



# wwPDB X-ray Structure Validation Summary Report ⓘ

Dec 18, 2023 – 05:29 PM EST

PDB ID : 4W2G  
Title : Crystal structure of the *Thermus thermophilus* 70S ribosome in complex with pactamycin (soaked), mRNA and three deacylated tRNAs in the A, P and E sites  
Authors : Polikanov, Y.S.; Osterman, I.A.; Szal, T.; Tashlitsky, V.N.; Serebryakova, M.V.; Kusochev, P.; Bulkley, D.; Malanicheva, I.A.; Efimenko, T.A.; Efremenkova, O.V.; Konevega, A.L.; Shaw, K.J.; Bogdanov, A.A.; Rodnina, M.V.; Dontsova, O.A.; Mankin, A.S.; Steitz, T.A.; Sergiev, P.V.  
Deposited on : 2014-09-12  
Resolution : 2.55 Å(reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto: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>.

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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 : 2.36  
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)

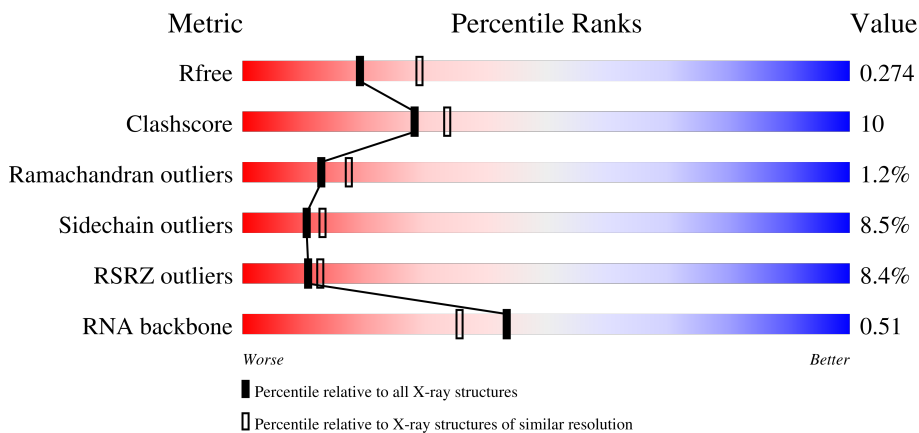
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.55 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<br>(#Entries) | Similar resolution<br>(#Entries, resolution range(Å)) |
|-----------------------|-----------------------------|-------------------------------------------------------|
| $R_{free}$            | 130704                      | 1284 (2.56-2.52)                                      |
| Clashscore            | 141614                      | 1332 (2.56-2.52)                                      |
| Ramachandran outliers | 138981                      | 1315 (2.56-2.52)                                      |
| Sidechain outliers    | 138945                      | 1315 (2.56-2.52)                                      |
| RSRZ outliers         | 127900                      | 1272 (2.56-2.52)                                      |
| RNA backbone          | 3102                        | 1026 (2.88-2.20)                                      |

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  $\geq 3$ , 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   | AA    | 1521   |                  |

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Ideal geometry (proteins) : Engh & Huber (2001)  
 Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
 Validation Pipeline (wwPDB-VP) : 2.36

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| Mol | Chain | Length | Quality of chain      |
|-----|-------|--------|-----------------------|
| 1   | CA    | 1521   | 3%<br>50% 37% 10% ..  |
| 2   | AB    | 256    | 17%<br>48% 36% 5% 10% |
| 2   | CB    | 256    | 27%<br>47% 37% 6% 10% |
| 3   | AC    | 239    | 13%<br>59% 24% 14%    |
| 3   | CC    | 239    | 35%<br>54% 29% 14%    |
| 4   | AD    | 209    | 3%<br>68% 26% 5%      |
| 4   | CD    | 209    | 14%<br>65% 32%        |
| 5   | AE    | 162    | 6%<br>62% 26% 9%      |
| 5   | CE    | 162    | 10%<br>65% 23% 9%     |
| 6   | AF    | 101    | %<br>73% 24% ..       |
| 6   | CF    | 101    | %<br>72% 26% ..       |
| 7   | AG    | 156    | 10%<br>75% 19% 6%     |
| 7   | CG    | 156    | 10%<br>68% 28% ..     |
| 8   | AH    | 138    | 9%<br>67% 30% ..      |
| 8   | CH    | 138    | 14%<br>71% 25% ..     |
| 9   | AI    | 128    | 26%<br>62% 34% ..     |
| 9   | CI    | 128    | 45%<br>55% 34% 10%    |
| 10  | AJ    | 105    | 28%<br>55% 32% 5% 8%  |
| 10  | CJ    | 105    | 37%<br>50% 40% 9%     |
| 11  | AK    | 129    | 7%<br>67% 19% 12%     |
| 11  | CK    | 129    | 2%<br>61% 24% 12%     |
| 12  | AL    | 132    | 2%<br>70% 20% 8%      |
| 12  | CL    | 132    | 12%<br>67% 23% 8%     |
| 13  | AM    | 126    | 5%<br>70% 21% 7%      |
| 13  | CM    | 126    | 33%<br>65% 29% ..     |



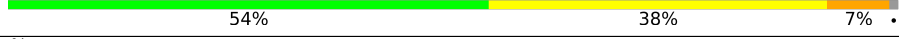

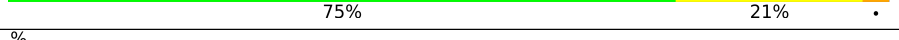
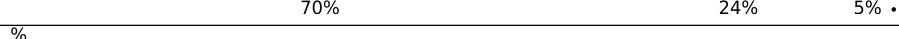
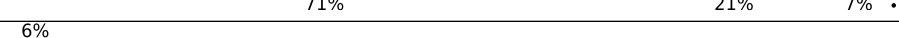
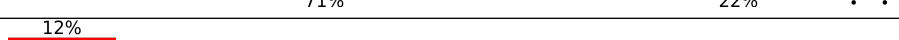
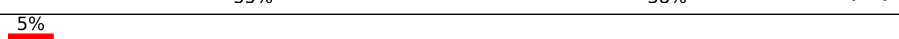
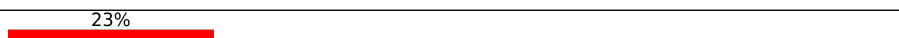















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| Mol | Chain | Length | Quality of chain         |
|-----|-------|--------|--------------------------|
| 14  | AN    | 61     | 13%<br>62% 31% 5%        |
| 14  | CN    | 61     | 70%<br>62% 30% 7%        |
| 15  | AO    | 89     | 2%<br>66% 27% 6%         |
| 15  | CO    | 89     | 2%<br>56% 36% 7%         |
| 16  | AP    | 88     | 13%<br>60% 30% 7%        |
| 16  | CP    | 88     | 14%<br>64% 27% 7%        |
| 17  | AQ    | 105    | 4%<br>76% 18% 6%         |
| 17  | CQ    | 105    | 30%<br>70% 22% 6%        |
| 18  | AR    | 88     | 6%<br>53% 24% 23%        |
| 18  | CR    | 88     | 3%<br>50% 26% 23%        |
| 19  | AS    | 93     | 4%<br>57% 30% 11%        |
| 19  | CS    | 93     | 41%<br>43% 40% 5% 11%    |
| 20  | AT    | 106    | 36%<br>57% 28% 6% 9%     |
| 20  | CT    | 106    | 37%<br>59% 26% 5% 9%     |
| 21  | AU    | 27     | 15%<br>67% 11% 7% 15%    |
| 21  | CU    | 27     | 33%<br>48% 33% 15%       |
| 22  | AV    | 24     | 4%<br>42% 8% 46%         |
| 22  | CV    | 24     | 8%<br>38% 8% 8% 46%      |
| 23  | AW    | 76     | 9%<br>28% 50% 18%        |
| 23  | AY    | 76     | 13%<br>22% 39% 34%       |
| 23  | CW    | 76     | 14%<br>17% 51% 18% 8% 5% |
| 23  | CY    | 76     | 34%<br>28% 38% 22% 8%    |
| 24  | AX    | 77     | 3%<br>60% 31% 8%         |
| 24  | CX    | 77     | 42% 39% 17%              |
| 25  | BA    | 2915   | 2%<br>62% 28% 7%         |

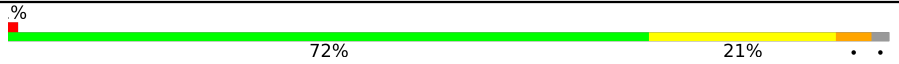
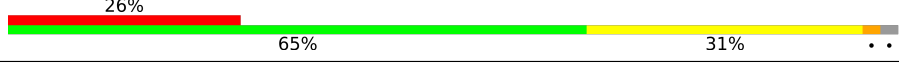
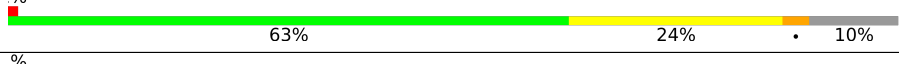


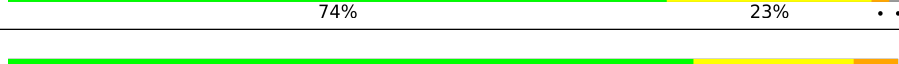
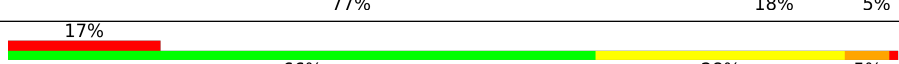
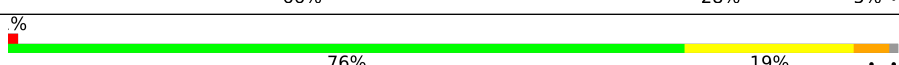
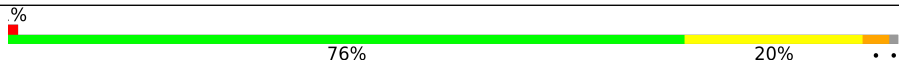


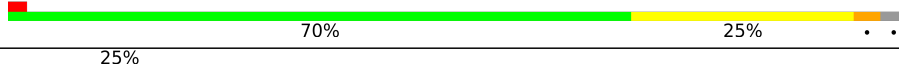
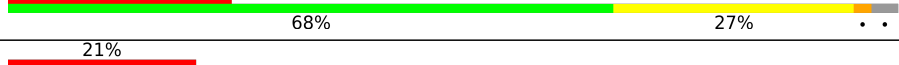

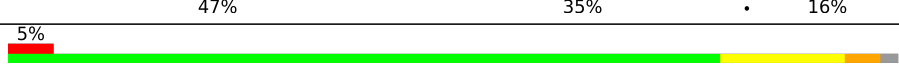










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| Mol | Chain | Length | Quality of chain                                                                                       |
|-----|-------|--------|--------------------------------------------------------------------------------------------------------|
| 25  | DA    | 2915   |  3% 52% 35% 8% ..    |
| 26  | BB    | 121    |  75% 21% ..          |
| 26  | DB    | 121    |  54% 38% 7% .        |
| 27  | BD    | 276    |  % 73% 24% .         |
| 27  | DD    | 276    |  % 75% 21% .         |
| 28  | BE    | 206    |  % 70% 24% 5% .      |
| 28  | DE    | 206    |  % 71% 21% 7% .      |
| 29  | BF    | 210    |  6% 71% 22% . .      |
| 29  | DF    | 210    |  12% 55% 38% . .     |
| 30  | BG    | 182    |  5% 74% 22% . . .    |
| 30  | DG    | 182    |  23% 63% 31% 5% ..   |
| 31  | BH    | 180    |  2% 72% 23% . .    |
| 31  | DH    | 180    |  59% 51% 42% . .   |
| 32  | BI    | 148    |  11% 66% 24% 9% .  |
| 32  | DI    | 148    |  5% 74% 22% . .    |
| 33  | BN    | 140    |  % 76% 20% .       |
| 33  | DN    | 140    |  4% 74% 24% .      |
| 34  | BO    | 122    |  77% 21% ..        |
| 34  | DO    | 122    |  78% 22%           |
| 35  | BP    | 150    |  % 73% 23% . .     |
| 35  | DP    | 150    |  16% 62% 31% 6% .. |
| 36  | BQ    | 141    |  2% 72% 26% .      |
| 36  | DQ    | 141    |  13% 65% 31% .     |
| 37  | BR    | 118    |  69% 25% 7%        |
| 37  | DR    | 118    |  65% 30% 5%        |

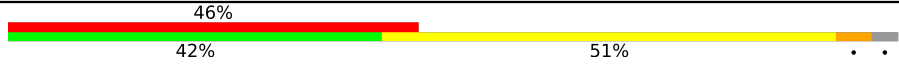

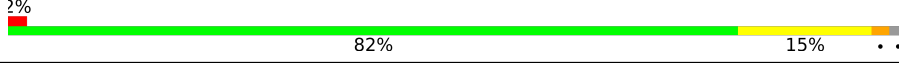


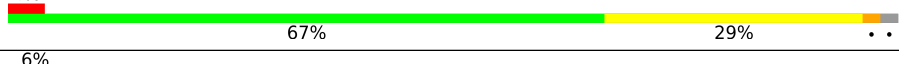
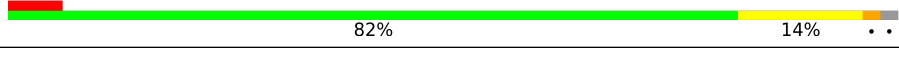

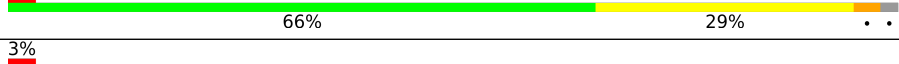

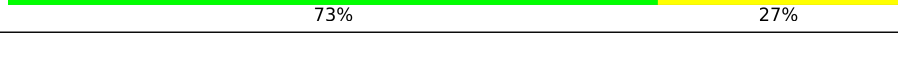
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| Mol | Chain | Length | Quality of chain                                                                     |
|-----|-------|--------|--------------------------------------------------------------------------------------|
| 38  | BS    | 112    |    |
| 38  | DS    | 112    |    |
| 39  | BT    | 146    |    |
| 39  | DT    | 146    |    |
| 40  | BU    | 118    |    |
| 40  | DU    | 118    |    |
| 41  | BV    | 101    |    |
| 41  | DV    | 101    |    |
| 42  | BW    | 113    |    |
| 42  | DW    | 113    |    |
| 43  | BX    | 96     |   |
| 43  | DX    | 96     |  |
| 44  | BY    | 110    |  |
| 44  | DY    | 110    |  |
| 45  | BZ    | 206    |  |
| 45  | DZ    | 206    |  |
| 46  | B0    | 85     |  |
| 46  | D0    | 85     |  |
| 47  | B1    | 98     |  |
| 47  | D1    | 98     |  |
| 48  | B2    | 72     |  |
| 48  | D2    | 72     |  |
| 49  | B3    | 60     |  |
| 49  | D3    | 60     |  |
| 50  | B4    | 71     |  |

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| Mol | Chain | Length | Quality of chain                                                                   |
|-----|-------|--------|------------------------------------------------------------------------------------|
| 50  | D4    | 71     |  |
| 51  | B5    | 60     |  |
| 51  | D5    | 60     |  |
| 52  | B6    | 54     |  |
| 52  | D6    | 54     |  |
| 53  | B7    | 49     |  |
| 53  | D7    | 49     |  |
| 54  | B8    | 65     |  |
| 54  | D8    | 65     |  |
| 55  | B9    | 37     |  |
| 55  | D9    | 37     |  |

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 |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 23  | 5MU  | CY    | 54   | -         | -        | -       | X                |
| 56  | MG   | B1    | 102  | -         | -        | -       | X                |
| 56  | MG   | BR    | 202  | -         | -        | -       | X                |
| 56  | MG   | CA    | 3027 | -         | -        | -       | X                |
| 56  | MG   | CX    | 3006 | -         | -        | -       | X                |
| 56  | MG   | DA    | 3199 | -         | -        | -       | X                |
| 56  | MG   | DA    | 3596 | -         | -        | -       | X                |

## 2 Entry composition [i](#)

There are 61 unique types of molecules in this entry. The entry contains 297273 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 RNA chain called 16S Ribosomal RNA.

| Mol | Chain | Residues | Atoms          |            |           |            |           | ZeroOcc | AltConf | Trace |
|-----|-------|----------|----------------|------------|-----------|------------|-----------|---------|---------|-------|
|     |       |          | Total          | C          | N         | O          | P         |         |         |       |
| 1   | AA    | 1498     | Total<br>32205 | C<br>14333 | N<br>5970 | O<br>10404 | P<br>1498 | 0       | 0       | 0     |
| 1   | CA    | 1503     | Total<br>32312 | C<br>14381 | N<br>5990 | O<br>10438 | P<br>1503 | 0       | 0       | 0     |

- Molecule 2 is a protein called 30S Ribosomal Protein S2.

| Mol | Chain | Residues | Atoms         |           |          |          |        | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|--------|---------|---------|-------|
|     |       |          | Total         | C         | N        | O        | S      |         |         |       |
| 2   | AB    | 231      | Total<br>1846 | C<br>1179 | N<br>331 | O<br>331 | S<br>5 | 0       | 0       | 0     |
| 2   | CB    | 231      | Total<br>1825 | C<br>1167 | N<br>326 | O<br>327 | S<br>5 | 0       | 0       | 0     |

- Molecule 3 is a protein called 30S Ribosomal Protein S3.

| Mol | Chain | Residues | Atoms         |          |          |          |        | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|----------|----------|----------|--------|---------|---------|-------|
|     |       |          | Total         | C        | N        | O        | S      |         |         |       |
| 3   | AC    | 206      | Total<br>1552 | C<br>976 | N<br>302 | O<br>273 | S<br>1 | 0       | 0       | 0     |
| 3   | CC    | 206      | Total<br>1542 | C<br>968 | N<br>300 | O<br>273 | S<br>1 | 0       | 0       | 0     |

- Molecule 4 is a protein called 30S Ribosomal Protein S4.

| Mol | Chain | Residues | Atoms         |           |          |          |        | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|--------|---------|---------|-------|
|     |       |          | Total         | C         | N        | O        | S      |         |         |       |
| 4   | AD    | 208      | Total<br>1659 | C<br>1040 | N<br>326 | O<br>286 | S<br>7 | 0       | 0       | 0     |
| 4   | CD    | 208      | Total<br>1674 | C<br>1050 | N<br>333 | O<br>284 | S<br>7 | 0       | 0       | 0     |

- Molecule 5 is a protein called 30S Ribosomal Protein S5.



| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 5   | AE    | 148      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1129  | 714 | 213 | 198 | 4 |         |         |       |
| 5   | CE    | 148      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1133  | 716 | 214 | 199 | 4 |         |         |       |

- Molecule 6 is a protein called 30S Ribosomal Protein S6.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 6   | AF    | 100      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 806   | 511 | 143 | 149 | 3 |         |         |       |
| 6   | CF    | 100      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 816   | 516 | 146 | 151 | 3 |         |         |       |

- Molecule 7 is a protein called 30S Ribosomal Protein S7.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 7   | AG    | 155      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1231  | 766 | 243 | 216 | 6 |         |         |       |
| 7   | CG    | 155      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1235  | 769 | 244 | 216 | 6 |         |         |       |

- Molecule 8 is a protein called 30S Ribosomal Protein S8.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 8   | AH    | 137      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1088  | 689 | 206 | 191 | 2 |         |         |       |
| 8   | CH    | 137      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1088  | 689 | 206 | 191 | 2 |         |         |       |

- Molecule 9 is a protein called 30S Ribosomal Protein S9.

| Mol | Chain | Residues | Atoms |     |     |     | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|---------|-------|
| 9   | AI    | 127      | Total | C   | N   | O   | 0       | 0       | 0     |
|     |       |          | 983   | 623 | 193 | 167 |         |         |       |
| 9   | CI    | 127      | Total | C   | N   | O   | 0       | 0       | 0     |
|     |       |          | 978   | 619 | 190 | 169 |         |         |       |

- Molecule 10 is a protein called 30S Ribosomal Protein S10.

| Mol | Chain | Residues | Atoms |     |     |     | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|---------|-------|
| 10  | AJ    | 97       | Total | C   | N   | O   | 0       | 0       | 0     |
|     |       |          | 709   | 440 | 138 | 131 |         |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|---------|-------|
|     |       |          | Total | C   | N   | O   |         |         |       |
| 10  | CJ    | 96       | 714   | 445 | 138 | 131 | 0       | 0       | 0     |

- Molecule 11 is a protein called 30S Ribosomal Protein S11.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 11  | AK    | 114      | 829   | 516 | 155 | 155 | 3 | 0       | 0       | 0     |
| 11  | CK    | 114      | 833   | 519 | 156 | 155 | 3 | 0       | 0       | 0     |

- Molecule 12 is a protein called 30S Ribosomal Protein S12.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 12  | AL    | 122      | 930   | 585 | 185 | 159 | 1 | 0       | 0       | 0     |
| 12  | CL    | 122      | 930   | 585 | 185 | 159 | 1 | 0       | 0       | 0     |

- Molecule 13 is a protein called 30S Ribosomal Protein S13.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 13  | AM    | 123      | 958   | 592 | 198 | 166 | 2 | 0       | 0       | 0     |
| 13  | CM    | 122      | 950   | 586 | 197 | 165 | 2 | 0       | 0       | 0     |

- Molecule 14 is a protein called 30S Ribosomal Protein S14.

| Mol | Chain | Residues | Atoms |     |     |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O  | S |         |         |       |
| 14  | AN    | 60       | 492   | 312 | 104 | 72 | 4 | 0       | 0       | 0     |
| 14  | CN    | 60       | 492   | 312 | 104 | 72 | 4 | 0       | 0       | 0     |

- Molecule 15 is a protein called 30S Ribosomal Protein S15.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 15  | AO    | 88       | 728   | 456 | 144 | 126 | 2 | 0       | 0       | 0     |
| 15  | CO    | 88       | 728   | 456 | 144 | 126 | 2 | 0       | 0       | 0     |

- Molecule 16 is a protein called 30S Ribosomal Protein S16.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 16  | AP    | 82       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 681   | 433 | 134 | 113 | 1 |         |         |       |
| 16  | CP    | 82       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 677   | 430 | 133 | 113 | 1 |         |         |       |

- Molecule 17 is a protein called 30S Ribosomal Protein S17.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 17  | AQ    | 99       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 823   | 528 | 151 | 142 | 2 |         |         |       |
| 17  | CQ    | 99       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 823   | 528 | 151 | 142 | 2 |         |         |       |

- Molecule 18 is a protein called 30S Ribosomal Protein S18.

| Mol | Chain | Residues | Atoms |     |     |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---------|---------|-------|
| 18  | AR    | 68       | Total | C   | N   | O  | 0       | 0       | 0     |
|     |       |          | 555   | 355 | 108 | 92 |         |         |       |
| 18  | CR    | 68       | Total | C   | N   | O  | 0       | 0       | 0     |
|     |       |          | 555   | 355 | 108 | 92 |         |         |       |

- Molecule 19 is a protein called 30S Ribosomal Protein S19.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 19  | AS    | 83       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 652   | 417 | 120 | 113 | 2 |         |         |       |
| 19  | CS    | 83       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 646   | 412 | 119 | 113 | 2 |         |         |       |

- Molecule 20 is a protein called 30S Ribosomal Protein S20.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 20  | AT    | 96       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 728   | 446 | 156 | 124 | 2 |         |         |       |
| 20  | CT    | 96       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 727   | 446 | 155 | 124 | 2 |         |         |       |

- Molecule 21 is a protein called 30S Ribosomal Protein THX.

| Mol | Chain | Residues | Atoms |     |    |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|---------|-------|
| 21  | AU    | 23       | Total | C   | N  | O  | 0       | 0       | 0     |
|     |       |          | 199   | 122 | 48 | 29 |         |         |       |
| 21  | CU    | 23       | Total | C   | N  | O  | 0       | 0       | 0     |
|     |       |          | 199   | 122 | 48 | 29 |         |         |       |

- Molecule 22 is a RNA chain called mRNA.

| Mol | Chain | Residues | Atoms |     |    |    |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|----|---------|---------|-------|
| 22  | AV    | 13       | Total | C   | N  | O  | P  | 0       | 0       | 0     |
|     |       |          | 277   | 125 | 51 | 88 | 13 |         |         |       |
| 22  | CV    | 13       | Total | C   | N  | O  | P  | 0       | 0       | 0     |
|     |       |          | 277   | 125 | 51 | 88 | 13 |         |         |       |

- Molecule 23 is a RNA chain called A/P-site tRNA.

| Mol | Chain | Residues | Atoms |     |     |     |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---|---------|---------|-------|
| 23  | AW    | 74       | Total | C   | N   | O   | P  | S | 0       | 0       | 0     |
|     |       |          | 1588  | 713 | 285 | 515 | 73 | 2 |         |         |       |
| 23  | AY    | 74       | Total | C   | N   | O   | P  | S | 0       | 0       | 0     |
|     |       |          | 1581  | 707 | 285 | 515 | 73 | 1 |         |         |       |
| 23  | CW    | 72       | Total | C   | N   | O   | P  | S | 0       | 0       | 0     |
|     |       |          | 1541  | 688 | 278 | 502 | 72 | 1 |         |         |       |
| 23  | CY    | 73       | Total | C   | N   | O   | P  | S | 0       | 0       | 0     |
|     |       |          | 1561  | 698 | 283 | 507 | 72 | 1 |         |         |       |

- Molecule 24 is a RNA chain called E-site tRNA.

| Mol | Chain | Residues | Atoms |     |     |     |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---|---------|---------|-------|
| 24  | AX    | 76       | Total | C   | N   | O   | P  | S | 0       | 0       | 0     |
|     |       |          | 1625  | 725 | 294 | 529 | 76 | 1 |         |         |       |
| 24  | CX    | 76       | Total | C   | N   | O   | P  | S | 0       | 0       | 0     |
|     |       |          | 1625  | 725 | 294 | 529 | 76 | 1 |         |         |       |

- Molecule 25 is a RNA chain called 23S Ribosomal RNA.

| Mol | Chain | Residues | Atoms |       |       |       |      | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-------|-------|-------|------|---------|---------|-------|
| 25  | BA    | 2819     | Total | C     | N     | O     | P    | 0       | 0       | 0     |
|     |       |          | 60729 | 27026 | 11370 | 19515 | 2818 |         |         |       |
| 25  | DA    | 2800     | Total | C     | N     | O     | P    | 0       | 0       | 0     |
|     |       |          | 60311 | 26840 | 11284 | 19388 | 2799 |         |         |       |

- Molecule 26 is a RNA chain called 5S Ribosomal RNA.

| Mol | Chain | Residues | Atoms |      |     |     |     | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|-----|---------|---------|-------|
|     |       |          | Total | C    | N   | O   | P   |         |         |       |
| 26  | BB    | 120      | 2573  | 1146 | 476 | 832 | 119 | 0       | 0       | 0     |
| 26  | DB    | 120      | 2573  | 1146 | 476 | 832 | 119 | 0       | 0       | 0     |

- Molecule 27 is a protein called 50S Ribosomal Protein L2.

| Mol | Chain | Residues | Atoms |      |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C    | N   | O   | S |         |         |       |
| 27  | BD    | 275      | 2136  | 1349 | 423 | 361 | 3 | 0       | 0       | 0     |
| 27  | DD    | 275      | 2136  | 1349 | 423 | 361 | 3 | 0       | 0       | 0     |

- Molecule 28 is a protein called 50S Ribosomal Protein L3.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 28  | BE    | 204      | 1559  | 985 | 298 | 270 | 6 | 0       | 0       | 0     |
| 28  | DE    | 204      | 1559  | 985 | 298 | 270 | 6 | 0       | 0       | 0     |

- Molecule 29 is a protein called 50S Ribosomal Protein L4.

| Mol | Chain | Residues | Atoms |      |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C    | N   | O   | S |         |         |       |
| 29  | BF    | 203      | 1584  | 1009 | 298 | 275 | 2 | 0       | 0       | 1     |
| 29  | DF    | 203      | 1580  | 1007 | 297 | 274 | 2 | 0       | 0       | 1     |

- Molecule 30 is a protein called 50S Ribosomal Protein L5.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 30  | BG    | 181      | 1425  | 914 | 256 | 251 | 4 | 0       | 0       | 0     |
| 30  | DG    | 181      | 1424  | 911 | 258 | 251 | 4 | 0       | 0       | 0     |

- Molecule 31 is a protein called 50S Ribosomal Protein L6.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 31  | BH    | 174      | 1330  | 845 | 248 | 236 | 1 | 0       | 0       | 0     |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 31  | DH    | 174      | 1330  | 845 | 248 | 236 | 1 | 0       | 0       | 0     |

- Molecule 32 is a protein called 50S Ribosomal Protein L9.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 32  | BI    | 146      | 1085  | 693 | 189 | 202 | 1 | 0       | 0       | 0     |
| 32  | DI    | 146      | 1061  | 680 | 186 | 194 | 1 | 0       | 0       | 0     |

- Molecule 33 is a protein called 50S Ribosomal Protein L13.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 33  | BN    | 140      | 1117  | 719 | 207 | 187 | 4 | 0       | 0       | 0     |
| 33  | DN    | 140      | 1117  | 719 | 207 | 187 | 4 | 0       | 0       | 0     |

- Molecule 34 is a protein called 50S Ribosomal Protein L14.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 34  | BO    | 122      | 933   | 588 | 171 | 170 | 4 | 0       | 0       | 0     |
| 34  | DO    | 122      | 933   | 588 | 171 | 170 | 4 | 0       | 0       | 0     |

- Molecule 35 is a protein called 50S Ribosomal Protein L15.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 35  | BP    | 149      | 1135  | 706 | 230 | 196 | 3 | 0       | 0       | 0     |
| 35  | DP    | 149      | 1135  | 706 | 230 | 196 | 3 | 0       | 0       | 0     |

- Molecule 36 is a protein called 50S Ribosomal Protein L16.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 36  | BQ    | 141      | 1122  | 715 | 212 | 188 | 7 | 0       | 0       | 0     |
| 36  | DQ    | 141      | 1122  | 715 | 212 | 188 | 7 | 0       | 0       | 0     |

- Molecule 37 is a protein called 50S Ribosomal Protein L17.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 37  | BR    | 118      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 968   | 604 | 203 | 160 | 1 |         |         |       |
| 37  | DR    | 118      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 968   | 604 | 203 | 160 | 1 |         |         |       |

- Molecule 38 is a protein called 50S Ribosomal Protein L18.

| Mol | Chain | Residues | Atoms |     |     |     | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|---------|-------|
| 38  | BS    | 110      | Total | C   | N   | O   | 0       | 0       | 0     |
|     |       |          | 877   | 553 | 175 | 149 |         |         |       |
| 38  | DS    | 110      | Total | C   | N   | O   | 0       | 0       | 0     |
|     |       |          | 870   | 549 | 173 | 148 |         |         |       |

- Molecule 39 is a protein called 50S Ribosomal Protein L19.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 39  | BT    | 131      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1091  | 680 | 225 | 185 | 1 |         |         |       |
| 39  | DT    | 131      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1083  | 675 | 224 | 183 | 1 |         |         |       |

- Molecule 40 is a protein called 50S Ribosomal Protein L20.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 40  | BU    | 116      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 959   | 608 | 201 | 149 | 1 |         |         |       |
| 40  | DU    | 116      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 959   | 608 | 201 | 149 | 1 |         |         |       |

- Molecule 41 is a protein called 50S Ribosomal Protein L21.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 41  | BV    | 101      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 771   | 495 | 140 | 135 | 1 |         |         |       |
| 41  | DV    | 101      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 771   | 495 | 140 | 135 | 1 |         |         |       |

- Molecule 42 is a protein called 50S Ribosomal Protein L22.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 42  | BW    | 112      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 886   | 557 | 174 | 153 | 2 |         |         |       |
| 42  | DW    | 112      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 886   | 557 | 174 | 153 | 2 |         |         |       |

- Molecule 43 is a protein called 50S Ribosomal Protein L23.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 43  | BX    | 95       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 750   | 488 | 135 | 126 | 1 |         |         |       |
| 43  | DX    | 95       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 750   | 488 | 135 | 126 | 1 |         |         |       |

- Molecule 44 is a protein called 50S Ribosomal Protein L24.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 44  | BY    | 107      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 806   | 517 | 152 | 131 | 6 |         |         |       |
| 44  | DY    | 107      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 806   | 517 | 152 | 131 | 6 |         |         |       |

- Molecule 45 is a protein called 50S Ribosomal Protein L25.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 45  | BZ    | 171      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1349  | 862 | 243 | 242 | 2 |         |         |       |
| 45  | DZ    | 174      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1360  | 870 | 243 | 245 | 2 |         |         |       |

- Molecule 46 is a protein called 50S Ribosomal Protein L27.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 46  | B0    | 83       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 653   | 404 | 139 | 109 | 1 |         |         |       |
| 46  | D0    | 83       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 653   | 404 | 139 | 109 | 1 |         |         |       |

- Molecule 47 is a protein called 50S Ribosomal Protein L28.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 47  | B1    | 97       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 755   | 475 | 148 | 131 | 1 |         |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 47  | D1    | 97       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 755   | 475 | 148 | 131 | 1 |         |         |       |

- Molecule 48 is a protein called 50S Ribosomal Protein L29.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 48  | B2    | 70       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 588   | 365 | 118 | 103 | 2 |         |         |       |
| 48  | D2    | 70       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 588   | 365 | 118 | 103 | 2 |         |         |       |

- Molecule 49 is a protein called 50S Ribosomal Protein L30.

| Mol | Chain | Residues | Atoms |     |    |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|---------|-------|
| 49  | B3    | 59       | Total | C   | N  | O  | 0       | 0       | 0     |
|     |       |          | 469   | 298 | 90 | 81 |         |         |       |
| 49  | D3    | 59       | Total | C   | N  | O  | 0       | 0       | 0     |
|     |       |          | 464   | 296 | 90 | 78 |         |         |       |

- Molecule 50 is a protein called 50S Ribosomal Protein L31.

| Mol | Chain | Residues | Atoms |     |     |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|---------|-------|
| 50  | B4    | 69       | Total | C   | N   | O  | S | 0       | 0       | 0     |
|     |       |          | 558   | 352 | 102 | 99 | 5 |         |         |       |
| 50  | D4    | 69       | Total | C   | N   | O  | S | 0       | 0       | 0     |
|     |       |          | 532   | 339 | 97  | 91 | 5 |         |         |       |

- Molecule 51 is a protein called 50S Ribosomal Protein L32.

| Mol | Chain | Residues | Atoms |     |    |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| 51  | B5    | 59       | Total | C   | N  | O  | S | 0       | 0       | 0     |
|     |       |          | 455   | 285 | 89 | 76 | 5 |         |         |       |
| 51  | D5    | 59       | Total | C   | N  | O  | S | 0       | 0       | 0     |
|     |       |          | 455   | 285 | 89 | 76 | 5 |         |         |       |

- Molecule 52 is a protein called 50S Ribosomal Protein L33.

| Mol | Chain | Residues | Atoms |     |    |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| 52  | B6    | 53       | Total | C   | N  | O  | S | 0       | 0       | 0     |
|     |       |          | 453   | 281 | 91 | 77 | 4 |         |         |       |
| 52  | D6    | 53       | Total | C   | N  | O  | S | 0       | 0       | 0     |
|     |       |          | 449   | 279 | 91 | 75 | 4 |         |         |       |

- Molecule 53 is a protein called 50S Ribosomal Protein L34.

| Mol | Chain | Residues | Atoms        |          |          |         |        | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|---------|--------|---------|---------|-------|
|     |       |          | Total        | C        | N        | O       | S      |         |         |       |
| 53  | B7    | 48       | Total<br>418 | C<br>257 | N<br>104 | O<br>55 | S<br>2 | 0       | 0       | 0     |
| 53  | D7    | 48       | Total<br>418 | C<br>257 | N<br>104 | O<br>55 | S<br>2 | 0       | 0       | 0     |

- Molecule 54 is a protein called 50S Ribosomal Protein L35.

| Mol | Chain | Residues | Atoms        |          |          |         |        | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|---------|--------|---------|---------|-------|
|     |       |          | Total        | C        | N        | O       | S      |         |         |       |
| 54  | B8    | 64       | Total<br>511 | C<br>328 | N<br>99  | O<br>82 | S<br>2 | 0       | 0       | 0     |
| 54  | D8    | 64       | Total<br>517 | C<br>331 | N<br>102 | O<br>82 | S<br>2 | 0       | 0       | 0     |

- Molecule 55 is a protein called 50S Ribosomal Protein L36.

| Mol | Chain | Residues | Atoms        |          |         |         |        | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|---------|---------|--------|---------|---------|-------|
|     |       |          | Total        | C        | N       | O       | S      |         |         |       |
| 55  | B9    | 37       | Total<br>307 | C<br>188 | N<br>68 | O<br>47 | S<br>4 | 0       | 0       | 0     |
| 55  | D9    | 37       | Total<br>307 | C<br>188 | N<br>68 | O<br>47 | S<br>4 | 0       | 0       | 0     |

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

| Mol | Chain | Residues | Atoms               | ZeroOcc | AltConf |
|-----|-------|----------|---------------------|---------|---------|
| 56  | AA    | 230      | Total Mg<br>230 230 | 0       | 0       |
| 56  | AD    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | AE    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | AF    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | AK    | 2        | Total Mg<br>2 2     | 0       | 0       |
| 56  | AM    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | AN    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | AV    | 1        | Total Mg<br>1 1     | 0       | 0       |

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| Mol | Chain | Residues | Atoms        |           | ZeroOcc | AltConf |
|-----|-------|----------|--------------|-----------|---------|---------|
| 56  | AW    | 7        | Total<br>7   | Mg<br>7   | 0       | 0       |
| 56  | AX    | 12       | Total<br>12  | Mg<br>12  | 0       | 0       |
| 56  | AY    | 3        | Total<br>3   | Mg<br>3   | 0       | 0       |
| 56  | BA    | 839      | Total<br>839 | Mg<br>839 | 0       | 0       |
| 56  | BB    | 23       | Total<br>23  | Mg<br>23  | 0       | 0       |
| 56  | BD    | 11       | Total<br>11  | Mg<br>11  | 0       | 0       |
| 56  | BE    | 8        | Total<br>8   | Mg<br>8   | 0       | 0       |
| 56  | BF    | 12       | Total<br>12  | Mg<br>12  | 0       | 0       |
| 56  | BG    | 3        | Total<br>3   | Mg<br>3   | 0       | 0       |
| 56  | BN    | 5        | Total<br>5   | Mg<br>5   | 0       | 0       |
| 56  | BO    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 56  | BP    | 3        | Total<br>3   | Mg<br>3   | 0       | 0       |
| 56  | BQ    | 5        | Total<br>5   | Mg<br>5   | 0       | 0       |
| 56  | BR    | 5        | Total<br>5   | Mg<br>5   | 0       | 0       |
| 56  | BU    | 9        | Total<br>9   | Mg<br>9   | 0       | 0       |
| 56  | BV    | 5        | Total<br>5   | Mg<br>5   | 0       | 0       |
| 56  | BW    | 3        | Total<br>3   | Mg<br>3   | 0       | 0       |
| 56  | BX    | 2        | Total<br>2   | Mg<br>2   | 0       | 0       |
| 56  | BY    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 56  | BZ    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 56  | B0    | 3        | Total<br>3   | Mg<br>3   | 0       | 0       |

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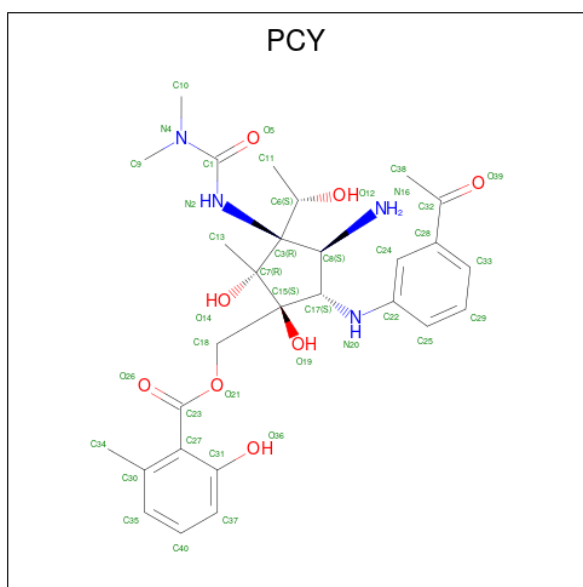
| Mol | Chain | Residues | Atoms               | ZeroOcc | AltConf |
|-----|-------|----------|---------------------|---------|---------|
| 56  | B1    | 2        | Total Mg<br>2 2     | 0       | 0       |
| 56  | B2    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | B3    | 3        | Total Mg<br>3 3     | 0       | 0       |
| 56  | B4    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | B5    | 4        | Total Mg<br>4 4     | 0       | 0       |
| 56  | B6    | 2        | Total Mg<br>2 2     | 0       | 0       |
| 56  | B7    | 2        | Total Mg<br>2 2     | 0       | 0       |
| 56  | B8    | 3        | Total Mg<br>3 3     | 0       | 0       |
| 56  | B9    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | CA    | 177      | Total Mg<br>177 177 | 0       | 0       |
| 56  | CE    | 2        | Total Mg<br>2 2     | 0       | 0       |
| 56  | CF    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | CJ    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | CT    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | CV    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | CW    | 2        | Total Mg<br>2 2     | 0       | 0       |
| 56  | CX    | 5        | Total Mg<br>5 5     | 0       | 0       |
| 56  | CY    | 1        | Total Mg<br>1 1     | 0       | 0       |
| 56  | DA    | 675      | Total Mg<br>675 675 | 0       | 0       |
| 56  | DB    | 11       | Total Mg<br>11 11   | 0       | 0       |
| 56  | DD    | 7        | Total Mg<br>7 7     | 0       | 0       |

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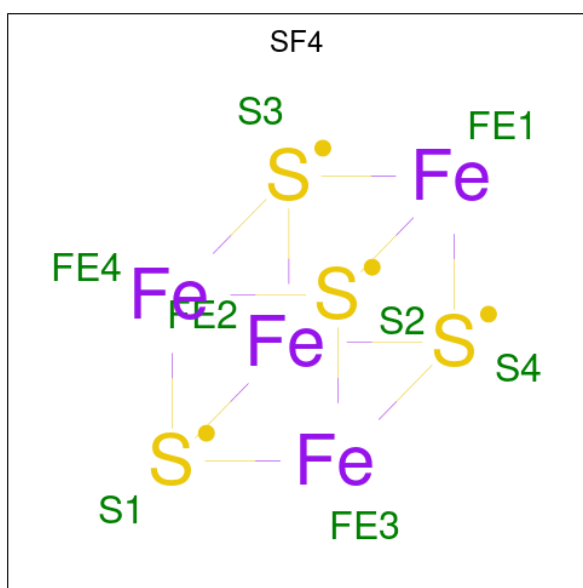
| Mol | Chain | Residues | Atoms      |         | ZeroOcc | AltConf |
|-----|-------|----------|------------|---------|---------|---------|
| 56  | DE    | 4        | Total<br>4 | Mg<br>4 | 0       | 0       |
| 56  | DF    | 5        | Total<br>5 | Mg<br>5 | 0       | 0       |
| 56  | DG    | 1        | Total<br>1 | Mg<br>1 | 0       | 0       |
| 56  | DN    | 1        | Total<br>1 | Mg<br>1 | 0       | 0       |
| 56  | DO    | 1        | Total<br>1 | Mg<br>1 | 0       | 0       |
| 56  | DQ    | 4        | Total<br>4 | Mg<br>4 | 0       | 0       |
| 56  | DR    | 1        | Total<br>1 | Mg<br>1 | 0       | 0       |
| 56  | DU    | 2        | Total<br>2 | Mg<br>2 | 0       | 0       |
| 56  | DV    | 3        | Total<br>3 | Mg<br>3 | 0       | 0       |
| 56  | DW    | 3        | Total<br>3 | Mg<br>3 | 0       | 0       |
| 56  | DY    | 1        | Total<br>1 | Mg<br>1 | 0       | 0       |
| 56  | D0    | 2        | Total<br>2 | Mg<br>2 | 0       | 0       |
| 56  | D3    | 1        | Total<br>1 | Mg<br>1 | 0       | 0       |
| 56  | D7    | 2        | Total<br>2 | Mg<br>2 | 0       | 0       |
| 56  | D8    | 1        | Total<br>1 | Mg<br>1 | 0       | 0       |

- Molecule 57 is Pactamycin (three-letter code: PCY) (formula:  $C_{28}H_{38}N_4O_8$ ).



| Mol | Chain | Residues | Atoms |    |   | ZeroOcc | AltConf |   |
|-----|-------|----------|-------|----|---|---------|---------|---|
|     |       |          | Total | C  | N |         |         | O |
| 57  | AA    | 1        | Total | C  | N | O       | 0       | 0 |
|     |       |          | 40    | 28 | 4 | 8       |         |   |
| 57  | CA    | 1        | Total | C  | N | O       | 0       | 0 |
|     |       |          | 40    | 28 | 4 | 8       |         |   |

- Molecule 58 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe<sub>4</sub>S<sub>4</sub>).



| Mol | Chain | Residues | Atoms |    | ZeroOcc | AltConf |   |
|-----|-------|----------|-------|----|---------|---------|---|
|     |       |          | Total | Fe |         |         | S |
| 58  | AD    | 1        | Total | Fe | S       | 0       | 0 |
|     |       |          | 8     | 4  | 4       |         |   |
| 58  | CD    | 1        | Total | Fe | S       | 0       | 0 |
|     |       |          | 8     | 4  | 4       |         |   |

- Molecule 59 is ZINC ION (three-letter code: ZN) (formula: Zn).

| Mol | Chain | Residues | Atoms      |         | ZeroOcc | AltConf |
|-----|-------|----------|------------|---------|---------|---------|
| 59  | AN    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | BY    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | B4    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | B5    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | B6    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | B9    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | CN    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | DY    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | D4    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | D5    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | D6    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |
| 59  | D9    | 1        | Total<br>1 | Zn<br>1 | 0       | 0       |

- Molecule 60 is POTASSIUM ION (three-letter code: K) (formula: K).

| Mol | Chain | Residues | Atoms      |        | ZeroOcc | AltConf |
|-----|-------|----------|------------|--------|---------|---------|
| 60  | AX    | 1        | Total<br>1 | K<br>1 | 0       | 0       |
| 60  | CX    | 1        | Total<br>1 | K<br>1 | 0       | 0       |

- Molecule 61 is water.

| Mol | Chain | Residues | Atoms        |          | ZeroOcc | AltConf |
|-----|-------|----------|--------------|----------|---------|---------|
| 61  | AA    | 226      | Total<br>226 | O<br>226 | 0       | 0       |
| 61  | AE    | 3        | Total<br>3   | O<br>3   | 0       | 0       |
| 61  | AJ    | 1        | Total<br>1   | O<br>1   | 0       | 0       |

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| Mol | Chain | Residues | Atoms                | ZeroOcc | AltConf |
|-----|-------|----------|----------------------|---------|---------|
| 61  | AL    | 4        | Total O<br>4 4       | 0       | 0       |
| 61  | AM    | 1        | Total O<br>1 1       | 0       | 0       |
| 61  | AV    | 4        | Total O<br>4 4       | 0       | 0       |
| 61  | AW    | 6        | Total O<br>6 6       | 0       | 0       |
| 61  | AX    | 8        | Total O<br>8 8       | 0       | 0       |
| 61  | AY    | 3        | Total O<br>3 3       | 0       | 0       |
| 61  | BA    | 1411     | Total O<br>1411 1411 | 0       | 0       |
| 61  | BB    | 36       | Total O<br>36 36     | 0       | 0       |
| 61  | BD    | 16       | Total O<br>16 16     | 0       | 0       |
| 61  | BE    | 13       | Total O<br>13 13     | 0       | 0       |
| 61  | BF    | 7        | Total O<br>7 7       | 0       | 0       |
| 61  | BG    | 3        | Total O<br>3 3       | 0       | 0       |
| 61  | BI    | 1        | Total O<br>1 1       | 0       | 0       |
| 61  | BN    | 2        | Total O<br>2 2       | 0       | 0       |
| 61  | BO    | 3        | Total O<br>3 3       | 0       | 0       |
| 61  | BP    | 17       | Total O<br>17 17     | 0       | 0       |
| 61  | BQ    | 2        | Total O<br>2 2       | 0       | 0       |
| 61  | BR    | 2        | Total O<br>2 2       | 0       | 0       |
| 61  | BT    | 1        | Total O<br>1 1       | 0       | 0       |
| 61  | BU    | 6        | Total O<br>6 6       | 0       | 0       |
| 61  | BV    | 2        | Total O<br>2 2       | 0       | 0       |

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| Mol | Chain | Residues | Atoms                | ZeroOcc | AltConf |
|-----|-------|----------|----------------------|---------|---------|
| 61  | BW    | 4        | Total O<br>4 4       | 0       | 0       |
| 61  | BX    | 1        | Total O<br>1 1       | 0       | 0       |
| 61  | B0    | 4        | Total O<br>4 4       | 0       | 0       |
| 61  | B1    | 2        | Total O<br>2 2       | 0       | 0       |
| 61  | B3    | 2        | Total O<br>2 2       | 0       | 0       |
| 61  | B5    | 5        | Total O<br>5 5       | 0       | 0       |
| 61  | B6    | 1        | Total O<br>1 1       | 0       | 0       |
| 61  | B7    | 3        | Total O<br>3 3       | 0       | 0       |
| 61  | B8    | 11       | Total O<br>11 11     | 0       | 0       |
| 61  | CA    | 173      | Total O<br>173 173   | 0       | 0       |
| 61  | CJ    | 2        | Total O<br>2 2       | 0       | 0       |
| 61  | CL    | 1        | Total O<br>1 1       | 0       | 0       |
| 61  | CV    | 2        | Total O<br>2 2       | 0       | 0       |
| 61  | CW    | 1        | Total O<br>1 1       | 0       | 0       |
| 61  | CX    | 4        | Total O<br>4 4       | 0       | 0       |
| 61  | DA    | 1002     | Total O<br>1002 1002 | 0       | 0       |
| 61  | DB    | 10       | Total O<br>10 10     | 0       | 0       |
| 61  | DD    | 17       | Total O<br>17 17     | 0       | 0       |
| 61  | DE    | 11       | Total O<br>11 11     | 0       | 0       |
| 61  | DF    | 5        | Total O<br>5 5       | 0       | 0       |
| 61  | DN    | 2        | Total O<br>2 2       | 0       | 0       |

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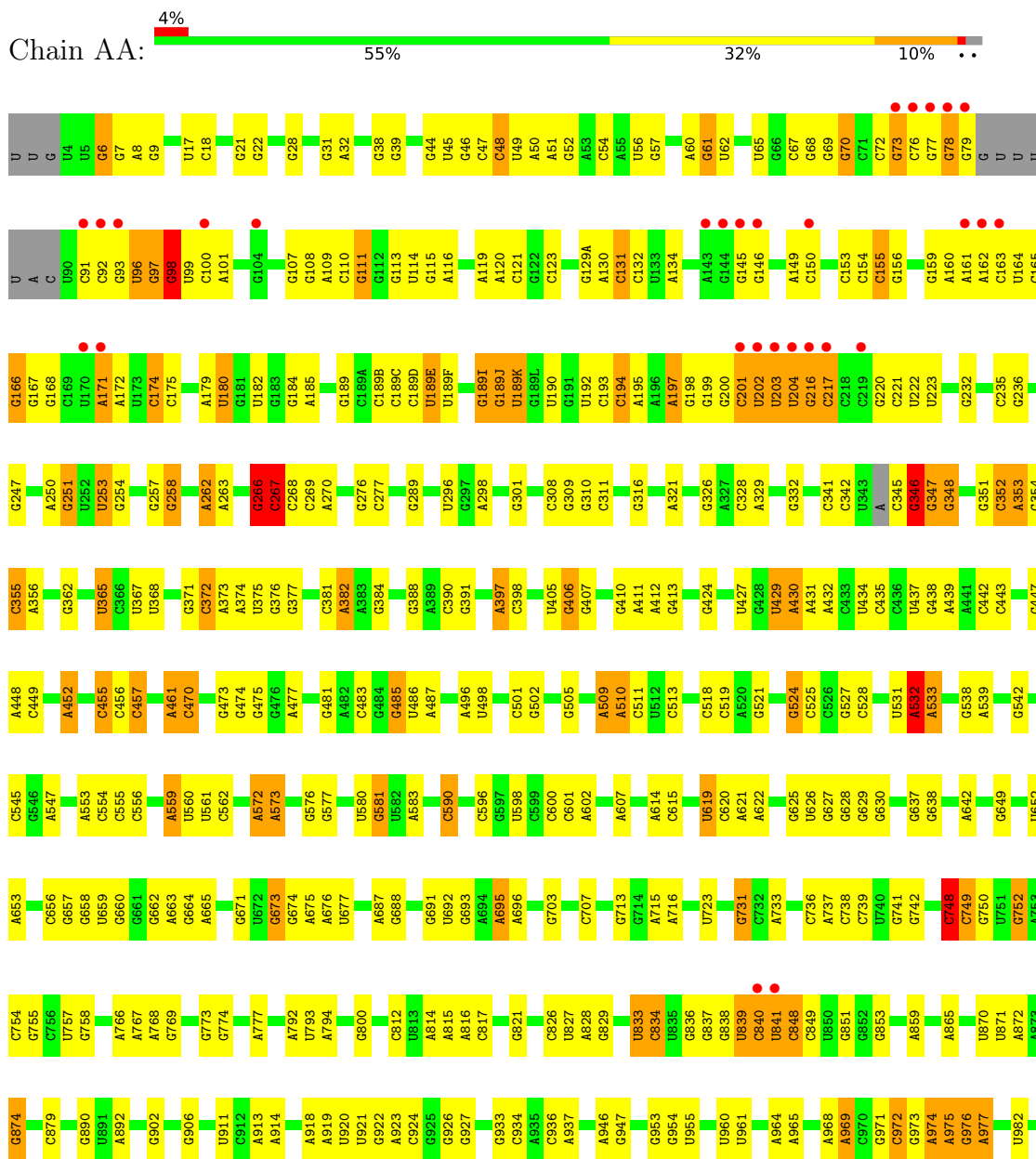
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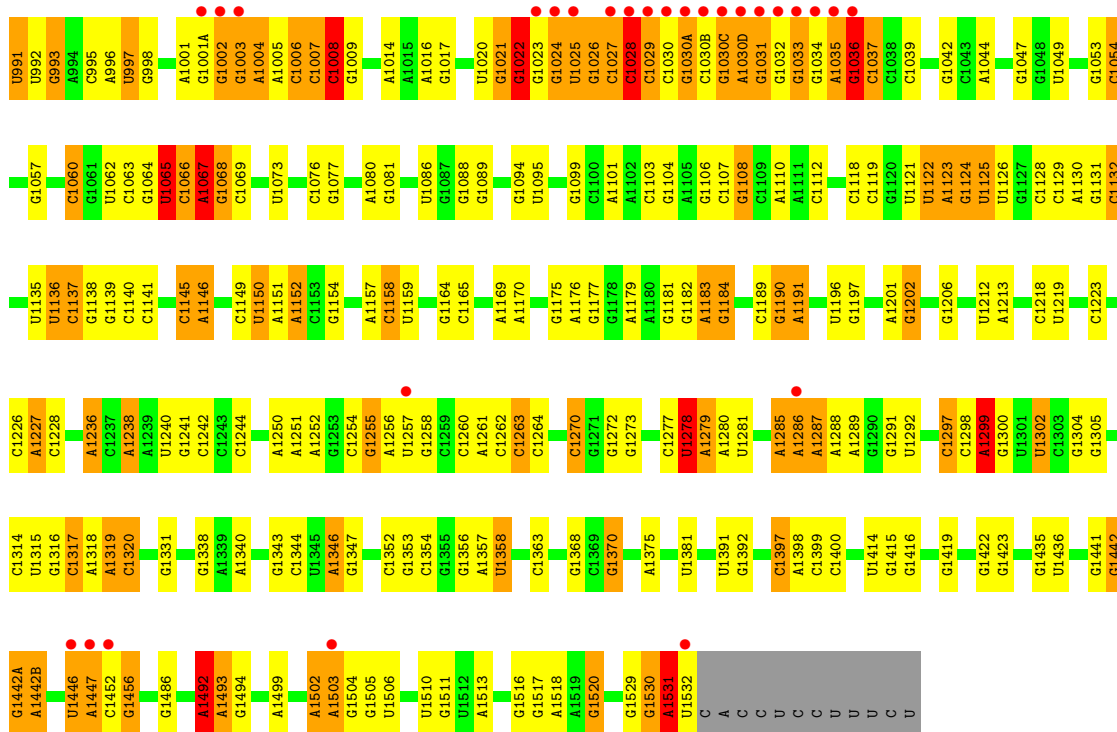
| <b>Mol</b> | <b>Chain</b> | <b>Residues</b> | <b>Atoms</b> |        | <b>ZeroOcc</b> | <b>AltConf</b> |
|------------|--------------|-----------------|--------------|--------|----------------|----------------|
| 61         | DO           | 2               | Total<br>2   | O<br>2 | 0              | 0              |
| 61         | DP           | 8               | Total<br>8   | O<br>8 | 0              | 0              |
| 61         | DQ           | 1               | Total<br>1   | O<br>1 | 0              | 0              |
| 61         | DR           | 1               | Total<br>1   | O<br>1 | 0              | 0              |
| 61         | DU           | 2               | Total<br>2   | O<br>2 | 0              | 0              |
| 61         | DW           | 1               | Total<br>1   | O<br>1 | 0              | 0              |
| 61         | DY           | 1               | Total<br>1   | O<br>1 | 0              | 0              |
| 61         | D0           | 5               | Total<br>5   | O<br>5 | 0              | 0              |
| 61         | D3           | 1               | Total<br>1   | O<br>1 | 0              | 0              |
| 61         | D7           | 3               | Total<br>3   | O<br>3 | 0              | 0              |
| 61         | D8           | 4               | Total<br>4   | O<br>4 | 0              | 0              |

