Full wwPDB X-ray Structure Validation Report ⓘ

Mar 22, 2023 – 02:07 PM JST

PDB ID	:	8IFO
Title	:	Crystal structure of estrogen related receptor-gamma DNA binding domain complexed with Pla2g12b promoter
Authors	:	Xu, T.; Zhen, X.; Liu, J.
Deposited on	:	2023-02-19
Resolution	:	2.20 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:

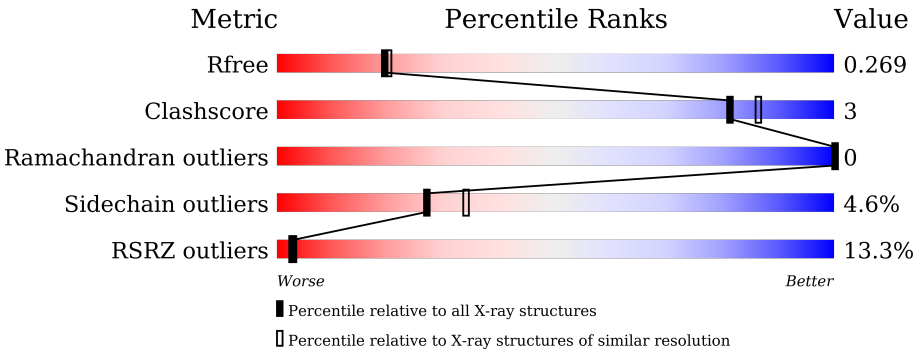
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.32.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.32.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.20 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	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	105	30% 64% 9% 28%
1	B	105	5% 65% 11% 24%
1	F	105	3% 65% 8% • 27%
2	C	17	88% 12%
2	G	17	88% 12%
3	D	17	94% 6%

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Mol	Chain	Length	Quality of chain
3	H	17	

2 Entry composition (i)

There are 6 unique types of molecules in this entry. The entry contains 3310 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 Estrogen-related receptor gamma.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	76	Total	C	N	O	S	0	0	0
			591	367	111	102	11			
1	B	80	Total	C	N	O	S	0	0	0
			624	387	118	108	11			
1	F	77	Total	C	N	O	S	0	0	0
			598	372	112	103	11			

There are 24 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	220	LEU	-	expression tag	UNP P62508
A	221	GLU	-	expression tag	UNP P62508
A	222	HIS	-	expression tag	UNP P62508
A	223	HIS	-	expression tag	UNP P62508
A	224	HIS	-	expression tag	UNP P62508
A	225	HIS	-	expression tag	UNP P62508
A	226	HIS	-	expression tag	UNP P62508
A	227	HIS	-	expression tag	UNP P62508
B	220	LEU	-	expression tag	UNP P62508
B	221	GLU	-	expression tag	UNP P62508
B	222	HIS	-	expression tag	UNP P62508
B	223	HIS	-	expression tag	UNP P62508
B	224	HIS	-	expression tag	UNP P62508
B	225	HIS	-	expression tag	UNP P62508
B	226	HIS	-	expression tag	UNP P62508
B	227	HIS	-	expression tag	UNP P62508
F	220	LEU	-	expression tag	UNP P62508
F	221	GLU	-	expression tag	UNP P62508
F	222	HIS	-	expression tag	UNP P62508
F	223	HIS	-	expression tag	UNP P62508
F	224	HIS	-	expression tag	UNP P62508
F	225	HIS	-	expression tag	UNP P62508
F	226	HIS	-	expression tag	UNP P62508

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Chain	Residue	Modelled	Actual	Comment	Reference
F	227	HIS	-	expression tag	UNP P62508

- Molecule 2 is a DNA chain called DNA (5'-D(*GP*AP*GP*GP*AP*CP*AP*AP*AP*GP*GP*TP*GP*AP*AP*AP*C)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	C	17	Total	C	N	O	P	0	0	0
			355	168	78	93	16			
2	G	17	Total	C	N	O	P	0	0	0
			355	168	78	93	16			

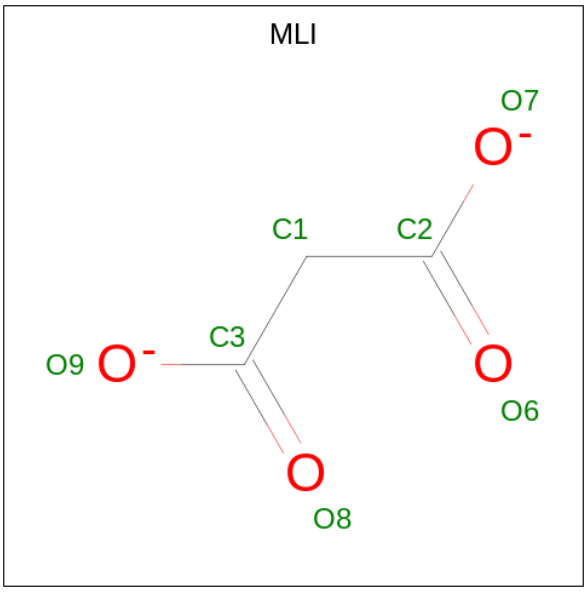
- Molecule 3 is a DNA chain called DNA (5'-D(*GP*TP*TP*TP*CP*AP*CP*CP*TP*TP*TP*GP*TP*CP*CP*TP*C)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	D	17	Total	C	N	O	P	0	0	0
			336	164	49	107	16			
3	H	17	Total	C	N	O	P	0	0	0
			336	164	49	107	16			

- Molecule 4 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	3	Total	Zn	0	0
			3	3		
4	B	2	Total	Zn	0	0
			2	2		
4	F	2	Total	Zn	0	0
			2	2		

- Molecule 5 is MALONATE ION (three-letter code: MLI) (formula: $C_3H_2O_4$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	B	1	Total C O 7 3 4	0	0
5	C	1	Total C O 7 3 4	0	0
5	F	1	Total C O 7 3 4	0	0

- Molecule 6 is water.

