



# wwPDB X-ray Structure Validation Summary Report ⓘ

Feb 1, 2016 – 09:07 PM GMT

PDB ID : 4TUB  
Title : Crystal structure of tRNA-Thr bound to Codon ACC-C on the Ribosome  
Authors : Fagan, C.E.; Dunham, C.M.  
Deposited on : 2014-06-24  
Resolution : 3.60 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  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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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 : 1.7 (RC4), CSD as536be (2015)  
Xtriage (Phenix) : 1.9-1692  
EDS : rb-20026688  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Refmac : 5.8.0135  
CCP4 : 6.5.0  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : trunk26865

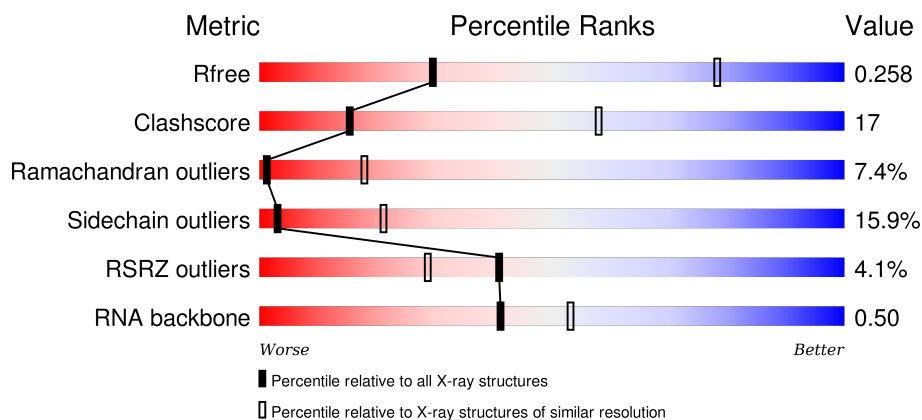
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

## *X-RAY DIFFRACTION*

The reported resolution of this entry is 3.60 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.














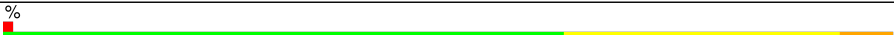

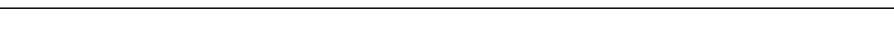
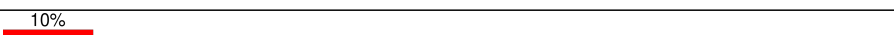
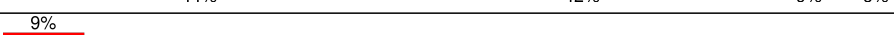

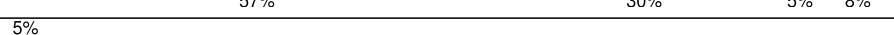

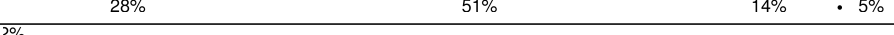





| Metric                | Whole archive<br>(#Entries) | Similar resolution<br>(#Entries, resolution range(Å)) |
|-----------------------|-----------------------------|---|
| $R_{free}$            | 91344                       | 1408 (3.80-3.40)                                      |
| Clashscore            | 102246                      | 1010 (3.74-3.46)                                      |
| Ramachandran outliers | 100387                      | 1007 (3.76-3.44)                                      |
| Sidechain outliers    | 100360                      | 1007 (3.76-3.44)                                      |
| RSRZ outliers         | 91569                       | 1003 (3.78-3.42)                                      |
| RNA backbone          | 2183                        | 1058 (4.40-2.80)                                      |

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 on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. 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   | QA    | 1522   | <div> <div style="width: 10%; background-color: red;"></div> <div style="width: 41%; background-color: green;"></div> <div style="width: 38%; background-color: yellow;"></div> <div style="width: 9%; background-color: orange;"></div> <div style="width: 4%; background-color: grey;"></div> </div> <div> <div style="width: 51%; background-color: green;"></div> <div style="width: 38%; background-color: yellow;"></div> <div style="width: 9%; background-color: orange;"></div> <div style="width: 2%; background-color: red;"></div> </div>  |
| 1   | XA    | 1522   | <div> <div style="width: 10%; background-color: red;"></div> <div style="width: 40%; background-color: green;"></div> <div style="width: 38%; background-color: yellow;"></div> <div style="width: 9%; background-color: orange;"></div> <div style="width: 3%; background-color: grey;"></div> </div> <div> <div style="width: 50%; background-color: green;"></div> <div style="width: 38%; background-color: yellow;"></div> <div style="width: 9%; background-color: orange;"></div> <div style="width: 1%; background-color: red;"></div> </div>  |
| 2   | QB    | 256    | <div> <div style="width: 10%; background-color: red;"></div> <div style="width: 38%; background-color: green;"></div> <div style="width: 36%; background-color: yellow;"></div> <div style="width: 7%; background-color: orange;"></div> <div style="width: 7%; background-color: grey;"></div> </div> <div> <div style="width: 10%; background-color: red;"></div> <div style="width: 38%; background-color: yellow;"></div> <div style="width: 36%; background-color: green;"></div> <div style="width: 7%; background-color: orange;"></div> </div> |
| 2   | XB    | 256    | <div> <div style="width: 3%; background-color: red;"></div> <div style="width: 43%; background-color: green;"></div> <div style="width: 36%; background-color: yellow;"></div> <div style="width: 10%; background-color: orange;"></div> <div style="width: 7%; background-color: grey;"></div> </div> <div> <div style="width: 3%; background-color: red;"></div> <div style="width: 43%; background-color: green;"></div> <div style="width: 36%; background-color: yellow;"></div> <div style="width: 10%; background-color: orange;"></div> </div> |



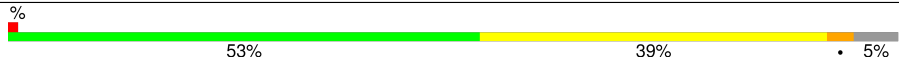
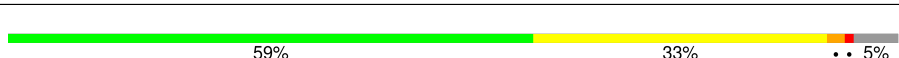
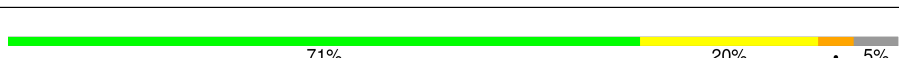
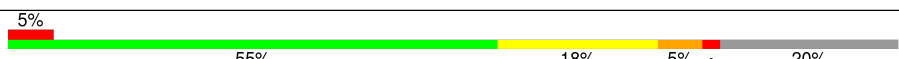
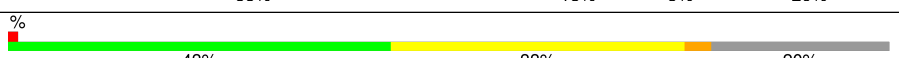
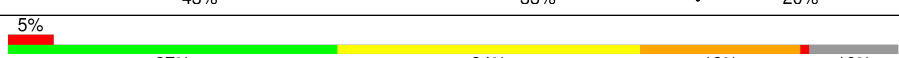
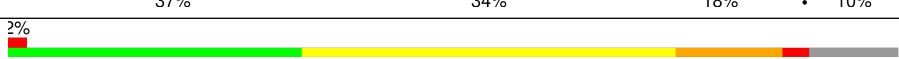

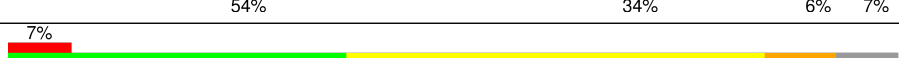
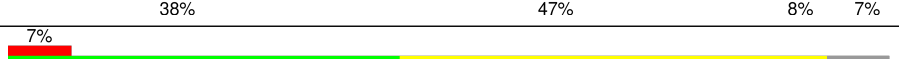






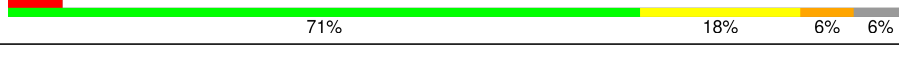


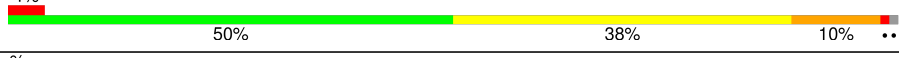
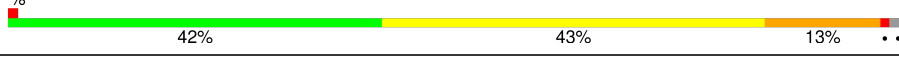


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| Mol | Chain | Length | Quality of chain   |
|-----|-------|--------|--|
| 3   | QC    | 239    |    |
| 3   | XC    | 239    |    |
| 4   | QD    | 209    |    |
| 4   | XD    | 209    |    |
| 5   | QE    | 162    |    |
| 5   | XE    | 162    |    |
| 6   | QF    | 101    |    |
| 6   | XF    | 101    |    |
| 7   | QG    | 156    |    |
| 7   | XG    | 156    |    |
| 8   | QH    | 138    |    |
| 8   | XH    | 138    |    |
| 9   | QI    | 128    |  |
| 9   | XI    | 128    |  |
| 10  | QJ    | 105    |  |
| 10  | XJ    | 105    |  |
| 11  | QK    | 129    |  |
| 11  | XK    | 129    |  |
| 12  | QL    | 132    |  |
| 12  | XL    | 132    |  |
| 13  | QM    | 126    |  |
| 13  | XM    | 126    |  |
| 14  | QN    | 61     |  |
| 14  | XN    | 61     |  |
| 15  | QO    | 89     |  |

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| Mol | Chain | Length | Quality of chain   |
|-----|-------|--------|--|
| 15  | XO    | 89     |    |
| 16  | QP    | 88     |    |
| 16  | XP    | 88     |    |
| 17  | QQ    | 105    |    |
| 17  | XQ    | 105    |    |
| 18  | QR    | 88     |    |
| 18  | XR    | 88     |    |
| 19  | QS    | 93     |    |
| 19  | XS    | 93     |    |
| 20  | QT    | 106    |    |
| 20  | XT    | 106    |    |
| 21  | QU    | 27     |    |
| 21  | XU    | 27     |   |
| 22  | QV    | 77     |  |
| 22  | XV    | 77     |  |
| 23  | QX    | 25     |  |
| 23  | XX    | 25     |  |
| 24  | QY    | 17     |  |
| 24  | XY    | 17     |  |
| 25  | RA    | 2915   |  |
| 25  | YA    | 2915   |  |
| 26  | RB    | 122    |  |
| 26  | YB    | 122    |  |
| 27  | RD    | 276    |  |
| 27  | YD    | 276    |  |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 28  | RE    | 206    |                  |
| 28  | YE    | 206    |                  |
| 29  | RF    | 210    |                  |
| 29  | YF    | 210    |                  |
| 30  | RG    | 182    |                  |
| 30  | YG    | 182    |                  |
| 31  | RH    | 180    |                  |
| 31  | YH    | 180    |                  |
| 32  | RI    | 148    |                  |
| 32  | YI    | 148    |                  |
| 33  | RN    | 140    |                  |
| 33  | YN    | 140    |                  |
| 34  | RO    | 122    |                  |
| 34  | YO    | 122    |                  |
| 35  | RP    | 150    |                  |
| 35  | YP    | 150    |                  |
| 36  | RQ    | 141    |                  |
| 36  | YQ    | 141    |                  |
| 37  | RR    | 118    |                  |
| 37  | YR    | 118    |                  |
| 38  | RS    | 112    |                  |
| 38  | YS    | 112    |                  |
| 39  | RT    | 146    |                  |
| 39  | YT    | 146    |                  |
| 40  | RU    | 118    |                  |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 40  | YU    | 118    |                  |
| 41  | RV    | 101    |                  |
| 41  | YV    | 101    |                  |
| 42  | RW    | 113    |                  |
| 42  | YW    | 113    |                  |
| 43  | RX    | 96     |                  |
| 43  | YX    | 96     |                  |
| 44  | RY    | 110    |                  |
| 44  | YY    | 110    |                  |
| 45  | RZ    | 206    |                  |
| 45  | YZ    | 206    |                  |
| 46  | R0    | 85     |                  |
| 46  | Y0    | 85     |                  |
| 47  | R1    | 98     |                  |
| 47  | Y1    | 98     |                  |
| 48  | R2    | 72     |                  |
| 48  | Y2    | 72     |                  |
| 49  | R3    | 60     |                  |
| 49  | Y3    | 60     |                  |
| 50  | R4    | 71     |                  |
| 50  | Y4    | 71     |                  |
| 51  | R5    | 60     |                  |
| 51  | Y5    | 60     |                  |
| 52  | R6    | 54     |                  |
| 52  | Y6    | 54     |                  |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 53  | R7    | 49     |                  |
| 53  | Y7    | 49     |                  |
| 54  | R8    | 65     |                  |
| 54  | Y8    | 65     |                  |
| 55  | R9    | 37     |                  |
| 55  | Y9    | 37     |                  |
| 56  | Z5    | 3      |                  |
| 56  | Z6    | 3      |                  |

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 |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 57  | MG   | QA    | 1602 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1605 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1610 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1612 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1613 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1617 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1618 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1629 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1640 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1644 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1650 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1651 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1653 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1654 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1655 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1656 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1658 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1659 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1660 | -         | -        | -       | X                |
| 57  | MG   | QA    | 1672 | -         | -        | -       | X                |
| 57  | MG   | QE    | 201  | -         | -        | -       | X                |
| 57  | MG   | R5    | 101  | -         | -        | -       | X                |
| 57  | MG   | RA    | 3003 | -         | -        | -       | X                |

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| Mol | Type | Chain | Res  | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 57  | MG   | RA    | 3005 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3006 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3007 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3009 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3010 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3013 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3020 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3021 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3022 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3025 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3026 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3031 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3033 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3034 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3036 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3038 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3040 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3047 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3049 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3052 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3054 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3057 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3059 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3062 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3063 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3072 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3077 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3079 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3085 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3087 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3088 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3094 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3097 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3098 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3106 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3118 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3119 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3123 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3130 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3135 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3142 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3152 | -         | -        | -       | X                |

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| Mol | Type | Chain | Res  | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 57  | MG   | RA    | 3155 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3157 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3160 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3169 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3171 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3176 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3181 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3201 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3214 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3227 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3230 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3232 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3234 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3235 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3236 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3240 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3249 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3251 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3264 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3266 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3268 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3272 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3279 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3280 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3281 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3283 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3285 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3298 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3300 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3315 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3320 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3321 | -         | -        | -       | X                |
| 57  | MG   | RA    | 3326 | -         | -        | -       | X                |
| 57  | MG   | RP    | 201  | -         | -        | -       | X                |
| 57  | MG   | RR    | 201  | -         | -        | -       | X                |
| 57  | MG   | XA    | 1603 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1606 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1613 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1616 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1619 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1621 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1623 | -         | -        | -       | X                |

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| Mol | Type | Chain | Res  | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 57  | MG   | XA    | 1624 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1627 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1631 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1632 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1633 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1634 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1639 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1641 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1642 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1643 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1649 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1652 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1663 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1667 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1679 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1684 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1685 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1688 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1692 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1700 | -         | -        | -       | X                |
| 57  | MG   | XA    | 1705 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3002 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3004 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3006 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3009 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3011 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3013 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3014 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3016 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3022 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3023 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3024 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3025 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3026 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3027 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3028 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3030 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3031 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3032 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3033 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3034 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3036 | -         | -        | -       | X                |

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| Mol | Type | Chain | Res  | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 57  | MG   | YA    | 3037 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3040 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3041 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3043 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3046 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3047 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3048 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3049 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3067 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3068 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3069 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3075 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3076 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3077 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3078 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3082 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3085 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3086 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3094 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3095 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3096 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3099 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3102 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3103 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3105 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3108 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3114 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3119 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3132 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3134 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3136 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3138 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3140 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3147 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3152 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3156 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3161 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3164 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3169 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3170 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3173 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3174 | -         | -        | -       | X                |

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| Mol | Type | Chain | Res  | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 57  | MG   | YA    | 3187 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3191 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3192 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3194 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3197 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3209 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3214 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3216 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3219 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3228 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3230 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3232 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3233 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3236 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3238 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3240 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3241 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3246 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3247 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3249 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3251 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3264 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3265 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3268 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3269 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3293 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3297 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3303 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3307 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3309 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3313 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3316 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3319 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3323 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3326 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3327 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3328 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3340 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3347 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3348 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3354 | -         | -        | -       | X                |
| 57  | MG   | YA    | 3355 | -         | -        | -       | X                |

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| Mol | Type | Chain | Res  | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 57  | MG   | YA    | 3357 | -         | -        | -       | X                |
| 57  | MG   | YP    | 202  | -         | -        | -       | X                |
| 57  | MG   | YU    | 201  | -         | -        | -       | X                |
| 59  | ZN   | QD    | 301  | -         | -        | -       | X                |

## 2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 292320 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 rRNA.

| Mol | Chain | Residues | Atoms |       |      |       |      | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-------|------|-------|------|---------|---------|-------|
| 1   | QA    | 1500     | Total | C     | N    | O     | P    | 0       | 0       | 0     |
|     |       |          | 32247 | 14353 | 5981 | 10414 | 1499 |         |         |       |
| 1   | XA    | 1500     | Total | C     | N    | O     | P    | 0       | 0       | 0     |
|     |       |          | 32249 | 14354 | 5984 | 10412 | 1499 |         |         |       |

- Molecule 2 is a protein called 30S ribosomal protein S2.

| Mol | Chain | Residues | Atoms |      |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
| 2   | QB    | 237      | Total | C    | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1924  | 1228 | 344 | 347 | 5 |         |         |       |
| 2   | XB    | 237      | Total | C    | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1924  | 1228 | 344 | 347 | 5 |         |         |       |

- Molecule 3 is a protein called 30S ribosomal protein S3.

| Mol | Chain | Residues | Atoms |      |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
| 3   | QC    | 205      | Total | C    | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1605  | 1011 | 313 | 280 | 1 |         |         |       |
| 3   | XC    | 205      | Total | C    | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1605  | 1011 | 313 | 280 | 1 |         |         |       |

- Molecule 4 is a protein called 30S ribosomal protein S4.

| Mol | Chain | Residues | Atoms |      |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
| 4   | QD    | 208      | Total | C    | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1703  | 1066 | 339 | 291 | 7 |         |         |       |
| 4   | XD    | 208      | Total | C    | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1703  | 1066 | 339 | 291 | 7 |         |         |       |

- Molecule 5 is a protein called 30S ribosomal protein S5.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 5   | QE    | 151      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1155  | 729 | 218 | 204 | 4 |         |         |       |
| 5   | XE    | 151      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1155  | 729 | 218 | 204 | 4 |         |         |       |

- Molecule 6 is a protein called 30S ribosomal protein S6.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 6   | QF    | 101      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 843   | 531 | 155 | 154 | 3 |         |         |       |
| 6   | XF    | 101      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 843   | 531 | 155 | 154 | 3 |         |         |       |

- Molecule 7 is a protein called 30S ribosomal protein S7.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 7   | QG    | 155      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1257  | 781 | 252 | 218 | 6 |         |         |       |
| 7   | XG    | 155      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1257  | 781 | 252 | 218 | 6 |         |         |       |

- Molecule 8 is a protein called 30S ribosomal protein S8.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 8   | QH    | 138      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1116  | 705 | 215 | 193 | 3 |         |         |       |
| 8   | XH    | 138      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1116  | 705 | 215 | 193 | 3 |         |         |       |

- Molecule 9 is a protein called 30S ribosomal protein S9.

| Mol | Chain | Residues | Atoms |     |     |     |  | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|--|---------|---------|-------|
| 9   | QI    | 127      | Total | C   | N   | O   |  | 0       | 0       | 0     |
|     |       |          | 1010  | 639 | 197 | 174 |  |         |         |       |
| 9   | XI    | 127      | Total | C   | N   | O   |  | 0       | 0       | 0     |
|     |       |          | 1010  | 639 | 197 | 174 |  |         |         |       |

- Molecule 10 is a protein called 30S ribosomal protein S10.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 10  | QJ    | 99       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 801   | 504 | 157 | 139 | 1 |         |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 10  | XJ    | 99       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 801   | 504 | 157 | 139 | 1 |         |         |       |

- Molecule 11 is a protein called 30S ribosomal protein S11.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 11  | QK    | 119      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 885   | 549 | 168 | 165 | 3 |         |         |       |
| 11  | XK    | 119      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 885   | 549 | 168 | 165 | 3 |         |         |       |

- Molecule 12 is a protein called 30S ribosomal protein S12.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 12  | QL    | 125      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 975   | 614 | 196 | 164 | 1 |         |         |       |
| 12  | XL    | 125      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 975   | 614 | 196 | 164 | 1 |         |         |       |

- Molecule 13 is a protein called 30S ribosomal protein S13.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 13  | QM    | 121      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 964   | 597 | 199 | 166 | 2 |         |         |       |
| 13  | XM    | 121      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 964   | 597 | 199 | 166 | 2 |         |         |       |

- Molecule 14 is a protein called 30S ribosomal protein S14 type Z.