### 3 Residue-property plots i

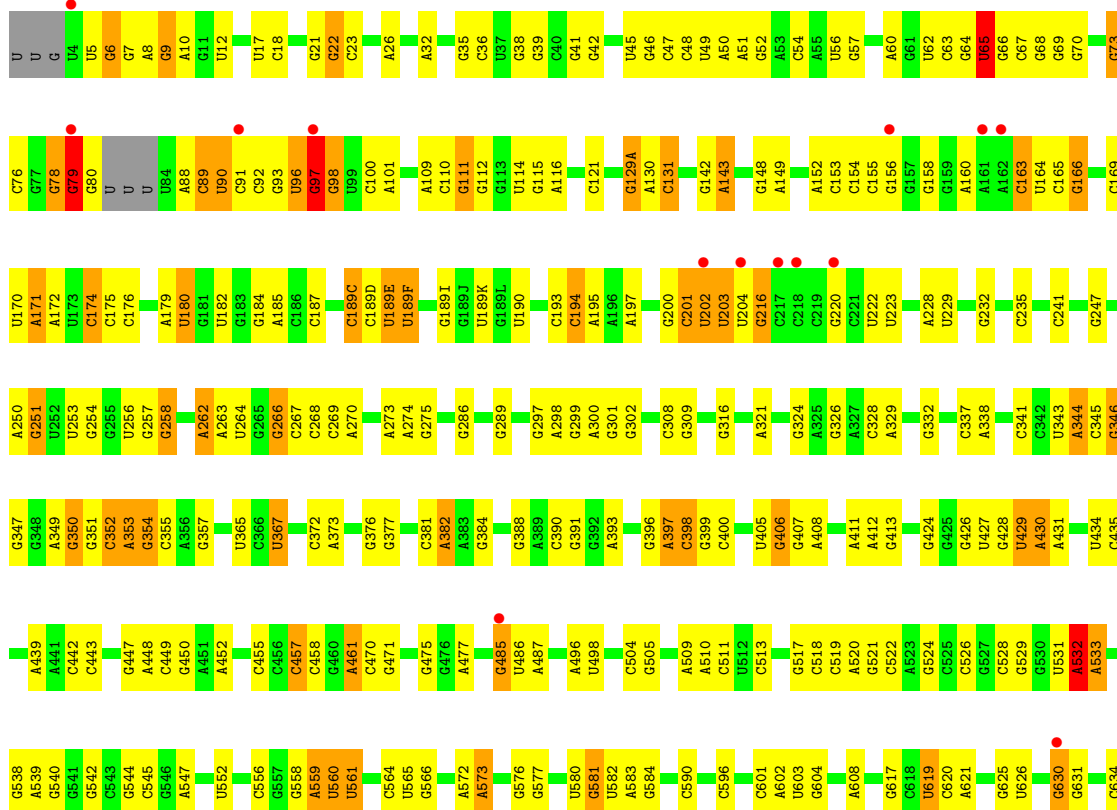
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

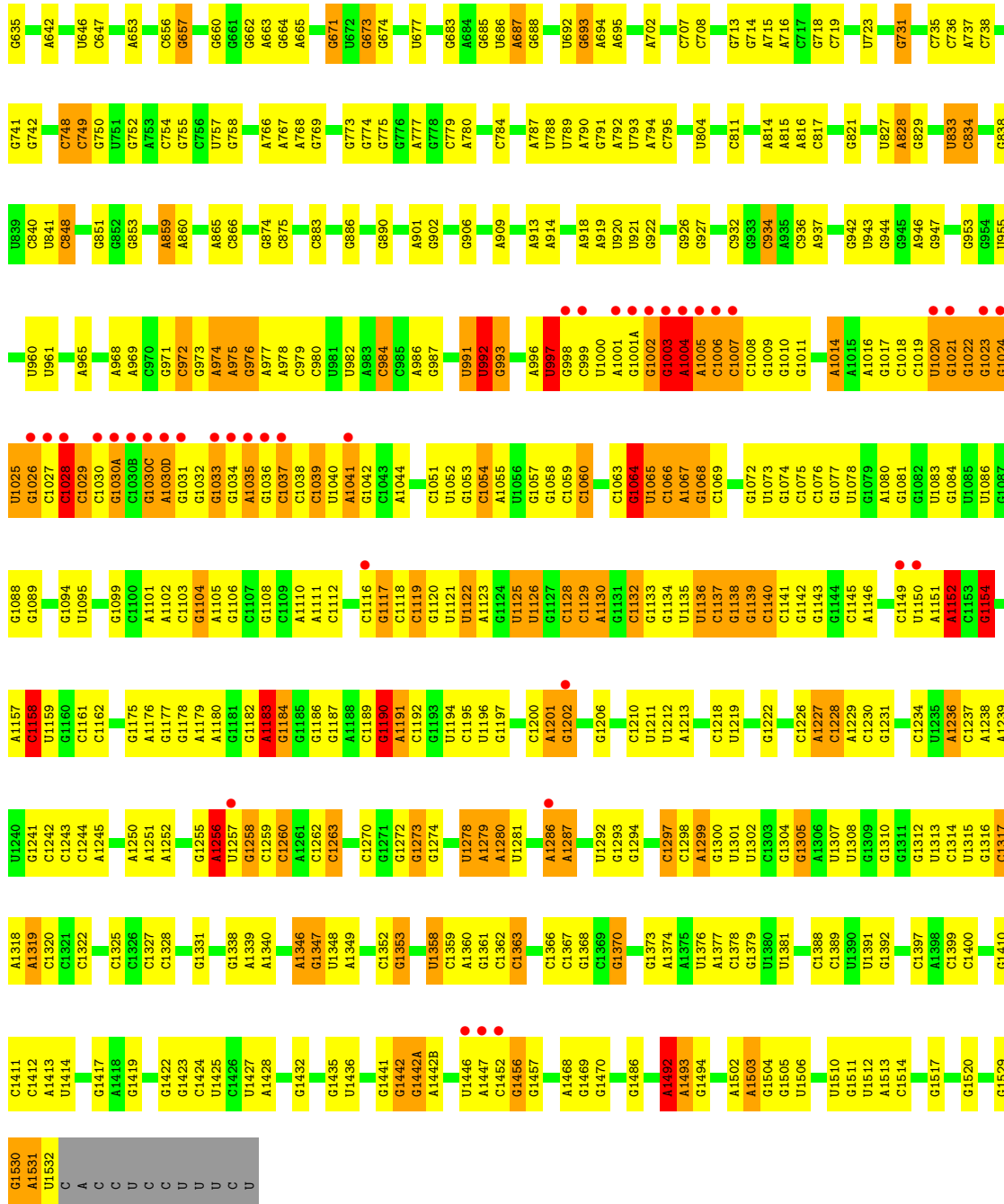
● Molecule 1: 16S Ribosomal RNA



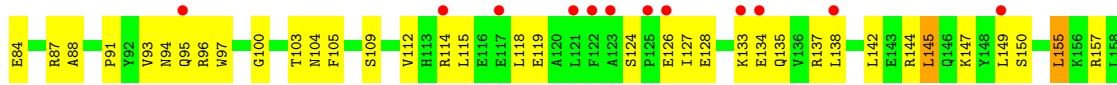
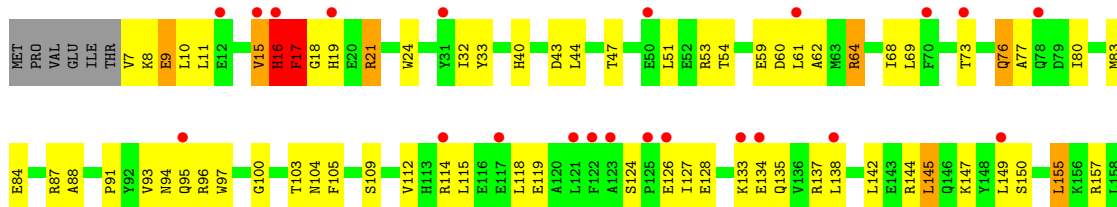


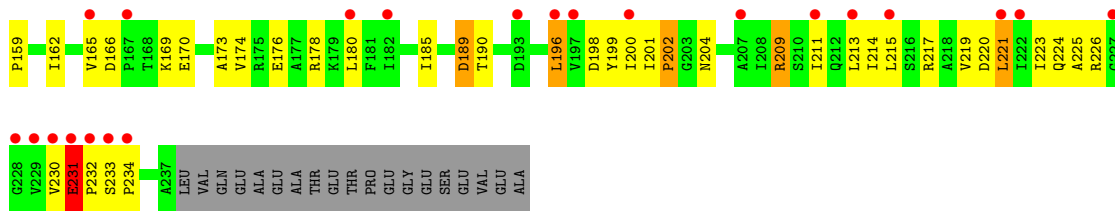
• Molecule 1: 16S Ribosomal RNA



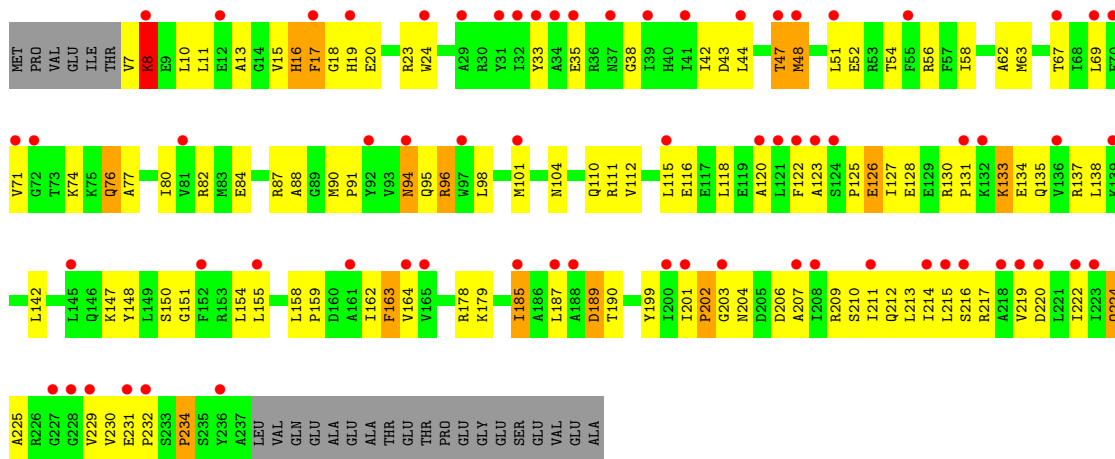


• Molecule 2: 30S Ribosomal Protein S2

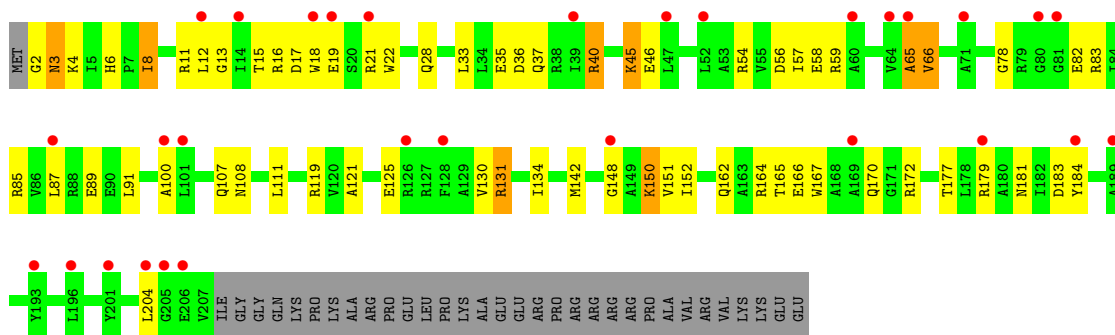




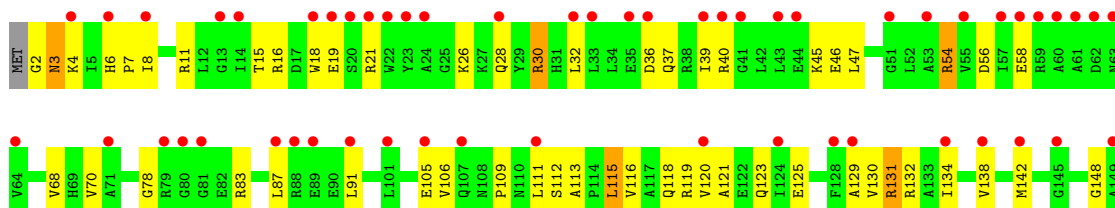
● Molecule 2: 30S Ribosomal Protein S2

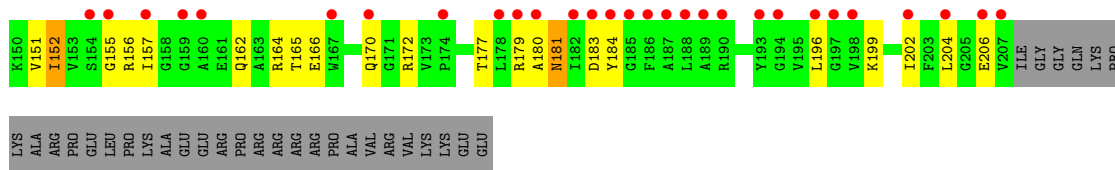


● Molecule 3: 30S Ribosomal Protein S3

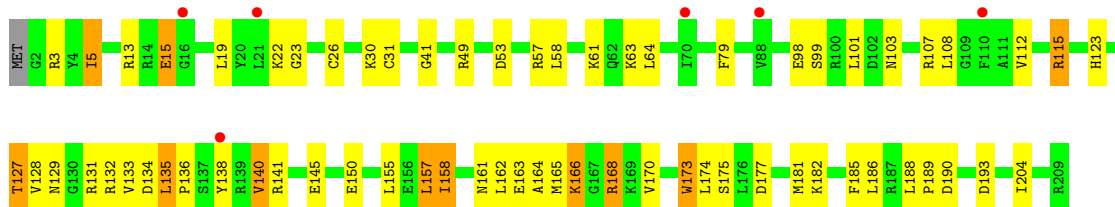


● Molecule 3: 30S Ribosomal Protein S3

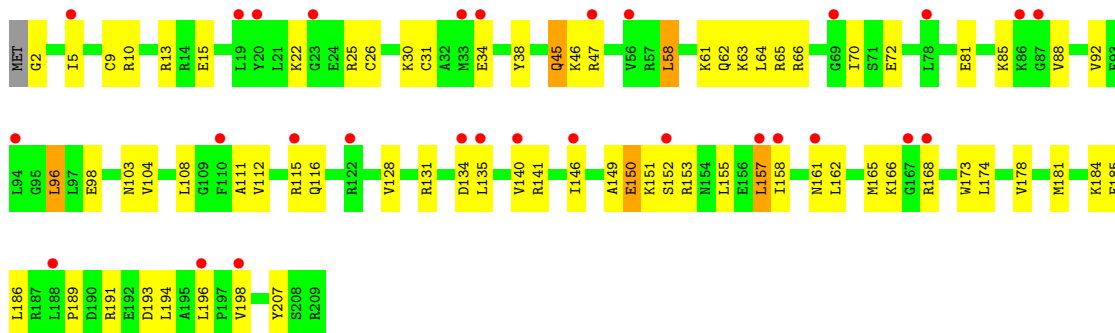




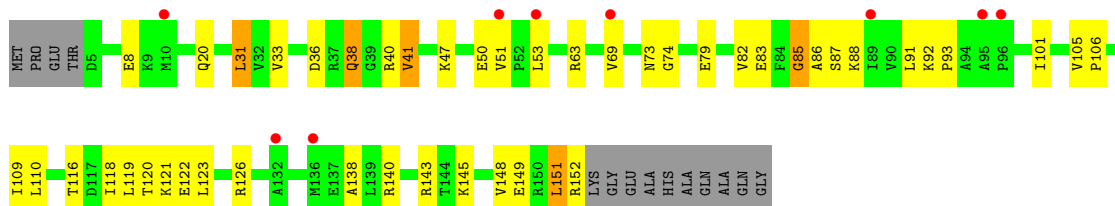
• Molecule 4: 30S Ribosomal Protein S4



• Molecule 4: 30S Ribosomal Protein S4



• Molecule 5: 30S Ribosomal Protein S5

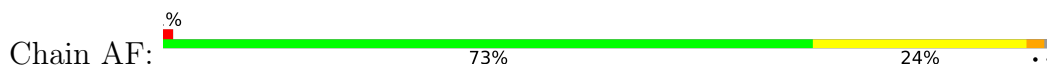


• Molecule 5: 30S Ribosomal Protein S5

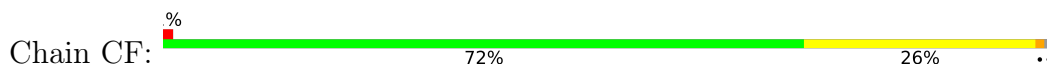




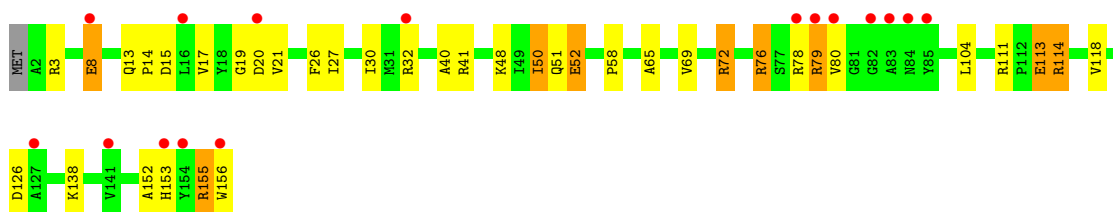
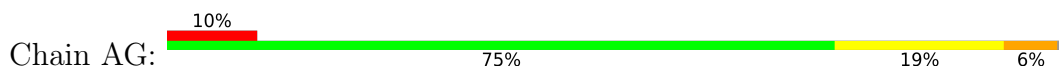
- Molecule 6: 30S Ribosomal Protein S6



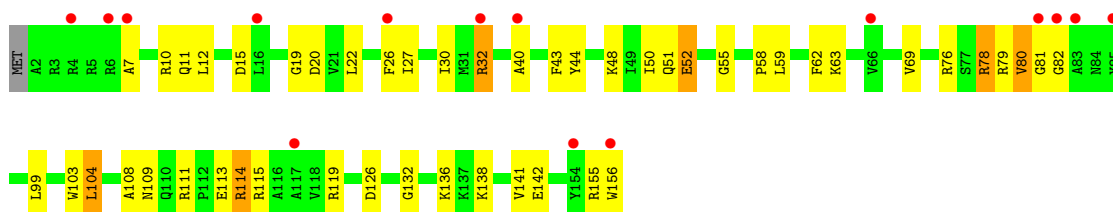
- Molecule 6: 30S Ribosomal Protein S6



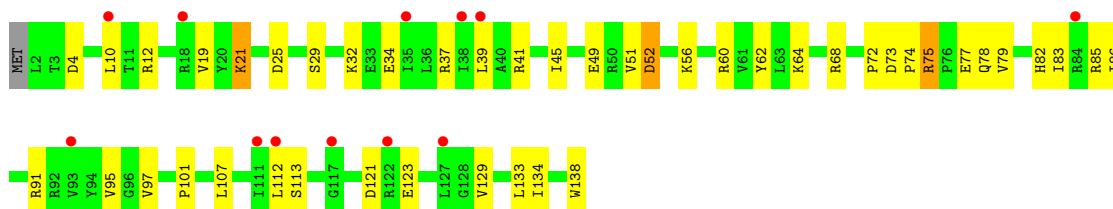
- Molecule 7: 30S Ribosomal Protein S7



- Molecule 7: 30S Ribosomal Protein S7

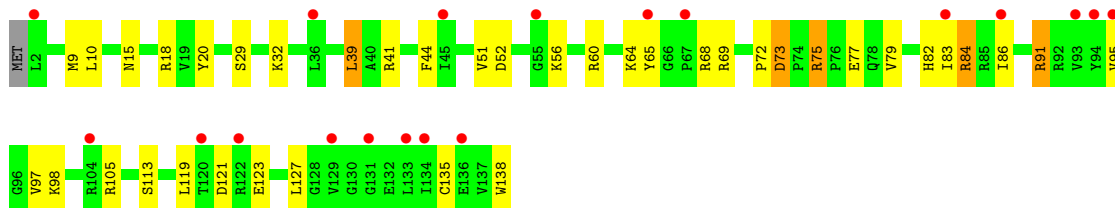


- Molecule 8: 30S Ribosomal Protein S8

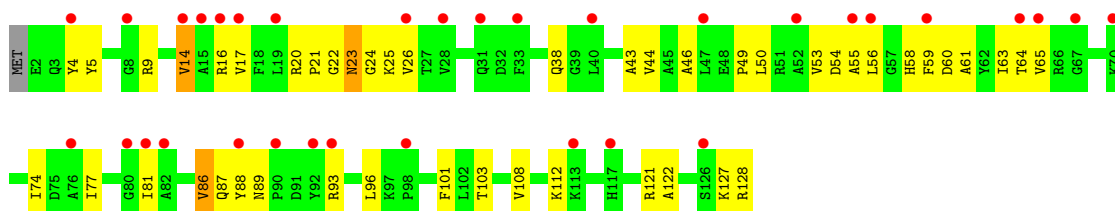




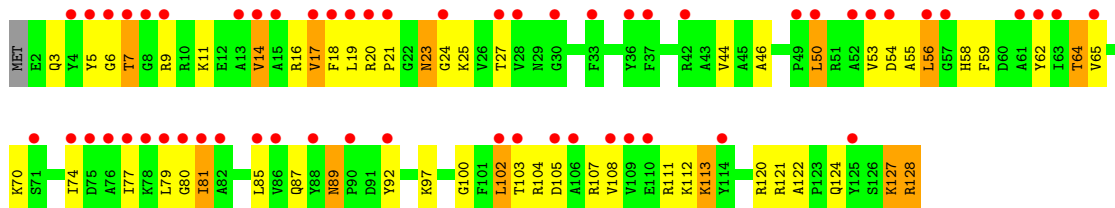
- Molecule 8: 30S Ribosomal Protein S8



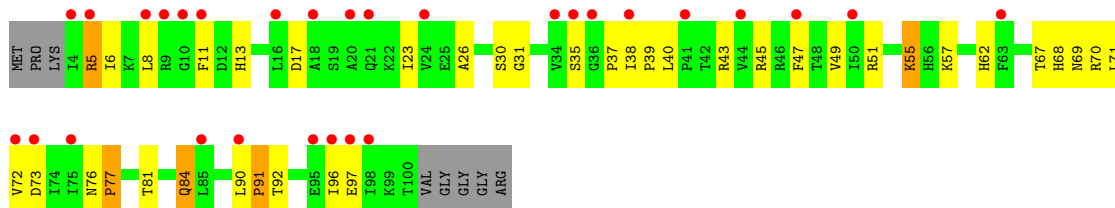
- Molecule 9: 30S Ribosomal Protein S9



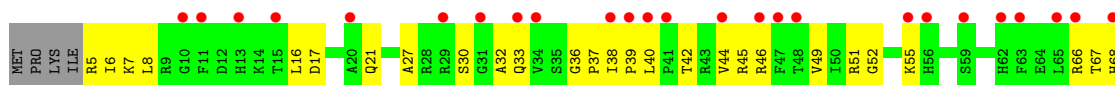
- Molecule 9: 30S Ribosomal Protein S9

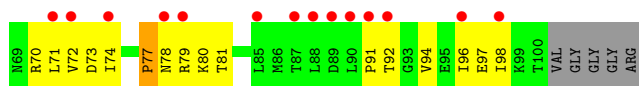


- Molecule 10: 30S Ribosomal Protein S10

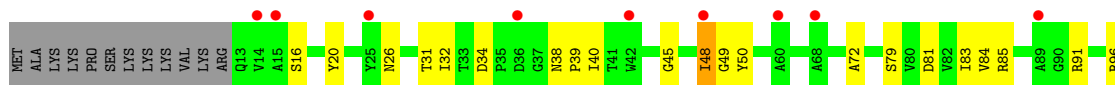


- Molecule 10: 30S Ribosomal Protein S10





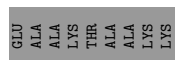
• Molecule 11: 30S Ribosomal Protein S11



• Molecule 11: 30S Ribosomal Protein S11



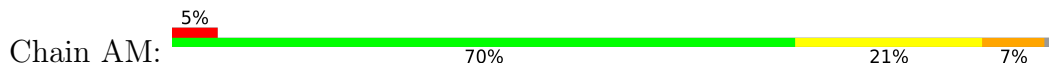
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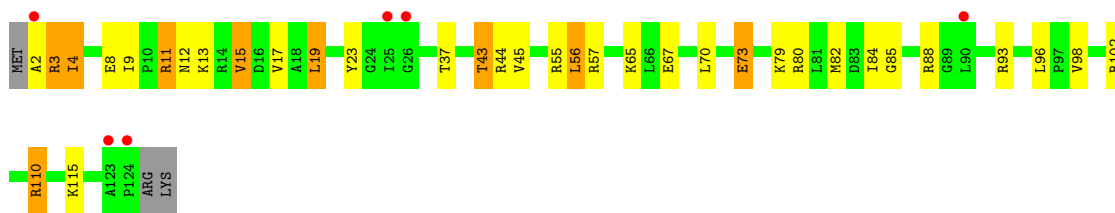


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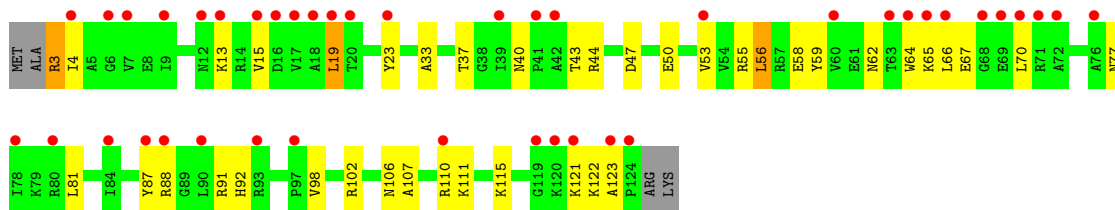


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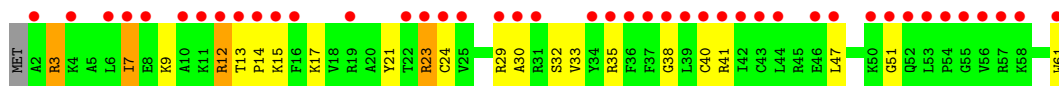
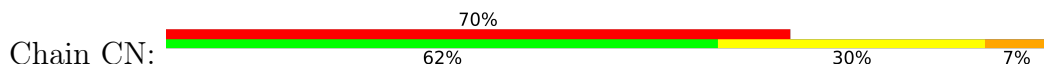
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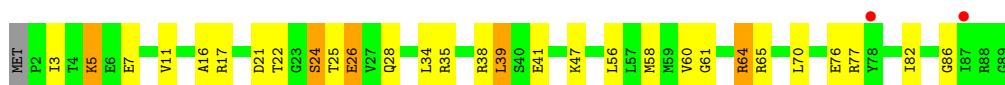
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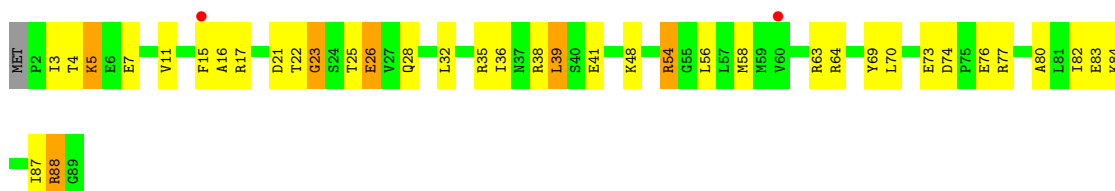
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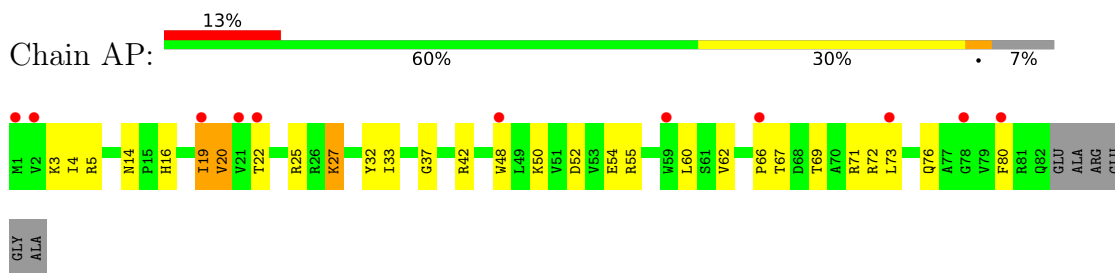
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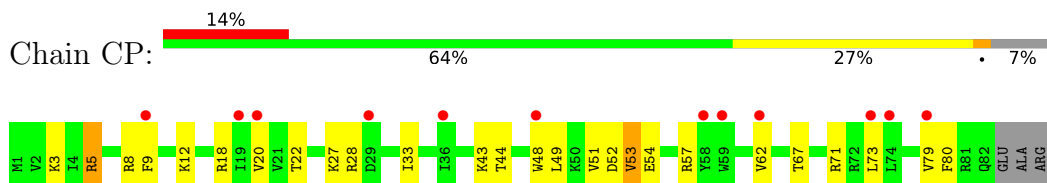
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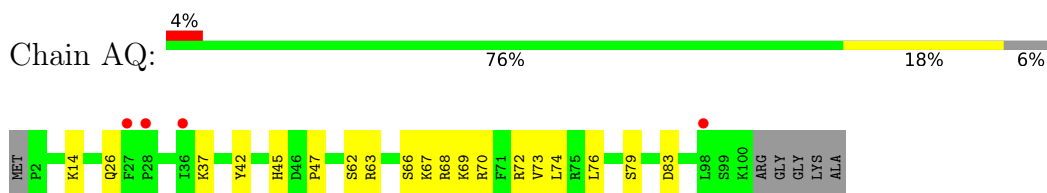
- Molecule 16: 30S Ribosomal Protein S16



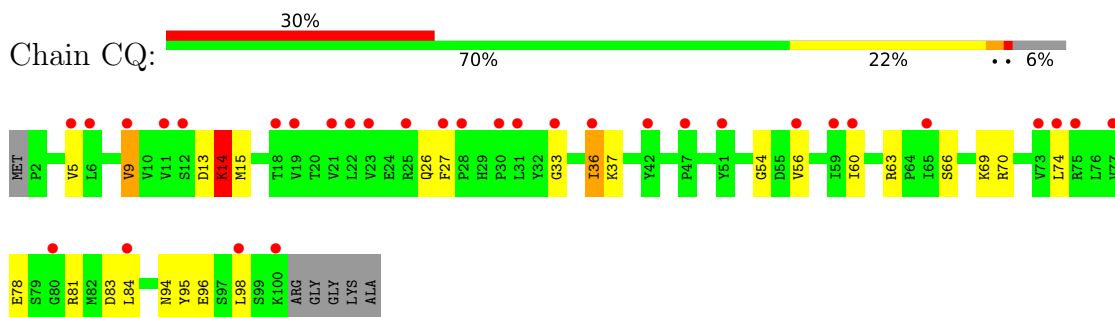
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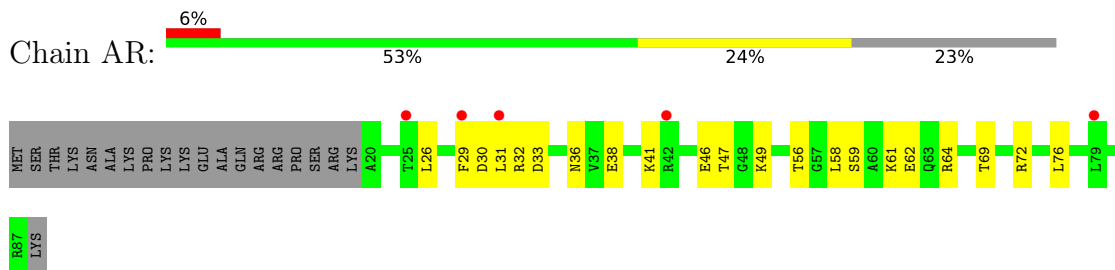
- Molecule 17: 30S Ribosomal Protein S17



- Molecule 17: 30S Ribosomal Protein S17

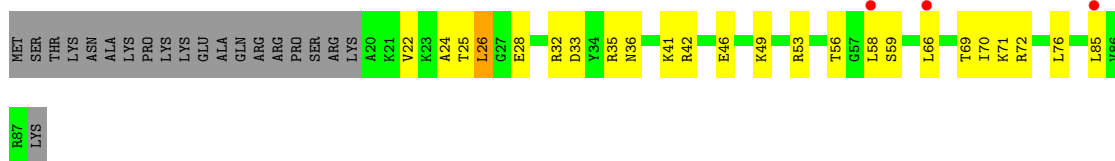


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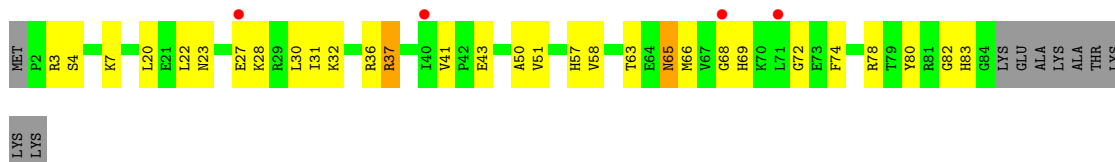


- Molecule 18: 30S Ribosomal Protein S18

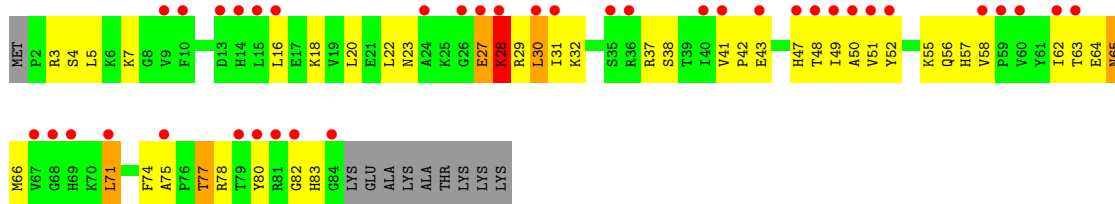
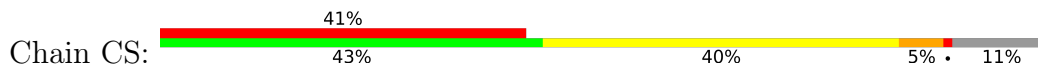




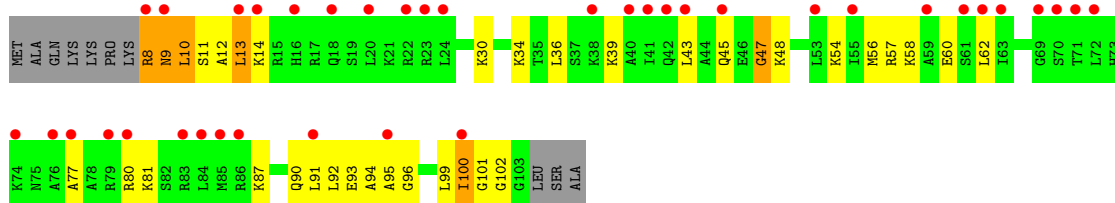
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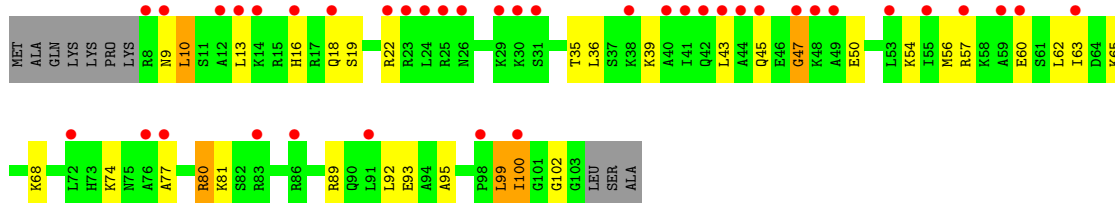
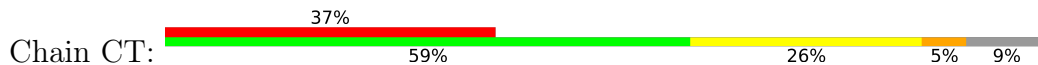
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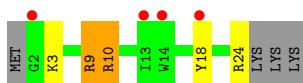
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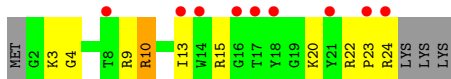
• Molecule 20: 30S Ribosomal Protein S20



• Molecule 21: 30S Ribosomal Protein THX



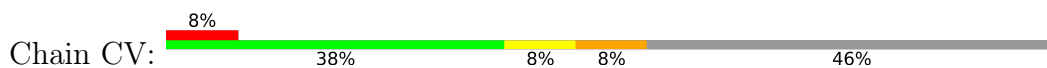
- Molecule 21: 30S Ribosomal Protein THX



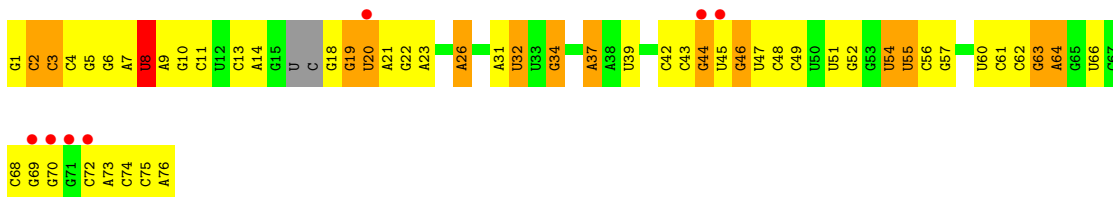
- Molecule 22: mRNA



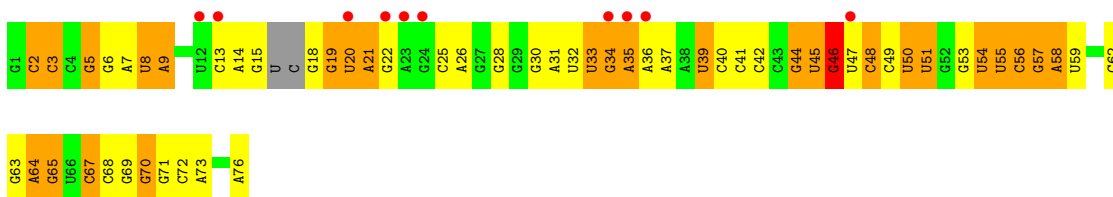
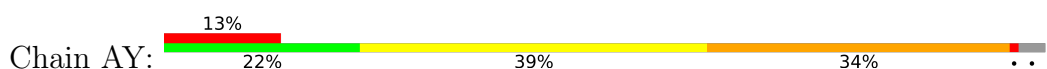
- Molecule 22: mRNA



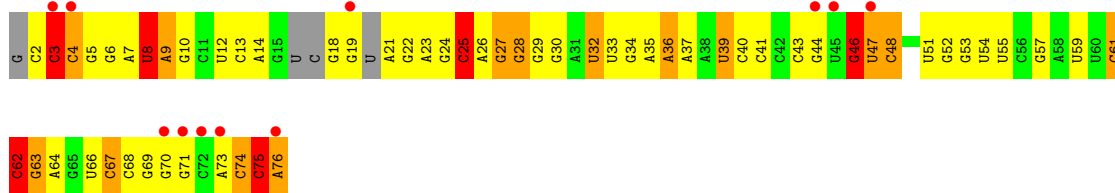
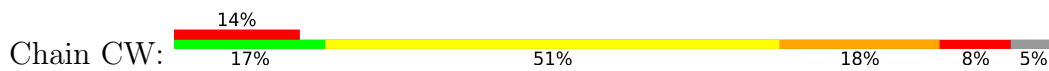
- Molecule 23: A/P-site tRNA



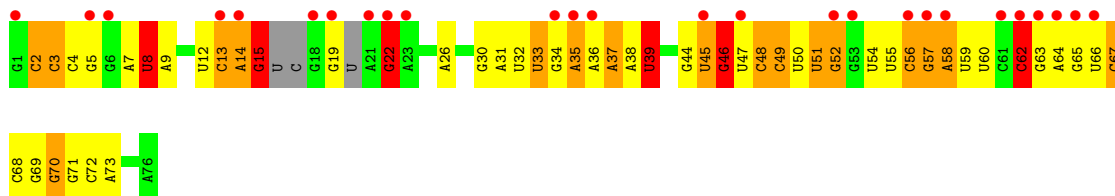
- Molecule 23: A/P-site tRNA



- Molecule 23: A/P-site tRNA



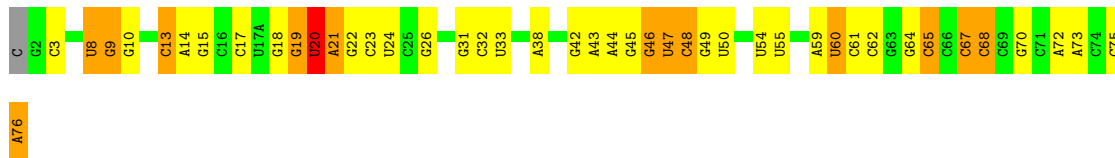
• Molecule 23: A/P-site tRNA



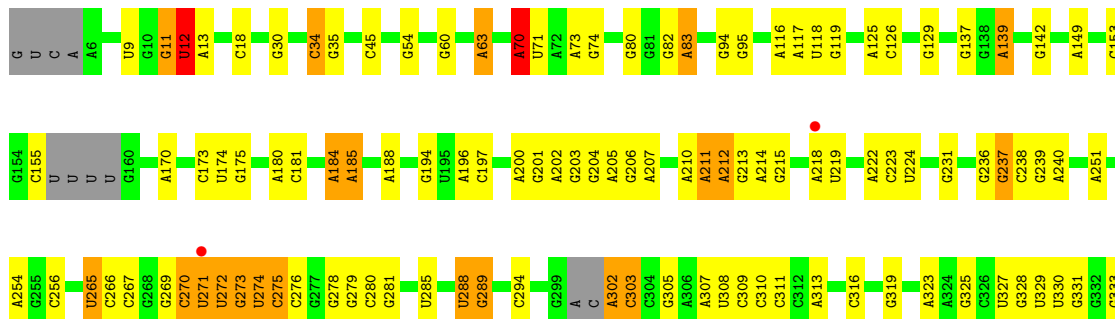
• Molecule 24: E-site tRNA

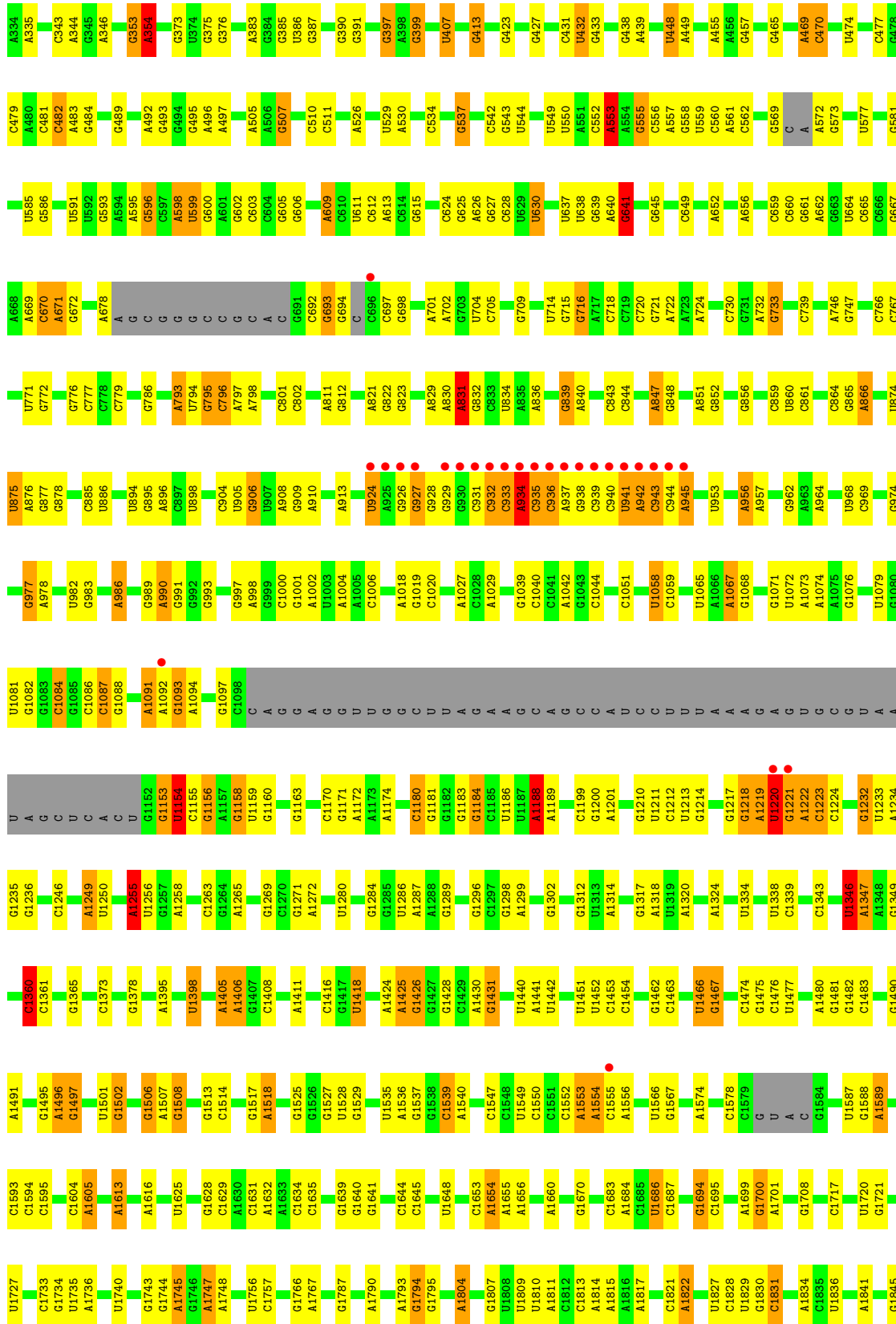


• Molecule 24: E-site tRNA

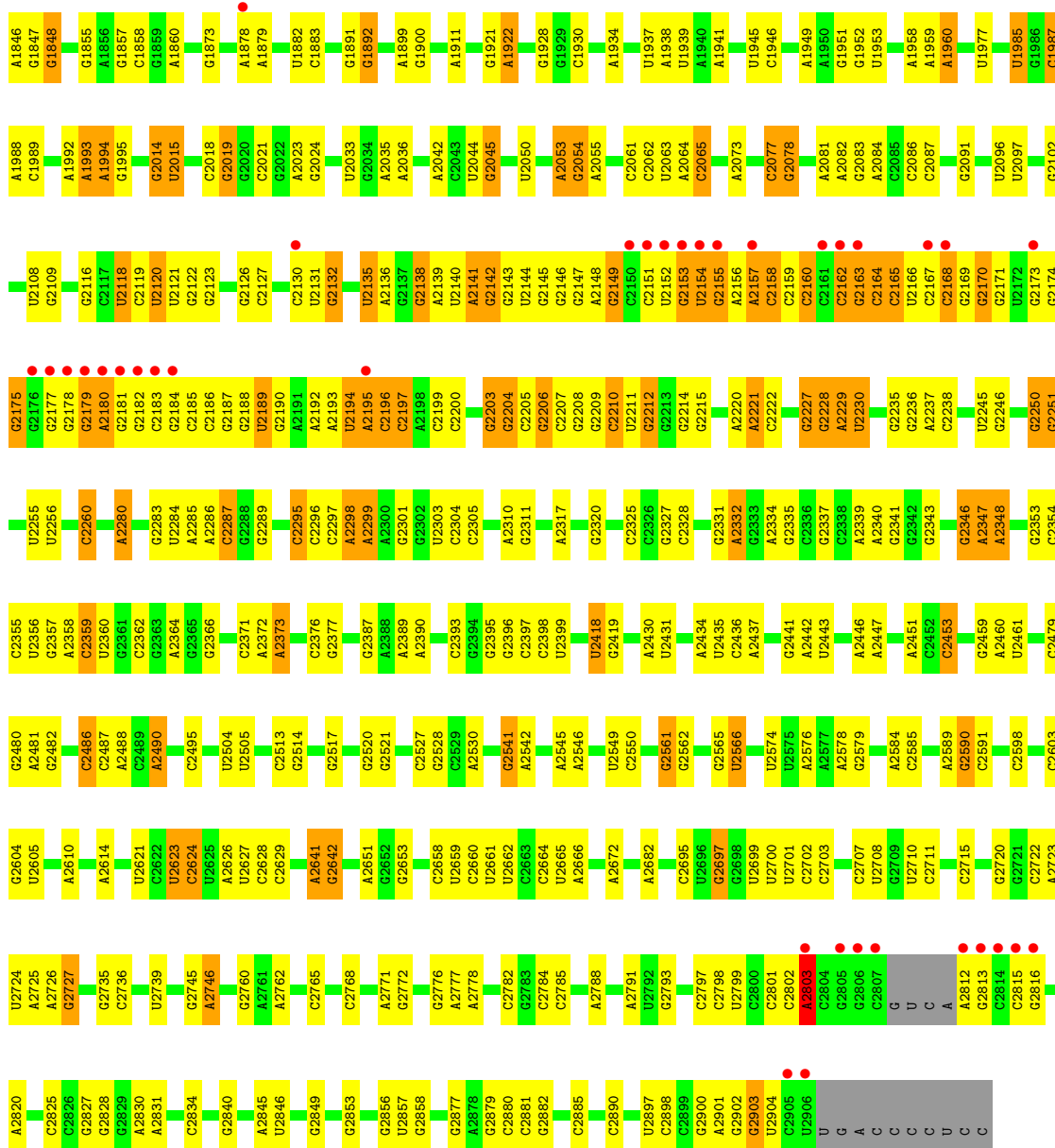


• Molecule 25: 23S Ribosomal RNA

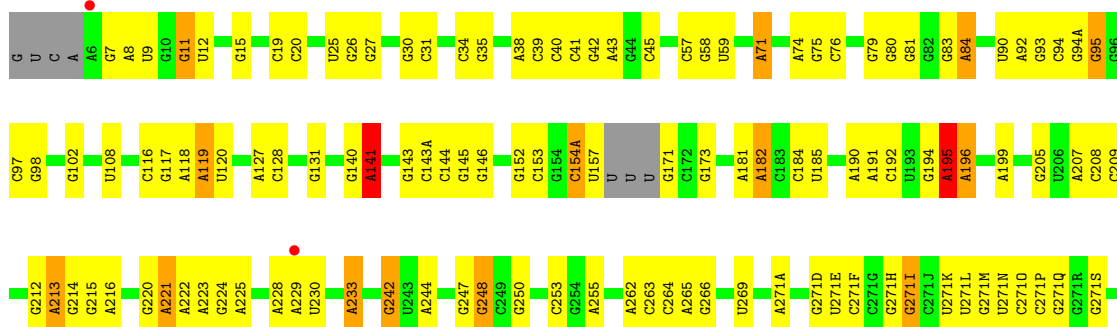


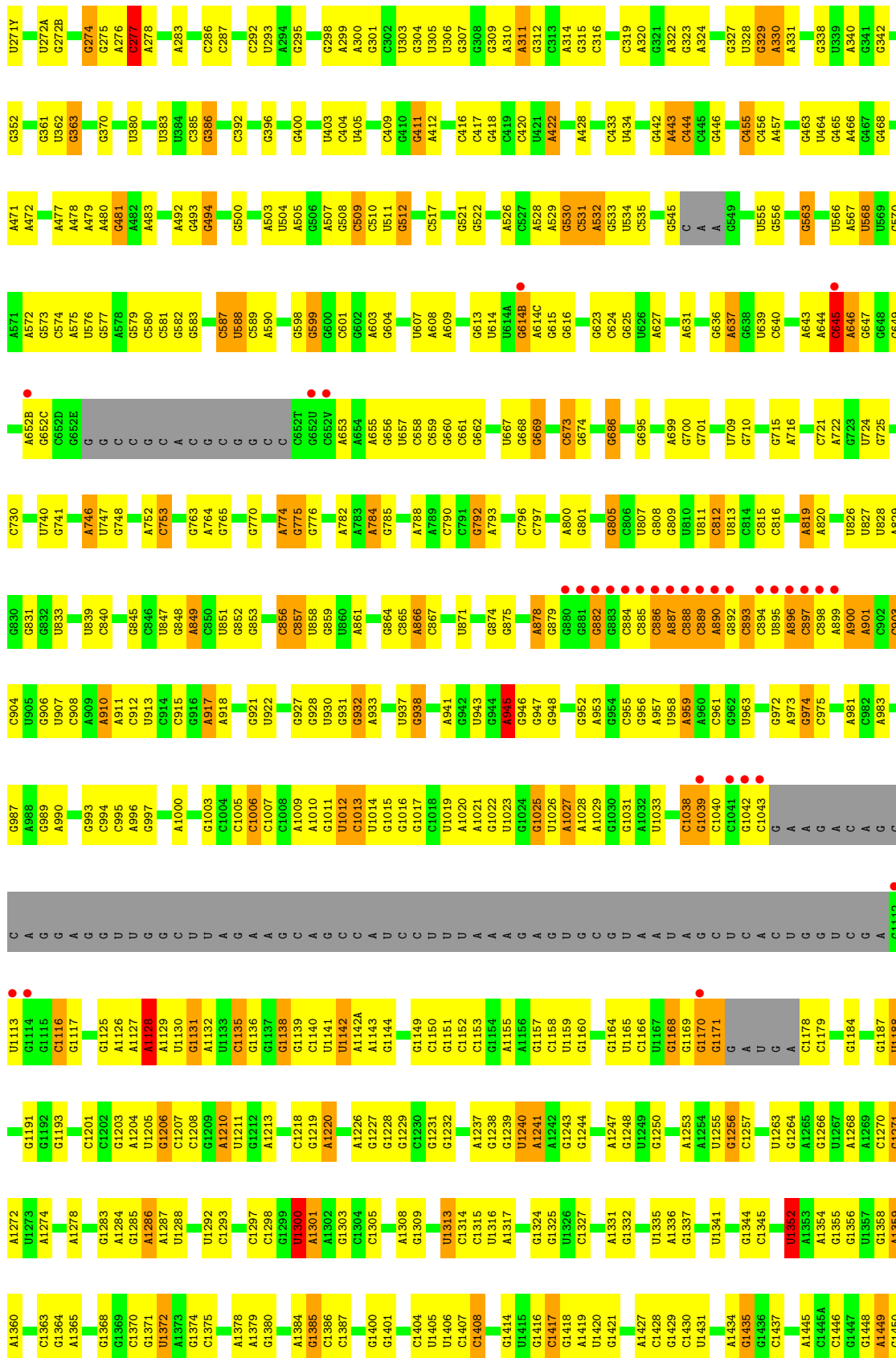




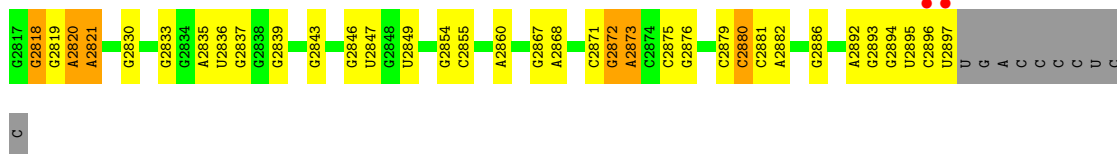


● Molecule 25: 23S Ribosomal RNA

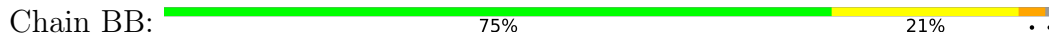




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|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
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| U2649  | U2650 | C2651 | C2652 | U2653 | A2654 | G2655 | G2659 | A2660 | G2661 | A2662 | G2663 | G2664 | A2665 | C2666 | C2667 | G2668 | G2669 | A2670 | A2671 | G2672 | A2679 | C2680 | C2681 | U2682 | C2683 | U2684 | G2685 | U2689 | C2690 | C2691 | C2692 | A2693 | G2694 | C2699 | C2700 | C2701 | U2702 | C2703 | C2704 | A2705 | G2710  | U2711 | U2712 | A2712A | A2713 | G2714 | A2721 | G2722 | C2723 | G2807 | U2808 | C2815 | C2816 |       |       |       |       |
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| U2167  | G2168 | A2169 | A2170 | A2171 | U2172 | A2173 | C2174 | C2175 | A2176 | C2177 | C2178 | C2179 | U2180 | C2183 | G2184 | C2185 | C2188 | U2189 | G2190 | C2191 | G2192 | G2193 | G2194 | A2198 | U2203 | G2205 | G2206 | G2207 | A2208 | U2218 | U2225 | G2238 | U2243 | U2244 | A2269 | G2270 | G2271 | U2272 | A2273 | A2274 | G2275  | G2276 | G2277 | A2278  | G2279 | C2283 |       |       |       |       |       |       |       |       |       |       |       |
| C2107  | C2108 | U2109 | G2110 | C2111 | G2112 | U2113 | A2114 | G2115 | G2116 | A2117 | U2118 | A2119 | G2120 | U2122 | G2123 | G2124 | G2125 | A2126 | C2128 | C2129 | G2130 | G2131 | U2132 | G2133 | A2134 | A2135 | C2136 | C2137 | C2138 | C2139 | C2140 | G2141 | C2142 | C2143 | U2144 | C2145 | C2146 | G2148 | G2149 | U2150 | G2151  | G2152 | G2153 | G2154  | G2155 | G2156 | G2157 | A2158 | C2159 | U2160 | C2161 | C2162 | C2163 | C2164 | G2165 | G2166 |       |
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| A1784  | A1785 | A1786 | A1789 | A1790 | A1791 | U1794 | C1795 | U1796 | U1797 | U1798 | G1799 | C1800 | G1801 | A1802 | A1803 | A1810 | G1811 | A1815 | G1816 | G1817 | U1818 | G1826 | A1829 | U1833 | U1834 | C1835 | C1836 | C1837 | G1842 | A1847 | A1848 | A1849 | G1850 | U1851 | G1857 | A1858 | A1859 | C1866 | A1877 | G1878 | G1883  | C1886 | C1887 | G1888  | A1889 |       |       |       |       |       |       |       |       |       |       |       |       |
| A1669  | C1670 | U1671 | G1674 | C1685 | G1686 | G1687 | U1688 | A1689 | U1692 | U1693 | C1694 | G1695 | C1696 | G1697 | A1698 | G1699 | A1700 | A1701 | G1702 | G1703 | G1704 | G1705 | U1706 | G1707 | U1708 | U1709 | G1710 | C1711 | C1712 | G1721 | A1722 | U1739 | G1740 | A1741 | G1742 | G1756 | U1757 | A1762 | G1763 | G1764 | G1771  | G1772 | A1773 | G1776  | U1777 | U1778 | U1779 | A1780 | C1781 | G1782 | A1783 |       |       |       |       |       |       |
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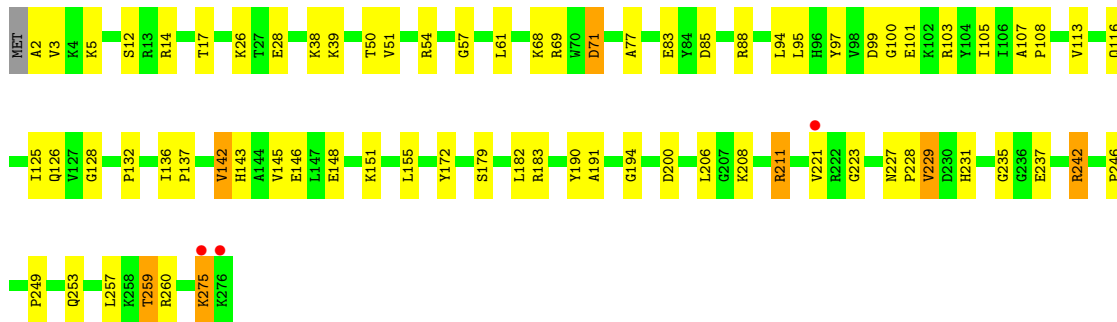
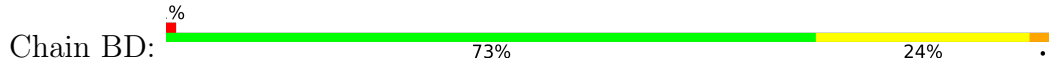
● Molecule 26: 5S Ribosomal RNA