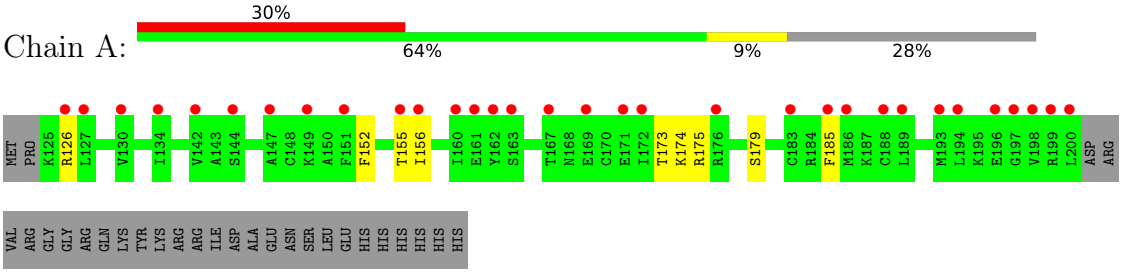
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	6	Total O 6 6	0	0
6	B	12	Total O 12 12	0	0
6	C	11	Total O 11 11	0	0
6	D	14	Total O 14 14	0	0
6	F	13	Total O 13 13	0	0
6	G	19	Total O 19 19	0	0
6	H	12	Total O 12 12	0	0

3 Residue-property plots (i)

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

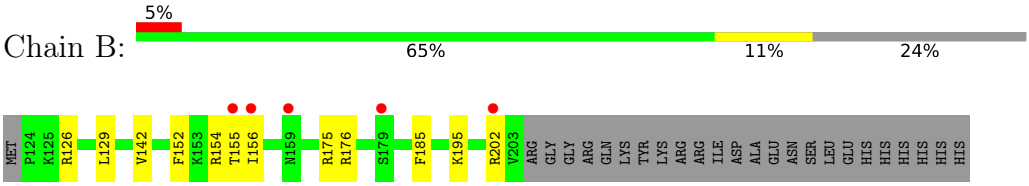
• Molecule 1: Estrogen-related receptor gamma

Chain A:



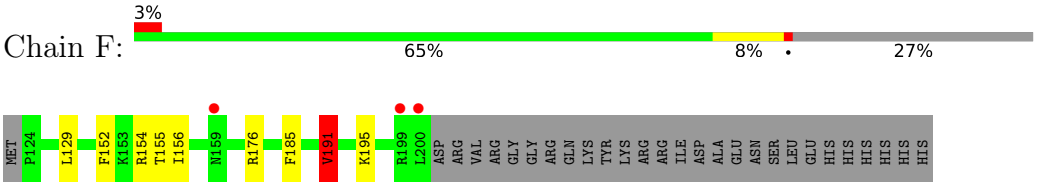
• Molecule 1: Estrogen-related receptor gamma

Chain B:



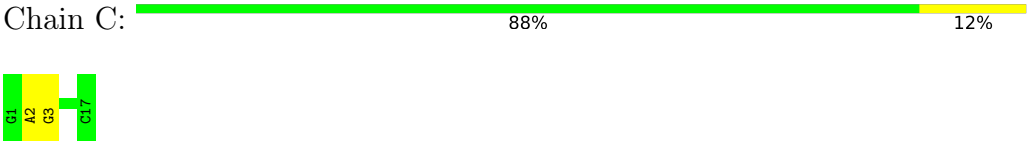
• Molecule 1: Estrogen-related receptor gamma

Chain F:



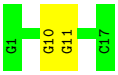
• Molecule 2: DNA (5'-D(*GP*AP*GP*GP*AP*CP*AP*AP*AP*GP*GP*TP*GP*AP*AP*AP*C)-3')

Chain C:



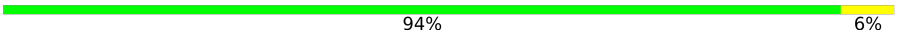
• Molecule 2: DNA (5'-D(*GP*AP*GP*GP*AP*CP*AP*AP*AP*GP*GP*TP*GP*AP*AP*AP*C)-3')

Chain G:



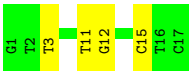
• Molecule 3: DNA (5'-D(*GP*TP*TP*TP*CP*AP*CP*CP*TP*TP*TP*GP*TP*CP*CP*TP*C)-3')

Chain D:



• Molecule 3: DNA (5'-D(*GP*TP*TP*TP*CP*AP*CP*CP*TP*TP*TP*GP*TP*CP*CP*TP*C)-3')

Chain H:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	77.40Å 74.43Å 111.02Å 90.00° 104.98° 90.00°	Depositor
Resolution (Å)	44.29 – 2.20 44.25 – 2.20	Depositor EDS
% Data completeness (in resolution range)	99.0 (44.29-2.20) 99.0 (44.25-2.20)	Depositor EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.65 (at 2.20Å)	Xtriage
Refinement program	REFMAC 5.8.0258	Depositor
R, R_{free}	0.219 , 0.260 0.224 , 0.269	Depositor DCC
R_{free} test set	1440 reflections (4.68%)	wwPDB-VP
Wilson B-factor (Å^2)	47.0	Xtriage
Anisotropy	0.875	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 36.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.51$, $< L^2 > = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	3310	wwPDB-VP
Average B, all atoms (Å^2)	59.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 7.62% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, MLI

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	0.73	0/598	0.92	0/794
1	B	0.82	0/632	1.10	4/840 (0.5%)
1	F	0.82	0/606	1.01	1/805 (0.1%)
2	C	0.54	0/402	0.86	0/620
2	G	0.55	0/402	0.85	0/620
3	D	0.53	0/372	0.96	1/571 (0.2%)
3	H	0.55	0/372	0.96	1/571 (0.2%)
All	All	0.69	0/3384	0.96	7/4821 (0.1%)

There are no bond length outliers.