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

- Molecule 15 is a protein called 30S ribosomal protein S15.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 15  | QO    | 88       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 734   | 459 | 147 | 126 | 2 |         |         |       |
| 15  | XO    | 88       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 734   | 459 | 147 | 126 | 2 |         |         |       |

- Molecule 16 is a protein called 30S ribosomal protein S16.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 16  | QP    | 84       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 705   | 446 | 140 | 118 | 1 |         |         |       |
| 16  | XP    | 84       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 705   | 446 | 140 | 118 | 1 |         |         |       |

- Molecule 17 is a protein called 30S ribosomal protein S17.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 17  | QQ    | 100      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 834   | 534 | 155 | 143 | 2 |         |         |       |
| 17  | XQ    | 100      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 834   | 534 | 155 | 143 | 2 |         |         |       |

- Molecule 18 is a protein called 30S ribosomal protein S18.

| Mol | Chain | Residues | Atoms |     |     |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---------|---------|-------|
| 18  | QR    | 70       | Total | C   | N   | O  | 0       | 0       | 0     |
|     |       |          | 574   | 367 | 112 | 95 |         |         |       |
| 18  | XR    | 70       | Total | C   | N   | O  | 0       | 0       | 0     |
|     |       |          | 574   | 367 | 112 | 95 |         |         |       |

- Molecule 19 is a protein called 30S ribosomal protein S19.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 19  | QS    | 84       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 674   | 430 | 126 | 116 | 2 |         |         |       |
| 19  | XS    | 84       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 674   | 430 | 126 | 116 | 2 |         |         |       |

- Molecule 20 is a protein called 30S ribosomal protein S20.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 20  | QT    | 99       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 763   | 470 | 162 | 129 | 2 |         |         |       |
| 20  | XT    | 99       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 763   | 470 | 162 | 129 | 2 |         |         |       |

- Molecule 21 is a protein called 30S ribosomal protein Thx.

| Mol | Chain | Residues | Atoms |     |    |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|---------|-------|
| 21  | QU    | 25       | Total | C   | N  | O  | 0       | 0       | 0     |
|     |       |          | 217   | 134 | 52 | 31 |         |         |       |
| 21  | XU    | 25       | Total | C   | N  | O  | 0       | 0       | 0     |
|     |       |          | 217   | 134 | 52 | 31 |         |         |       |

- Molecule 22 is a RNA chain called P-site tRNA f-Met.

| Mol | Chain | Residues | Atoms |     |     |     |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|---------|-------|
| 22  | QV    | 77       | Total | C   | N   | O   | P  | 0       | 0       | 0     |
|     |       |          | 1644  | 732 | 297 | 538 | 77 |         |         |       |
| 22  | XV    | 77       | Total | C   | N   | O   | P  | 0       | 0       | 0     |
|     |       |          | 1644  | 732 | 297 | 538 | 77 |         |         |       |

- Molecule 23 is a RNA chain called messenger RNA.

| Mol | Chain | Residues | Atoms |    |    |    |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|----|----|----|----|---------|---------|-------|
| 23  | QX    | 9        | Total | C  | N  | O  | P  | 0       | 0       | 0     |
|     |       |          | 191   | 86 | 36 | 60 | 9  |         |         |       |
| 23  | XX    | 10       | Total | C  | N  | O  | P  | 0       | 0       | 0     |
|     |       |          | 213   | 96 | 41 | 66 | 10 |         |         |       |

- Molecule 24 is a RNA chain called A-site tRNA Thr.

| Mol | Chain | Residues | Atoms |     |    |     |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|-----|----|---------|---------|-------|
| 24  | QY    | 16       | Total | C   | N  | O   | P  | 0       | 0       | 0     |
|     |       |          | 344   | 153 | 62 | 113 | 16 |         |         |       |
| 24  | XY    | 16       | Total | C   | N  | O   | P  | 0       | 0       | 0     |
|     |       |          | 344   | 153 | 62 | 113 | 16 |         |         |       |

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

| Mol | Chain | Residues | Atoms |       |       |       |      | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-------|-------|-------|------|---------|---------|-------|
| 25  | RA    | 2882     | Total | C     | N     | O     | P    | 0       | 0       | 0     |
|     |       |          | 62071 | 27627 | 11611 | 19952 | 2881 |         |         |       |
| 25  | YA    | 2882     | Total | C     | N     | O     | P    | 0       | 0       | 0     |
|     |       |          | 62071 | 27627 | 11611 | 19952 | 2881 |         |         |       |

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

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

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

- Molecule 27 is a protein called 50S ribosomal protein L2.

| Mol | Chain | Residues | Atoms |      |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
| 27  | RD    | 272      | Total | C    | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 2115  | 1335 | 420 | 357 | 3 |         |         |       |
| 27  | YD    | 272      | Total | C    | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 2115  | 1335 | 420 | 357 | 3 |         |         |       |

- Molecule 28 is a protein called 50S ribosomal protein L3.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 28  | RE    | 205      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1568  | 991 | 300 | 271 | 6 |         |         |       |
| 28  | YE    | 205      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1568  | 991 | 300 | 271 | 6 |         |         |       |

- Molecule 29 is a protein called 50S ribosomal protein L4.

| Mol | Chain | Residues | Atoms |      |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
| 29  | RF    | 202      | Total | C    | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1585  | 1011 | 297 | 275 | 2 |         |         |       |
| 29  | YF    | 202      | Total | C    | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1585  | 1011 | 297 | 275 | 2 |         |         |       |

- Molecule 30 is a protein called 50S ribosomal protein L5.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 30  | RG    | 181      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1474  | 942 | 268 | 260 | 4 |         |         |       |
| 30  | YG    | 181      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1474  | 942 | 268 | 260 | 4 |         |         |       |

- Molecule 31 is a protein called 50S ribosomal protein L6.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 31  | RH    | 170      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1307  | 829 | 245 | 232 | 1 |         |         |       |
| 31  | YH    | 170      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1307  | 829 | 245 | 232 | 1 |         |         |       |

- Molecule 32 is a protein called 50S ribosomal protein L9.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 32  | RI    | 146      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1136  | 726 | 201 | 208 | 1 |         |         |       |
| 32  | YI    | 146      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1136  | 726 | 201 | 208 | 1 |         |         |       |

- Molecule 33 is a protein called 50S ribosomal protein L13.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 33  | RN    | 138      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1104  | 712 | 206 | 182 | 4 |         |         |       |
| 33  | YN    | 138      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1104  | 712 | 206 | 182 | 4 |         |         |       |

- Molecule 34 is a protein called 50S ribosomal protein L14.

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

- Molecule 35 is a protein called 50S ribosomal protein L15.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 35  | RP    | 150      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1145  | 712 | 232 | 198 | 3 |         |         |       |
| 35  | YP    | 150      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1145  | 712 | 232 | 198 | 3 |         |         |       |

- Molecule 36 is a protein called 50S ribosomal protein L16.

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

- Molecule 37 is a protein called 50S ribosomal protein L17.



| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 37  | RR    | 118      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 968   | 604 | 203 | 160 | 1 |         |         |       |
| 37  | YR    | 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  | RS    | 111      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 882   | 556 | 176 | 150 |   |         |         |       |
| 38  | YS    | 111      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 882   | 556 | 176 | 150 |   |         |         |       |

- Molecule 39 is a protein called 50S ribosomal protein L19.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 39  | RT    | 137      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1141  | 710 | 234 | 196 | 1 |         |         |       |
| 39  | YT    | 137      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1141  | 710 | 234 | 196 | 1 |         |         |       |

- Molecule 40 is a protein called 50S ribosomal protein L20.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 40  | RU    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 964   | 610 | 202 | 151 | 1 |         |         |       |
| 40  | YU    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 964   | 610 | 202 | 151 | 1 |         |         |       |

- Molecule 41 is a protein called 50S ribosomal protein L21.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 41  | RV    | 101      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 779   | 501 | 142 | 135 | 1 |         |         |       |
| 41  | YV    | 101      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 779   | 501 | 142 | 135 | 1 |         |         |       |

- Molecule 42 is a protein called 50S ribosomal protein L22.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 42  | RW    | 113      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 900   | 566 | 177 | 155 | 2 |         |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 42  | YW    | 113      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 900   | 566 | 177 | 155 | 2 |         |         |       |

- Molecule 43 is a protein called 50S ribosomal protein L23.

| Mol | Chain | Residues | Atoms |     |     |     |  | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|--|---------|---------|-------|
| 43  | RX    | 92       | Total | C   | N   | O   |  | 0       | 0       | 0     |
|     |       |          | 725   | 471 | 131 | 123 |  |         |         |       |
| 43  | YX    | 92       | Total | C   | N   | O   |  | 0       | 0       | 0     |
|     |       |          | 725   | 471 | 131 | 123 |  |         |         |       |

- Molecule 44 is a protein called 50S ribosomal protein L24.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 44  | RY    | 102      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 785   | 505 | 150 | 125 | 5 |         |         |       |
| 44  | YY    | 102      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 785   | 505 | 150 | 125 | 5 |         |         |       |

- Molecule 45 is a protein called 50S ribosomal protein L25.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 45  | RZ    | 183      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1461  | 933 | 260 | 265 | 3 |         |         |       |
| 45  | YZ    | 183      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 1461  | 933 | 260 | 265 | 3 |         |         |       |

- Molecule 46 is a protein called 50S ribosomal protein L27.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 46  | R0    | 82       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 648   | 401 | 138 | 108 | 1 |         |         |       |
| 46  | Y0    | 82       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 647   | 401 | 137 | 108 | 1 |         |         |       |

- Molecule 47 is a protein called 50S ribosomal protein L28.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 47  | R1    | 97       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 763   | 481 | 150 | 131 | 1 |         |         |       |
| 47  | Y1    | 97       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 763   | 481 | 150 | 131 | 1 |         |         |       |

- Molecule 48 is a protein called 50S ribosomal protein L29.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 48  | R2    | 69       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 581   | 358 | 118 | 104 | 1 |         |         |       |
| 48  | Y2    | 69       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 581   | 358 | 118 | 104 | 1 |         |         |       |

- Molecule 49 is a protein called 50S ribosomal protein L30.

| Mol | Chain | Residues | Atoms |     |    |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|---------|-------|
| 49  | R3    | 59       | Total | C   | N  | O  | 0       | 0       | 0     |
|     |       |          | 469   | 298 | 90 | 81 |         |         |       |
| 49  | Y3    | 59       | Total | C   | N  | O  | 0       | 0       | 0     |
|     |       |          | 469   | 298 | 90 | 81 |         |         |       |

- Molecule 50 is a protein called 50S ribosomal protein L31.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 50  | R4    | 71       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 581   | 364 | 108 | 104 | 5 |         |         |       |
| 50  | Y4    | 71       | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 581   | 364 | 108 | 104 | 5 |         |         |       |

- Molecule 51 is a protein called 50S ribosomal protein L32.

| Mol | Chain | Residues | Atoms |     |    |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| 51  | R5    | 59       | Total | C   | N  | O  | S | 0       | 0       | 0     |
|     |       |          | 459   | 288 | 90 | 76 | 5 |         |         |       |
| 51  | Y5    | 58       | Total | C   | N  | O  | S | 0       | 0       | 0     |
|     |       |          | 454   | 285 | 89 | 75 | 5 |         |         |       |

- Molecule 52 is a protein called 50S ribosomal protein L33.

| Mol | Chain | Residues | Atoms |     |    |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| 52  | R6    | 49       | Total | C   | N  | O  | S | 0       | 0       | 0     |
|     |       |          | 424   | 264 | 87 | 69 | 4 |         |         |       |
| 52  | Y6    | 49       | Total | C   | N  | O  | S | 0       | 0       | 0     |
|     |       |          | 424   | 264 | 87 | 69 | 4 |         |         |       |

- Molecule 53 is a protein called 50S ribosomal protein L34.

| Mol | Chain | Residues | Atoms |     |     |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|---------|-------|
| 53  | R7    | 49       | Total | C   | N   | O  | S | 0       | 0       | 0     |
|     |       |          | 430   | 263 | 108 | 57 | 2 |         |         |       |
| 53  | Y7    | 49       | Total | C   | N   | O  | S | 0       | 0       | 0     |
|     |       |          | 430   | 263 | 108 | 57 | 2 |         |         |       |

- Molecule 54 is a protein called 50S ribosomal protein L35.

| Mol | Chain | Residues | Atoms |     |     |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|---------|-------|
| 54  | R8    | 64       | Total | C   | N   | O  | S | 0       | 0       | 0     |
|     |       |          | 517   | 331 | 102 | 82 | 2 |         |         |       |
| 54  | Y8    | 64       | Total | C   | N   | O  | S | 0       | 0       | 0     |
|     |       |          | 517   | 331 | 102 | 82 | 2 |         |         |       |

- Molecule 55 is a protein called 50S ribosomal protein L36.

| Mol | Chain | Residues | Atoms |     |    |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| 55  | R9    | 37       | Total | C   | N  | O  | S | 0       | 0       | 0     |
|     |       |          | 307   | 188 | 68 | 47 | 4 |         |         |       |
| 55  | Y9    | 37       | Total | C   | N  | O  | S | 0       | 0       | 0     |
|     |       |          | 307   | 188 | 68 | 47 | 4 |         |         |       |

- Molecule 56 is a RNA chain called CC-Puro.

| Mol | Chain | Residues | Atoms |    |   |    |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|----|---|----|---|---------|---------|-------|
| 56  | Z5    | 2        | Total | C  | N | O  | P | 0       | 0       | 0     |
|     |       |          | 37    | 18 | 6 | 12 | 1 |         |         |       |
| 56  | Z6    | 2        | Total | C  | N | O  | P | 0       | 0       | 0     |
|     |       |          | 37    | 18 | 6 | 12 | 1 |         |         |       |

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

| Mol | Chain | Residues | Atoms |     | ZeroOcc | AltConf |
|-----|-------|----------|-------|-----|---------|---------|
| 57  | QA    | 82       | Total | Mg  | 0       | 0       |
|     |       |          | 82    | 82  |         |         |
| 57  | RP    | 1        | Total | Mg  | 0       | 0       |
|     |       |          | 1     | 1   |         |         |
| 57  | QX    | 1        | Total | Mg  | 0       | 0       |
|     |       |          | 1     | 1   |         |         |
| 57  | YA    | 359      | Total | Mg  | 0       | 0       |
|     |       |          | 359   | 359 |         |         |
| 57  | Y5    | 1        | Total | Mg  | 0       | 0       |
|     |       |          | 1     | 1   |         |         |

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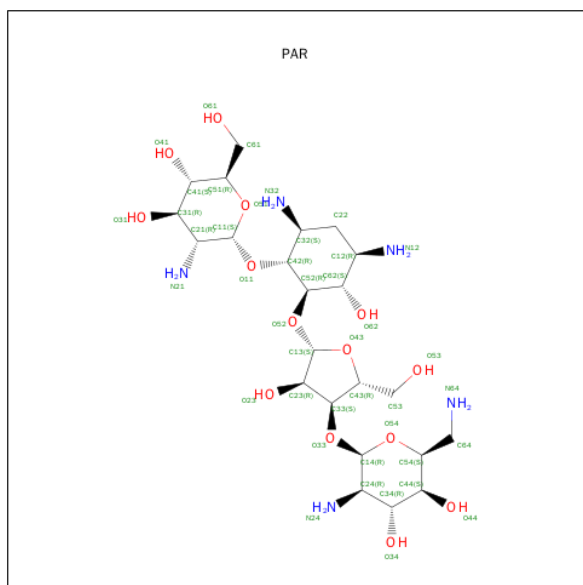
| Mol | Chain | Residues | Atoms        |           | ZeroOcc | AltConf |
|-----|-------|----------|--------------|-----------|---------|---------|
| 57  | Y1    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | XX    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | QV    | 3        | Total<br>3   | Mg<br>3   | 0       | 0       |
| 57  | XA    | 111      | Total<br>111 | Mg<br>111 | 0       | 0       |
| 57  | YY    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | R0    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | YU    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | Y0    | 3        | Total<br>3   | Mg<br>3   | 0       | 0       |
| 57  | XF    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | RR    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | Y7    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | XB    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | QF    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | R5    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | RA    | 327      | Total<br>327 | Mg<br>327 | 0       | 0       |
| 57  | YP    | 2        | Total<br>2   | Mg<br>2   | 0       | 0       |
| 57  | RE    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | YB    | 4        | Total<br>4   | Mg<br>4   | 0       | 0       |
| 57  | QY    | 1        | Total<br>1   | Mg<br>1   | 0       | 0       |
| 57  | XV    | 3        | Total<br>3   | Mg<br>3   | 0       | 0       |
| 57  | RB    | 5        | Total<br>5   | Mg<br>5   | 0       | 0       |

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| Mol | Chain | Residues | Atoms |    | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---------|---------|
| 57  | QE    | 1        | Total | Mg | 0       | 0       |
|     |       |          | 1     | 1  |         |         |
| 57  | XD    | 1        | Total | Mg | 0       | 0       |
|     |       |          | 1     | 1  |         |         |
| 57  | YE    | 1        | Total | Mg | 0       | 0       |
|     |       |          | 1     | 1  |         |         |

- Molecule 58 is PAROMOMYCIN (three-letter code: PAR) (formula:  $C_{23}H_{45}N_5O_{14}$ ).

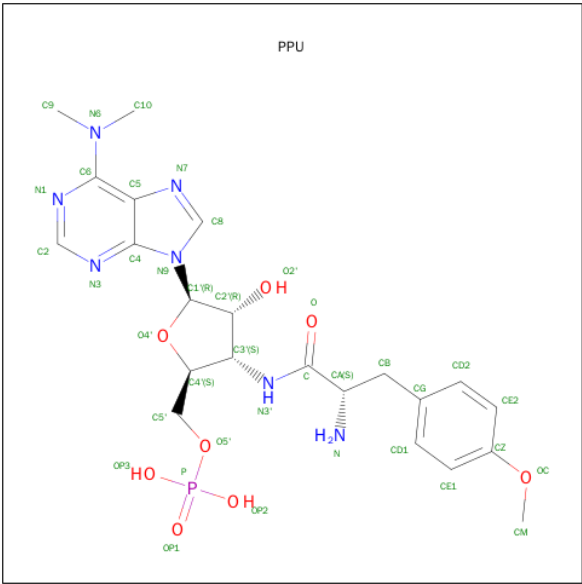


| Mol | Chain | Residues | Atoms |    |   |    | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---|----|---------|---------|
| 58  | QA    | 1        | Total | C  | N | O  | 0       | 0       |
|     |       |          | 42    | 23 | 5 | 14 |         |         |
| 58  | XA    | 1        | Total | C  | N | O  | 0       | 0       |
|     |       |          | 42    | 23 | 5 | 14 |         |         |

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

| Mol | Chain | Residues | Atoms |    | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---------|---------|
| 59  | XD    | 1        | Total | Zn | 0       | 0       |
|     |       |          | 1     | 1  |         |         |
| 59  | QD    | 1        | Total | Zn | 0       | 0       |
|     |       |          | 1     | 1  |         |         |
| 59  | QN    | 1        | Total | Zn | 0       | 0       |
|     |       |          | 1     | 1  |         |         |
| 59  | XN    | 1        | Total | Zn | 0       | 0       |
|     |       |          | 1     | 1  |         |         |

- Molecule 60 is PUROMYCIN-5'-MONOPHOSPHATE (three-letter code: PPU) (formula: C<sub>22</sub>H<sub>30</sub>N<sub>7</sub>O<sub>8</sub>P).

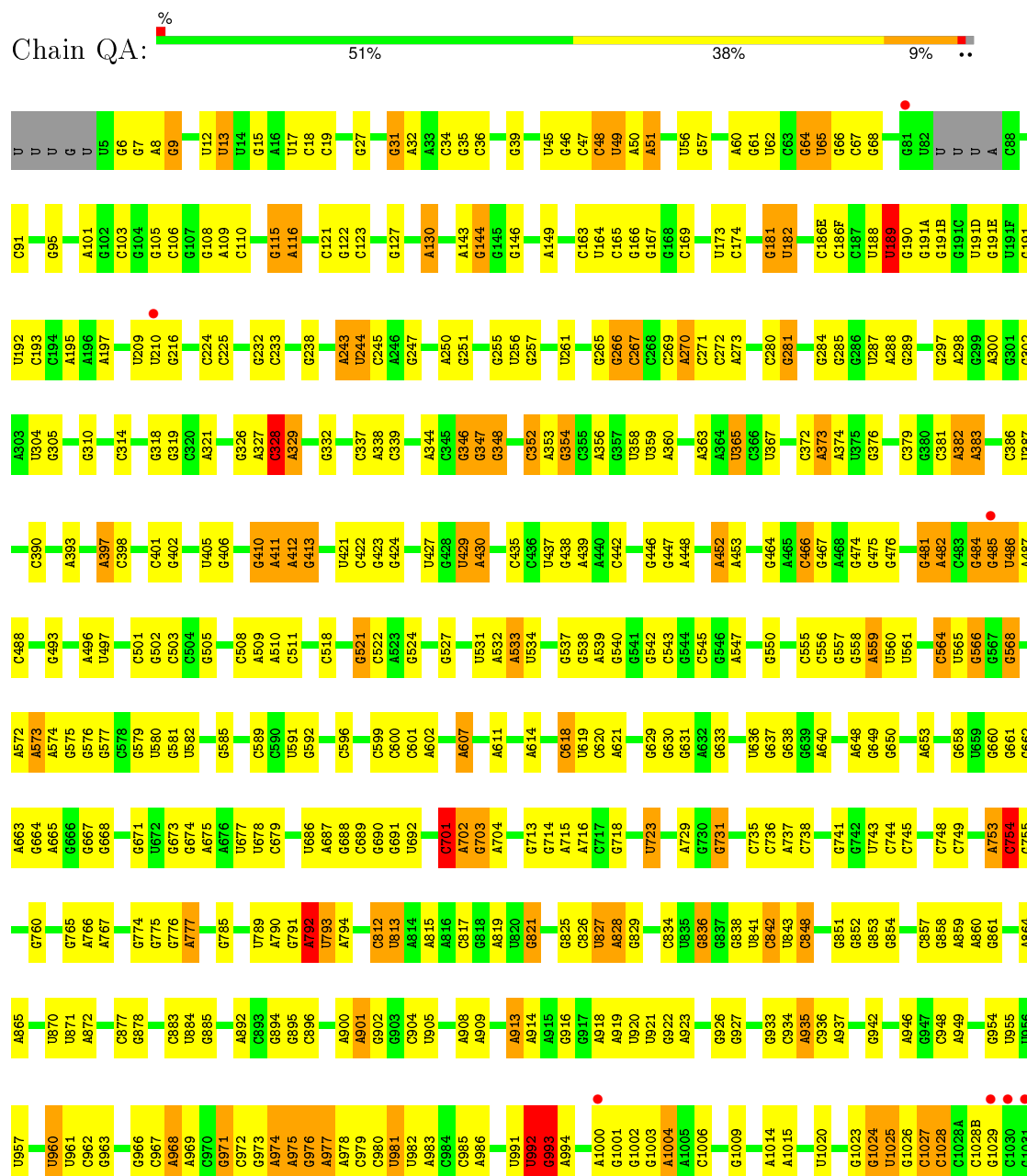


| Mol | Chain | Residues | Atoms |    |   |   |   | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---|---|---|---------|---------|
| 60  | Z5    | 1        | Total | C  | N | O | P | 0       | 0       |
|     |       |          | 37    | 22 | 7 | 7 | 1 |         |         |
| 60  | Z6    | 1        | Total | C  | N | O | P | 0       | 0       |
|     |       |          | 37    | 22 | 7 | 7 | 1 |         |         |