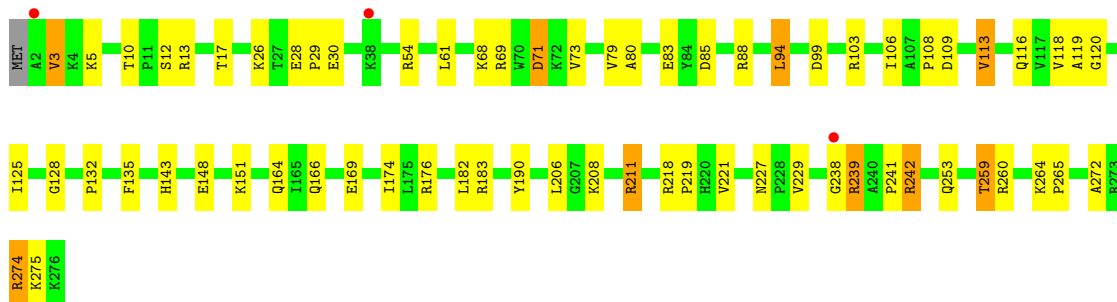
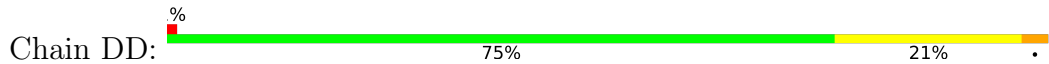
● Molecule 26: 5S Ribosomal RNA



● Molecule 27: 50S Ribosomal Protein L2

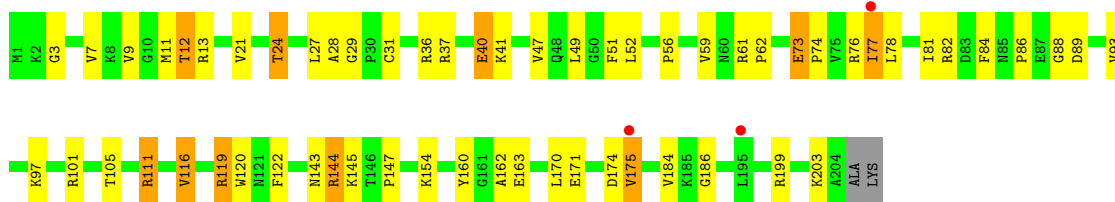


● Molecule 27: 50S Ribosomal Protein L2




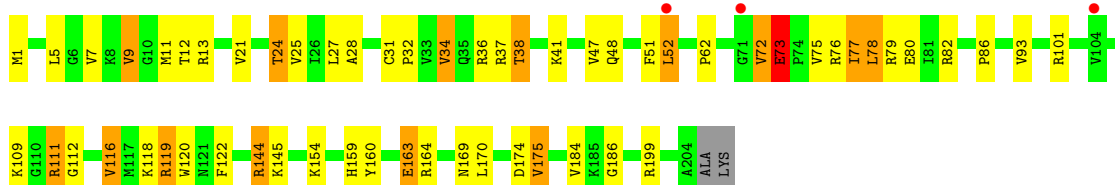
- Molecule 28: 50S Ribosomal Protein L3

Chain BE: 




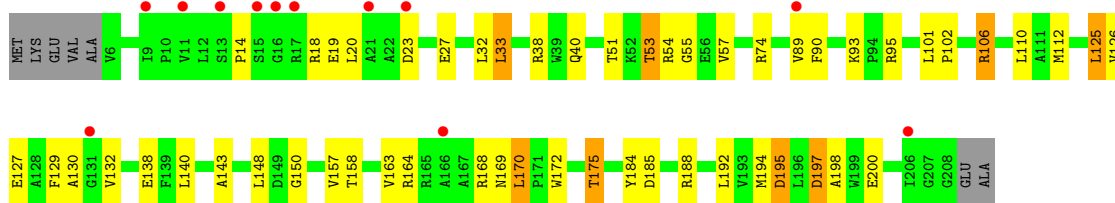
- Molecule 28: 50S Ribosomal Protein L3

Chain DE: 



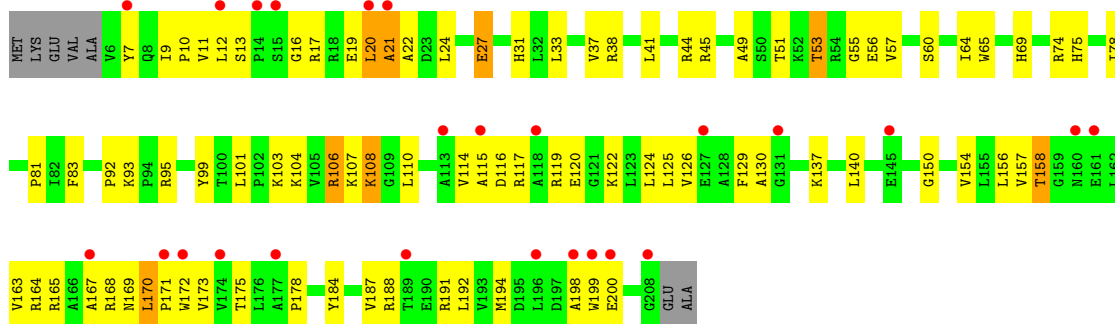
- Molecule 29: 50S Ribosomal Protein L4

Chain BF: 




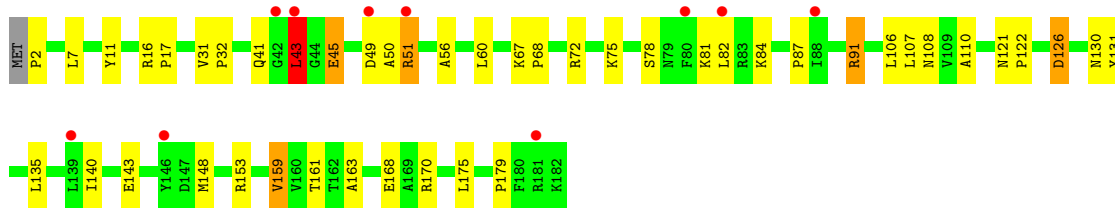
- Molecule 29: 50S Ribosomal Protein L4

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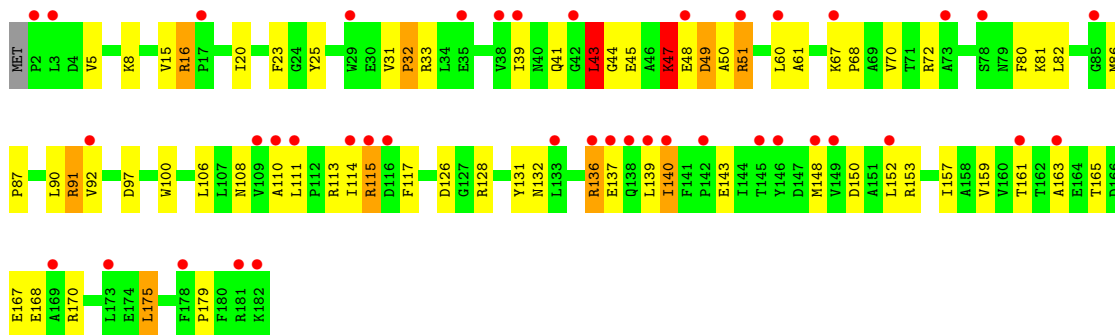


- Molecule 30: 50S Ribosomal Protein L5

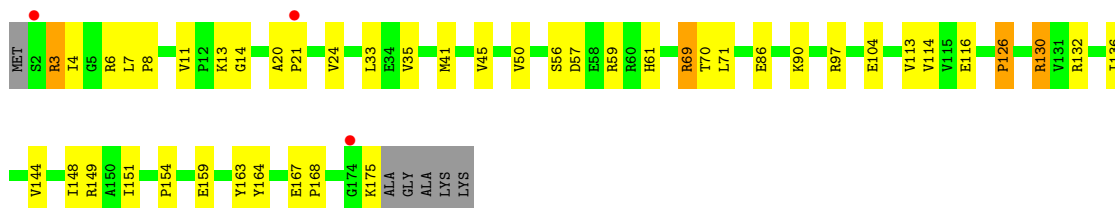
Chain BG: 



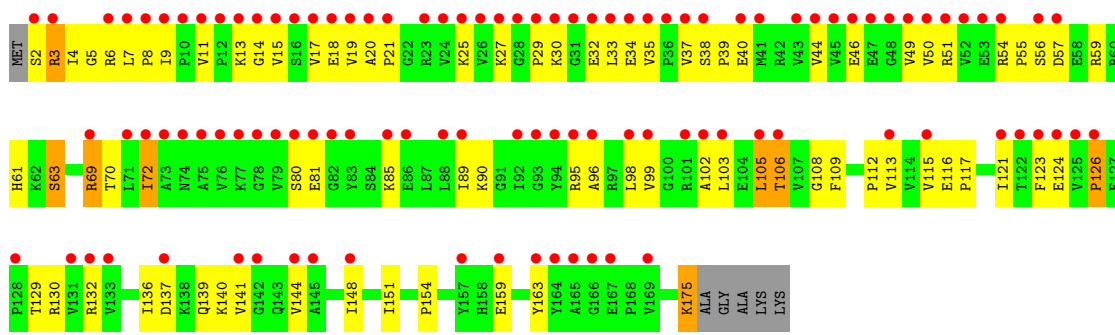
• Molecule 30: 50S Ribosomal Protein L5



• Molecule 31: 50S Ribosomal Protein L6

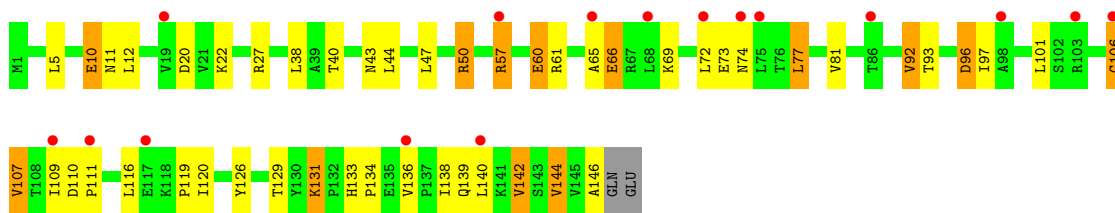


• Molecule 31: 50S Ribosomal Protein L6

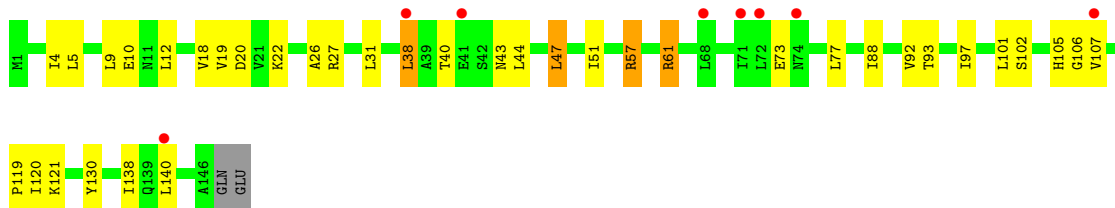
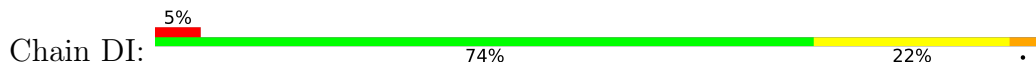


• Molecule 32: 50S Ribosomal Protein L9

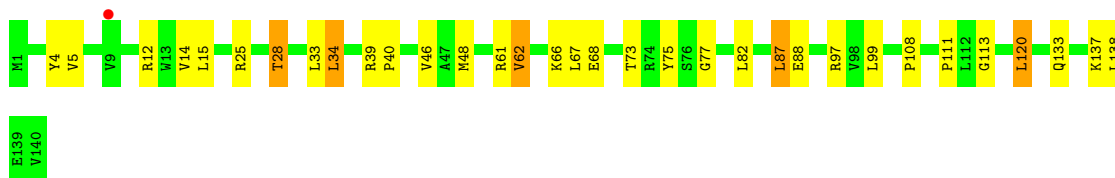
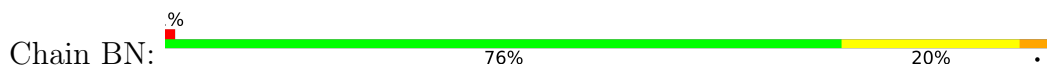




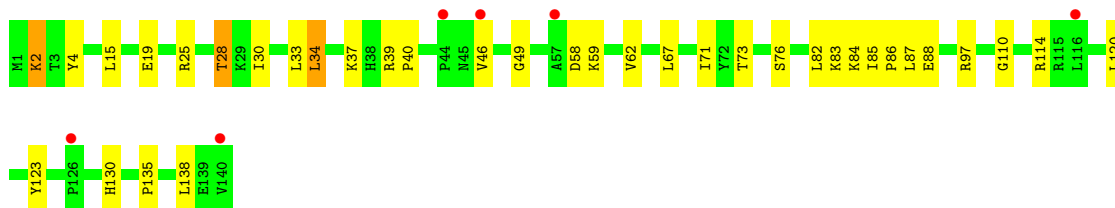
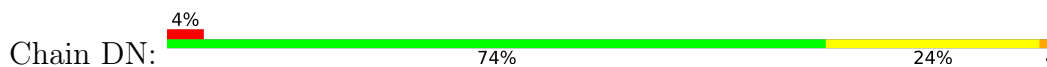
• Molecule 32: 50S Ribosomal Protein L9



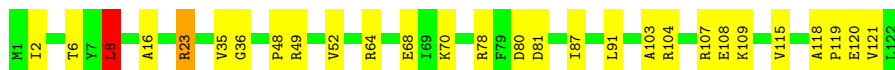
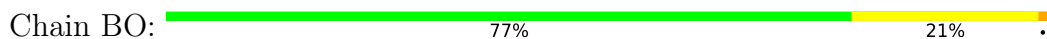
• Molecule 33: 50S Ribosomal Protein L13



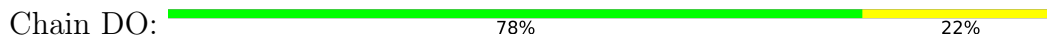
• Molecule 33: 50S Ribosomal Protein L13



• Molecule 34: 50S Ribosomal Protein L14

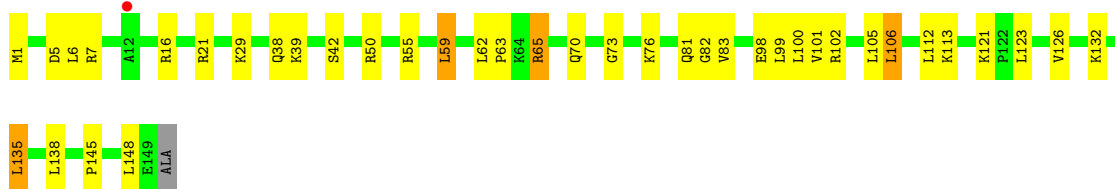
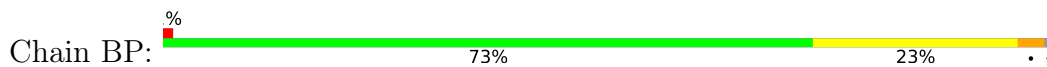


• Molecule 34: 50S Ribosomal Protein L14

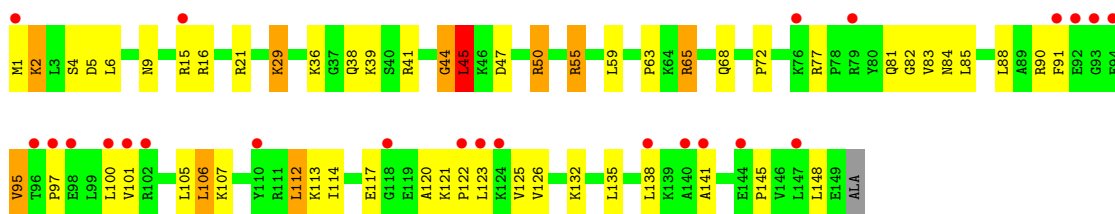




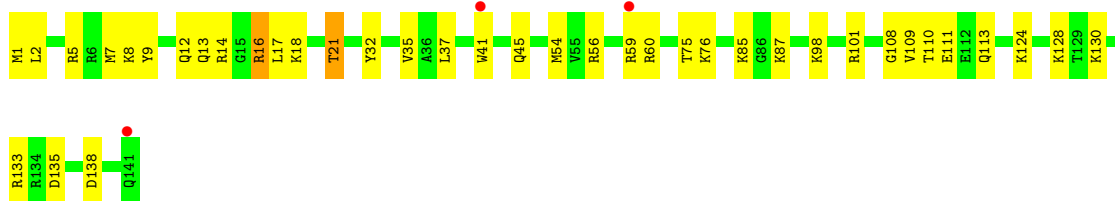
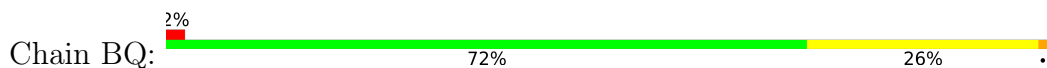
- Molecule 35: 50S Ribosomal Protein L15



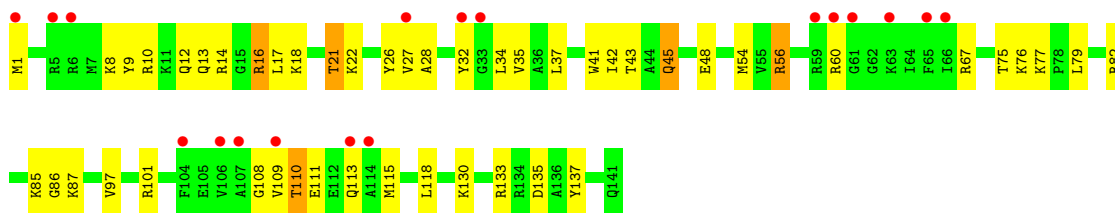
- Molecule 35: 50S Ribosomal Protein L15



- Molecule 36: 50S Ribosomal Protein L16



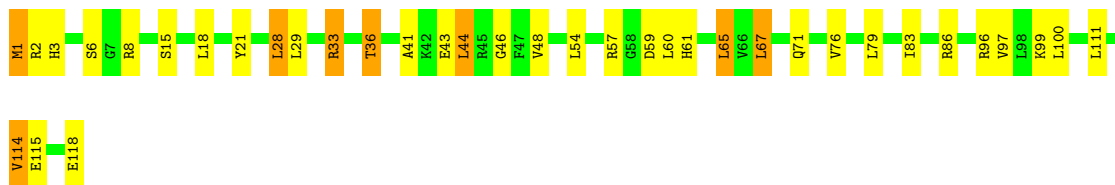
- Molecule 36: 50S Ribosomal Protein L16



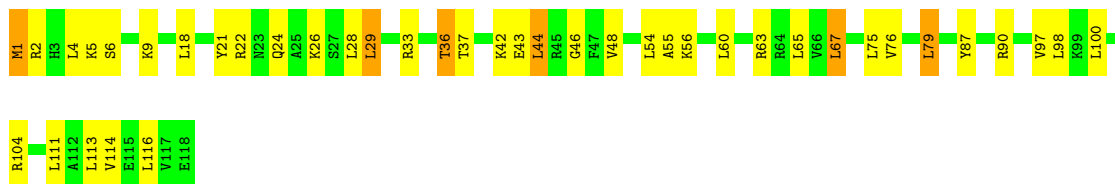
- Molecule 37: 50S Ribosomal Protein L17



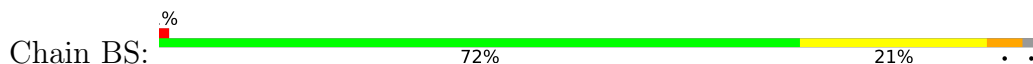




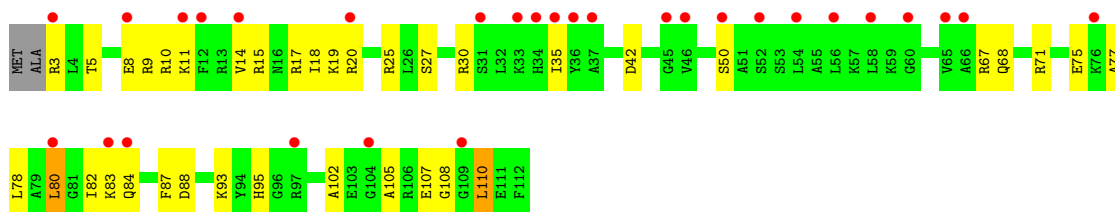
• Molecule 37: 50S Ribosomal Protein L17



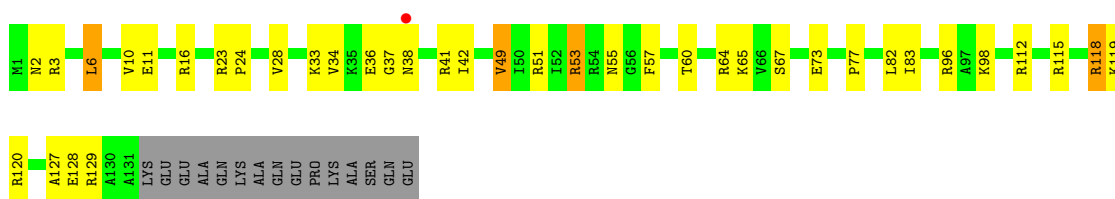
• Molecule 38: 50S Ribosomal Protein L18



• Molecule 38: 50S Ribosomal Protein L18

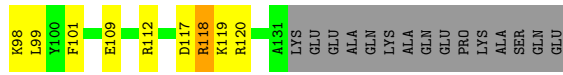
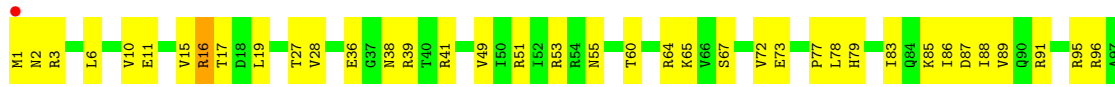


• Molecule 39: 50S Ribosomal Protein L19

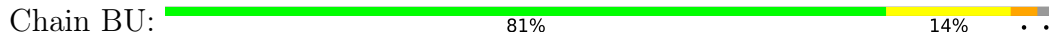


• Molecule 39: 50S Ribosomal Protein L19

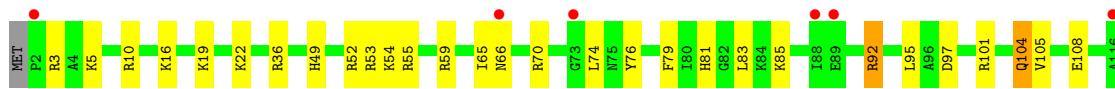
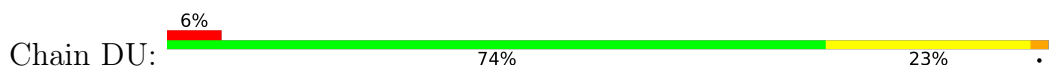




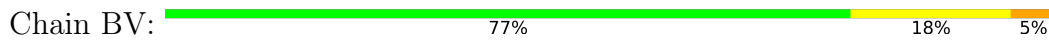
• Molecule 40: 50S Ribosomal Protein L20



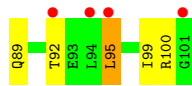
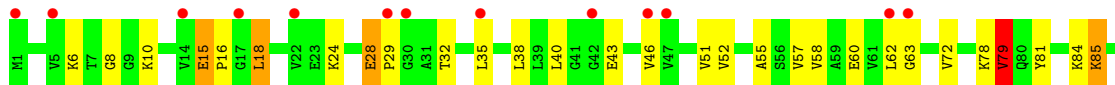
• Molecule 40: 50S Ribosomal Protein L20



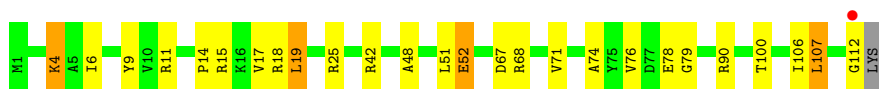
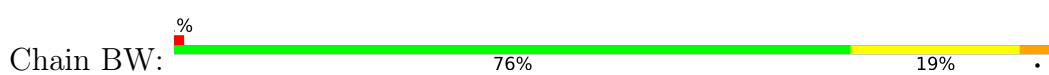
• Molecule 41: 50S Ribosomal Protein L21



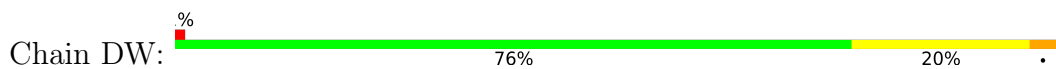
• Molecule 41: 50S Ribosomal Protein L21



• Molecule 42: 50S Ribosomal Protein L22



• Molecule 42: 50S Ribosomal Protein L22



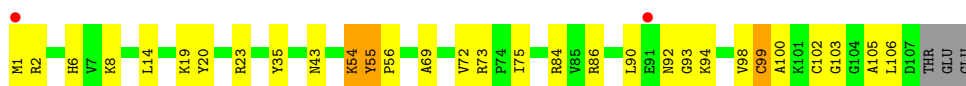
- Molecule 43: 50S Ribosomal Protein L23



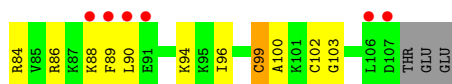
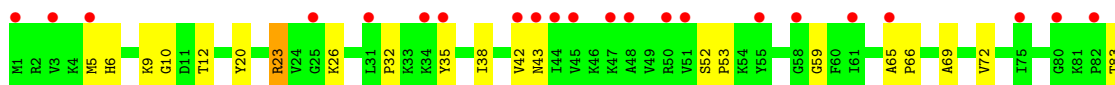
- Molecule 43: 50S Ribosomal Protein L23



- Molecule 44: 50S Ribosomal Protein L24

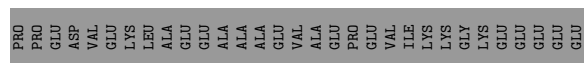


- Molecule 44: 50S Ribosomal Protein L24

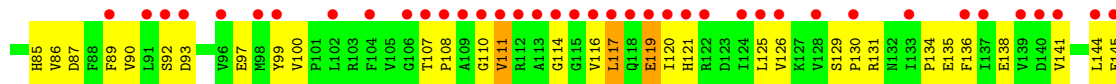
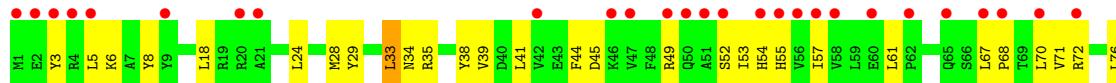
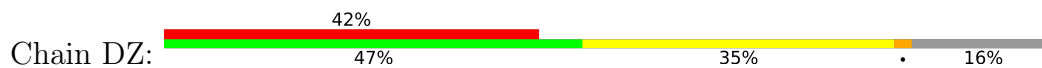


- Molecule 45: 50S Ribosomal Protein L25



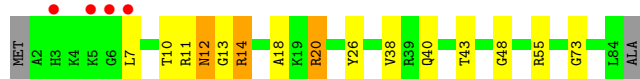
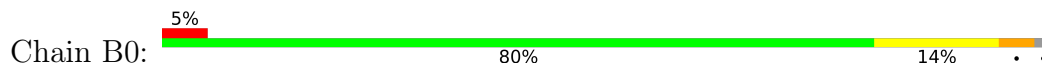


Molecule 45: 50S Ribosomal Protein L25

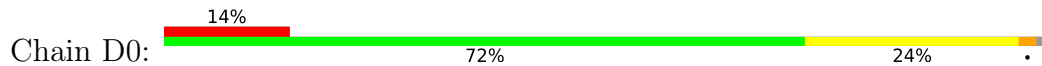


GLU

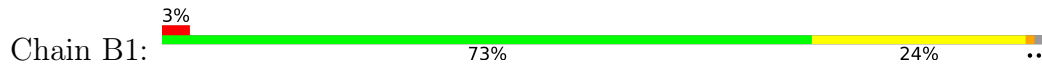
Molecule 46: 50S Ribosomal Protein L27



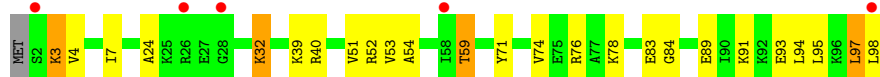
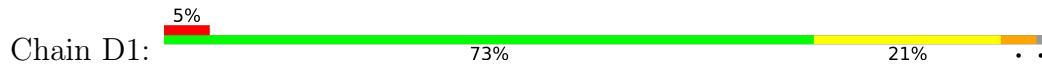
Molecule 46: 50S Ribosomal Protein L27



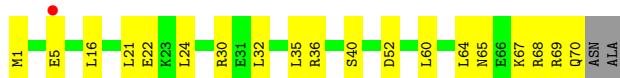
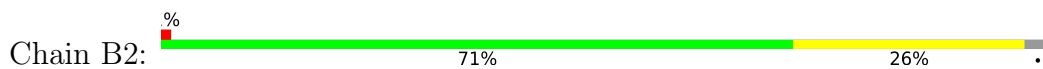
Molecule 47: 50S Ribosomal Protein L28



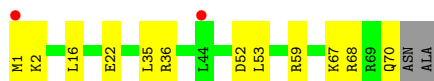
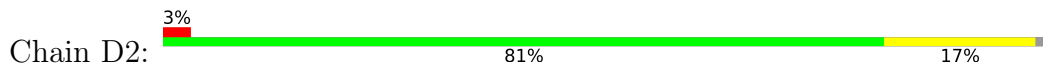
Molecule 47: 50S Ribosomal Protein L28



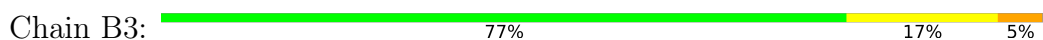
Molecule 48: 50S Ribosomal Protein L29



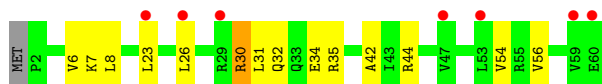
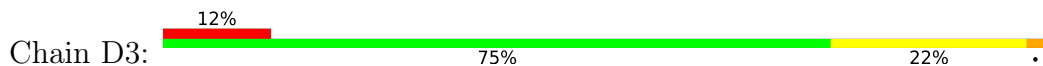
- Molecule 48: 50S Ribosomal Protein L29



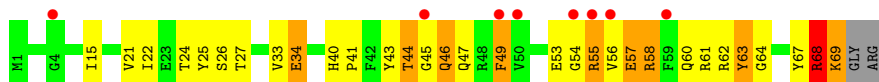
- Molecule 49: 50S Ribosomal Protein L30



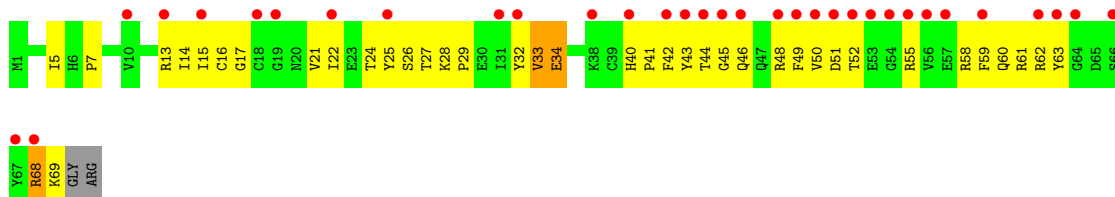
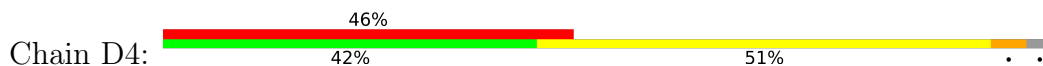
- Molecule 49: 50S Ribosomal Protein L30



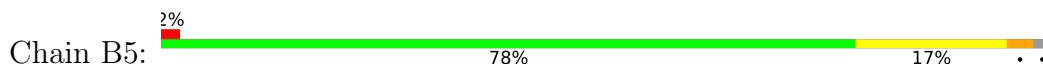
- Molecule 50: 50S Ribosomal Protein L31

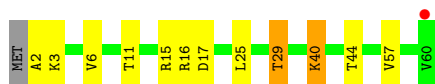


- Molecule 50: 50S Ribosomal Protein L31

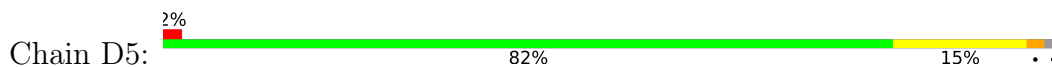


- Molecule 51: 50S Ribosomal Protein L32

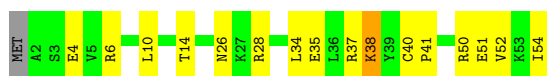




- Molecule 51: 50S Ribosomal Protein L32



- Molecule 52: 50S Ribosomal Protein L33



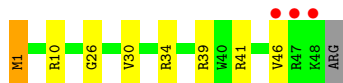
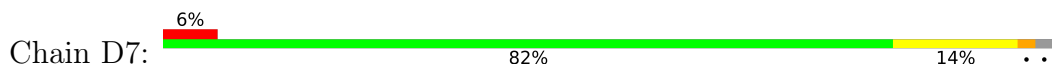
- Molecule 52: 50S Ribosomal Protein L33



- Molecule 53: 50S Ribosomal Protein L34



- Molecule 53: 50S Ribosomal Protein L34

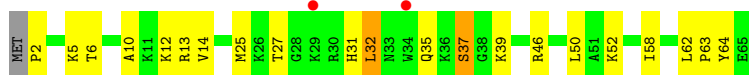


- Molecule 54: 50S Ribosomal Protein L35

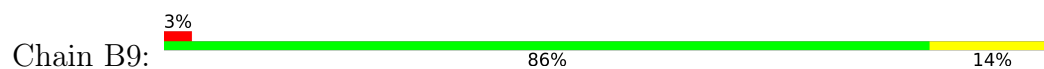


- Molecule 54: 50S Ribosomal Protein L35

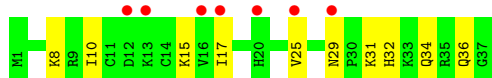
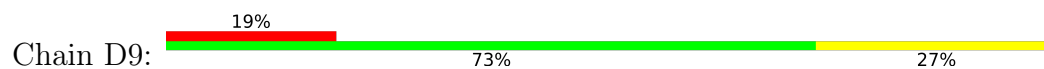




- Molecule 55: 50S Ribosomal Protein L36



- Molecule 55: 50S Ribosomal Protein L36



## 4 Data and refinement statistics

| Property                                                                | Value                                                       | Source           |
|-------------------------------------------------------------------------|-------------------------------------------------------------|------------------|
| Space group                                                             | P 21 21 21                                                  | Depositor        |
| Cell constants<br>a, b, c, $\alpha$ , $\beta$ , $\gamma$                | 209.35Å 449.01Å 621.98Å<br>90.00° 90.00° 90.00°             | Depositor        |
| Resolution (Å)                                                          | 145.52 – 2.55<br>145.52 – 2.55                              | Depositor<br>EDS |
| % Data completeness<br>(in resolution range)                            | 99.0 (145.52-2.55)<br>99.0 (145.52-2.55)                    | Depositor<br>EDS |
| $R_{merge}$                                                             | 0.14                                                        | Depositor        |
| $R_{sym}$                                                               | (Not available)                                             | Depositor        |
| $\langle I/\sigma(I) \rangle$ <sup>1</sup>                              | 1.28 (at 2.55Å)                                             | Xtrriage         |
| Refinement program                                                      | PHENIX 1.8.2_1309                                           | Depositor        |
| R, $R_{free}$                                                           | 0.225 , 0.273<br>0.226 , 0.274                              | Depositor<br>DCC |
| $R_{free}$ test set                                                     | 93275 reflections (5.02%)                                   | wwPDB-VP         |
| Wilson B-factor (Å <sup>2</sup> )                                       | 48.2                                                        | Xtrriage         |
| Anisotropy                                                              | 0.182                                                       | Xtrriage         |
| Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> ) | 0.28 , 58.2                                                 | EDS              |
| L-test for twinning <sup>2</sup>                                        | $\langle  L  \rangle = 0.40$ , $\langle L^2 \rangle = 0.23$ | Xtrriage         |
| Estimated twinning fraction                                             | No twinning to report.                                      | Xtrriage         |
| $F_o, F_c$ correlation                                                  | 0.91                                                        | EDS              |
| Total number of atoms                                                   | 297273                                                      | wwPDB-VP         |
| Average B, all atoms (Å <sup>2</sup> )                                  | 58.0                                                        | wwPDB-VP         |

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.48% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical 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: MIA, 7MG, ZN, 4SU, 5MU, MG, 5MC, PSU, SF4, PCY, K

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   | AA    | 0.43         | 0/36049        | 0.93        | 45/56261 (0.1%) |
| 1   | CA    | 0.42         | 2/36170 (0.0%) | 0.95        | 52/56452 (0.1%) |
| 2   | AB    | 0.31         | 0/1881         | 0.62        | 1/2542 (0.0%)   |
| 2   | CB    | 0.32         | 0/1860         | 0.59        | 0/2518          |
| 3   | AC    | 0.30         | 0/1576         | 0.52        | 0/2130          |
| 3   | CC    | 0.31         | 0/1566         | 0.55        | 0/2119          |
| 4   | AD    | 0.32         | 0/1689         | 0.53        | 0/2267          |
| 4   | CD    | 0.32         | 0/1704         | 0.55        | 0/2284          |
| 5   | AE    | 0.31         | 0/1145         | 0.54        | 0/1543          |
| 5   | CE    | 0.33         | 0/1149         | 0.59        | 0/1548          |
| 6   | AF    | 0.32         | 0/819          | 0.53        | 0/1111          |
| 6   | CF    | 0.30         | 0/829          | 0.52        | 0/1123          |
| 7   | AG    | 0.30         | 0/1250         | 0.49        | 0/1679          |
| 7   | CG    | 0.30         | 0/1254         | 0.50        | 0/1683          |
| 8   | AH    | 0.30         | 0/1108         | 0.51        | 0/1494          |
| 8   | CH    | 0.30         | 0/1108         | 0.53        | 0/1494          |
| 9   | AI    | 0.32         | 0/1002         | 0.56        | 0/1346          |
| 9   | CI    | 0.32         | 0/997          | 0.59        | 0/1343          |
| 10  | AJ    | 0.30         | 0/722          | 0.56        | 0/982           |
| 10  | CJ    | 0.31         | 0/727          | 0.60        | 0/988           |
| 11  | AK    | 0.31         | 0/844          | 0.54        | 0/1145          |
| 11  | CK    | 0.30         | 0/848          | 0.54        | 0/1149          |
| 12  | AL    | 0.33         | 0/946          | 0.53        | 0/1274          |
| 12  | CL    | 0.32         | 0/946          | 0.57        | 0/1274          |
| 13  | AM    | 0.30         | 0/969          | 0.57        | 0/1302          |
| 13  | CM    | 0.30         | 0/961          | 0.53        | 0/1291          |
| 14  | AN    | 0.34         | 0/501          | 0.50        | 0/664           |
| 14  | CN    | 0.33         | 0/501          | 0.56        | 0/664           |
| 15  | AO    | 0.30         | 0/739          | 0.56        | 0/985           |
| 15  | CO    | 0.31         | 0/739          | 0.54        | 0/985           |
| 16  | AP    | 0.32         | 0/697          | 0.53        | 0/939           |
| 16  | CP    | 0.31         | 0/693          | 0.50        | 0/935           |

| Mol | Chain | Bond lengths |                | Bond angles |                   |
|-----|-------|--------------|----------------|-------------|-------------------|
|     |       | RMSZ         | # Z  >5        | RMSZ        | # Z  >5           |
| 17  | AQ    | 0.31         | 0/836          | 0.49        | 0/1117            |
| 17  | CQ    | 0.30         | 0/836          | 0.52        | 0/1117            |
| 18  | AR    | 0.32         | 0/560          | 0.55        | 0/746             |
| 18  | CR    | 0.28         | 0/560          | 0.49        | 0/746             |
| 19  | AS    | 0.30         | 0/667          | 0.54        | 0/900             |
| 19  | CS    | 0.34         | 0/661          | 0.66        | 0/893             |
| 20  | AT    | 0.29         | 0/730          | 0.57        | 0/965             |
| 20  | CT    | 0.30         | 0/729          | 0.53        | 0/965             |
| 21  | AU    | 0.33         | 0/203          | 0.50        | 0/266             |
| 21  | CU    | 0.34         | 0/203          | 0.53        | 0/266             |
| 22  | AV    | 0.48         | 0/310          | 1.00        | 0/480             |
| 22  | CV    | 0.45         | 0/310          | 0.91        | 2/480 (0.4%)      |
| 23  | AW    | 0.48         | 0/1602         | 1.06        | 0/2493            |
| 23  | AY    | 0.52         | 0/1602         | 1.16        | 4/2493 (0.2%)     |
| 23  | CW    | 0.52         | 0/1556         | 1.19        | 10/2418 (0.4%)    |
| 23  | CY    | 0.54         | 0/1579         | 1.18        | 5/2455 (0.2%)     |
| 24  | AX    | 0.55         | 2/1725 (0.1%)  | 1.16        | 12/2689 (0.4%)    |
| 24  | CX    | 0.56         | 1/1725 (0.1%)  | 1.18        | 18/2689 (0.7%)    |
| 25  | BA    | 0.60         | 6/68013 (0.0%) | 1.02        | 122/106165 (0.1%) |
| 25  | DA    | 0.49         | 0/67542        | 0.98        | 62/105428 (0.1%)  |
| 26  | BB    | 0.49         | 0/2878         | 0.91        | 0/4490            |
| 26  | DB    | 0.51         | 0/2878         | 0.96        | 1/4490 (0.0%)     |
| 27  | BD    | 0.41         | 0/2186         | 0.64        | 1/2944 (0.0%)     |
| 27  | DD    | 0.38         | 0/2186         | 0.59        | 1/2944 (0.0%)     |
| 28  | BE    | 0.42         | 0/1592         | 0.58        | 0/2149            |
| 28  | DE    | 0.36         | 0/1592         | 0.58        | 1/2149 (0.0%)     |
| 29  | BF    | 0.40         | 0/1619         | 0.58        | 0/2193            |
| 29  | DF    | 0.36         | 0/1615         | 0.59        | 0/2188            |
| 30  | BG    | 0.33         | 0/1450         | 0.56        | 1/1959 (0.1%)     |
| 30  | DG    | 0.33         | 0/1449         | 0.56        | 0/1958            |
| 31  | BH    | 0.34         | 0/1356         | 0.52        | 0/1834            |
| 31  | DH    | 0.32         | 0/1356         | 0.53        | 0/1834            |
| 32  | BI    | 0.31         | 0/1100         | 0.57        | 0/1501            |
| 32  | DI    | 0.29         | 0/1076         | 0.56        | 0/1471            |
| 33  | BN    | 0.39         | 0/1144         | 0.56        | 0/1543            |
| 33  | DN    | 0.35         | 0/1144         | 0.56        | 0/1543            |
| 34  | BO    | 0.42         | 0/943          | 0.60        | 1/1269 (0.1%)     |
| 34  | DO    | 0.34         | 0/943          | 0.51        | 0/1269            |
| 35  | BP    | 0.38         | 0/1152         | 0.59        | 0/1533            |
| 35  | DP    | 0.35         | 0/1152         | 0.61        | 1/1533 (0.1%)     |
| 36  | BQ    | 0.41         | 0/1143         | 0.55        | 0/1527            |
| 36  | DQ    | 0.36         | 0/1143         | 0.55        | 0/1527            |
| 37  | BR    | 0.42         | 0/982          | 0.65        | 0/1312            |

| Mol | Chain | Bond lengths |                  | Bond angles |                   |
|-----|-------|--------------|------------------|-------------|-------------------|
|     |       | RMSZ         | # Z  >5          | RMSZ        | # Z  >5           |
| 37  | DR    | 0.31         | 0/982            | 0.54        | 0/1312            |
| 38  | BS    | 0.34         | 0/887            | 0.59        | 0/1180            |
| 38  | DS    | 0.32         | 0/880            | 0.55        | 0/1172            |
| 39  | BT    | 0.39         | 0/1105           | 0.60        | 0/1477            |
| 39  | DT    | 0.31         | 0/1097           | 0.52        | 0/1468            |
| 40  | BU    | 0.45         | 0/977            | 0.62        | 1/1301 (0.1%)     |
| 40  | DU    | 0.32         | 0/977            | 0.52        | 0/1301            |
| 41  | BV    | 0.44         | 0/782            | 0.61        | 0/1049            |
| 41  | DV    | 0.33         | 0/782            | 0.54        | 0/1049            |
| 42  | BW    | 0.44         | 0/897            | 0.61        | 0/1205            |
| 42  | DW    | 0.33         | 0/897            | 0.53        | 0/1205            |
| 43  | BX    | 0.44         | 0/764            | 0.64        | 1/1025 (0.1%)     |
| 43  | DX    | 0.36         | 0/764            | 0.57        | 1/1025 (0.1%)     |
| 44  | BY    | 0.42         | 0/819            | 0.64        | 0/1095            |
| 44  | DY    | 0.33         | 0/819            | 0.52        | 0/1095            |
| 45  | BZ    | 0.35         | 0/1379           | 0.60        | 0/1873            |
| 45  | DZ    | 0.33         | 0/1390           | 0.56        | 0/1890            |
| 46  | B0    | 0.40         | 0/662            | 0.66        | 1/881 (0.1%)      |
| 46  | D0    | 0.33         | 0/662            | 0.52        | 0/881             |
| 47  | B1    | 0.40         | 0/762            | 0.57        | 0/1014            |
| 47  | D1    | 0.34         | 0/762            | 0.56        | 0/1014            |
| 48  | B2    | 0.37         | 0/590            | 0.65        | 0/781             |
| 48  | D2    | 0.30         | 0/590            | 0.47        | 0/781             |
| 49  | B3    | 0.42         | 0/474            | 0.62        | 0/635             |
| 49  | D3    | 0.30         | 0/469            | 0.53        | 0/630             |
| 50  | B4    | 0.39         | 0/571            | 0.66        | 0/768             |
| 50  | D4    | 0.33         | 0/545            | 0.60        | 0/737             |
| 51  | B5    | 0.39         | 0/469            | 0.64        | 0/635             |
| 51  | D5    | 0.33         | 0/469            | 0.58        | 0/635             |
| 52  | B6    | 0.42         | 0/460            | 0.58        | 0/613             |
| 52  | D6    | 0.36         | 0/456            | 0.49        | 0/608             |
| 53  | B7    | 0.45         | 0/426            | 0.66        | 0/561             |
| 53  | D7    | 0.36         | 0/426            | 0.52        | 0/561             |
| 54  | B8    | 0.41         | 0/519            | 0.62        | 0/684             |
| 54  | D8    | 0.33         | 0/525            | 0.55        | 0/691             |
| 55  | B9    | 0.44         | 0/310            | 0.52        | 0/407             |
| 55  | D9    | 0.34         | 0/310            | 0.57        | 0/407             |
| All | All   | 0.47         | 11/316672 (0.0%) | 0.90        | 344/474091 (0.1%) |

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 2   | AB    | 0                   | 1                   |
| 7   | AG    | 0                   | 1                   |
| 7   | CG    | 0                   | 1                   |
| 19  | CS    | 0                   | 1                   |
| 27  | DD    | 0                   | 1                   |
| 38  | BS    | 0                   | 1                   |
| 44  | BY    | 0                   | 1                   |
| All | All   | 0                   | 7                   |

The worst 5 of 11 bond length outliers are listed below:

| Mol | Chain | Res  | Type | Atoms | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 25  | BA    | 354  | A    | N9-C4 | -7.89 | 1.33        | 1.37     |
| 1   | CA    | 1154 | G    | C6-N1 | -7.66 | 1.34        | 1.39     |
| 25  | BA    | 1188 | A    | N9-C4 | -7.63 | 1.33        | 1.37     |
| 25  | BA    | 1067 | A    | N9-C4 | -6.49 | 1.33        | 1.37     |
| 24  | AX    | 14   | A    | N7-C5 | -6.24 | 1.35        | 1.39     |

The worst 5 of 344 bond angle outliers are listed below:

| Mol | Chain | Res  | Type | Atoms    | Z      | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1   | CA    | 1154 | G    | C5-C6-O6 | 17.34  | 139.00      | 128.60   |
| 1   | CA    | 1119 | C    | C2-N3-C4 | 16.52  | 128.16      | 119.90   |
| 1   | CA    | 1154 | G    | N3-C2-N2 | 14.11  | 129.78      | 119.90   |
| 1   | CA    | 1119 | C    | N1-C2-O2 | 14.07  | 127.34      | 118.90   |
| 1   | CA    | 1154 | G    | N1-C6-O6 | -11.05 | 113.27      | 119.90   |

There are no chirality outliers.