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	154	ARG	NE-CZ-NH2	-9.93	115.33	120.30
1	B	154	ARG	NE-CZ-NH1	8.75	124.67	120.30
1	B	154	ARG	CG-CD-NE	-5.49	100.28	111.80
3	H	15	DC	C1'-O4'-C4'	-5.31	104.79	110.10
1	F	191	VAL	N-CA-CB	-5.25	99.94	111.50
3	D	15	DC	C1'-O4'-C4'	-5.20	104.90	110.10
1	B	126	ARG	CG-CD-NE	-5.15	100.99	111.80

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	591	0	603	4	0
1	B	624	0	637	4	0
1	F	598	0	611	4	0
2	C	355	0	190	2	0
2	G	355	0	190	1	0
3	D	336	0	197	0	0
3	H	336	0	197	2	0
4	A	3	0	0	0	0
4	B	2	0	0	0	0
4	F	2	0	0	0	0
5	B	7	0	2	0	0
5	C	7	0	2	0	0
5	F	7	0	2	0	0
6	A	6	0	0	0	0
6	B	12	0	0	0	0
6	C	11	0	0	0	0
6	D	14	0	0	0	0
6	F	13	0	0	0	0
6	G	19	0	0	0	0
6	H	12	0	0	0	0
All	All	3310	0	2631	15	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 (15) 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)
2:C:2:DA:H2"	2:C:3:DG:H5'	1.85	0.57
1:A:126:ARG:HA	1:A:126:ARG:NE	2.24	0.52
1:F:152:PHE:O	1:F:156:ILE:HG12	2.14	0.47
1:A:179:SER:HA	1:B:202:ARG:O	2.15	0.47
1:B:155:THR:HG21	1:B:185:PHE:CD1	2.51	0.45
3:H:11:DT:H2"	3:H:12:DG:C8	2.50	0.45
2:G:10:DG:H2"	2:G:11:DG:O5'	2.17	0.45
1:B:152:PHE:O	1:B:156:ILE:HG12	2.17	0.44
2:C:2:DA:H2"	2:C:3:DG:C5'	2.47	0.44
1:A:152:PHE:O	1:A:156:ILE:HG12	2.17	0.44
1:F:155:THR:HG21	1:F:185:PHE:CD1	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:155:THR:HG21	1:A:185:PHE:CD1	2.53	0.43
1:B:129:LEU:HD12	1:B:142:VAL:HG13	2.01	0.42
1:F:154:ARG:NH1	3:H:3:DT:OP2	2.43	0.41
1:F:129:LEU:HB3	1:F:191:VAL:CG2	2.51	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	74/105 (70%)	72 (97%)	2 (3%)	0	100	100
1	B	78/105 (74%)	77 (99%)	1 (1%)	0	100	100
1	F	75/105 (71%)	74 (99%)	1 (1%)	0	100	100
All	All	227/315 (72%)	223 (98%)	4 (2%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	64/90 (71%)	61 (95%)	3 (5%)	26	33
1	B	68/90 (76%)	65 (96%)	3 (4%)	28	35
1	F	65/90 (72%)	62 (95%)	3 (5%)	27	34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	197/270 (73%)	188 (95%)	9 (5%)	27 34

All (9) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	173	THR
1	A	174	LYS
1	A	175	ARG
1	B	175	ARG
1	B	176	ARG
1	B	195	LYS
1	F	176	ARG
1	F	191	VAL
1	F	195	LYS

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

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

Of 10 ligands modelled in this entry, 7 are monoatomic - leaving 3 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the

expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
5	MLI	B	303	-	6,6,6	1.58	2 (33%)	7,7,7	1.07	0
5	MLI	F	303	-	6,6,6	1.20	0	7,7,7	1.05	0
5	MLI	C	101	-	6,6,6	1.51	1 (16%)	7,7,7	1.28	1 (14%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	MLI	B	303	-	-	0/4/4/4	-
5	MLI	F	303	-	-	3/4/4/4	-
5	MLI	C	101	-	-	0/4/4/4	-

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	303	MLI	C1-C3	2.16	1.54	1.51
5	C	101	MLI	C1-C3	2.09	1.54	1.51
5	B	303	MLI	C1-C2	2.08	1.54	1.51

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	C	101	MLI	C3-C1-C2	2.02	119.93	112.87

There are no chirality outliers.

All (3) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	F	303	MLI	C2-C1-C3-O9
5	F	303	MLI	C2-C1-C3-O8
5	F	303	MLI	C3-C1-C2-O7

There are no ring outliers.

No monomer is involved in short contacts.

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, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	76/105 (72%)	1.84	32 (42%) 0 0	51, 84, 114, 133	0
1	B	80/105 (76%)	0.82	5 (6%) 20 19	41, 55, 88, 105	0
1	F	77/105 (73%)	0.84	3 (3%) 39 37	37, 51, 75, 89	0
2	C	17/17 (100%)	0.11	0 100 100	45, 51, 61, 64	0
2	G	17/17 (100%)	0.19	0 100 100	45, 53, 59, 63	0
3	D	17/17 (100%)	0.09	0 100 100	42, 50, 57, 62	0
3	H	17/17 (100%)	0.03	0 100 100	39, 53, 62, 63	0
All	All	301/383 (78%)	0.92	40 (13%) 3 3	37, 56, 102, 133	0