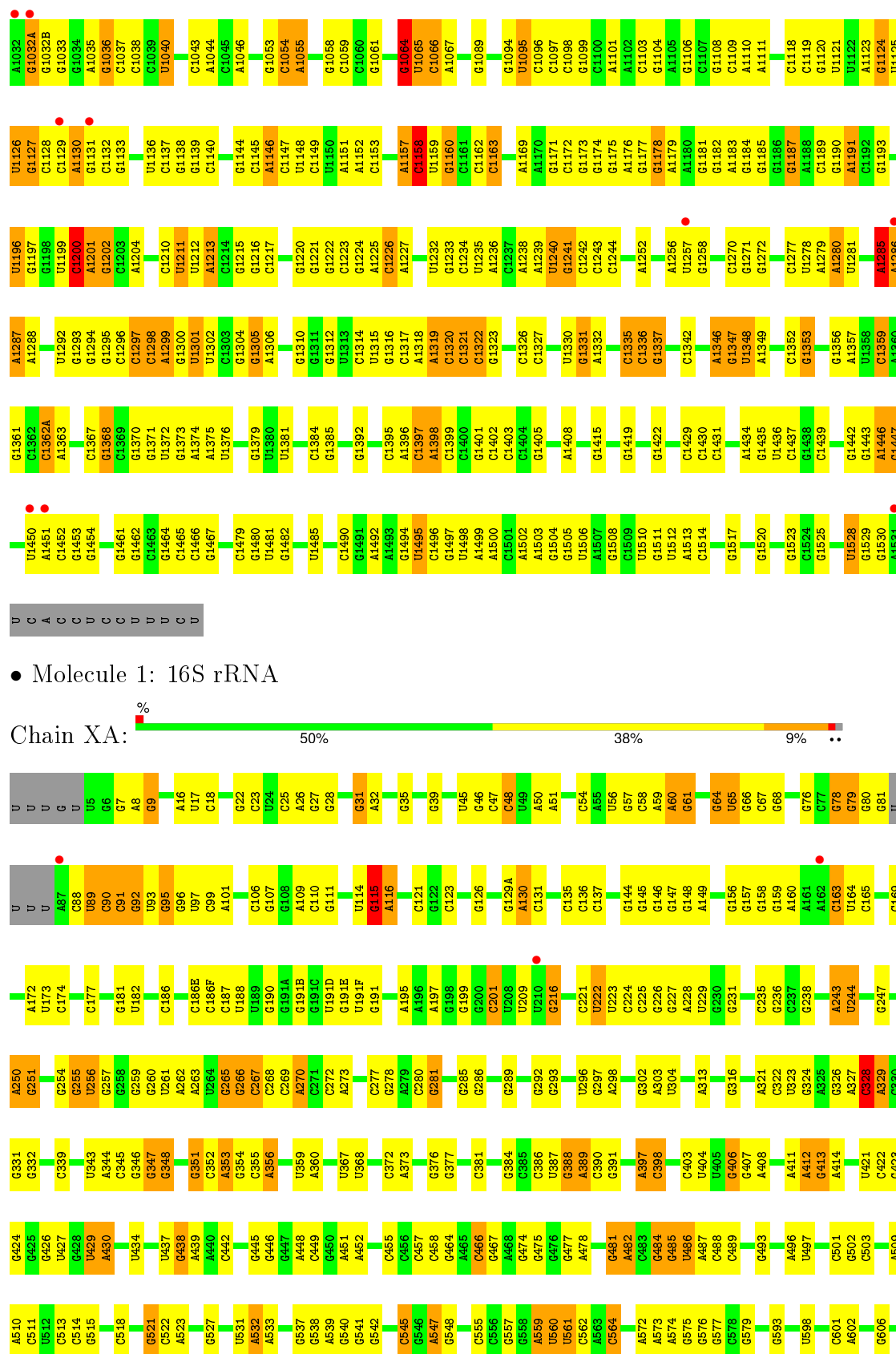
### 3 Residue-property plots

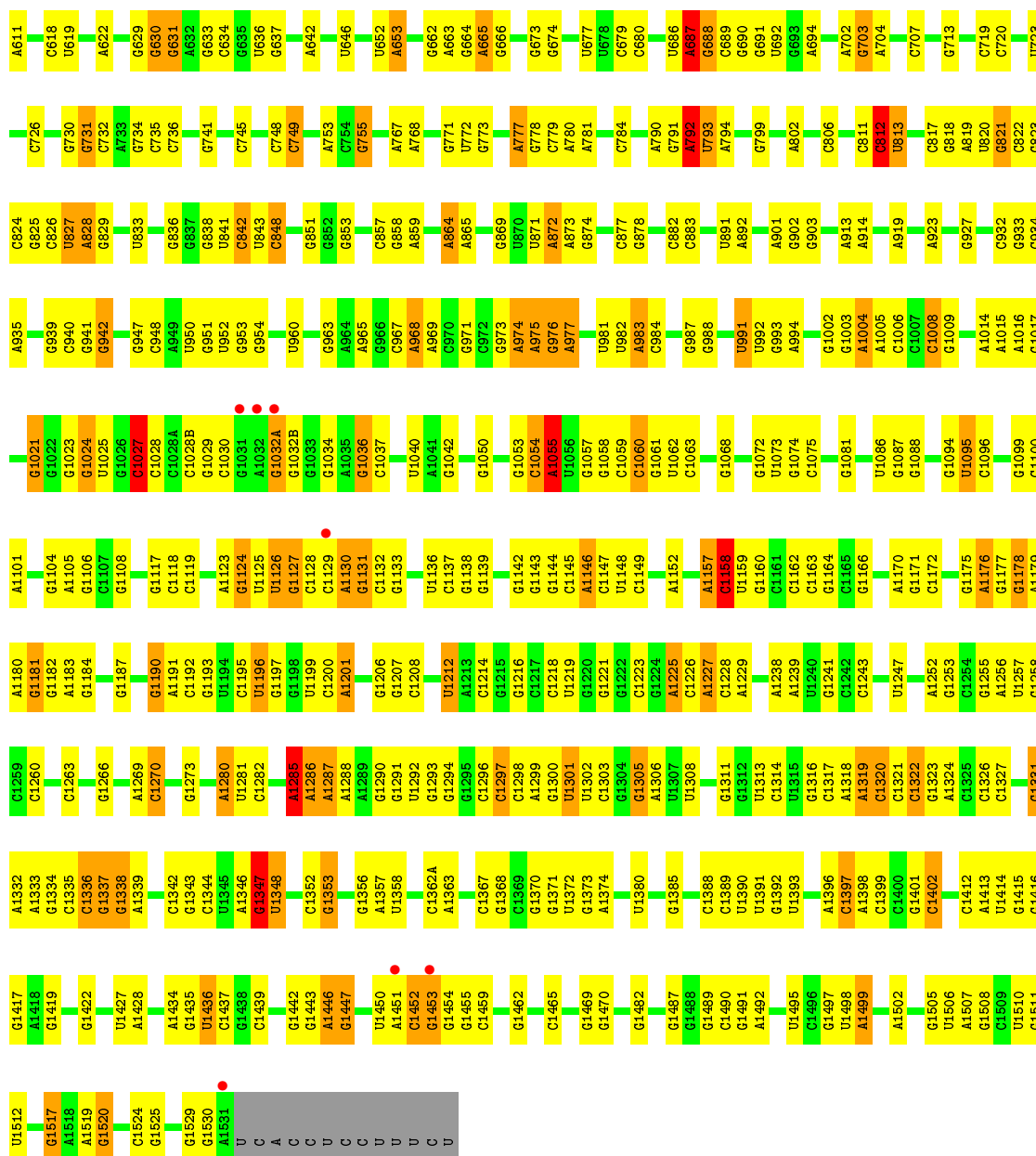
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according 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 rRNA





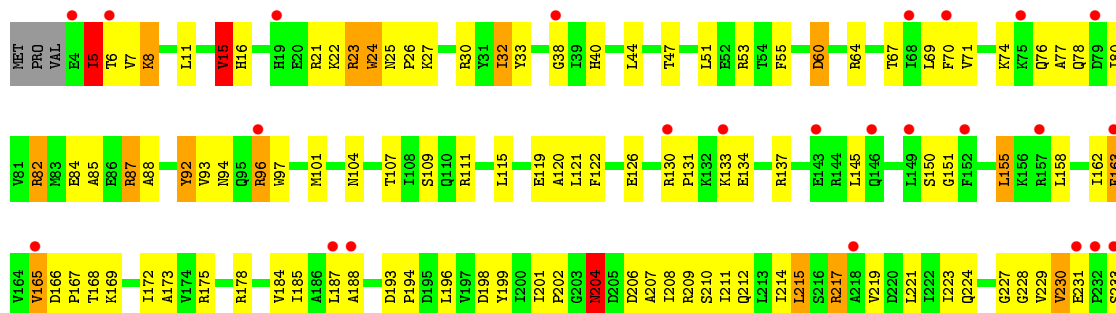


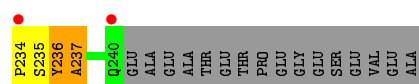


• Molecule 2: 30S ribosomal protein S2

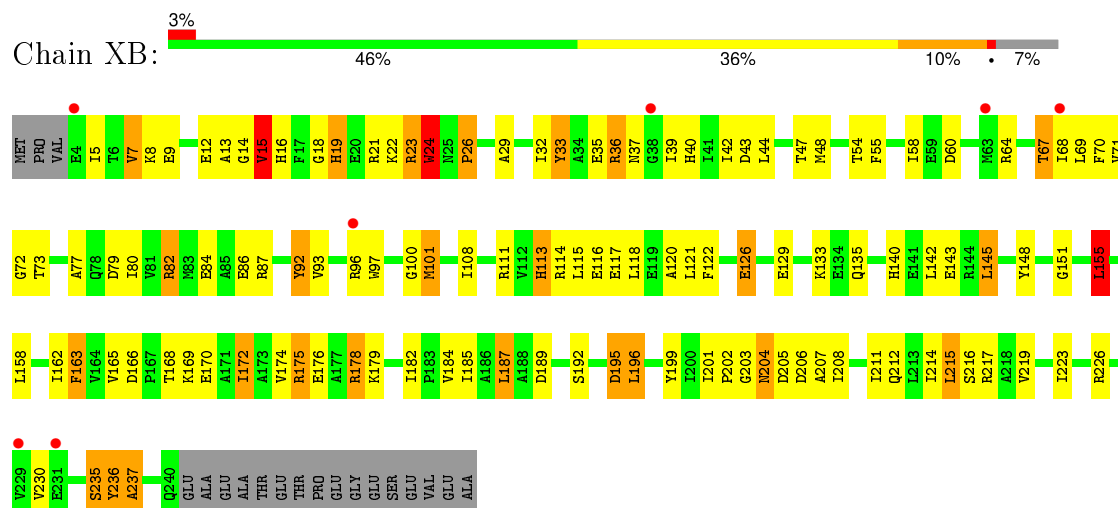


Chain QB:

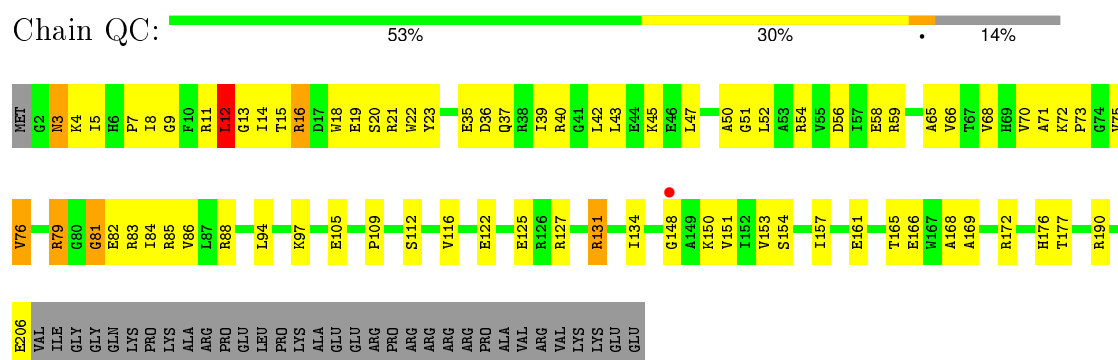




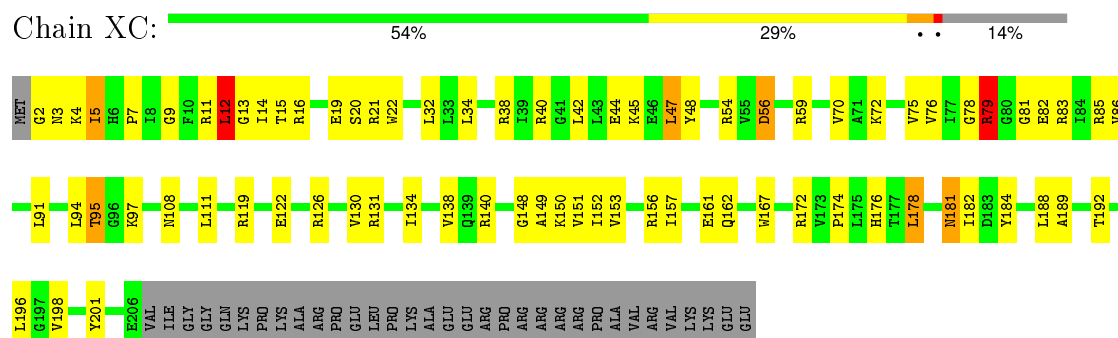
• Molecule 2: 30S ribosomal protein S2



• Molecule 3: 30S ribosomal protein S3

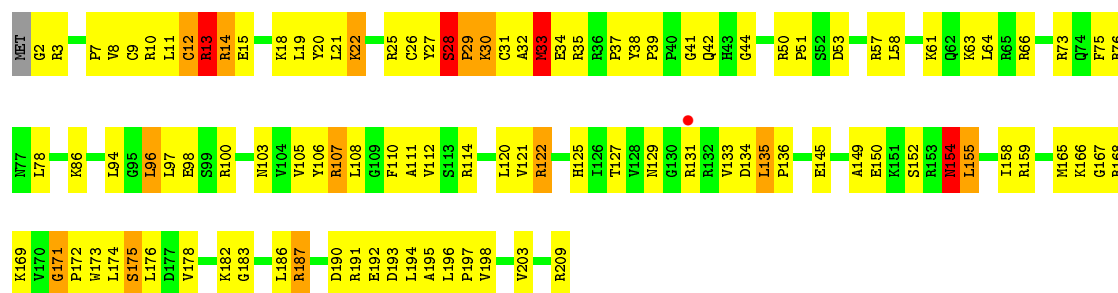


• Molecule 3: 30S ribosomal protein S3



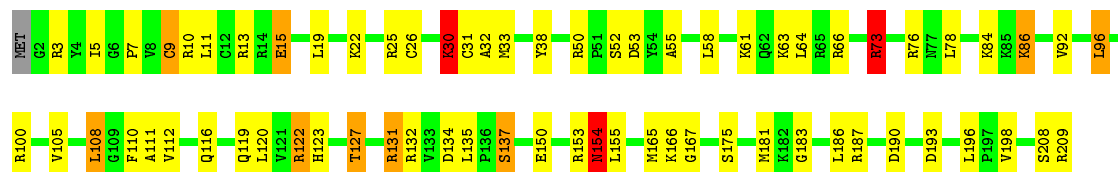
• Molecule 4: 30S ribosomal protein S4





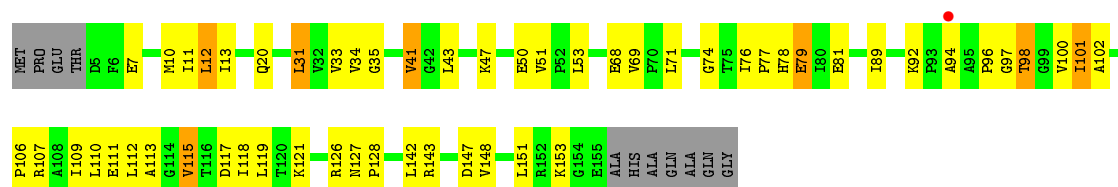
- Molecule 4: 30S ribosomal protein S4

Chain XD: 67% 27%



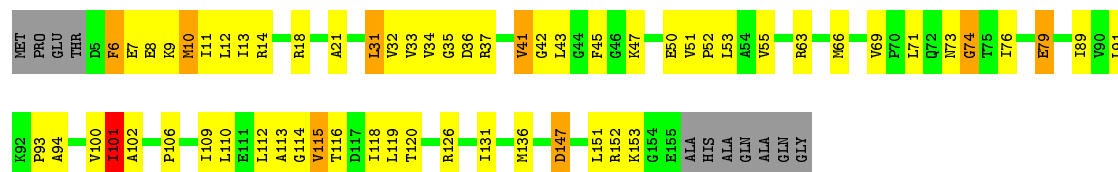
- Molecule 5: 30S ribosomal protein S5

Chain QE: 59% 30% 7%



- Molecule 5: 30S ribosomal protein S5

Chain XE: 56% 32% 5% 7%



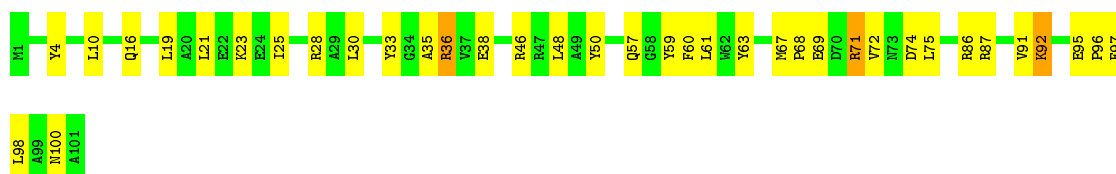
- Molecule 6: 30S ribosomal protein S6

Chain QF: 69% 27%

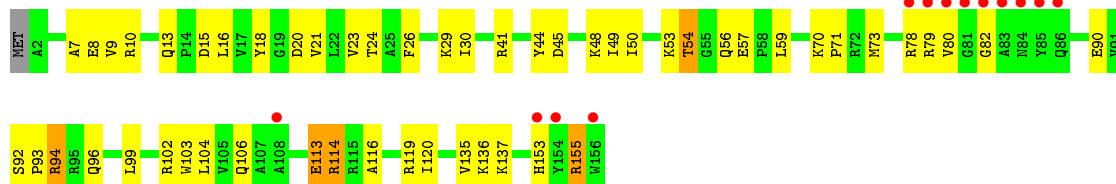


- Molecule 6: 30S ribosomal protein S6

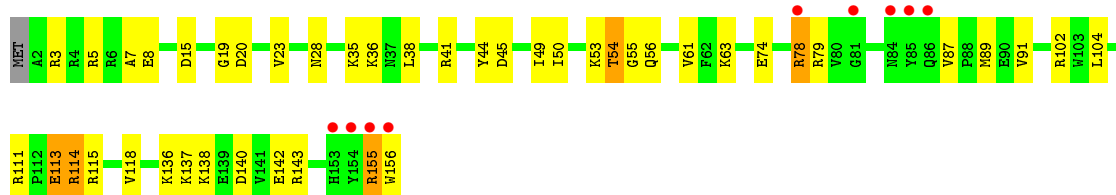
Chain XF: 63% 34%



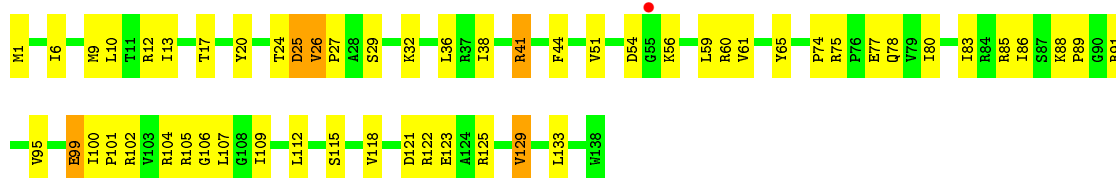
- Molecule 7: 30S ribosomal protein S7



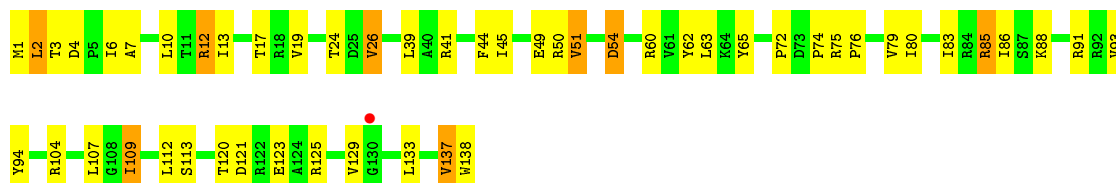
- Molecule 7: 30S ribosomal protein S7



- Molecule 8: 30S ribosomal protein S8

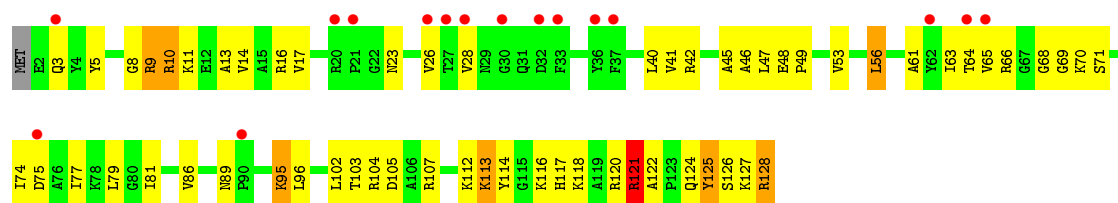


- Molecule 8: 30S ribosomal protein S8



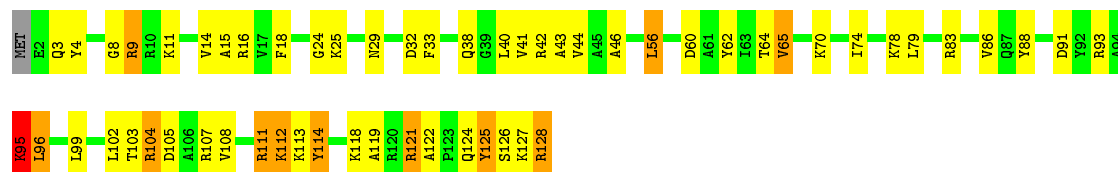
- Molecule 9: 30S ribosomal protein S9





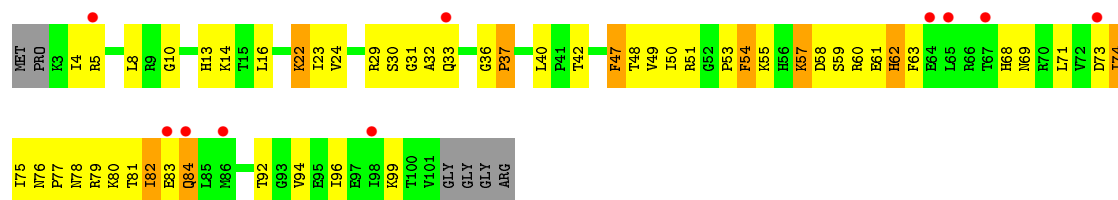
• Molecule 9: 30S ribosomal protein S9

Chain XI: 55% 35% 9% ..



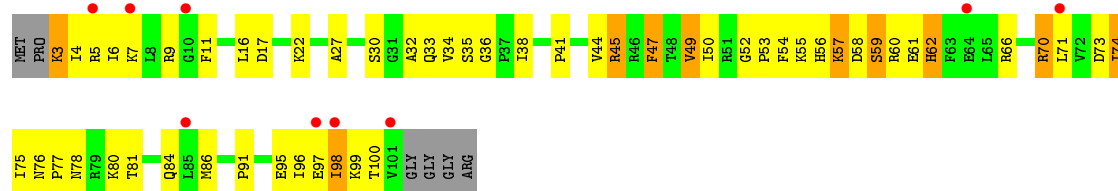
• Molecule 10: 30S ribosomal protein S10

Chain QJ: 10% 44% 42% 9% 6%



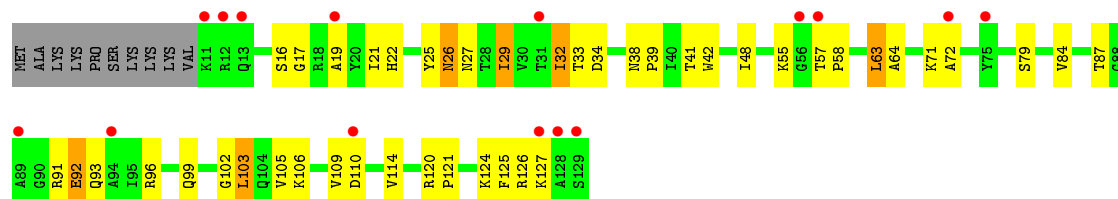
• Molecule 10: 30S ribosomal protein S10

Chain XJ: 9% 42% 43% 10% 6%

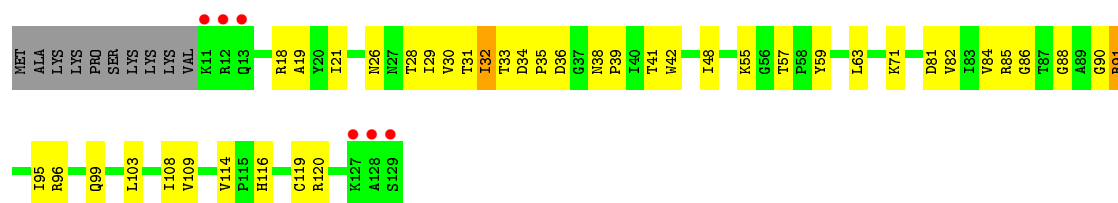


• Molecule 11: 30S ribosomal protein S11

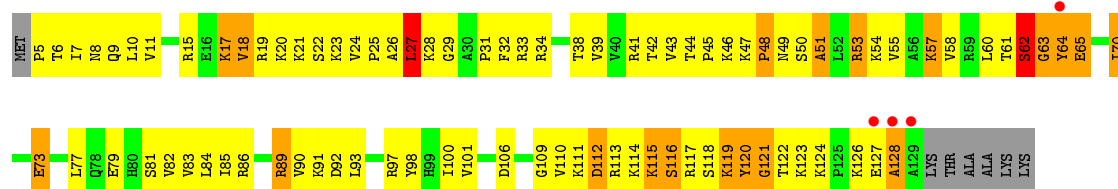
Chain QK: 12% 57% 30% 5% 8%



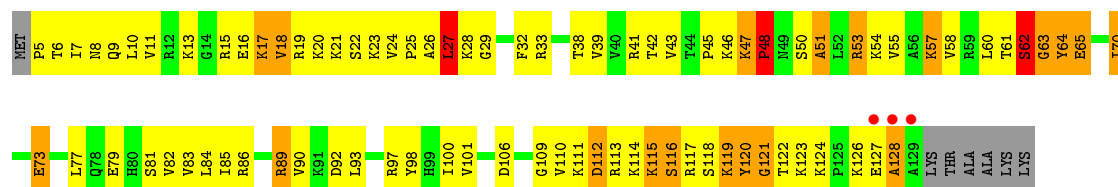
• Molecule 11: 30S ribosomal protein S11



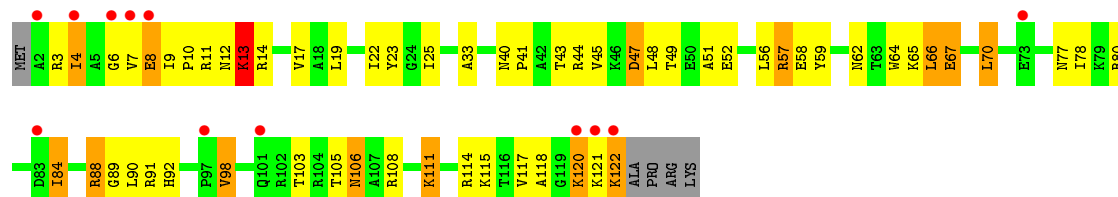
- Molecule 12: 30S ribosomal protein S12