5 of 7 planarity outliers are listed below:

| Mol | Chain | Res | Type | Group   |
|-----|-------|-----|------|---------|
| 2   | AB    | 231 | GLU  | Peptide |
| 7   | AG    | 78  | ARG  | Peptide |
| 38  | BS    | 58  | LEU  | Peptide |
| 44  | BY    | 54  | LYS  | Peptide |
| 7   | CG    | 78  | ARG  | Peptide |

## 5.2 Too-close contacts [i](#)

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

the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | AA    | 32205 | 0        | 16255    | 434     | 0            |
| 1   | CA    | 32312 | 0        | 16307    | 550     | 0            |
| 2   | AB    | 1846  | 0        | 1867     | 70      | 0            |
| 2   | CB    | 1825  | 0        | 1828     | 90      | 0            |
| 3   | AC    | 1552  | 0        | 1546     | 45      | 0            |
| 3   | CC    | 1542  | 0        | 1517     | 56      | 0            |
| 4   | AD    | 1659  | 0        | 1676     | 53      | 0            |
| 4   | CD    | 1674  | 0        | 1714     | 54      | 0            |
| 5   | AE    | 1129  | 0        | 1185     | 33      | 0            |
| 5   | CE    | 1133  | 0        | 1191     | 30      | 0            |
| 6   | AF    | 806   | 0        | 793      | 18      | 0            |
| 6   | CF    | 816   | 0        | 808      | 17      | 0            |
| 7   | AG    | 1231  | 0        | 1238     | 22      | 0            |
| 7   | CG    | 1235  | 0        | 1249     | 31      | 0            |
| 8   | AH    | 1088  | 0        | 1126     | 32      | 0            |
| 8   | CH    | 1088  | 0        | 1126     | 31      | 0            |
| 9   | AI    | 983   | 0        | 986      | 28      | 0            |
| 9   | CI    | 978   | 0        | 966      | 46      | 0            |
| 10  | AJ    | 709   | 0        | 650      | 32      | 0            |
| 10  | CJ    | 714   | 0        | 672      | 36      | 0            |
| 11  | AK    | 829   | 0        | 825      | 15      | 0            |
| 11  | CK    | 833   | 0        | 836      | 22      | 0            |
| 12  | AL    | 930   | 0        | 980      | 18      | 0            |
| 12  | CL    | 930   | 0        | 980      | 23      | 0            |
| 13  | AM    | 958   | 0        | 1002     | 26      | 0            |
| 13  | CM    | 950   | 0        | 988      | 24      | 0            |
| 14  | AN    | 492   | 0        | 529      | 20      | 0            |
| 14  | CN    | 492   | 0        | 529      | 17      | 0            |
| 15  | AO    | 728   | 0        | 760      | 18      | 0            |
| 15  | CO    | 728   | 0        | 760      | 31      | 0            |
| 16  | AP    | 681   | 0        | 697      | 21      | 0            |
| 16  | CP    | 677   | 0        | 686      | 17      | 0            |
| 17  | AQ    | 823   | 0        | 891      | 16      | 0            |
| 17  | CQ    | 823   | 0        | 891      | 19      | 0            |
| 18  | AR    | 555   | 0        | 618      | 12      | 0            |
| 18  | CR    | 555   | 0        | 618      | 13      | 0            |
| 19  | AS    | 652   | 0        | 662      | 35      | 0            |
| 19  | CS    | 646   | 0        | 644      | 34      | 0            |
| 20  | AT    | 728   | 0        | 798      | 19      | 0            |
| 20  | CT    | 727   | 0        | 796      | 20      | 0            |
| 21  | AU    | 199   | 0        | 208      | 5       | 0            |
| 21  | CU    | 199   | 0        | 208      | 8       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 22  | AV    | 277   | 0        | 140      | 2       | 0            |
| 22  | CV    | 277   | 0        | 140      | 2       | 0            |
| 23  | AW    | 1588  | 0        | 820      | 30      | 0            |
| 23  | AY    | 1581  | 0        | 805      | 57      | 0            |
| 23  | CW    | 1541  | 0        | 784      | 50      | 0            |
| 23  | CY    | 1561  | 0        | 796      | 46      | 0            |
| 24  | AX    | 1625  | 0        | 828      | 11      | 0            |
| 24  | CX    | 1625  | 0        | 828      | 28      | 0            |
| 25  | BA    | 60729 | 0        | 30622    | 619     | 0            |
| 25  | DA    | 60311 | 0        | 30414    | 867     | 0            |
| 26  | BB    | 2573  | 0        | 1306     | 18      | 0            |
| 26  | DB    | 2573  | 0        | 1306     | 38      | 0            |
| 27  | BD    | 2136  | 0        | 2218     | 52      | 0            |
| 27  | DD    | 2136  | 0        | 2218     | 51      | 0            |
| 28  | BE    | 1559  | 0        | 1618     | 38      | 0            |
| 28  | DE    | 1559  | 0        | 1618     | 41      | 0            |
| 29  | BF    | 1584  | 0        | 1625     | 33      | 0            |
| 29  | DF    | 1580  | 0        | 1619     | 64      | 0            |
| 30  | BG    | 1425  | 0        | 1443     | 23      | 0            |
| 30  | DG    | 1424  | 0        | 1434     | 47      | 0            |
| 31  | BH    | 1330  | 0        | 1407     | 26      | 0            |
| 31  | DH    | 1330  | 0        | 1407     | 61      | 0            |
| 32  | BI    | 1085  | 0        | 1114     | 26      | 0            |
| 32  | DI    | 1061  | 0        | 1080     | 19      | 0            |
| 33  | BN    | 1117  | 0        | 1184     | 15      | 0            |
| 33  | DN    | 1117  | 0        | 1184     | 24      | 0            |
| 34  | BO    | 933   | 0        | 996      | 21      | 0            |
| 34  | DO    | 933   | 0        | 996      | 18      | 0            |
| 35  | BP    | 1135  | 0        | 1212     | 28      | 0            |
| 35  | DP    | 1135  | 0        | 1212     | 50      | 0            |
| 36  | BQ    | 1122  | 0        | 1179     | 23      | 0            |
| 36  | DQ    | 1122  | 0        | 1179     | 38      | 0            |
| 37  | BR    | 968   | 0        | 1033     | 25      | 0            |
| 37  | DR    | 968   | 0        | 1033     | 26      | 0            |
| 38  | BS    | 877   | 0        | 938      | 26      | 0            |
| 38  | DS    | 870   | 0        | 923      | 23      | 0            |
| 39  | BT    | 1091  | 0        | 1151     | 29      | 0            |
| 39  | DT    | 1083  | 0        | 1136     | 30      | 0            |
| 40  | BU    | 959   | 0        | 1019     | 14      | 0            |
| 40  | DU    | 959   | 0        | 1019     | 28      | 0            |
| 41  | BV    | 771   | 0        | 830      | 17      | 0            |
| 41  | DV    | 771   | 0        | 830      | 21      | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 42  | BW    | 886   | 0        | 940      | 15      | 0            |
| 42  | DW    | 886   | 0        | 940      | 13      | 0            |
| 43  | BX    | 750   | 0        | 814      | 23      | 0            |
| 43  | DX    | 750   | 0        | 814      | 22      | 0            |
| 44  | BY    | 806   | 0        | 881      | 21      | 0            |
| 44  | DY    | 806   | 0        | 881      | 20      | 0            |
| 45  | BZ    | 1349  | 0        | 1355     | 41      | 0            |
| 45  | DZ    | 1360  | 0        | 1363     | 63      | 0            |
| 46  | B0    | 653   | 0        | 674      | 16      | 0            |
| 46  | D0    | 653   | 0        | 674      | 24      | 0            |
| 47  | B1    | 755   | 0        | 826      | 17      | 0            |
| 47  | D1    | 755   | 0        | 826      | 15      | 0            |
| 48  | B2    | 588   | 0        | 643      | 9       | 0            |
| 48  | D2    | 588   | 0        | 643      | 8       | 0            |
| 49  | B3    | 469   | 0        | 518      | 8       | 0            |
| 49  | D3    | 464   | 0        | 514      | 9       | 0            |
| 50  | B4    | 558   | 0        | 544      | 34      | 0            |
| 50  | D4    | 532   | 0        | 503      | 25      | 0            |
| 51  | B5    | 455   | 0        | 465      | 11      | 0            |
| 51  | D5    | 455   | 0        | 465      | 8       | 0            |
| 52  | B6    | 453   | 0        | 473      | 7       | 0            |
| 52  | D6    | 449   | 0        | 469      | 8       | 0            |
| 53  | B7    | 418   | 0        | 467      | 11      | 0            |
| 53  | D7    | 418   | 0        | 467      | 6       | 0            |
| 54  | B8    | 511   | 0        | 571      | 18      | 0            |
| 54  | D8    | 517   | 0        | 582      | 21      | 0            |
| 55  | B9    | 307   | 0        | 335      | 4       | 0            |
| 55  | D9    | 307   | 0        | 335      | 8       | 0            |
| 56  | AA    | 230   | 0        | 0        | 0       | 0            |
| 56  | AD    | 1     | 0        | 0        | 0       | 0            |
| 56  | AE    | 1     | 0        | 0        | 0       | 0            |
| 56  | AF    | 1     | 0        | 0        | 0       | 0            |
| 56  | AK    | 2     | 0        | 0        | 0       | 0            |
| 56  | AM    | 1     | 0        | 0        | 0       | 0            |
| 56  | AN    | 1     | 0        | 0        | 0       | 0            |
| 56  | AV    | 1     | 0        | 0        | 0       | 0            |
| 56  | AW    | 7     | 0        | 0        | 0       | 0            |
| 56  | AX    | 12    | 0        | 0        | 0       | 0            |
| 56  | AY    | 3     | 0        | 0        | 0       | 0            |
| 56  | B0    | 3     | 0        | 0        | 0       | 0            |
| 56  | B1    | 2     | 0        | 0        | 0       | 0            |
| 56  | B2    | 1     | 0        | 0        | 0       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 56  | B3    | 3     | 0        | 0        | 0       | 0            |
| 56  | B4    | 1     | 0        | 0        | 0       | 0            |
| 56  | B5    | 4     | 0        | 0        | 0       | 0            |
| 56  | B6    | 2     | 0        | 0        | 0       | 0            |
| 56  | B7    | 2     | 0        | 0        | 0       | 0            |
| 56  | B8    | 3     | 0        | 0        | 0       | 0            |
| 56  | B9    | 1     | 0        | 0        | 0       | 0            |
| 56  | BA    | 839   | 0        | 0        | 0       | 0            |
| 56  | BB    | 23    | 0        | 0        | 0       | 0            |
| 56  | BD    | 11    | 0        | 0        | 0       | 0            |
| 56  | BE    | 8     | 0        | 0        | 0       | 0            |
| 56  | BF    | 12    | 0        | 0        | 0       | 0            |
| 56  | BG    | 3     | 0        | 0        | 0       | 0            |
| 56  | BN    | 5     | 0        | 0        | 0       | 0            |
| 56  | BO    | 1     | 0        | 0        | 0       | 0            |
| 56  | BP    | 3     | 0        | 0        | 0       | 0            |
| 56  | BQ    | 5     | 0        | 0        | 0       | 0            |
| 56  | BR    | 5     | 0        | 0        | 0       | 0            |
| 56  | BU    | 9     | 0        | 0        | 0       | 0            |
| 56  | BV    | 5     | 0        | 0        | 0       | 0            |
| 56  | BW    | 3     | 0        | 0        | 0       | 0            |
| 56  | BX    | 2     | 0        | 0        | 0       | 0            |
| 56  | BY    | 1     | 0        | 0        | 0       | 0            |
| 56  | BZ    | 1     | 0        | 0        | 0       | 0            |
| 56  | CA    | 177   | 0        | 0        | 0       | 0            |
| 56  | CE    | 2     | 0        | 0        | 0       | 0            |
| 56  | CF    | 1     | 0        | 0        | 0       | 0            |
| 56  | CJ    | 1     | 0        | 0        | 0       | 0            |
| 56  | CT    | 1     | 0        | 0        | 0       | 0            |
| 56  | CV    | 1     | 0        | 0        | 0       | 0            |
| 56  | CW    | 2     | 0        | 0        | 0       | 0            |
| 56  | CX    | 5     | 0        | 0        | 0       | 0            |
| 56  | CY    | 1     | 0        | 0        | 0       | 0            |
| 56  | D0    | 2     | 0        | 0        | 0       | 0            |
| 56  | D3    | 1     | 0        | 0        | 0       | 0            |
| 56  | D7    | 2     | 0        | 0        | 0       | 0            |
| 56  | D8    | 1     | 0        | 0        | 0       | 0            |
| 56  | DA    | 675   | 0        | 0        | 0       | 0            |
| 56  | DB    | 11    | 0        | 0        | 0       | 0            |
| 56  | DD    | 7     | 0        | 0        | 0       | 0            |
| 56  | DE    | 4     | 0        | 0        | 0       | 0            |
| 56  | DF    | 5     | 0        | 0        | 0       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 56  | DG    | 1     | 0        | 0        | 0       | 0            |
| 56  | DN    | 1     | 0        | 0        | 0       | 0            |
| 56  | DO    | 1     | 0        | 0        | 0       | 0            |
| 56  | DQ    | 4     | 0        | 0        | 0       | 0            |
| 56  | DR    | 1     | 0        | 0        | 0       | 0            |
| 56  | DU    | 2     | 0        | 0        | 0       | 0            |
| 56  | DV    | 3     | 0        | 0        | 0       | 0            |
| 56  | DW    | 3     | 0        | 0        | 0       | 0            |
| 56  | DY    | 1     | 0        | 0        | 0       | 0            |
| 57  | AA    | 40    | 0        | 37       | 7       | 0            |
| 57  | CA    | 40    | 0        | 37       | 9       | 0            |
| 58  | AD    | 8     | 0        | 0        | 0       | 0            |
| 58  | CD    | 8     | 0        | 0        | 0       | 0            |
| 59  | AN    | 1     | 0        | 0        | 0       | 0            |
| 59  | B4    | 1     | 0        | 0        | 0       | 0            |
| 59  | B5    | 1     | 0        | 0        | 0       | 0            |
| 59  | B6    | 1     | 0        | 0        | 0       | 0            |
| 59  | B9    | 1     | 0        | 0        | 0       | 0            |
| 59  | BY    | 1     | 0        | 0        | 0       | 0            |
| 59  | CN    | 1     | 0        | 0        | 0       | 0            |
| 59  | D4    | 1     | 0        | 0        | 0       | 0            |
| 59  | D5    | 1     | 0        | 0        | 0       | 0            |
| 59  | D6    | 1     | 0        | 0        | 0       | 0            |
| 59  | D9    | 1     | 0        | 0        | 0       | 0            |
| 59  | DY    | 1     | 0        | 0        | 0       | 0            |
| 60  | AX    | 1     | 0        | 0        | 0       | 0            |
| 60  | CX    | 1     | 0        | 0        | 0       | 0            |
| 61  | AA    | 226   | 0        | 0        | 17      | 0            |
| 61  | AE    | 3     | 0        | 0        | 0       | 0            |
| 61  | AJ    | 1     | 0        | 0        | 0       | 0            |
| 61  | AL    | 4     | 0        | 0        | 1       | 0            |
| 61  | AM    | 1     | 0        | 0        | 0       | 0            |
| 61  | AV    | 4     | 0        | 0        | 0       | 0            |
| 61  | AW    | 6     | 0        | 0        | 0       | 0            |
| 61  | AX    | 8     | 0        | 0        | 0       | 0            |
| 61  | AY    | 3     | 0        | 0        | 0       | 0            |
| 61  | B0    | 4     | 0        | 0        | 0       | 0            |
| 61  | B1    | 2     | 0        | 0        | 0       | 0            |
| 61  | B3    | 2     | 0        | 0        | 0       | 0            |
| 61  | B5    | 5     | 0        | 0        | 1       | 0            |
| 61  | B6    | 1     | 0        | 0        | 0       | 0            |
| 61  | B7    | 3     | 0        | 0        | 1       | 0            |

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| Mol | Chain | Non-H  | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|--------|----------|----------|---------|--------------|
| 61  | B8    | 11     | 0        | 0        | 1       | 0            |
| 61  | BA    | 1411   | 0        | 0        | 69      | 0            |
| 61  | BB    | 36     | 0        | 0        | 1       | 0            |
| 61  | BD    | 16     | 0        | 0        | 2       | 0            |
| 61  | BE    | 13     | 0        | 0        | 2       | 0            |
| 61  | BF    | 7      | 0        | 0        | 0       | 0            |
| 61  | BG    | 3      | 0        | 0        | 0       | 0            |
| 61  | BI    | 1      | 0        | 0        | 0       | 0            |
| 61  | BN    | 2      | 0        | 0        | 0       | 0            |
| 61  | BO    | 3      | 0        | 0        | 0       | 0            |
| 61  | BP    | 17     | 0        | 0        | 1       | 0            |
| 61  | BQ    | 2      | 0        | 0        | 0       | 0            |
| 61  | BR    | 2      | 0        | 0        | 0       | 0            |
| 61  | BT    | 1      | 0        | 0        | 0       | 0            |
| 61  | BU    | 6      | 0        | 0        | 0       | 0            |
| 61  | BV    | 2      | 0        | 0        | 0       | 0            |
| 61  | BW    | 4      | 0        | 0        | 0       | 0            |
| 61  | BX    | 1      | 0        | 0        | 0       | 0            |
| 61  | CA    | 173    | 0        | 0        | 15      | 0            |
| 61  | CJ    | 2      | 0        | 0        | 2       | 0            |
| 61  | CL    | 1      | 0        | 0        | 0       | 0            |
| 61  | CV    | 2      | 0        | 0        | 0       | 0            |
| 61  | CW    | 1      | 0        | 0        | 0       | 0            |
| 61  | CX    | 4      | 0        | 0        | 2       | 0            |
| 61  | D0    | 5      | 0        | 0        | 0       | 0            |
| 61  | D3    | 1      | 0        | 0        | 0       | 0            |
| 61  | D7    | 3      | 0        | 0        | 1       | 0            |
| 61  | D8    | 4      | 0        | 0        | 0       | 0            |
| 61  | DA    | 1002   | 0        | 0        | 68      | 0            |
| 61  | DB    | 10     | 0        | 0        | 0       | 0            |
| 61  | DD    | 17     | 0        | 0        | 1       | 0            |
| 61  | DE    | 11     | 0        | 0        | 0       | 0            |
| 61  | DF    | 5      | 0        | 0        | 0       | 0            |
| 61  | DN    | 2      | 0        | 0        | 0       | 0            |
| 61  | DO    | 2      | 0        | 0        | 0       | 0            |
| 61  | DP    | 8      | 0        | 0        | 1       | 0            |
| 61  | DQ    | 1      | 0        | 0        | 0       | 0            |
| 61  | DR    | 1      | 0        | 0        | 0       | 0            |
| 61  | DU    | 2      | 0        | 0        | 0       | 0            |
| 61  | DW    | 1      | 0        | 0        | 0       | 0            |
| 61  | DY    | 1      | 0        | 0        | 0       | 0            |
| All | All   | 297273 | 0        | 196306   | 4649    | 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 4649 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:CA:1256:A:H61 | 1:CA:1278:U:H1' | 1.25                     | 1.02              |
| 1:CA:999:C:N4   | 1:CA:1042:G:H1  | 1.59                     | 1.00              |
| 1:AA:1025:U:O2  | 1:AA:1036:G:O6  | 1.82                     | 0.98              |
| 23:CW:27:G:H1   | 23:CW:43:C:N4   | 1.62                     | 0.97              |
| 1:CA:1029:C:N4  | 1:CA:1032:G:C6  | 2.33                     | 0.97              |

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 |     |
|-----|-------|---------------|-----------|----------|----------|-------------|-----|
| 2   | AB    | 229/256 (90%) | 200 (87%) | 19 (8%)  | 10 (4%)  | 2           | 1   |
| 2   | CB    | 229/256 (90%) | 195 (85%) | 24 (10%) | 10 (4%)  | 2           | 1   |
| 3   | AC    | 204/239 (85%) | 184 (90%) | 17 (8%)  | 3 (2%)   | 10          | 14  |
| 3   | CC    | 204/239 (85%) | 180 (88%) | 22 (11%) | 2 (1%)   | 15          | 22  |
| 4   | AD    | 206/209 (99%) | 192 (93%) | 12 (6%)  | 2 (1%)   | 15          | 22  |
| 4   | CD    | 206/209 (99%) | 189 (92%) | 16 (8%)  | 1 (0%)   | 29          | 40  |
| 5   | AE    | 146/162 (90%) | 134 (92%) | 9 (6%)   | 3 (2%)   | 7           | 7   |
| 5   | CE    | 146/162 (90%) | 138 (94%) | 7 (5%)   | 1 (1%)   | 22          | 30  |
| 6   | AF    | 98/101 (97%)  | 97 (99%)  | 1 (1%)   | 0        | 100         | 100 |
| 6   | CF    | 98/101 (97%)  | 96 (98%)  | 2 (2%)   | 0        | 100         | 100 |
| 7   | AG    | 153/156 (98%) | 143 (94%) | 8 (5%)   | 2 (1%)   | 12          | 16  |
| 7   | CG    | 153/156 (98%) | 140 (92%) | 9 (6%)   | 4 (3%)   | 5           | 5   |

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| Mol | Chain | Analysed      | Favoured  | Allowed  | Outliers | Percentiles |     |
|-----|-------|---------------|-----------|----------|----------|-------------|-----|
| 8   | AH    | 135/138 (98%) | 129 (96%) | 6 (4%)   | 0        | 100         | 100 |
| 8   | CH    | 135/138 (98%) | 129 (96%) | 5 (4%)   | 1 (1%)   | 22          | 30  |
| 9   | AI    | 125/128 (98%) | 111 (89%) | 11 (9%)  | 3 (2%)   | 6           | 5   |
| 9   | CI    | 125/128 (98%) | 114 (91%) | 8 (6%)   | 3 (2%)   | 6           | 5   |
| 10  | AJ    | 95/105 (90%)  | 83 (87%)  | 9 (10%)  | 3 (3%)   | 4           | 3   |
| 10  | CJ    | 94/105 (90%)  | 81 (86%)  | 10 (11%) | 3 (3%)   | 4           | 3   |
| 11  | AK    | 112/129 (87%) | 106 (95%) | 4 (4%)   | 2 (2%)   | 8           | 10  |
| 11  | CK    | 112/129 (87%) | 107 (96%) | 3 (3%)   | 2 (2%)   | 8           | 10  |
| 12  | AL    | 120/132 (91%) | 115 (96%) | 5 (4%)   | 0        | 100         | 100 |
| 12  | CL    | 120/132 (91%) | 116 (97%) | 4 (3%)   | 0        | 100         | 100 |
| 13  | AM    | 121/126 (96%) | 110 (91%) | 9 (7%)   | 2 (2%)   | 9           | 11  |
| 13  | CM    | 120/126 (95%) | 108 (90%) | 9 (8%)   | 3 (2%)   | 5           | 5   |
| 14  | AN    | 58/61 (95%)   | 54 (93%)  | 4 (7%)   | 0        | 100         | 100 |
| 14  | CN    | 58/61 (95%)   | 53 (91%)  | 5 (9%)   | 0        | 100         | 100 |
| 15  | AO    | 86/89 (97%)   | 83 (96%)  | 3 (4%)   | 0        | 100         | 100 |
| 15  | CO    | 86/89 (97%)   | 80 (93%)  | 4 (5%)   | 2 (2%)   | 6           | 6   |
| 16  | AP    | 80/88 (91%)   | 78 (98%)  | 2 (2%)   | 0        | 100         | 100 |
| 16  | CP    | 80/88 (91%)   | 77 (96%)  | 2 (2%)   | 1 (1%)   | 12          | 16  |
| 17  | AQ    | 97/105 (92%)  | 90 (93%)  | 7 (7%)   | 0        | 100         | 100 |
| 17  | CQ    | 97/105 (92%)  | 91 (94%)  | 5 (5%)   | 1 (1%)   | 15          | 22  |
| 18  | AR    | 66/88 (75%)   | 64 (97%)  | 2 (3%)   | 0        | 100         | 100 |
| 18  | CR    | 66/88 (75%)   | 65 (98%)  | 0        | 1 (2%)   | 10          | 14  |
| 19  | AS    | 81/93 (87%)   | 72 (89%)  | 9 (11%)  | 0        | 100         | 100 |
| 19  | CS    | 81/93 (87%)   | 71 (88%)  | 10 (12%) | 0        | 100         | 100 |
| 20  | AT    | 94/106 (89%)  | 84 (89%)  | 3 (3%)   | 7 (7%)   | 1           | 0   |
| 20  | CT    | 94/106 (89%)  | 84 (89%)  | 5 (5%)   | 5 (5%)   | 2           | 0   |
| 21  | AU    | 21/27 (78%)   | 18 (86%)  | 3 (14%)  | 0        | 100         | 100 |
| 21  | CU    | 21/27 (78%)   | 18 (86%)  | 2 (10%)  | 1 (5%)   | 2           | 1   |
| 27  | BD    | 273/276 (99%) | 257 (94%) | 15 (6%)  | 1 (0%)   | 34          | 46  |
| 27  | DD    | 273/276 (99%) | 258 (94%) | 13 (5%)  | 2 (1%)   | 22          | 30  |
| 28  | BE    | 202/206 (98%) | 193 (96%) | 8 (4%)   | 1 (0%)   | 29          | 40  |

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| Mol | Chain | Analysed      | Favoured   | Allowed  | Outliers | Percentiles |     |
|-----|-------|---------------|------------|----------|----------|-------------|-----|
| 28  | DE    | 202/206 (98%) | 191 (95%)  | 9 (4%)   | 2 (1%)   | 15          | 22  |
| 29  | BF    | 201/210 (96%) | 197 (98%)  | 3 (2%)   | 1 (0%)   | 29          | 40  |
| 29  | DF    | 201/210 (96%) | 195 (97%)  | 4 (2%)   | 2 (1%)   | 15          | 22  |
| 30  | BG    | 179/182 (98%) | 167 (93%)  | 7 (4%)   | 5 (3%)   | 5           | 4   |
| 30  | DG    | 179/182 (98%) | 165 (92%)  | 7 (4%)   | 7 (4%)   | 3           | 1   |
| 31  | BH    | 172/180 (96%) | 159 (92%)  | 12 (7%)  | 1 (1%)   | 25          | 34  |
| 31  | DH    | 172/180 (96%) | 157 (91%)  | 13 (8%)  | 2 (1%)   | 13          | 17  |
| 32  | BI    | 144/148 (97%) | 123 (85%)  | 16 (11%) | 5 (4%)   | 3           | 2   |
| 32  | DI    | 144/148 (97%) | 126 (88%)  | 17 (12%) | 1 (1%)   | 22          | 30  |
| 33  | BN    | 138/140 (99%) | 134 (97%)  | 4 (3%)   | 0        | 100         | 100 |
| 33  | DN    | 138/140 (99%) | 133 (96%)  | 4 (3%)   | 1 (1%)   | 22          | 30  |
| 34  | BO    | 120/122 (98%) | 115 (96%)  | 5 (4%)   | 0        | 100         | 100 |
| 34  | DO    | 120/122 (98%) | 115 (96%)  | 5 (4%)   | 0        | 100         | 100 |
| 35  | BP    | 147/150 (98%) | 138 (94%)  | 8 (5%)   | 1 (1%)   | 22          | 30  |
| 35  | DP    | 147/150 (98%) | 135 (92%)  | 10 (7%)  | 2 (1%)   | 11          | 15  |
| 36  | BQ    | 139/141 (99%) | 133 (96%)  | 6 (4%)   | 0        | 100         | 100 |
| 36  | DQ    | 139/141 (99%) | 129 (93%)  | 8 (6%)   | 2 (1%)   | 11          | 15  |
| 37  | BR    | 116/118 (98%) | 110 (95%)  | 6 (5%)   | 0        | 100         | 100 |
| 37  | DR    | 116/118 (98%) | 107 (92%)  | 9 (8%)   | 0        | 100         | 100 |
| 38  | BS    | 108/112 (96%) | 102 (94%)  | 6 (6%)   | 0        | 100         | 100 |
| 38  | DS    | 108/112 (96%) | 104 (96%)  | 3 (3%)   | 1 (1%)   | 17          | 24  |
| 39  | BT    | 129/146 (88%) | 121 (94%)  | 7 (5%)   | 1 (1%)   | 19          | 27  |
| 39  | DT    | 129/146 (88%) | 123 (95%)  | 5 (4%)   | 1 (1%)   | 19          | 27  |
| 40  | BU    | 114/118 (97%) | 114 (100%) | 0        | 0        | 100         | 100 |
| 40  | DU    | 114/118 (97%) | 114 (100%) | 0        | 0        | 100         | 100 |
| 41  | BV    | 99/101 (98%)  | 94 (95%)   | 4 (4%)   | 1 (1%)   | 15          | 22  |
| 41  | DV    | 99/101 (98%)  | 94 (95%)   | 4 (4%)   | 1 (1%)   | 15          | 22  |
| 42  | BW    | 110/113 (97%) | 108 (98%)  | 2 (2%)   | 0        | 100         | 100 |
| 42  | DW    | 110/113 (97%) | 109 (99%)  | 1 (1%)   | 0        | 100         | 100 |
| 43  | BX    | 93/96 (97%)   | 90 (97%)   | 1 (1%)   | 2 (2%)   | 6           | 7   |
| 43  | DX    | 93/96 (97%)   | 90 (97%)   | 2 (2%)   | 1 (1%)   | 14          | 19  |

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| Mol | Chain | Analysed          | Favoured    | Allowed  | Outliers | Percentiles |     |
|-----|-------|-------------------|-------------|----------|----------|-------------|-----|
| 44  | BY    | 105/110 (96%)     | 96 (91%)    | 9 (9%)   | 0        | 100         | 100 |
| 44  | DY    | 105/110 (96%)     | 98 (93%)    | 7 (7%)   | 0        | 100         | 100 |
| 45  | BZ    | 169/206 (82%)     | 143 (85%)   | 24 (14%) | 2 (1%)   | 13          | 17  |
| 45  | DZ    | 172/206 (84%)     | 149 (87%)   | 22 (13%) | 1 (1%)   | 25          | 34  |
| 46  | B0    | 81/85 (95%)       | 77 (95%)    | 3 (4%)   | 1 (1%)   | 13          | 17  |
| 46  | D0    | 81/85 (95%)       | 75 (93%)    | 6 (7%)   | 0        | 100         | 100 |
| 47  | B1    | 95/98 (97%)       | 91 (96%)    | 4 (4%)   | 0        | 100         | 100 |
| 47  | D1    | 95/98 (97%)       | 91 (96%)    | 4 (4%)   | 0        | 100         | 100 |
| 48  | B2    | 68/72 (94%)       | 68 (100%)   | 0        | 0        | 100         | 100 |
| 48  | D2    | 68/72 (94%)       | 68 (100%)   | 0        | 0        | 100         | 100 |
| 49  | B3    | 57/60 (95%)       | 57 (100%)   | 0        | 0        | 100         | 100 |
| 49  | D3    | 57/60 (95%)       | 55 (96%)    | 2 (4%)   | 0        | 100         | 100 |
| 50  | B4    | 67/71 (94%)       | 50 (75%)    | 11 (16%) | 6 (9%)   | 1           | 0   |
| 50  | D4    | 67/71 (94%)       | 51 (76%)    | 12 (18%) | 4 (6%)   | 1           | 0   |
| 51  | B5    | 57/60 (95%)       | 56 (98%)    | 1 (2%)   | 0        | 100         | 100 |
| 51  | D5    | 57/60 (95%)       | 56 (98%)    | 1 (2%)   | 0        | 100         | 100 |
| 52  | B6    | 51/54 (94%)       | 49 (96%)    | 2 (4%)   | 0        | 100         | 100 |
| 52  | D6    | 51/54 (94%)       | 50 (98%)    | 1 (2%)   | 0        | 100         | 100 |
| 53  | B7    | 46/49 (94%)       | 46 (100%)   | 0        | 0        | 100         | 100 |
| 53  | D7    | 46/49 (94%)       | 45 (98%)    | 0        | 1 (2%)   | 6           | 7   |
| 54  | B8    | 62/65 (95%)       | 62 (100%)   | 0        | 0        | 100         | 100 |
| 54  | D8    | 62/65 (95%)       | 61 (98%)    | 1 (2%)   | 0        | 100         | 100 |
| 55  | B9    | 35/37 (95%)       | 35 (100%)   | 0        | 0        | 100         | 100 |
| 55  | D9    | 35/37 (95%)       | 35 (100%)   | 0        | 0        | 100         | 100 |
| All | All   | 11409/12128 (94%) | 10643 (93%) | 629 (6%) | 137 (1%) | 13          | 17  |

5 of 137 Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 2   | AB    | 9   | GLU  |
| 2   | AB    | 15  | VAL  |
| 2   | AB    | 16  | HIS  |
| 2   | AB    | 17  | PHE  |
| 2   | AB    | 126 | GLU  |

### 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 |    |
|-----|-------|---------------|-----------|----------|-------------|----|
| 2   | AB    | 192/220 (87%) | 169 (88%) | 23 (12%) | 5           | 5  |
| 2   | CB    | 187/220 (85%) | 168 (90%) | 19 (10%) | 7           | 8  |
| 3   | AC    | 143/188 (76%) | 132 (92%) | 11 (8%)  | 13          | 16 |
| 3   | CC    | 140/188 (74%) | 127 (91%) | 13 (9%)  | 9           | 10 |
| 4   | AD    | 170/181 (94%) | 155 (91%) | 15 (9%)  | 10          | 12 |
| 4   | CD    | 173/181 (96%) | 160 (92%) | 13 (8%)  | 13          | 17 |
| 5   | AE    | 113/123 (92%) | 106 (94%) | 7 (6%)   | 18          | 24 |
| 5   | CE    | 114/123 (93%) | 105 (92%) | 9 (8%)   | 12          | 15 |
| 6   | AF    | 83/90 (92%)   | 77 (93%)  | 6 (7%)   | 14          | 18 |
| 6   | CF    | 85/90 (94%)   | 81 (95%)  | 4 (5%)   | 26          | 35 |
| 7   | AG    | 119/127 (94%) | 106 (89%) | 13 (11%) | 6           | 6  |
| 7   | CG    | 120/127 (94%) | 111 (92%) | 9 (8%)   | 13          | 17 |
| 8   | AH    | 114/119 (96%) | 107 (94%) | 7 (6%)   | 18          | 24 |
| 8   | CH    | 114/119 (96%) | 104 (91%) | 10 (9%)  | 10          | 12 |
| 9   | AI    | 90/99 (91%)   | 82 (91%)  | 8 (9%)   | 9           | 12 |
| 9   | CI    | 89/99 (90%)   | 73 (82%)  | 16 (18%) | 1           | 1  |
| 10  | AJ    | 66/92 (72%)   | 62 (94%)  | 4 (6%)   | 18          | 24 |
| 10  | CJ    | 69/92 (75%)   | 66 (96%)  | 3 (4%)   | 29          | 39 |
| 11  | AK    | 82/99 (83%)   | 76 (93%)  | 6 (7%)   | 14          | 18 |
| 11  | CK    | 83/99 (84%)   | 77 (93%)  | 6 (7%)   | 14          | 18 |
| 12  | AL    | 97/109 (89%)  | 93 (96%)  | 4 (4%)   | 30          | 41 |
| 12  | CL    | 97/109 (89%)  | 92 (95%)  | 5 (5%)   | 23          | 30 |
| 13  | AM    | 93/101 (92%)  | 83 (89%)  | 10 (11%) | 6           | 6  |
| 13  | CM    | 92/101 (91%)  | 83 (90%)  | 9 (10%)  | 8           | 9  |
| 14  | AN    | 49/50 (98%)   | 43 (88%)  | 6 (12%)  | 5           | 4  |
| 14  | CN    | 49/50 (98%)   | 43 (88%)  | 6 (12%)  | 5           | 4  |

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| Mol | Chain | Analysed       | Rotameric | Outliers | Percentiles |    |
|-----|-------|----------------|-----------|----------|-------------|----|
| 15  | AO    | 78/80 (98%)    | 67 (86%)  | 11 (14%) | 3           | 3  |
| 15  | CO    | 78/80 (98%)    | 70 (90%)  | 8 (10%)  | 7           | 7  |
| 16  | AP    | 69/74 (93%)    | 62 (90%)  | 7 (10%)  | 7           | 8  |
| 16  | CP    | 68/74 (92%)    | 63 (93%)  | 5 (7%)   | 13          | 18 |
| 17  | AQ    | 94/97 (97%)    | 91 (97%)  | 3 (3%)   | 39          | 53 |
| 17  | CQ    | 94/97 (97%)    | 88 (94%)  | 6 (6%)   | 17          | 23 |
| 18  | AR    | 59/77 (77%)    | 56 (95%)  | 3 (5%)   | 24          | 32 |
| 18  | CR    | 59/77 (77%)    | 54 (92%)  | 5 (8%)   | 10          | 13 |
| 19  | AS    | 69/80 (86%)    | 66 (96%)  | 3 (4%)   | 29          | 39 |
| 19  | CS    | 67/80 (84%)    | 57 (85%)  | 10 (15%) | 3           | 2  |
| 20  | AT    | 70/82 (85%)    | 64 (91%)  | 6 (9%)   | 10          | 13 |
| 20  | CT    | 70/82 (85%)    | 64 (91%)  | 6 (9%)   | 10          | 13 |
| 21  | AU    | 18/22 (82%)    | 16 (89%)  | 2 (11%)  | 6           | 6  |
| 21  | CU    | 18/22 (82%)    | 16 (89%)  | 2 (11%)  | 6           | 6  |
| 27  | BD    | 215/218 (99%)  | 200 (93%) | 15 (7%)  | 15          | 19 |
| 27  | DD    | 215/218 (99%)  | 202 (94%) | 13 (6%)  | 19          | 25 |
| 28  | BE    | 164/166 (99%)  | 147 (90%) | 17 (10%) | 7           | 7  |
| 28  | DE    | 164/166 (99%)  | 145 (88%) | 19 (12%) | 5           | 5  |
| 29  | BF    | 160/166 (96%)  | 142 (89%) | 18 (11%) | 6           | 5  |
| 29  | DF    | 159/166 (96%)  | 142 (89%) | 17 (11%) | 6           | 7  |
| 30  | BG    | 143/156 (92%)  | 130 (91%) | 13 (9%)  | 9           | 11 |
| 30  | DG    | 142/156 (91%)  | 128 (90%) | 14 (10%) | 8           | 9  |
| 31  | BH    | 144/148 (97%)  | 136 (94%) | 8 (6%)   | 21          | 28 |
| 31  | DH    | 144/148 (97%)  | 133 (92%) | 11 (8%)  | 13          | 17 |
| 32  | BI    | 110/124 (89%)  | 92 (84%)  | 18 (16%) | 2           | 2  |
| 32  | DI    | 104/124 (84%)  | 93 (89%)  | 11 (11%) | 6           | 7  |
| 33  | BN    | 118/119 (99%)  | 103 (87%) | 15 (13%) | 4           | 4  |
| 33  | DN    | 118/119 (99%)  | 107 (91%) | 11 (9%)  | 9           | 10 |
| 34  | BO    | 100/100 (100%) | 97 (97%)  | 3 (3%)   | 41          | 55 |
| 34  | DO    | 100/100 (100%) | 96 (96%)  | 4 (4%)   | 31          | 43 |
| 35  | BP    | 115/116 (99%)  | 107 (93%) | 8 (7%)   | 15          | 19 |

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| Mol | Chain | Analysed       | Rotameric | Outliers | Percentiles |    |
|-----|-------|----------------|-----------|----------|-------------|----|
| 35  | DP    | 115/116 (99%)  | 103 (90%) | 12 (10%) | 7           | 7  |
| 36  | BQ    | 111/111 (100%) | 97 (87%)  | 14 (13%) | 4           | 4  |
| 36  | DQ    | 111/111 (100%) | 101 (91%) | 10 (9%)  | 9           | 11 |
| 37  | BR    | 101/101 (100%) | 84 (83%)  | 17 (17%) | 2           | 2  |
| 37  | DR    | 101/101 (100%) | 86 (85%)  | 15 (15%) | 3           | 2  |
| 38  | BS    | 87/88 (99%)    | 78 (90%)  | 9 (10%)  | 7           | 7  |
| 38  | DS    | 85/88 (97%)    | 78 (92%)  | 7 (8%)   | 11          | 14 |
| 39  | BT    | 115/127 (91%)  | 109 (95%) | 6 (5%)   | 23          | 30 |
| 39  | DT    | 113/127 (89%)  | 106 (94%) | 7 (6%)   | 18          | 24 |
| 40  | BU    | 93/94 (99%)    | 86 (92%)  | 7 (8%)   | 13          | 17 |
| 40  | DU    | 93/94 (99%)    | 88 (95%)  | 5 (5%)   | 22          | 29 |
| 41  | BV    | 80/82 (98%)    | 72 (90%)  | 8 (10%)  | 7           | 8  |
| 41  | DV    | 80/82 (98%)    | 71 (89%)  | 9 (11%)  | 6           | 5  |
| 42  | BW    | 90/92 (98%)    | 82 (91%)  | 8 (9%)   | 9           | 12 |
| 42  | DW    | 90/92 (98%)    | 84 (93%)  | 6 (7%)   | 16          | 21 |
| 43  | BX    | 77/78 (99%)    | 72 (94%)  | 5 (6%)   | 17          | 23 |
| 43  | DX    | 77/78 (99%)    | 72 (94%)  | 5 (6%)   | 17          | 23 |
| 44  | BY    | 85/91 (93%)    | 80 (94%)  | 5 (6%)   | 19          | 25 |
| 44  | DY    | 85/91 (93%)    | 82 (96%)  | 3 (4%)   | 36          | 49 |
| 45  | BZ    | 145/179 (81%)  | 131 (90%) | 14 (10%) | 8           | 9  |
| 45  | DZ    | 145/179 (81%)  | 132 (91%) | 13 (9%)  | 9           | 11 |
| 46  | B0    | 65/67 (97%)    | 63 (97%)  | 2 (3%)   | 40          | 54 |
| 46  | D0    | 65/67 (97%)    | 63 (97%)  | 2 (3%)   | 40          | 54 |
| 47  | B1    | 80/83 (96%)    | 75 (94%)  | 5 (6%)   | 18          | 23 |
| 47  | D1    | 80/83 (96%)    | 73 (91%)  | 7 (9%)   | 10          | 12 |
| 48  | B2    | 65/67 (97%)    | 61 (94%)  | 4 (6%)   | 18          | 24 |
| 48  | D2    | 65/67 (97%)    | 64 (98%)  | 1 (2%)   | 65          | 77 |
| 49  | B3    | 51/52 (98%)    | 47 (92%)  | 4 (8%)   | 12          | 16 |
| 49  | D3    | 50/52 (96%)    | 45 (90%)  | 5 (10%)  | 7           | 8  |
| 50  | B4    | 60/63 (95%)    | 52 (87%)  | 8 (13%)  | 4           | 3  |
| 50  | D4    | 53/63 (84%)    | 47 (89%)  | 6 (11%)  | 6           | 5  |

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| Mol | Chain | Analysed         | Rotameric  | Outliers | Percentiles |     |
|-----|-------|------------------|------------|----------|-------------|-----|
| 51  | B5    | 50/52 (96%)      | 47 (94%)   | 3 (6%)   | 19          | 25  |
| 51  | D5    | 50/52 (96%)      | 45 (90%)   | 5 (10%)  | 7           | 8   |
| 52  | B6    | 51/52 (98%)      | 46 (90%)   | 5 (10%)  | 8           | 9   |
| 52  | D6    | 50/52 (96%)      | 48 (96%)   | 2 (4%)   | 31          | 43  |
| 53  | B7    | 41/42 (98%)      | 38 (93%)   | 3 (7%)   | 14          | 18  |
| 53  | D7    | 41/42 (98%)      | 40 (98%)   | 1 (2%)   | 49          | 64  |
| 54  | B8    | 53/55 (96%)      | 50 (94%)   | 3 (6%)   | 20          | 27  |
| 54  | D8    | 54/55 (98%)      | 51 (94%)   | 3 (6%)   | 21          | 28  |
| 55  | B9    | 34/34 (100%)     | 34 (100%)  | 0        | 100         | 100 |
| 55  | D9    | 34/34 (100%)     | 34 (100%)  | 0        | 100         | 100 |
| All | All   | 9320/10066 (93%) | 8532 (92%) | 788 (8%) | 10          | 13  |

5 of 788 residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 7   | CG    | 52  | GLU  |
| 27  | DD    | 221 | VAL  |
| 8   | CH    | 127 | LEU  |
| 7   | CG    | 51  | GLN  |
| 14  | CN    | 23  | ARG  |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 122 such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 45  | BZ    | 34  | ASN  |
| 36  | DQ    | 45  | GLN  |
| 3   | CC    | 136 | GLN  |
| 35  | DP    | 38  | GLN  |
| 43  | DX    | 31  | HIS  |

### 5.3.3 RNA

| Mol | Chain | Analysed        | Backbone Outliers | Pucker Outliers |
|-----|-------|-----------------|-------------------|-----------------|
| 1   | AA    | 1495/1521 (98%) | 306 (20%)         | 21 (1%)         |
| 1   | CA    | 1501/1521 (98%) | 310 (20%)         | 23 (1%)         |
| 22  | AV    | 12/24 (50%)     | 3 (25%)           | 0               |

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| Mol | Chain | Analysed        | Backbone Outliers | Pucker Outliers |
|-----|-------|-----------------|-------------------|-----------------|
| 22  | CV    | 12/24 (50%)     | 3 (25%)           | 0               |
| 23  | AW    | 71/76 (93%)     | 30 (42%)          | 2 (2%)          |
| 23  | AY    | 71/76 (93%)     | 33 (46%)          | 1 (1%)          |
| 23  | CW    | 68/76 (89%)     | 30 (44%)          | 3 (4%)          |
| 23  | CY    | 69/76 (90%)     | 28 (40%)          | 0               |
| 24  | AX    | 75/77 (97%)     | 18 (24%)          | 1 (1%)          |
| 24  | CX    | 75/77 (97%)     | 19 (25%)          | 0               |
| 25  | BA    | 2811/2915 (96%) | 433 (15%)         | 27 (0%)         |
| 25  | DA    | 2791/2915 (95%) | 499 (17%)         | 33 (1%)         |
| 26  | BB    | 119/121 (98%)   | 13 (10%)          | 0               |
| 26  | DB    | 119/121 (98%)   | 17 (14%)          | 0               |
| All | All   | 9289/9620 (96%) | 1742 (18%)        | 111 (1%)        |

5 of 1742 RNA backbone outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | AA    | 6   | G    |
| 1   | AA    | 9   | G    |
| 1   | AA    | 22  | G    |
| 1   | AA    | 32  | A    |
| 1   | AA    | 39  | G    |

5 of 111 RNA pucker outliers are listed below:

| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 1   | CA    | 532  | A    |
| 25  | DA    | 2756 | U    |
| 1   | CA    | 1212 | U    |
| 25  | DA    | 2689 | U    |
| 25  | DA    | 1558 | A    |

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

36 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 |
| 23  | PSU  | CY    | 39  | 23    | 18,21,22     | 1.44 | 3 (16%)  | 22,30,33    | 1.81 | 3 (13%)  |
| 23  | MIA  | CY    | 37  | 23    | 18,24,32     | 1.16 | 2 (11%)  | 18,35,47    | 1.28 | 2 (11%)  |
| 23  | PSU  | CY    | 55  | 23    | 18,21,22     | 1.38 | 2 (11%)  | 22,30,33    | 1.95 | 3 (13%)  |
| 24  | 5MU  | AX    | 54  | 56,24 | 19,22,23     | 1.44 | 6 (31%)  | 28,32,35    | 2.03 | 6 (21%)  |
| 24  | 5MC  | AX    | 32  | 24    | 18,22,23     | 1.01 | 2 (11%)  | 26,32,35    | 1.25 | 2 (7%)   |
| 24  | PSU  | AX    | 55  | 24    | 18,21,22     | 1.34 | 2 (11%)  | 22,30,33    | 1.83 | 3 (13%)  |
| 23  | 4SU  | CW    | 8   | 56,23 | 18,21,22     | 1.61 | 4 (22%)  | 26,30,33    | 1.95 | 4 (15%)  |
| 24  | 5MU  | CX    | 54  | 24    | 19,22,23     | 1.38 | 6 (31%)  | 28,32,35    | 2.08 | 8 (28%)  |
| 23  | PSU  | AY    | 39  | 23    | 18,21,22     | 1.48 | 3 (16%)  | 22,30,33    | 1.57 | 4 (18%)  |
| 23  | PSU  | CW    | 55  | 23    | 18,21,22     | 1.38 | 2 (11%)  | 22,30,33    | 1.94 | 3 (13%)  |
| 24  | PSU  | CX    | 55  | 24    | 18,21,22     | 1.34 | 2 (11%)  | 22,30,33    | 1.84 | 4 (18%)  |
| 23  | PSU  | AW    | 55  | 23    | 18,21,22     | 1.38 | 2 (11%)  | 22,30,33    | 1.89 | 3 (13%)  |
| 23  | MIA  | AY    | 37  | 23    | 18,24,32     | 1.15 | 2 (11%)  | 18,35,47    | 1.23 | 2 (11%)  |
| 23  | 7MG  | AW    | 46  | 23    | 22,26,27     | 1.34 | 3 (13%)  | 29,39,42    | 2.52 | 7 (24%)  |
| 24  | 4SU  | AX    | 8   | 24    | 18,21,22     | 2.19 | 6 (33%)  | 26,30,33    | 1.71 | 6 (23%)  |
| 23  | 7MG  | AY    | 46  | 23    | 22,26,27     | 1.40 | 4 (18%)  | 29,39,42    | 2.50 | 7 (24%)  |
| 24  | 4SU  | CX    | 8   | 24    | 18,21,22     | 1.88 | 4 (22%)  | 26,30,33    | 1.31 | 3 (11%)  |
| 23  | PSU  | AW    | 39  | 23    | 18,21,22     | 1.35 | 2 (11%)  | 22,30,33    | 1.87 | 3 (13%)  |
| 23  | PSU  | CY    | 32  | 23    | 18,21,22     | 1.34 | 2 (11%)  | 22,30,33    | 1.76 | 3 (13%)  |
| 23  | 7MG  | CW    | 46  | 23    | 22,26,27     | 1.34 | 4 (18%)  | 29,39,42    | 2.54 | 6 (20%)  |
| 23  | 4SU  | AW    | 8   | 23    | 18,21,22     | 1.72 | 5 (27%)  | 26,30,33    | 1.79 | 6 (23%)  |
| 23  | 5MU  | CY    | 54  | 23    | 19,22,23     | 1.50 | 5 (26%)  | 28,32,35    | 1.93 | 9 (32%)  |
| 24  | 5MC  | CX    | 32  | 24    | 18,22,23     | 1.04 | 2 (11%)  | 26,32,35    | 1.27 | 3 (11%)  |
| 23  | PSU  | CW    | 39  | 23    | 18,21,22     | 1.39 | 2 (11%)  | 22,30,33    | 1.53 | 3 (13%)  |
| 23  | PSU  | AW    | 32  | 56,23 | 18,21,22     | 1.37 | 3 (16%)  | 22,30,33    | 1.70 | 3 (13%)  |
| 23  | 7MG  | CY    | 46  | 23    | 22,26,27     | 1.40 | 4 (18%)  | 29,39,42    | 2.52 | 7 (24%)  |
| 23  | PSU  | AY    | 55  | 23    | 18,21,22     | 1.26 | 2 (11%)  | 22,30,33    | 1.91 | 6 (27%)  |
| 23  | 5MU  | AW    | 54  | 23    | 19,22,23     | 1.46 | 5 (26%)  | 28,32,35    | 1.69 | 5 (17%)  |
| 23  | MIA  | CW    | 37  | 23    | 18,24,32     | 1.07 | 2 (11%)  | 18,35,47    | 1.38 | 2 (11%)  |
| 23  | MIA  | AW    | 37  | 23    | 24,31,32     | 2.28 | 3 (12%)  | 26,44,47    | 2.40 | 8 (30%)  |
| 23  | 5MU  | AY    | 54  | 23    | 19,22,23     | 1.47 | 4 (21%)  | 28,32,35    | 1.61 | 6 (21%)  |
| 23  | PSU  | CW    | 32  | 23    | 18,21,22     | 1.35 | 3 (16%)  | 22,30,33    | 1.86 | 4 (18%)  |
| 23  | PSU  | AY    | 32  | 23    | 18,21,22     | 1.32 | 2 (11%)  | 22,30,33    | 1.90 | 3 (13%)  |
| 23  | 4SU  | CY    | 8   | 23    | 18,21,22     | 1.66 | 4 (22%)  | 26,30,33    | 2.20 | 4 (15%)  |
| 23  | 5MU  | CW    | 54  | 23    | 19,22,23     | 1.33 | 5 (26%)  | 28,32,35    | 1.95 | 7 (25%)  |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 23  | 4SU  | AY    | 8   | 23   | 18,21,22     | 1.72 | 7 (38%)  | 26,30,33    | 1.54 | 5 (19%)  |

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

| Mol | Type | Chain | Res | Link  | Chirals | Torsions   | Rings   |
|-----|------|-------|-----|-------|---------|------------|---------|
| 23  | PSU  | CY    | 39  | 23    | -       | 2/7/25/26  | 0/2/2/2 |
| 23  | MIA  | CY    | 37  | 23    | -       | 3/3/25/34  | 0/3/3/3 |
| 23  | PSU  | CY    | 55  | 23    | -       | 4/7/25/26  | 0/2/2/2 |
| 24  | 5MU  | AX    | 54  | 56,24 | -       | 0/7/25/26  | 0/2/2/2 |
| 24  | 5MC  | AX    | 32  | 24    | -       | 0/7/25/26  | 0/2/2/2 |
| 24  | PSU  | AX    | 55  | 24    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | 4SU  | CW    | 8   | 56,23 | -       | 0/7/25/26  | 0/2/2/2 |
| 24  | 5MU  | CX    | 54  | 24    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | PSU  | AY    | 39  | 23    | -       | 2/7/25/26  | 0/2/2/2 |
| 23  | PSU  | CW    | 55  | 23    | -       | 0/7/25/26  | 0/2/2/2 |
| 24  | PSU  | CX    | 55  | 24    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | PSU  | AW    | 55  | 23    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | MIA  | AY    | 37  | 23    | -       | 1/3/25/34  | 0/3/3/3 |
| 23  | 7MG  | AW    | 46  | 23    | -       | 3/7/37/38  | 0/3/3/3 |
| 24  | 4SU  | AX    | 8   | 24    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | 7MG  | AY    | 46  | 23    | -       | 3/7/37/38  | 0/3/3/3 |
| 24  | 4SU  | CX    | 8   | 24    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | PSU  | AW    | 39  | 23    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | PSU  | CY    | 32  | 23    | -       | 1/7/25/26  | 0/2/2/2 |
| 23  | 7MG  | CW    | 46  | 23    | -       | 2/7/37/38  | 0/3/3/3 |
| 23  | 4SU  | AW    | 8   | 23    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | 5MU  | CY    | 54  | 23    | -       | 1/7/25/26  | 0/2/2/2 |
| 24  | 5MC  | CX    | 32  | 24    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | PSU  | CW    | 39  | 23    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | PSU  | AW    | 32  | 56,23 | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | 7MG  | CY    | 46  | 23    | -       | 2/7/37/38  | 0/3/3/3 |
| 23  | PSU  | AY    | 55  | 23    | -       | 2/7/25/26  | 0/2/2/2 |
| 23  | 5MU  | AW    | 54  | 23    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | MIA  | CW    | 37  | 23    | -       | 0/3/25/34  | 0/3/3/3 |
| 23  | MIA  | AW    | 37  | 23    | -       | 1/11/33/34 | 0/3/3/3 |
| 23  | 5MU  | AY    | 54  | 23    | -       | 0/7/25/26  | 0/2/2/2 |
| 23  | PSU  | CW    | 32  | 23    | -       | 4/7/25/26  | 0/2/2/2 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|------|-------|-----|------|---------|-----------|---------|
| 23  | PSU  | AY    | 32  | 23   | -       | 0/7/25/26 | 0/2/2/2 |
| 23  | 4SU  | CY    | 8   | 23   | -       | 2/7/25/26 | 0/2/2/2 |
| 23  | 5MU  | CW    | 54  | 23   | -       | 0/7/25/26 | 0/2/2/2 |
| 23  | 4SU  | AY    | 8   | 23   | -       | 1/7/25/26 | 0/2/2/2 |

The worst 5 of 121 bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 23  | AW    | 37  | MIA  | C2-S10  | -7.27 | 1.69        | 1.75     |
| 23  | AW    | 37  | MIA  | C13-C14 | 7.14  | 1.52        | 1.32     |
| 24  | AX    | 8   | 4SU  | C4-N3   | -5.67 | 1.31        | 1.37     |
| 23  | CY    | 8   | 4SU  | C4-S4   | -4.45 | 1.60        | 1.68     |
| 24  | CX    | 8   | 4SU  | C4-N3   | -4.30 | 1.33        | 1.37     |

The worst 5 of 163 bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 23  | AY    | 46  | 7MG  | N9-C4-N3    | 9.11  | 139.09      | 125.47   |
| 23  | AW    | 46  | 7MG  | N9-C4-N3    | 9.02  | 138.96      | 125.47   |
| 23  | CW    | 46  | 7MG  | N9-C4-N3    | 8.82  | 138.66      | 125.47   |
| 23  | CY    | 46  | 7MG  | N9-C4-N3    | 8.63  | 138.38      | 125.47   |
| 23  | AW    | 37  | MIA  | C12-C13-C14 | -7.69 | 112.17      | 127.14   |

There are no chirality outliers.

5 of 34 torsion outliers are listed below:

| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 23  | AW    | 37  | MIA  | C12-C13-C14-C16 |
| 23  | AY    | 39  | PSU  | C3'-C4'-C5'-O5' |
| 23  | AY    | 46  | 7MG  | C4'-C5'-O5'-P   |
| 23  | CW    | 32  | PSU  | C2'-C1'-C5-C4   |
| 23  | CW    | 32  | PSU  | C2'-C1'-C5-C6   |

There are no ring outliers.

19 monomers are involved in 30 short contacts:

| Mol | Chain | Res | Type | Clashes | Symm-Clashes |
|-----|-------|-----|------|---------|--------------|
| 23  | CY    | 39  | PSU  | 2       | 0            |
| 23  | CY    | 37  | MIA  | 1       | 0            |
| 23  | CW    | 8   | 4SU  | 1       | 0            |
| 23  | AW    | 55  | PSU  | 1       | 0            |

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| Mol | Chain | Res | Type | Clashes | Symm-Clashes |
|-----|-------|-----|------|---------|--------------|
| 24  | AX    | 8   | 4SU  | 2       | 0            |
| 23  | AY    | 46  | 7MG  | 1       | 0            |
| 24  | CX    | 8   | 4SU  | 1       | 0            |
| 23  | CW    | 46  | 7MG  | 5       | 0            |
| 23  | AW    | 8   | 4SU  | 1       | 0            |
| 23  | CW    | 39  | PSU  | 2       | 0            |
| 23  | AW    | 32  | PSU  | 1       | 0            |
| 23  | CY    | 46  | 7MG  | 1       | 0            |
| 23  | AY    | 55  | PSU  | 3       | 0            |
| 23  | AW    | 54  | 5MU  | 1       | 0            |
| 23  | AW    | 37  | MIA  | 1       | 0            |
| 23  | AY    | 54  | 5MU  | 2       | 0            |
| 23  | CW    | 32  | PSU  | 1       | 0            |
| 23  | CY    | 8   | 4SU  | 4       | 0            |
| 23  | AY    | 8   | 4SU  | 1       | 0            |

## 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

Of 2152 ligands modelled in this entry, 2148 are monoatomic - leaving 4 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 | $\# Z  > 2$ |
| 58  | SF4  | AD    | 501  | 4    | 0,12,12      | -    | -           | -           | -    | -           |
| 57  | PCY  | CA    | 3178 | -    | 36,42,42     | 1.63 | 4 (11%)     | 41,65,65    | 1.17 | 4 (9%)      |
| 57  | PCY  | AA    | 3231 | -    | 36,42,42     | 1.68 | 5 (13%)     | 41,65,65    | 1.42 | 8 (19%)     |
| 58  | SF4  | CD    | 501  | 4    | 0,12,12      | -    | -           | -           | -    | -           |

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   |
|-----|------|-------|------|------|---------|------------|---------|
| 58  | SF4  | AD    | 501  | 4    | -       | -          | 0/6/5/5 |
| 57  | PCY  | CA    | 3178 | -    | -       | 9/33/67/67 | 0/3/3/3 |
| 57  | PCY  | AA    | 3231 | -    | -       | 5/33/67/67 | 0/3/3/3 |
| 58  | SF4  | CD    | 501  | 4    | -       | -          | 0/6/5/5 |

The worst 5 of 9 bond length outliers are listed below:

| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 57  | CA    | 3178 | PCY  | C28-C32 | -5.59 | 1.39        | 1.49     |
| 57  | AA    | 3231 | PCY  | C28-C32 | -5.44 | 1.39        | 1.49     |
| 57  | AA    | 3231 | PCY  | C34-C30 | -5.24 | 1.40        | 1.51     |
| 57  | CA    | 3178 | PCY  | C34-C30 | -5.21 | 1.40        | 1.51     |
| 57  | AA    | 3231 | PCY  | C27-C23 | -4.06 | 1.40        | 1.50     |

The worst 5 of 12 bond angle outliers are listed below:

| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 57  | AA    | 3231 | PCY  | C18-O21-C23 | -4.75 | 107.00      | 116.57   |
| 57  | CA    | 3178 | PCY  | C18-O21-C23 | -3.62 | 109.27      | 116.57   |
| 57  | AA    | 3231 | PCY  | O21-C23-C27 | 3.01  | 119.12      | 112.33   |
| 57  | AA    | 3231 | PCY  | O21-C18-C15 | 2.78  | 112.92      | 107.79   |
| 57  | AA    | 3231 | PCY  | O36-C31-C27 | -2.26 | 116.91      | 121.14   |

There are no chirality outliers.

5 of 14 torsion outliers are listed below:

| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 57  | AA    | 3231 | PCY  | N2-C3-C6-C11    |
| 57  | AA    | 3231 | PCY  | C7-C3-C6-C11    |
| 57  | AA    | 3231 | PCY  | C7-C15-C18-O21  |
| 57  | AA    | 3231 | PCY  | C17-C15-C18-O21 |
| 57  | AA    | 3231 | PCY  | O19-C15-C18-O21 |

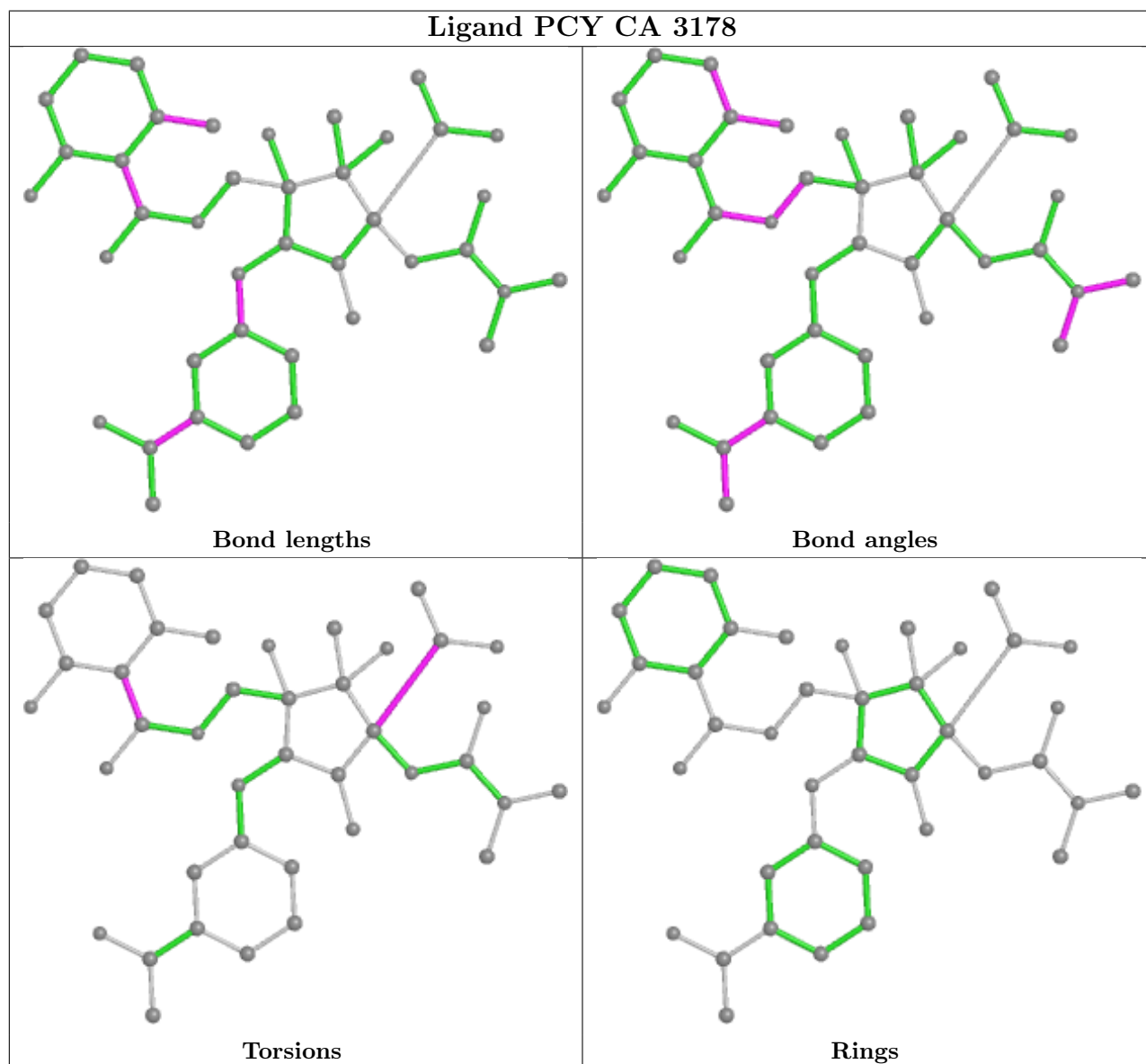
There are no ring outliers.