All (40) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	185	PHE	5.7
1	A	167	THR	5.5
1	A	199	ARG	5.1
1	A	188	CYS	4.5
1	A	161	GLU	4.4
1	A	183	CYS	4.1
1	F	200	LEU	3.9
1	A	126	ARG	3.8
1	A	189	LEU	3.7
1	A	162	TYR	3.6
1	A	194	LEU	3.3
1	A	186	MET	3.3
1	F	199	ARG	3.1
1	A	197	GLY	3.0
1	A	160	ILE	3.0
1	B	179	SER	2.8
1	A	200	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
1	A	155	THR	2.7
1	F	159	ASN	2.6
1	A	171	GLU	2.6
1	A	163	SER	2.6
1	A	196	GLU	2.6
1	A	176	ARG	2.4
1	A	127	LEU	2.4
1	A	144	SER	2.4
1	A	198	VAL	2.3
1	B	159	ASN	2.3
1	A	149	LYS	2.3
1	A	130	VAL	2.3
1	B	202	ARG	2.2
1	A	134	ILE	2.2
1	A	156	ILE	2.2
1	B	155	THR	2.1
1	B	156	ILE	2.1
1	A	142	VAL	2.1
1	A	151	PHE	2.1
1	A	172	ILE	2.1
1	A	147	ALA	2.0
1	A	169	GLU	2.0
1	A	193	MET	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 monosaccharides in this entry.

6.4 Ligands (i)

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

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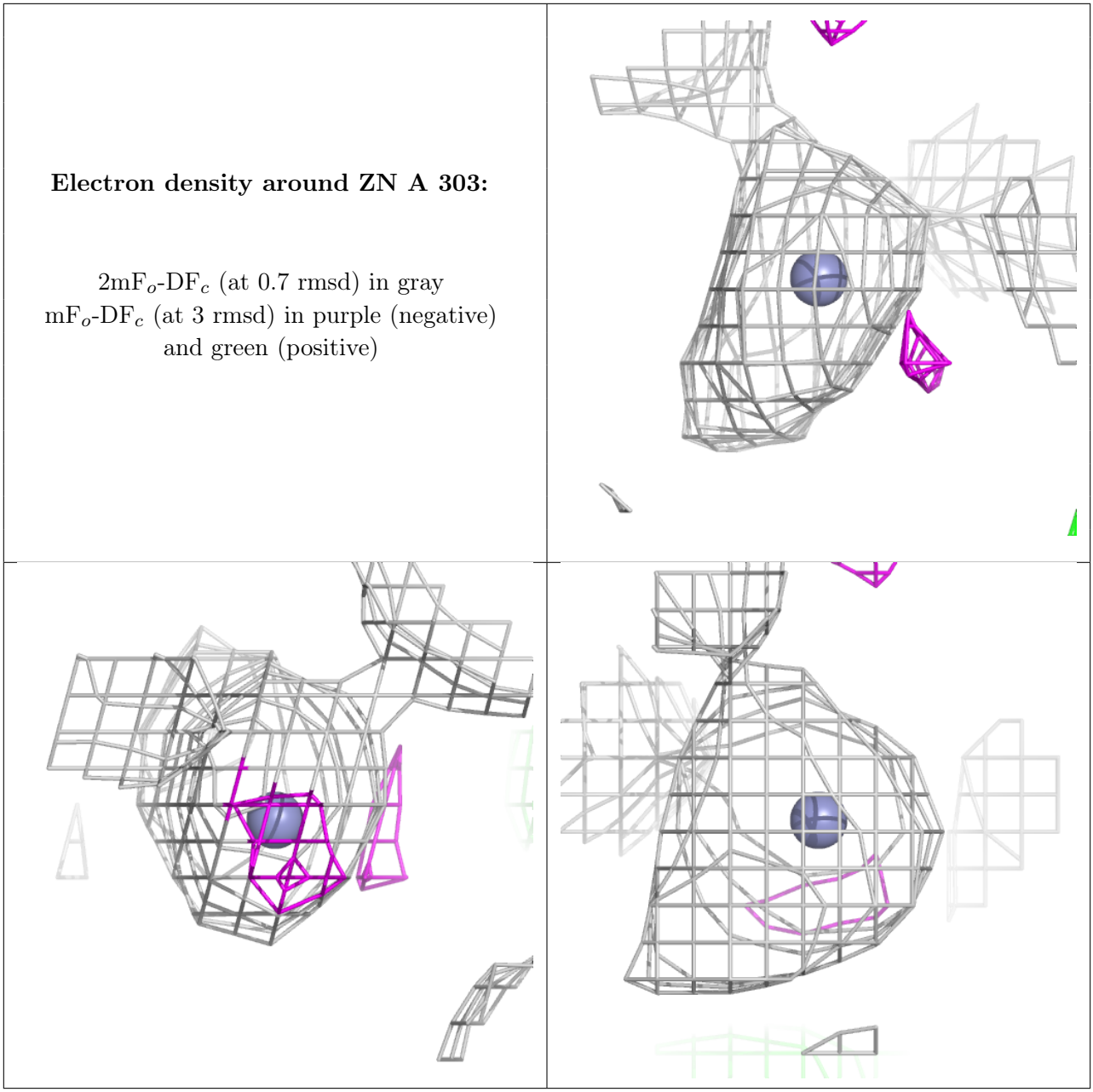
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
5	MLI	F	303	7/7	0.71	0.23	69,82,86,91	0
4	ZN	A	303	1/1	0.79	0.19	121,121,121,121	0
5	MLI	C	101	7/7	0.83	0.30	72,86,95,97	0
5	MLI	B	303	7/7	0.85	0.13	76,80,85,86	0
4	ZN	A	301	1/1	0.94	0.13	60,60,60,60	0
4	ZN	A	302	1/1	0.96	0.05	97,97,97,97	0
4	ZN	B	301	1/1	0.98	0.15	58,58,58,58	0
4	ZN	B	302	1/1	0.99	0.18	45,45,45,45	0
4	ZN	F	301	1/1	0.99	0.20	52,52,52,52	0
4	ZN	F	302	1/1	0.99	0.19	41,41,41,41	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.