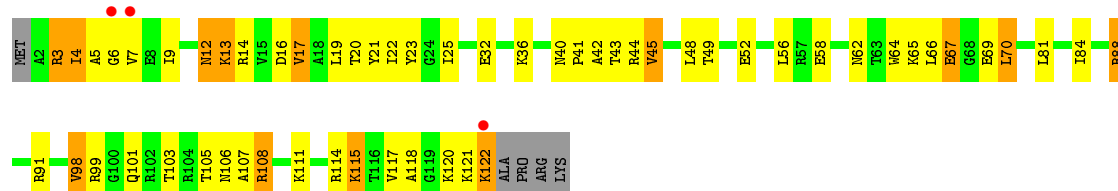
- Molecule 12: 30S ribosomal protein S12



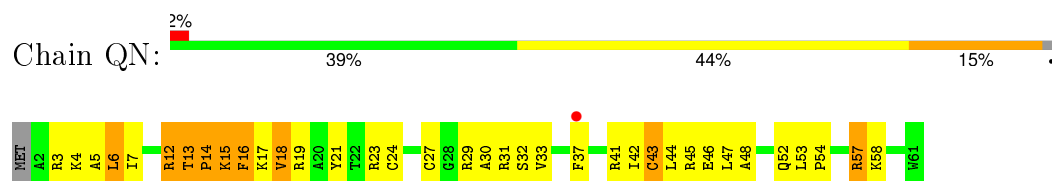
- Molecule 13: 30S ribosomal protein S13



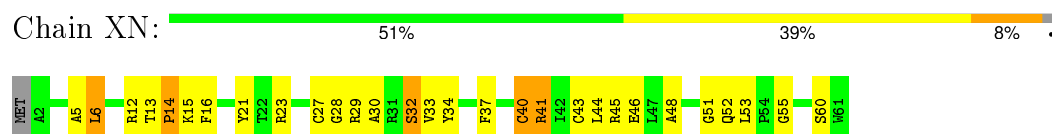
- Molecule 13: 30S ribosomal protein S13



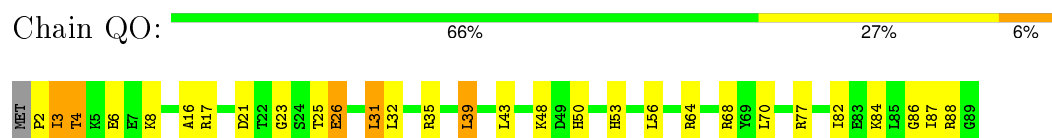
- Molecule 14: 30S ribosomal protein S14 type Z



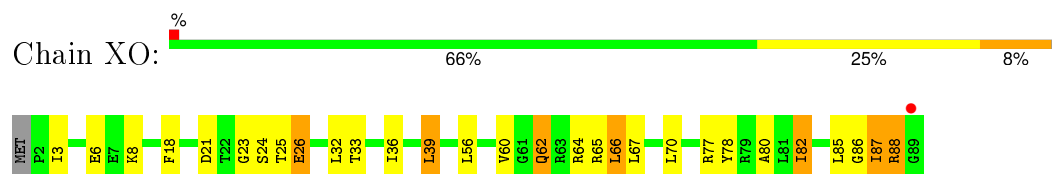
- Molecule 14: 30S ribosomal protein S14 type Z



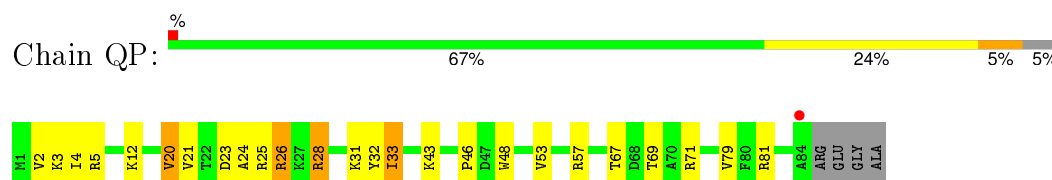
- Molecule 15: 30S ribosomal protein S15



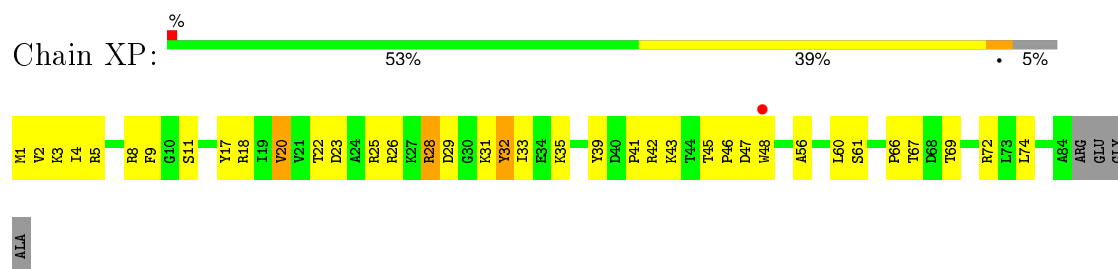
- Molecule 15: 30S ribosomal protein S15



- Molecule 16: 30S ribosomal protein S16



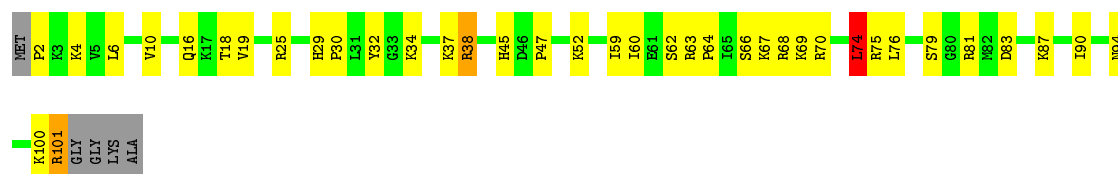
- Molecule 16: 30S ribosomal protein S16



- Molecule 17: 30S ribosomal protein S17







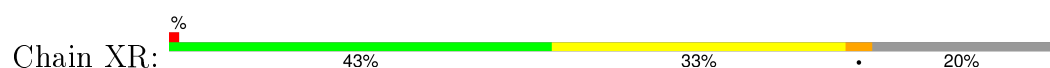
- Molecule 17: 30S ribosomal protein S17



- Molecule 18: 30S ribosomal protein S18



- Molecule 18: 30S ribosomal protein S18



- Molecule 19: 30S ribosomal protein S19



- Molecule 19: 30S ribosomal protein S19



- Molecule 20: 30S ribosomal protein S20



- Molecule 20: 30S ribosomal protein S20



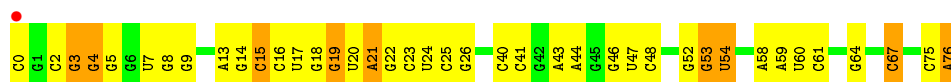
- Molecule 21: 30S ribosomal protein Thx



- Molecule 21: 30S ribosomal protein Thx



- Molecule 22: P-site tRNA f-Met



- Molecule 22: P-site tRNA f-Met



- Molecule 23: messenger RNA

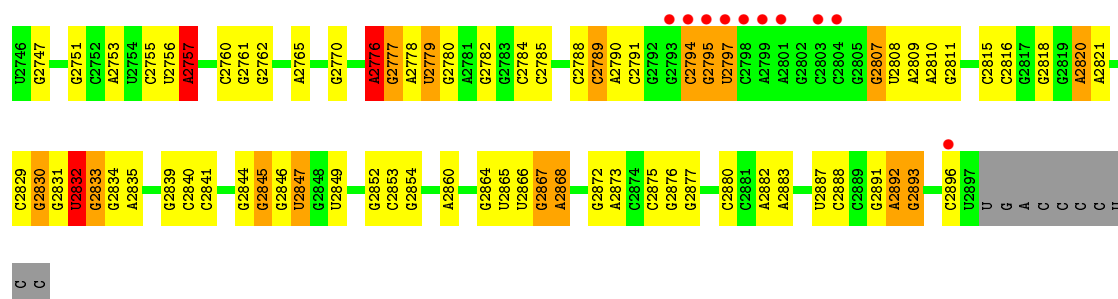


|       |       |       |       |       |       |       |       |       |      |       |      |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|
| A1817 | G1637 | A1553 | A1473 | U1381 | A1293 | U1211 | A1132 | A986  | C904 | G703  | A626 |
| A1818 | C1638 | A1554 | C1474 | A1382 | G1294 | C1212 | G1133 | G987  | U905 | U704  | G627 |
| C1821 | G1639 | C1555 | C1475 | G1383 | A1299 |       | G1134 | G988  | G906 | G1070 | G628 |
| A1822 | G1640 | A1556 |       | G1384 |       | G1215 | G1135 | G989  | U907 | C706  | U629 |
|       | G1641 | A1557 | U1478 | U1387 | G1302 |       | U1137 | G991  | A908 | G707  | U630 |
| U1825 | C1644 | G1558 | U1479 | U1388 |       | G1218 | G1138 | G992  | A909 | G708  | A631 |
| C1826 | C1645 | C1559 | A1480 | A1388 | G1305 | A1219 | G1139 | G993  | A910 | G709  |      |
| U1827 | C1646 | U1560 | G1481 | G1389 | G1306 | U1220 | U1140 | G994  | G916 | G715  | G636 |
| U1828 | C1647 | C1561 | G1482 | G1390 |       | G1221 | A1141 | G995  | A917 | G716  | U638 |
| U1829 |       | U1562 | C1483 | C1391 | C1307 | A1222 | A1142 | G996  | U918 | A717  | G639 |
| G1830 | A1649 | U1563 | G1487 | C1398 | A1308 | G1223 | U1143 | G997  | A919 | G720  | A640 |
| C1831 | C1653 | C1564 | G1488 | U1399 | U1309 | G1224 | U1144 | G998  | G920 | G721  | G641 |
| G1832 | A1654 | G1565 | G1489 | A1395 | G1310 | C1224 | A1145 | G999  |      | G722  |      |
| A1833 | A1655 | U1566 | G1490 | A1396 | A1311 | C1225 | G1146 |       | G926 | A723  | G644 |
| A1834 | A1656 | G1567 | A1491 | U1398 | G1312 |       | U1147 | A1002 | G927 | A724  | G645 |
|       |       | U1568 | C1492 | A1399 |       | G1232 | C1148 | U1003 | A831 | A725  | A646 |
| C1837 | A1660 | G1571 | A1496 | G1402 | A1315 | U1233 | A1149 | U1004 | G832 | C726  | G647 |
| G1838 | C1661 |       | G1497 | U1403 | G1316 | A1234 | C1150 | U1005 |      |       |      |
| U1839 | A1662 | A1574 |       | G1404 | A1317 | G1235 | U1151 | C1006 | A835 | G733  | A652 |
| A1840 | A1663 |       | U1501 | A1405 | A1318 | G1236 | G1152 |       | A836 | C734  | G655 |
| G1842 | A1664 | C1579 | C1505 |       | U1319 |       |       | G1011 | C837 | U735  | A656 |
|       |       | G1580 | G1506 | G1410 | A1324 | U1240 | G1156 | G1019 | A838 | C739  | A657 |
| G1847 | G1669 | U1581 | A1507 | A1411 | G1325 | U1243 | A1157 | G1020 | A840 | C740  | A658 |
| G1848 |       | A1582 | G1508 | A1412 |       | C1245 | G1158 |       |      |       |      |
| U1849 | G1672 | C1583 | G1509 | A1413 | A1333 | G1246 | U1159 | A1026 | C843 | C745  | A662 |
| G1851 | G1673 | G1584 | C1510 | G1414 | U1334 | C1247 | G1161 | A1029 | C844 | G749  | G663 |
| A1852 | C1683 | U1585 | C1511 | G1416 |       | G1248 |       | U941  | A849 | G750  | C670 |
| G1853 | A1684 | G1588 | C1514 | U1417 | G1338 | A1249 | C1164 | A942  | C852 | G751  | A671 |
|       | C1685 | C1590 |       | U1418 | C1339 | U1250 | G1168 | C943  | C853 | A752  |      |
| G1857 | C1687 | A1591 | G1517 | A1425 |       | G1251 |       | G1035 | U854 | G754  | C675 |
| C1858 |       | C1595 | A1518 | A1430 | G1342 | G1254 | G1171 | A1034 | A945 |       | C676 |
| G1859 | G1694 |       | G1519 | G1431 | U1346 | A1255 | A1172 | G1039 | A946 | G764  | A677 |
| A1860 | G1696 | A1601 | G1520 | C1432 | A1347 | U1256 | A1173 | C1040 | A947 |       | A678 |
|       | G1697 |       | G1521 | C1433 |       | G1257 | A1174 | G1041 |      | A769  |      |
| U1864 | G1698 |       | A1524 | G1434 | C1352 | A1265 | U1175 | A1042 | C950 | A769  | G680 |
| U1865 | A1699 | A1605 | G1525 | G1435 |       | C1266 | G1177 | G1043 | U951 | G770  | C681 |
| G1866 | G1700 | G1606 | G1526 | U1436 | G1355 |       |       | A1046 | G952 | G771  | G    |
| C1869 | A1701 | G1607 | G1527 | U1437 | G1356 | G1269 | C1180 | A1047 | U953 | G772  | G    |
| G1870 | A1702 | A1613 | U1528 | U1440 | G1357 | G1270 | G1181 | G1048 | A956 | G773  | C    |
|       | G1703 | G1614 | G1529 | A1441 | U1358 | G1271 | G1182 | G1049 |      | G776  | C    |
| G1873 | C1704 | G1615 | A1532 | U1442 | C1360 | A1272 | G1183 | C1050 | C960 | C777  | G    |
| C1874 | C1705 | A1616 | A1536 |       | C1361 | G1273 | C1184 | C1051 | G961 |       | C    |
|       |       |       | U1537 | C1449 | A1363 | G1276 | U1185 | C1052 | C962 | A781  | A    |
| A1878 | A1712 | C1624 | A1538 | C1453 |       | G1277 | U1186 | C1053 | A963 | G793  | C    |
| A1879 | G1713 | U1625 | C1454 | C1454 | A1367 |       | U1187 | C1054 | A964 | U794  | C    |
|       | A1715 | A1626 | U1539 | C1454 |       | G1282 | A1188 | A1055 | G965 |       | G    |
| G1889 | G1721 | G1627 | A1540 | C1454 | A1368 | A1283 | A1189 | A1056 |      | A798  | G    |
| A1890 | C1722 | G1628 | A1541 | U1369 | A1369 | G1284 | C1195 | U1057 | U968 | A799  | C    |
| U1895 | U1810 | C1629 | A1542 | C1457 | G1370 | G1285 | C1196 | U1058 | C969 | C800  | C    |
| U1896 | A1811 | A1630 | U1543 |       | G1371 | U1286 | G1197 | C1059 | C970 | C801  | C    |
| C1897 | C1812 | G1631 | C1544 | G1462 |       | A1287 | C1198 |       |      | C802  |      |
| A1898 | U1726 | A1632 | C1545 | C1463 | U1375 |       | C1199 | G1063 | G977 |       | G698 |
| G1899 | U1727 | A1633 | U1549 | G1464 | C1376 | A1287 | G1200 | G1064 | A978 |       | C699 |
| A1899 | A1815 | C1634 | C1550 | A1465 | A1377 | G1290 | U1129 | G1065 |      | G810  | A700 |
| G1900 |       | C1635 | U1466 | A1551 | G1378 | G1291 | A1130 | A1066 | G983 | A811  | A701 |
|       | A1816 | U1636 | C1552 | G1467 |       | A1292 | A1131 | A1067 |      | G812  | A702 |