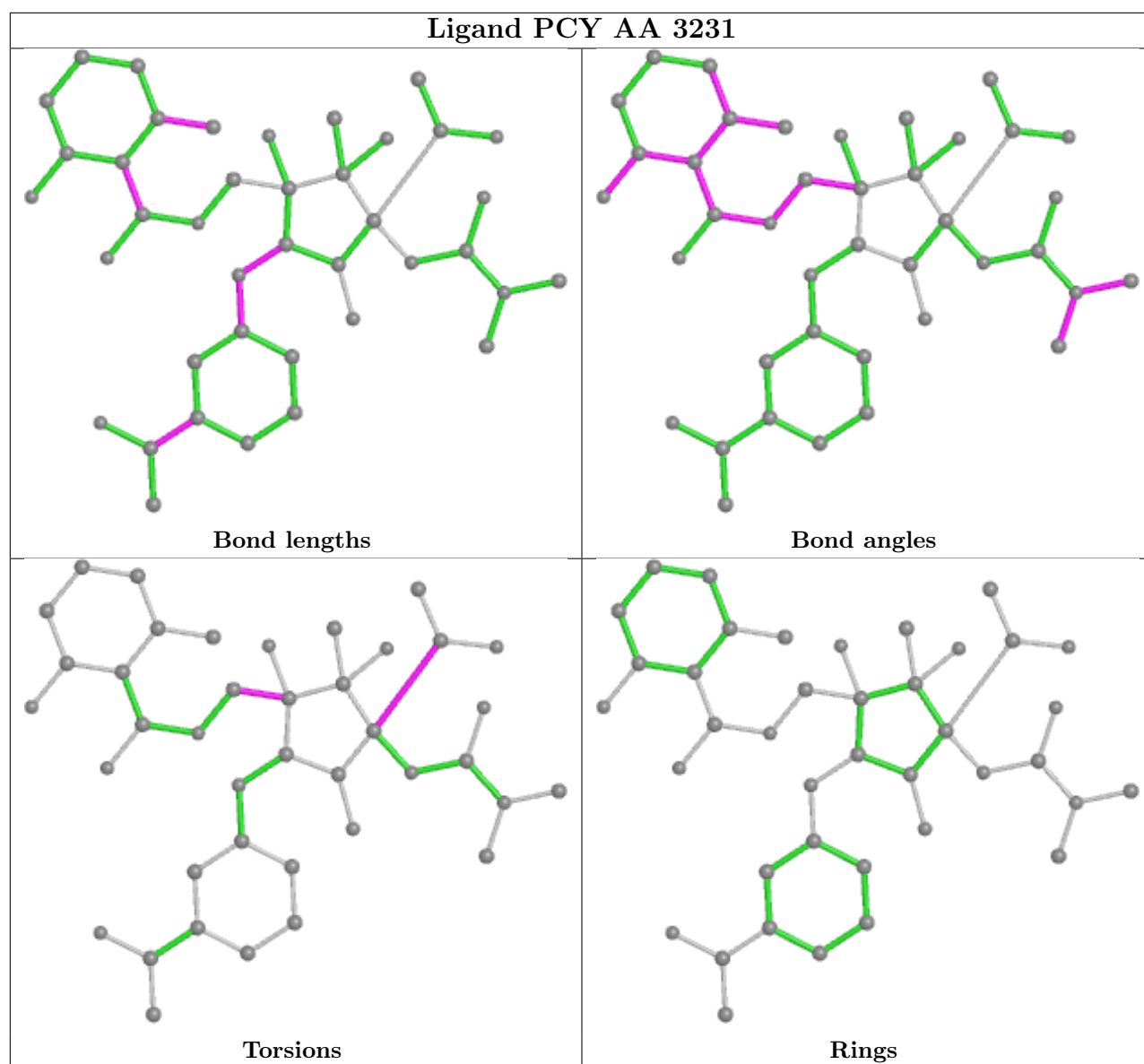
2 monomers are involved in 16 short contacts:

| Mol | Chain | Res  | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 57  | CA    | 3178 | PCY  | 9       | 0            |
| 57  | AA    | 3231 | PCY  | 7       | 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 than 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.





## 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 [i](#)

### 6.1 Protein, DNA and RNA chains [i](#)

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<sup>th</sup> 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 <sup>2</sup> ) | Q<0.9 |
|-----|-------|-----------------|--------|---------------|-----------------------|-------|
| 1   | AA    | 1498/1521 (98%) | 0.22   | 56 (3%) 41 48 | 40, 67, 92, 106       | 0     |
| 1   | CA    | 1503/1521 (98%) | 0.11   | 52 (3%) 44 51 | 43, 69, 92, 106       | 0     |
| 2   | AB    | 231/256 (90%)   | 1.20   | 44 (19%) 1 1  | 63, 80, 90, 94        | 0     |
| 2   | CB    | 231/256 (90%)   | 1.47   | 68 (29%) 0 0  | 64, 82, 89, 96        | 0     |
| 3   | AC    | 206/239 (86%)   | 1.09   | 30 (14%) 2 3  | 61, 74, 84, 92        | 0     |
| 3   | CC    | 206/239 (86%)   | 1.76   | 83 (40%) 0 0  | 64, 76, 86, 92        | 0     |
| 4   | AD    | 208/209 (99%)   | 0.47   | 6 (2%) 51 59  | 56, 68, 79, 87        | 0     |
| 4   | CD    | 208/209 (99%)   | 1.06   | 29 (13%) 2 3  | 57, 68, 78, 87        | 0     |
| 5   | AE    | 148/162 (91%)   | 0.78   | 9 (6%) 21 25  | 56, 67, 77, 91        | 0     |
| 5   | CE    | 148/162 (91%)   | 0.89   | 17 (11%) 4 6  | 57, 69, 79, 92        | 0     |
| 6   | AF    | 100/101 (99%)   | 0.40   | 1 (1%) 82 86  | 53, 66, 76, 82        | 0     |
| 6   | CF    | 100/101 (99%)   | 0.30   | 1 (1%) 82 86  | 54, 66, 76, 82        | 0     |
| 7   | AG    | 155/156 (99%)   | 0.86   | 16 (10%) 6 8  | 61, 71, 83, 93        | 0     |
| 7   | CG    | 155/156 (99%)   | 0.94   | 15 (9%) 7 9   | 62, 73, 84, 96        | 0     |
| 8   | AH    | 137/138 (99%)   | 0.81   | 12 (8%) 10 11 | 57, 69, 75, 83        | 0     |
| 8   | CH    | 137/138 (99%)   | 1.05   | 19 (13%) 2 3  | 58, 71, 77, 84        | 0     |
| 9   | AI    | 127/128 (99%)   | 1.50   | 33 (25%) 0 0  | 56, 78, 85, 90        | 0     |
| 9   | CI    | 127/128 (99%)   | 2.04   | 57 (44%) 0 0  | 62, 79, 86, 89        | 0     |
| 10  | AJ    | 97/105 (92%)    | 1.46   | 29 (29%) 0 0  | 57, 78, 90, 91        | 0     |
| 10  | CJ    | 96/105 (91%)    | 1.85   | 39 (40%) 0 0  | 60, 80, 91, 93        | 0     |
| 11  | AK    | 114/129 (88%)   | 0.88   | 9 (7%) 12 16  | 47, 66, 80, 83        | 0     |
| 11  | CK    | 114/129 (88%)   | 0.39   | 2 (1%) 68 74  | 47, 67, 79, 83        | 0     |
| 12  | AL    | 122/132 (92%)   | 0.52   | 2 (1%) 72 78  | 42, 56, 69, 75        | 0     |
| 12  | CL    | 122/132 (92%)   | 0.94   | 16 (13%) 3 4  | 45, 58, 71, 75        | 0     |

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| Mol | Chain | Analysed        | <RSRZ> | #RSRZ>2       | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|-----------------|--------|---------------|-----------------------|-------|
| 13  | AM    | 123/126 (97%)   | 0.57   | 6 (4%) 29 35  | 42, 63, 75, 80        | 0     |
| 13  | CM    | 122/126 (96%)   | 1.59   | 42 (34%) 0 0  | 66, 79, 86, 90        | 0     |
| 14  | AN    | 60/61 (98%)     | 1.13   | 8 (13%) 3 4   | 60, 70, 77, 81        | 0     |
| 14  | CN    | 60/61 (98%)     | 2.77   | 43 (71%) 0 0  | 64, 73, 80, 83        | 0     |
| 15  | AO    | 88/89 (98%)     | 0.34   | 2 (2%) 60 67  | 50, 66, 76, 82        | 0     |
| 15  | CO    | 88/89 (98%)     | 0.56   | 2 (2%) 60 67  | 53, 68, 77, 82        | 0     |
| 16  | AP    | 82/88 (93%)     | 1.03   | 11 (13%) 3 4  | 52, 68, 76, 80        | 0     |
| 16  | CP    | 82/88 (93%)     | 1.08   | 12 (14%) 2 3  | 51, 68, 76, 79        | 0     |
| 17  | AQ    | 99/105 (94%)    | 0.66   | 4 (4%) 38 45  | 55, 68, 77, 79        | 0     |
| 17  | CQ    | 99/105 (94%)    | 1.53   | 32 (32%) 0 0  | 57, 69, 77, 80        | 0     |
| 18  | AR    | 68/88 (77%)     | 0.80   | 5 (7%) 14 18  | 58, 66, 76, 80        | 0     |
| 18  | CR    | 68/88 (77%)     | 0.53   | 3 (4%) 34 41  | 59, 68, 77, 80        | 0     |
| 19  | AS    | 83/93 (89%)     | 0.81   | 4 (4%) 30 37  | 63, 73, 81, 91        | 0     |
| 19  | CS    | 83/93 (89%)     | 1.99   | 38 (45%) 0 0  | 66, 76, 84, 92        | 0     |
| 20  | AT    | 96/106 (90%)    | 1.72   | 38 (39%) 0 0  | 57, 68, 80, 86        | 0     |
| 20  | CT    | 96/106 (90%)    | 1.69   | 39 (40%) 0 0  | 58, 68, 82, 87        | 0     |
| 21  | AU    | 23/27 (85%)     | 1.29   | 4 (17%) 1 1   | 63, 66, 72, 75        | 0     |
| 21  | CU    | 23/27 (85%)     | 1.58   | 9 (39%) 0 0   | 65, 68, 74, 77        | 0     |
| 22  | AV    | 13/24 (54%)     | 0.99   | 1 (7%) 13 17  | 52, 64, 82, 98        | 0     |
| 22  | CV    | 13/24 (54%)     | 0.49   | 2 (15%) 2 2   | 56, 67, 85, 99        | 0     |
| 23  | AW    | 67/76 (88%)     | 1.00   | 7 (10%) 6 8   | 47, 84, 97, 104       | 0     |
| 23  | AY    | 67/76 (88%)     | 1.04   | 10 (14%) 2 2  | 38, 97, 101, 104      | 0     |
| 23  | CW    | 65/76 (85%)     | 0.97   | 11 (16%) 1 1  | 68, 91, 102, 104      | 0     |
| 23  | CY    | 66/76 (86%)     | 1.54   | 26 (39%) 0 0  | 43, 97, 101, 104      | 0     |
| 24  | AX    | 72/77 (93%)     | 0.57   | 2 (2%) 53 60  | 39, 68, 85, 93        | 0     |
| 24  | CX    | 72/77 (93%)     | -0.04  | 0 100 100     | 43, 71, 86, 94        | 0     |
| 25  | BA    | 2819/2915 (96%) | 0.43   | 64 (2%) 60 67 | 23, 42, 88, 104       | 0     |
| 25  | DA    | 2800/2915 (96%) | -0.09  | 84 (3%) 50 57 | 27, 47, 89, 108       | 0     |
| 26  | BB    | 120/121 (99%)   | -0.04  | 0 100 100     | 35, 56, 70, 86        | 0     |
| 26  | DB    | 120/121 (99%)   | -0.03  | 0 100 100     | 42, 62, 73, 87        | 0     |
| 27  | BD    | 275/276 (99%)   | 0.72   | 3 (1%) 80 85  | 23, 40, 55, 79        | 0     |

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| Mol | Chain | Analysed       | <RSRZ> | #RSRZ>2       | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|----------------|--------|---------------|-----------------------|-------|
| 27  | DD    | 275/276 (99%)  | 0.40   | 3 (1%) 80 85  | 26, 42, 56, 77        | 0     |
| 28  | BE    | 204/206 (99%)  | 0.67   | 3 (1%) 73 79  | 22, 47, 66, 76        | 0     |
| 28  | DE    | 204/206 (99%)  | 0.21   | 3 (1%) 73 79  | 28, 50, 67, 77        | 0     |
| 29  | BF    | 203/210 (96%)  | 0.72   | 12 (5%) 22 26 | 23, 49, 73, 88        | 0     |
| 29  | DF    | 203/210 (96%)  | 0.81   | 25 (12%) 4 5  | 27, 55, 75, 88        | 0     |
| 30  | BG    | 181/182 (99%)  | 0.50   | 10 (5%) 25 30 | 44, 64, 78, 90        | 0     |
| 30  | DG    | 181/182 (99%)  | 1.27   | 41 (22%) 0 0  | 50, 67, 80, 90        | 0     |
| 31  | BH    | 174/180 (96%)  | 0.43   | 3 (1%) 70 76  | 51, 65, 76, 85        | 0     |
| 31  | DH    | 174/180 (96%)  | 2.63   | 106 (60%) 0 0 | 57, 70, 80, 86        | 0     |
| 32  | BI    | 146/148 (98%)  | 0.90   | 16 (10%) 5 7  | 50, 71, 82, 86        | 0     |
| 32  | DI    | 146/148 (98%)  | 0.48   | 8 (5%) 25 30  | 53, 71, 82, 85        | 0     |
| 33  | BN    | 140/140 (100%) | 0.53   | 1 (0%) 87 90  | 32, 47, 68, 75        | 0     |
| 33  | DN    | 140/140 (100%) | 0.65   | 6 (4%) 35 42  | 36, 52, 70, 76        | 0     |
| 34  | BO    | 122/122 (100%) | 0.35   | 0 100 100     | 25, 38, 59, 65        | 0     |
| 34  | DO    | 122/122 (100%) | 0.49   | 0 100 100     | 47, 59, 74, 79        | 0     |
| 35  | BP    | 149/150 (99%)  | 0.46   | 1 (0%) 87 90  | 24, 55, 74, 81        | 0     |
| 35  | DP    | 149/150 (99%)  | 0.87   | 24 (16%) 1 2  | 29, 59, 76, 82        | 0     |
| 36  | BQ    | 141/141 (100%) | 0.77   | 3 (2%) 63 70  | 31, 50, 66, 77        | 0     |
| 36  | DQ    | 141/141 (100%) | 0.85   | 18 (12%) 3 4  | 38, 54, 69, 80        | 0     |
| 37  | BR    | 118/118 (100%) | 0.28   | 0 100 100     | 21, 32, 50, 58        | 0     |
| 37  | DR    | 118/118 (100%) | 0.24   | 0 100 100     | 38, 53, 64, 74        | 0     |
| 38  | BS    | 110/112 (98%)  | 0.44   | 1 (0%) 84 88  | 32, 48, 64, 67        | 0     |
| 38  | DS    | 110/112 (98%)  | 1.47   | 29 (26%) 0 0  | 58, 69, 80, 85        | 0     |
| 39  | BT    | 131/146 (89%)  | 0.20   | 1 (0%) 86 89  | 31, 42, 68, 89        | 0     |
| 39  | DT    | 131/146 (89%)  | 0.29   | 1 (0%) 86 89  | 51, 64, 78, 84        | 0     |
| 40  | BU    | 116/118 (98%)  | 0.26   | 0 100 100     | 17, 28, 47, 65        | 0     |
| 40  | DU    | 116/118 (98%)  | 0.55   | 7 (6%) 21 25  | 40, 62, 76, 82        | 0     |
| 41  | BV    | 101/101 (100%) | 0.15   | 0 100 100     | 15, 35, 54, 67        | 0     |
| 41  | DV    | 101/101 (100%) | 1.02   | 17 (16%) 1 1  | 39, 74, 81, 88        | 0     |
| 42  | BW    | 112/113 (99%)  | 0.32   | 1 (0%) 84 88  | 17, 28, 53, 79        | 0     |
| 42  | DW    | 112/113 (99%)  | 0.55   | 1 (0%) 84 88  | 38, 51, 68, 86        | 0     |

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| Mol | Chain | Analysed          | <RSRZ> | #RSRZ>2         | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|-------------------|--------|-----------------|-----------------------|-------|
| 43  | BX    | 95/96 (98%)       | 0.32   | 1 (1%) 80 85    | 21, 35, 60, 75        | 0     |
| 43  | DX    | 95/96 (98%)       | 0.99   | 11 (11%) 4 6    | 38, 56, 76, 85        | 0     |
| 44  | BY    | 107/110 (97%)     | 0.20   | 2 (1%) 66 73    | 30, 46, 65, 83        | 0     |
| 44  | DY    | 107/110 (97%)     | 1.34   | 28 (26%) 0 0    | 57, 71, 83, 86        | 0     |
| 45  | BZ    | 171/206 (83%)     | 1.66   | 43 (25%) 0 0    | 35, 67, 94, 105       | 0     |
| 45  | DZ    | 174/206 (84%)     | 2.79   | 87 (50%) 0 0    | 65, 83, 97, 103       | 0     |
| 46  | B0    | 83/85 (97%)       | 0.42   | 4 (4%) 30 37    | 20, 36, 57, 76        | 0     |
| 46  | D0    | 83/85 (97%)       | 1.09   | 12 (14%) 2 3    | 44, 64, 74, 79        | 0     |
| 47  | B1    | 97/98 (98%)       | 0.49   | 3 (3%) 49 56    | 24, 45, 70, 73        | 0     |
| 47  | D1    | 97/98 (98%)       | 0.68   | 5 (5%) 27 32    | 37, 56, 75, 86        | 0     |
| 48  | B2    | 70/72 (97%)       | 0.46   | 1 (1%) 75 81    | 30, 45, 58, 78        | 0     |
| 48  | D2    | 70/72 (97%)       | 0.58   | 2 (2%) 51 59    | 53, 66, 78, 82        | 0     |
| 49  | B3    | 59/60 (98%)       | 0.18   | 0 100 100       | 19, 31, 58, 75        | 0     |
| 49  | D3    | 59/60 (98%)       | 0.85   | 7 (11%) 4 5     | 54, 66, 78, 88        | 0     |
| 50  | B4    | 69/71 (97%)       | 0.60   | 8 (11%) 4 6     | 51, 70, 89, 99        | 0     |
| 50  | D4    | 69/71 (97%)       | 2.02   | 33 (47%) 0 0    | 72, 82, 92, 93        | 0     |
| 51  | B5    | 59/60 (98%)       | 0.36   | 1 (1%) 70 76    | 17, 27, 43, 54        | 0     |
| 51  | D5    | 59/60 (98%)       | 0.38   | 1 (1%) 70 76    | 35, 50, 66, 74        | 0     |
| 52  | B6    | 53/54 (98%)       | 0.18   | 0 100 100       | 28, 39, 56, 67        | 0     |
| 52  | D6    | 53/54 (98%)       | 0.70   | 4 (7%) 14 17    | 48, 59, 71, 76        | 0     |
| 53  | B7    | 48/49 (97%)       | 0.62   | 2 (4%) 36 42    | 18, 26, 62, 72        | 0     |
| 53  | D7    | 48/49 (97%)       | 0.90   | 3 (6%) 20 23    | 30, 41, 61, 78        | 0     |
| 54  | B8    | 64/65 (98%)       | 0.19   | 0 100 100       | 19, 31, 40, 63        | 0     |
| 54  | D8    | 64/65 (98%)       | 0.77   | 2 (3%) 49 56    | 44, 54, 65, 71        | 0     |
| 55  | B9    | 37/37 (100%)      | 0.61   | 1 (2%) 54 61    | 26, 47, 63, 70        | 0     |
| 55  | D9    | 37/37 (100%)      | 1.30   | 7 (18%) 1 1     | 45, 57, 68, 75        | 0     |
| All | All   | 20900/21748 (96%) | 0.58   | 1766 (8%) 11 13 | 15, 61, 87, 108       | 0     |

The worst 5 of 1766 RSRZ outliers are listed below:

| Mol | Chain | Res | Type | RSRZ |
|-----|-------|-----|------|------|
| 45  | BZ    | 108 | PRO  | 15.6 |
| 45  | DZ    | 116 | VAL  | 13.2 |

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| Mol | Chain | Res | Type | RSRZ |
|-----|-------|-----|------|------|
| 45  | DZ    | 115 | GLY  | 12.4 |
| 45  | DZ    | 107 | THR  | 11.0 |
| 45  | DZ    | 114 | GLY  | 11.0 |

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> ) | Q<0.9 |
|-----|------|-------|-----|-------|------|------|----------------------------|-------|
| 23  | MIA  | CY    | 37  | 22/30 | 0.68 | 0.33 | 82,93,117,140              | 0     |
| 23  | PSU  | AY    | 55  | 20/21 | 0.69 | 0.28 | 93,99,105,118              | 0     |
| 23  | 5MU  | CY    | 54  | 21/22 | 0.69 | 0.40 | 78,92,113,136              | 0     |
| 23  | 4SU  | CY    | 8   | 20/21 | 0.70 | 0.19 | 83,99,114,124              | 0     |
| 23  | 7MG  | AY    | 46  | 24/25 | 0.72 | 0.24 | 80,94,107,121              | 0     |
| 23  | 4SU  | CW    | 8   | 20/21 | 0.75 | 0.24 | 88,94,105,122              | 0     |
| 23  | 7MG  | CY    | 46  | 24/25 | 0.77 | 0.18 | 86,95,102,125              | 0     |
| 23  | PSU  | CY    | 32  | 20/21 | 0.79 | 0.20 | 83,92,99,105               | 0     |
| 23  | 7MG  | CW    | 46  | 24/25 | 0.80 | 0.30 | 85,98,110,126              | 0     |
| 23  | 5MU  | AY    | 54  | 21/22 | 0.81 | 0.23 | 81,91,102,125              | 0     |
| 23  | 4SU  | AY    | 8   | 20/21 | 0.82 | 0.20 | 92,98,108,126              | 0     |
| 23  | MIA  | AY    | 37  | 22/30 | 0.82 | 0.25 | 72,87,104,128              | 0     |
| 23  | PSU  | CW    | 55  | 20/21 | 0.83 | 0.20 | 61,83,94,94                | 0     |
| 23  | 7MG  | AW    | 46  | 24/25 | 0.83 | 0.22 | 70,83,111,120              | 0     |
| 23  | PSU  | CY    | 55  | 20/21 | 0.83 | 0.29 | 92,98,105,119              | 0     |
| 23  | PSU  | AY    | 32  | 20/21 | 0.85 | 0.24 | 83,91,98,100               | 0     |
| 23  | PSU  | CY    | 39  | 20/21 | 0.87 | 0.19 | 80,88,99,111               | 0     |
| 24  | PSU  | CX    | 55  | 20/21 | 0.90 | 0.16 | 63,69,89,97                | 0     |
| 23  | PSU  | AY    | 39  | 20/21 | 0.90 | 0.21 | 77,86,97,100               | 0     |
| 23  | 5MU  | CW    | 54  | 21/22 | 0.90 | 0.17 | 60,72,84,86                | 0     |
| 23  | PSU  | CW    | 32  | 20/21 | 0.90 | 0.19 | 70,85,92,95                | 0     |
| 23  | MIA  | CW    | 37  | 22/30 | 0.91 | 0.16 | 55,66,75,81                | 0     |
| 23  | 4SU  | AW    | 8   | 20/21 | 0.91 | 0.17 | 73,85,96,105               | 0     |
| 24  | 5MU  | CX    | 54  | 21/22 | 0.92 | 0.23 | 71,80,88,94                | 0     |
| 24  | 4SU  | CX    | 8   | 20/21 | 0.93 | 0.17 | 54,78,85,86                | 0     |
| 23  | PSU  | AW    | 55  | 20/21 | 0.93 | 0.20 | 50,70,80,81                | 0     |
| 24  | PSU  | AX    | 55  | 20/21 | 0.94 | 0.18 | 60,67,93,94                | 0     |
| 24  | 5MU  | AX    | 54  | 21/22 | 0.94 | 0.18 | 58,65,74,81                | 0     |
| 23  | 5MU  | AW    | 54  | 21/22 | 0.95 | 0.16 | 42,58,69,76                | 0     |
| 23  | PSU  | AW    | 32  | 20/21 | 0.95 | 0.16 | 50,60,69,69                | 0     |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|-----|-------|------|------|-----------------------------|-------|
| 24  | 5MC  | CX    | 32  | 21/22 | 0.95 | 0.16 | 66,71,81,83                 | 0     |
| 24  | 4SU  | AX    | 8   | 20/21 | 0.96 | 0.18 | 51,64,80,88                 | 0     |
| 23  | PSU  | CW    | 39  | 20/21 | 0.96 | 0.17 | 63,72,81,82                 | 0     |
| 23  | PSU  | AW    | 39  | 20/21 | 0.96 | 0.20 | 49,59,65,65                 | 0     |
| 23  | MIA  | AW    | 37  | 29/30 | 0.96 | 0.21 | 40,49,63,75                 | 0     |
| 24  | 5MC  | AX    | 32  | 21/22 | 0.97 | 0.19 | 48,54,58,72                 | 0     |