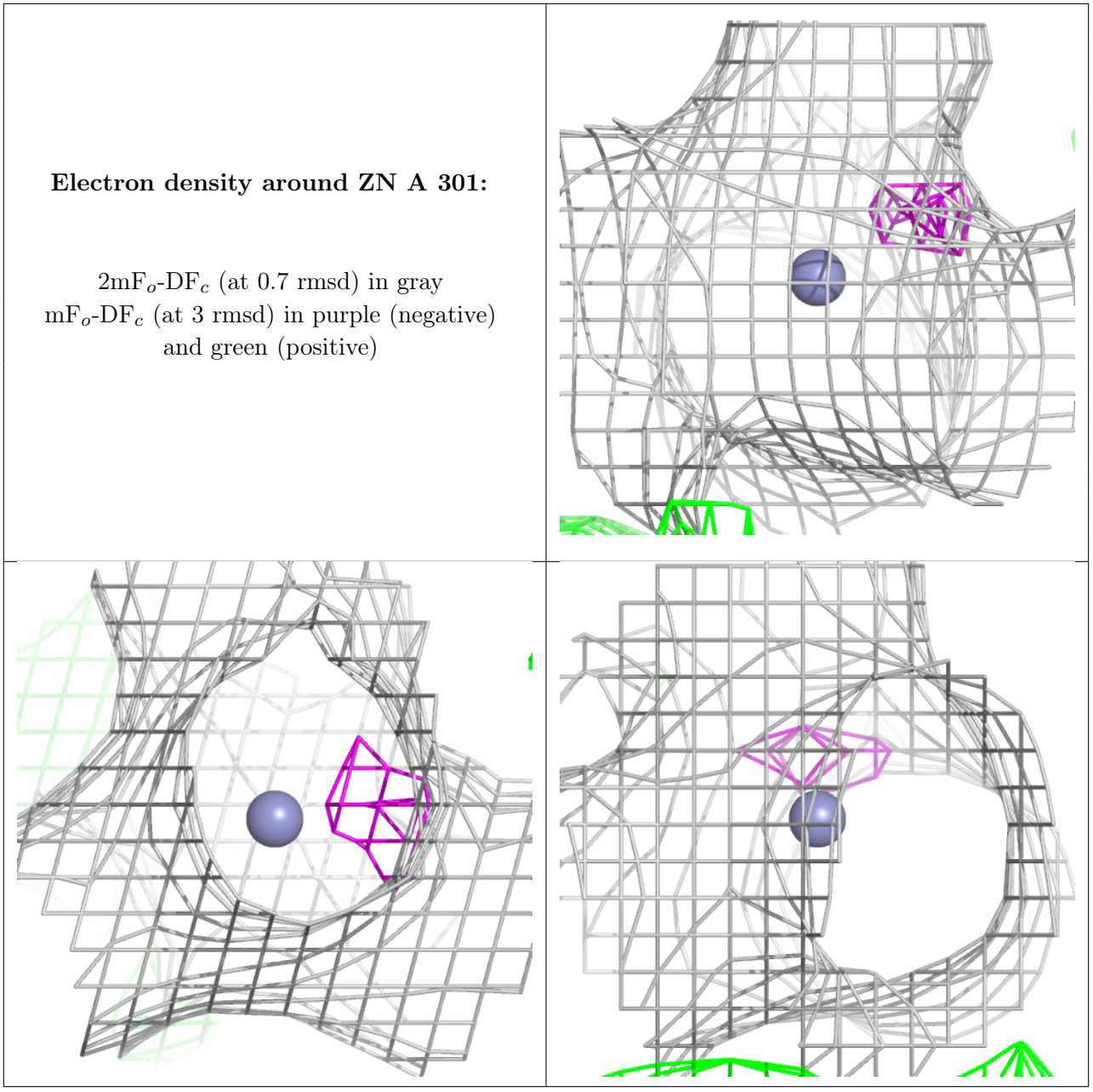
Electron density around ZN A 303:

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



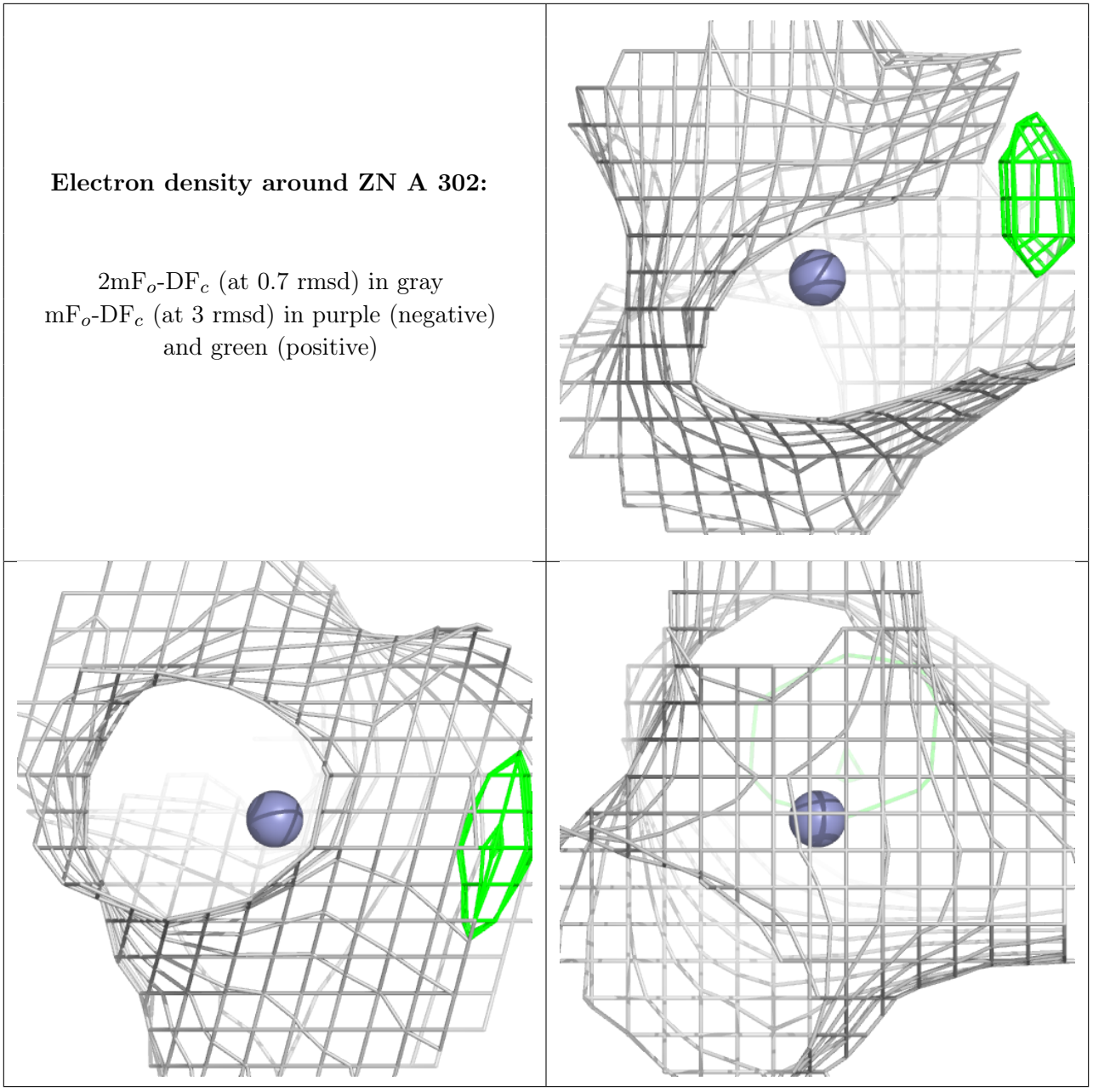
Electron density around ZN A 301:

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



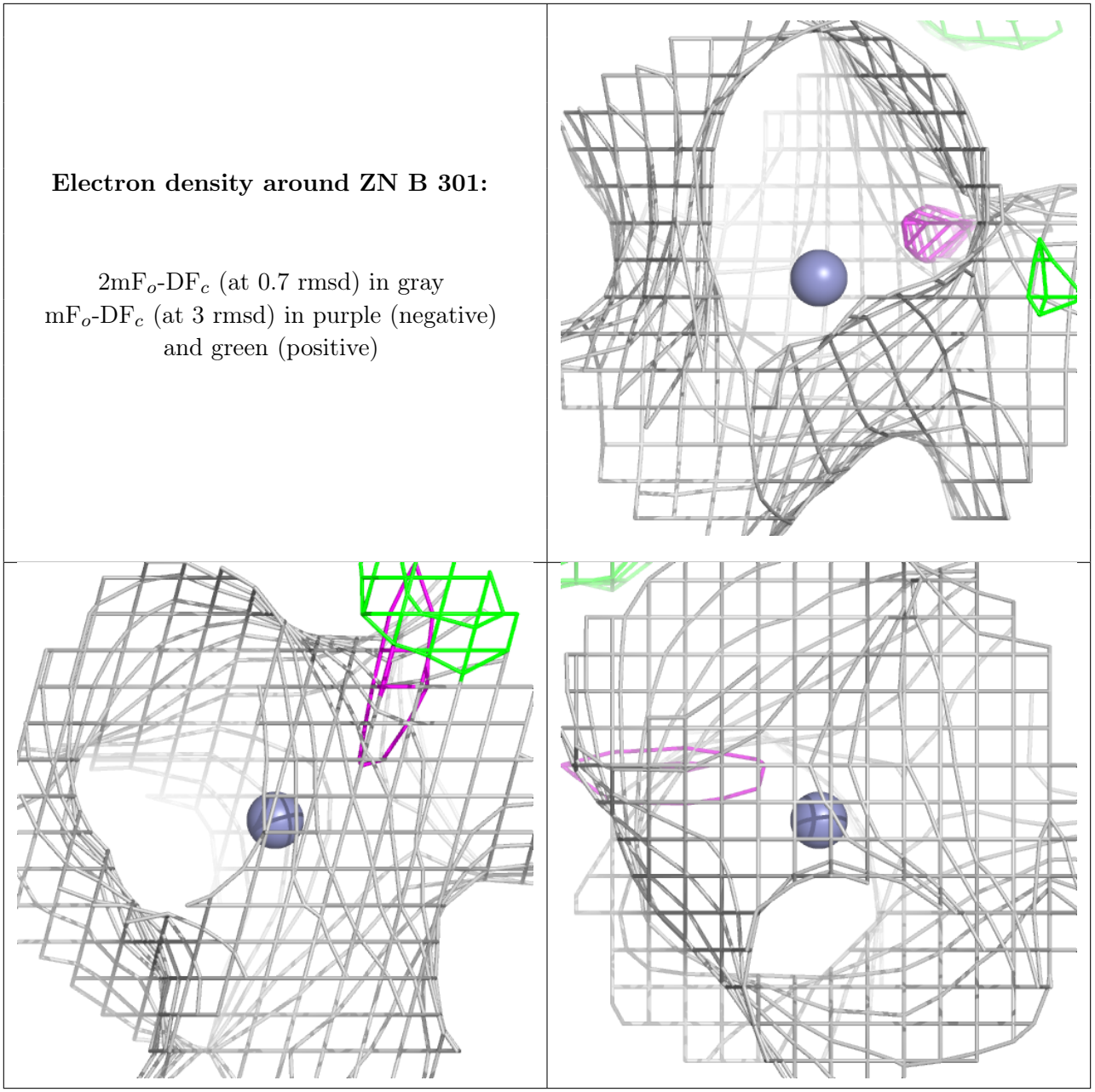
Electron density around ZN A 302:

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



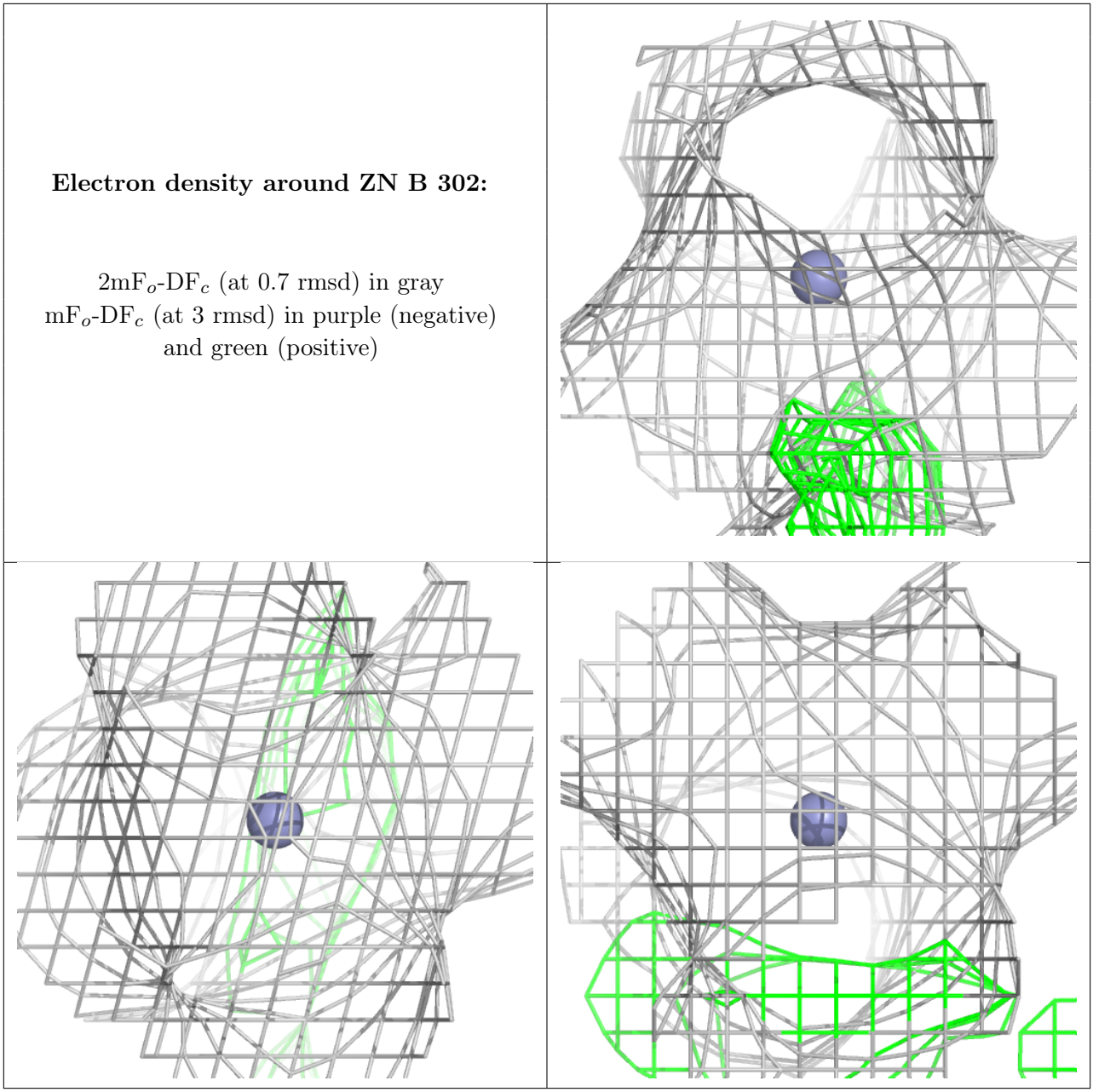
Electron density around ZN B 301:

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



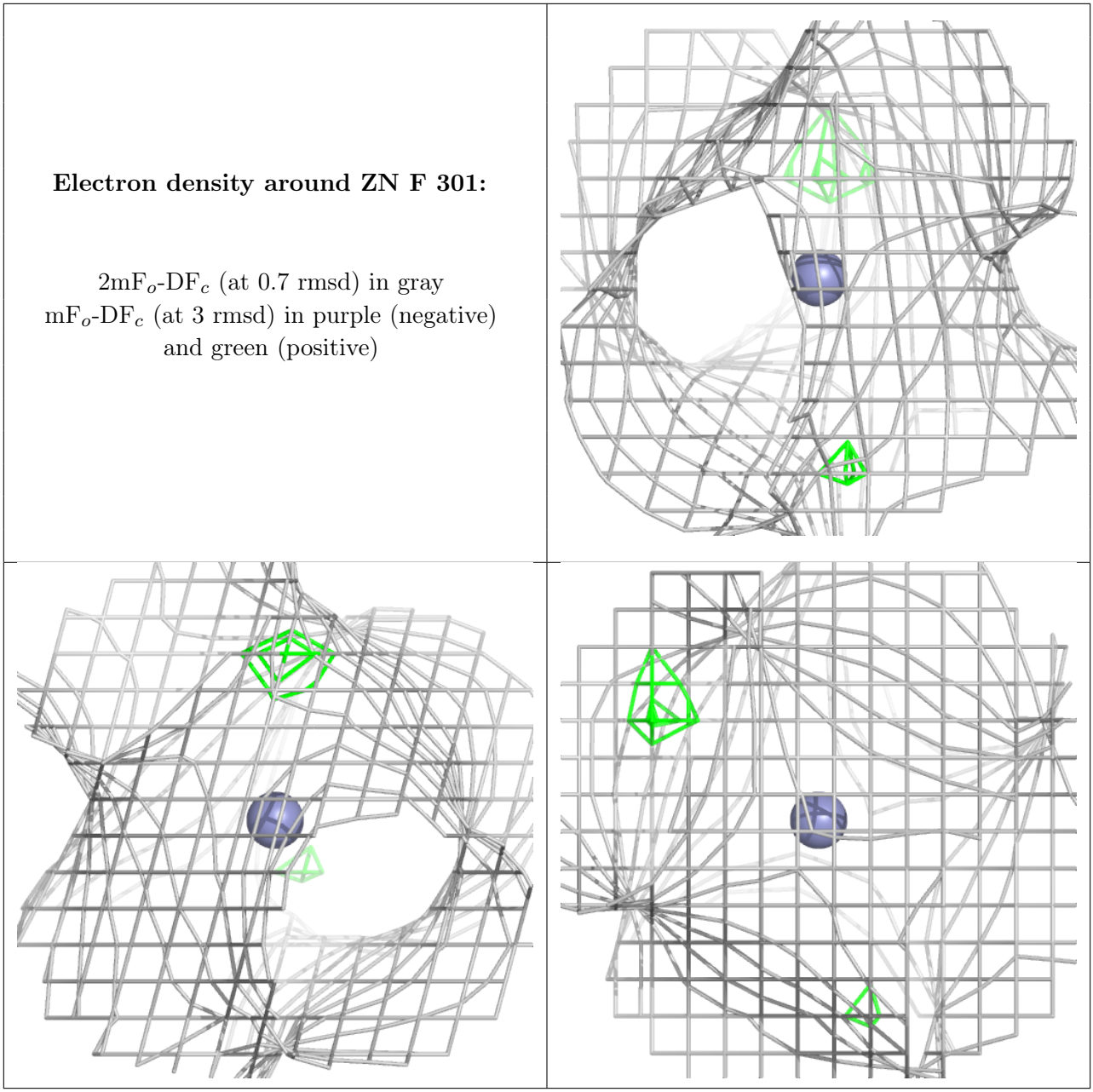
Electron density around ZN B 302:

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



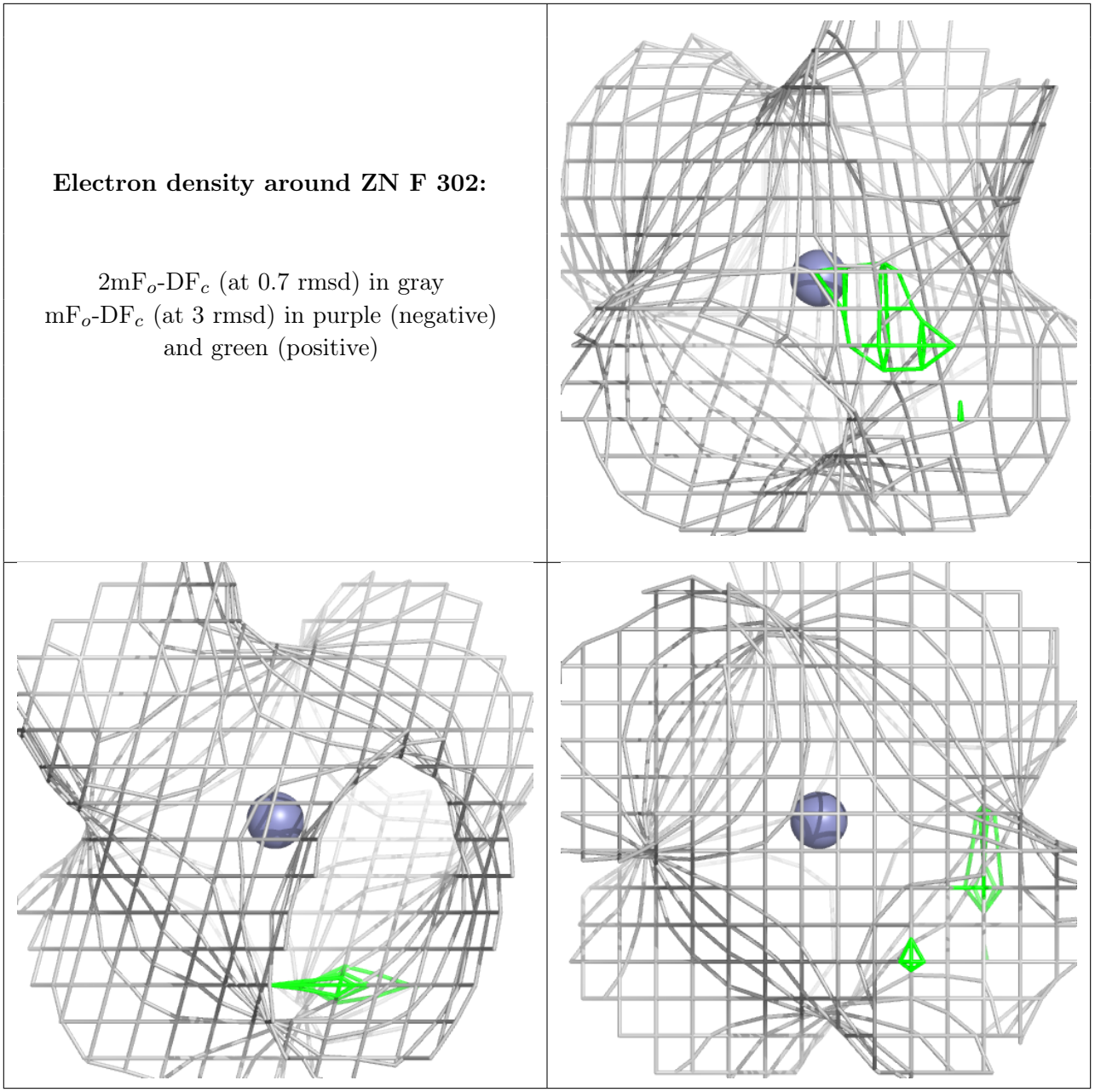
Electron density around ZN F 301:

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



Electron density around ZN 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)



6.5 Other polymers (i)

There are no such residues in this entry.