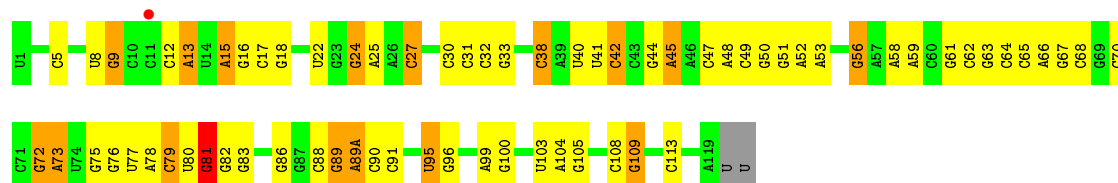




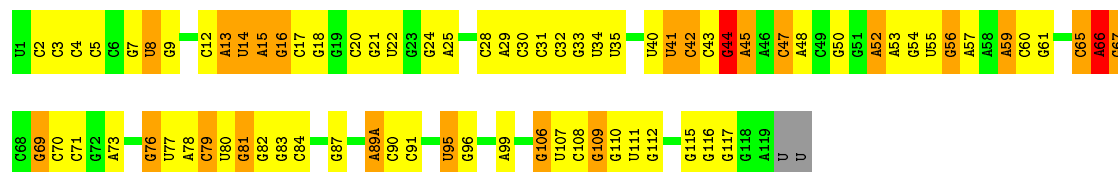




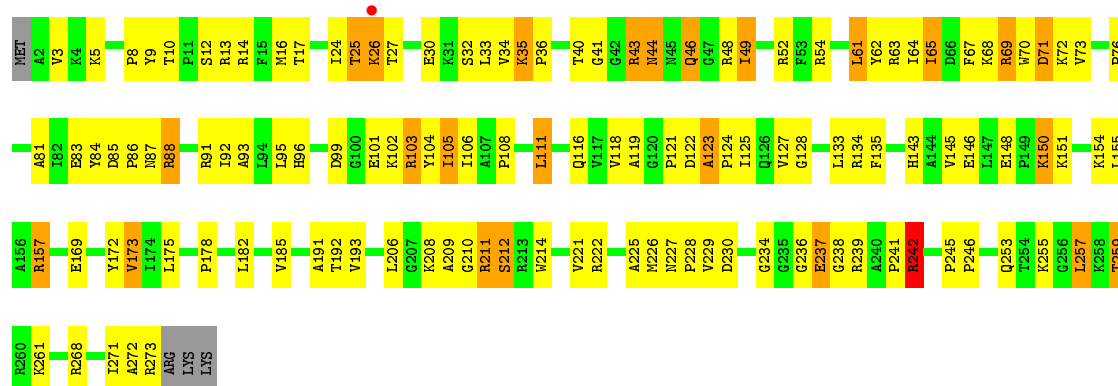
• Molecule 26: 5S rRNA



• Molecule 26: 5S rRNA



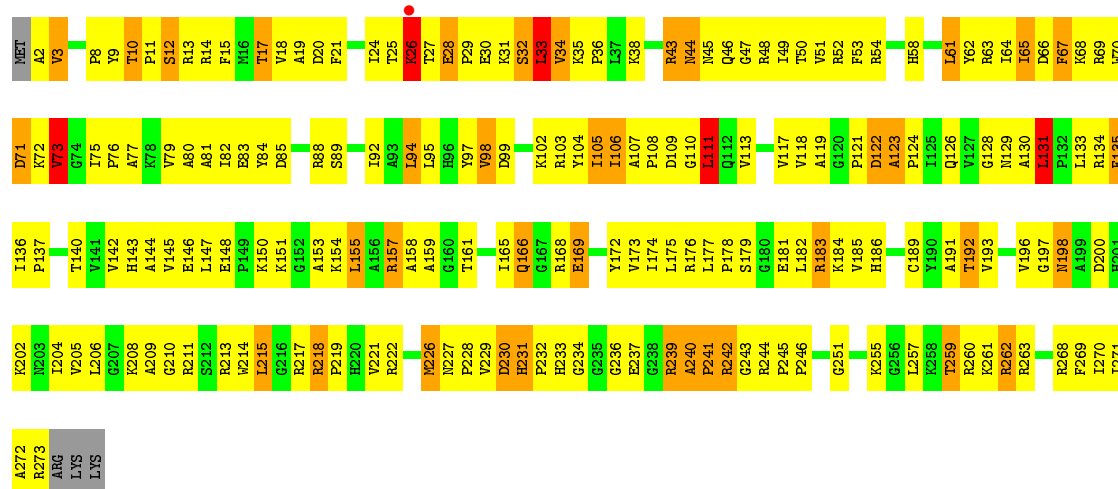
• Molecule 27: 50S ribosomal protein L2



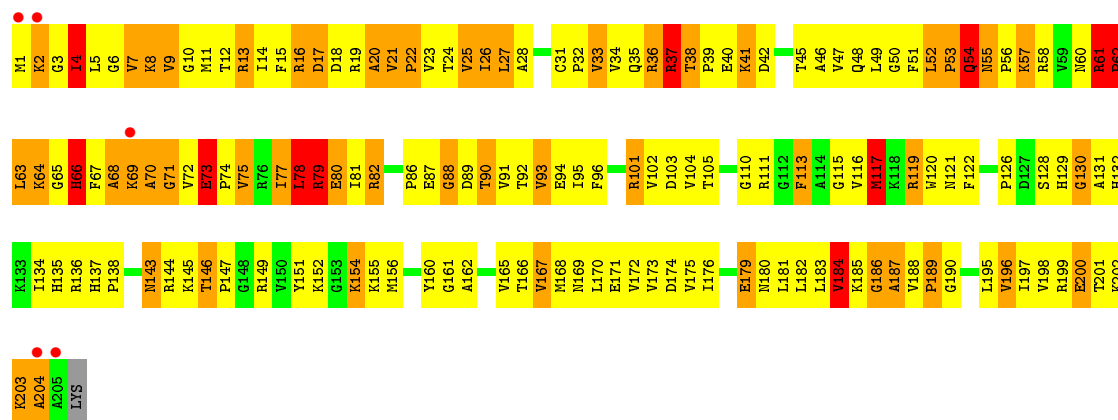
• Molecule 27: 50S ribosomal protein L2



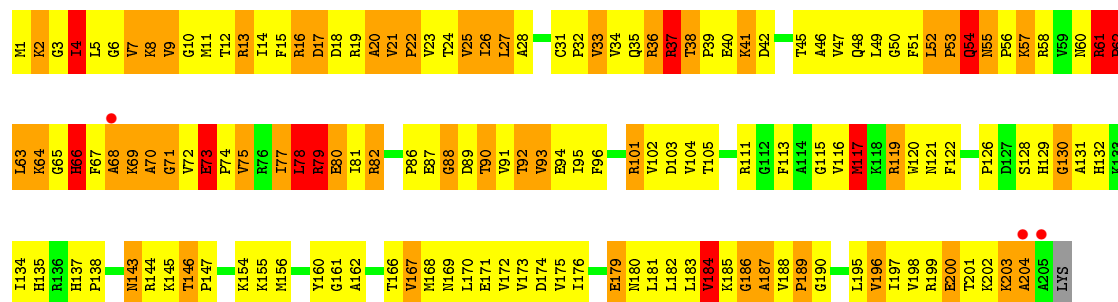




• Molecule 28: 50S ribosomal protein L3

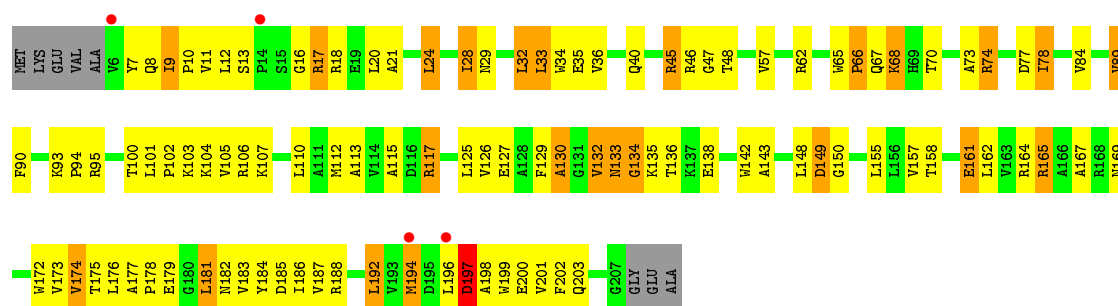


• Molecule 28: 50S ribosomal protein L3

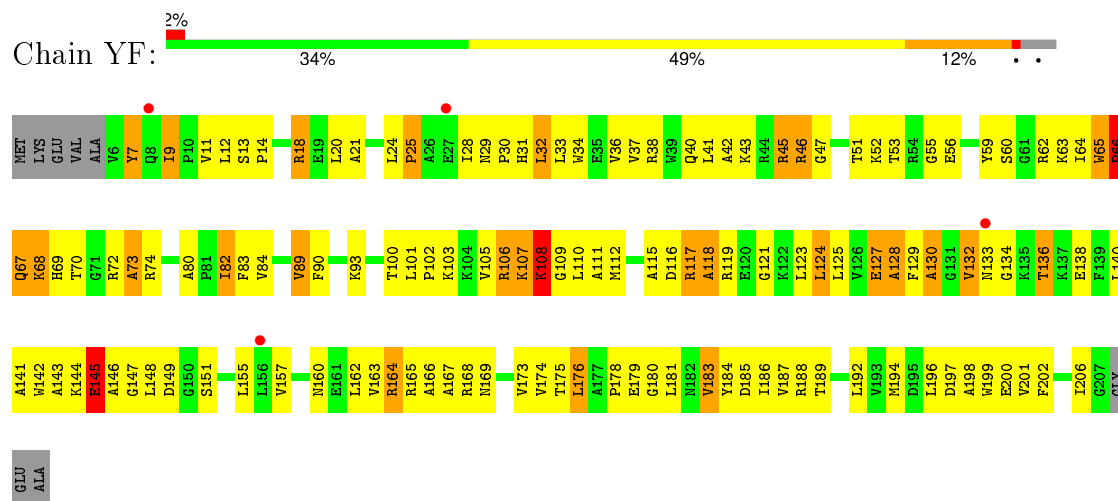


• Molecule 29: 50S ribosomal protein L4

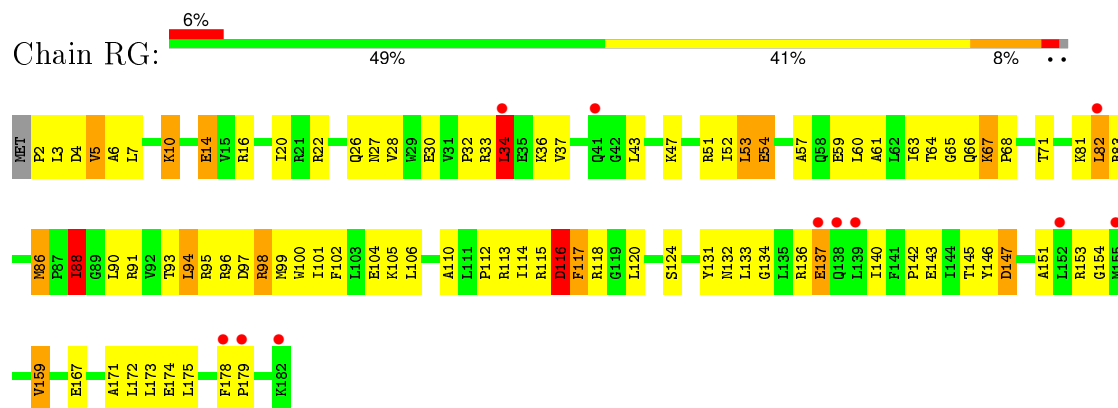




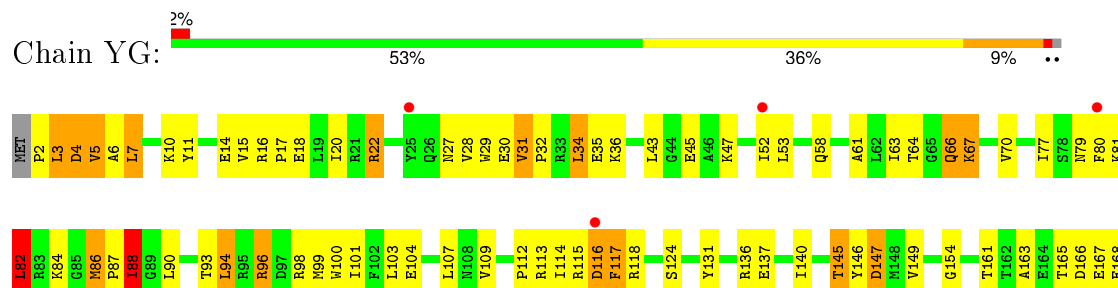
• Molecule 29: 50S ribosomal protein L4

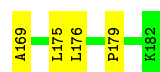


• Molecule 30: 50S ribosomal protein L5

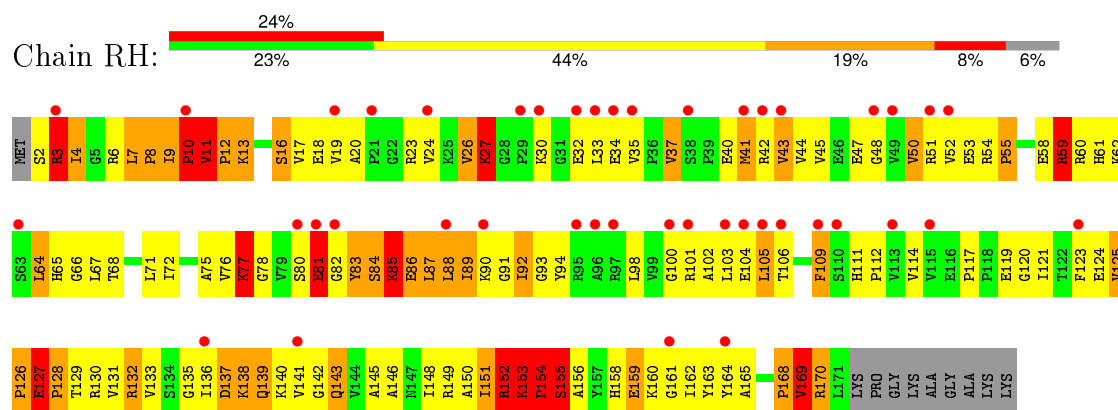


• Molecule 30: 50S ribosomal protein L5

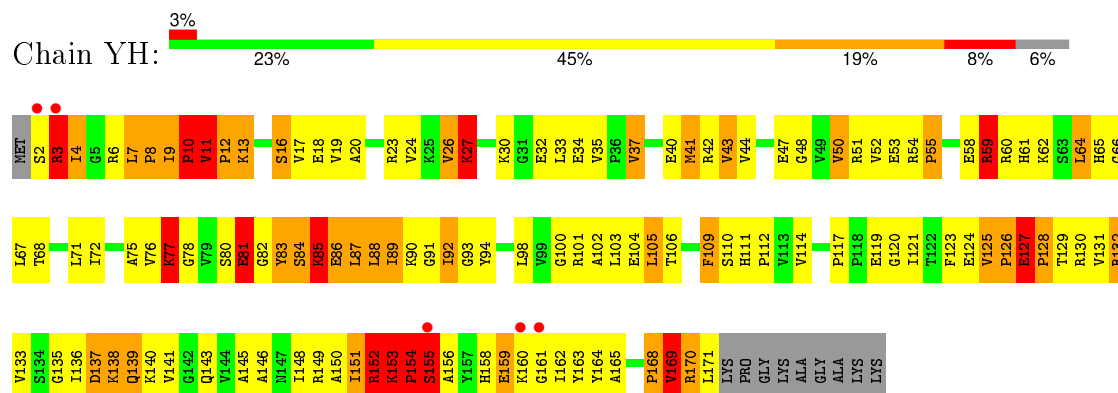




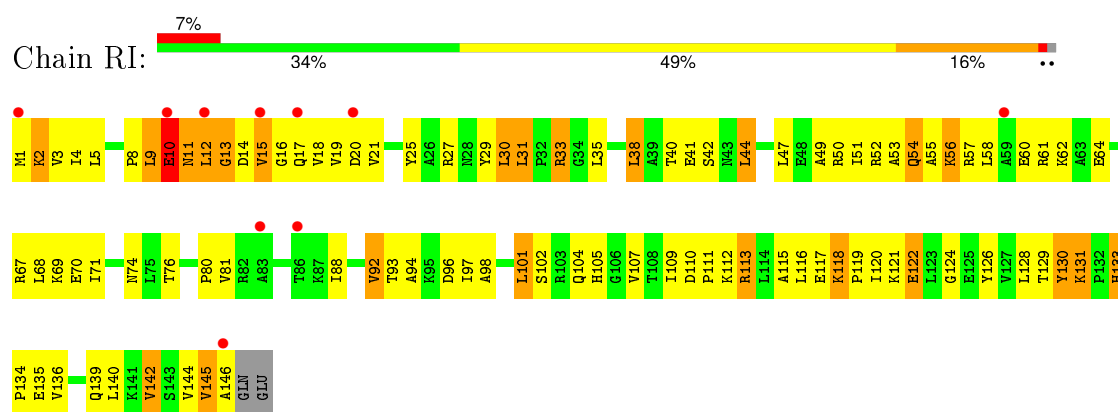
• Molecule 31: 50S ribosomal protein L6



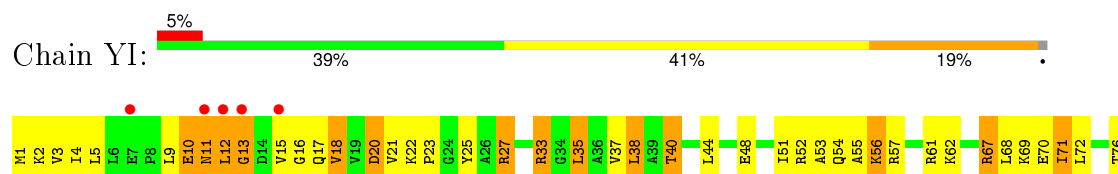
• Molecule 31: 50S ribosomal protein L6

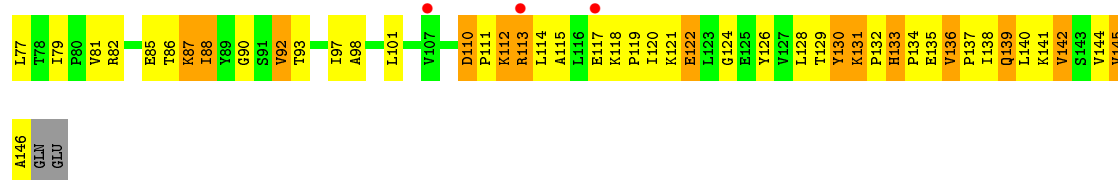


• Molecule 32: 50S ribosomal protein L9

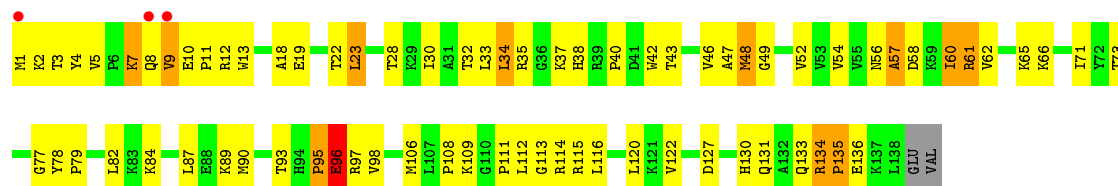


• Molecule 32: 50S ribosomal protein L9

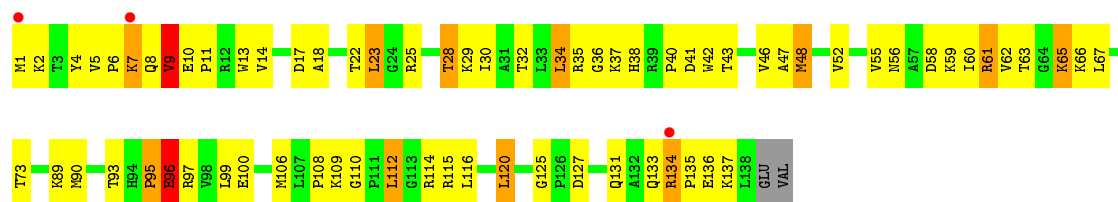




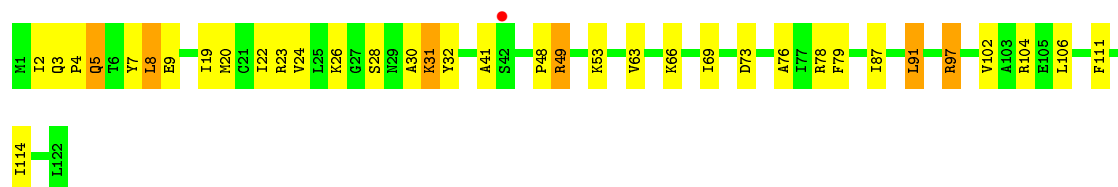
- Molecule 33: 50S ribosomal protein L13



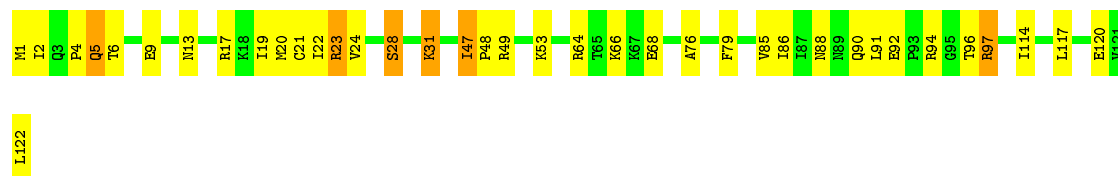
- Molecule 33: 50S ribosomal protein L13



- Molecule 34: 50S ribosomal protein L14

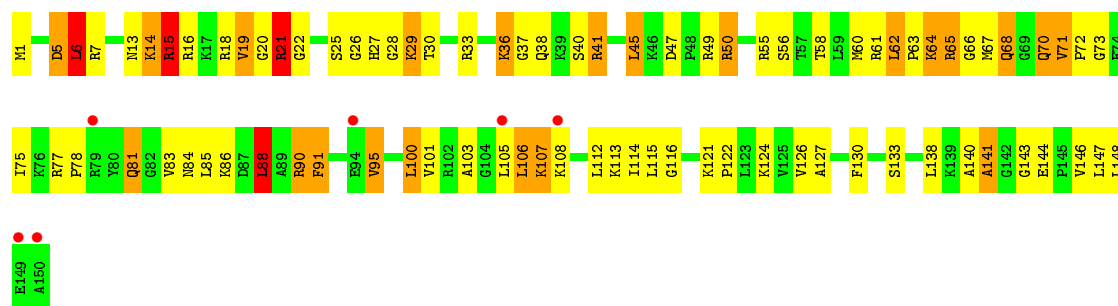


- Molecule 34: 50S ribosomal protein L14

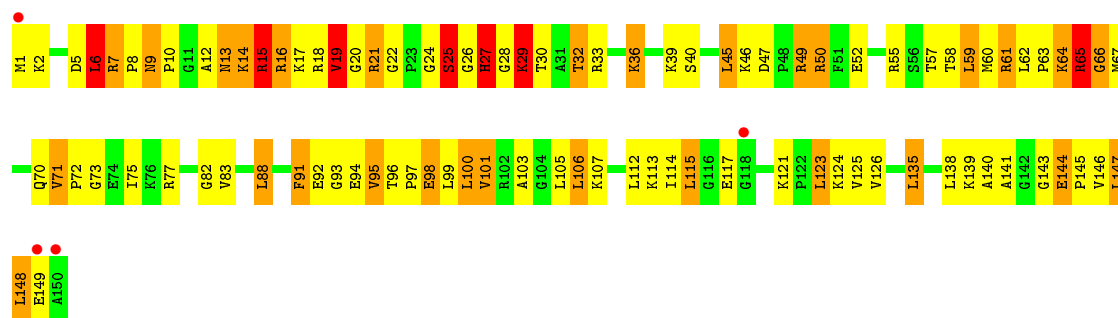


- Molecule 35: 50S ribosomal protein L15

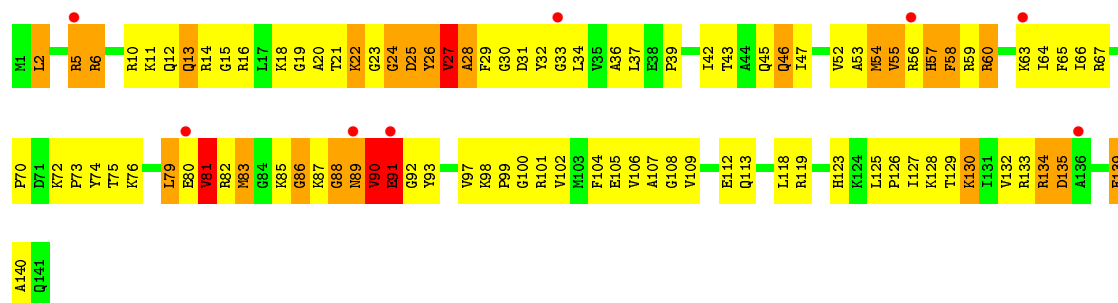




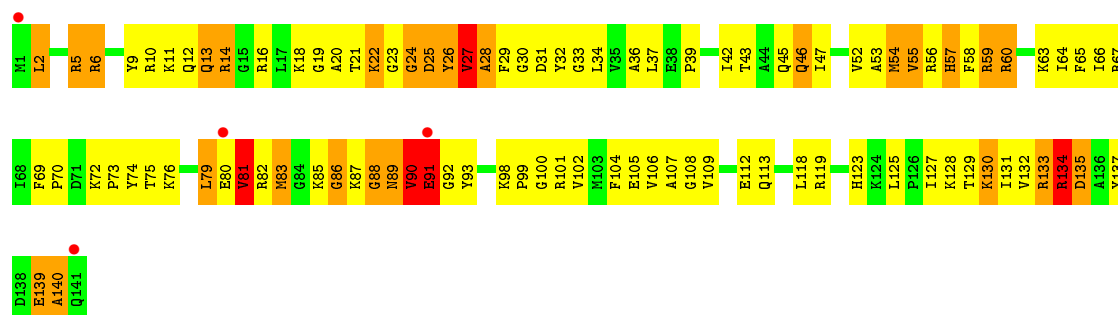
- Molecule 35: 50S ribosomal protein L15



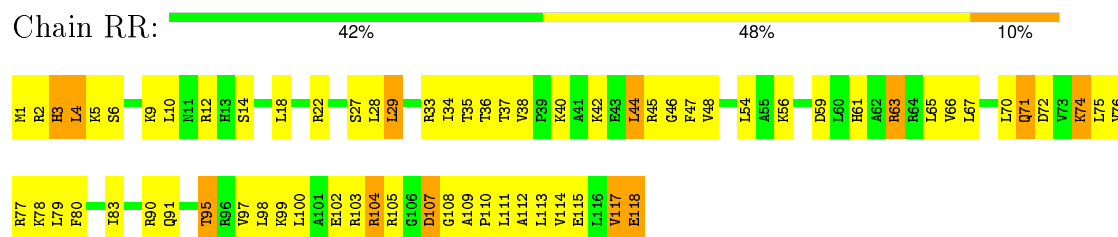
- Molecule 36: 50S ribosomal protein L16



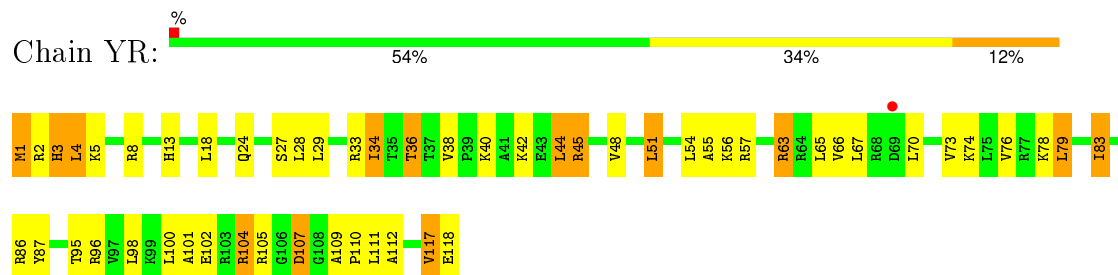
- Molecule 36: 50S ribosomal protein L16



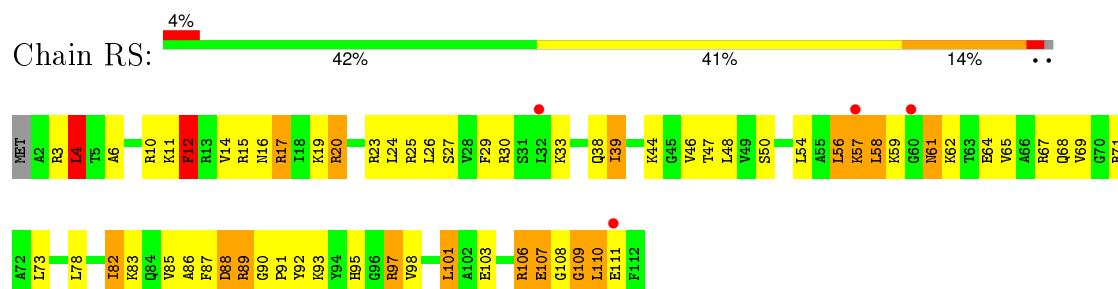
- Molecule 37: 50S ribosomal protein L17



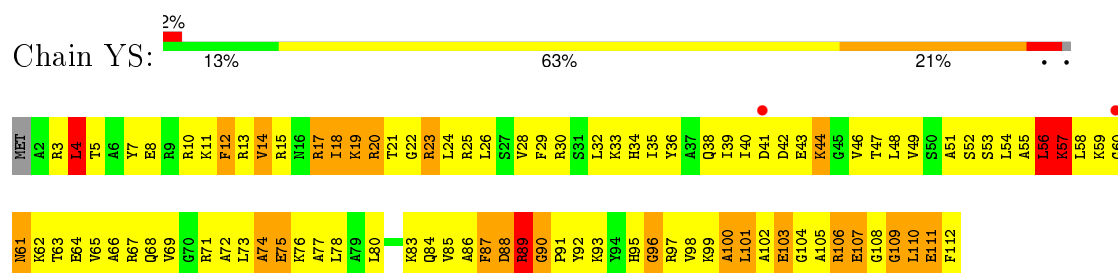
- Molecule 37: 50S ribosomal protein L17



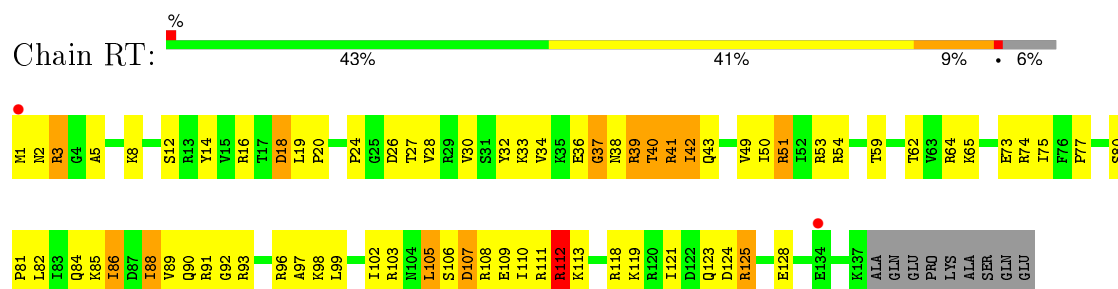
- Molecule 38: 50S ribosomal protein L18



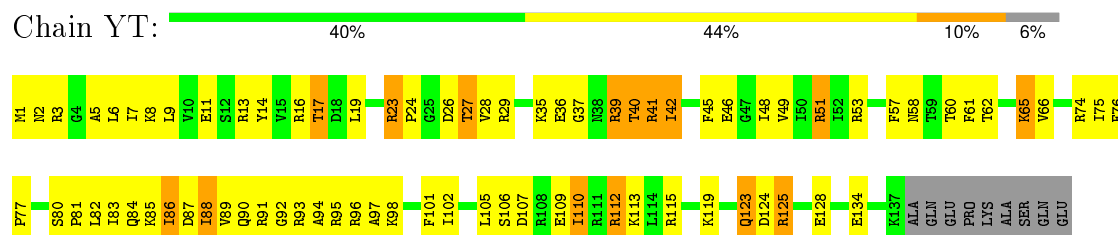
- Molecule 38: 50S ribosomal protein L18