### 6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> 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( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3571 | 1/1   | 0.29 | 0.10 | 66,66,66,66                 | 0     |
| 56  | MG   | DA    | 3565 | 1/1   | 0.51 | 0.18 | 70,70,70,70                 | 0     |
| 56  | MG   | CJ    | 5001 | 1/1   | 0.53 | 0.14 | 76,76,76,76                 | 0     |
| 56  | MG   | AA    | 3192 | 1/1   | 0.56 | 0.30 | 69,69,69,69                 | 0     |
| 56  | MG   | AA    | 3098 | 1/1   | 0.57 | 0.17 | 68,68,68,68                 | 0     |
| 56  | MG   | DA    | 3419 | 1/1   | 0.59 | 0.17 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3224 | 1/1   | 0.60 | 0.18 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3677 | 1/1   | 0.61 | 0.12 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3712 | 1/1   | 0.63 | 0.13 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3182 | 1/1   | 0.63 | 0.30 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3241 | 1/1   | 0.64 | 0.20 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3683 | 1/1   | 0.64 | 0.15 | 61,61,61,61                 | 0     |
| 56  | MG   | CA    | 3051 | 1/1   | 0.64 | 0.11 | 66,66,66,66                 | 0     |
| 56  | MG   | BA    | 3726 | 1/1   | 0.65 | 0.23 | 70,70,70,70                 | 0     |
| 56  | MG   | DA    | 3109 | 1/1   | 0.65 | 0.20 | 66,66,66,66                 | 0     |
| 56  | MG   | DA    | 3596 | 1/1   | 0.65 | 0.44 | 63,63,63,63                 | 0     |
| 56  | MG   | DB    | 3005 | 1/1   | 0.65 | 0.28 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3804 | 1/1   | 0.66 | 0.10 | 58,58,58,58                 | 0     |
| 56  | MG   | AA    | 3110 | 1/1   | 0.66 | 0.22 | 61,61,61,61                 | 0     |
| 56  | MG   | CA    | 3064 | 1/1   | 0.67 | 0.11 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3505 | 1/1   | 0.68 | 0.12 | 66,66,66,66                 | 0     |
| 56  | MG   | BA    | 3527 | 1/1   | 0.68 | 0.11 | 52,52,52,52                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3051 | 1/1   | 0.68 | 0.20 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3607 | 1/1   | 0.68 | 0.34 | 53,53,53,53                 | 0     |
| 56  | MG   | BR    | 202  | 1/1   | 0.68 | 0.41 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3504 | 1/1   | 0.69 | 0.13 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3725 | 1/1   | 0.69 | 0.22 | 67,67,67,67                 | 0     |
| 56  | MG   | BA    | 3446 | 1/1   | 0.70 | 0.27 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3728 | 1/1   | 0.70 | 0.10 | 72,72,72,72                 | 0     |
| 56  | MG   | CX    | 3006 | 1/1   | 0.70 | 0.50 | 70,70,70,70                 | 0     |
| 56  | MG   | AX    | 3003 | 1/1   | 0.70 | 0.16 | 66,66,66,66                 | 0     |
| 56  | MG   | BA    | 3249 | 1/1   | 0.70 | 0.29 | 74,74,74,74                 | 0     |
| 56  | MG   | CA    | 3049 | 1/1   | 0.70 | 0.23 | 68,68,68,68                 | 0     |
| 56  | MG   | BA    | 3639 | 1/1   | 0.70 | 0.29 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3431 | 1/1   | 0.71 | 0.27 | 55,55,55,55                 | 0     |
| 56  | MG   | CA    | 3027 | 1/1   | 0.71 | 0.51 | 70,70,70,70                 | 0     |
| 56  | MG   | BA    | 3030 | 1/1   | 0.71 | 0.19 | 50,50,50,50                 | 0     |
| 56  | MG   | AA    | 3082 | 1/1   | 0.72 | 0.26 | 68,68,68,68                 | 0     |
| 56  | MG   | BA    | 3079 | 1/1   | 0.72 | 0.32 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3470 | 1/1   | 0.72 | 0.16 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3734 | 1/1   | 0.72 | 0.35 | 60,60,60,60                 | 0     |
| 56  | MG   | DA    | 3041 | 1/1   | 0.72 | 0.18 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3466 | 1/1   | 0.72 | 0.17 | 62,62,62,62                 | 0     |
| 56  | MG   | DA    | 3448 | 1/1   | 0.73 | 0.14 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3807 | 1/1   | 0.73 | 0.11 | 67,67,67,67                 | 0     |
| 56  | MG   | DA    | 3098 | 1/1   | 0.73 | 0.21 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3004 | 1/1   | 0.73 | 0.14 | 67,67,67,67                 | 0     |
| 56  | MG   | DA    | 3538 | 1/1   | 0.73 | 0.27 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3541 | 1/1   | 0.73 | 0.08 | 54,54,54,54                 | 0     |
| 56  | MG   | B8    | 101  | 1/1   | 0.73 | 0.14 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3238 | 1/1   | 0.73 | 0.24 | 61,61,61,61                 | 0     |
| 56  | MG   | AA    | 3204 | 1/1   | 0.73 | 0.19 | 71,71,71,71                 | 0     |
| 56  | MG   | AA    | 3095 | 1/1   | 0.73 | 0.28 | 68,68,68,68                 | 0     |
| 56  | MG   | DA    | 3312 | 1/1   | 0.74 | 0.14 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3221 | 1/1   | 0.74 | 0.20 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3434 | 1/1   | 0.74 | 0.20 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3028 | 1/1   | 0.74 | 0.17 | 70,70,70,70                 | 0     |
| 56  | MG   | BA    | 3333 | 1/1   | 0.74 | 0.11 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3605 | 1/1   | 0.74 | 0.13 | 61,61,61,61                 | 0     |
| 56  | MG   | DA    | 3251 | 1/1   | 0.75 | 0.27 | 51,51,51,51                 | 0     |
| 56  | MG   | BB    | 3015 | 1/1   | 0.75 | 0.10 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3020 | 1/1   | 0.75 | 0.20 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3689 | 1/1   | 0.75 | 0.22 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3452 | 1/1   | 0.75 | 0.24 | 61,61,61,61                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3560 | 1/1   | 0.75 | 0.23 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3066 | 1/1   | 0.75 | 0.13 | 65,65,65,65                 | 0     |
| 56  | MG   | DA    | 3209 | 1/1   | 0.76 | 0.24 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3315 | 1/1   | 0.76 | 0.14 | 56,56,56,56                 | 0     |
| 56  | MG   | CA    | 3055 | 1/1   | 0.76 | 0.12 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3521 | 1/1   | 0.76 | 0.17 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3632 | 1/1   | 0.76 | 0.16 | 58,58,58,58                 | 0     |
| 56  | MG   | AA    | 3038 | 1/1   | 0.76 | 0.14 | 51,51,51,51                 | 0     |
| 56  | MG   | CA    | 3025 | 1/1   | 0.77 | 0.14 | 61,61,61,61                 | 0     |
| 56  | MG   | DA    | 3286 | 1/1   | 0.77 | 0.14 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3663 | 1/1   | 0.77 | 0.14 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3604 | 1/1   | 0.77 | 0.13 | 57,57,57,57                 | 0     |
| 56  | MG   | AA    | 3042 | 1/1   | 0.77 | 0.21 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3436 | 1/1   | 0.77 | 0.13 | 54,54,54,54                 | 0     |
| 56  | MG   | CA    | 3069 | 1/1   | 0.77 | 0.12 | 68,68,68,68                 | 0     |
| 56  | MG   | BA    | 3229 | 1/1   | 0.78 | 0.31 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3404 | 1/1   | 0.78 | 0.20 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3199 | 1/1   | 0.78 | 0.41 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3377 | 1/1   | 0.78 | 0.23 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3542 | 1/1   | 0.78 | 0.20 | 63,63,63,63                 | 0     |
| 56  | MG   | DA    | 3445 | 1/1   | 0.78 | 0.23 | 72,72,72,72                 | 0     |
| 56  | MG   | BA    | 3241 | 1/1   | 0.78 | 0.22 | 52,52,52,52                 | 0     |
| 56  | MG   | AW    | 3001 | 1/1   | 0.78 | 0.09 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3204 | 1/1   | 0.78 | 0.33 | 66,66,66,66                 | 0     |
| 56  | MG   | DA    | 3614 | 1/1   | 0.78 | 0.14 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3487 | 1/1   | 0.78 | 0.24 | 65,65,65,65                 | 0     |
| 56  | MG   | DA    | 3127 | 1/1   | 0.78 | 0.27 | 38,38,38,38                 | 0     |
| 56  | MG   | DW    | 3002 | 1/1   | 0.78 | 0.39 | 65,65,65,65                 | 0     |
| 56  | MG   | BB    | 3009 | 1/1   | 0.79 | 0.27 | 58,58,58,58                 | 0     |
| 56  | MG   | CA    | 3065 | 1/1   | 0.79 | 0.07 | 65,65,65,65                 | 0     |
| 56  | MG   | AA    | 3072 | 1/1   | 0.79 | 0.19 | 68,68,68,68                 | 0     |
| 56  | MG   | DA    | 3224 | 1/1   | 0.79 | 0.35 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3508 | 1/1   | 0.79 | 0.10 | 59,59,59,59                 | 0     |
| 56  | MG   | CA    | 3169 | 1/1   | 0.79 | 0.21 | 65,65,65,65                 | 0     |
| 56  | MG   | BA    | 3720 | 1/1   | 0.79 | 0.23 | 46,46,46,46                 | 0     |
| 56  | MG   | B1    | 102  | 1/1   | 0.79 | 0.41 | 68,68,68,68                 | 0     |
| 56  | MG   | BA    | 3162 | 1/1   | 0.79 | 0.26 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3547 | 1/1   | 0.79 | 0.17 | 65,65,65,65                 | 0     |
| 56  | MG   | BA    | 3347 | 1/1   | 0.79 | 0.26 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3325 | 1/1   | 0.79 | 0.25 | 57,57,57,57                 | 0     |
| 56  | MG   | CA    | 3026 | 1/1   | 0.79 | 0.29 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3605 | 1/1   | 0.79 | 0.15 | 52,52,52,52                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3367 | 1/1   | 0.79 | 0.33 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3028 | 1/1   | 0.79 | 0.14 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3105 | 1/1   | 0.79 | 0.19 | 60,60,60,60                 | 0     |
| 56  | MG   | AA    | 3114 | 1/1   | 0.79 | 0.34 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3699 | 1/1   | 0.79 | 0.18 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3509 | 1/1   | 0.80 | 0.18 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3513 | 1/1   | 0.80 | 0.17 | 50,50,50,50                 | 0     |
| 56  | MG   | CA    | 3034 | 1/1   | 0.80 | 0.13 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3277 | 1/1   | 0.80 | 0.19 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3583 | 1/1   | 0.80 | 0.12 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3585 | 1/1   | 0.80 | 0.39 | 55,55,55,55                 | 0     |
| 56  | MG   | CA    | 3061 | 1/1   | 0.80 | 0.22 | 56,56,56,56                 | 0     |
| 56  | MG   | BQ    | 3005 | 1/1   | 0.80 | 0.30 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3170 | 1/1   | 0.80 | 0.09 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3595 | 1/1   | 0.80 | 0.21 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3070 | 1/1   | 0.80 | 0.26 | 55,55,55,55                 | 0     |
| 56  | MG   | AA    | 3040 | 1/1   | 0.80 | 0.16 | 59,59,59,59                 | 0     |
| 56  | MG   | CA    | 3020 | 1/1   | 0.80 | 0.13 | 73,73,73,73                 | 0     |
| 56  | MG   | BA    | 3095 | 1/1   | 0.80 | 0.30 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3645 | 1/1   | 0.80 | 0.20 | 44,44,44,44                 | 0     |
| 56  | MG   | AW    | 3002 | 1/1   | 0.80 | 0.17 | 69,69,69,69                 | 0     |
| 56  | MG   | AA    | 3091 | 1/1   | 0.80 | 0.10 | 70,70,70,70                 | 0     |
| 56  | MG   | BA    | 3409 | 1/1   | 0.81 | 0.23 | 62,62,62,62                 | 0     |
| 56  | MG   | DA    | 3309 | 1/1   | 0.81 | 0.14 | 42,42,42,42                 | 0     |
| 56  | MG   | CA    | 3070 | 1/1   | 0.81 | 0.14 | 71,71,71,71                 | 0     |
| 56  | MG   | DA    | 3115 | 1/1   | 0.81 | 0.18 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3540 | 1/1   | 0.81 | 0.18 | 67,67,67,67                 | 0     |
| 56  | MG   | DA    | 3393 | 1/1   | 0.81 | 0.10 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3121 | 1/1   | 0.81 | 0.28 | 41,41,41,41                 | 0     |
| 56  | MG   | BB    | 3011 | 1/1   | 0.81 | 0.06 | 59,59,59,59                 | 0     |
| 56  | MG   | AA    | 3153 | 1/1   | 0.81 | 0.18 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3566 | 1/1   | 0.81 | 0.17 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3022 | 1/1   | 0.81 | 0.26 | 40,40,40,40                 | 0     |
| 56  | MG   | AA    | 3087 | 1/1   | 0.81 | 0.34 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3037 | 1/1   | 0.81 | 0.16 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3213 | 1/1   | 0.81 | 0.23 | 61,61,61,61                 | 0     |
| 56  | MG   | DA    | 3468 | 1/1   | 0.81 | 0.20 | 44,44,44,44                 | 0     |
| 56  | MG   | AA    | 3062 | 1/1   | 0.81 | 0.14 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3472 | 1/1   | 0.81 | 0.23 | 70,70,70,70                 | 0     |
| 56  | MG   | BA    | 3516 | 1/1   | 0.81 | 0.22 | 65,65,65,65                 | 0     |
| 56  | MG   | BA    | 3831 | 1/1   | 0.81 | 0.95 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3101 | 1/1   | 0.82 | 0.25 | 60,60,60,60                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | CA    | 3081 | 1/1   | 0.82 | 0.18 | 58,58,58,58                 | 0     |
| 56  | MG   | CA    | 3122 | 1/1   | 0.82 | 0.15 | 70,70,70,70                 | 0     |
| 56  | MG   | AA    | 3190 | 1/1   | 0.82 | 0.11 | 65,65,65,65                 | 0     |
| 56  | MG   | BA    | 3408 | 1/1   | 0.82 | 0.20 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3429 | 1/1   | 0.82 | 0.26 | 40,40,40,40                 | 0     |
| 56  | MG   | AA    | 3125 | 1/1   | 0.82 | 0.11 | 71,71,71,71                 | 0     |
| 56  | MG   | BA    | 3413 | 1/1   | 0.82 | 0.19 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3005 | 1/1   | 0.82 | 0.21 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3568 | 1/1   | 0.82 | 0.12 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3583 | 1/1   | 0.82 | 0.25 | 60,60,60,60                 | 0     |
| 56  | MG   | DA    | 3214 | 1/1   | 0.82 | 0.34 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3317 | 1/1   | 0.82 | 0.19 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3590 | 1/1   | 0.82 | 0.23 | 32,32,32,32                 | 0     |
| 56  | MG   | AA    | 3145 | 1/1   | 0.82 | 0.16 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3493 | 1/1   | 0.82 | 0.27 | 58,58,58,58                 | 0     |
| 56  | MG   | BR    | 203  | 1/1   | 0.82 | 0.20 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3603 | 1/1   | 0.82 | 0.11 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3305 | 1/1   | 0.82 | 0.18 | 28,28,28,28                 | 0     |
| 56  | MG   | AA    | 3068 | 1/1   | 0.82 | 0.17 | 60,60,60,60                 | 0     |
| 56  | MG   | BB    | 3008 | 1/1   | 0.83 | 0.30 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3410 | 1/1   | 0.83 | 0.15 | 62,62,62,62                 | 0     |
| 56  | MG   | CX    | 3002 | 1/1   | 0.83 | 0.20 | 81,81,81,81                 | 0     |
| 56  | MG   | AA    | 3170 | 1/1   | 0.83 | 0.13 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3393 | 1/1   | 0.83 | 0.26 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3407 | 1/1   | 0.83 | 0.19 | 37,37,37,37                 | 0     |
| 56  | MG   | BQ    | 3003 | 1/1   | 0.83 | 0.15 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3451 | 1/1   | 0.83 | 0.30 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3238 | 1/1   | 0.83 | 0.25 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3205 | 1/1   | 0.83 | 0.12 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3078 | 1/1   | 0.83 | 0.11 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3659 | 1/1   | 0.83 | 0.27 | 53,53,53,53                 | 0     |
| 56  | MG   | AA    | 3175 | 1/1   | 0.83 | 0.20 | 54,54,54,54                 | 0     |
| 56  | MG   | AA    | 3085 | 1/1   | 0.83 | 0.15 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3110 | 1/1   | 0.83 | 0.13 | 50,50,50,50                 | 0     |
| 56  | MG   | CA    | 3011 | 1/1   | 0.83 | 0.17 | 63,63,63,63                 | 0     |
| 56  | MG   | BA    | 3289 | 1/1   | 0.83 | 0.26 | 55,55,55,55                 | 0     |
| 56  | MG   | CA    | 3023 | 1/1   | 0.83 | 0.22 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3155 | 1/1   | 0.83 | 0.29 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3442 | 1/1   | 0.83 | 0.11 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3291 | 1/1   | 0.83 | 0.21 | 71,71,71,71                 | 0     |
| 56  | MG   | BA    | 3705 | 1/1   | 0.83 | 0.17 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3706 | 1/1   | 0.83 | 0.23 | 50,50,50,50                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | CA    | 3037 | 1/1   | 0.83 | 0.25 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3295 | 1/1   | 0.83 | 0.26 | 42,42,42,42                 | 0     |
| 56  | MG   | AA    | 3073 | 1/1   | 0.83 | 0.24 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3234 | 1/1   | 0.83 | 0.19 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3220 | 1/1   | 0.83 | 0.20 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3322 | 1/1   | 0.83 | 0.16 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3553 | 1/1   | 0.83 | 0.16 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3064 | 1/1   | 0.83 | 0.36 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3742 | 1/1   | 0.83 | 0.17 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3611 | 1/1   | 0.83 | 0.32 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3758 | 1/1   | 0.83 | 0.14 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3620 | 1/1   | 0.83 | 0.17 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3002 | 1/1   | 0.83 | 0.37 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3365 | 1/1   | 0.83 | 0.13 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3387 | 1/1   | 0.83 | 0.22 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3227 | 1/1   | 0.83 | 0.26 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3231 | 1/1   | 0.84 | 0.32 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3514 | 1/1   | 0.84 | 0.25 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3152 | 1/1   | 0.84 | 0.18 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3113 | 1/1   | 0.84 | 0.20 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3181 | 1/1   | 0.84 | 0.24 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3192 | 1/1   | 0.84 | 0.25 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3692 | 1/1   | 0.84 | 0.28 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3693 | 1/1   | 0.84 | 0.13 | 70,70,70,70                 | 0     |
| 56  | MG   | BA    | 3196 | 1/1   | 0.84 | 0.23 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3319 | 1/1   | 0.84 | 0.30 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3161 | 1/1   | 0.84 | 0.26 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3343 | 1/1   | 0.84 | 0.20 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3549 | 1/1   | 0.84 | 0.18 | 57,57,57,57                 | 0     |
| 56  | MG   | AA    | 3165 | 1/1   | 0.84 | 0.25 | 60,60,60,60                 | 0     |
| 56  | MG   | AX    | 3009 | 1/1   | 0.84 | 0.25 | 71,71,71,71                 | 0     |
| 56  | MG   | BA    | 3716 | 1/1   | 0.84 | 0.24 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3580 | 1/1   | 0.84 | 0.19 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3467 | 1/1   | 0.84 | 0.20 | 39,39,39,39                 | 0     |
| 56  | MG   | DA    | 3591 | 1/1   | 0.84 | 0.20 | 56,56,56,56                 | 0     |
| 56  | MG   | AN    | 502  | 1/1   | 0.84 | 0.13 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3423 | 1/1   | 0.84 | 0.14 | 51,51,51,51                 | 0     |
| 56  | MG   | CA    | 3087 | 1/1   | 0.84 | 0.15 | 63,63,63,63                 | 0     |
| 56  | MG   | CA    | 3121 | 1/1   | 0.84 | 0.23 | 75,75,75,75                 | 0     |
| 56  | MG   | BA    | 3402 | 1/1   | 0.84 | 0.19 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3192 | 1/1   | 0.84 | 0.18 | 51,51,51,51                 | 0     |
| 56  | MG   | CA    | 3147 | 1/1   | 0.84 | 0.18 | 72,72,72,72                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | CA    | 3152 | 1/1   | 0.84 | 0.36 | 79,79,79,79                 | 0     |
| 56  | MG   | DA    | 3642 | 1/1   | 0.84 | 0.15 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3629 | 1/1   | 0.84 | 0.14 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3674 | 1/1   | 0.84 | 0.40 | 73,73,73,73                 | 0     |
| 56  | MG   | BA    | 3481 | 1/1   | 0.84 | 0.29 | 45,45,45,45                 | 0     |
| 56  | MG   | DV    | 3002 | 1/1   | 0.84 | 0.43 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3736 | 1/1   | 0.84 | 0.17 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3176 | 1/1   | 0.85 | 0.12 | 52,52,52,52                 | 0     |
| 56  | MG   | CA    | 3084 | 1/1   | 0.85 | 0.31 | 69,69,69,69                 | 0     |
| 56  | MG   | AW    | 3005 | 1/1   | 0.85 | 0.39 | 68,68,68,68                 | 0     |
| 56  | MG   | AA    | 3181 | 1/1   | 0.85 | 0.19 | 75,75,75,75                 | 0     |
| 56  | MG   | BA    | 3100 | 1/1   | 0.85 | 0.14 | 45,45,45,45                 | 0     |
| 56  | MG   | CA    | 3133 | 1/1   | 0.85 | 0.20 | 65,65,65,65                 | 0     |
| 56  | MG   | CA    | 3137 | 1/1   | 0.85 | 0.19 | 52,52,52,52                 | 0     |
| 56  | MG   | AA    | 3142 | 1/1   | 0.85 | 0.23 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3138 | 1/1   | 0.85 | 0.16 | 48,48,48,48                 | 0     |
| 56  | MG   | AA    | 3112 | 1/1   | 0.85 | 0.14 | 57,57,57,57                 | 0     |
| 56  | MG   | AA    | 3199 | 1/1   | 0.85 | 0.24 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3170 | 1/1   | 0.85 | 0.23 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3171 | 1/1   | 0.85 | 0.33 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3634 | 1/1   | 0.85 | 0.16 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3017 | 1/1   | 0.85 | 0.22 | 50,50,50,50                 | 0     |
| 56  | MG   | CA    | 3031 | 1/1   | 0.85 | 0.14 | 53,53,53,53                 | 0     |
| 56  | MG   | AA    | 3071 | 1/1   | 0.85 | 0.25 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3798 | 1/1   | 0.85 | 0.14 | 61,61,61,61                 | 0     |
| 56  | MG   | DA    | 3569 | 1/1   | 0.85 | 0.21 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3802 | 1/1   | 0.85 | 0.13 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3086 | 1/1   | 0.85 | 0.19 | 62,62,62,62                 | 0     |
| 56  | MG   | DA    | 3359 | 1/1   | 0.85 | 0.13 | 57,57,57,57                 | 0     |
| 56  | MG   | AA    | 3100 | 1/1   | 0.85 | 0.08 | 68,68,68,68                 | 0     |
| 56  | MG   | DA    | 3102 | 1/1   | 0.85 | 0.12 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3403 | 1/1   | 0.85 | 0.15 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3103 | 1/1   | 0.85 | 0.22 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3673 | 1/1   | 0.85 | 0.17 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3226 | 1/1   | 0.85 | 0.26 | 58,58,58,58                 | 0     |
| 56  | MG   | AA    | 3116 | 1/1   | 0.85 | 0.27 | 61,61,61,61                 | 0     |
| 56  | MG   | AA    | 3059 | 1/1   | 0.85 | 0.29 | 59,59,59,59                 | 0     |
| 56  | MG   | AA    | 3136 | 1/1   | 0.85 | 0.08 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3371 | 1/1   | 0.85 | 0.13 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3665 | 1/1   | 0.85 | 0.17 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3671 | 1/1   | 0.85 | 0.22 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3144 | 1/1   | 0.85 | 0.14 | 63,63,63,63                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | CA    | 3072 | 1/1   | 0.85 | 0.14 | 62,62,62,62                 | 0     |
| 56  | MG   | DA    | 3168 | 1/1   | 0.85 | 0.29 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3225 | 1/1   | 0.85 | 0.35 | 42,42,42,42                 | 0     |
| 57  | PCY  | CA    | 3178 | 40/40 | 0.85 | 0.35 | 58,78,89,91                 | 0     |
| 59  | ZN   | D4    | 501  | 1/1   | 0.85 | 0.08 | 119,119,119,119             | 0     |
| 56  | MG   | CA    | 3083 | 1/1   | 0.86 | 0.09 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3306 | 1/1   | 0.86 | 0.13 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3298 | 1/1   | 0.86 | 0.18 | 68,68,68,68                 | 0     |
| 56  | MG   | BA    | 3637 | 1/1   | 0.86 | 0.20 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3311 | 1/1   | 0.86 | 0.20 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3321 | 1/1   | 0.86 | 0.27 | 35,35,35,35                 | 0     |
| 56  | MG   | BA    | 3444 | 1/1   | 0.86 | 0.18 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3140 | 1/1   | 0.86 | 0.23 | 46,46,46,46                 | 0     |
| 56  | MG   | BB    | 3004 | 1/1   | 0.86 | 0.11 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3366 | 1/1   | 0.86 | 0.13 | 50,50,50,50                 | 0     |
| 56  | MG   | CA    | 3142 | 1/1   | 0.86 | 0.18 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3670 | 1/1   | 0.86 | 0.20 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3397 | 1/1   | 0.86 | 0.17 | 49,49,49,49                 | 0     |
| 56  | MG   | AA    | 3003 | 1/1   | 0.86 | 0.16 | 66,66,66,66                 | 0     |
| 56  | MG   | BA    | 3674 | 1/1   | 0.86 | 0.11 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3014 | 1/1   | 0.86 | 0.23 | 33,33,33,33                 | 0     |
| 56  | MG   | BB    | 3019 | 1/1   | 0.86 | 0.16 | 49,49,49,49                 | 0     |
| 56  | MG   | BE    | 307  | 1/1   | 0.86 | 0.20 | 70,70,70,70                 | 0     |
| 56  | MG   | DA    | 3424 | 1/1   | 0.86 | 0.24 | 63,63,63,63                 | 0     |
| 56  | MG   | DA    | 3002 | 1/1   | 0.86 | 0.17 | 68,68,68,68                 | 0     |
| 56  | MG   | AA    | 3130 | 1/1   | 0.86 | 0.16 | 43,43,43,43                 | 0     |
| 56  | MG   | AX    | 3002 | 1/1   | 0.86 | 0.24 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3357 | 1/1   | 0.86 | 0.19 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3180 | 1/1   | 0.86 | 0.12 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3053 | 1/1   | 0.86 | 0.09 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3453 | 1/1   | 0.86 | 0.23 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3057 | 1/1   | 0.86 | 0.08 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3060 | 1/1   | 0.86 | 0.23 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3695 | 1/1   | 0.86 | 0.22 | 48,48,48,48                 | 0     |
| 56  | MG   | AA    | 3228 | 1/1   | 0.86 | 0.10 | 68,68,68,68                 | 0     |
| 56  | MG   | DA    | 3079 | 1/1   | 0.86 | 0.17 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3085 | 1/1   | 0.86 | 0.19 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3507 | 1/1   | 0.86 | 0.22 | 60,60,60,60                 | 0     |
| 56  | MG   | CA    | 3005 | 1/1   | 0.86 | 0.10 | 58,58,58,58                 | 0     |
| 56  | MG   | CA    | 3007 | 1/1   | 0.86 | 0.18 | 69,69,69,69                 | 0     |
| 56  | MG   | AA    | 3202 | 1/1   | 0.86 | 0.15 | 57,57,57,57                 | 0     |
| 56  | MG   | CA    | 3016 | 1/1   | 0.86 | 0.10 | 61,61,61,61                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | CA    | 3018 | 1/1   | 0.86 | 0.18 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3106 | 1/1   | 0.86 | 0.27 | 61,61,61,61                 | 0     |
| 56  | MG   | CA    | 3019 | 1/1   | 0.86 | 0.39 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3102 | 1/1   | 0.86 | 0.27 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3567 | 1/1   | 0.86 | 0.18 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3392 | 1/1   | 0.86 | 0.19 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3717 | 1/1   | 0.86 | 0.19 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3266 | 1/1   | 0.86 | 0.24 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3149 | 1/1   | 0.86 | 0.10 | 48,48,48,48                 | 0     |
| 56  | MG   | CA    | 3028 | 1/1   | 0.86 | 0.19 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3274 | 1/1   | 0.86 | 0.16 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3197 | 1/1   | 0.86 | 0.31 | 36,36,36,36                 | 0     |
| 56  | MG   | BA    | 3278 | 1/1   | 0.86 | 0.10 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3179 | 1/1   | 0.86 | 0.08 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3203 | 1/1   | 0.86 | 0.15 | 39,39,39,39                 | 0     |
| 56  | MG   | DA    | 3184 | 1/1   | 0.86 | 0.30 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3186 | 1/1   | 0.86 | 0.23 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3610 | 1/1   | 0.86 | 0.22 | 48,48,48,48                 | 0     |
| 56  | MG   | AA    | 3159 | 1/1   | 0.86 | 0.09 | 59,59,59,59                 | 0     |
| 56  | MG   | CA    | 3053 | 1/1   | 0.86 | 0.07 | 74,74,74,74                 | 0     |
| 56  | MG   | DA    | 3615 | 1/1   | 0.86 | 0.33 | 47,47,47,47                 | 0     |
| 56  | MG   | CA    | 3054 | 1/1   | 0.86 | 0.16 | 71,71,71,71                 | 0     |
| 56  | MG   | DA    | 3628 | 1/1   | 0.86 | 0.14 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3618 | 1/1   | 0.86 | 0.18 | 63,63,63,63                 | 0     |
| 56  | MG   | CA    | 3059 | 1/1   | 0.86 | 0.42 | 67,67,67,67                 | 0     |
| 56  | MG   | BA    | 3747 | 1/1   | 0.86 | 0.27 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3748 | 1/1   | 0.86 | 0.17 | 63,63,63,63                 | 0     |
| 56  | MG   | BA    | 3753 | 1/1   | 0.86 | 0.29 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3757 | 1/1   | 0.86 | 0.16 | 25,25,25,25                 | 0     |
| 56  | MG   | BA    | 3218 | 1/1   | 0.86 | 0.18 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3246 | 1/1   | 0.86 | 0.12 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3760 | 1/1   | 0.86 | 0.26 | 68,68,68,68                 | 0     |
| 56  | MG   | BA    | 3782 | 1/1   | 0.86 | 0.11 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3287 | 1/1   | 0.86 | 0.16 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3113 | 1/1   | 0.87 | 0.32 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3186 | 1/1   | 0.87 | 0.19 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3435 | 1/1   | 0.87 | 0.16 | 57,57,57,57                 | 0     |
| 56  | MG   | BF    | 307  | 1/1   | 0.87 | 0.23 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3290 | 1/1   | 0.87 | 0.30 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3586 | 1/1   | 0.87 | 0.16 | 65,65,65,65                 | 0     |
| 56  | MG   | BA    | 3588 | 1/1   | 0.87 | 0.17 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3480 | 1/1   | 0.87 | 0.14 | 48,48,48,48                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3133 | 1/1   | 0.87 | 0.30 | 47,47,47,47                 | 0     |
| 56  | MG   | BW    | 201  | 1/1   | 0.87 | 0.21 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3594 | 1/1   | 0.87 | 0.23 | 24,24,24,24                 | 0     |
| 56  | MG   | B7    | 102  | 1/1   | 0.87 | 0.24 | 58,58,58,58                 | 0     |
| 56  | MG   | AA    | 3134 | 1/1   | 0.87 | 0.22 | 69,69,69,69                 | 0     |
| 56  | MG   | BA    | 3455 | 1/1   | 0.87 | 0.17 | 39,39,39,39                 | 0     |
| 56  | MG   | CA    | 3006 | 1/1   | 0.87 | 0.30 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3604 | 1/1   | 0.87 | 0.28 | 72,72,72,72                 | 0     |
| 56  | MG   | AX    | 3010 | 1/1   | 0.87 | 0.10 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3729 | 1/1   | 0.87 | 0.11 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3235 | 1/1   | 0.87 | 0.28 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3606 | 1/1   | 0.87 | 0.19 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3032 | 1/1   | 0.87 | 0.15 | 40,40,40,40                 | 0     |
| 56  | MG   | AA    | 3198 | 1/1   | 0.87 | 0.39 | 70,70,70,70                 | 0     |
| 56  | MG   | BA    | 3313 | 1/1   | 0.87 | 0.15 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3272 | 1/1   | 0.87 | 0.16 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3273 | 1/1   | 0.87 | 0.11 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3567 | 1/1   | 0.87 | 0.16 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3044 | 1/1   | 0.87 | 0.10 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3633 | 1/1   | 0.87 | 0.17 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3297 | 1/1   | 0.87 | 0.12 | 66,66,66,66                 | 0     |
| 56  | MG   | BA    | 3477 | 1/1   | 0.87 | 0.20 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3752 | 1/1   | 0.87 | 0.18 | 19,19,19,19                 | 0     |
| 56  | MG   | BA    | 3478 | 1/1   | 0.87 | 0.20 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3638 | 1/1   | 0.87 | 0.26 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3068 | 1/1   | 0.87 | 0.17 | 58,58,58,58                 | 0     |
| 56  | MG   | AA    | 3032 | 1/1   | 0.87 | 0.09 | 75,75,75,75                 | 0     |
| 56  | MG   | DA    | 3324 | 1/1   | 0.87 | 0.29 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3655 | 1/1   | 0.87 | 0.12 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3769 | 1/1   | 0.87 | 0.17 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3779 | 1/1   | 0.87 | 0.12 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3096 | 1/1   | 0.87 | 0.22 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3623 | 1/1   | 0.87 | 0.15 | 70,70,70,70                 | 0     |
| 56  | MG   | BA    | 3511 | 1/1   | 0.87 | 0.23 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3512 | 1/1   | 0.87 | 0.28 | 27,27,27,27                 | 0     |
| 56  | MG   | BA    | 3668 | 1/1   | 0.87 | 0.18 | 56,56,56,56                 | 0     |
| 56  | MG   | AA    | 3221 | 1/1   | 0.87 | 0.14 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3657 | 1/1   | 0.87 | 0.10 | 67,67,67,67                 | 0     |
| 56  | MG   | BA    | 3059 | 1/1   | 0.87 | 0.11 | 55,55,55,55                 | 0     |
| 56  | MG   | CA    | 3060 | 1/1   | 0.87 | 0.24 | 68,68,68,68                 | 0     |
| 56  | MG   | BA    | 3523 | 1/1   | 0.87 | 0.15 | 64,64,64,64                 | 0     |
| 56  | MG   | DB    | 3003 | 1/1   | 0.87 | 0.15 | 68,68,68,68                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3326 | 1/1   | 0.87 | 0.24 | 38,38,38,38                 | 0     |
| 56  | MG   | DB    | 3010 | 1/1   | 0.87 | 0.17 | 55,55,55,55                 | 0     |
| 56  | MG   | DD    | 303  | 1/1   | 0.87 | 0.25 | 49,49,49,49                 | 0     |
| 56  | MG   | DR    | 5001 | 1/1   | 0.87 | 0.08 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3060 | 1/1   | 0.87 | 0.20 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3557 | 1/1   | 0.87 | 0.22 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3424 | 1/1   | 0.87 | 0.25 | 24,24,24,24                 | 0     |
| 56  | MG   | DA    | 3439 | 1/1   | 0.87 | 0.14 | 50,50,50,50                 | 0     |
| 56  | MG   | BB    | 3012 | 1/1   | 0.88 | 0.08 | 59,59,59,59                 | 0     |
| 56  | MG   | AV    | 101  | 1/1   | 0.88 | 0.28 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3205 | 1/1   | 0.88 | 0.24 | 41,41,41,41                 | 0     |
| 56  | MG   | BE    | 306  | 1/1   | 0.88 | 0.23 | 25,25,25,25                 | 0     |
| 56  | MG   | AA    | 3155 | 1/1   | 0.88 | 0.18 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3434 | 1/1   | 0.88 | 0.46 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3482 | 1/1   | 0.88 | 0.22 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3437 | 1/1   | 0.88 | 0.25 | 39,39,39,39                 | 0     |
| 56  | MG   | BQ    | 3002 | 1/1   | 0.88 | 0.16 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3047 | 1/1   | 0.88 | 0.15 | 27,27,27,27                 | 0     |
| 56  | MG   | DA    | 3145 | 1/1   | 0.88 | 0.32 | 49,49,49,49                 | 0     |
| 56  | MG   | AA    | 3094 | 1/1   | 0.88 | 0.23 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3727 | 1/1   | 0.88 | 0.14 | 39,39,39,39                 | 0     |
| 56  | MG   | CA    | 3085 | 1/1   | 0.88 | 0.20 | 71,71,71,71                 | 0     |
| 56  | MG   | DA    | 3457 | 1/1   | 0.88 | 0.24 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3179 | 1/1   | 0.88 | 0.19 | 39,39,39,39                 | 0     |
| 56  | MG   | CA    | 3090 | 1/1   | 0.88 | 0.17 | 62,62,62,62                 | 0     |
| 56  | MG   | DA    | 3477 | 1/1   | 0.88 | 0.08 | 55,55,55,55                 | 0     |
| 56  | MG   | CA    | 3111 | 1/1   | 0.88 | 0.21 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3112 | 1/1   | 0.88 | 0.34 | 57,57,57,57                 | 0     |
| 56  | MG   | BZ    | 3001 | 1/1   | 0.88 | 0.22 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3495 | 1/1   | 0.88 | 0.09 | 62,62,62,62                 | 0     |
| 56  | MG   | CA    | 3132 | 1/1   | 0.88 | 0.37 | 70,70,70,70                 | 0     |
| 56  | MG   | DA    | 3187 | 1/1   | 0.88 | 0.12 | 56,56,56,56                 | 0     |
| 56  | MG   | AA    | 3139 | 1/1   | 0.88 | 0.14 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3194 | 1/1   | 0.88 | 0.23 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3196 | 1/1   | 0.88 | 0.09 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3197 | 1/1   | 0.88 | 0.15 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3514 | 1/1   | 0.88 | 0.12 | 41,41,41,41                 | 0     |
| 56  | MG   | B4    | 502  | 1/1   | 0.88 | 0.12 | 72,72,72,72                 | 0     |
| 56  | MG   | DA    | 3201 | 1/1   | 0.88 | 0.23 | 52,52,52,52                 | 0     |
| 56  | MG   | B6    | 102  | 1/1   | 0.88 | 0.32 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3211 | 1/1   | 0.88 | 0.20 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3524 | 1/1   | 0.88 | 0.13 | 53,53,53,53                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3546 | 1/1   | 0.88 | 0.11 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3312 | 1/1   | 0.88 | 0.18 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3222 | 1/1   | 0.88 | 0.18 | 54,54,54,54                 | 0     |
| 56  | MG   | CA    | 3153 | 1/1   | 0.88 | 0.16 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3743 | 1/1   | 0.88 | 0.18 | 21,21,21,21                 | 0     |
| 56  | MG   | CA    | 3172 | 1/1   | 0.88 | 0.15 | 64,64,64,64                 | 0     |
| 56  | MG   | CA    | 3173 | 1/1   | 0.88 | 0.08 | 69,69,69,69                 | 0     |
| 56  | MG   | CA    | 3177 | 1/1   | 0.88 | 0.21 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3114 | 1/1   | 0.88 | 0.36 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3127 | 1/1   | 0.88 | 0.17 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3247 | 1/1   | 0.88 | 0.38 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3248 | 1/1   | 0.88 | 0.31 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3600 | 1/1   | 0.88 | 0.08 | 53,53,53,53                 | 0     |
| 56  | MG   | CA    | 3010 | 1/1   | 0.88 | 0.12 | 53,53,53,53                 | 0     |
| 56  | MG   | AA    | 3018 | 1/1   | 0.88 | 0.10 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3564 | 1/1   | 0.88 | 0.18 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3672 | 1/1   | 0.88 | 0.21 | 61,61,61,61                 | 0     |
| 56  | MG   | DA    | 3034 | 1/1   | 0.88 | 0.15 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3320 | 1/1   | 0.88 | 0.30 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3439 | 1/1   | 0.88 | 0.17 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3574 | 1/1   | 0.88 | 0.12 | 63,63,63,63                 | 0     |
| 56  | MG   | BA    | 3770 | 1/1   | 0.88 | 0.30 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3777 | 1/1   | 0.88 | 0.23 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3679 | 1/1   | 0.88 | 0.23 | 61,61,61,61                 | 0     |
| 56  | MG   | DA    | 3320 | 1/1   | 0.88 | 0.16 | 40,40,40,40                 | 0     |
| 56  | MG   | AA    | 3047 | 1/1   | 0.88 | 0.09 | 47,47,47,47                 | 0     |
| 56  | MG   | CA    | 3029 | 1/1   | 0.88 | 0.38 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3254 | 1/1   | 0.88 | 0.16 | 30,30,30,30                 | 0     |
| 56  | MG   | BA    | 3690 | 1/1   | 0.88 | 0.21 | 63,63,63,63                 | 0     |
| 56  | MG   | BA    | 3261 | 1/1   | 0.88 | 0.26 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3451 | 1/1   | 0.88 | 0.11 | 64,64,64,64                 | 0     |
| 56  | MG   | DB    | 3004 | 1/1   | 0.88 | 0.15 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3264 | 1/1   | 0.88 | 0.29 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3198 | 1/1   | 0.88 | 0.17 | 55,55,55,55                 | 0     |
| 56  | MG   | DD    | 302  | 1/1   | 0.88 | 0.23 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3395 | 1/1   | 0.88 | 0.19 | 42,42,42,42                 | 0     |
| 56  | MG   | AA    | 3011 | 1/1   | 0.88 | 0.20 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3399 | 1/1   | 0.88 | 0.18 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3275 | 1/1   | 0.88 | 0.13 | 46,46,46,46                 | 0     |
| 56  | MG   | D8    | 5001 | 1/1   | 0.88 | 0.23 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3708 | 1/1   | 0.88 | 0.24 | 63,63,63,63                 | 0     |
| 56  | MG   | DA    | 3408 | 1/1   | 0.88 | 0.22 | 48,48,48,48                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3172 | 1/1   | 0.89 | 0.32 | 51,51,51,51                 | 0     |
| 56  | MG   | CA    | 3115 | 1/1   | 0.89 | 0.18 | 62,62,62,62                 | 0     |
| 56  | MG   | DA    | 3443 | 1/1   | 0.89 | 0.10 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3292 | 1/1   | 0.89 | 0.15 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3739 | 1/1   | 0.89 | 0.19 | 46,46,46,46                 | 0     |
| 56  | MG   | CA    | 3125 | 1/1   | 0.89 | 0.14 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3094 | 1/1   | 0.89 | 0.24 | 43,43,43,43                 | 0     |
| 56  | MG   | B2    | 3001 | 1/1   | 0.89 | 0.17 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3454 | 1/1   | 0.89 | 0.28 | 54,54,54,54                 | 0     |
| 56  | MG   | B3    | 101  | 1/1   | 0.89 | 0.31 | 48,48,48,48                 | 0     |
| 56  | MG   | AA    | 3048 | 1/1   | 0.89 | 0.08 | 51,51,51,51                 | 0     |
| 56  | MG   | CA    | 3146 | 1/1   | 0.89 | 0.05 | 69,69,69,69                 | 0     |
| 56  | MG   | DA    | 3470 | 1/1   | 0.89 | 0.16 | 42,42,42,42                 | 0     |
| 56  | MG   | B5    | 102  | 1/1   | 0.89 | 0.18 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3667 | 1/1   | 0.89 | 0.11 | 52,52,52,52                 | 0     |
| 56  | MG   | AA    | 3212 | 1/1   | 0.89 | 0.30 | 59,59,59,59                 | 0     |
| 56  | MG   | CA    | 3161 | 1/1   | 0.89 | 0.10 | 70,70,70,70                 | 0     |
| 56  | MG   | BA    | 3544 | 1/1   | 0.89 | 0.20 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3499 | 1/1   | 0.89 | 0.10 | 60,60,60,60                 | 0     |
| 56  | MG   | DA    | 3500 | 1/1   | 0.89 | 0.12 | 45,45,45,45                 | 0     |
| 56  | MG   | CA    | 3002 | 1/1   | 0.89 | 0.07 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3419 | 1/1   | 0.89 | 0.17 | 39,39,39,39                 | 0     |
| 56  | MG   | AA    | 3051 | 1/1   | 0.89 | 0.17 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3427 | 1/1   | 0.89 | 0.25 | 32,32,32,32                 | 0     |
| 56  | MG   | DA    | 3225 | 1/1   | 0.89 | 0.23 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3229 | 1/1   | 0.89 | 0.12 | 55,55,55,55                 | 0     |
| 56  | MG   | AA    | 3197 | 1/1   | 0.89 | 0.14 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3516 | 1/1   | 0.89 | 0.09 | 59,59,59,59                 | 0     |
| 56  | MG   | CX    | 3004 | 1/1   | 0.89 | 0.33 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3536 | 1/1   | 0.89 | 0.32 | 54,54,54,54                 | 0     |
| 56  | MG   | AX    | 3008 | 1/1   | 0.89 | 0.36 | 57,57,57,57                 | 0     |
| 56  | MG   | CA    | 3015 | 1/1   | 0.89 | 0.12 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3250 | 1/1   | 0.89 | 0.20 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3437 | 1/1   | 0.89 | 0.20 | 28,28,28,28                 | 0     |
| 56  | MG   | DA    | 3545 | 1/1   | 0.89 | 0.16 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3778 | 1/1   | 0.89 | 0.14 | 35,35,35,35                 | 0     |
| 56  | MG   | BA    | 3046 | 1/1   | 0.89 | 0.18 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3255 | 1/1   | 0.89 | 0.26 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3269 | 1/1   | 0.89 | 0.20 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3791 | 1/1   | 0.89 | 0.13 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3030 | 1/1   | 0.89 | 0.16 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3328 | 1/1   | 0.89 | 0.16 | 60,60,60,60                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3115 | 1/1   | 0.89 | 0.08 | 67,67,67,67                 | 0     |
| 56  | MG   | BA    | 3700 | 1/1   | 0.89 | 0.20 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3303 | 1/1   | 0.89 | 0.15 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3587 | 1/1   | 0.89 | 0.09 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3820 | 1/1   | 0.89 | 0.20 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3703 | 1/1   | 0.89 | 0.23 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3069 | 1/1   | 0.89 | 0.39 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3602 | 1/1   | 0.89 | 0.34 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3832 | 1/1   | 0.89 | 0.09 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3835 | 1/1   | 0.89 | 0.20 | 46,46,46,46                 | 0     |
| 56  | MG   | BB    | 3001 | 1/1   | 0.89 | 0.20 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3052 | 1/1   | 0.89 | 0.31 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3323 | 1/1   | 0.89 | 0.32 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3612 | 1/1   | 0.89 | 0.23 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3356 | 1/1   | 0.89 | 0.13 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3269 | 1/1   | 0.89 | 0.38 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3358 | 1/1   | 0.89 | 0.42 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3358 | 1/1   | 0.89 | 0.32 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3714 | 1/1   | 0.89 | 0.06 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3630 | 1/1   | 0.89 | 0.17 | 49,49,49,49                 | 0     |
| 56  | MG   | AA    | 3230 | 1/1   | 0.89 | 0.18 | 68,68,68,68                 | 0     |
| 56  | MG   | DA    | 3370 | 1/1   | 0.89 | 0.08 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3643 | 1/1   | 0.89 | 0.10 | 60,60,60,60                 | 0     |
| 56  | MG   | DA    | 3375 | 1/1   | 0.89 | 0.11 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3655 | 1/1   | 0.89 | 0.17 | 57,57,57,57                 | 0     |
| 56  | MG   | AA    | 3102 | 1/1   | 0.89 | 0.34 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3107 | 1/1   | 0.89 | 0.19 | 49,49,49,49                 | 0     |
| 56  | MG   | BE    | 302  | 1/1   | 0.89 | 0.17 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3673 | 1/1   | 0.89 | 0.16 | 61,61,61,61                 | 0     |
| 56  | MG   | DA    | 3396 | 1/1   | 0.89 | 0.13 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3207 | 1/1   | 0.89 | 0.18 | 38,38,38,38                 | 0     |
| 56  | MG   | BA    | 3723 | 1/1   | 0.89 | 0.16 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3004 | 1/1   | 0.89 | 0.24 | 36,36,36,36                 | 0     |
| 56  | MG   | BN    | 3001 | 1/1   | 0.89 | 0.33 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3132 | 1/1   | 0.89 | 0.43 | 41,41,41,41                 | 0     |
| 56  | MG   | BN    | 3002 | 1/1   | 0.89 | 0.12 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3491 | 1/1   | 0.89 | 0.23 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3508 | 1/1   | 0.89 | 0.09 | 54,54,54,54                 | 0     |
| 56  | MG   | AA    | 3022 | 1/1   | 0.89 | 0.28 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3157 | 1/1   | 0.89 | 0.28 | 44,44,44,44                 | 0     |
| 56  | MG   | AA    | 3078 | 1/1   | 0.89 | 0.06 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3088 | 1/1   | 0.89 | 0.16 | 50,50,50,50                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3376 | 1/1   | 0.90 | 0.24 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3380 | 1/1   | 0.90 | 0.09 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3751 | 1/1   | 0.90 | 0.14 | 45,45,45,45                 | 0     |
| 56  | MG   | AA    | 3017 | 1/1   | 0.90 | 0.12 | 62,62,62,62                 | 0     |
| 56  | MG   | DA    | 3061 | 1/1   | 0.90 | 0.21 | 56,56,56,56                 | 0     |
| 56  | MG   | CA    | 3017 | 1/1   | 0.90 | 0.17 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3620 | 1/1   | 0.90 | 0.15 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3055 | 1/1   | 0.90 | 0.22 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3447 | 1/1   | 0.90 | 0.23 | 26,26,26,26                 | 0     |
| 56  | MG   | AD    | 502  | 1/1   | 0.90 | 0.29 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3405 | 1/1   | 0.90 | 0.13 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3407 | 1/1   | 0.90 | 0.08 | 46,46,46,46                 | 0     |
| 56  | MG   | CA    | 3024 | 1/1   | 0.90 | 0.14 | 63,63,63,63                 | 0     |
| 56  | MG   | BA    | 3768 | 1/1   | 0.90 | 0.06 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3087 | 1/1   | 0.90 | 0.21 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3422 | 1/1   | 0.90 | 0.36 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3089 | 1/1   | 0.90 | 0.23 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3093 | 1/1   | 0.90 | 0.10 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3023 | 1/1   | 0.90 | 0.27 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3464 | 1/1   | 0.90 | 0.21 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3101 | 1/1   | 0.90 | 0.12 | 53,53,53,53                 | 0     |
| 56  | MG   | AA    | 3057 | 1/1   | 0.90 | 0.20 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3641 | 1/1   | 0.90 | 0.19 | 49,49,49,49                 | 0     |
| 56  | MG   | AA    | 3185 | 1/1   | 0.90 | 0.26 | 53,53,53,53                 | 0     |
| 56  | MG   | AA    | 3058 | 1/1   | 0.90 | 0.21 | 57,57,57,57                 | 0     |
| 56  | MG   | CA    | 3036 | 1/1   | 0.90 | 0.09 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3787 | 1/1   | 0.90 | 0.22 | 59,59,59,59                 | 0     |
| 56  | MG   | CA    | 3040 | 1/1   | 0.90 | 0.12 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3475 | 1/1   | 0.90 | 0.15 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3797 | 1/1   | 0.90 | 0.20 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3228 | 1/1   | 0.90 | 0.22 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3460 | 1/1   | 0.90 | 0.17 | 65,65,65,65                 | 0     |
| 56  | MG   | BA    | 3139 | 1/1   | 0.90 | 0.09 | 61,61,61,61                 | 0     |
| 56  | MG   | DA    | 3140 | 1/1   | 0.90 | 0.11 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3142 | 1/1   | 0.90 | 0.11 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3233 | 1/1   | 0.90 | 0.33 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3346 | 1/1   | 0.90 | 0.14 | 32,32,32,32                 | 0     |
| 56  | MG   | AA    | 3079 | 1/1   | 0.90 | 0.22 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3828 | 1/1   | 0.90 | 0.20 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3492 | 1/1   | 0.90 | 0.12 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3504 | 1/1   | 0.90 | 0.19 | 58,58,58,58                 | 0     |
| 56  | MG   | CA    | 3067 | 1/1   | 0.90 | 0.10 | 79,79,79,79                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3348 | 1/1   | 0.90 | 0.13 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3838 | 1/1   | 0.90 | 0.19 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3506 | 1/1   | 0.90 | 0.10 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3178 | 1/1   | 0.90 | 0.12 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3143 | 1/1   | 0.90 | 0.25 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3181 | 1/1   | 0.90 | 0.30 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3686 | 1/1   | 0.90 | 0.24 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3183 | 1/1   | 0.90 | 0.22 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3515 | 1/1   | 0.90 | 0.14 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3248 | 1/1   | 0.90 | 0.15 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3149 | 1/1   | 0.90 | 0.13 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3531 | 1/1   | 0.90 | 0.33 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3533 | 1/1   | 0.90 | 0.30 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3534 | 1/1   | 0.90 | 0.26 | 74,74,74,74                 | 0     |
| 56  | MG   | BA    | 3364 | 1/1   | 0.90 | 0.15 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3191 | 1/1   | 0.90 | 0.32 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3539 | 1/1   | 0.90 | 0.14 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3150 | 1/1   | 0.90 | 0.12 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3049 | 1/1   | 0.90 | 0.27 | 37,37,37,37                 | 0     |
| 56  | MG   | CA    | 3101 | 1/1   | 0.90 | 0.22 | 54,54,54,54                 | 0     |
| 56  | MG   | AA    | 3080 | 1/1   | 0.90 | 0.21 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3033 | 1/1   | 0.90 | 0.15 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3548 | 1/1   | 0.90 | 0.28 | 48,48,48,48                 | 0     |
| 56  | MG   | AA    | 3035 | 1/1   | 0.90 | 0.07 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3563 | 1/1   | 0.90 | 0.15 | 42,42,42,42                 | 0     |
| 56  | MG   | CA    | 3123 | 1/1   | 0.90 | 0.12 | 80,80,80,80                 | 0     |
| 56  | MG   | CA    | 3124 | 1/1   | 0.90 | 0.16 | 79,79,79,79                 | 0     |
| 56  | MG   | BA    | 3172 | 1/1   | 0.90 | 0.23 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3221 | 1/1   | 0.90 | 0.17 | 49,49,49,49                 | 0     |
| 56  | MG   | CA    | 3126 | 1/1   | 0.90 | 0.17 | 72,72,72,72                 | 0     |
| 56  | MG   | DA    | 3574 | 1/1   | 0.90 | 0.20 | 51,51,51,51                 | 0     |
| 56  | MG   | AA    | 3086 | 1/1   | 0.90 | 0.20 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3273 | 1/1   | 0.90 | 0.29 | 53,53,53,53                 | 0     |
| 56  | MG   | BO    | 5001 | 1/1   | 0.90 | 0.17 | 55,55,55,55                 | 0     |
| 56  | MG   | CA    | 3139 | 1/1   | 0.90 | 0.15 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3566 | 1/1   | 0.90 | 0.23 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3597 | 1/1   | 0.90 | 0.10 | 51,51,51,51                 | 0     |
| 56  | MG   | AA    | 3158 | 1/1   | 0.90 | 0.27 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3569 | 1/1   | 0.90 | 0.33 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3718 | 1/1   | 0.90 | 0.20 | 46,46,46,46                 | 0     |
| 56  | MG   | AA    | 3020 | 1/1   | 0.90 | 0.15 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3410 | 1/1   | 0.90 | 0.10 | 46,46,46,46                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | CA    | 3164 | 1/1   | 0.90 | 0.07 | 54,54,54,54                 | 0     |
| 56  | MG   | CA    | 3167 | 1/1   | 0.90 | 0.17 | 48,48,48,48                 | 0     |
| 56  | MG   | BW    | 202  | 1/1   | 0.90 | 0.31 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3271 | 1/1   | 0.90 | 0.14 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3724 | 1/1   | 0.90 | 0.34 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3616 | 1/1   | 0.90 | 0.07 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3579 | 1/1   | 0.90 | 0.08 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3621 | 1/1   | 0.90 | 0.29 | 45,45,45,45                 | 0     |
| 56  | MG   | CA    | 3175 | 1/1   | 0.90 | 0.16 | 39,39,39,39                 | 0     |
| 56  | MG   | CA    | 3176 | 1/1   | 0.90 | 0.13 | 43,43,43,43                 | 0     |
| 56  | MG   | AX    | 3012 | 1/1   | 0.90 | 0.23 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3089 | 1/1   | 0.90 | 0.29 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3283 | 1/1   | 0.90 | 0.12 | 36,36,36,36                 | 0     |
| 56  | MG   | BA    | 3093 | 1/1   | 0.90 | 0.32 | 38,38,38,38                 | 0     |
| 56  | MG   | AA    | 3115 | 1/1   | 0.90 | 0.11 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3648 | 1/1   | 0.90 | 0.12 | 60,60,60,60                 | 0     |
| 56  | MG   | DA    | 3310 | 1/1   | 0.90 | 0.22 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3433 | 1/1   | 0.90 | 0.19 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3019 | 1/1   | 0.90 | 0.15 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3020 | 1/1   | 0.90 | 0.14 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3738 | 1/1   | 0.90 | 0.11 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3029 | 1/1   | 0.90 | 0.21 | 51,51,51,51                 | 0     |
| 56  | MG   | DB    | 3002 | 1/1   | 0.90 | 0.15 | 56,56,56,56                 | 0     |
| 56  | MG   | AA    | 3213 | 1/1   | 0.90 | 0.08 | 69,69,69,69                 | 0     |
| 56  | MG   | AA    | 3089 | 1/1   | 0.90 | 0.27 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3333 | 1/1   | 0.90 | 0.07 | 50,50,50,50                 | 0     |
| 56  | MG   | DB    | 3006 | 1/1   | 0.90 | 0.18 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3293 | 1/1   | 0.90 | 0.25 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3354 | 1/1   | 0.90 | 0.24 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3355 | 1/1   | 0.90 | 0.10 | 50,50,50,50                 | 0     |
| 56  | MG   | DF    | 302  | 1/1   | 0.90 | 0.18 | 43,43,43,43                 | 0     |
| 56  | MG   | DQ    | 3003 | 1/1   | 0.90 | 0.19 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3039 | 1/1   | 0.90 | 0.22 | 56,56,56,56                 | 0     |
| 56  | MG   | AA    | 3169 | 1/1   | 0.90 | 0.19 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3015 | 1/1   | 0.90 | 0.23 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3368 | 1/1   | 0.90 | 0.19 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3749 | 1/1   | 0.90 | 0.25 | 45,45,45,45                 | 0     |
| 56  | MG   | CA    | 3013 | 1/1   | 0.90 | 0.10 | 63,63,63,63                 | 0     |
| 56  | MG   | DA    | 3432 | 1/1   | 0.91 | 0.15 | 56,56,56,56                 | 0     |
| 56  | MG   | AW    | 3003 | 1/1   | 0.91 | 0.31 | 59,59,59,59                 | 0     |
| 56  | MG   | BB    | 3003 | 1/1   | 0.91 | 0.12 | 40,40,40,40                 | 0     |
| 56  | MG   | AA    | 3021 | 1/1   | 0.91 | 0.17 | 45,45,45,45                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | AW    | 3006 | 1/1   | 0.91 | 0.16 | 50,50,50,50                 | 0     |
| 56  | MG   | CA    | 3086 | 1/1   | 0.91 | 0.12 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3387 | 1/1   | 0.91 | 0.06 | 65,65,65,65                 | 0     |
| 56  | MG   | AA    | 3183 | 1/1   | 0.91 | 0.14 | 71,71,71,71                 | 0     |
| 56  | MG   | CA    | 3097 | 1/1   | 0.91 | 0.23 | 57,57,57,57                 | 0     |
| 56  | MG   | CA    | 3099 | 1/1   | 0.91 | 0.11 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3526 | 1/1   | 0.91 | 0.09 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3201 | 1/1   | 0.91 | 0.17 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3537 | 1/1   | 0.91 | 0.13 | 49,49,49,49                 | 0     |
| 56  | MG   | BB    | 3022 | 1/1   | 0.91 | 0.14 | 62,62,62,62                 | 0     |
| 56  | MG   | BD    | 306  | 1/1   | 0.91 | 0.36 | 22,22,22,22                 | 0     |
| 56  | MG   | BA    | 3701 | 1/1   | 0.91 | 0.14 | 51,51,51,51                 | 0     |
| 56  | MG   | BE    | 305  | 1/1   | 0.91 | 0.22 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3702 | 1/1   | 0.91 | 0.07 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3031 | 1/1   | 0.91 | 0.23 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3280 | 1/1   | 0.91 | 0.24 | 49,49,49,49                 | 0     |
| 56  | MG   | BG    | 203  | 1/1   | 0.91 | 0.07 | 36,36,36,36                 | 0     |
| 56  | MG   | CA    | 3134 | 1/1   | 0.91 | 0.14 | 70,70,70,70                 | 0     |
| 56  | MG   | DA    | 3497 | 1/1   | 0.91 | 0.32 | 51,51,51,51                 | 0     |
| 56  | MG   | AA    | 3156 | 1/1   | 0.91 | 0.14 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3707 | 1/1   | 0.91 | 0.14 | 66,66,66,66                 | 0     |
| 56  | MG   | AA    | 3216 | 1/1   | 0.91 | 0.13 | 72,72,72,72                 | 0     |
| 56  | MG   | BP    | 202  | 1/1   | 0.91 | 0.20 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3210 | 1/1   | 0.91 | 0.11 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3124 | 1/1   | 0.91 | 0.20 | 38,38,38,38                 | 0     |
| 56  | MG   | AA    | 3189 | 1/1   | 0.91 | 0.17 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3414 | 1/1   | 0.91 | 0.22 | 29,29,29,29                 | 0     |
| 56  | MG   | CA    | 3157 | 1/1   | 0.91 | 0.28 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3219 | 1/1   | 0.91 | 0.19 | 29,29,29,29                 | 0     |
| 56  | MG   | DA    | 3223 | 1/1   | 0.91 | 0.29 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3568 | 1/1   | 0.91 | 0.25 | 52,52,52,52                 | 0     |
| 56  | MG   | AA    | 3223 | 1/1   | 0.91 | 0.30 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3058 | 1/1   | 0.91 | 0.20 | 36,36,36,36                 | 0     |
| 56  | MG   | BA    | 3429 | 1/1   | 0.91 | 0.24 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3066 | 1/1   | 0.91 | 0.12 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3581 | 1/1   | 0.91 | 0.11 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3537 | 1/1   | 0.91 | 0.17 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3236 | 1/1   | 0.91 | 0.13 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3307 | 1/1   | 0.91 | 0.17 | 37,37,37,37                 | 0     |
| 56  | MG   | AY    | 3003 | 1/1   | 0.91 | 0.14 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3062 | 1/1   | 0.91 | 0.25 | 57,57,57,57                 | 0     |
| 56  | MG   | CW    | 3001 | 1/1   | 0.91 | 0.32 | 63,63,63,63                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3436 | 1/1   | 0.91 | 0.22 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3144 | 1/1   | 0.91 | 0.09 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3592 | 1/1   | 0.91 | 0.14 | 29,29,29,29                 | 0     |
| 56  | MG   | DA    | 3001 | 1/1   | 0.91 | 0.26 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3438 | 1/1   | 0.91 | 0.19 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3314 | 1/1   | 0.91 | 0.15 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3441 | 1/1   | 0.91 | 0.27 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3026 | 1/1   | 0.91 | 0.14 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3293 | 1/1   | 0.91 | 0.11 | 60,60,60,60                 | 0     |
| 56  | MG   | AA    | 3015 | 1/1   | 0.91 | 0.17 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3065 | 1/1   | 0.91 | 0.12 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3445 | 1/1   | 0.91 | 0.20 | 32,32,32,32                 | 0     |
| 56  | MG   | DA    | 3581 | 1/1   | 0.91 | 0.19 | 63,63,63,63                 | 0     |
| 56  | MG   | BA    | 3613 | 1/1   | 0.91 | 0.13 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3585 | 1/1   | 0.91 | 0.10 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3236 | 1/1   | 0.91 | 0.15 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3589 | 1/1   | 0.91 | 0.15 | 63,63,63,63                 | 0     |
| 56  | MG   | AA    | 3194 | 1/1   | 0.91 | 0.17 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3595 | 1/1   | 0.91 | 0.18 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3756 | 1/1   | 0.91 | 0.21 | 27,27,27,27                 | 0     |
| 56  | MG   | DA    | 3318 | 1/1   | 0.91 | 0.18 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3622 | 1/1   | 0.91 | 0.19 | 31,31,31,31                 | 0     |
| 56  | MG   | BA    | 3625 | 1/1   | 0.91 | 0.14 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3240 | 1/1   | 0.91 | 0.26 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3762 | 1/1   | 0.91 | 0.38 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3606 | 1/1   | 0.91 | 0.22 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3763 | 1/1   | 0.91 | 0.27 | 34,34,34,34                 | 0     |
| 56  | MG   | BA    | 3453 | 1/1   | 0.91 | 0.21 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3328 | 1/1   | 0.91 | 0.15 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3153 | 1/1   | 0.91 | 0.22 | 39,39,39,39                 | 0     |
| 56  | MG   | AA    | 3049 | 1/1   | 0.91 | 0.22 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3351 | 1/1   | 0.91 | 0.12 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3774 | 1/1   | 0.91 | 0.19 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3072 | 1/1   | 0.91 | 0.09 | 36,36,36,36                 | 0     |
| 56  | MG   | BA    | 3341 | 1/1   | 0.91 | 0.16 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3342 | 1/1   | 0.91 | 0.18 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3365 | 1/1   | 0.91 | 0.34 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3081 | 1/1   | 0.91 | 0.27 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3345 | 1/1   | 0.91 | 0.12 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3638 | 1/1   | 0.91 | 0.25 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3650 | 1/1   | 0.91 | 0.12 | 57,57,57,57                 | 0     |
| 56  | MG   | AA    | 3005 | 1/1   | 0.91 | 0.07 | 53,53,53,53                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3789 | 1/1   | 0.91 | 0.17 | 39,39,39,39                 | 0     |
| 56  | MG   | CA    | 3043 | 1/1   | 0.91 | 0.26 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3649 | 1/1   | 0.91 | 0.07 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3650 | 1/1   | 0.91 | 0.27 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3384 | 1/1   | 0.91 | 0.10 | 52,52,52,52                 | 0     |
| 56  | MG   | CA    | 3046 | 1/1   | 0.91 | 0.09 | 56,56,56,56                 | 0     |
| 56  | MG   | AA    | 3143 | 1/1   | 0.91 | 0.16 | 73,73,73,73                 | 0     |
| 56  | MG   | BA    | 3251 | 1/1   | 0.91 | 0.32 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3666 | 1/1   | 0.91 | 0.12 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3352 | 1/1   | 0.91 | 0.26 | 29,29,29,29                 | 0     |
| 56  | MG   | BA    | 3090 | 1/1   | 0.91 | 0.20 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3402 | 1/1   | 0.91 | 0.27 | 65,65,65,65                 | 0     |
| 56  | MG   | BA    | 3016 | 1/1   | 0.91 | 0.20 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3812 | 1/1   | 0.91 | 0.18 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3815 | 1/1   | 0.91 | 0.28 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3406 | 1/1   | 0.91 | 0.15 | 40,40,40,40                 | 0     |
| 56  | MG   | DB    | 3011 | 1/1   | 0.91 | 0.09 | 52,52,52,52                 | 0     |
| 56  | MG   | AA    | 3103 | 1/1   | 0.91 | 0.14 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3500 | 1/1   | 0.91 | 0.18 | 26,26,26,26                 | 0     |
| 56  | MG   | DD    | 307  | 1/1   | 0.91 | 0.14 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3503 | 1/1   | 0.91 | 0.23 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3415 | 1/1   | 0.91 | 0.24 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3418 | 1/1   | 0.91 | 0.22 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3360 | 1/1   | 0.91 | 0.09 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3131 | 1/1   | 0.91 | 0.15 | 52,52,52,52                 | 0     |
| 56  | MG   | AA    | 3106 | 1/1   | 0.91 | 0.17 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3096 | 1/1   | 0.91 | 0.30 | 41,41,41,41                 | 0     |
| 59  | ZN   | CN    | 501  | 1/1   | 0.91 | 0.04 | 92,92,92,92                 | 0     |
| 56  | MG   | CA    | 3073 | 1/1   | 0.91 | 0.32 | 48,48,48,48                 | 0     |
| 59  | ZN   | D9    | 501  | 1/1   | 0.91 | 0.07 | 63,63,63,63                 | 0     |
| 56  | MG   | BA    | 3375 | 1/1   | 0.92 | 0.15 | 35,35,35,35                 | 0     |
| 56  | MG   | BA    | 3376 | 1/1   | 0.92 | 0.11 | 34,34,34,34                 | 0     |
| 56  | MG   | BA    | 3837 | 1/1   | 0.92 | 0.20 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3681 | 1/1   | 0.92 | 0.22 | 53,53,53,53                 | 0     |
| 56  | MG   | AA    | 3044 | 1/1   | 0.92 | 0.32 | 71,71,71,71                 | 0     |
| 56  | MG   | DA    | 3111 | 1/1   | 0.92 | 0.14 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3520 | 1/1   | 0.92 | 0.32 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3119 | 1/1   | 0.92 | 0.20 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3522 | 1/1   | 0.92 | 0.28 | 36,36,36,36                 | 0     |
| 56  | MG   | DA    | 3122 | 1/1   | 0.92 | 0.22 | 36,36,36,36                 | 0     |
| 56  | MG   | CA    | 3074 | 1/1   | 0.92 | 0.39 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3099 | 1/1   | 0.92 | 0.16 | 50,50,50,50                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | CA    | 3082 | 1/1   | 0.92 | 0.13 | 63,63,63,63                 | 0     |
| 56  | MG   | DA    | 3133 | 1/1   | 0.92 | 0.29 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3138 | 1/1   | 0.92 | 0.41 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3194 | 1/1   | 0.92 | 0.20 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3441 | 1/1   | 0.92 | 0.09 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3101 | 1/1   | 0.92 | 0.17 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3394 | 1/1   | 0.92 | 0.21 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3530 | 1/1   | 0.92 | 0.20 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3147 | 1/1   | 0.92 | 0.09 | 44,44,44,44                 | 0     |
| 56  | MG   | BB    | 3018 | 1/1   | 0.92 | 0.15 | 77,77,77,77                 | 0     |
| 56  | MG   | BA    | 3396 | 1/1   | 0.92 | 0.22 | 55,55,55,55                 | 0     |
| 56  | MG   | CA    | 3092 | 1/1   | 0.92 | 0.15 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3167 | 1/1   | 0.92 | 0.25 | 47,47,47,47                 | 0     |
| 56  | MG   | BB    | 3020 | 1/1   | 0.92 | 0.16 | 54,54,54,54                 | 0     |
| 56  | MG   | CA    | 3098 | 1/1   | 0.92 | 0.22 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3542 | 1/1   | 0.92 | 0.16 | 48,48,48,48                 | 0     |
| 56  | MG   | AA    | 3120 | 1/1   | 0.92 | 0.16 | 59,59,59,59                 | 0     |
| 56  | MG   | CA    | 3104 | 1/1   | 0.92 | 0.11 | 64,64,64,64                 | 0     |
| 56  | MG   | AA    | 3050 | 1/1   | 0.92 | 0.10 | 70,70,70,70                 | 0     |
| 56  | MG   | DA    | 3483 | 1/1   | 0.92 | 0.38 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3485 | 1/1   | 0.92 | 0.11 | 44,44,44,44                 | 0     |
| 56  | MG   | CA    | 3114 | 1/1   | 0.92 | 0.20 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3491 | 1/1   | 0.92 | 0.17 | 45,45,45,45                 | 0     |
| 56  | MG   | AA    | 3127 | 1/1   | 0.92 | 0.18 | 48,48,48,48                 | 0     |
| 56  | MG   | CA    | 3117 | 1/1   | 0.92 | 0.10 | 48,48,48,48                 | 0     |
| 56  | MG   | CA    | 3119 | 1/1   | 0.92 | 0.26 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3284 | 1/1   | 0.92 | 0.26 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3287 | 1/1   | 0.92 | 0.29 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3502 | 1/1   | 0.92 | 0.20 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3503 | 1/1   | 0.92 | 0.14 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3190 | 1/1   | 0.92 | 0.26 | 45,45,45,45                 | 0     |
| 56  | MG   | BF    | 305  | 1/1   | 0.92 | 0.26 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3411 | 1/1   | 0.92 | 0.13 | 36,36,36,36                 | 0     |
| 56  | MG   | AA    | 3061 | 1/1   | 0.92 | 0.08 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3195 | 1/1   | 0.92 | 0.19 | 57,57,57,57                 | 0     |
| 56  | MG   | AA    | 3045 | 1/1   | 0.92 | 0.32 | 59,59,59,59                 | 0     |
| 56  | MG   | CA    | 3128 | 1/1   | 0.92 | 0.10 | 63,63,63,63                 | 0     |
| 56  | MG   | AA    | 3209 | 1/1   | 0.92 | 0.30 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3117 | 1/1   | 0.92 | 0.23 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3203 | 1/1   | 0.92 | 0.28 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3204 | 1/1   | 0.92 | 0.31 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3523 | 1/1   | 0.92 | 0.14 | 57,57,57,57                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3526 | 1/1   | 0.92 | 0.22 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3208 | 1/1   | 0.92 | 0.10 | 59,59,59,59                 | 0     |
| 56  | MG   | AX    | 3004 | 1/1   | 0.92 | 0.21 | 70,70,70,70                 | 0     |
| 56  | MG   | BA    | 3428 | 1/1   | 0.92 | 0.30 | 38,38,38,38                 | 0     |
| 56  | MG   | BA    | 3294 | 1/1   | 0.92 | 0.20 | 45,45,45,45                 | 0     |
| 56  | MG   | AX    | 3005 | 1/1   | 0.92 | 0.15 | 44,44,44,44                 | 0     |
| 56  | MG   | CA    | 3143 | 1/1   | 0.92 | 0.15 | 62,62,62,62                 | 0     |
| 56  | MG   | DA    | 3220 | 1/1   | 0.92 | 0.19 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3582 | 1/1   | 0.92 | 0.16 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3130 | 1/1   | 0.92 | 0.26 | 48,48,48,48                 | 0     |
| 56  | MG   | CA    | 3148 | 1/1   | 0.92 | 0.11 | 67,67,67,67                 | 0     |
| 56  | MG   | CA    | 3151 | 1/1   | 0.92 | 0.08 | 65,65,65,65                 | 0     |
| 56  | MG   | BA    | 3305 | 1/1   | 0.92 | 0.12 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3131 | 1/1   | 0.92 | 0.18 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3548 | 1/1   | 0.92 | 0.17 | 65,65,65,65                 | 0     |
| 56  | MG   | AA    | 3210 | 1/1   | 0.92 | 0.19 | 69,69,69,69                 | 0     |
| 56  | MG   | DA    | 3556 | 1/1   | 0.92 | 0.19 | 64,64,64,64                 | 0     |
| 56  | MG   | CA    | 3159 | 1/1   | 0.92 | 0.13 | 57,57,57,57                 | 0     |
| 56  | MG   | B1    | 101  | 1/1   | 0.92 | 0.38 | 44,44,44,44                 | 0     |
| 56  | MG   | CA    | 3162 | 1/1   | 0.92 | 0.14 | 67,67,67,67                 | 0     |
| 56  | MG   | AA    | 3109 | 1/1   | 0.92 | 0.32 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3239 | 1/1   | 0.92 | 0.20 | 54,54,54,54                 | 0     |
| 56  | MG   | AA    | 3138 | 1/1   | 0.92 | 0.17 | 34,34,34,34                 | 0     |
| 56  | MG   | BA    | 3593 | 1/1   | 0.92 | 0.14 | 42,42,42,42                 | 0     |
| 56  | MG   | CA    | 3170 | 1/1   | 0.92 | 0.12 | 64,64,64,64                 | 0     |
| 56  | MG   | B3    | 102  | 1/1   | 0.92 | 0.11 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3250 | 1/1   | 0.92 | 0.13 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3061 | 1/1   | 0.92 | 0.17 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3586 | 1/1   | 0.92 | 0.09 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3740 | 1/1   | 0.92 | 0.21 | 51,51,51,51                 | 0     |
| 56  | MG   | B5    | 103  | 1/1   | 0.92 | 0.18 | 44,44,44,44                 | 0     |
| 56  | MG   | AA    | 3215 | 1/1   | 0.92 | 0.19 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3597 | 1/1   | 0.92 | 0.20 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3601 | 1/1   | 0.92 | 0.16 | 42,42,42,42                 | 0     |
| 56  | MG   | B9    | 502  | 1/1   | 0.92 | 0.10 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3288 | 1/1   | 0.92 | 0.16 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3232 | 1/1   | 0.92 | 0.14 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3295 | 1/1   | 0.92 | 0.17 | 58,58,58,58                 | 0     |
| 56  | MG   | CA    | 3004 | 1/1   | 0.92 | 0.07 | 71,71,71,71                 | 0     |
| 56  | MG   | DA    | 3300 | 1/1   | 0.92 | 0.26 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3063 | 1/1   | 0.92 | 0.17 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3174 | 1/1   | 0.92 | 0.13 | 60,60,60,60                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3237 | 1/1   | 0.92 | 0.14 | 36,36,36,36                 | 0     |
| 56  | MG   | BA    | 3001 | 1/1   | 0.92 | 0.20 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3025 | 1/1   | 0.92 | 0.16 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3617 | 1/1   | 0.92 | 0.13 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3027 | 1/1   | 0.92 | 0.21 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3618 | 1/1   | 0.92 | 0.26 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3449 | 1/1   | 0.92 | 0.29 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3151 | 1/1   | 0.92 | 0.28 | 42,42,42,42                 | 0     |
| 56  | MG   | AA    | 3023 | 1/1   | 0.92 | 0.15 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3623 | 1/1   | 0.92 | 0.13 | 52,52,52,52                 | 0     |
| 56  | MG   | AA    | 3067 | 1/1   | 0.92 | 0.09 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3765 | 1/1   | 0.92 | 0.17 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3635 | 1/1   | 0.92 | 0.15 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3636 | 1/1   | 0.92 | 0.24 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3626 | 1/1   | 0.92 | 0.18 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3043 | 1/1   | 0.92 | 0.17 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3335 | 1/1   | 0.92 | 0.19 | 32,32,32,32                 | 0     |
| 56  | MG   | CA    | 3021 | 1/1   | 0.92 | 0.13 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3344 | 1/1   | 0.92 | 0.14 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3158 | 1/1   | 0.92 | 0.19 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3083 | 1/1   | 0.92 | 0.29 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3081 | 1/1   | 0.92 | 0.26 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3253 | 1/1   | 0.92 | 0.21 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3661 | 1/1   | 0.92 | 0.20 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3663 | 1/1   | 0.92 | 0.25 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3351 | 1/1   | 0.92 | 0.17 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3667 | 1/1   | 0.92 | 0.96 | 73,73,73,73                 | 0     |
| 56  | MG   | AA    | 3144 | 1/1   | 0.92 | 0.12 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3672 | 1/1   | 0.92 | 0.28 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3367 | 1/1   | 0.92 | 0.08 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3354 | 1/1   | 0.92 | 0.17 | 31,31,31,31                 | 0     |
| 56  | MG   | BA    | 3651 | 1/1   | 0.92 | 0.19 | 56,56,56,56                 | 0     |
| 56  | MG   | AA    | 3016 | 1/1   | 0.92 | 0.16 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3484 | 1/1   | 0.92 | 0.29 | 36,36,36,36                 | 0     |
| 56  | MG   | DA    | 3378 | 1/1   | 0.92 | 0.13 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3259 | 1/1   | 0.92 | 0.40 | 52,52,52,52                 | 0     |
| 56  | MG   | AA    | 3148 | 1/1   | 0.92 | 0.15 | 63,63,63,63                 | 0     |
| 56  | MG   | AA    | 3150 | 1/1   | 0.92 | 0.44 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3390 | 1/1   | 0.92 | 0.07 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3391 | 1/1   | 0.92 | 0.09 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3019 | 1/1   | 0.92 | 0.32 | 42,42,42,42                 | 0     |
| 56  | MG   | DE    | 304  | 1/1   | 0.92 | 0.22 | 47,47,47,47                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors(Å <sup>2</sup> ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56  | MG   | DF    | 301  | 1/1   | 0.92 | 0.15 | 47,47,47,47                | 0     |
| 56  | MG   | DA    | 3394 | 1/1   | 0.92 | 0.14 | 49,49,49,49                | 0     |
| 56  | MG   | BA    | 3808 | 1/1   | 0.92 | 0.14 | 34,34,34,34                | 0     |
| 56  | MG   | BA    | 3669 | 1/1   | 0.92 | 0.13 | 42,42,42,42                | 0     |
| 56  | MG   | DA    | 3094 | 1/1   | 0.92 | 0.19 | 52,52,52,52                | 0     |
| 56  | MG   | BA    | 3182 | 1/1   | 0.92 | 0.31 | 41,41,41,41                | 0     |
| 56  | MG   | DA    | 3401 | 1/1   | 0.92 | 0.29 | 36,36,36,36                | 0     |
| 57  | PCY  | AA    | 3231 | 40/40 | 0.92 | 0.33 | 45,69,81,87                | 0     |
| 56  | MG   | BA    | 3270 | 1/1   | 0.92 | 0.24 | 57,57,57,57                | 0     |
| 56  | MG   | BA    | 3825 | 1/1   | 0.92 | 0.18 | 65,65,65,65                | 0     |
| 59  | ZN   | DY    | 501  | 1/1   | 0.92 | 0.09 | 106,106,106,106            | 0     |
| 56  | MG   | BA    | 3509 | 1/1   | 0.92 | 0.25 | 39,39,39,39                | 0     |
| 56  | MG   | BA    | 3271 | 1/1   | 0.92 | 0.11 | 26,26,26,26                | 0     |
| 60  | K    | CX    | 3001 | 1/1   | 0.92 | 0.17 | 74,74,74,74                | 0     |
| 56  | MG   | AA    | 3218 | 1/1   | 0.93 | 0.25 | 53,53,53,53                | 0     |
| 56  | MG   | BA    | 3493 | 1/1   | 0.93 | 0.13 | 46,46,46,46                | 0     |
| 56  | MG   | AX    | 3006 | 1/1   | 0.93 | 0.18 | 74,74,74,74                | 0     |
| 56  | MG   | DA    | 3461 | 1/1   | 0.93 | 0.13 | 56,56,56,56                | 0     |
| 56  | MG   | CA    | 3154 | 1/1   | 0.93 | 0.17 | 62,62,62,62                | 0     |
| 56  | MG   | BA    | 3628 | 1/1   | 0.93 | 0.17 | 30,30,30,30                | 0     |
| 56  | MG   | AA    | 3135 | 1/1   | 0.93 | 0.10 | 65,65,65,65                | 0     |
| 56  | MG   | DA    | 3474 | 1/1   | 0.93 | 0.07 | 53,53,53,53                | 0     |
| 56  | MG   | BA    | 3033 | 1/1   | 0.93 | 0.26 | 33,33,33,33                | 0     |
| 56  | MG   | B6    | 101  | 1/1   | 0.93 | 0.18 | 48,48,48,48                | 0     |
| 56  | MG   | BA    | 3754 | 1/1   | 0.93 | 0.17 | 60,60,60,60                | 0     |
| 56  | MG   | DA    | 3205 | 1/1   | 0.93 | 0.21 | 47,47,47,47                | 0     |
| 56  | MG   | BA    | 3235 | 1/1   | 0.93 | 0.16 | 37,37,37,37                | 0     |
| 56  | MG   | BA    | 3636 | 1/1   | 0.93 | 0.10 | 53,53,53,53                | 0     |
| 56  | MG   | BA    | 3156 | 1/1   | 0.93 | 0.23 | 41,41,41,41                | 0     |
| 56  | MG   | BA    | 3302 | 1/1   | 0.93 | 0.16 | 35,35,35,35                | 0     |
| 56  | MG   | DA    | 3212 | 1/1   | 0.93 | 0.29 | 44,44,44,44                | 0     |
| 56  | MG   | DA    | 3498 | 1/1   | 0.93 | 0.09 | 57,57,57,57                | 0     |
| 56  | MG   | CA    | 3003 | 1/1   | 0.93 | 0.24 | 58,58,58,58                | 0     |
| 56  | MG   | BA    | 3304 | 1/1   | 0.93 | 0.20 | 39,39,39,39                | 0     |
| 56  | MG   | BA    | 3097 | 1/1   | 0.93 | 0.17 | 52,52,52,52                | 0     |
| 56  | MG   | BA    | 3645 | 1/1   | 0.93 | 0.18 | 32,32,32,32                | 0     |
| 56  | MG   | CE    | 202  | 1/1   | 0.93 | 0.05 | 66,66,66,66                | 0     |
| 56  | MG   | BA    | 3766 | 1/1   | 0.93 | 0.19 | 31,31,31,31                | 0     |
| 56  | MG   | BA    | 3648 | 1/1   | 0.93 | 0.37 | 53,53,53,53                | 0     |
| 56  | MG   | AA    | 3222 | 1/1   | 0.93 | 0.24 | 67,67,67,67                | 0     |
| 56  | MG   | BA    | 3519 | 1/1   | 0.93 | 0.12 | 44,44,44,44                | 0     |
| 56  | MG   | BA    | 3773 | 1/1   | 0.93 | 0.22 | 49,49,49,49                | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3233 | 1/1   | 0.93 | 0.25 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3310 | 1/1   | 0.93 | 0.20 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3164 | 1/1   | 0.93 | 0.28 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3412 | 1/1   | 0.93 | 0.20 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3518 | 1/1   | 0.93 | 0.18 | 50,50,50,50                 | 0     |
| 56  | MG   | AA    | 3111 | 1/1   | 0.93 | 0.18 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3244 | 1/1   | 0.93 | 0.10 | 63,63,63,63                 | 0     |
| 56  | MG   | BA    | 3786 | 1/1   | 0.93 | 0.10 | 37,37,37,37                 | 0     |
| 56  | MG   | AA    | 3054 | 1/1   | 0.93 | 0.43 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3529 | 1/1   | 0.93 | 0.16 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3422 | 1/1   | 0.93 | 0.18 | 32,32,32,32                 | 0     |
| 56  | MG   | DA    | 3030 | 1/1   | 0.93 | 0.28 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3423 | 1/1   | 0.93 | 0.18 | 23,23,23,23                 | 0     |
| 56  | MG   | DA    | 3255 | 1/1   | 0.93 | 0.05 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3256 | 1/1   | 0.93 | 0.12 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3259 | 1/1   | 0.93 | 0.12 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3263 | 1/1   | 0.93 | 0.10 | 61,61,61,61                 | 0     |
| 56  | MG   | DA    | 3033 | 1/1   | 0.93 | 0.22 | 31,31,31,31                 | 0     |
| 56  | MG   | AY    | 3002 | 1/1   | 0.93 | 0.12 | 68,68,68,68                 | 0     |
| 56  | MG   | BA    | 3426 | 1/1   | 0.93 | 0.21 | 22,22,22,22                 | 0     |
| 56  | MG   | BA    | 3803 | 1/1   | 0.93 | 0.09 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3106 | 1/1   | 0.93 | 0.47 | 50,50,50,50                 | 0     |
| 56  | MG   | CA    | 3032 | 1/1   | 0.93 | 0.23 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3550 | 1/1   | 0.93 | 0.08 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3551 | 1/1   | 0.93 | 0.16 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3805 | 1/1   | 0.93 | 0.16 | 21,21,21,21                 | 0     |
| 56  | MG   | DA    | 3557 | 1/1   | 0.93 | 0.23 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3559 | 1/1   | 0.93 | 0.18 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3561 | 1/1   | 0.93 | 0.22 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3562 | 1/1   | 0.93 | 0.34 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3046 | 1/1   | 0.93 | 0.37 | 57,57,57,57                 | 0     |
| 56  | MG   | AA    | 3083 | 1/1   | 0.93 | 0.15 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3554 | 1/1   | 0.93 | 0.21 | 37,37,37,37                 | 0     |
| 56  | MG   | CA    | 3038 | 1/1   | 0.93 | 0.19 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3810 | 1/1   | 0.93 | 0.25 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3304 | 1/1   | 0.93 | 0.12 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3572 | 1/1   | 0.93 | 0.26 | 28,28,28,28                 | 0     |
| 56  | MG   | BA    | 3252 | 1/1   | 0.93 | 0.24 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3577 | 1/1   | 0.93 | 0.14 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3578 | 1/1   | 0.93 | 0.10 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3685 | 1/1   | 0.93 | 0.17 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3818 | 1/1   | 0.93 | 0.26 | 32,32,32,32                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors(Å <sup>2</sup> ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56  | MG   | BA    | 3819 | 1/1   | 0.93 | 0.24 | 32,32,32,32                | 0     |
| 56  | MG   | DA    | 3070 | 1/1   | 0.93 | 0.23 | 48,48,48,48                | 0     |
| 56  | MG   | BA    | 3430 | 1/1   | 0.93 | 0.33 | 32,32,32,32                | 0     |
| 56  | MG   | DA    | 3075 | 1/1   | 0.93 | 0.12 | 39,39,39,39                | 0     |
| 56  | MG   | BA    | 3323 | 1/1   | 0.93 | 0.22 | 39,39,39,39                | 0     |
| 56  | MG   | AA    | 3140 | 1/1   | 0.93 | 0.11 | 71,71,71,71                | 0     |
| 56  | MG   | AA    | 3166 | 1/1   | 0.93 | 0.13 | 65,65,65,65                | 0     |
| 56  | MG   | BA    | 3329 | 1/1   | 0.93 | 0.19 | 29,29,29,29                | 0     |
| 56  | MG   | AA    | 3024 | 1/1   | 0.93 | 0.15 | 58,58,58,58                | 0     |
| 56  | MG   | BA    | 3698 | 1/1   | 0.93 | 0.13 | 48,48,48,48                | 0     |
| 56  | MG   | BA    | 3337 | 1/1   | 0.93 | 0.17 | 35,35,35,35                | 0     |
| 56  | MG   | DA    | 3090 | 1/1   | 0.93 | 0.21 | 45,45,45,45                | 0     |
| 56  | MG   | DA    | 3338 | 1/1   | 0.93 | 0.19 | 40,40,40,40                | 0     |
| 56  | MG   | DA    | 3092 | 1/1   | 0.93 | 0.26 | 48,48,48,48                | 0     |
| 56  | MG   | BA    | 3839 | 1/1   | 0.93 | 0.12 | 38,38,38,38                | 0     |
| 56  | MG   | DA    | 3609 | 1/1   | 0.93 | 0.16 | 60,60,60,60                | 0     |
| 56  | MG   | BA    | 3116 | 1/1   | 0.93 | 0.15 | 29,29,29,29                | 0     |
| 56  | MG   | DA    | 3095 | 1/1   | 0.93 | 0.27 | 47,47,47,47                | 0     |
| 56  | MG   | BB    | 3002 | 1/1   | 0.93 | 0.18 | 52,52,52,52                | 0     |
| 56  | MG   | DA    | 3613 | 1/1   | 0.93 | 0.14 | 50,50,50,50                | 0     |
| 56  | MG   | BA    | 3576 | 1/1   | 0.93 | 0.17 | 48,48,48,48                | 0     |
| 56  | MG   | BA    | 3578 | 1/1   | 0.93 | 0.25 | 47,47,47,47                | 0     |
| 56  | MG   | BB    | 3005 | 1/1   | 0.93 | 0.19 | 64,64,64,64                | 0     |
| 56  | MG   | CA    | 3076 | 1/1   | 0.93 | 0.19 | 56,56,56,56                | 0     |
| 56  | MG   | BA    | 3260 | 1/1   | 0.93 | 0.56 | 57,57,57,57                | 0     |
| 56  | MG   | DA    | 3369 | 1/1   | 0.93 | 0.05 | 61,61,61,61                | 0     |
| 56  | MG   | BA    | 3704 | 1/1   | 0.93 | 0.23 | 55,55,55,55                | 0     |
| 56  | MG   | DA    | 3374 | 1/1   | 0.93 | 0.18 | 37,37,37,37                | 0     |
| 56  | MG   | AA    | 3077 | 1/1   | 0.93 | 0.14 | 49,49,49,49                | 0     |
| 56  | MG   | BA    | 3120 | 1/1   | 0.93 | 0.23 | 32,32,32,32                | 0     |
| 56  | MG   | BA    | 3007 | 1/1   | 0.93 | 0.24 | 51,51,51,51                | 0     |
| 56  | MG   | BA    | 3125 | 1/1   | 0.93 | 0.14 | 42,42,42,42                | 0     |
| 56  | MG   | DA    | 3383 | 1/1   | 0.93 | 0.24 | 37,37,37,37                | 0     |
| 56  | MG   | BA    | 3711 | 1/1   | 0.93 | 0.26 | 45,45,45,45                | 0     |
| 56  | MG   | BA    | 3199 | 1/1   | 0.93 | 0.09 | 53,53,53,53                | 0     |
| 56  | MG   | AA    | 3171 | 1/1   | 0.93 | 0.10 | 48,48,48,48                | 0     |
| 56  | MG   | BD    | 301  | 1/1   | 0.93 | 0.21 | 49,49,49,49                | 0     |
| 56  | MG   | AA    | 3208 | 1/1   | 0.93 | 0.16 | 45,45,45,45                | 0     |
| 56  | MG   | AA    | 3056 | 1/1   | 0.93 | 0.19 | 46,46,46,46                | 0     |
| 56  | MG   | AA    | 3026 | 1/1   | 0.93 | 0.22 | 53,53,53,53                | 0     |
| 56  | MG   | BA    | 3719 | 1/1   | 0.93 | 0.13 | 42,42,42,42                | 0     |
| 56  | MG   | DA    | 3135 | 1/1   | 0.93 | 0.11 | 50,50,50,50                | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3137 | 1/1   | 0.93 | 0.13 | 54,54,54,54                 | 0     |
| 56  | MG   | CA    | 3109 | 1/1   | 0.93 | 0.24 | 68,68,68,68                 | 0     |
| 56  | MG   | DA    | 3139 | 1/1   | 0.93 | 0.10 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3136 | 1/1   | 0.93 | 0.12 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3721 | 1/1   | 0.93 | 0.18 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3081 | 1/1   | 0.93 | 0.19 | 49,49,49,49                 | 0     |
| 56  | MG   | BF    | 311  | 1/1   | 0.93 | 0.18 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3675 | 1/1   | 0.93 | 0.28 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3146 | 1/1   | 0.93 | 0.27 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3279 | 1/1   | 0.93 | 0.22 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3409 | 1/1   | 0.93 | 0.09 | 47,47,47,47                 | 0     |
| 56  | MG   | CA    | 3120 | 1/1   | 0.93 | 0.12 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3150 | 1/1   | 0.93 | 0.06 | 41,41,41,41                 | 0     |
| 56  | MG   | AA    | 3105 | 1/1   | 0.93 | 0.20 | 49,49,49,49                 | 0     |
| 56  | MG   | AA    | 3090 | 1/1   | 0.93 | 0.35 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3420 | 1/1   | 0.93 | 0.16 | 46,46,46,46                 | 0     |
| 56  | MG   | BN    | 3005 | 1/1   | 0.93 | 0.39 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3474 | 1/1   | 0.93 | 0.09 | 61,61,61,61                 | 0     |
| 56  | MG   | DE    | 302  | 1/1   | 0.93 | 0.20 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3366 | 1/1   | 0.93 | 0.17 | 45,45,45,45                 | 0     |
| 56  | MG   | AA    | 3008 | 1/1   | 0.93 | 0.15 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3732 | 1/1   | 0.93 | 0.26 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3370 | 1/1   | 0.93 | 0.12 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3616 | 1/1   | 0.93 | 0.12 | 53,53,53,53                 | 0     |
| 56  | MG   | DU    | 3002 | 1/1   | 0.93 | 0.22 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3180 | 1/1   | 0.93 | 0.14 | 51,51,51,51                 | 0     |
| 56  | MG   | AA    | 3002 | 1/1   | 0.93 | 0.08 | 62,62,62,62                 | 0     |
| 56  | MG   | D0    | 102  | 1/1   | 0.93 | 0.17 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3374 | 1/1   | 0.93 | 0.08 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3442 | 1/1   | 0.93 | 0.15 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3619 | 1/1   | 0.93 | 0.40 | 51,51,51,51                 | 0     |
| 56  | MG   | BW    | 203  | 1/1   | 0.93 | 0.23 | 34,34,34,34                 | 0     |
| 56  | MG   | BX    | 101  | 1/1   | 0.93 | 0.26 | 65,65,65,65                 | 0     |
| 56  | MG   | BA    | 3741 | 1/1   | 0.93 | 0.11 | 28,28,28,28                 | 0     |
| 56  | MG   | BA    | 3145 | 1/1   | 0.93 | 0.26 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3092 | 1/1   | 0.93 | 0.26 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3132 | 1/1   | 0.94 | 0.21 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3073 | 1/1   | 0.94 | 0.17 | 54,54,54,54                 | 0     |
| 56  | MG   | AW    | 3004 | 1/1   | 0.94 | 0.12 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3602 | 1/1   | 0.94 | 0.17 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3398 | 1/1   | 0.94 | 0.18 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3316 | 1/1   | 0.94 | 0.25 | 23,23,23,23                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3055 | 1/1   | 0.94 | 0.23 | 31,31,31,31                 | 0     |
| 56  | MG   | BA    | 3761 | 1/1   | 0.94 | 0.19 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3137 | 1/1   | 0.94 | 0.24 | 45,45,45,45                 | 0     |
| 56  | MG   | AA    | 3188 | 1/1   | 0.94 | 0.16 | 56,56,56,56                 | 0     |
| 56  | MG   | AA    | 3107 | 1/1   | 0.94 | 0.25 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3614 | 1/1   | 0.94 | 0.15 | 26,26,26,26                 | 0     |
| 56  | MG   | AA    | 3031 | 1/1   | 0.94 | 0.09 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3327 | 1/1   | 0.94 | 0.25 | 25,25,25,25                 | 0     |
| 56  | MG   | BA    | 3141 | 1/1   | 0.94 | 0.23 | 38,38,38,38                 | 0     |
| 56  | MG   | CA    | 3030 | 1/1   | 0.94 | 0.08 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3448 | 1/1   | 0.94 | 0.22 | 28,28,28,28                 | 0     |
| 56  | MG   | DA    | 3097 | 1/1   | 0.94 | 0.21 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3039 | 1/1   | 0.94 | 0.15 | 61,61,61,61                 | 0     |
| 56  | MG   | DA    | 3100 | 1/1   | 0.94 | 0.24 | 36,36,36,36                 | 0     |
| 56  | MG   | CA    | 3033 | 1/1   | 0.94 | 0.15 | 56,56,56,56                 | 0     |
| 56  | MG   | AA    | 3028 | 1/1   | 0.94 | 0.38 | 56,56,56,56                 | 0     |
| 56  | MG   | CA    | 3035 | 1/1   | 0.94 | 0.10 | 60,60,60,60                 | 0     |
| 56  | MG   | AA    | 3092 | 1/1   | 0.94 | 0.20 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3454 | 1/1   | 0.94 | 0.15 | 31,31,31,31                 | 0     |
| 56  | MG   | AA    | 3147 | 1/1   | 0.94 | 0.11 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3456 | 1/1   | 0.94 | 0.39 | 41,41,41,41                 | 0     |
| 56  | MG   | CA    | 3041 | 1/1   | 0.94 | 0.16 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3457 | 1/1   | 0.94 | 0.21 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3440 | 1/1   | 0.94 | 0.18 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3788 | 1/1   | 0.94 | 0.17 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3117 | 1/1   | 0.94 | 0.28 | 60,60,60,60                 | 0     |
| 56  | MG   | AX    | 3007 | 1/1   | 0.94 | 0.24 | 72,72,72,72                 | 0     |
| 56  | MG   | BA    | 3790 | 1/1   | 0.94 | 0.21 | 32,32,32,32                 | 0     |
| 56  | MG   | CA    | 3052 | 1/1   | 0.94 | 0.09 | 65,65,65,65                 | 0     |
| 56  | MG   | DA    | 3449 | 1/1   | 0.94 | 0.19 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3093 | 1/1   | 0.94 | 0.14 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3469 | 1/1   | 0.94 | 0.31 | 37,37,37,37                 | 0     |
| 56  | MG   | AA    | 3041 | 1/1   | 0.94 | 0.26 | 52,52,52,52                 | 0     |
| 56  | MG   | AA    | 3152 | 1/1   | 0.94 | 0.13 | 45,45,45,45                 | 0     |
| 56  | MG   | AA    | 3029 | 1/1   | 0.94 | 0.28 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3458 | 1/1   | 0.94 | 0.11 | 42,42,42,42                 | 0     |
| 56  | MG   | AA    | 3206 | 1/1   | 0.94 | 0.17 | 47,47,47,47                 | 0     |
| 56  | MG   | CA    | 3063 | 1/1   | 0.94 | 0.14 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3350 | 1/1   | 0.94 | 0.24 | 27,27,27,27                 | 0     |
| 56  | MG   | DA    | 3467 | 1/1   | 0.94 | 0.31 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3096 | 1/1   | 0.94 | 0.27 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3141 | 1/1   | 0.94 | 0.21 | 56,56,56,56                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3256 | 1/1   | 0.94 | 0.32 | 49,49,49,49                 | 0     |
| 56  | MG   | CA    | 3068 | 1/1   | 0.94 | 0.40 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3478 | 1/1   | 0.94 | 0.18 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3257 | 1/1   | 0.94 | 0.21 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3654 | 1/1   | 0.94 | 0.15 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3484 | 1/1   | 0.94 | 0.05 | 45,45,45,45                 | 0     |
| 56  | MG   | CA    | 3071 | 1/1   | 0.94 | 0.09 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3814 | 1/1   | 0.94 | 0.28 | 26,26,26,26                 | 0     |
| 56  | MG   | AA    | 3118 | 1/1   | 0.94 | 0.20 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3152 | 1/1   | 0.94 | 0.25 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3658 | 1/1   | 0.94 | 0.23 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3156 | 1/1   | 0.94 | 0.12 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3119 | 1/1   | 0.94 | 0.10 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3159 | 1/1   | 0.94 | 0.30 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3160 | 1/1   | 0.94 | 0.20 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3162 | 1/1   | 0.94 | 0.34 | 43,43,43,43                 | 0     |
| 56  | MG   | CA    | 3080 | 1/1   | 0.94 | 0.28 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3661 | 1/1   | 0.94 | 0.09 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3662 | 1/1   | 0.94 | 0.32 | 50,50,50,50                 | 0     |
| 56  | MG   | AA    | 3211 | 1/1   | 0.94 | 0.09 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3829 | 1/1   | 0.94 | 0.34 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3665 | 1/1   | 0.94 | 0.29 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3359 | 1/1   | 0.94 | 0.14 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3511 | 1/1   | 0.94 | 0.11 | 45,45,45,45                 | 0     |
| 56  | MG   | AA    | 3097 | 1/1   | 0.94 | 0.13 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3501 | 1/1   | 0.94 | 0.18 | 20,20,20,20                 | 0     |
| 56  | MG   | BA    | 3502 | 1/1   | 0.94 | 0.31 | 45,45,45,45                 | 0     |
| 56  | MG   | CA    | 3094 | 1/1   | 0.94 | 0.18 | 72,72,72,72                 | 0     |
| 56  | MG   | CA    | 3095 | 1/1   | 0.94 | 0.10 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3361 | 1/1   | 0.94 | 0.16 | 35,35,35,35                 | 0     |
| 56  | MG   | BA    | 3175 | 1/1   | 0.94 | 0.21 | 35,35,35,35                 | 0     |
| 56  | MG   | BA    | 3505 | 1/1   | 0.94 | 0.12 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3527 | 1/1   | 0.94 | 0.17 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3506 | 1/1   | 0.94 | 0.26 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3676 | 1/1   | 0.94 | 0.28 | 53,53,53,53                 | 0     |
| 56  | MG   | CA    | 3105 | 1/1   | 0.94 | 0.14 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3535 | 1/1   | 0.94 | 0.35 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3267 | 1/1   | 0.94 | 0.14 | 37,37,37,37                 | 0     |
| 56  | MG   | AA    | 3064 | 1/1   | 0.94 | 0.13 | 61,61,61,61                 | 0     |
| 56  | MG   | CA    | 3113 | 1/1   | 0.94 | 0.11 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3680 | 1/1   | 0.94 | 0.15 | 52,52,52,52                 | 0     |
| 56  | MG   | BB    | 3010 | 1/1   | 0.94 | 0.11 | 48,48,48,48                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors(Å <sup>2</sup> ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56  | MG   | BA    | 3008 | 1/1   | 0.94 | 0.22 | 27,27,27,27                | 0     |
| 56  | MG   | CA    | 3118 | 1/1   | 0.94 | 0.18 | 47,47,47,47                | 0     |
| 56  | MG   | BA    | 3011 | 1/1   | 0.94 | 0.20 | 40,40,40,40                | 0     |
| 56  | MG   | DA    | 3206 | 1/1   | 0.94 | 0.10 | 39,39,39,39                | 0     |
| 56  | MG   | BB    | 3013 | 1/1   | 0.94 | 0.14 | 42,42,42,42                | 0     |
| 56  | MG   | BA    | 3098 | 1/1   | 0.94 | 0.35 | 26,26,26,26                | 0     |
| 56  | MG   | BA    | 3183 | 1/1   | 0.94 | 0.22 | 40,40,40,40                | 0     |
| 56  | MG   | BA    | 3688 | 1/1   | 0.94 | 0.20 | 45,45,45,45                | 0     |
| 56  | MG   | AA    | 3162 | 1/1   | 0.94 | 0.28 | 59,59,59,59                | 0     |
| 56  | MG   | BA    | 3276 | 1/1   | 0.94 | 0.29 | 41,41,41,41                | 0     |
| 56  | MG   | BA    | 3691 | 1/1   | 0.94 | 0.25 | 38,38,38,38                | 0     |
| 56  | MG   | DA    | 3216 | 1/1   | 0.94 | 0.29 | 46,46,46,46                | 0     |
| 56  | MG   | BA    | 3190 | 1/1   | 0.94 | 0.16 | 45,45,45,45                | 0     |
| 56  | MG   | CA    | 3129 | 1/1   | 0.94 | 0.19 | 61,61,61,61                | 0     |
| 56  | MG   | BD    | 308  | 1/1   | 0.94 | 0.28 | 39,39,39,39                | 0     |
| 56  | MG   | DA    | 3564 | 1/1   | 0.94 | 0.31 | 53,53,53,53                | 0     |
| 56  | MG   | BA    | 3378 | 1/1   | 0.94 | 0.10 | 34,34,34,34                | 0     |
| 56  | MG   | BE    | 304  | 1/1   | 0.94 | 0.26 | 40,40,40,40                | 0     |
| 56  | MG   | BA    | 3379 | 1/1   | 0.94 | 0.18 | 45,45,45,45                | 0     |
| 56  | MG   | BA    | 3381 | 1/1   | 0.94 | 0.14 | 43,43,43,43                | 0     |
| 56  | MG   | BA    | 3382 | 1/1   | 0.94 | 0.21 | 55,55,55,55                | 0     |
| 56  | MG   | BA    | 3528 | 1/1   | 0.94 | 0.11 | 43,43,43,43                | 0     |
| 56  | MG   | BF    | 306  | 1/1   | 0.94 | 0.31 | 40,40,40,40                | 0     |
| 56  | MG   | AA    | 3126 | 1/1   | 0.94 | 0.17 | 46,46,46,46                | 0     |
| 56  | MG   | BF    | 310  | 1/1   | 0.94 | 0.25 | 38,38,38,38                | 0     |
| 56  | MG   | AA    | 3099 | 1/1   | 0.94 | 0.25 | 63,63,63,63                | 0     |
| 56  | MG   | BA    | 3531 | 1/1   | 0.94 | 0.39 | 61,61,61,61                | 0     |
| 56  | MG   | BA    | 3533 | 1/1   | 0.94 | 0.23 | 50,50,50,50                | 0     |
| 56  | MG   | DA    | 3242 | 1/1   | 0.94 | 0.07 | 43,43,43,43                | 0     |
| 56  | MG   | DA    | 3243 | 1/1   | 0.94 | 0.17 | 54,54,54,54                | 0     |
| 56  | MG   | AA    | 3128 | 1/1   | 0.94 | 0.17 | 41,41,41,41                | 0     |
| 56  | MG   | BA    | 3281 | 1/1   | 0.94 | 0.17 | 49,49,49,49                | 0     |
| 56  | MG   | BA    | 3543 | 1/1   | 0.94 | 0.25 | 26,26,26,26                | 0     |
| 56  | MG   | DA    | 3592 | 1/1   | 0.94 | 0.17 | 52,52,52,52                | 0     |
| 56  | MG   | BA    | 3105 | 1/1   | 0.94 | 0.45 | 69,69,69,69                | 0     |
| 56  | MG   | BA    | 3545 | 1/1   | 0.94 | 0.25 | 41,41,41,41                | 0     |
| 56  | MG   | BA    | 3399 | 1/1   | 0.94 | 0.16 | 25,25,25,25                | 0     |
| 56  | MG   | DA    | 3598 | 1/1   | 0.94 | 0.11 | 63,63,63,63                | 0     |
| 56  | MG   | BA    | 3550 | 1/1   | 0.94 | 0.20 | 34,34,34,34                | 0     |
| 56  | MG   | DA    | 3258 | 1/1   | 0.94 | 0.18 | 59,59,59,59                | 0     |
| 56  | MG   | DA    | 3603 | 1/1   | 0.94 | 0.14 | 52,52,52,52                | 0     |
| 56  | MG   | CA    | 3168 | 1/1   | 0.94 | 0.19 | 72,72,72,72                | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors(Å <sup>2</sup> ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56  | MG   | DA    | 3260 | 1/1   | 0.94 | 0.13 | 41,41,41,41                | 0     |
| 56  | MG   | BR    | 201  | 1/1   | 0.94 | 0.17 | 44,44,44,44                | 0     |
| 56  | MG   | AA    | 3129 | 1/1   | 0.94 | 0.08 | 73,73,73,73                | 0     |
| 56  | MG   | DA    | 3270 | 1/1   | 0.94 | 0.22 | 49,49,49,49                | 0     |
| 56  | MG   | CA    | 3171 | 1/1   | 0.94 | 0.19 | 63,63,63,63                | 0     |
| 56  | MG   | BA    | 3286 | 1/1   | 0.94 | 0.32 | 46,46,46,46                | 0     |
| 56  | MG   | BU    | 201  | 1/1   | 0.94 | 0.14 | 39,39,39,39                | 0     |
| 56  | MG   | DA    | 3274 | 1/1   | 0.94 | 0.22 | 33,33,33,33                | 0     |
| 56  | MG   | DA    | 3278 | 1/1   | 0.94 | 0.21 | 53,53,53,53                | 0     |
| 56  | MG   | DA    | 3282 | 1/1   | 0.94 | 0.10 | 42,42,42,42                | 0     |
| 56  | MG   | DA    | 3283 | 1/1   | 0.94 | 0.25 | 46,46,46,46                | 0     |
| 56  | MG   | BU    | 208  | 1/1   | 0.94 | 0.13 | 41,41,41,41                | 0     |
| 56  | MG   | BV    | 203  | 1/1   | 0.94 | 0.24 | 32,32,32,32                | 0     |
| 56  | MG   | BA    | 3110 | 1/1   | 0.94 | 0.26 | 41,41,41,41                | 0     |
| 56  | MG   | BA    | 3559 | 1/1   | 0.94 | 0.20 | 30,30,30,30                | 0     |
| 56  | MG   | DA    | 3626 | 1/1   | 0.94 | 0.06 | 54,54,54,54                | 0     |
| 56  | MG   | CF    | 3001 | 1/1   | 0.94 | 0.26 | 38,38,38,38                | 0     |
| 56  | MG   | DA    | 3296 | 1/1   | 0.94 | 0.18 | 48,48,48,48                | 0     |
| 56  | MG   | DA    | 3631 | 1/1   | 0.94 | 0.13 | 56,56,56,56                | 0     |
| 56  | MG   | BA    | 3200 | 1/1   | 0.94 | 0.28 | 56,56,56,56                | 0     |
| 56  | MG   | DA    | 3633 | 1/1   | 0.94 | 0.14 | 61,61,61,61                | 0     |
| 56  | MG   | CT    | 3001 | 1/1   | 0.94 | 0.07 | 47,47,47,47                | 0     |
| 56  | MG   | AA    | 3052 | 1/1   | 0.94 | 0.32 | 68,68,68,68                | 0     |
| 56  | MG   | BX    | 102  | 1/1   | 0.94 | 0.31 | 41,41,41,41                | 0     |
| 56  | MG   | DA    | 3640 | 1/1   | 0.94 | 0.14 | 52,52,52,52                | 0     |
| 56  | MG   | DA    | 3641 | 1/1   | 0.94 | 0.09 | 44,44,44,44                | 0     |
| 56  | MG   | BY    | 502  | 1/1   | 0.94 | 0.13 | 50,50,50,50                | 0     |
| 56  | MG   | CX    | 3005 | 1/1   | 0.94 | 0.45 | 58,58,58,58                | 0     |
| 56  | MG   | BA    | 3021 | 1/1   | 0.94 | 0.17 | 60,60,60,60                | 0     |
| 56  | MG   | DA    | 3647 | 1/1   | 0.94 | 0.22 | 47,47,47,47                | 0     |
| 56  | MG   | B0    | 101  | 1/1   | 0.94 | 0.20 | 39,39,39,39                | 0     |
| 56  | MG   | DA    | 3311 | 1/1   | 0.94 | 0.18 | 42,42,42,42                | 0     |
| 56  | MG   | AA    | 3173 | 1/1   | 0.94 | 0.11 | 47,47,47,47                | 0     |
| 56  | MG   | DA    | 3652 | 1/1   | 0.94 | 0.12 | 49,49,49,49                | 0     |
| 56  | MG   | DA    | 3005 | 1/1   | 0.94 | 0.20 | 58,58,58,58                | 0     |
| 56  | MG   | DA    | 3014 | 1/1   | 0.94 | 0.14 | 50,50,50,50                | 0     |
| 56  | MG   | DA    | 3659 | 1/1   | 0.94 | 0.48 | 67,67,67,67                | 0     |
| 56  | MG   | AA    | 3053 | 1/1   | 0.94 | 0.37 | 49,49,49,49                | 0     |
| 56  | MG   | AA    | 3084 | 1/1   | 0.94 | 0.17 | 49,49,49,49                | 0     |
| 56  | MG   | DA    | 3664 | 1/1   | 0.94 | 0.08 | 38,38,38,38                | 0     |
| 56  | MG   | BA    | 3570 | 1/1   | 0.94 | 0.35 | 30,30,30,30                | 0     |
| 56  | MG   | BA    | 3416 | 1/1   | 0.94 | 0.17 | 21,21,21,21                | 0     |

