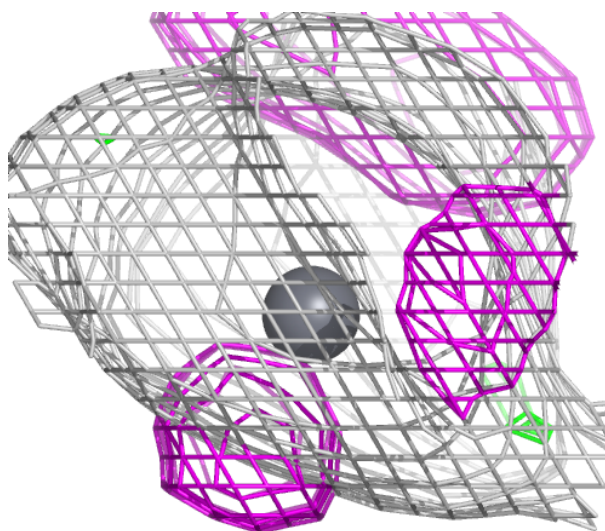
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
4	CL	B	307	1/1	0.99	0.17	44,44,44,44	0
5	PB	B	314	1/1	1.00	0.01	31,31,31,31	0
5	PB	A	321	1/1	1.00	0.03	31,31,31,31	0

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.

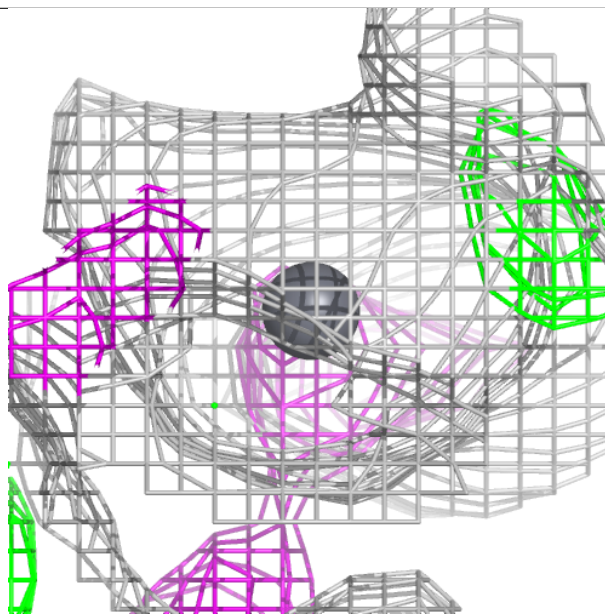
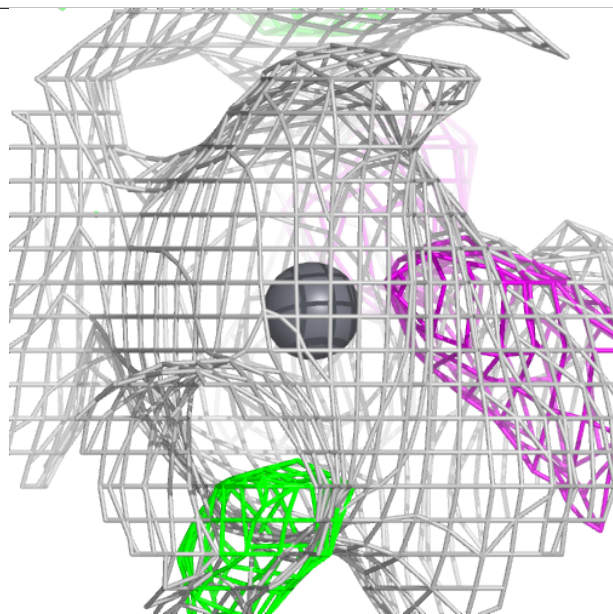
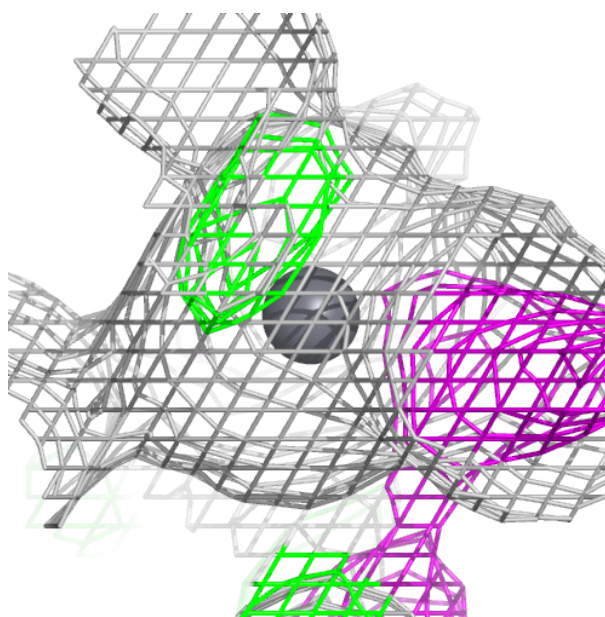
Electron density around PB B 318:

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



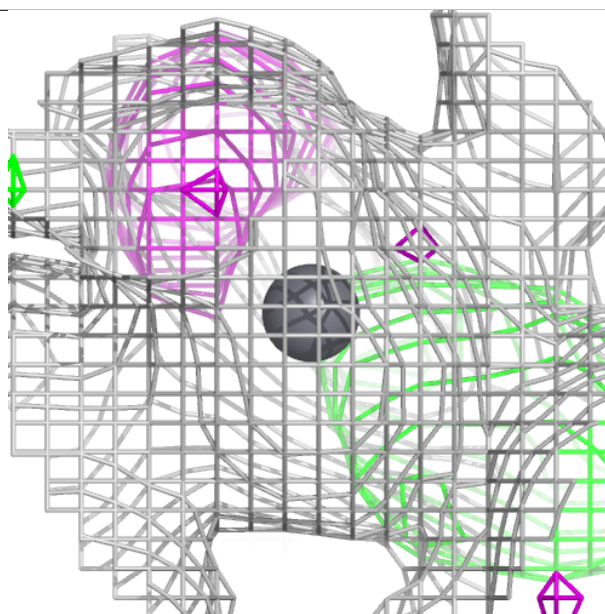
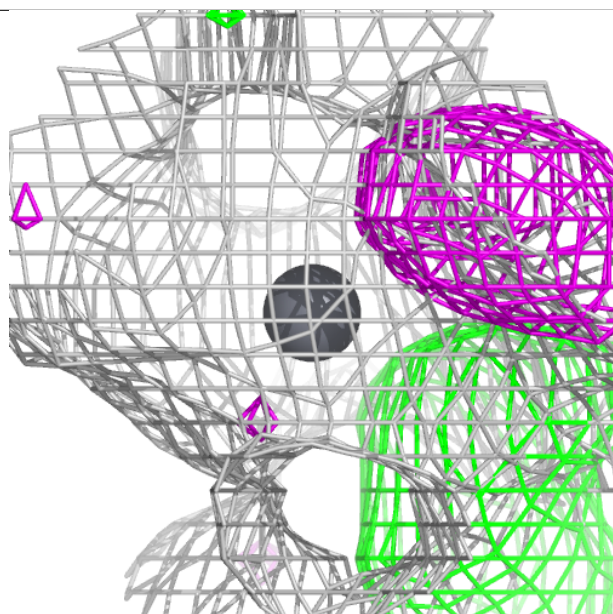
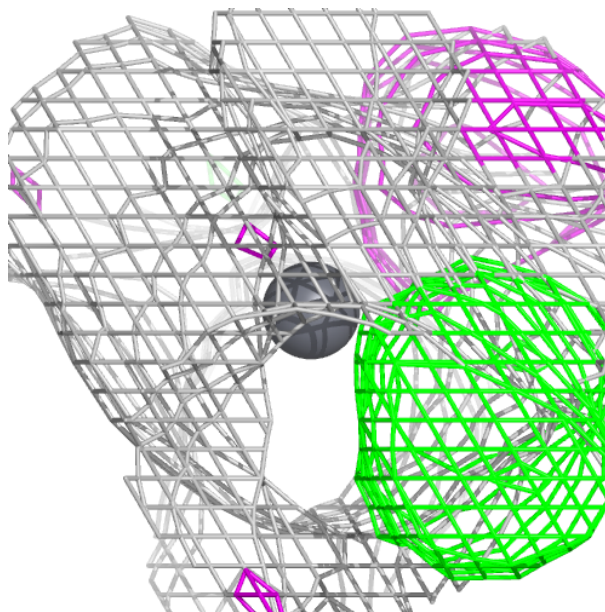
Electron density around PB A 324:

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



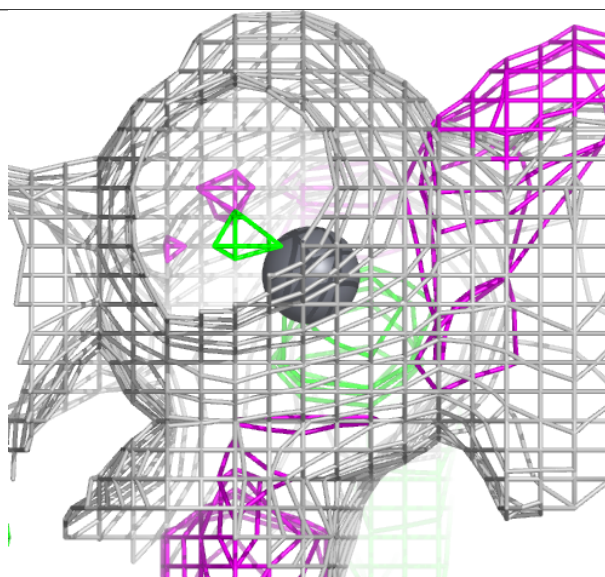
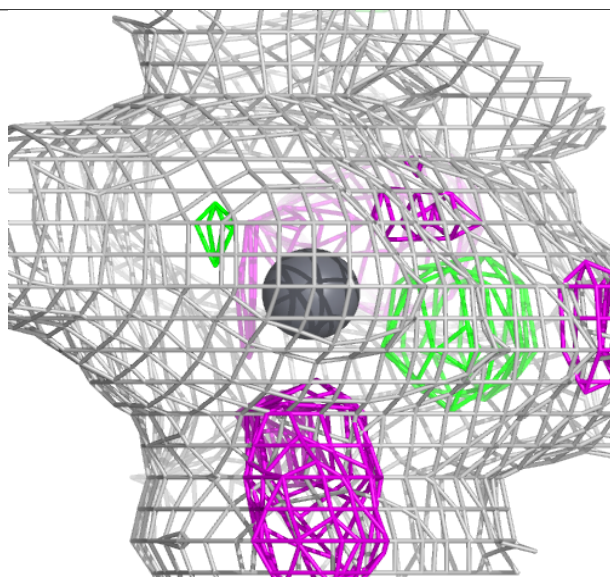
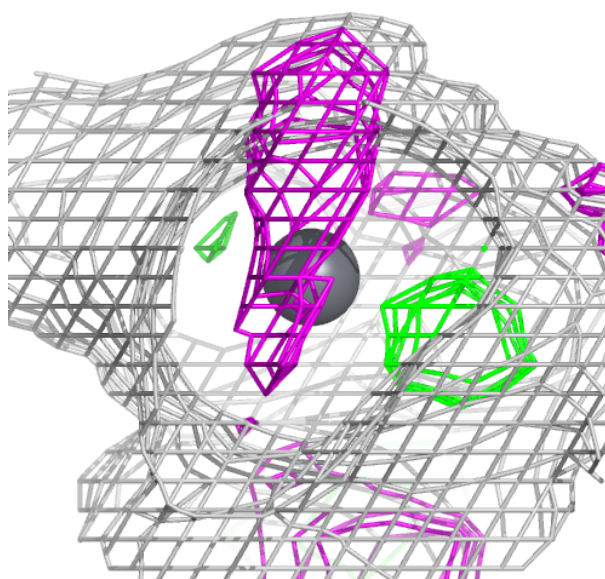
Electron density around PB B 316:

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



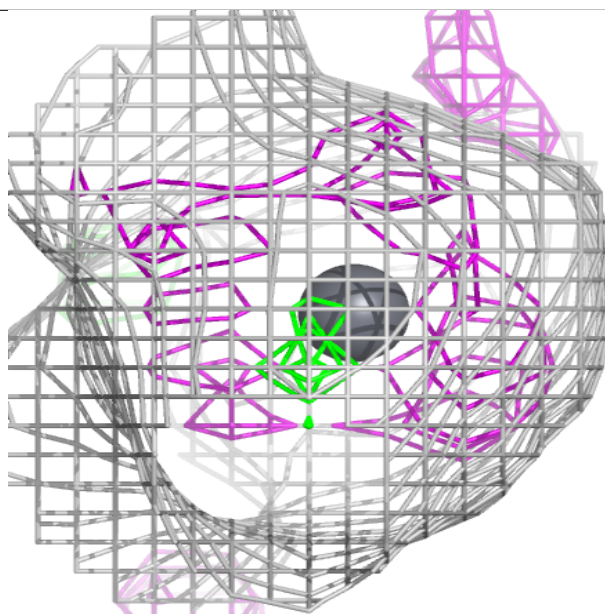
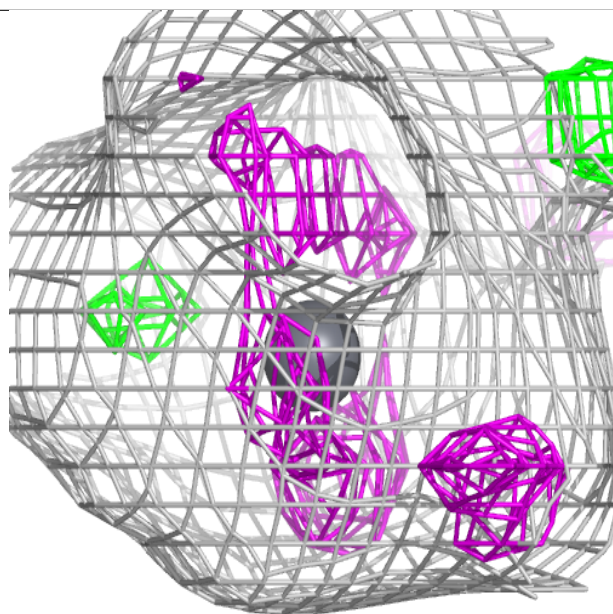
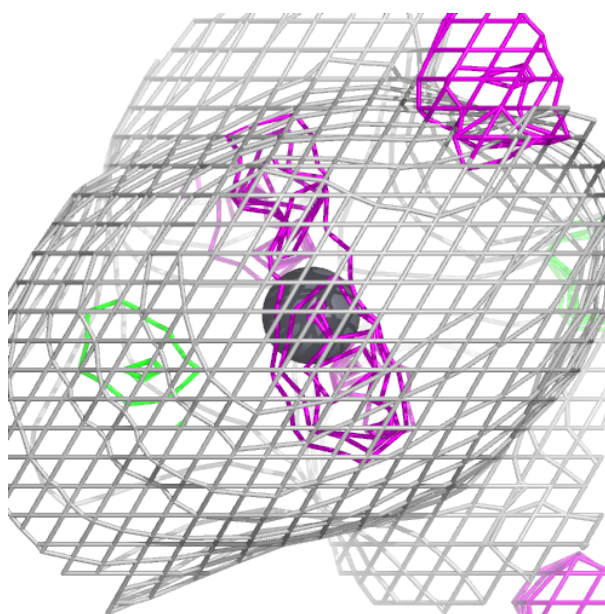
Electron density around PB A 326:

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



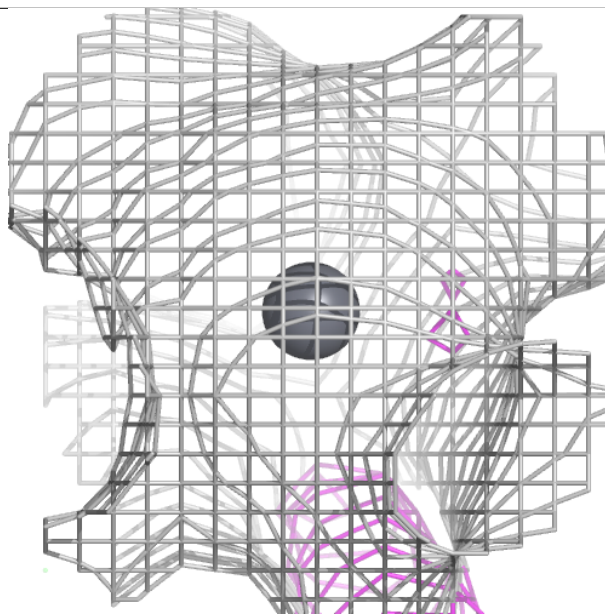
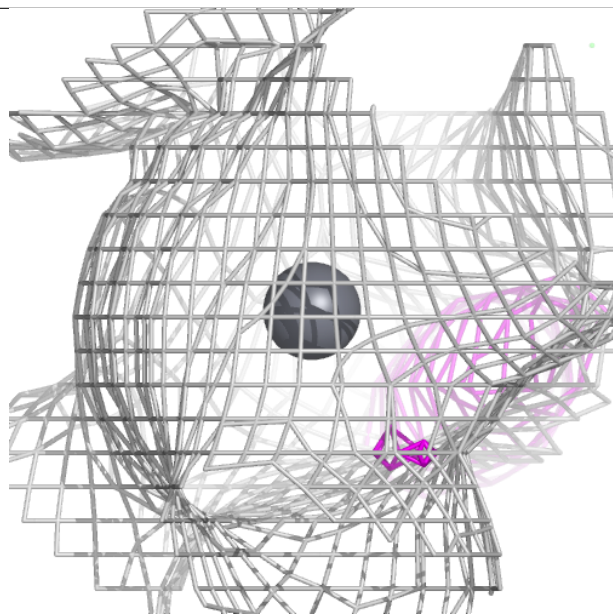
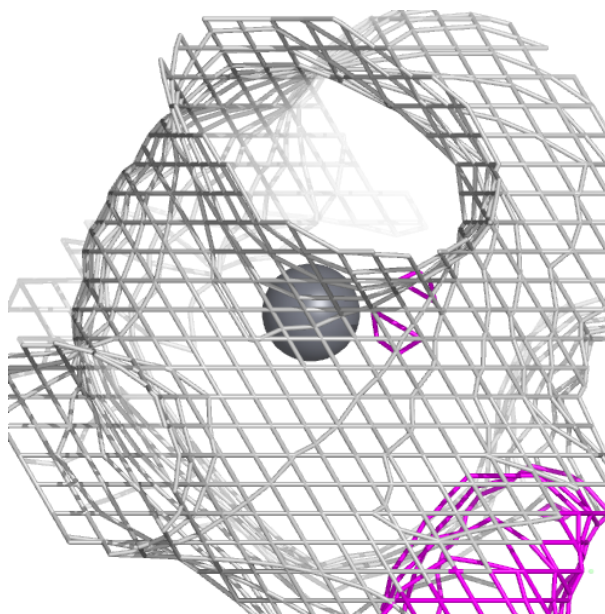
Electron density around PB A 322:

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



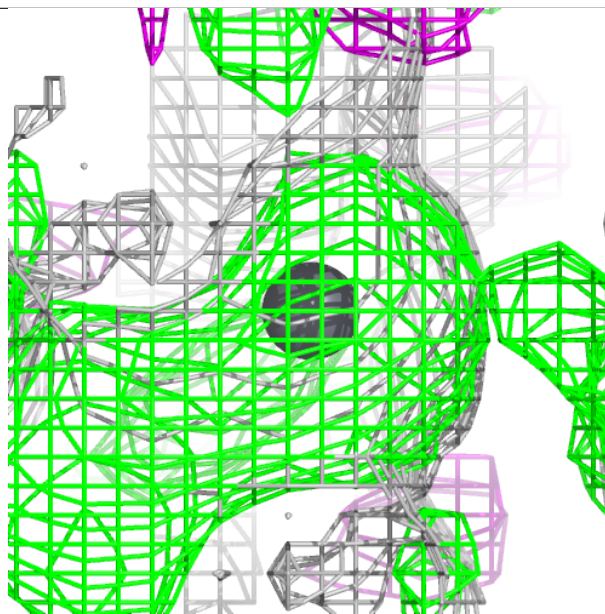
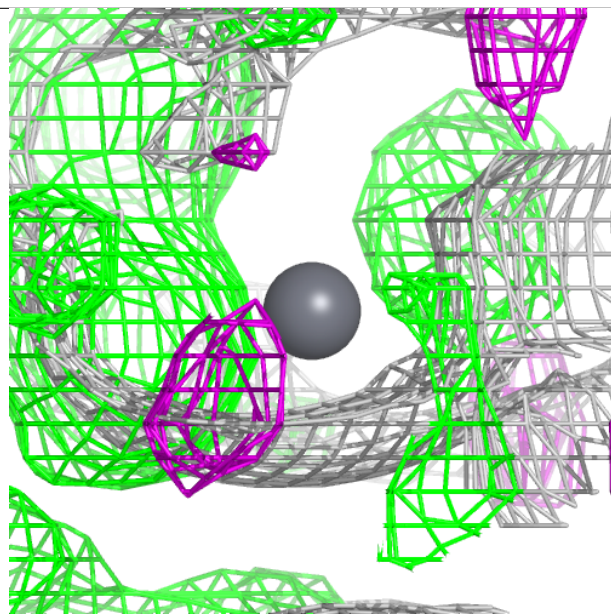
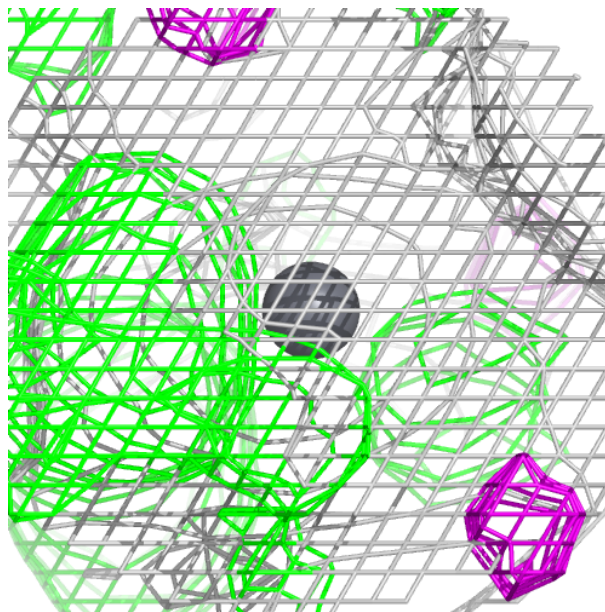
Electron density around PB A 327:

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



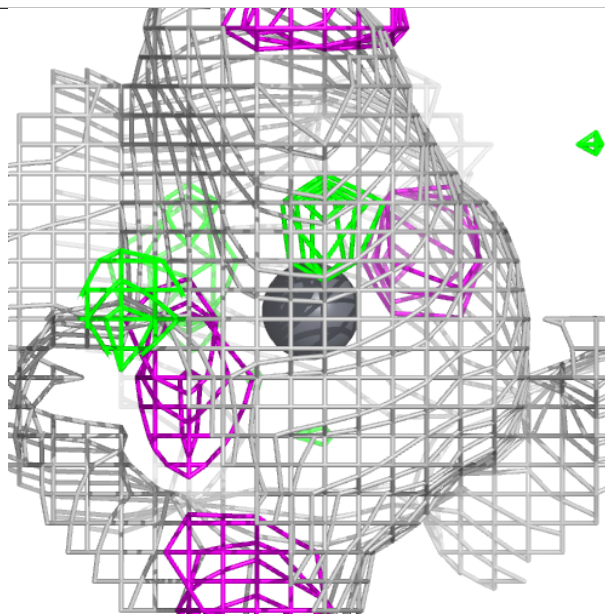
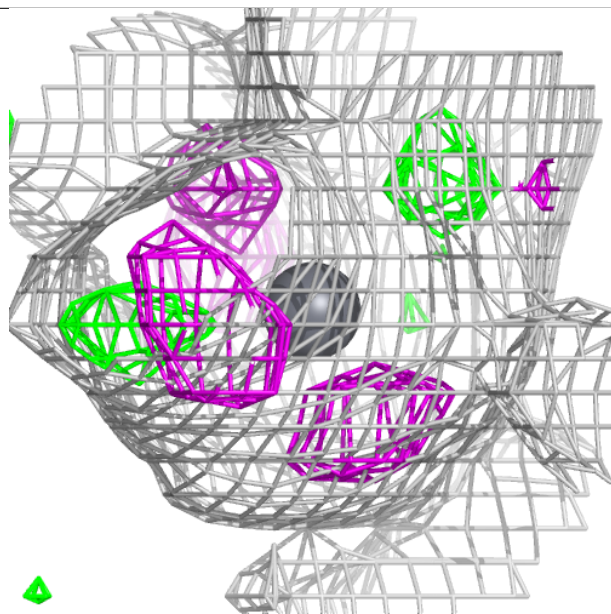
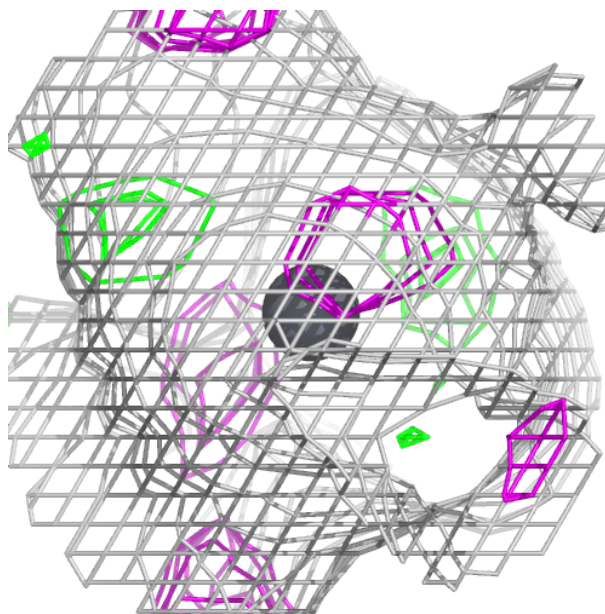
Electron density around PB B 319:

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



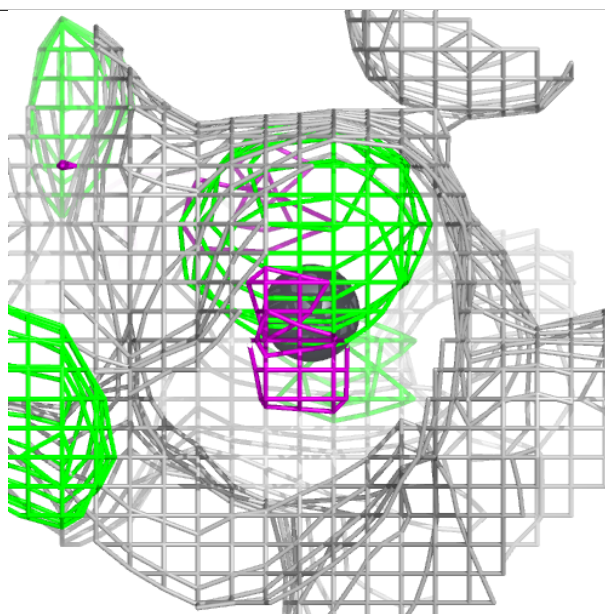
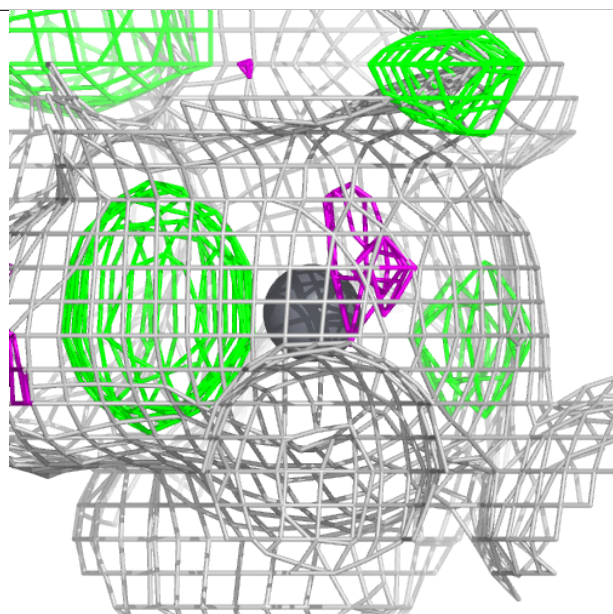
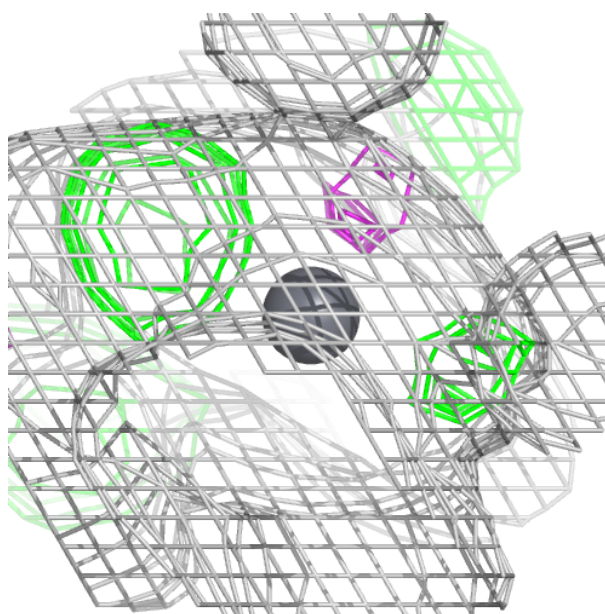
Electron density around PB B 315:

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



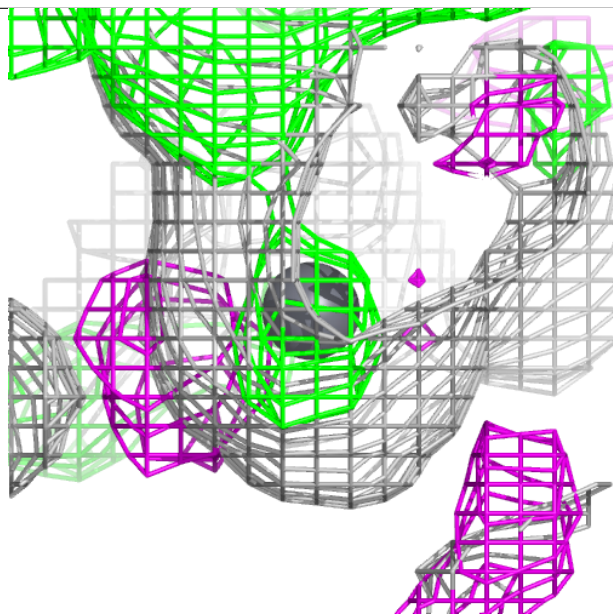
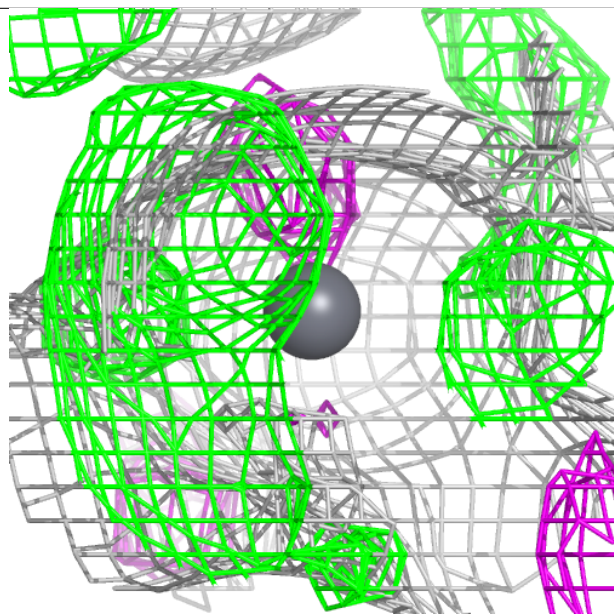
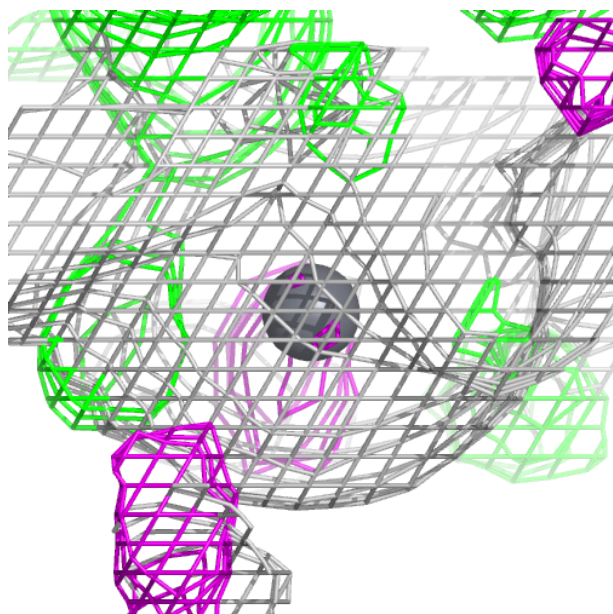
Electron density around PB A 325:

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



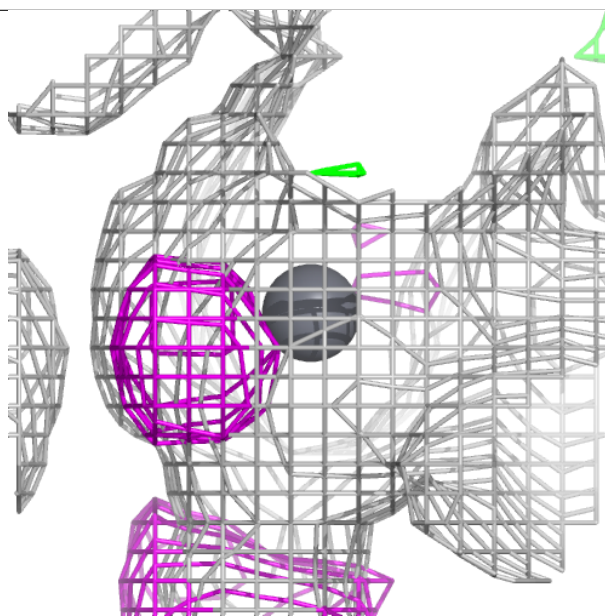
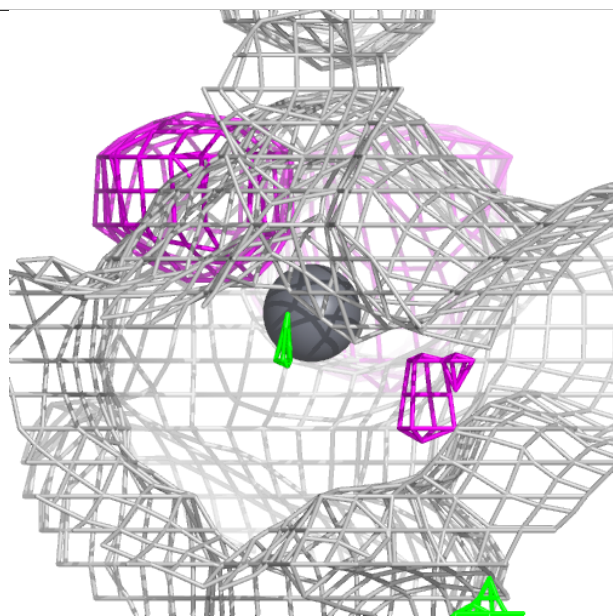
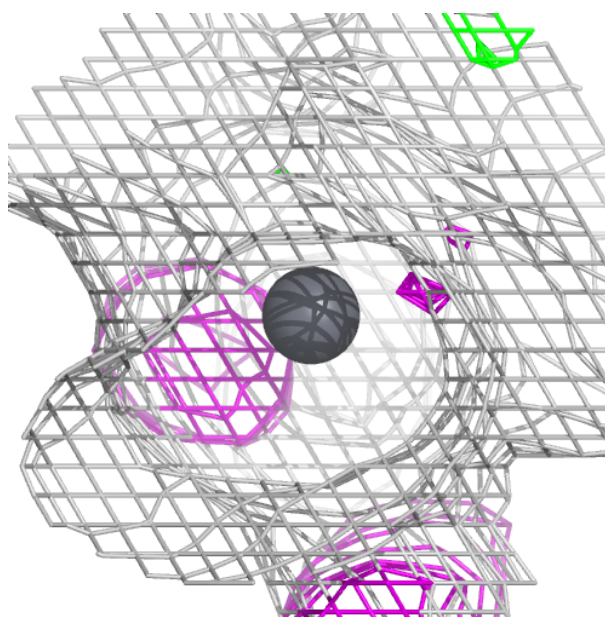
Electron density around PB B 317:

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



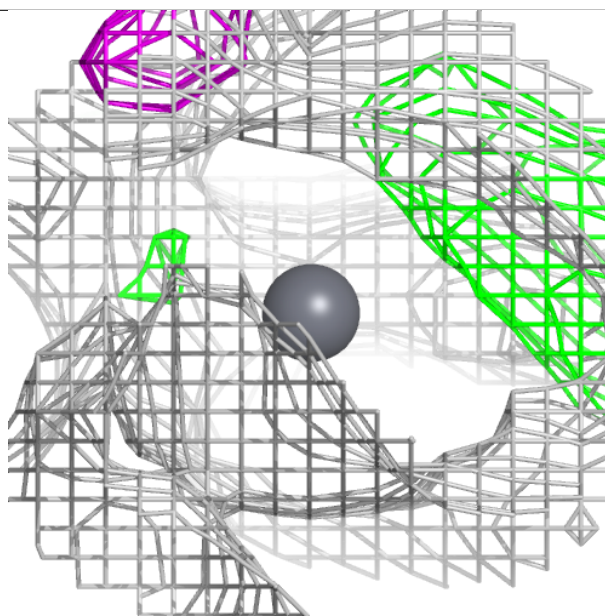
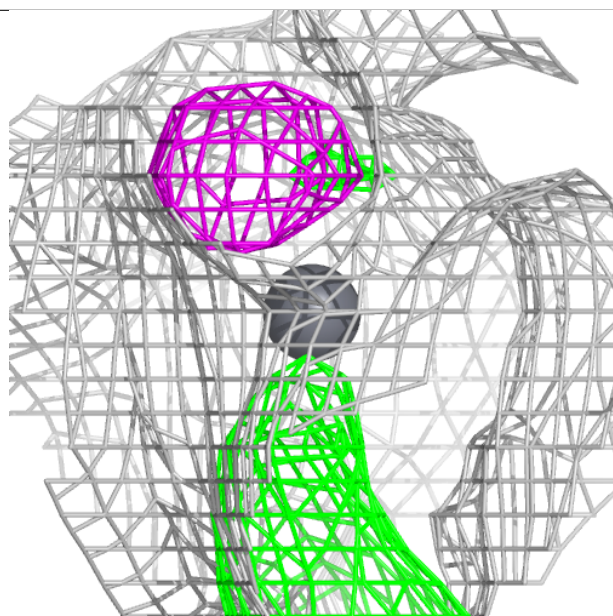
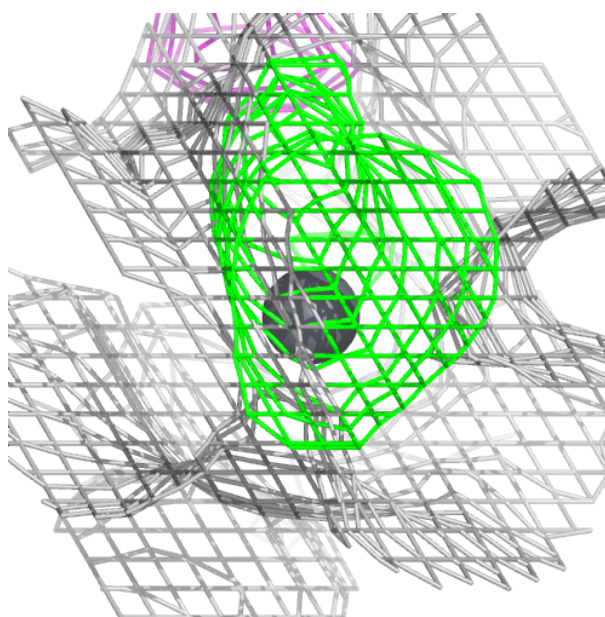
Electron density around PB A 323:

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



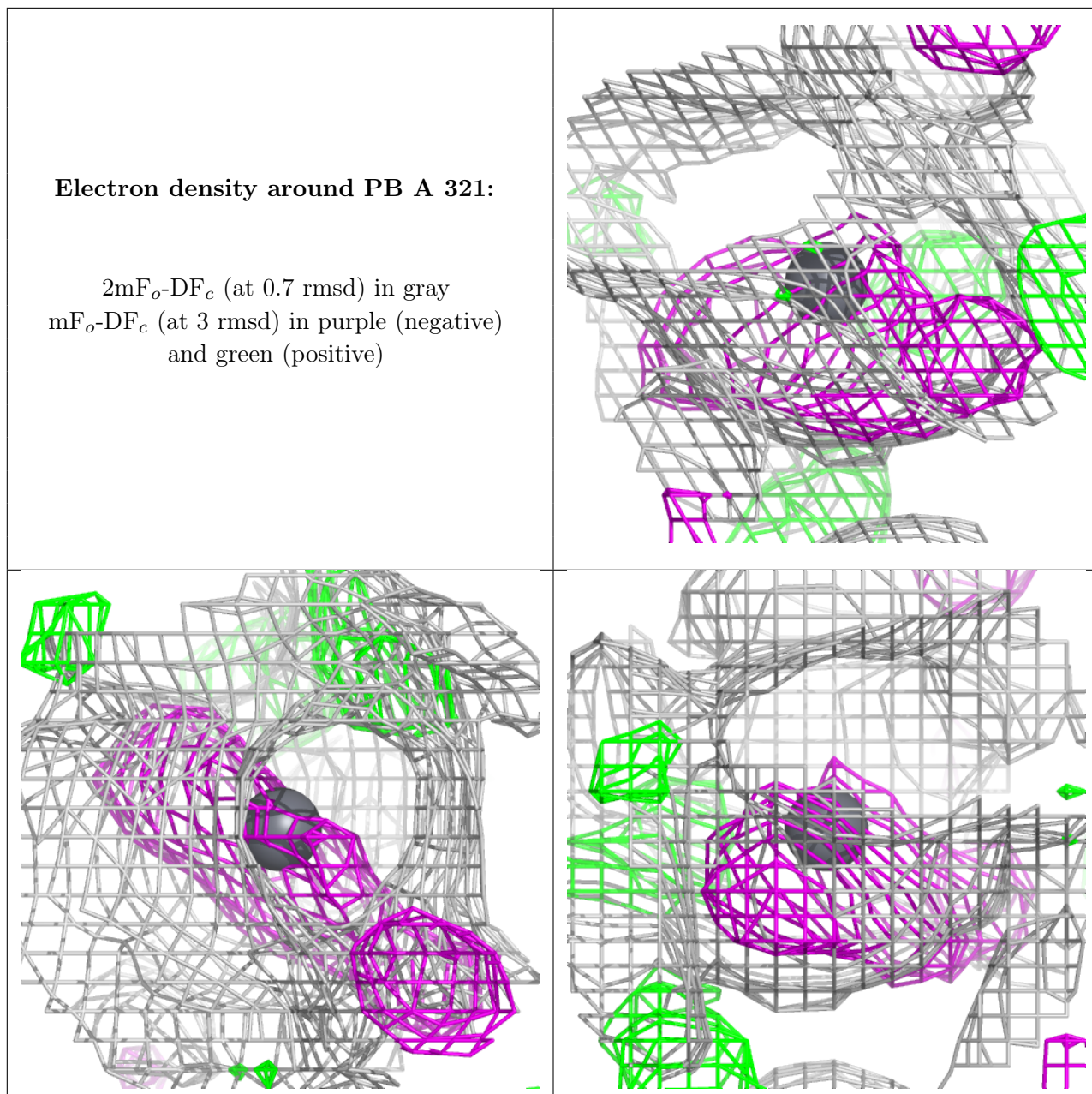
Electron density around PB B 314:

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



Electron density around PB A 321:

$2mF_o-DF_c$ (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.