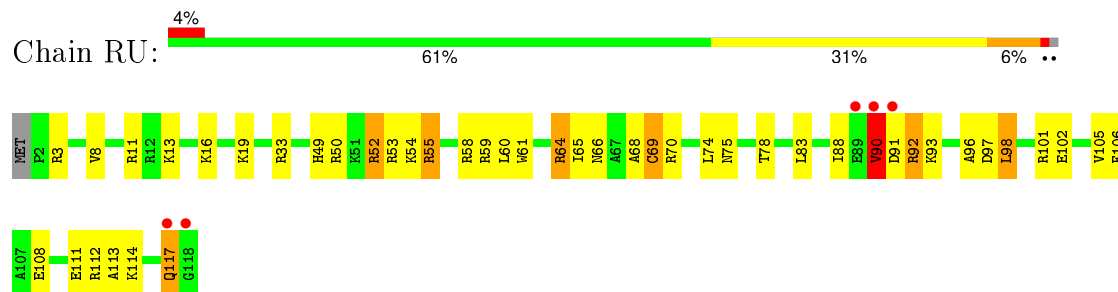
- Molecule 39: 50S ribosomal protein L19



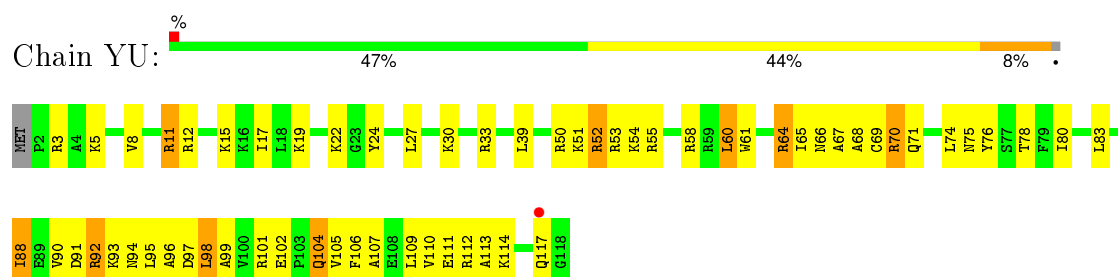
- Molecule 39: 50S ribosomal protein L19



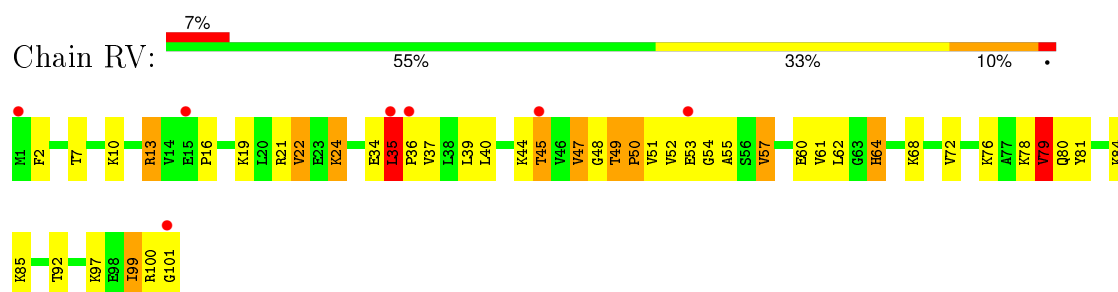
- Molecule 40: 50S ribosomal protein L20



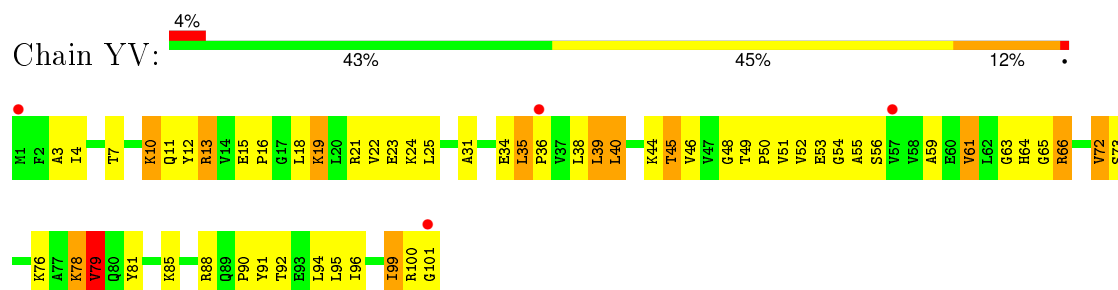
- Molecule 40: 50S ribosomal protein L20



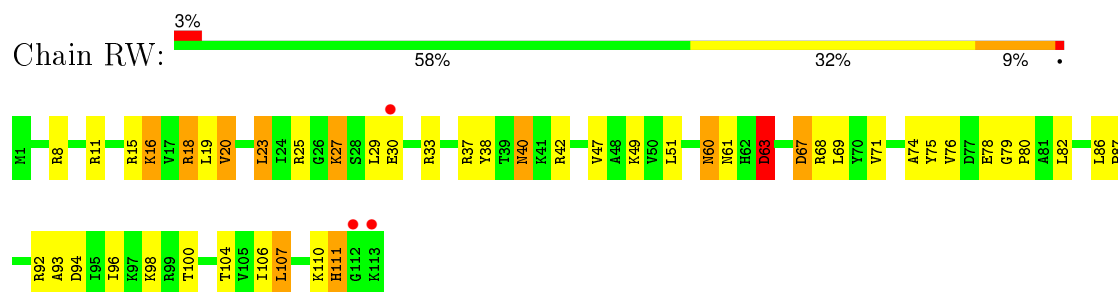
- Molecule 41: 50S ribosomal protein L21



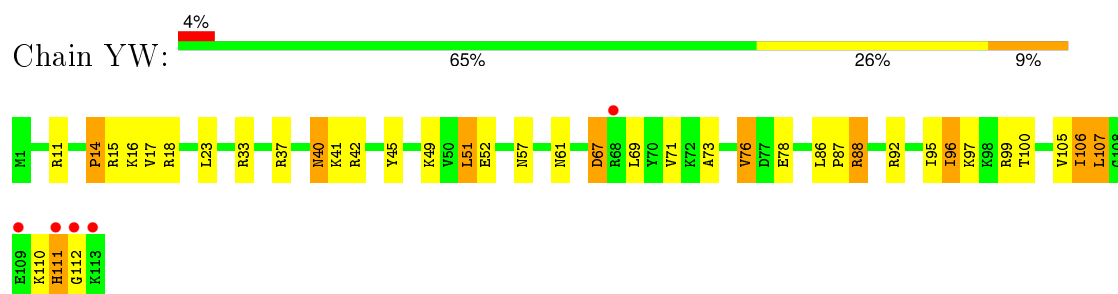
- Molecule 41: 50S ribosomal protein L21



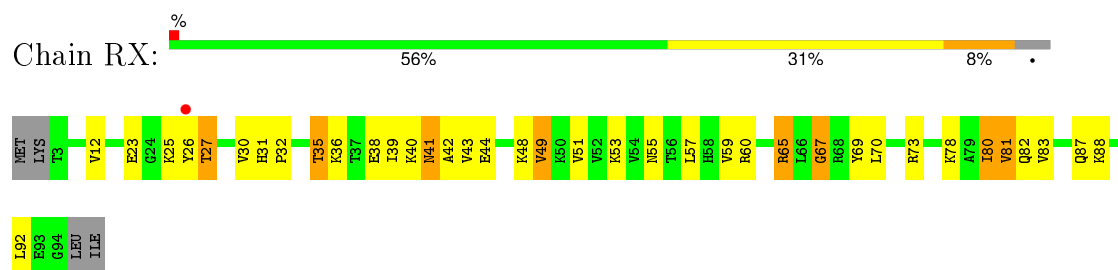
- Molecule 42: 50S ribosomal protein L22



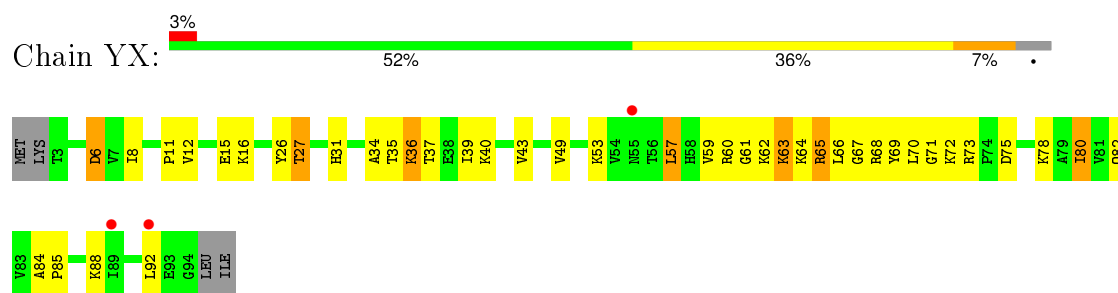
- Molecule 42: 50S ribosomal protein L22



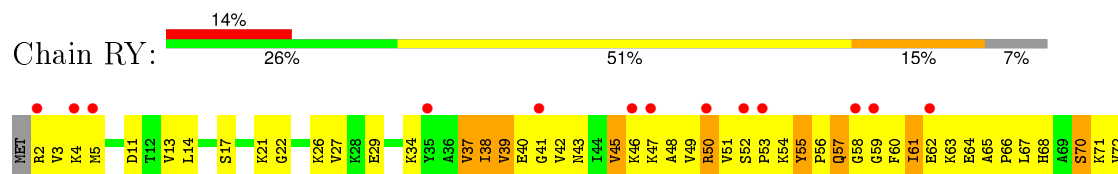
- Molecule 43: 50S ribosomal protein L23



- Molecule 43: 50S ribosomal protein L23



- Molecule 44: 50S ribosomal protein L24



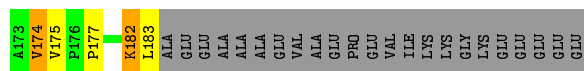
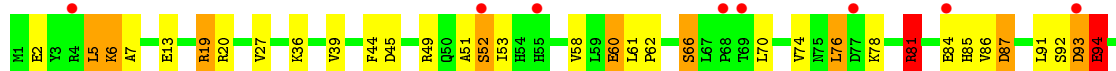




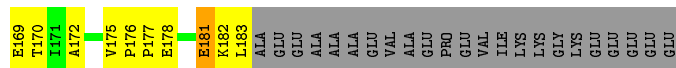
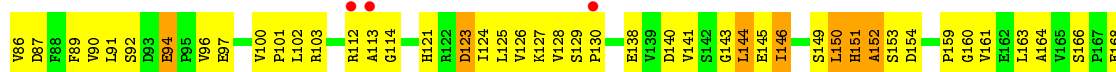
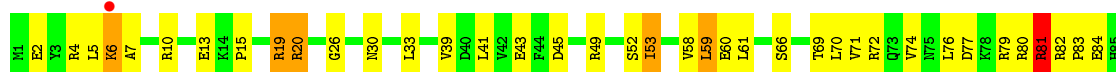
- Molecule 44: 50S ribosomal protein L24



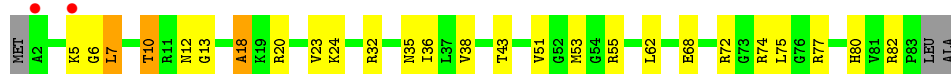
- Molecule 45: 50S ribosomal protein L25



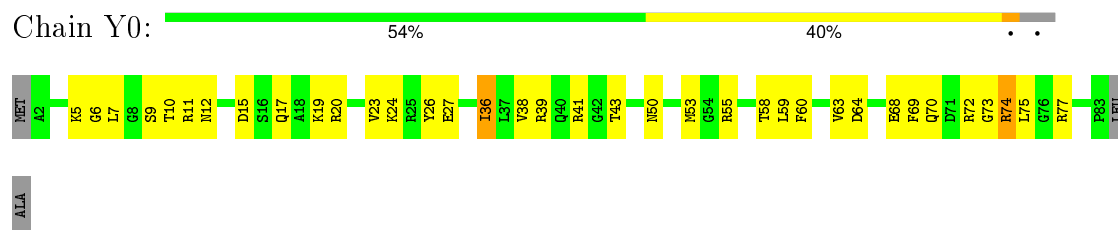
- Molecule 45: 50S ribosomal protein L25



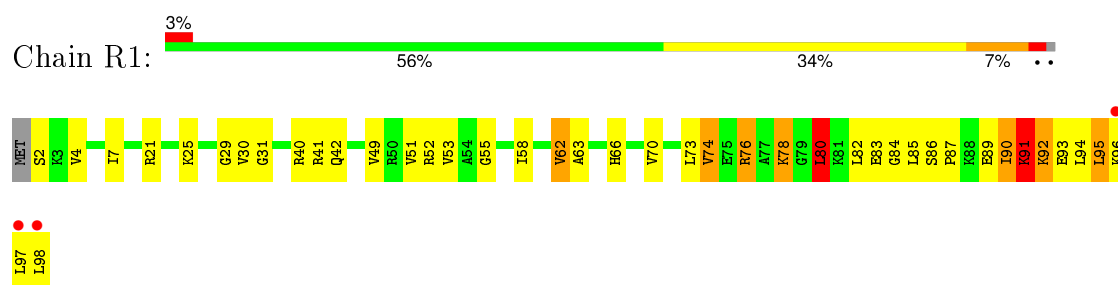
- Molecule 46: 50S ribosomal protein L27



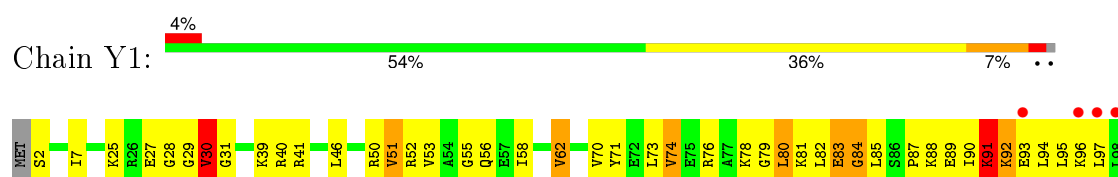
- Molecule 46: 50S ribosomal protein L27



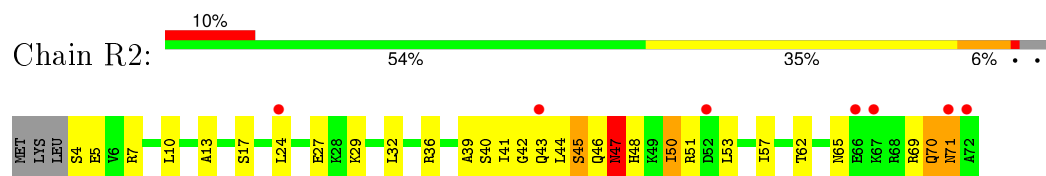
- Molecule 47: 50S ribosomal protein L28



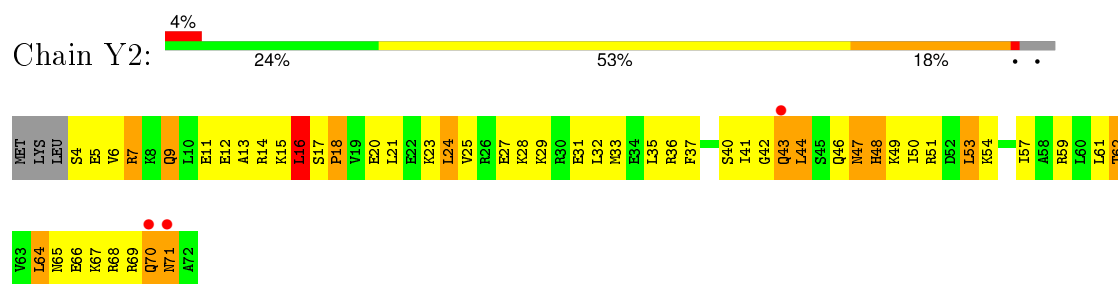
- Molecule 47: 50S ribosomal protein L28



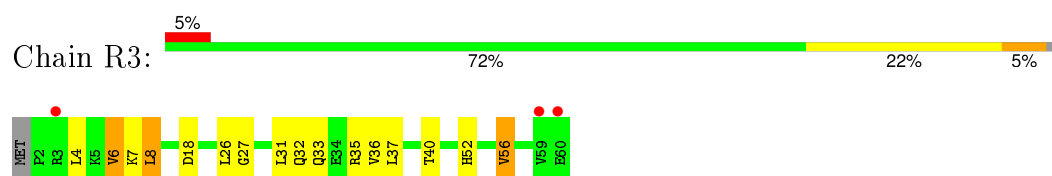
- Molecule 48: 50S ribosomal protein L29



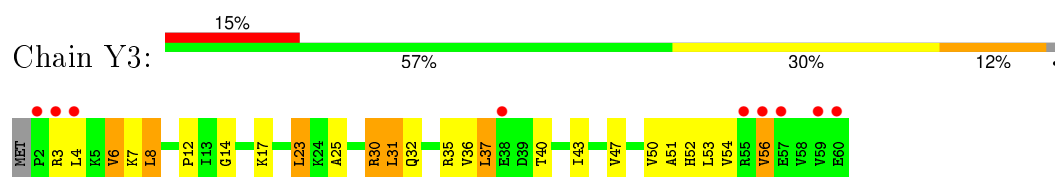
- Molecule 48: 50S ribosomal protein L29



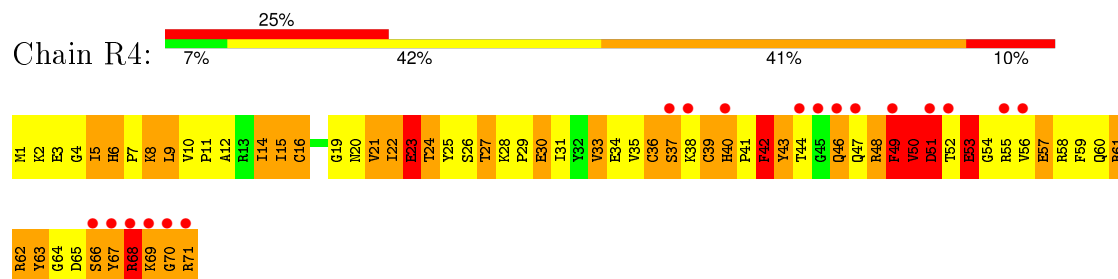
- Molecule 49: 50S ribosomal protein L30



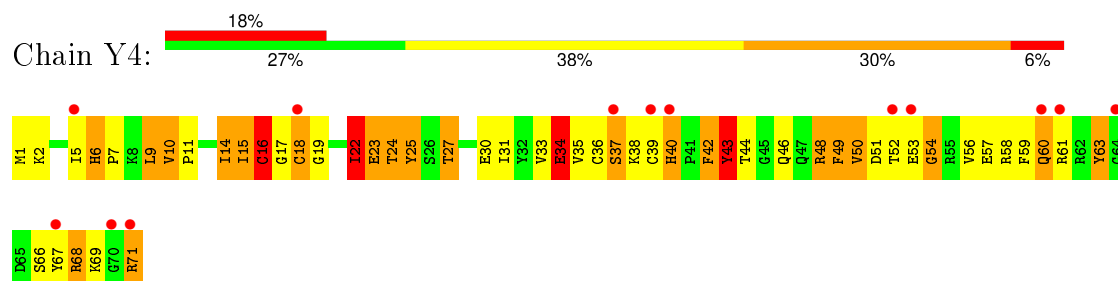
- Molecule 49: 50S ribosomal protein L30



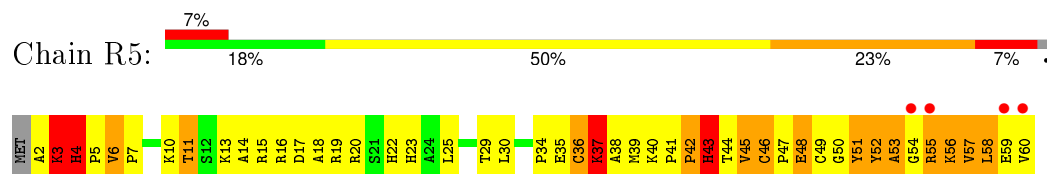
- Molecule 50: 50S ribosomal protein L31



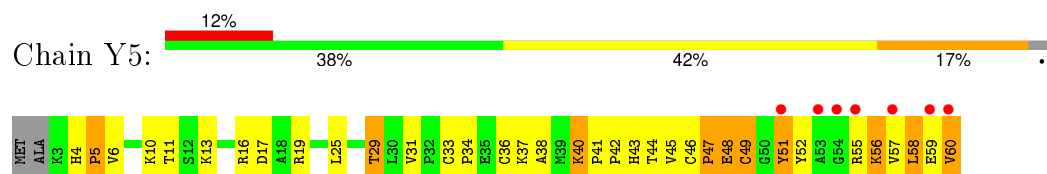
- Molecule 50: 50S ribosomal protein L31



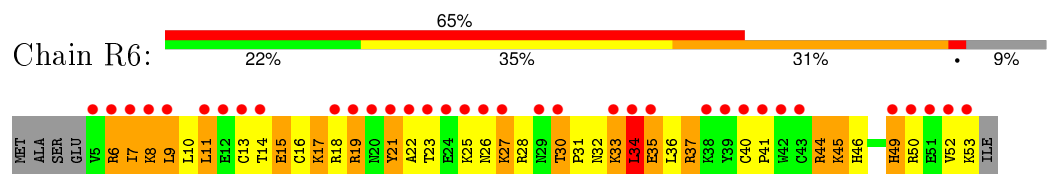
- Molecule 51: 50S ribosomal protein L32



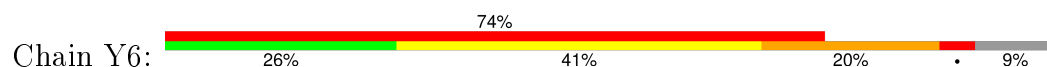
- Molecule 51: 50S ribosomal protein L32

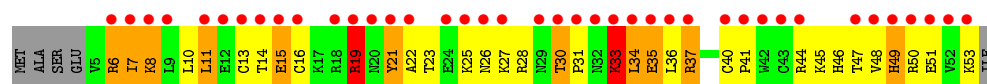


- Molecule 52: 50S ribosomal protein L33



- Molecule 52: 50S ribosomal protein L33





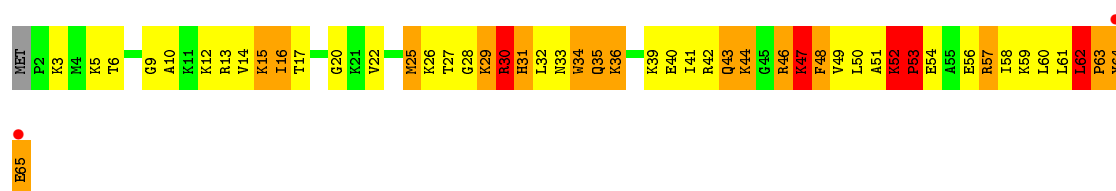
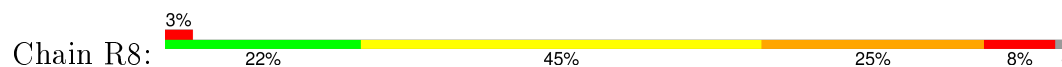
- Molecule 53: 50S ribosomal protein L34



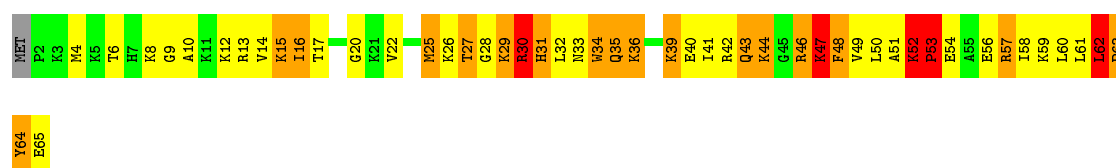
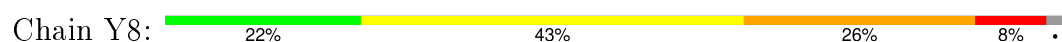
- Molecule 53: 50S ribosomal protein L34



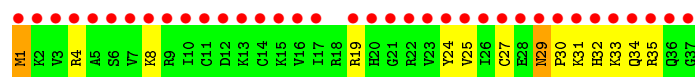
- Molecule 54: 50S ribosomal protein L35



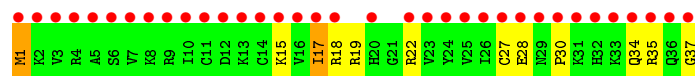
- Molecule 54: 50S ribosomal protein L35