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| <b>Mol</b> | <b>Type</b> | <b>Chain</b> | <b>Res</b> | <b>Atoms</b> | <b>RSCC</b> | <b>RSR</b> | <b>B-factors(Å<sup>2</sup>)</b> | <b>Q&lt;0.9</b> |
|------------|-------------|--------------|------------|--------------|-------------|------------|---------------------------------|-----------------|
| 56         | MG          | DA           | 3669       | 1/1          | 0.94        | 0.22       | 49,49,49,49                     | 0               |
| 56         | MG          | BA           | 3213       | 1/1          | 0.94        | 0.09       | 45,45,45,45                     | 0               |
| 56         | MG          | BA           | 3575       | 1/1          | 0.94        | 0.09       | 64,64,64,64                     | 0               |
| 56         | MG          | DA           | 3331       | 1/1          | 0.94        | 0.25       | 39,39,39,39                     | 0               |
| 56         | MG          | BA           | 3420       | 1/1          | 0.94        | 0.19       | 22,22,22,22                     | 0               |
| 56         | MG          | B5           | 105        | 1/1          | 0.94        | 0.10       | 49,49,49,49                     | 0               |
| 56         | MG          | DA           | 3031       | 1/1          | 0.94        | 0.41       | 51,51,51,51                     | 0               |
| 56         | MG          | DA           | 3342       | 1/1          | 0.94        | 0.10       | 56,56,56,56                     | 0               |
| 56         | MG          | BA           | 3296       | 1/1          | 0.94        | 0.19       | 31,31,31,31                     | 0               |
| 56         | MG          | DA           | 3348       | 1/1          | 0.94        | 0.27       | 38,38,38,38                     | 0               |
| 56         | MG          | BA           | 3214       | 1/1          | 0.94        | 0.20       | 49,49,49,49                     | 0               |
| 56         | MG          | BA           | 3300       | 1/1          | 0.94        | 0.18       | 22,22,22,22                     | 0               |
| 56         | MG          | DA           | 3035       | 1/1          | 0.94        | 0.24       | 38,38,38,38                     | 0               |
| 56         | MG          | BA           | 3425       | 1/1          | 0.94        | 0.27       | 29,29,29,29                     | 0               |
| 56         | MG          | AA           | 3176       | 1/1          | 0.94        | 0.09       | 54,54,54,54                     | 0               |
| 56         | MG          | DD           | 305        | 1/1          | 0.94        | 0.24       | 38,38,38,38                     | 0               |
| 56         | MG          | CA           | 3001       | 1/1          | 0.94        | 0.25       | 73,73,73,73                     | 0               |
| 56         | MG          | AA           | 3043       | 1/1          | 0.94        | 0.27       | 26,26,26,26                     | 0               |
| 56         | MG          | DE           | 303        | 1/1          | 0.94        | 0.26       | 44,44,44,44                     | 0               |
| 56         | MG          | AA           | 3027       | 1/1          | 0.94        | 0.24       | 54,54,54,54                     | 0               |
| 56         | MG          | BA           | 3745       | 1/1          | 0.94        | 0.17       | 30,30,30,30                     | 0               |
| 56         | MG          | DA           | 3048       | 1/1          | 0.94        | 0.15       | 45,45,45,45                     | 0               |
| 56         | MG          | BA           | 3306       | 1/1          | 0.94        | 0.18       | 31,31,31,31                     | 0               |
| 56         | MG          | BA           | 3034       | 1/1          | 0.94        | 0.21       | 28,28,28,28                     | 0               |
| 56         | MG          | DA           | 3054       | 1/1          | 0.94        | 0.15       | 43,43,43,43                     | 0               |
| 56         | MG          | BA           | 3223       | 1/1          | 0.94        | 0.16       | 29,29,29,29                     | 0               |
| 56         | MG          | DW           | 3001       | 1/1          | 0.94        | 0.23       | 43,43,43,43                     | 0               |
| 56         | MG          | DA           | 3377       | 1/1          | 0.94        | 0.07       | 42,42,42,42                     | 0               |
| 56         | MG          | D0           | 101        | 1/1          | 0.94        | 0.08       | 56,56,56,56                     | 0               |
| 56         | MG          | DA           | 3059       | 1/1          | 0.94        | 0.45       | 53,53,53,53                     | 0               |
| 56         | MG          | D7           | 101        | 1/1          | 0.94        | 0.19       | 39,39,39,39                     | 0               |
| 56         | MG          | BA           | 3750       | 1/1          | 0.94        | 0.21       | 49,49,49,49                     | 0               |
| 56         | MG          | DA           | 3381       | 1/1          | 0.94        | 0.11       | 60,60,60,60                     | 0               |
| 56         | MG          | AA           | 3184       | 1/1          | 0.94        | 0.12       | 55,55,55,55                     | 0               |
| 56         | MG          | DA           | 3065       | 1/1          | 0.94        | 0.08       | 56,56,56,56                     | 0               |
| 56         | MG          | CA           | 3012       | 1/1          | 0.94        | 0.20       | 68,68,68,68                     | 0               |
| 56         | MG          | AA           | 3036       | 1/1          | 0.94        | 0.12       | 52,52,52,52                     | 0               |
| 56         | MG          | CA           | 3014       | 1/1          | 0.94        | 0.14       | 47,47,47,47                     | 0               |
| 56         | MG          | AA           | 3187       | 1/1          | 0.94        | 0.12       | 62,62,62,62                     | 0               |
| 56         | MG          | DA           | 3426       | 1/1          | 0.95        | 0.17       | 41,41,41,41                     | 0               |
| 56         | MG          | DA           | 3154       | 1/1          | 0.95        | 0.32       | 52,52,52,52                     | 0               |
| 56         | MG          | BA           | 3318       | 1/1          | 0.95        | 0.27       | 37,37,37,37                     | 0               |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | CA    | 3136 | 1/1   | 0.95 | 0.18 | 65,65,65,65                 | 0     |
| 56  | MG   | BA    | 3631 | 1/1   | 0.95 | 0.14 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3034 | 1/1   | 0.95 | 0.26 | 48,48,48,48                 | 0     |
| 56  | MG   | CA    | 3140 | 1/1   | 0.95 | 0.16 | 79,79,79,79                 | 0     |
| 56  | MG   | AA    | 3219 | 1/1   | 0.95 | 0.21 | 65,65,65,65                 | 0     |
| 56  | MG   | DA    | 3163 | 1/1   | 0.95 | 0.27 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3635 | 1/1   | 0.95 | 0.28 | 62,62,62,62                 | 0     |
| 56  | MG   | CA    | 3145 | 1/1   | 0.95 | 0.13 | 63,63,63,63                 | 0     |
| 56  | MG   | DA    | 3169 | 1/1   | 0.95 | 0.13 | 49,49,49,49                 | 0     |
| 56  | MG   | AA    | 3220 | 1/1   | 0.95 | 0.07 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3324 | 1/1   | 0.95 | 0.17 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3174 | 1/1   | 0.95 | 0.17 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3262 | 1/1   | 0.95 | 0.31 | 47,47,47,47                 | 0     |
| 56  | MG   | CA    | 3149 | 1/1   | 0.95 | 0.27 | 65,65,65,65                 | 0     |
| 56  | MG   | CA    | 3150 | 1/1   | 0.95 | 0.16 | 62,62,62,62                 | 0     |
| 56  | MG   | BA    | 3517 | 1/1   | 0.95 | 0.12 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3263 | 1/1   | 0.95 | 0.18 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3642 | 1/1   | 0.95 | 0.09 | 37,37,37,37                 | 0     |
| 56  | MG   | AA    | 3191 | 1/1   | 0.95 | 0.24 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3462 | 1/1   | 0.95 | 0.28 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3464 | 1/1   | 0.95 | 0.11 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3647 | 1/1   | 0.95 | 0.16 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3185 | 1/1   | 0.95 | 0.24 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3202 | 1/1   | 0.95 | 0.13 | 46,46,46,46                 | 0     |
| 56  | MG   | CA    | 3160 | 1/1   | 0.95 | 0.16 | 65,65,65,65                 | 0     |
| 56  | MG   | DA    | 3188 | 1/1   | 0.95 | 0.38 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3475 | 1/1   | 0.95 | 0.13 | 42,42,42,42                 | 0     |
| 56  | MG   | AA    | 3014 | 1/1   | 0.95 | 0.12 | 69,69,69,69                 | 0     |
| 56  | MG   | BA    | 3268 | 1/1   | 0.95 | 0.28 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3652 | 1/1   | 0.95 | 0.13 | 46,46,46,46                 | 0     |
| 56  | MG   | CA    | 3165 | 1/1   | 0.95 | 0.08 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3339 | 1/1   | 0.95 | 0.15 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3037 | 1/1   | 0.95 | 0.16 | 37,37,37,37                 | 0     |
| 56  | MG   | AA    | 3019 | 1/1   | 0.95 | 0.15 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3488 | 1/1   | 0.95 | 0.13 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3489 | 1/1   | 0.95 | 0.16 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3783 | 1/1   | 0.95 | 0.19 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3343 | 1/1   | 0.95 | 0.18 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3202 | 1/1   | 0.95 | 0.33 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3496 | 1/1   | 0.95 | 0.06 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3206 | 1/1   | 0.95 | 0.21 | 29,29,29,29                 | 0     |
| 56  | MG   | AA    | 3010 | 1/1   | 0.95 | 0.14 | 59,59,59,59                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3532 | 1/1   | 0.95 | 0.27 | 49,49,49,49                 | 0     |
| 56  | MG   | AA    | 3069 | 1/1   | 0.95 | 0.21 | 67,67,67,67                 | 0     |
| 56  | MG   | BA    | 3536 | 1/1   | 0.95 | 0.18 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3792 | 1/1   | 0.95 | 0.16 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3794 | 1/1   | 0.95 | 0.20 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3796 | 1/1   | 0.95 | 0.13 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3051 | 1/1   | 0.95 | 0.23 | 25,25,25,25                 | 0     |
| 56  | MG   | CV    | 3001 | 1/1   | 0.95 | 0.19 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3539 | 1/1   | 0.95 | 0.21 | 23,23,23,23                 | 0     |
| 56  | MG   | CW    | 3002 | 1/1   | 0.95 | 0.16 | 74,74,74,74                 | 0     |
| 56  | MG   | BA    | 3799 | 1/1   | 0.95 | 0.22 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3800 | 1/1   | 0.95 | 0.15 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3432 | 1/1   | 0.95 | 0.10 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3216 | 1/1   | 0.95 | 0.21 | 34,34,34,34                 | 0     |
| 56  | MG   | BA    | 3671 | 1/1   | 0.95 | 0.14 | 45,45,45,45                 | 0     |
| 56  | MG   | AA    | 3149 | 1/1   | 0.95 | 0.21 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3226 | 1/1   | 0.95 | 0.15 | 54,54,54,54                 | 0     |
| 56  | MG   | CA    | 3022 | 1/1   | 0.95 | 0.10 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3525 | 1/1   | 0.95 | 0.17 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3007 | 1/1   | 0.95 | 0.39 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3232 | 1/1   | 0.95 | 0.28 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3529 | 1/1   | 0.95 | 0.10 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3008 | 1/1   | 0.95 | 0.21 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3013 | 1/1   | 0.95 | 0.17 | 40,40,40,40                 | 0     |
| 56  | MG   | AA    | 3132 | 1/1   | 0.95 | 0.13 | 22,22,22,22                 | 0     |
| 56  | MG   | AK    | 201  | 1/1   | 0.95 | 0.14 | 61,61,61,61                 | 0     |
| 56  | MG   | AK    | 202  | 1/1   | 0.95 | 0.26 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3021 | 1/1   | 0.95 | 0.30 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3240 | 1/1   | 0.95 | 0.17 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3023 | 1/1   | 0.95 | 0.14 | 30,30,30,30                 | 0     |
| 56  | MG   | BA    | 3222 | 1/1   | 0.95 | 0.36 | 27,27,27,27                 | 0     |
| 56  | MG   | BA    | 3109 | 1/1   | 0.95 | 0.28 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3244 | 1/1   | 0.95 | 0.13 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3245 | 1/1   | 0.95 | 0.10 | 62,62,62,62                 | 0     |
| 56  | MG   | AA    | 3009 | 1/1   | 0.95 | 0.26 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3558 | 1/1   | 0.95 | 0.19 | 29,29,29,29                 | 0     |
| 56  | MG   | AA    | 3046 | 1/1   | 0.95 | 0.16 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3163 | 1/1   | 0.95 | 0.22 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3563 | 1/1   | 0.95 | 0.08 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3827 | 1/1   | 0.95 | 0.20 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3553 | 1/1   | 0.95 | 0.14 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3555 | 1/1   | 0.95 | 0.08 | 54,54,54,54                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors(Å <sup>2</sup> ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56  | MG   | BA    | 3687 | 1/1   | 0.95 | 0.23 | 36,36,36,36                | 0     |
| 56  | MG   | AA    | 3178 | 1/1   | 0.95 | 0.12 | 54,54,54,54                | 0     |
| 56  | MG   | BA    | 3362 | 1/1   | 0.95 | 0.25 | 19,19,19,19                | 0     |
| 56  | MG   | BA    | 3169 | 1/1   | 0.95 | 0.25 | 47,47,47,47                | 0     |
| 56  | MG   | BA    | 3833 | 1/1   | 0.95 | 0.20 | 43,43,43,43                | 0     |
| 56  | MG   | DA    | 3264 | 1/1   | 0.95 | 0.13 | 31,31,31,31                | 0     |
| 56  | MG   | DA    | 3265 | 1/1   | 0.95 | 0.31 | 52,52,52,52                | 0     |
| 56  | MG   | DA    | 3267 | 1/1   | 0.95 | 0.26 | 38,38,38,38                | 0     |
| 56  | MG   | DA    | 3268 | 1/1   | 0.95 | 0.04 | 60,60,60,60                | 0     |
| 56  | MG   | DA    | 3040 | 1/1   | 0.95 | 0.11 | 53,53,53,53                | 0     |
| 56  | MG   | BA    | 3834 | 1/1   | 0.95 | 0.13 | 35,35,35,35                | 0     |
| 56  | MG   | DA    | 3042 | 1/1   | 0.95 | 0.15 | 41,41,41,41                | 0     |
| 56  | MG   | BA    | 3230 | 1/1   | 0.95 | 0.14 | 62,62,62,62                | 0     |
| 56  | MG   | AA    | 3207 | 1/1   | 0.95 | 0.14 | 68,68,68,68                | 0     |
| 56  | MG   | DA    | 3575 | 1/1   | 0.95 | 0.10 | 47,47,47,47                | 0     |
| 56  | MG   | AA    | 3180 | 1/1   | 0.95 | 0.14 | 57,57,57,57                | 0     |
| 56  | MG   | AA    | 3012 | 1/1   | 0.95 | 0.23 | 33,33,33,33                | 0     |
| 56  | MG   | DA    | 3279 | 1/1   | 0.95 | 0.07 | 48,48,48,48                | 0     |
| 56  | MG   | BA    | 3696 | 1/1   | 0.95 | 0.16 | 33,33,33,33                | 0     |
| 56  | MG   | DA    | 3052 | 1/1   | 0.95 | 0.12 | 38,38,38,38                | 0     |
| 56  | MG   | DA    | 3584 | 1/1   | 0.95 | 0.40 | 58,58,58,58                | 0     |
| 56  | MG   | DA    | 3285 | 1/1   | 0.95 | 0.20 | 28,28,28,28                | 0     |
| 56  | MG   | BA    | 3173 | 1/1   | 0.95 | 0.30 | 36,36,36,36                | 0     |
| 56  | MG   | BA    | 3066 | 1/1   | 0.95 | 0.39 | 51,51,51,51                | 0     |
| 56  | MG   | BA    | 3177 | 1/1   | 0.95 | 0.30 | 44,44,44,44                | 0     |
| 56  | MG   | DA    | 3058 | 1/1   | 0.95 | 0.21 | 46,46,46,46                | 0     |
| 56  | MG   | BA    | 3577 | 1/1   | 0.95 | 0.19 | 60,60,60,60                | 0     |
| 56  | MG   | DA    | 3593 | 1/1   | 0.95 | 0.24 | 39,39,39,39                | 0     |
| 56  | MG   | CA    | 3056 | 1/1   | 0.95 | 0.23 | 60,60,60,60                | 0     |
| 56  | MG   | BA    | 3067 | 1/1   | 0.95 | 0.23 | 49,49,49,49                | 0     |
| 56  | MG   | DA    | 3063 | 1/1   | 0.95 | 0.14 | 46,46,46,46                | 0     |
| 56  | MG   | DA    | 3302 | 1/1   | 0.95 | 0.12 | 33,33,33,33                | 0     |
| 56  | MG   | BA    | 3463 | 1/1   | 0.95 | 0.20 | 37,37,37,37                | 0     |
| 56  | MG   | DA    | 3601 | 1/1   | 0.95 | 0.19 | 54,54,54,54                | 0     |
| 56  | MG   | BA    | 3580 | 1/1   | 0.95 | 0.22 | 42,42,42,42                | 0     |
| 56  | MG   | DA    | 3067 | 1/1   | 0.95 | 0.25 | 49,49,49,49                | 0     |
| 56  | MG   | AA    | 3074 | 1/1   | 0.95 | 0.17 | 47,47,47,47                | 0     |
| 56  | MG   | BA    | 3243 | 1/1   | 0.95 | 0.18 | 44,44,44,44                | 0     |
| 56  | MG   | BA    | 3077 | 1/1   | 0.95 | 0.20 | 34,34,34,34                | 0     |
| 56  | MG   | BA    | 3584 | 1/1   | 0.95 | 0.24 | 27,27,27,27                | 0     |
| 56  | MG   | BA    | 3709 | 1/1   | 0.95 | 0.29 | 44,44,44,44                | 0     |
| 56  | MG   | DA    | 3074 | 1/1   | 0.95 | 0.22 | 50,50,50,50                | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3380 | 1/1   | 0.95 | 0.12 | 60,60,60,60                 | 0     |
| 56  | MG   | DA    | 3076 | 1/1   | 0.95 | 0.22 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3077 | 1/1   | 0.95 | 0.18 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3471 | 1/1   | 0.95 | 0.06 | 45,45,45,45                 | 0     |
| 56  | MG   | BB    | 3021 | 1/1   | 0.95 | 0.13 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3587 | 1/1   | 0.95 | 0.20 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3617 | 1/1   | 0.95 | 0.36 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3326 | 1/1   | 0.95 | 0.18 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3327 | 1/1   | 0.95 | 0.19 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3082 | 1/1   | 0.95 | 0.22 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3330 | 1/1   | 0.95 | 0.17 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3625 | 1/1   | 0.95 | 0.20 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3083 | 1/1   | 0.95 | 0.18 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3084 | 1/1   | 0.95 | 0.27 | 27,27,27,27                 | 0     |
| 56  | MG   | BA    | 3715 | 1/1   | 0.95 | 0.24 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3337 | 1/1   | 0.95 | 0.09 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3126 | 1/1   | 0.95 | 0.26 | 43,43,43,43                 | 0     |
| 56  | MG   | CA    | 3075 | 1/1   | 0.95 | 0.10 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3634 | 1/1   | 0.95 | 0.14 | 53,53,53,53                 | 0     |
| 56  | MG   | AA    | 3108 | 1/1   | 0.95 | 0.20 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3347 | 1/1   | 0.95 | 0.16 | 44,44,44,44                 | 0     |
| 56  | MG   | BD    | 310  | 1/1   | 0.95 | 0.15 | 31,31,31,31                 | 0     |
| 56  | MG   | DA    | 3639 | 1/1   | 0.95 | 0.14 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3385 | 1/1   | 0.95 | 0.15 | 39,39,39,39                 | 0     |
| 56  | MG   | DA    | 3353 | 1/1   | 0.95 | 0.14 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3309 | 1/1   | 0.95 | 0.07 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3388 | 1/1   | 0.95 | 0.13 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3357 | 1/1   | 0.95 | 0.14 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3480 | 1/1   | 0.95 | 0.15 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3722 | 1/1   | 0.95 | 0.13 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3360 | 1/1   | 0.95 | 0.16 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3362 | 1/1   | 0.95 | 0.22 | 43,43,43,43                 | 0     |
| 56  | MG   | BF    | 301  | 1/1   | 0.95 | 0.26 | 38,38,38,38                 | 0     |
| 56  | MG   | BF    | 304  | 1/1   | 0.95 | 0.15 | 32,32,32,32                 | 0     |
| 56  | MG   | DA    | 3099 | 1/1   | 0.95 | 0.09 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3390 | 1/1   | 0.95 | 0.21 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3598 | 1/1   | 0.95 | 0.15 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3600 | 1/1   | 0.95 | 0.10 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3372 | 1/1   | 0.95 | 0.15 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3124 | 1/1   | 0.95 | 0.20 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3483 | 1/1   | 0.95 | 0.28 | 38,38,38,38                 | 0     |
| 56  | MG   | BG    | 202  | 1/1   | 0.95 | 0.07 | 46,46,46,46                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3187 | 1/1   | 0.95 | 0.16 | 36,36,36,36                 | 0     |
| 56  | MG   | CA    | 3100 | 1/1   | 0.95 | 0.23 | 62,62,62,62                 | 0     |
| 56  | MG   | DA    | 3379 | 1/1   | 0.95 | 0.20 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3485 | 1/1   | 0.95 | 0.23 | 46,46,46,46                 | 0     |
| 56  | MG   | CA    | 3103 | 1/1   | 0.95 | 0.10 | 75,75,75,75                 | 0     |
| 56  | MG   | BA    | 3486 | 1/1   | 0.95 | 0.23 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3488 | 1/1   | 0.95 | 0.10 | 50,50,50,50                 | 0     |
| 56  | MG   | CA    | 3107 | 1/1   | 0.95 | 0.10 | 66,66,66,66                 | 0     |
| 56  | MG   | BA    | 3608 | 1/1   | 0.95 | 0.21 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3611 | 1/1   | 0.95 | 0.13 | 42,42,42,42                 | 0     |
| 56  | MG   | DB    | 3007 | 1/1   | 0.95 | 0.09 | 59,59,59,59                 | 0     |
| 56  | MG   | DB    | 3008 | 1/1   | 0.95 | 0.14 | 68,68,68,68                 | 0     |
| 56  | MG   | DA    | 3123 | 1/1   | 0.95 | 0.12 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3125 | 1/1   | 0.95 | 0.26 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3126 | 1/1   | 0.95 | 0.15 | 44,44,44,44                 | 0     |
| 56  | MG   | CA    | 3112 | 1/1   | 0.95 | 0.15 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3130 | 1/1   | 0.95 | 0.25 | 47,47,47,47                 | 0     |
| 56  | MG   | BP    | 203  | 1/1   | 0.95 | 0.12 | 32,32,32,32                 | 0     |
| 56  | MG   | DE    | 301  | 1/1   | 0.95 | 0.29 | 45,45,45,45                 | 0     |
| 56  | MG   | AA    | 3141 | 1/1   | 0.95 | 0.10 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3400 | 1/1   | 0.95 | 0.34 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3191 | 1/1   | 0.95 | 0.26 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3134 | 1/1   | 0.95 | 0.13 | 49,49,49,49                 | 0     |
| 56  | MG   | BQ    | 3004 | 1/1   | 0.95 | 0.24 | 35,35,35,35                 | 0     |
| 56  | MG   | DF    | 303  | 1/1   | 0.95 | 0.07 | 46,46,46,46                 | 0     |
| 56  | MG   | DN    | 5001 | 1/1   | 0.95 | 0.07 | 62,62,62,62                 | 0     |
| 56  | MG   | AA    | 3075 | 1/1   | 0.95 | 0.22 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3494 | 1/1   | 0.95 | 0.13 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3499 | 1/1   | 0.95 | 0.24 | 33,33,33,33                 | 0     |
| 56  | MG   | DV    | 3001 | 1/1   | 0.95 | 0.35 | 71,71,71,71                 | 0     |
| 56  | MG   | BA    | 3401 | 1/1   | 0.95 | 0.14 | 48,48,48,48                 | 0     |
| 56  | MG   | AA    | 3163 | 1/1   | 0.95 | 0.15 | 37,37,37,37                 | 0     |
| 56  | MG   | BU    | 205  | 1/1   | 0.95 | 0.22 | 38,38,38,38                 | 0     |
| 56  | MG   | BU    | 206  | 1/1   | 0.95 | 0.34 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3413 | 1/1   | 0.95 | 0.20 | 36,36,36,36                 | 0     |
| 56  | MG   | DA    | 3414 | 1/1   | 0.95 | 0.16 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3403 | 1/1   | 0.95 | 0.28 | 31,31,31,31                 | 0     |
| 56  | MG   | DA    | 3417 | 1/1   | 0.95 | 0.22 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3404 | 1/1   | 0.95 | 0.18 | 36,36,36,36                 | 0     |
| 59  | ZN   | B4    | 501  | 1/1   | 0.95 | 0.12 | 73,73,73,73                 | 0     |
| 56  | MG   | BV    | 204  | 1/1   | 0.95 | 0.21 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3148 | 1/1   | 0.95 | 0.23 | 29,29,29,29                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3406 | 1/1   | 0.95 | 0.19 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3134 | 1/1   | 0.95 | 0.15 | 35,35,35,35                 | 0     |
| 56  | MG   | BA    | 3135 | 1/1   | 0.95 | 0.21 | 35,35,35,35                 | 0     |
| 56  | MG   | CA    | 3102 | 1/1   | 0.96 | 0.09 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3486 | 1/1   | 0.96 | 0.22 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3555 | 1/1   | 0.96 | 0.29 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3247 | 1/1   | 0.96 | 0.30 | 28,28,28,28                 | 0     |
| 56  | MG   | BA    | 3189 | 1/1   | 0.96 | 0.16 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3490 | 1/1   | 0.96 | 0.18 | 39,39,39,39                 | 0     |
| 56  | MG   | DA    | 3257 | 1/1   | 0.96 | 0.20 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3492 | 1/1   | 0.96 | 0.12 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3459 | 1/1   | 0.96 | 0.17 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3494 | 1/1   | 0.96 | 0.18 | 30,30,30,30                 | 0     |
| 56  | MG   | BA    | 3461 | 1/1   | 0.96 | 0.19 | 31,31,31,31                 | 0     |
| 56  | MG   | CA    | 3110 | 1/1   | 0.96 | 0.11 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3262 | 1/1   | 0.96 | 0.12 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3080 | 1/1   | 0.96 | 0.22 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3562 | 1/1   | 0.96 | 0.18 | 35,35,35,35                 | 0     |
| 56  | MG   | BA    | 3308 | 1/1   | 0.96 | 0.21 | 39,39,39,39                 | 0     |
| 56  | MG   | DA    | 3501 | 1/1   | 0.96 | 0.15 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3266 | 1/1   | 0.96 | 0.10 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3040 | 1/1   | 0.96 | 0.14 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3784 | 1/1   | 0.96 | 0.22 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3785 | 1/1   | 0.96 | 0.16 | 41,41,41,41                 | 0     |
| 56  | MG   | CA    | 3116 | 1/1   | 0.96 | 0.06 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3386 | 1/1   | 0.96 | 0.22 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3088 | 1/1   | 0.96 | 0.18 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3468 | 1/1   | 0.96 | 0.23 | 49,49,49,49                 | 0     |
| 56  | MG   | AA    | 3122 | 1/1   | 0.96 | 0.19 | 60,60,60,60                 | 0     |
| 56  | MG   | DA    | 3512 | 1/1   | 0.96 | 0.22 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3276 | 1/1   | 0.96 | 0.08 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3277 | 1/1   | 0.96 | 0.10 | 56,56,56,56                 | 0     |
| 56  | MG   | DA    | 3091 | 1/1   | 0.96 | 0.18 | 43,43,43,43                 | 0     |
| 56  | MG   | B0    | 102  | 1/1   | 0.96 | 0.12 | 68,68,68,68                 | 0     |
| 56  | MG   | DA    | 3517 | 1/1   | 0.96 | 0.10 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3133 | 1/1   | 0.96 | 0.23 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3519 | 1/1   | 0.96 | 0.17 | 24,24,24,24                 | 0     |
| 56  | MG   | BA    | 3389 | 1/1   | 0.96 | 0.28 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3522 | 1/1   | 0.96 | 0.29 | 25,25,25,25                 | 0     |
| 56  | MG   | DA    | 3284 | 1/1   | 0.96 | 0.18 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3006 | 1/1   | 0.96 | 0.15 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3573 | 1/1   | 0.96 | 0.09 | 32,32,32,32                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3473 | 1/1   | 0.96 | 0.28 | 57,57,57,57                 | 0     |
| 56  | MG   | B3    | 103  | 1/1   | 0.96 | 0.07 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3289 | 1/1   | 0.96 | 0.36 | 42,42,42,42                 | 0     |
| 56  | MG   | AA    | 3001 | 1/1   | 0.96 | 0.18 | 34,34,34,34                 | 0     |
| 56  | MG   | B5    | 101  | 1/1   | 0.96 | 0.14 | 31,31,31,31                 | 0     |
| 56  | MG   | CA    | 3130 | 1/1   | 0.96 | 0.12 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3684 | 1/1   | 0.96 | 0.20 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3298 | 1/1   | 0.96 | 0.17 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3299 | 1/1   | 0.96 | 0.24 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3025 | 1/1   | 0.96 | 0.12 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3146 | 1/1   | 0.96 | 0.11 | 53,53,53,53                 | 0     |
| 56  | MG   | CA    | 3135 | 1/1   | 0.96 | 0.11 | 53,53,53,53                 | 0     |
| 56  | MG   | AA    | 3104 | 1/1   | 0.96 | 0.20 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3397 | 1/1   | 0.96 | 0.23 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3398 | 1/1   | 0.96 | 0.20 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3307 | 1/1   | 0.96 | 0.08 | 45,45,45,45                 | 0     |
| 56  | MG   | AA    | 3006 | 1/1   | 0.96 | 0.14 | 37,37,37,37                 | 0     |
| 56  | MG   | CA    | 3141 | 1/1   | 0.96 | 0.17 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3258 | 1/1   | 0.96 | 0.28 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3146 | 1/1   | 0.96 | 0.19 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3315 | 1/1   | 0.96 | 0.17 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3147 | 1/1   | 0.96 | 0.13 | 30,30,30,30                 | 0     |
| 56  | MG   | BA    | 3148 | 1/1   | 0.96 | 0.27 | 15,15,15,15                 | 0     |
| 56  | MG   | AA    | 3177 | 1/1   | 0.96 | 0.14 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3558 | 1/1   | 0.96 | 0.25 | 34,34,34,34                 | 0     |
| 56  | MG   | BA    | 3490 | 1/1   | 0.96 | 0.22 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3325 | 1/1   | 0.96 | 0.28 | 56,56,56,56                 | 0     |
| 56  | MG   | AE    | 3001 | 1/1   | 0.96 | 0.06 | 66,66,66,66                 | 0     |
| 56  | MG   | DA    | 3128 | 1/1   | 0.96 | 0.07 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3129 | 1/1   | 0.96 | 0.12 | 45,45,45,45                 | 0     |
| 56  | MG   | CA    | 3009 | 1/1   | 0.96 | 0.22 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3103 | 1/1   | 0.96 | 0.33 | 48,48,48,48                 | 0     |
| 56  | MG   | AA    | 3060 | 1/1   | 0.96 | 0.21 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3498 | 1/1   | 0.96 | 0.07 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3332 | 1/1   | 0.96 | 0.20 | 41,41,41,41                 | 0     |
| 56  | MG   | CA    | 3155 | 1/1   | 0.96 | 0.14 | 50,50,50,50                 | 0     |
| 56  | MG   | CA    | 3156 | 1/1   | 0.96 | 0.10 | 68,68,68,68                 | 0     |
| 56  | MG   | DA    | 3136 | 1/1   | 0.96 | 0.22 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3576 | 1/1   | 0.96 | 0.16 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3826 | 1/1   | 0.96 | 0.22 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3341 | 1/1   | 0.96 | 0.21 | 31,31,31,31                 | 0     |
| 56  | MG   | DA    | 3579 | 1/1   | 0.96 | 0.07 | 55,55,55,55                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3208 | 1/1   | 0.96 | 0.32 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3596 | 1/1   | 0.96 | 0.32 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3209 | 1/1   | 0.96 | 0.12 | 41,41,41,41                 | 0     |
| 56  | MG   | AA    | 3007 | 1/1   | 0.96 | 0.26 | 65,65,65,65                 | 0     |
| 56  | MG   | DA    | 3349 | 1/1   | 0.96 | 0.11 | 44,44,44,44                 | 0     |
| 56  | MG   | CA    | 3163 | 1/1   | 0.96 | 0.17 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3352 | 1/1   | 0.96 | 0.15 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3143 | 1/1   | 0.96 | 0.23 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3590 | 1/1   | 0.96 | 0.19 | 60,60,60,60                 | 0     |
| 56  | MG   | BA    | 3338 | 1/1   | 0.96 | 0.16 | 41,41,41,41                 | 0     |
| 56  | MG   | AM    | 201  | 1/1   | 0.96 | 0.05 | 50,50,50,50                 | 0     |
| 56  | MG   | CA    | 3166 | 1/1   | 0.96 | 0.13 | 66,66,66,66                 | 0     |
| 56  | MG   | DA    | 3594 | 1/1   | 0.96 | 0.07 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3710 | 1/1   | 0.96 | 0.19 | 28,28,28,28                 | 0     |
| 56  | MG   | BA    | 3417 | 1/1   | 0.96 | 0.22 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3215 | 1/1   | 0.96 | 0.30 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3713 | 1/1   | 0.96 | 0.23 | 54,54,54,54                 | 0     |
| 56  | MG   | DA    | 3364 | 1/1   | 0.96 | 0.14 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3151 | 1/1   | 0.96 | 0.26 | 44,44,44,44                 | 0     |
| 56  | MG   | AX    | 3011 | 1/1   | 0.96 | 0.16 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3153 | 1/1   | 0.96 | 0.15 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3507 | 1/1   | 0.96 | 0.12 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3159 | 1/1   | 0.96 | 0.22 | 30,30,30,30                 | 0     |
| 56  | MG   | CA    | 3174 | 1/1   | 0.96 | 0.25 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3161 | 1/1   | 0.96 | 0.23 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3373 | 1/1   | 0.96 | 0.10 | 31,31,31,31                 | 0     |
| 56  | MG   | AA    | 3121 | 1/1   | 0.96 | 0.15 | 66,66,66,66                 | 0     |
| 56  | MG   | BA    | 3612 | 1/1   | 0.96 | 0.10 | 62,62,62,62                 | 0     |
| 56  | MG   | CE    | 201  | 1/1   | 0.96 | 0.19 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3025 | 1/1   | 0.96 | 0.15 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3164 | 1/1   | 0.96 | 0.26 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3166 | 1/1   | 0.96 | 0.17 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3068 | 1/1   | 0.96 | 0.26 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3515 | 1/1   | 0.96 | 0.21 | 20,20,20,20                 | 0     |
| 56  | MG   | BA    | 3167 | 1/1   | 0.96 | 0.19 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3349 | 1/1   | 0.96 | 0.19 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3386 | 1/1   | 0.96 | 0.17 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3027 | 1/1   | 0.96 | 0.20 | 42,42,42,42                 | 0     |
| 56  | MG   | BB    | 3014 | 1/1   | 0.96 | 0.14 | 69,69,69,69                 | 0     |
| 56  | MG   | BA    | 3073 | 1/1   | 0.96 | 0.17 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3627 | 1/1   | 0.96 | 0.04 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3177 | 1/1   | 0.96 | 0.17 | 54,54,54,54                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3629 | 1/1   | 0.96 | 0.22 | 52,52,52,52                 | 0     |
| 56  | MG   | CX    | 3003 | 1/1   | 0.96 | 0.38 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3521 | 1/1   | 0.96 | 0.13 | 36,36,36,36                 | 0     |
| 56  | MG   | BA    | 3075 | 1/1   | 0.96 | 0.20 | 27,27,27,27                 | 0     |
| 56  | MG   | AX    | 3013 | 1/1   | 0.96 | 0.30 | 39,39,39,39                 | 0     |
| 56  | MG   | CY    | 3001 | 1/1   | 0.96 | 0.27 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3285 | 1/1   | 0.96 | 0.37 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3733 | 1/1   | 0.96 | 0.26 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3004 | 1/1   | 0.96 | 0.19 | 42,42,42,42                 | 0     |
| 56  | MG   | CA    | 3048 | 1/1   | 0.96 | 0.27 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3627 | 1/1   | 0.96 | 0.17 | 45,45,45,45                 | 0     |
| 56  | MG   | BD    | 305  | 1/1   | 0.96 | 0.14 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3010 | 1/1   | 0.96 | 0.07 | 43,43,43,43                 | 0     |
| 56  | MG   | AY    | 3001 | 1/1   | 0.96 | 0.31 | 70,70,70,70                 | 0     |
| 56  | MG   | AA    | 3182 | 1/1   | 0.96 | 0.20 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3193 | 1/1   | 0.96 | 0.33 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3016 | 1/1   | 0.96 | 0.12 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3630 | 1/1   | 0.96 | 0.08 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3411 | 1/1   | 0.96 | 0.17 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3412 | 1/1   | 0.96 | 0.16 | 63,63,63,63                 | 0     |
| 56  | MG   | BD    | 311  | 1/1   | 0.96 | 0.21 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3176 | 1/1   | 0.96 | 0.29 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3658 | 1/1   | 0.96 | 0.39 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3198 | 1/1   | 0.96 | 0.08 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3416 | 1/1   | 0.96 | 0.34 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3662 | 1/1   | 0.96 | 0.09 | 27,27,27,27                 | 0     |
| 56  | MG   | CA    | 3057 | 1/1   | 0.96 | 0.17 | 58,58,58,58                 | 0     |
| 56  | MG   | BE    | 303  | 1/1   | 0.96 | 0.16 | 27,27,27,27                 | 0     |
| 56  | MG   | BA    | 3082 | 1/1   | 0.96 | 0.11 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3666 | 1/1   | 0.96 | 0.22 | 41,41,41,41                 | 0     |
| 56  | MG   | AA    | 3217 | 1/1   | 0.96 | 0.16 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3421 | 1/1   | 0.96 | 0.21 | 53,53,53,53                 | 0     |
| 56  | MG   | CA    | 3062 | 1/1   | 0.96 | 0.23 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3084 | 1/1   | 0.96 | 0.18 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3744 | 1/1   | 0.96 | 0.13 | 20,20,20,20                 | 0     |
| 56  | MG   | BE    | 308  | 1/1   | 0.96 | 0.17 | 21,21,21,21                 | 0     |
| 56  | MG   | BA    | 3085 | 1/1   | 0.96 | 0.13 | 31,31,31,31                 | 0     |
| 56  | MG   | DB    | 3001 | 1/1   | 0.96 | 0.04 | 73,73,73,73                 | 0     |
| 56  | MG   | DA    | 3431 | 1/1   | 0.96 | 0.17 | 25,25,25,25                 | 0     |
| 56  | MG   | BF    | 302  | 1/1   | 0.96 | 0.22 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3746 | 1/1   | 0.96 | 0.33 | 25,25,25,25                 | 0     |
| 56  | MG   | BA    | 3086 | 1/1   | 0.96 | 0.28 | 41,41,41,41                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors(Å <sup>2</sup> ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56  | MG   | BA    | 3534 | 1/1   | 0.96 | 0.30 | 31,31,31,31                | 0     |
| 56  | MG   | BA    | 3239 | 1/1   | 0.96 | 0.15 | 31,31,31,31                | 0     |
| 56  | MG   | AA    | 3168 | 1/1   | 0.96 | 0.08 | 62,62,62,62                | 0     |
| 56  | MG   | DB    | 3009 | 1/1   | 0.96 | 0.19 | 47,47,47,47                | 0     |
| 56  | MG   | DA    | 3217 | 1/1   | 0.96 | 0.14 | 50,50,50,50                | 0     |
| 56  | MG   | BA    | 3538 | 1/1   | 0.96 | 0.20 | 45,45,45,45                | 0     |
| 56  | MG   | BF    | 312  | 1/1   | 0.96 | 0.14 | 47,47,47,47                | 0     |
| 56  | MG   | BA    | 3643 | 1/1   | 0.96 | 0.20 | 30,30,30,30                | 0     |
| 56  | MG   | CA    | 3079 | 1/1   | 0.96 | 0.15 | 54,54,54,54                | 0     |
| 56  | MG   | BA    | 3297 | 1/1   | 0.96 | 0.55 | 55,55,55,55                | 0     |
| 56  | MG   | DA    | 3450 | 1/1   | 0.96 | 0.16 | 36,36,36,36                | 0     |
| 56  | MG   | BA    | 3540 | 1/1   | 0.96 | 0.17 | 44,44,44,44                | 0     |
| 56  | MG   | DA    | 3049 | 1/1   | 0.96 | 0.22 | 24,24,24,24                | 0     |
| 56  | MG   | BA    | 3755 | 1/1   | 0.96 | 0.19 | 52,52,52,52                | 0     |
| 56  | MG   | DA    | 3230 | 1/1   | 0.96 | 0.15 | 33,33,33,33                | 0     |
| 56  | MG   | DA    | 3455 | 1/1   | 0.96 | 0.18 | 27,27,27,27                | 0     |
| 56  | MG   | BA    | 3541 | 1/1   | 0.96 | 0.14 | 29,29,29,29                | 0     |
| 56  | MG   | DF    | 304  | 1/1   | 0.96 | 0.22 | 39,39,39,39                | 0     |
| 56  | MG   | DF    | 305  | 1/1   | 0.96 | 0.17 | 43,43,43,43                | 0     |
| 56  | MG   | BA    | 3184 | 1/1   | 0.96 | 0.12 | 30,30,30,30                | 0     |
| 56  | MG   | BP    | 201  | 1/1   | 0.96 | 0.39 | 41,41,41,41                | 0     |
| 56  | MG   | BA    | 3299 | 1/1   | 0.96 | 0.15 | 32,32,32,32                | 0     |
| 56  | MG   | BA    | 3242 | 1/1   | 0.96 | 0.33 | 42,42,42,42                | 0     |
| 56  | MG   | DA    | 3463 | 1/1   | 0.96 | 0.15 | 37,37,37,37                | 0     |
| 56  | MG   | BQ    | 3001 | 1/1   | 0.96 | 0.23 | 40,40,40,40                | 0     |
| 56  | MG   | DV    | 3003 | 1/1   | 0.96 | 0.12 | 52,52,52,52                | 0     |
| 56  | MG   | BA    | 3301 | 1/1   | 0.96 | 0.14 | 26,26,26,26                | 0     |
| 56  | MG   | CA    | 3093 | 1/1   | 0.96 | 0.17 | 34,34,34,34                | 0     |
| 56  | MG   | DW    | 3003 | 1/1   | 0.96 | 0.34 | 47,47,47,47                | 0     |
| 56  | MG   | DA    | 3062 | 1/1   | 0.96 | 0.18 | 53,53,53,53                | 0     |
| 56  | MG   | BA    | 3452 | 1/1   | 0.96 | 0.30 | 27,27,27,27                | 0     |
| 56  | MG   | DA    | 3471 | 1/1   | 0.96 | 0.15 | 50,50,50,50                | 0     |
| 56  | MG   | DA    | 3472 | 1/1   | 0.96 | 0.06 | 33,33,33,33                | 0     |
| 56  | MG   | AA    | 3203 | 1/1   | 0.96 | 0.34 | 57,57,57,57                | 0     |
| 56  | MG   | CA    | 3096 | 1/1   | 0.96 | 0.15 | 61,61,61,61                | 0     |
| 56  | MG   | BA    | 3764 | 1/1   | 0.96 | 0.12 | 58,58,58,58                | 0     |
| 56  | MG   | BA    | 3552 | 1/1   | 0.96 | 0.26 | 34,34,34,34                | 0     |
| 56  | MG   | BA    | 3660 | 1/1   | 0.96 | 0.18 | 51,51,51,51                | 0     |
| 56  | MG   | DA    | 3481 | 1/1   | 0.96 | 0.18 | 30,30,30,30                | 0     |
| 59  | ZN   | D6    | 501  | 1/1   | 0.96 | 0.11 | 73,73,73,73                | 0     |
| 56  | MG   | BA    | 3038 | 1/1   | 0.96 | 0.30 | 47,47,47,47                | 0     |
| 56  | MG   | BA    | 3245 | 1/1   | 0.96 | 0.28 | 29,29,29,29                | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3120 | 1/1   | 0.97 | 0.19 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3816 | 1/1   | 0.97 | 0.19 | 21,21,21,21                 | 0     |
| 56  | MG   | BA    | 3331 | 1/1   | 0.97 | 0.14 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3495 | 1/1   | 0.97 | 0.24 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3124 | 1/1   | 0.97 | 0.19 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3510 | 1/1   | 0.97 | 0.24 | 50,50,50,50                 | 0     |
| 56  | MG   | CA    | 3008 | 1/1   | 0.97 | 0.12 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3497 | 1/1   | 0.97 | 0.21 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3308 | 1/1   | 0.97 | 0.16 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3822 | 1/1   | 0.97 | 0.20 | 21,21,21,21                 | 0     |
| 56  | MG   | BA    | 3823 | 1/1   | 0.97 | 0.08 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3824 | 1/1   | 0.97 | 0.12 | 43,43,43,43                 | 0     |
| 56  | MG   | CA    | 3158 | 1/1   | 0.97 | 0.19 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3313 | 1/1   | 0.97 | 0.20 | 23,23,23,23                 | 0     |
| 56  | MG   | DA    | 3314 | 1/1   | 0.97 | 0.18 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3520 | 1/1   | 0.97 | 0.05 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3332 | 1/1   | 0.97 | 0.17 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3317 | 1/1   | 0.97 | 0.15 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3591 | 1/1   | 0.97 | 0.21 | 23,23,23,23                 | 0     |
| 56  | MG   | BA    | 3044 | 1/1   | 0.97 | 0.25 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3335 | 1/1   | 0.97 | 0.17 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3336 | 1/1   | 0.97 | 0.13 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3528 | 1/1   | 0.97 | 0.09 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3322 | 1/1   | 0.97 | 0.29 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3530 | 1/1   | 0.97 | 0.23 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3010 | 1/1   | 0.97 | 0.13 | 29,29,29,29                 | 0     |
| 56  | MG   | DA    | 3532 | 1/1   | 0.97 | 0.14 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3415 | 1/1   | 0.97 | 0.20 | 29,29,29,29                 | 0     |
| 56  | MG   | AA    | 3164 | 1/1   | 0.97 | 0.24 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3048 | 1/1   | 0.97 | 0.25 | 28,28,28,28                 | 0     |
| 56  | MG   | BA    | 3340 | 1/1   | 0.97 | 0.13 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3836 | 1/1   | 0.97 | 0.29 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3012 | 1/1   | 0.97 | 0.21 | 26,26,26,26                 | 0     |
| 56  | MG   | BA    | 3421 | 1/1   | 0.97 | 0.22 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3013 | 1/1   | 0.97 | 0.28 | 34,34,34,34                 | 0     |
| 56  | MG   | BA    | 3211 | 1/1   | 0.97 | 0.28 | 36,36,36,36                 | 0     |
| 56  | MG   | DA    | 3334 | 1/1   | 0.97 | 0.17 | 32,32,32,32                 | 0     |
| 56  | MG   | DA    | 3543 | 1/1   | 0.97 | 0.23 | 55,55,55,55                 | 0     |
| 56  | MG   | AA    | 3037 | 1/1   | 0.97 | 0.24 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3336 | 1/1   | 0.97 | 0.09 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3513 | 1/1   | 0.97 | 0.15 | 34,34,34,34                 | 0     |
| 56  | MG   | BA    | 3607 | 1/1   | 0.97 | 0.26 | 40,40,40,40                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3340 | 1/1   | 0.97 | 0.21 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3054 | 1/1   | 0.97 | 0.17 | 30,30,30,30                 | 0     |
| 56  | MG   | BB    | 3006 | 1/1   | 0.97 | 0.14 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3552 | 1/1   | 0.97 | 0.07 | 43,43,43,43                 | 0     |
| 56  | MG   | BB    | 3007 | 1/1   | 0.97 | 0.09 | 36,36,36,36                 | 0     |
| 56  | MG   | DA    | 3344 | 1/1   | 0.97 | 0.09 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3345 | 1/1   | 0.97 | 0.18 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3346 | 1/1   | 0.97 | 0.15 | 35,35,35,35                 | 0     |
| 56  | MG   | BA    | 3610 | 1/1   | 0.97 | 0.16 | 64,64,64,64                 | 0     |
| 56  | MG   | AA    | 3088 | 1/1   | 0.97 | 0.30 | 56,56,56,56                 | 0     |
| 56  | MG   | BA    | 3056 | 1/1   | 0.97 | 0.28 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3217 | 1/1   | 0.97 | 0.21 | 20,20,20,20                 | 0     |
| 56  | MG   | BA    | 3518 | 1/1   | 0.97 | 0.20 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3615 | 1/1   | 0.97 | 0.28 | 35,35,35,35                 | 0     |
| 56  | MG   | BA    | 3154 | 1/1   | 0.97 | 0.28 | 29,29,29,29                 | 0     |
| 56  | MG   | CA    | 3042 | 1/1   | 0.97 | 0.12 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3155 | 1/1   | 0.97 | 0.12 | 54,54,54,54                 | 0     |
| 56  | MG   | CA    | 3045 | 1/1   | 0.97 | 0.36 | 58,58,58,58                 | 0     |
| 56  | MG   | AA    | 3179 | 1/1   | 0.97 | 0.35 | 79,79,79,79                 | 0     |
| 56  | MG   | DA    | 3570 | 1/1   | 0.97 | 0.10 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3571 | 1/1   | 0.97 | 0.16 | 57,57,57,57                 | 0     |
| 56  | MG   | AA    | 3196 | 1/1   | 0.97 | 0.13 | 32,32,32,32                 | 0     |
| 56  | MG   | DA    | 3573 | 1/1   | 0.97 | 0.31 | 46,46,46,46                 | 0     |
| 56  | MG   | AA    | 3167 | 1/1   | 0.97 | 0.21 | 47,47,47,47                 | 0     |
| 56  | MG   | CA    | 3050 | 1/1   | 0.97 | 0.14 | 60,60,60,60                 | 0     |
| 56  | MG   | DA    | 3003 | 1/1   | 0.97 | 0.26 | 20,20,20,20                 | 0     |
| 56  | MG   | AA    | 3214 | 1/1   | 0.97 | 0.15 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3525 | 1/1   | 0.97 | 0.18 | 52,52,52,52                 | 0     |
| 56  | MG   | DA    | 3006 | 1/1   | 0.97 | 0.15 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3175 | 1/1   | 0.97 | 0.08 | 53,53,53,53                 | 0     |
| 56  | MG   | BB    | 3023 | 1/1   | 0.97 | 0.11 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3582 | 1/1   | 0.97 | 0.11 | 39,39,39,39                 | 0     |
| 56  | MG   | DA    | 3371 | 1/1   | 0.97 | 0.17 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3624 | 1/1   | 0.97 | 0.18 | 29,29,29,29                 | 0     |
| 56  | MG   | DA    | 3009 | 1/1   | 0.97 | 0.19 | 38,38,38,38                 | 0     |
| 56  | MG   | BD    | 302  | 1/1   | 0.97 | 0.16 | 23,23,23,23                 | 0     |
| 56  | MG   | DA    | 3012 | 1/1   | 0.97 | 0.18 | 39,39,39,39                 | 0     |
| 56  | MG   | DA    | 3588 | 1/1   | 0.97 | 0.16 | 39,39,39,39                 | 0     |
| 56  | MG   | BD    | 304  | 1/1   | 0.97 | 0.20 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3108 | 1/1   | 0.97 | 0.19 | 24,24,24,24                 | 0     |
| 56  | MG   | BA    | 3737 | 1/1   | 0.97 | 0.11 | 36,36,36,36                 | 0     |
| 56  | MG   | AA    | 3013 | 1/1   | 0.97 | 0.07 | 51,51,51,51                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | AA    | 3070 | 1/1   | 0.97 | 0.23 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3165 | 1/1   | 0.97 | 0.26 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3382 | 1/1   | 0.97 | 0.12 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3022 | 1/1   | 0.97 | 0.21 | 40,40,40,40                 | 0     |
| 56  | MG   | BE    | 301  | 1/1   | 0.97 | 0.20 | 23,23,23,23                 | 0     |
| 56  | MG   | DA    | 3385 | 1/1   | 0.97 | 0.14 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3599 | 1/1   | 0.97 | 0.24 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3189 | 1/1   | 0.97 | 0.25 | 48,48,48,48                 | 0     |
| 56  | MG   | DA    | 3024 | 1/1   | 0.97 | 0.44 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3166 | 1/1   | 0.97 | 0.22 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3111 | 1/1   | 0.97 | 0.23 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3392 | 1/1   | 0.97 | 0.15 | 36,36,36,36                 | 0     |
| 56  | MG   | BA    | 3363 | 1/1   | 0.97 | 0.19 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3443 | 1/1   | 0.97 | 0.12 | 25,25,25,25                 | 0     |
| 56  | MG   | BA    | 3168 | 1/1   | 0.97 | 0.19 | 27,27,27,27                 | 0     |
| 56  | MG   | BA    | 3535 | 1/1   | 0.97 | 0.25 | 18,18,18,18                 | 0     |
| 56  | MG   | AA    | 3200 | 1/1   | 0.97 | 0.22 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3234 | 1/1   | 0.97 | 0.25 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3024 | 1/1   | 0.97 | 0.27 | 22,22,22,22                 | 0     |
| 56  | MG   | DA    | 3200 | 1/1   | 0.97 | 0.35 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3201 | 1/1   | 0.97 | 0.07 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3026 | 1/1   | 0.97 | 0.14 | 19,19,19,19                 | 0     |
| 56  | MG   | BA    | 3450 | 1/1   | 0.97 | 0.28 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3038 | 1/1   | 0.97 | 0.43 | 47,47,47,47                 | 0     |
| 56  | MG   | CA    | 3078 | 1/1   | 0.97 | 0.16 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3372 | 1/1   | 0.97 | 0.22 | 24,24,24,24                 | 0     |
| 56  | MG   | DA    | 3207 | 1/1   | 0.97 | 0.29 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3622 | 1/1   | 0.97 | 0.18 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3644 | 1/1   | 0.97 | 0.10 | 36,36,36,36                 | 0     |
| 56  | MG   | DA    | 3624 | 1/1   | 0.97 | 0.07 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3373 | 1/1   | 0.97 | 0.18 | 38,38,38,38                 | 0     |
| 56  | MG   | AA    | 3063 | 1/1   | 0.97 | 0.07 | 63,63,63,63                 | 0     |
| 56  | MG   | BG    | 201  | 1/1   | 0.97 | 0.09 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3045 | 1/1   | 0.97 | 0.12 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3069 | 1/1   | 0.97 | 0.14 | 31,31,31,31                 | 0     |
| 56  | MG   | DA    | 3047 | 1/1   | 0.97 | 0.21 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3546 | 1/1   | 0.97 | 0.26 | 30,30,30,30                 | 0     |
| 56  | MG   | BA    | 3547 | 1/1   | 0.97 | 0.19 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3118 | 1/1   | 0.97 | 0.34 | 38,38,38,38                 | 0     |
| 56  | MG   | CA    | 3089 | 1/1   | 0.97 | 0.07 | 58,58,58,58                 | 0     |
| 56  | MG   | BA    | 3653 | 1/1   | 0.97 | 0.28 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3549 | 1/1   | 0.97 | 0.19 | 37,37,37,37                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3055 | 1/1   | 0.97 | 0.24 | 36,36,36,36                 | 0     |
| 56  | MG   | DA    | 3056 | 1/1   | 0.97 | 0.25 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3303 | 1/1   | 0.97 | 0.17 | 35,35,35,35                 | 0     |
| 56  | MG   | BA    | 3656 | 1/1   | 0.97 | 0.18 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3425 | 1/1   | 0.97 | 0.07 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3551 | 1/1   | 0.97 | 0.19 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3644 | 1/1   | 0.97 | 0.49 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3427 | 1/1   | 0.97 | 0.08 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3428 | 1/1   | 0.97 | 0.10 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3767 | 1/1   | 0.97 | 0.11 | 29,29,29,29                 | 0     |
| 56  | MG   | BA    | 3119 | 1/1   | 0.97 | 0.19 | 36,36,36,36                 | 0     |
| 56  | MG   | BA    | 3178 | 1/1   | 0.97 | 0.25 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3651 | 1/1   | 0.97 | 0.16 | 47,47,47,47                 | 0     |
| 56  | MG   | AA    | 3160 | 1/1   | 0.97 | 0.14 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3654 | 1/1   | 0.97 | 0.11 | 55,55,55,55                 | 0     |
| 56  | MG   | DA    | 3435 | 1/1   | 0.97 | 0.16 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3121 | 1/1   | 0.97 | 0.36 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3556 | 1/1   | 0.97 | 0.11 | 45,45,45,45                 | 0     |
| 56  | MG   | DA    | 3237 | 1/1   | 0.97 | 0.07 | 51,51,51,51                 | 0     |
| 56  | MG   | DA    | 3660 | 1/1   | 0.97 | 0.19 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3775 | 1/1   | 0.97 | 0.17 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3776 | 1/1   | 0.97 | 0.14 | 49,49,49,49                 | 0     |
| 56  | MG   | BR    | 204  | 1/1   | 0.97 | 0.36 | 42,42,42,42                 | 0     |
| 56  | MG   | BR    | 205  | 1/1   | 0.97 | 0.15 | 29,29,29,29                 | 0     |
| 56  | MG   | DA    | 3071 | 1/1   | 0.97 | 0.37 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3446 | 1/1   | 0.97 | 0.32 | 47,47,47,47                 | 0     |
| 56  | MG   | DA    | 3447 | 1/1   | 0.97 | 0.27 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3668 | 1/1   | 0.97 | 0.15 | 79,79,79,79                 | 0     |
| 56  | MG   | BA    | 3122 | 1/1   | 0.97 | 0.18 | 26,26,26,26                 | 0     |
| 56  | MG   | CA    | 3108 | 1/1   | 0.97 | 0.14 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3465 | 1/1   | 0.97 | 0.19 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3384 | 1/1   | 0.97 | 0.23 | 30,30,30,30                 | 0     |
| 56  | MG   | BA    | 3781 | 1/1   | 0.97 | 0.21 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3123 | 1/1   | 0.97 | 0.16 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3249 | 1/1   | 0.97 | 0.27 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3561 | 1/1   | 0.97 | 0.15 | 27,27,27,27                 | 0     |
| 56  | MG   | DA    | 3456 | 1/1   | 0.97 | 0.20 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3072 | 1/1   | 0.97 | 0.14 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3253 | 1/1   | 0.97 | 0.22 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3459 | 1/1   | 0.97 | 0.07 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3029 | 1/1   | 0.97 | 0.31 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3074 | 1/1   | 0.97 | 0.24 | 32,32,32,32                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3565 | 1/1   | 0.97 | 0.24 | 42,42,42,42                 | 0     |
| 56  | MG   | AA    | 3172 | 1/1   | 0.97 | 0.16 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3076 | 1/1   | 0.97 | 0.29 | 23,23,23,23                 | 0     |
| 56  | MG   | DD    | 301  | 1/1   | 0.97 | 0.37 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3391 | 1/1   | 0.97 | 0.14 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3678 | 1/1   | 0.97 | 0.22 | 58,58,58,58                 | 0     |
| 56  | MG   | AA    | 3123 | 1/1   | 0.97 | 0.17 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3469 | 1/1   | 0.97 | 0.13 | 54,54,54,54                 | 0     |
| 56  | MG   | B0    | 103  | 1/1   | 0.97 | 0.06 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3793 | 1/1   | 0.97 | 0.20 | 38,38,38,38                 | 0     |
| 56  | MG   | BA    | 3032 | 1/1   | 0.97 | 0.21 | 38,38,38,38                 | 0     |
| 56  | MG   | BA    | 3795 | 1/1   | 0.97 | 0.16 | 53,53,53,53                 | 0     |
| 56  | MG   | CA    | 3127 | 1/1   | 0.97 | 0.17 | 44,44,44,44                 | 0     |
| 56  | MG   | AW    | 3007 | 1/1   | 0.97 | 0.05 | 64,64,64,64                 | 0     |
| 56  | MG   | BA    | 3395 | 1/1   | 0.97 | 0.19 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3479 | 1/1   | 0.97 | 0.17 | 50,50,50,50                 | 0     |
| 56  | MG   | AA    | 3076 | 1/1   | 0.97 | 0.17 | 55,55,55,55                 | 0     |
| 56  | MG   | DG    | 3001 | 1/1   | 0.97 | 0.04 | 56,56,56,56                 | 0     |
| 56  | MG   | CA    | 3131 | 1/1   | 0.97 | 0.18 | 55,55,55,55                 | 0     |
| 56  | MG   | DQ    | 3001 | 1/1   | 0.97 | 0.11 | 48,48,48,48                 | 0     |
| 56  | MG   | DQ    | 3002 | 1/1   | 0.97 | 0.17 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3319 | 1/1   | 0.97 | 0.29 | 20,20,20,20                 | 0     |
| 56  | MG   | BA    | 3195 | 1/1   | 0.97 | 0.27 | 50,50,50,50                 | 0     |
| 56  | MG   | DU    | 3001 | 1/1   | 0.97 | 0.25 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3275 | 1/1   | 0.97 | 0.09 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3035 | 1/1   | 0.97 | 0.14 | 31,31,31,31                 | 0     |
| 56  | MG   | BA    | 3036 | 1/1   | 0.97 | 0.18 | 26,26,26,26                 | 0     |
| 56  | MG   | AA    | 3117 | 1/1   | 0.97 | 0.16 | 48,48,48,48                 | 0     |
| 56  | MG   | AA    | 3227 | 1/1   | 0.97 | 0.18 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3806 | 1/1   | 0.97 | 0.17 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3489 | 1/1   | 0.97 | 0.11 | 44,44,44,44                 | 0     |
| 56  | MG   | DY    | 502  | 1/1   | 0.97 | 0.12 | 52,52,52,52                 | 0     |
| 56  | MG   | BA    | 3087 | 1/1   | 0.97 | 0.12 | 37,37,37,37                 | 0     |
| 56  | MG   | B8    | 102  | 1/1   | 0.97 | 0.08 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3108 | 1/1   | 0.97 | 0.22 | 30,30,30,30                 | 0     |
| 56  | MG   | D7    | 102  | 1/1   | 0.97 | 0.22 | 43,43,43,43                 | 0     |
| 56  | MG   | B8    | 103  | 1/1   | 0.97 | 0.22 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3009 | 1/1   | 0.97 | 0.17 | 25,25,25,25                 | 0     |
| 56  | MG   | BA    | 3811 | 1/1   | 0.97 | 0.31 | 38,38,38,38                 | 0     |
| 56  | MG   | DA    | 3290 | 1/1   | 0.97 | 0.17 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3113 | 1/1   | 0.97 | 0.29 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3114 | 1/1   | 0.97 | 0.13 | 28,28,28,28                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | BA    | 3694 | 1/1   | 0.97 | 0.23 | 27,27,27,27                 | 0     |
| 56  | MG   | BA    | 3042 | 1/1   | 0.97 | 0.18 | 40,40,40,40                 | 0     |
| 56  | MG   | DA    | 3118 | 1/1   | 0.97 | 0.25 | 52,52,52,52                 | 0     |
| 60  | K    | AX    | 3001 | 1/1   | 0.97 | 0.22 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3043 | 1/1   | 0.97 | 0.30 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3466 | 1/1   | 0.98 | 0.17 | 28,28,28,28                 | 0     |
| 56  | MG   | CA    | 3138 | 1/1   | 0.98 | 0.14 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3282 | 1/1   | 0.98 | 0.30 | 24,24,24,24                 | 0     |
| 56  | MG   | DA    | 3473 | 1/1   | 0.98 | 0.06 | 49,49,49,49                 | 0     |
| 56  | MG   | AA    | 3195 | 1/1   | 0.98 | 0.15 | 59,59,59,59                 | 0     |
| 56  | MG   | BA    | 3780 | 1/1   | 0.98 | 0.12 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3476 | 1/1   | 0.98 | 0.24 | 45,45,45,45                 | 0     |
| 56  | MG   | BA    | 3091 | 1/1   | 0.98 | 0.32 | 38,38,38,38                 | 0     |
| 56  | MG   | BA    | 3128 | 1/1   | 0.98 | 0.24 | 27,27,27,27                 | 0     |
| 56  | MG   | DA    | 3356 | 1/1   | 0.98 | 0.26 | 20,20,20,20                 | 0     |
| 56  | MG   | CA    | 3144 | 1/1   | 0.98 | 0.18 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3608 | 1/1   | 0.98 | 0.13 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3664 | 1/1   | 0.98 | 0.14 | 43,43,43,43                 | 0     |
| 56  | MG   | DA    | 3482 | 1/1   | 0.98 | 0.17 | 50,50,50,50                 | 0     |
| 56  | MG   | AA    | 3065 | 1/1   | 0.98 | 0.17 | 58,58,58,58                 | 0     |
| 56  | MG   | CA    | 3058 | 1/1   | 0.98 | 0.14 | 70,70,70,70                 | 0     |
| 56  | MG   | DA    | 3361 | 1/1   | 0.98 | 0.36 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3226 | 1/1   | 0.98 | 0.24 | 41,41,41,41                 | 0     |
| 56  | MG   | DA    | 3363 | 1/1   | 0.98 | 0.38 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3353 | 1/1   | 0.98 | 0.10 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3288 | 1/1   | 0.98 | 0.38 | 40,40,40,40                 | 0     |
| 56  | MG   | AA    | 3229 | 1/1   | 0.98 | 0.35 | 62,62,62,62                 | 0     |
| 56  | MG   | BB    | 3017 | 1/1   | 0.98 | 0.20 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3476 | 1/1   | 0.98 | 0.21 | 24,24,24,24                 | 0     |
| 56  | MG   | DA    | 3252 | 1/1   | 0.98 | 0.20 | 29,29,29,29                 | 0     |
| 56  | MG   | BA    | 3321 | 1/1   | 0.98 | 0.08 | 54,54,54,54                 | 0     |
| 56  | MG   | CA    | 3066 | 1/1   | 0.98 | 0.14 | 66,66,66,66                 | 0     |
| 56  | MG   | BA    | 3174 | 1/1   | 0.98 | 0.16 | 34,34,34,34                 | 0     |
| 56  | MG   | BA    | 3730 | 1/1   | 0.98 | 0.13 | 27,27,27,27                 | 0     |
| 56  | MG   | BA    | 3479 | 1/1   | 0.98 | 0.14 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3078 | 1/1   | 0.98 | 0.19 | 17,17,17,17                 | 0     |
| 56  | MG   | BA    | 3675 | 1/1   | 0.98 | 0.17 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3261 | 1/1   | 0.98 | 0.07 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3735 | 1/1   | 0.98 | 0.14 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3064 | 1/1   | 0.98 | 0.10 | 64,64,64,64                 | 0     |
| 56  | MG   | DA    | 3158 | 1/1   | 0.98 | 0.26 | 40,40,40,40                 | 0     |
| 56  | MG   | BD    | 303  | 1/1   | 0.98 | 0.15 | 44,44,44,44                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | AA    | 3131 | 1/1   | 0.98 | 0.32 | 63,63,63,63                 | 0     |
| 56  | MG   | DA    | 3161 | 1/1   | 0.98 | 0.20 | 49,49,49,49                 | 0     |
| 56  | MG   | DA    | 3637 | 1/1   | 0.98 | 0.06 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3572 | 1/1   | 0.98 | 0.27 | 63,63,63,63                 | 0     |
| 56  | MG   | BA    | 3080 | 1/1   | 0.98 | 0.10 | 24,24,24,24                 | 0     |
| 56  | MG   | AA    | 3154 | 1/1   | 0.98 | 0.14 | 59,59,59,59                 | 0     |
| 56  | MG   | DA    | 3165 | 1/1   | 0.98 | 0.29 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3388 | 1/1   | 0.98 | 0.14 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3389 | 1/1   | 0.98 | 0.06 | 53,53,53,53                 | 0     |
| 56  | MG   | B7    | 101  | 1/1   | 0.98 | 0.14 | 33,33,33,33                 | 0     |
| 56  | MG   | BD    | 309  | 1/1   | 0.98 | 0.20 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3646 | 1/1   | 0.98 | 0.08 | 49,49,49,49                 | 0     |
| 56  | MG   | BA    | 3801 | 1/1   | 0.98 | 0.10 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3018 | 1/1   | 0.98 | 0.25 | 34,34,34,34                 | 0     |
| 56  | MG   | BA    | 3157 | 1/1   | 0.98 | 0.17 | 36,36,36,36                 | 0     |
| 56  | MG   | DA    | 3171 | 1/1   | 0.98 | 0.28 | 38,38,38,38                 | 0     |
| 56  | MG   | BA    | 3265 | 1/1   | 0.98 | 0.27 | 29,29,29,29                 | 0     |
| 56  | MG   | DA    | 3173 | 1/1   | 0.98 | 0.17 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3653 | 1/1   | 0.98 | 0.15 | 58,58,58,58                 | 0     |
| 56  | MG   | DA    | 3281 | 1/1   | 0.98 | 0.23 | 33,33,33,33                 | 0     |
| 56  | MG   | BA    | 3487 | 1/1   | 0.98 | 0.24 | 25,25,25,25                 | 0     |
| 56  | MG   | DA    | 3524 | 1/1   | 0.98 | 0.06 | 38,38,38,38                 | 0     |
| 56  | MG   | BA    | 3330 | 1/1   | 0.98 | 0.17 | 29,29,29,29                 | 0     |
| 56  | MG   | BA    | 3405 | 1/1   | 0.98 | 0.18 | 33,33,33,33                 | 0     |
| 56  | MG   | AA    | 3193 | 1/1   | 0.98 | 0.09 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3809 | 1/1   | 0.98 | 0.14 | 29,29,29,29                 | 0     |
| 56  | MG   | CA    | 3091 | 1/1   | 0.98 | 0.15 | 48,48,48,48                 | 0     |
| 56  | MG   | BA    | 3632 | 1/1   | 0.98 | 0.17 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3369 | 1/1   | 0.98 | 0.17 | 55,55,55,55                 | 0     |
| 56  | MG   | BA    | 3041 | 1/1   | 0.98 | 0.25 | 18,18,18,18                 | 0     |
| 56  | MG   | DA    | 3291 | 1/1   | 0.98 | 0.18 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3292 | 1/1   | 0.98 | 0.12 | 37,37,37,37                 | 0     |
| 56  | MG   | BF    | 303  | 1/1   | 0.98 | 0.22 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3294 | 1/1   | 0.98 | 0.26 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3670 | 1/1   | 0.98 | 0.13 | 38,38,38,38                 | 0     |
| 56  | MG   | BA    | 3813 | 1/1   | 0.98 | 0.19 | 4,4,4,4                     | 0     |
| 56  | MG   | BA    | 3160 | 1/1   | 0.98 | 0.17 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3210 | 1/1   | 0.98 | 0.20 | 31,31,31,31                 | 0     |
| 56  | MG   | AF    | 3001 | 1/1   | 0.98 | 0.26 | 40,40,40,40                 | 0     |
| 56  | MG   | BF    | 308  | 1/1   | 0.98 | 0.11 | 36,36,36,36                 | 0     |
| 56  | MG   | BF    | 309  | 1/1   | 0.98 | 0.16 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3301 | 1/1   | 0.98 | 0.23 | 48,48,48,48                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3544 | 1/1   | 0.98 | 0.14 | 37,37,37,37                 | 0     |
| 56  | MG   | BA    | 3817 | 1/1   | 0.98 | 0.17 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3496 | 1/1   | 0.98 | 0.24 | 39,39,39,39                 | 0     |
| 56  | MG   | BA    | 3212 | 1/1   | 0.98 | 0.20 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3640 | 1/1   | 0.98 | 0.19 | 39,39,39,39                 | 0     |
| 56  | MG   | CA    | 3106 | 1/1   | 0.98 | 0.16 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3821 | 1/1   | 0.98 | 0.17 | 50,50,50,50                 | 0     |
| 56  | MG   | BA    | 3589 | 1/1   | 0.98 | 0.18 | 17,17,17,17                 | 0     |
| 56  | MG   | BA    | 3185 | 1/1   | 0.98 | 0.20 | 32,32,32,32                 | 0     |
| 56  | MG   | BA    | 3057 | 1/1   | 0.98 | 0.20 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3554 | 1/1   | 0.98 | 0.18 | 23,23,23,23                 | 0     |
| 56  | MG   | BN    | 3003 | 1/1   | 0.98 | 0.15 | 38,38,38,38                 | 0     |
| 56  | MG   | DD    | 304  | 1/1   | 0.98 | 0.39 | 31,31,31,31                 | 0     |
| 56  | MG   | BN    | 3004 | 1/1   | 0.98 | 0.20 | 50,50,50,50                 | 0     |
| 56  | MG   | DA    | 3430 | 1/1   | 0.98 | 0.21 | 28,28,28,28                 | 0     |
| 56  | MG   | AA    | 3224 | 1/1   | 0.98 | 0.15 | 33,33,33,33                 | 0     |
| 56  | MG   | DA    | 3104 | 1/1   | 0.98 | 0.15 | 46,46,46,46                 | 0     |
| 56  | MG   | DA    | 3560 | 1/1   | 0.98 | 0.19 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3433 | 1/1   | 0.98 | 0.20 | 61,61,61,61                 | 0     |
| 56  | MG   | BA    | 3142 | 1/1   | 0.98 | 0.14 | 34,34,34,34                 | 0     |
| 56  | MG   | DA    | 3316 | 1/1   | 0.98 | 0.06 | 44,44,44,44                 | 0     |
| 56  | MG   | DA    | 3011 | 1/1   | 0.98 | 0.09 | 40,40,40,40                 | 0     |
| 56  | MG   | BA    | 3646 | 1/1   | 0.98 | 0.19 | 38,38,38,38                 | 0     |
| 56  | MG   | BA    | 3104 | 1/1   | 0.98 | 0.19 | 27,27,27,27                 | 0     |
| 56  | MG   | BA    | 3418 | 1/1   | 0.98 | 0.16 | 32,32,32,32                 | 0     |
| 56  | MG   | DA    | 3015 | 1/1   | 0.98 | 0.26 | 31,31,31,31                 | 0     |
| 56  | MG   | DO    | 5001 | 1/1   | 0.98 | 0.16 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3830 | 1/1   | 0.98 | 0.18 | 21,21,21,21                 | 0     |
| 56  | MG   | DA    | 3112 | 1/1   | 0.98 | 0.26 | 42,42,42,42                 | 0     |
| 56  | MG   | DA    | 3444 | 1/1   | 0.98 | 0.18 | 30,30,30,30                 | 0     |
| 56  | MG   | DQ    | 3004 | 1/1   | 0.98 | 0.16 | 51,51,51,51                 | 0     |
| 56  | MG   | BA    | 3649 | 1/1   | 0.98 | 0.10 | 43,43,43,43                 | 0     |
| 56  | MG   | AA    | 3151 | 1/1   | 0.98 | 0.16 | 41,41,41,41                 | 0     |
| 56  | MG   | BA    | 3460 | 1/1   | 0.98 | 0.23 | 35,35,35,35                 | 0     |
| 56  | MG   | DA    | 3116 | 1/1   | 0.98 | 0.10 | 57,57,57,57                 | 0     |
| 56  | MG   | DA    | 3215 | 1/1   | 0.98 | 0.20 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3329 | 1/1   | 0.98 | 0.21 | 29,29,29,29                 | 0     |
| 56  | MG   | BA    | 3045 | 1/1   | 0.98 | 0.20 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3599 | 1/1   | 0.98 | 0.20 | 23,23,23,23                 | 0     |
| 56  | MG   | DA    | 3219 | 1/1   | 0.98 | 0.27 | 54,54,54,54                 | 0     |
| 56  | MG   | BA    | 3193 | 1/1   | 0.98 | 0.28 | 57,57,57,57                 | 0     |
| 56  | MG   | BA    | 3771 | 1/1   | 0.98 | 0.20 | 41,41,41,41                 | 0     |

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*Continued from previous page...*

| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors(Å <sup>2</sup> ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56  | MG   | CA    | 3039 | 1/1   | 0.98 | 0.23 | 50,50,50,50                | 0     |
| 56  | MG   | D3    | 3001 | 1/1   | 0.98 | 0.16 | 58,58,58,58                | 0     |
| 56  | MG   | BA    | 3772 | 1/1   | 0.98 | 0.17 | 31,31,31,31                | 0     |
| 56  | MG   | BA    | 3383 | 1/1   | 0.98 | 0.23 | 24,24,24,24                | 0     |
| 56  | MG   | BA    | 3107 | 1/1   | 0.98 | 0.19 | 20,20,20,20                | 0     |
| 56  | MG   | DA    | 3339 | 1/1   | 0.98 | 0.10 | 52,52,52,52                | 0     |
| 56  | MG   | BU    | 202  | 1/1   | 0.98 | 0.22 | 40,40,40,40                | 0     |
| 58  | SF4  | CD    | 501  | 8/8   | 0.98 | 0.10 | 54,64,76,87                | 0     |
| 59  | ZN   | AN    | 501  | 1/1   | 0.98 | 0.12 | 58,58,58,58                | 0     |
| 59  | ZN   | BY    | 501  | 1/1   | 0.98 | 0.11 | 58,58,58,58                | 0     |
| 56  | MG   | DA    | 3227 | 1/1   | 0.98 | 0.21 | 38,38,38,38                | 0     |
| 59  | ZN   | B6    | 103  | 1/1   | 0.98 | 0.13 | 29,29,29,29                | 0     |
| 59  | ZN   | B9    | 501  | 1/1   | 0.98 | 0.17 | 49,49,49,49                | 0     |
| 56  | MG   | CA    | 3044 | 1/1   | 0.98 | 0.23 | 55,55,55,55                | 0     |
| 56  | MG   | BU    | 204  | 1/1   | 0.98 | 0.21 | 38,38,38,38                | 0     |
| 56  | MG   | DA    | 3465 | 1/1   | 0.98 | 0.07 | 55,55,55,55                | 0     |
| 56  | MG   | BA    | 3657 | 1/1   | 0.98 | 0.20 | 47,47,47,47                | 0     |
| 56  | MG   | CA    | 3047 | 1/1   | 0.98 | 0.24 | 35,35,35,35                | 0     |
| 56  | MG   | BA    | 3510 | 1/1   | 0.98 | 0.08 | 48,48,48,48                | 0     |
| 56  | MG   | BU    | 207  | 1/1   | 0.98 | 0.14 | 29,29,29,29                | 0     |
| 56  | MG   | BA    | 3355 | 1/1   | 0.99 | 0.15 | 24,24,24,24                | 0     |
| 56  | MG   | BA    | 3759 | 1/1   | 0.99 | 0.15 | 9,9,9,9                    | 0     |
| 56  | MG   | DA    | 3050 | 1/1   | 0.99 | 0.23 | 40,40,40,40                | 0     |
| 56  | MG   | BA    | 3129 | 1/1   | 0.99 | 0.22 | 36,36,36,36                | 0     |
| 56  | MG   | BA    | 3458 | 1/1   | 0.99 | 0.25 | 19,19,19,19                | 0     |
| 56  | MG   | BU    | 209  | 1/1   | 0.99 | 0.19 | 27,27,27,27                | 0     |
| 56  | MG   | BV    | 201  | 1/1   | 0.99 | 0.22 | 29,29,29,29                | 0     |
| 56  | MG   | BV    | 202  | 1/1   | 0.99 | 0.13 | 26,26,26,26                | 0     |
| 56  | MG   | DA    | 3017 | 1/1   | 0.99 | 0.21 | 28,28,28,28                | 0     |
| 56  | MG   | DA    | 3254 | 1/1   | 0.99 | 0.25 | 21,21,21,21                | 0     |
| 56  | MG   | DA    | 3018 | 1/1   | 0.99 | 0.18 | 41,41,41,41                | 0     |
| 56  | MG   | DA    | 3656 | 1/1   | 0.99 | 0.17 | 62,62,62,62                | 0     |
| 56  | MG   | BA    | 3440 | 1/1   | 0.99 | 0.27 | 29,29,29,29                | 0     |
| 56  | MG   | BA    | 3621 | 1/1   | 0.99 | 0.23 | 52,52,52,52                | 0     |
| 56  | MG   | BV    | 205  | 1/1   | 0.99 | 0.12 | 32,32,32,32                | 0     |
| 56  | MG   | BD    | 307  | 1/1   | 0.99 | 0.21 | 35,35,35,35                | 0     |
| 56  | MG   | DA    | 3218 | 1/1   | 0.99 | 0.16 | 47,47,47,47                | 0     |
| 56  | MG   | BA    | 3050 | 1/1   | 0.99 | 0.17 | 31,31,31,31                | 0     |
| 56  | MG   | BA    | 3003 | 1/1   | 0.99 | 0.26 | 20,20,20,20                | 0     |
| 56  | MG   | BA    | 3462 | 1/1   | 0.99 | 0.13 | 11,11,11,11                | 0     |
| 56  | MG   | DA    | 3438 | 1/1   | 0.99 | 0.10 | 60,60,60,60                | 0     |
| 56  | MG   | DA    | 3619 | 1/1   | 0.99 | 0.03 | 58,58,58,58                | 0     |

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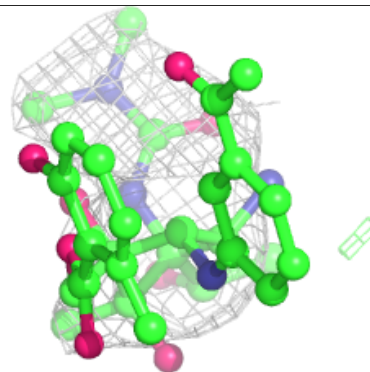
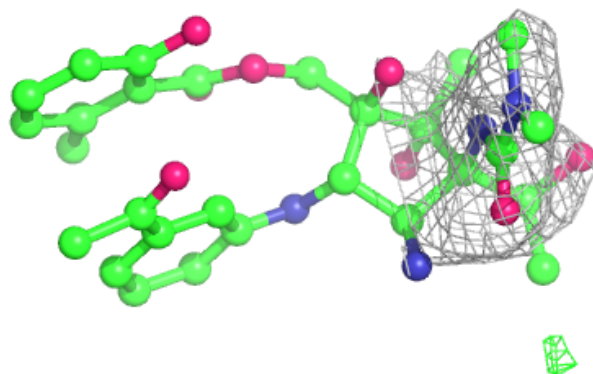
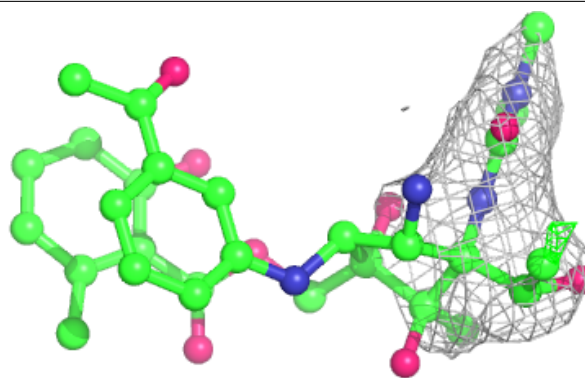
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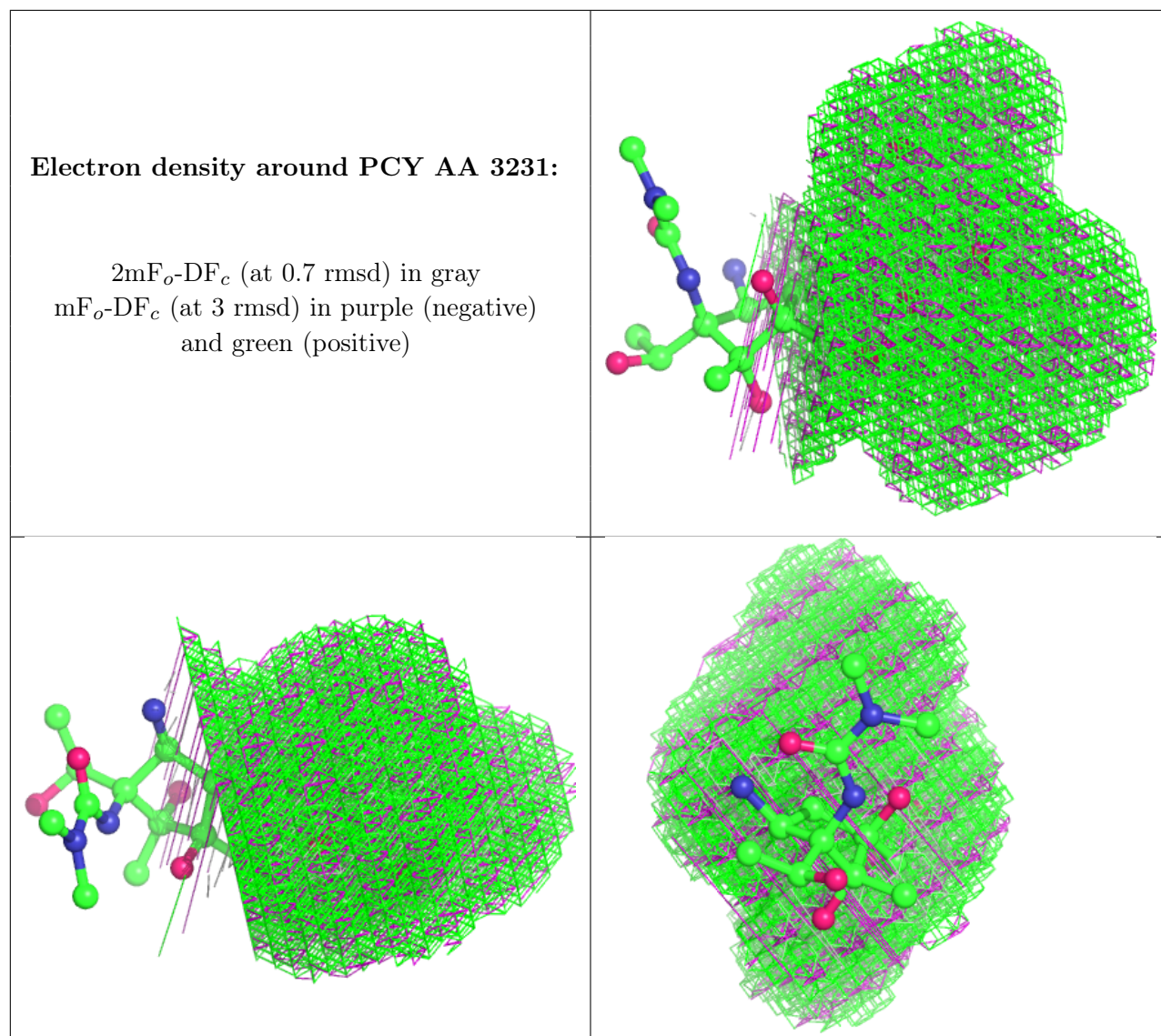
| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56  | MG   | DA    | 3350 | 1/1   | 0.99 | 0.30 | 29,29,29,29                 | 0     |
| 56  | MG   | BA    | 3039 | 1/1   | 0.99 | 0.28 | 47,47,47,47                 | 0     |
| 56  | MG   | BA    | 3053 | 1/1   | 0.99 | 0.27 | 22,22,22,22                 | 0     |
| 56  | MG   | CA    | 3077 | 1/1   | 0.99 | 0.06 | 48,48,48,48                 | 0     |
| 56  | MG   | AA    | 3137 | 1/1   | 0.99 | 0.19 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3071 | 1/1   | 0.99 | 0.33 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3334 | 1/1   | 0.99 | 0.25 | 30,30,30,30                 | 0     |
| 56  | MG   | DA    | 3228 | 1/1   | 0.99 | 0.05 | 42,42,42,42                 | 0     |
| 56  | MG   | BA    | 3697 | 1/1   | 0.99 | 0.12 | 35,35,35,35                 | 0     |
| 56  | MG   | AA    | 3157 | 1/1   | 0.99 | 0.19 | 46,46,46,46                 | 0     |
| 56  | MG   | BA    | 3609 | 1/1   | 0.99 | 0.26 | 20,20,20,20                 | 0     |
| 56  | MG   | BA    | 3231 | 1/1   | 0.99 | 0.24 | 37,37,37,37                 | 0     |
| 56  | MG   | DA    | 3036 | 1/1   | 0.99 | 0.15 | 29,29,29,29                 | 0     |
| 58  | SF4  | AD    | 501  | 8/8   | 0.99 | 0.14 | 56,62,64,76                 | 0     |
| 56  | MG   | AA    | 3225 | 1/1   | 0.99 | 0.11 | 26,26,26,26                 | 0     |
| 56  | MG   | BB    | 3016 | 1/1   | 0.99 | 0.16 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3188 | 1/1   | 0.99 | 0.24 | 19,19,19,19                 | 0     |
| 56  | MG   | CA    | 3088 | 1/1   | 0.99 | 0.41 | 53,53,53,53                 | 0     |
| 56  | MG   | DA    | 3280 | 1/1   | 0.99 | 0.14 | 43,43,43,43                 | 0     |
| 56  | MG   | BA    | 3400 | 1/1   | 0.99 | 0.17 | 25,25,25,25                 | 0     |
| 56  | MG   | BA    | 3368 | 1/1   | 0.99 | 0.19 | 12,12,12,12                 | 0     |
| 56  | MG   | BA    | 3246 | 1/1   | 0.99 | 0.10 | 27,27,27,27                 | 0     |
| 56  | MG   | BA    | 3682 | 1/1   | 0.99 | 0.13 | 50,50,50,50                 | 0     |
| 59  | ZN   | D5    | 501  | 1/1   | 0.99 | 0.15 | 53,53,53,53                 | 0     |
| 56  | MG   | BA    | 3731 | 1/1   | 0.99 | 0.12 | 23,23,23,23                 | 0     |
| 56  | MG   | BU    | 203  | 1/1   | 0.99 | 0.14 | 31,31,31,31                 | 0     |
| 56  | MG   | AA    | 3186 | 1/1   | 0.99 | 0.16 | 52,52,52,52                 | 0     |
| 56  | MG   | DD    | 306  | 1/1   | 0.99 | 0.26 | 44,44,44,44                 | 0     |
| 56  | MG   | BA    | 3272 | 1/1   | 1.00 | 0.28 | 11,11,11,11                 | 0     |
| 59  | ZN   | B5    | 104  | 1/1   | 1.00 | 0.15 | 38,38,38,38                 | 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 PCY CA 3178:**

$2mF_o-DF_c$  (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.