- Molecule 55: 50S ribosomal protein L36



- Molecule 55: 50S ribosomal protein L36



- Molecule 56: CC-Puro

Chain Z5:  33% 33% 33%



- Molecule 56: CC-Puro

Chain Z6:  33% 33% 33%



## 4 Data and refinement statistics

| Property  | Value   | Source           |
|---|---|------------------|
| Space group   | P 21 21 21  | Depositor        |
| Cell constants<br>a, b, c, $\alpha$ , $\beta$ , $\gamma$                | 208.99Å 444.57Å 616.42Å<br>90.00° 90.00° 90.00°             | Depositor        |
| Resolution (Å)  | 69.39 – 3.60<br>69.39 – 3.40                                | Depositor<br>EDS |
| % Data completeness<br>(in resolution range)                            | 96.9 (69.39-3.60)<br>97.2 (69.39-3.40)                      | Depositor<br>EDS |
| $R_{merge}$   | 0.19  | Depositor        |
| $R_{sym}$   | (Not available)   | Depositor        |
| $\langle I/\sigma(I) \rangle$ <sup>1</sup>                              | 1.40 (at 3.41Å)   | Xtriage          |
| Refinement program  | PHENIX (phenix.refine: 1.8.2_1309)                          | Depositor        |
| R, $R_{free}$   | 0.217 , 0.259<br>0.219 , 0.258                              | Depositor<br>DCC |
| $R_{free}$ test set   | 28875 reflections (4.75%)                                   | DCC              |
| Wilson B-factor (Å <sup>2</sup> )                                       | 87.0  | Xtriage          |
| Anisotropy  | 0.260   | Xtriage          |
| Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> ) | 0.29 , 95.9   | EDS              |
| Estimated twinning fraction   | No twinning to report.                                      | Xtriage          |
| L-test for twinning <sup>2</sup>  | $\langle  L  \rangle = 0.42$ , $\langle L^2 \rangle = 0.25$ | Xtriage          |
| Outliers  | 2 of 757538 reflections (0.000%)                            | Xtriage          |
| $F_o, F_c$ correlation  | 0.91  | EDS              |
| Total number of atoms   | 292320  | wwPDB-VP         |
| Average B, all atoms (Å <sup>2</sup> )                                  | 101.0   | wwPDB-VP         |

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.66% 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, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

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   | QA    | 0.32         | 0/36098       | 0.87        | 44/56341 (0.1%) |
| 1   | XA    | 0.36         | 0/36101       | 0.88        | 26/56346 (0.0%) |
| 2   | QB    | 0.32         | 0/1959        | 0.52        | 0/2642          |
| 2   | XB    | 0.32         | 0/1959        | 0.54        | 0/2642          |
| 3   | QC    | 0.32         | 0/1629        | 0.54        | 0/2195          |
| 3   | XC    | 0.37         | 0/1629        | 0.56        | 0/2195          |
| 4   | QD    | 0.41         | 0/1733        | 0.60        | 2/2318 (0.1%)   |
| 4   | XD    | 0.40         | 0/1733        | 0.59        | 0/2318          |
| 5   | QE    | 0.38         | 0/1171        | 0.60        | 0/1576          |
| 5   | XE    | 0.43         | 1/1171 (0.1%) | 0.63        | 2/1576 (0.1%)   |
| 6   | QF    | 0.38         | 0/856         | 0.55        | 0/1154          |
| 6   | XF    | 0.39         | 0/856         | 0.58        | 0/1154          |
| 7   | QG    | 0.34         | 0/1276        | 0.50        | 0/1709          |
| 7   | XG    | 0.34         | 0/1276        | 0.51        | 0/1709          |
| 8   | QH    | 0.34         | 0/1136        | 0.55        | 0/1527          |
| 8   | XH    | 0.38         | 0/1136        | 0.58        | 0/1527          |
| 9   | QI    | 0.31         | 0/1029        | 0.56        | 0/1379          |
| 9   | XI    | 0.34         | 0/1029        | 0.58        | 0/1379          |
| 10  | QJ    | 0.33         | 0/814         | 0.54        | 0/1095          |
| 10  | XJ    | 0.39         | 1/814 (0.1%)  | 0.63        | 1/1095 (0.1%)   |
| 11  | QK    | 0.38         | 0/900         | 0.59        | 1/1213 (0.1%)   |
| 11  | XK    | 0.39         | 0/900         | 0.59        | 0/1213          |
| 12  | QL    | 0.49         | 1/991 (0.1%)  | 0.80        | 1/1327 (0.1%)   |
| 12  | XL    | 0.50         | 0/991         | 0.85        | 3/1327 (0.2%)   |
| 13  | QM    | 0.32         | 0/974         | 0.58        | 0/1303          |
| 13  | XM    | 0.37         | 0/974         | 0.62        | 0/1303          |
| 14  | QN    | 0.37         | 0/501         | 0.62        | 0/664           |
| 14  | XN    | 0.43         | 0/501         | 0.66        | 0/664           |
| 15  | QO    | 0.35         | 0/745         | 0.54        | 0/992           |
| 15  | XO    | 0.40         | 0/745         | 0.54        | 0/992           |
| 16  | QP    | 0.36         | 0/721         | 0.57        | 0/970           |
| 16  | XP    | 0.35         | 0/721         | 0.57        | 0/970           |

| Mol | Chain | Bond lengths |                | Bond angles |                  |
|-----|-------|--------------|----------------|-------------|------------------|
|     |       | RMSZ         | # Z  >5        | RMSZ        | # Z  >5          |
| 17  | QQ    | 0.35         | 0/847          | 0.54        | 0/1131           |
| 17  | XQ    | 0.36         | 0/847          | 0.54        | 0/1131           |
| 18  | QR    | 0.36         | 0/579          | 0.64        | 1/768 (0.1%)     |
| 18  | XR    | 0.37         | 0/579          | 0.59        | 0/768            |
| 19  | QS    | 0.34         | 0/689          | 0.61        | 0/926            |
| 19  | XS    | 0.38         | 0/689          | 0.69        | 1/926 (0.1%)     |
| 20  | QT    | 0.35         | 0/765          | 0.65        | 0/1007           |
| 20  | XT    | 0.32         | 0/765          | 0.61        | 0/1007           |
| 21  | QU    | 0.30         | 0/221          | 0.55        | 0/288            |
| 21  | XU    | 0.31         | 0/221          | 0.62        | 0/288            |
| 22  | QV    | 0.38         | 1/1836 (0.1%)  | 0.80        | 0/2859           |
| 22  | XV    | 0.41         | 1/1836 (0.1%)  | 0.83        | 0/2859           |
| 23  | QX    | 0.33         | 0/213          | 0.81        | 0/329            |
| 23  | XX    | 0.67         | 0/238          | 0.86        | 0/368            |
| 24  | QY    | 0.43         | 0/384          | 0.83        | 0/597            |
| 24  | XY    | 0.36         | 0/384          | 0.85        | 0/597            |
| 25  | RA    | 0.39         | 2/69521 (0.0%) | 0.91        | 59/108529 (0.1%) |
| 25  | YA    | 0.42         | 1/69521 (0.0%) | 0.94        | 81/108529 (0.1%) |
| 26  | RB    | 0.51         | 0/2878         | 1.17        | 11/4490 (0.2%)   |
| 26  | YB    | 0.62         | 1/2878 (0.0%)  | 1.28        | 24/4490 (0.5%)   |
| 27  | RD    | 0.51         | 0/2165         | 0.70        | 0/2919           |
| 27  | YD    | 0.56         | 0/2165         | 0.90        | 4/2919 (0.1%)    |
| 28  | RE    | 0.52         | 0/1601         | 0.91        | 2/2160 (0.1%)    |
| 28  | YE    | 0.52         | 0/1601         | 0.91        | 2/2160 (0.1%)    |
| 29  | RF    | 0.44         | 0/1620         | 0.70        | 3/2194 (0.1%)    |
| 29  | YF    | 0.50         | 0/1620         | 0.76        | 0/2194           |
| 30  | RG    | 0.32         | 0/1499         | 0.57        | 1/2016 (0.0%)    |
| 30  | YG    | 0.40         | 0/1499         | 0.60        | 0/2016           |
| 31  | RH    | 0.45         | 0/1332         | 0.85        | 3/1802 (0.2%)    |
| 31  | YH    | 0.45         | 0/1332         | 0.85        | 4/1802 (0.2%)    |
| 32  | RI    | 0.38         | 0/1151         | 0.67        | 0/1558           |
| 32  | YI    | 0.38         | 0/1151         | 0.65        | 0/1558           |
| 33  | RN    | 0.41         | 0/1131         | 0.62        | 0/1525           |
| 33  | YN    | 0.46         | 0/1131         | 0.66        | 1/1525 (0.1%)    |
| 34  | RO    | 0.41         | 0/943          | 0.63        | 1/1269 (0.1%)    |
| 34  | YO    | 0.49         | 0/943          | 0.65        | 0/1269           |
| 35  | RP    | 0.41         | 0/1162         | 0.79        | 1/1544 (0.1%)    |
| 35  | YP    | 0.53         | 0/1162         | 0.89        | 2/1544 (0.1%)    |
| 36  | RQ    | 0.54         | 0/1143         | 0.90        | 3/1527 (0.2%)    |
| 36  | YQ    | 0.53         | 0/1143         | 0.87        | 3/1527 (0.2%)    |
| 37  | RR    | 0.42         | 0/982          | 0.69        | 0/1312           |
| 37  | YR    | 0.44         | 0/982          | 0.73        | 0/1312           |
| 38  | RS    | 0.36         | 0/892          | 0.65        | 0/1187           |



| Mol | Chain | Bond lengths |                 | Bond angles |                   |
|-----|-------|--------------|-----------------|-------------|-------------------|
|     |       | RMSZ         | # Z  >5         | RMSZ        | # Z  >5           |
| 38  | YS    | 0.46         | 0/892           | 0.83        | 1/1187 (0.1%)     |
| 39  | RT    | 0.42         | 0/1155          | 0.63        | 0/1542            |
| 39  | YT    | 0.43         | 0/1155          | 0.66        | 0/1542            |
| 40  | RU    | 0.39         | 0/982           | 0.65        | 0/1306            |
| 40  | YU    | 0.51         | 0/982           | 0.70        | 0/1306            |
| 41  | RV    | 0.38         | 0/790           | 0.61        | 1/1057 (0.1%)     |
| 41  | YV    | 0.46         | 0/790           | 0.73        | 1/1057 (0.1%)     |
| 42  | RW    | 0.49         | 0/911           | 0.67        | 0/1220            |
| 42  | YW    | 0.45         | 0/911           | 0.68        | 0/1220            |
| 43  | RX    | 0.47         | 0/739           | 0.62        | 0/993             |
| 43  | YX    | 0.48         | 0/739           | 0.65        | 0/993             |
| 44  | RY    | 0.44         | 0/798           | 0.68        | 0/1064            |
| 44  | YY    | 0.46         | 0/798           | 0.70        | 0/1064            |
| 45  | RZ    | 0.30         | 0/1493          | 0.52        | 0/2026            |
| 45  | YZ    | 0.29         | 0/1493          | 0.55        | 0/2026            |
| 46  | R0    | 0.45         | 0/657           | 0.65        | 0/874             |
| 46  | Y0    | 0.49         | 0/656           | 0.70        | 0/872             |
| 47  | R1    | 0.44         | 0/770           | 0.66        | 0/1022            |
| 47  | Y1    | 0.46         | 0/770           | 0.69        | 0/1022            |
| 48  | R2    | 0.39         | 0/583           | 0.64        | 0/771             |
| 48  | Y2    | 0.51         | 0/583           | 0.83        | 1/771 (0.1%)      |
| 49  | R3    | 0.35         | 0/474           | 0.57        | 0/635             |
| 49  | Y3    | 0.42         | 0/474           | 0.59        | 0/635             |
| 50  | R4    | 0.39         | 0/594           | 0.78        | 1/795 (0.1%)      |
| 50  | Y4    | 0.37         | 0/594           | 0.68        | 0/795             |
| 51  | R5    | 0.51         | 0/473           | 0.74        | 0/639             |
| 51  | Y5    | 0.50         | 0/468           | 0.72        | 0/632             |
| 52  | R6    | 0.34         | 0/431           | 0.69        | 0/575             |
| 52  | Y6    | 0.37         | 0/431           | 0.67        | 0/575             |
| 53  | R7    | 0.49         | 0/438           | 0.68        | 0/575             |
| 53  | Y7    | 0.56         | 0/438           | 0.71        | 0/575             |
| 54  | R8    | 0.61         | 0/525           | 0.92        | 1/691 (0.1%)      |
| 54  | Y8    | 0.62         | 0/525           | 0.92        | 1/691 (0.1%)      |
| 55  | R9    | 0.26         | 0/310           | 0.45        | 0/407             |
| 55  | Y9    | 0.33         | 0/310           | 0.48        | 0/407             |
| 56  | Z5    | 0.80         | 0/40            | 1.79        | 1/60 (1.7%)       |
| 56  | Z6    | 0.79         | 0/40            | 1.79        | 1/60 (1.7%)       |
| All | All   | 0.40         | 9/316522 (0.0%) | 0.86        | 296/473223 (0.1%) |

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

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| Mol | Chain | Res  | Type | Atoms | Z      | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|--------|-------------|----------|
| 22  | QV    | 0    | C    | OP3-P | -10.63 | 1.48        | 1.61     |
| 22  | XV    | 0    | C    | OP3-P | -10.58 | 1.48        | 1.61     |
| 5   | XE    | 101  | ILE  | C-N   | 5.68   | 1.47        | 1.34     |
| 25  | RA    | 2299 | A    | N9-C4 | -5.68  | 1.34        | 1.37     |
| 25  | YA    | 1021 | A    | N9-C4 | -5.59  | 1.34        | 1.37     |

The worst 5 of 296 bond angle outliers are listed below:

| Mol | Chain | Res  | Type | Atoms     | Z      | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|--------|-------------|----------|
| 28  | YE    | 21   | VAL  | C-N-CD    | -10.10 | 98.37       | 120.60   |
| 28  | RE    | 21   | VAL  | C-N-CD    | -10.10 | 98.39       | 120.60   |
| 1   | XA    | 1054 | C    | C6-N1-C2  | -9.78  | 116.39      | 120.30   |
| 1   | XA    | 1495 | U    | N1-C2-O2  | 9.30   | 129.31      | 122.80   |
| 25  | RA    | 2432 | C    | O5'-P-OP1 | -9.29  | 97.34       | 105.70   |

There are no chirality outliers.

There are no planarity outliers.

## 5.2 Too-close contacts

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

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | QA    | 32247 | 0        | 16278    | 544     | 0            |
| 1   | XA    | 32249 | 0        | 16279    | 566     | 0            |
| 2   | QB    | 1924  | 0        | 1975     | 64      | 0            |
| 2   | XB    | 1924  | 0        | 1975     | 88      | 0            |
| 3   | QC    | 1605  | 0        | 1668     | 51      | 0            |
| 3   | XC    | 1605  | 0        | 1668     | 63      | 0            |
| 4   | QD    | 1703  | 0        | 1765     | 106     | 0            |
| 4   | XD    | 1703  | 0        | 1762     | 47      | 0            |
| 5   | QE    | 1155  | 0        | 1213     | 48      | 0            |
| 5   | XE    | 1155  | 0        | 1213     | 52      | 0            |
| 6   | QF    | 843   | 0        | 857      | 17      | 0            |
| 6   | XF    | 843   | 0        | 857      | 33      | 0            |
| 7   | QG    | 1257  | 0        | 1296     | 39      | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 7   | XG    | 1257  | 0        | 1296     | 27      | 0            |
| 8   | QH    | 1116  | 0        | 1177     | 42      | 0            |
| 8   | XH    | 1116  | 0        | 1177     | 33      | 0            |
| 9   | QI    | 1010  | 0        | 1037     | 49      | 0            |
| 9   | XI    | 1010  | 0        | 1037     | 51      | 0            |
| 10  | QJ    | 801   | 0        | 849      | 52      | 0            |
| 10  | XJ    | 801   | 0        | 849      | 63      | 0            |
| 11  | QK    | 885   | 0        | 904      | 32      | 0            |
| 11  | XK    | 885   | 0        | 904      | 29      | 0            |
| 12  | QL    | 975   | 0        | 1062     | 98      | 0            |
| 12  | XL    | 975   | 0        | 1062     | 95      | 0            |
| 13  | QM    | 964   | 0        | 1034     | 66      | 0            |
| 13  | XM    | 964   | 0        | 1034     | 47      | 0            |
| 14  | QN    | 492   | 0        | 529      | 33      | 0            |
| 14  | XN    | 492   | 0        | 529      | 20      | 0            |
| 15  | QO    | 734   | 0        | 771      | 19      | 0            |
| 15  | XO    | 734   | 0        | 771      | 18      | 0            |
| 16  | QP    | 705   | 0        | 725      | 17      | 0            |
| 16  | XP    | 705   | 0        | 725      | 24      | 0            |
| 17  | QQ    | 834   | 0        | 904      | 25      | 0            |
| 17  | XQ    | 834   | 0        | 904      | 17      | 0            |
| 18  | QR    | 574   | 0        | 644      | 11      | 0            |
| 18  | XR    | 574   | 0        | 644      | 23      | 0            |
| 19  | QS    | 674   | 0        | 699      | 95      | 0            |
| 19  | XS    | 674   | 0        | 699      | 43      | 0            |
| 20  | QT    | 763   | 0        | 861      | 31      | 0            |
| 20  | XT    | 763   | 0        | 861      | 68      | 0            |
| 21  | QU    | 217   | 0        | 234      | 13      | 0            |
| 21  | XU    | 217   | 0        | 234      | 5       | 0            |
| 22  | QV    | 1644  | 0        | 835      | 20      | 0            |
| 22  | XV    | 1644  | 0        | 836      | 18      | 0            |
| 23  | QX    | 191   | 0        | 99       | 1       | 0            |
| 23  | XX    | 213   | 0        | 110      | 3       | 0            |
| 24  | QY    | 344   | 0        | 173      | 3       | 0            |
| 24  | XY    | 344   | 0        | 173      | 14      | 0            |
| 25  | RA    | 62071 | 0        | 31290    | 1016    | 0            |
| 25  | YA    | 62071 | 0        | 31290    | 988     | 0            |
| 26  | RB    | 2573  | 0        | 1306     | 57      | 0            |
| 26  | YB    | 2573  | 0        | 1306     | 79      | 0            |
| 27  | RD    | 2115  | 0        | 2195     | 104     | 0            |
| 27  | YD    | 2115  | 0        | 2195     | 327     | 0            |
| 28  | RE    | 1568  | 0        | 1634     | 282     | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 28  | YE    | 1568  | 0        | 1634     | 273     | 0            |
| 29  | RF    | 1585  | 0        | 1632     | 78      | 0            |
| 29  | YF    | 1585  | 0        | 1632     | 179     | 0            |
| 30  | RG    | 1474  | 0        | 1535     | 111     | 0            |
| 30  | YG    | 1474  | 0        | 1535     | 69      | 0            |
| 31  | RH    | 1307  | 0        | 1382     | 228     | 0            |
| 31  | YH    | 1307  | 0        | 1382     | 227     | 0            |
| 32  | RI    | 1136  | 0        | 1223     | 106     | 0            |
| 32  | YI    | 1136  | 0        | 1223     | 68      | 0            |
| 33  | RN    | 1104  | 0        | 1180     | 45      | 0            |
| 33  | YN    | 1104  | 0        | 1180     | 53      | 0            |
| 34  | RO    | 933   | 0        | 996      | 26      | 0            |
| 34  | YO    | 933   | 0        | 996      | 27      | 0            |
| 35  | RP    | 1145  | 0        | 1228     | 117     | 0            |
| 35  | YP    | 1145  | 0        | 1227     | 113     | 0            |
| 36  | RQ    | 1122  | 0        | 1179     | 168     | 0            |
| 36  | YQ    | 1122  | 0        | 1179     | 176     | 0            |
| 37  | RR    | 968   | 0        | 1033     | 53      | 0            |
| 37  | YR    | 968   | 0        | 1033     | 41      | 0            |
| 38  | RS    | 882   | 0        | 943      | 54      | 0            |
| 38  | YS    | 882   | 0        | 943      | 164     | 0            |
| 39  | RT    | 1141  | 0        | 1202     | 72      | 0            |
| 39  | YT    | 1141  | 0        | 1202     | 59      | 0            |
| 40  | RU    | 964   | 0        | 1022     | 38      | 0            |
| 40  | YU    | 964   | 0        | 1021     | 59      | 0            |
| 41  | RV    | 779   | 0        | 852      | 26      | 0            |
| 41  | YV    | 779   | 0        | 852      | 45      | 0            |
| 42  | RW    | 900   | 0        | 964      | 29      | 0            |
| 42  | YW    | 900   | 0        | 964      | 27      | 0            |
| 43  | RX    | 725   | 0        | 778      | 31      | 0            |
| 43  | YX    | 725   | 0        | 778      | 26      | 0            |
| 44  | RY    | 785   | 0        | 878      | 53      | 0            |
| 44  | YY    | 785   | 0        | 878      | 39      | 0            |
| 45  | RZ    | 1461  | 0        | 1493     | 43      | 0            |
| 45  | YZ    | 1461  | 0        | 1493     | 63      | 0            |
| 46  | R0    | 648   | 0        | 672      | 26      | 0            |
| 46  | Y0    | 647   | 0        | 668      | 41      | 0            |
| 47  | R1    | 763   | 0        | 848      | 33      | 0            |
| 47  | Y1    | 763   | 0        | 848      | 36      | 0            |
| 48  | R2    | 581   | 0        | 629      | 24      | 0            |
| 48  | Y2    | 581   | 0        | 629      | 73      | 0            |
| 49  | R3    | 469   | 0        | 518      | 6       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 49  | Y3    | 469   | 0        | 518      | 16      | 0            |
| 50  | R4    | 581   | 0        | 575      | 230     | 0            |
| 50  | Y4    | 581   | 0        | 577      | 63      | 0            |
| 51  | R5    | 459   | 0        | 480      | 76      | 0            |
| 51  | Y5    | 454   | 0        | 475      | 40      | 0            |
| 52  | R6    | 424   | 0        | 450      | 41      | 0            |
| 52  | Y6    | 424   | 0        | 450      | 38      | 0            |
| 53  | R7    | 430   | 0        | 480      | 18      | 0            |
| 53  | Y7    | 430   | 0        | 480      | 22      | 0            |
| 54  | R8    | 517   | 0        | 582      | 132     | 0            |
| 54  | Y8    | 517   | 0        | 582      | 103     | 0            |
| 55  | R9    | 307   | 0        | 338      | 11      | 0            |
| 55  | Y9    | 307   | 0        | 338      | 17      | 0            |
| 56  | Z5    | 37    | 0        | 23       | 2       | 0            |
| 56  | Z6    | 37    | 0        | 23       | 3       | 0            |
| 57  | QA    | 82    | 0        | 0        | 0       | 0            |
| 57  | QE    | 1     | 0        | 0        | 0       | 0            |
| 57  | QF    | 1     | 0        | 0        | 0       | 0            |
| 57  | QV    | 3     | 0        | 0        | 0       | 0            |
| 57  | QX    | 1     | 0        | 0        | 0       | 0            |
| 57  | QY    | 1     | 0        | 0        | 0       | 0            |
| 57  | R0    | 1     | 0        | 0        | 0       | 0            |
| 57  | R5    | 1     | 0        | 0        | 0       | 0            |
| 57  | RA    | 327   | 0        | 0        | 0       | 0            |
| 57  | RB    | 5     | 0        | 0        | 0       | 0            |
| 57  | RE    | 1     | 0        | 0        | 0       | 0            |
| 57  | RP    | 1     | 0        | 0        | 0       | 0            |
| 57  | RR    | 1     | 0        | 0        | 0       | 0            |
| 57  | XA    | 111   | 0        | 0        | 0       | 0            |
| 57  | XB    | 1     | 0        | 0        | 0       | 0            |
| 57  | XD    | 1     | 0        | 0        | 0       | 0            |
| 57  | XF    | 1     | 0        | 0        | 0       | 0            |
| 57  | XV    | 3     | 0        | 0        | 0       | 0            |
| 57  | XX    | 1     | 0        | 0        | 0       | 0            |
| 57  | Y0    | 3     | 0        | 0        | 0       | 0            |
| 57  | Y1    | 1     | 0        | 0        | 0       | 0            |
| 57  | Y5    | 1     | 0        | 0        | 0       | 0            |
| 57  | Y7    | 1     | 0        | 0        | 0       | 0            |
| 57  | YA    | 359   | 0        | 0        | 0       | 0            |
| 57  | YB    | 4     | 0        | 0        | 0       | 0            |
| 57  | YE    | 1     | 0        | 0        | 0       | 0            |
| 57  | YP    | 2     | 0        | 0        | 0       | 0            |

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| Mol | Chain | Non-H  | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|--------|----------|----------|---------|--------------|
| 57  | YU    | 1      | 0        | 0        | 0       | 0            |
| 57  | YY    | 1      | 0        | 0        | 0       | 0            |
| 58  | QA    | 42     | 0        | 45       | 4       | 0            |
| 58  | XA    | 42     | 0        | 45       | 2       | 0            |
| 59  | QD    | 1      | 0        | 0        | 0       | 0            |
| 59  | QN    | 1      | 0        | 0        | 0       | 0            |
| 59  | XD    | 1      | 0        | 0        | 0       | 0            |
| 59  | XN    | 1      | 0        | 0        | 0       | 0            |
| 60  | Z5    | 37     | 0        | 28       | 12      | 0            |
| 60  | Z6    | 37     | 0        | 28       | 7       | 0            |
| All | All   | 292320 | 0        | 198405   | 8425    | 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 17.

The worst 5 of 8425 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) |
|------------------|--------------------|--------------------------|-------------------|
| 31:RH:127:GLU:CG | 31:RH:128:PRO:HD3  | 1.35                     | 1.53              |
| 31:YH:127:GLU:CG | 31:YH:128:PRO:HD3  | 1.36                     | 1.52              |
| 32:RI:144:VAL:O  | 32:RI:145:VAL:HG12 | 1.22                     | 1.36              |
| 4:QD:9:CYS:SG    | 4:QD:22:LYS:CE     | 2.22                     | 1.28              |
| 32:YI:144:VAL:O  | 32:YI:145:VAL:HG22 | 1.22                     | 1.28              |

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   | QB    | 235/256 (92%) | 174 (74%) | 44 (19%) | 17 (7%)  | 1           | 19 |
| 2   | XB    | 235/256 (92%) | 178 (76%) | 42 (18%) | 15 (6%)  | 2           | 23 |

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| Mol | Chain | Analysed      | Favoured  | Allowed  | Outliers | Percentiles |     |
|-----|-------|---------------|-----------|----------|----------|-------------|-----|
| 3   | QC    | 203/239 (85%) | 163 (80%) | 34 (17%) | 6 (3%)   | 5           | 44  |
| 3   | XC    | 203/239 (85%) | 171 (84%) | 29 (14%) | 3 (2%)   | 13          | 57  |
| 4   | QD    | 206/209 (99%) | 178 (86%) | 19 (9%)  | 9 (4%)   | 3           | 32  |
| 4   | XD    | 206/209 (99%) | 176 (85%) | 25 (12%) | 5 (2%)   | 7           | 49  |
| 5   | QE    | 149/162 (92%) | 136 (91%) | 9 (6%)   | 4 (3%)   | 6           | 46  |
| 5   | XE    | 149/162 (92%) | 134 (90%) | 13 (9%)  | 2 (1%)   | 15          | 60  |
| 6   | QF    | 99/101 (98%)  | 95 (96%)  | 4 (4%)   | 0        | 100         | 100 |
| 6   | XF    | 99/101 (98%)  | 94 (95%)  | 5 (5%)   | 0        | 100         | 100 |
| 7   | QG    | 153/156 (98%) | 136 (89%) | 15 (10%) | 2 (1%)   | 15          | 60  |
| 7   | XG    | 153/156 (98%) | 138 (90%) | 13 (8%)  | 2 (1%)   | 15          | 60  |
| 8   | QH    | 136/138 (99%) | 121 (89%) | 14 (10%) | 1 (1%)   | 26          | 72  |
| 8   | XH    | 136/138 (99%) | 120 (88%) | 12 (9%)  | 4 (3%)   | 6           | 44  |
| 9   | QI    | 125/128 (98%) | 103 (82%) | 17 (14%) | 5 (4%)   | 4           | 35  |
| 9   | XI    | 125/128 (98%) | 97 (78%)  | 24 (19%) | 4 (3%)   | 5           | 42  |
| 10  | QJ    | 97/105 (92%)  | 75 (77%)  | 19 (20%) | 3 (3%)   | 5           | 43  |
| 10  | XJ    | 97/105 (92%)  | 79 (81%)  | 13 (13%) | 5 (5%)   | 2           | 27  |
| 11  | QK    | 117/129 (91%) | 101 (86%) | 14 (12%) | 2 (2%)   | 11          | 55  |
| 11  | XK    | 117/129 (91%) | 101 (86%) | 14 (12%) | 2 (2%)   | 11          | 55  |
| 12  | QL    | 123/132 (93%) | 85 (69%)  | 24 (20%) | 14 (11%) | 0           | 9   |
| 12  | XL    | 123/132 (93%) | 85 (69%)  | 24 (20%) | 14 (11%) | 0           | 9   |
| 13  | QM    | 119/126 (94%) | 95 (80%)  | 15 (13%) | 9 (8%)   | 1           | 17  |
| 13  | XM    | 119/126 (94%) | 94 (79%)  | 16 (13%) | 9 (8%)   | 1           | 17  |
| 14  | QN    | 58/61 (95%)   | 50 (86%)  | 4 (7%)   | 4 (7%)   | 1           | 20  |
| 14  | XN    | 58/61 (95%)   | 46 (79%)  | 6 (10%)  | 6 (10%)  | 1           | 11  |
| 15  | QO    | 86/89 (97%)   | 80 (93%)  | 5 (6%)   | 1 (1%)   | 16          | 62  |
| 15  | XO    | 86/89 (97%)   | 80 (93%)  | 4 (5%)   | 2 (2%)   | 8           | 50  |
| 16  | QP    | 82/88 (93%)   | 73 (89%)  | 8 (10%)  | 1 (1%)   | 16          | 62  |
| 16  | XP    | 82/88 (93%)   | 71 (87%)  | 10 (12%) | 1 (1%)   | 16          | 62  |
| 17  | QQ    | 98/105 (93%)  | 91 (93%)  | 5 (5%)   | 2 (2%)   | 9           | 53  |
| 17  | XQ    | 98/105 (93%)  | 88 (90%)  | 10 (10%) | 0        | 100         | 100 |
| 18  | QR    | 68/88 (77%)   | 56 (82%)  | 9 (13%)  | 3 (4%)   | 3           | 32  |

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| Mol | Chain | Analysed      | Favoured  | Allowed  | Outliers | Percentiles |    |
|-----|-------|---------------|-----------|----------|----------|-------------|----|
| 18  | XR    | 68/88 (77%)   | 61 (90%)  | 6 (9%)   | 1 (2%)   | 13          | 57 |
| 19  | QS    | 82/93 (88%)   | 55 (67%)  | 16 (20%) | 11 (13%) | 0           | 6  |
| 19  | XS    | 82/93 (88%)   | 54 (66%)  | 18 (22%) | 10 (12%) | 0           | 8  |
| 20  | QT    | 97/106 (92%)  | 76 (78%)  | 15 (16%) | 6 (6%)   | 2           | 24 |
| 20  | XT    | 97/106 (92%)  | 75 (77%)  | 17 (18%) | 5 (5%)   | 2           | 27 |
| 21  | QU    | 23/27 (85%)   | 19 (83%)  | 3 (13%)  | 1 (4%)   | 3           | 33 |
| 21  | XU    | 23/27 (85%)   | 18 (78%)  | 4 (17%)  | 1 (4%)   | 3           | 33 |
| 27  | RD    | 270/276 (98%) | 226 (84%) | 32 (12%) | 12 (4%)  | 3           | 32 |
| 27  | YD    | 270/276 (98%) | 205 (76%) | 46 (17%) | 19 (7%)  | 1           | 20 |
| 28  | RE    | 203/206 (98%) | 120 (59%) | 41 (20%) | 42 (21%) | 0           | 2  |
| 28  | YE    | 203/206 (98%) | 120 (59%) | 41 (20%) | 42 (21%) | 0           | 2  |
| 29  | RF    | 200/210 (95%) | 171 (86%) | 19 (10%) | 10 (5%)  | 3           | 29 |
| 29  | YF    | 200/210 (95%) | 143 (72%) | 37 (18%) | 20 (10%) | 1           | 11 |
| 30  | RG    | 179/182 (98%) | 139 (78%) | 26 (14%) | 14 (8%)  | 1           | 16 |
| 30  | YG    | 179/182 (98%) | 143 (80%) | 24 (13%) | 12 (7%)  | 1           | 21 |
| 31  | RH    | 168/180 (93%) | 94 (56%)  | 36 (21%) | 38 (23%) | 0           | 1  |
| 31  | YH    | 168/180 (93%) | 94 (56%)  | 36 (21%) | 38 (23%) | 0           | 1  |
| 32  | RI    | 144/148 (97%) | 99 (69%)  | 31 (22%) | 14 (10%) | 1           | 12 |
| 32  | YI    | 144/148 (97%) | 106 (74%) | 21 (15%) | 17 (12%) | 0           | 8  |
| 33  | RN    | 136/140 (97%) | 104 (76%) | 20 (15%) | 12 (9%)  | 1           | 14 |
| 33  | YN    | 136/140 (97%) | 109 (80%) | 16 (12%) | 11 (8%)  | 1           | 15 |
| 34  | RO    | 120/122 (98%) | 109 (91%) | 9 (8%)   | 2 (2%)   | 11          | 55 |
| 34  | YO    | 120/122 (98%) | 108 (90%) | 10 (8%)  | 2 (2%)   | 11          | 55 |
| 35  | RP    | 148/150 (99%) | 112 (76%) | 25 (17%) | 11 (7%)  | 1           | 18 |
| 35  | YP    | 148/150 (99%) | 111 (75%) | 22 (15%) | 15 (10%) | 1           | 11 |
| 36  | RQ    | 139/141 (99%) | 95 (68%)  | 30 (22%) | 14 (10%) | 1           | 11 |
| 36  | YQ    | 139/141 (99%) | 98 (70%)  | 25 (18%) | 16 (12%) | 0           | 9  |
| 37  | RR    | 116/118 (98%) | 106 (91%) | 5 (4%)   | 5 (4%)   | 3           | 33 |
| 37  | YR    | 116/118 (98%) | 99 (85%)  | 11 (10%) | 6 (5%)   | 2           | 27 |
| 38  | RS    | 109/112 (97%) | 76 (70%)  | 22 (20%) | 11 (10%) | 1           | 11 |
| 38  | YS    | 109/112 (97%) | 62 (57%)  | 29 (27%) | 18 (16%) | 0           | 4  |

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| Mol | Chain | Analysed      | Favoured  | Allowed  | Outliers | Percentiles |     |
|-----|-------|---------------|-----------|----------|----------|-------------|-----|
| 39  | RT    | 135/146 (92%) | 107 (79%) | 16 (12%) | 12 (9%)  | 1           | 13  |
| 39  | YT    | 135/146 (92%) | 108 (80%) | 17 (13%) | 10 (7%)  | 1           | 18  |
| 40  | RU    | 115/118 (98%) | 102 (89%) | 9 (8%)   | 4 (4%)   | 4           | 40  |
| 40  | YU    | 115/118 (98%) | 101 (88%) | 12 (10%) | 2 (2%)   | 11          | 55  |
| 41  | RV    | 99/101 (98%)  | 82 (83%)  | 11 (11%) | 6 (6%)   | 2           | 24  |
| 41  | YV    | 99/101 (98%)  | 79 (80%)  | 12 (12%) | 8 (8%)   | 1           | 15  |
| 42  | RW    | 111/113 (98%) | 99 (89%)  | 8 (7%)   | 4 (4%)   | 4           | 39  |
| 42  | YW    | 111/113 (98%) | 100 (90%) | 9 (8%)   | 2 (2%)   | 11          | 54  |
| 43  | RX    | 90/96 (94%)   | 77 (86%)  | 11 (12%) | 2 (2%)   | 8           | 51  |
| 43  | YX    | 90/96 (94%)   | 82 (91%)  | 6 (7%)   | 2 (2%)   | 8           | 51  |
| 44  | RY    | 100/110 (91%) | 71 (71%)  | 13 (13%) | 16 (16%) | 0           | 4   |
| 44  | YY    | 100/110 (91%) | 70 (70%)  | 18 (18%) | 12 (12%) | 0           | 8   |
| 45  | RZ    | 181/206 (88%) | 128 (71%) | 33 (18%) | 20 (11%) | 0           | 9   |
| 45  | YZ    | 181/206 (88%) | 135 (75%) | 28 (16%) | 18 (10%) | 1           | 12  |
| 46  | R0    | 80/85 (94%)   | 65 (81%)  | 14 (18%) | 1 (1%)   | 15          | 60  |
| 46  | Y0    | 80/85 (94%)   | 73 (91%)  | 7 (9%)   | 0        | 100         | 100 |
| 47  | R1    | 95/98 (97%)   | 75 (79%)  | 11 (12%) | 9 (10%)  | 1           | 12  |
| 47  | Y1    | 95/98 (97%)   | 72 (76%)  | 17 (18%) | 6 (6%)   | 2           | 23  |
| 48  | R2    | 67/72 (93%)   | 54 (81%)  | 9 (13%)  | 4 (6%)   | 2           | 24  |
| 48  | Y2    | 67/72 (93%)   | 46 (69%)  | 12 (18%) | 9 (13%)  | 0           | 6   |
| 49  | R3    | 57/60 (95%)   | 52 (91%)  | 3 (5%)   | 2 (4%)   | 4           | 40  |
| 49  | Y3    | 57/60 (95%)   | 53 (93%)  | 3 (5%)   | 1 (2%)   | 11          | 54  |
| 50  | R4    | 69/71 (97%)   | 22 (32%)  | 21 (30%) | 26 (38%) | 0           | 0   |
| 50  | Y4    | 69/71 (97%)   | 35 (51%)  | 15 (22%) | 19 (28%) | 0           | 0   |
| 51  | R5    | 57/60 (95%)   | 33 (58%)  | 9 (16%)  | 15 (26%) | 0           | 0   |
| 51  | Y5    | 56/60 (93%)   | 46 (82%)  | 8 (14%)  | 2 (4%)   | 4           | 39  |
| 52  | R6    | 47/54 (87%)   | 23 (49%)  | 13 (28%) | 11 (23%) | 0           | 1   |
| 52  | Y6    | 47/54 (87%)   | 22 (47%)  | 17 (36%) | 8 (17%)  | 0           | 3   |
| 53  | R7    | 47/49 (96%)   | 45 (96%)  | 1 (2%)   | 1 (2%)   | 9           | 52  |
| 53  | Y7    | 47/49 (96%)   | 43 (92%)  | 3 (6%)   | 1 (2%)   | 9           | 52  |
| 54  | R8    | 62/65 (95%)   | 36 (58%)  | 14 (23%) | 12 (19%) | 0           | 2   |

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| Mol | Chain | Analysed          | Favoured   | Allowed    | Outliers | Percentiles |     |
|-----|-------|-------------------|------------|------------|----------|-------------|-----|
| 54  | Y8    | 62/65 (95%)       | 36 (58%)   | 14 (23%)   | 12 (19%) | 0           | 2   |
| 55  | R9    | 35/37 (95%)       | 35 (100%)  | 0          | 0        | 100         | 100 |
| 55  | Y9    | 35/37 (95%)       | 31 (89%)   | 4 (11%)    | 0        | 100         | 100 |
| All | All   | 11469/12128 (95%) | 9009 (79%) | 1610 (14%) | 850 (7%) | 1           | 18  |

5 of 850 Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 2   | QB    | 236 | TYR  |
| 3   | QC    | 12  | LEU  |
| 3   | QC    | 190 | ARG  |
| 4   | QD    | 28  | SER  |
| 4   | QD    | 33  | MET  |

### 5.3.2 Protein sidechains ⓘ

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

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

| Mol | Chain | Analysed       | Rotameric | Outliers | Percentiles |    |
|-----|-------|----------------|-----------|----------|-------------|----|
| 2   | QB    | 205/220 (93%)  | 172 (84%) | 33 (16%) | 3           | 21 |
| 2   | XB    | 205/220 (93%)  | 180 (88%) | 25 (12%) | 6           | 32 |
| 3   | QC    | 159/188 (85%)  | 145 (91%) | 14 (9%)  | 12          | 50 |
| 3   | XC    | 159/188 (85%)  | 145 (91%) | 14 (9%)  | 12          | 50 |
| 4   | QD    | 180/181 (99%)  | 155 (86%) | 25 (14%) | 4           | 28 |
| 4   | XD    | 180/181 (99%)  | 154 (86%) | 26 (14%) | 4           | 26 |
| 5   | QE    | 116/123 (94%)  | 104 (90%) | 12 (10%) | 9           | 42 |
| 5   | XE    | 116/123 (94%)  | 104 (90%) | 12 (10%) | 9           | 42 |
| 6   | QF    | 90/90 (100%)   | 78 (87%)  | 12 (13%) | 5           | 30 |
| 6   | XF    | 90/90 (100%)   | 82 (91%)  | 8 (9%)   | 12          | 50 |
| 7   | QG    | 126/127 (99%)  | 114 (90%) | 12 (10%) | 11          | 46 |
| 7   | XG    | 126/127 (99%)  | 114 (90%) | 12 (10%) | 11          | 46 |
| 8   | QH    | 119/119 (100%) | 109 (92%) | 10 (8%)  | 14          | 52 |

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| Mol | Chain | Analysed       | Rotameric | Outliers | Percentiles |     |
|-----|-------|----------------|-----------|----------|-------------|-----|
| 8   | XH    | 119/119 (100%) | 106 (89%) | 13 (11%) | 8           | 39  |
| 9   | QI    | 98/99 (99%)    | 80 (82%)  | 18 (18%) | 2           | 14  |
| 9   | XI    | 98/99 (99%)    | 79 (81%)  | 19 (19%) | 2           | 12  |
| 10  | QJ    | 89/92 (97%)    | 77 (86%)  | 12 (14%) | 5           | 29  |
| 10  | XJ    | 89/92 (97%)    | 75 (84%)  | 14 (16%) | 3           | 22  |
| 11  | QK    | 90/99 (91%)    | 81 (90%)  | 9 (10%)  | 9           | 43  |
| 11  | XK    | 90/99 (91%)    | 81 (90%)  | 9 (10%)  | 9           | 43  |
| 12  | QL    | 104/109 (95%)  | 90 (86%)  | 14 (14%) | 5           | 29  |
| 12  | XL    | 104/109 (95%)  | 89 (86%)  | 15 (14%) | 4           | 26  |
| 13  | QM    | 97/101 (96%)   | 73 (75%)  | 24 (25%) | 1           | 6   |
| 13  | XM    | 97/101 (96%)   | 78 (80%)  | 19 (20%) | 1           | 12  |
| 14  | QN    | 49/50 (98%)    | 40 (82%)  | 9 (18%)  | 2           | 14  |
| 14  | XN    | 49/50 (98%)    | 42 (86%)  | 7 (14%)  | 4           | 27  |
| 15  | QO    | 79/80 (99%)    | 72 (91%)  | 7 (9%)   | 12          | 50  |
| 15  | XO    | 79/80 (99%)    | 69 (87%)  | 10 (13%) | 5           | 31  |
| 16  | QP    | 72/74 (97%)    | 64 (89%)  | 8 (11%)  | 8           | 38  |
| 16  | XP    | 72/74 (97%)    | 64 (89%)  | 8 (11%)  | 8           | 38  |
| 17  | QQ    | 95/97 (98%)    | 87 (92%)  | 8 (8%)   | 14          | 52  |
| 17  | XQ    | 95/97 (98%)    | 89 (94%)  | 6 (6%)   | 22          | 64  |
| 18  | QR    | 61/77 (79%)    | 50 (82%)  | 11 (18%) | 2           | 15  |
| 18  | XR    | 61/77 (79%)    | 52 (85%)  | 9 (15%)  | 4           | 25  |
| 19  | QS    | 73/80 (91%)    | 59 (81%)  | 14 (19%) | 2           | 12  |
| 19  | XS    | 73/80 (91%)    | 57 (78%)  | 16 (22%) | 1           | 9   |
| 20  | QT    | 76/82 (93%)    | 67 (88%)  | 9 (12%)  | 6           | 34  |
| 20  | XT    | 76/82 (93%)    | 67 (88%)  | 9 (12%)  | 6           | 34  |
| 21  | QU    | 20/22 (91%)    | 20 (100%) | 0        | 100         | 100 |
| 21  | XU    | 20/22 (91%)    | 19 (95%)  | 1 (5%)   | 30          | 70  |
| 27  | RD    | 214/218 (98%)  | 174 (81%) | 40 (19%) | 2           | 13  |
| 27  | YD    | 214/218 (98%)  | 178 (83%) | 36 (17%) | 2           | 18  |
| 28  | RE    | 165/166 (99%)  | 127 (77%) | 38 (23%) | 1           | 7   |
| 28  | YE    | 165/166 (99%)  | 127 (77%) | 38 (23%) | 1           | 7   |

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| Mol | Chain | Analysed       | Rotameric | Outliers | Percentiles |    |
|-----|-------|----------------|-----------|----------|-------------|----|
| 29  | RF    | 161/166 (97%)  | 131 (81%) | 30 (19%) | 2           | 13 |
| 29  | YF    | 161/166 (97%)  | 140 (87%) | 21 (13%) | 5           | 30 |
| 30  | RG    | 155/156 (99%)  | 134 (86%) | 21 (14%) | 5           | 29 |
| 30  | YG    | 155/156 (99%)  | 133 (86%) | 22 (14%) | 4           | 27 |
| 31  | RH    | 142/148 (96%)  | 114 (80%) | 28 (20%) | 1           | 12 |
| 31  | YH    | 142/148 (96%)  | 115 (81%) | 27 (19%) | 2           | 12 |
| 32  | RI    | 122/124 (98%)  | 100 (82%) | 22 (18%) | 2           | 15 |
| 32  | YI    | 122/124 (98%)  | 92 (75%)  | 30 (25%) | 1           | 6  |
| 33  | RN    | 117/119 (98%)  | 97 (83%)  | 20 (17%) | 2           | 18 |
| 33  | YN    | 117/119 (98%)  | 94 (80%)  | 23 (20%) | 1           | 12 |
| 34  | RO    | 100/100 (100%) | 90 (90%)  | 10 (10%) | 9           | 43 |
| 34  | YO    | 100/100 (100%) | 88 (88%)  | 12 (12%) | 6           | 33 |
| 35  | RP    | 116/116 (100%) | 86 (74%)  | 30 (26%) | 0           | 5  |
| 35  | YP    | 116/116 (100%) | 79 (68%)  | 37 (32%) | 0           | 3  |
| 36  | RQ    | 111/111 (100%) | 93 (84%)  | 18 (16%) | 3           | 20 |
| 36  | YQ    | 111/111 (100%) | 91 (82%)  | 20 (18%) | 2           | 15 |
| 37  | RR    | 101/101 (100%) | 83 (82%)  | 18 (18%) | 2           | 16 |
| 37  | YR    | 101/101 (100%) | 81 (80%)  | 20 (20%) | 1           | 12 |
| 38  | RS    | 87/88 (99%)    | 69 (79%)  | 18 (21%) | 1           | 10 |
| 38  | YS    | 87/88 (99%)    | 74 (85%)  | 13 (15%) | 4           | 25 |
| 39  | RT    | 120/127 (94%)  | 102 (85%) | 18 (15%) | 3           | 25 |
| 39  | YT    | 120/127 (94%)  | 99 (82%)  | 21 (18%) | 2           | 16 |
| 40  | RU    | 93/94 (99%)    | 79 (85%)  | 14 (15%) | 3           | 24 |
| 40  | YU    | 93/94 (99%)    | 77 (83%)  | 16 (17%) | 2           | 17 |
| 41  | RV    | 82/82 (100%)   | 66 (80%)  | 16 (20%) | 2           | 12 |
| 41  | YV    | 82/82 (100%)   | 67 (82%)  | 15 (18%) | 2           | 14 |
| 42  | RW    | 92/92 (100%)   | 73 (79%)  | 19 (21%) | 1           | 10 |
| 42  | YW    | 92/92 (100%)   | 76 (83%)  | 16 (17%) | 2           | 17 |
| 43  | RX    | 74/78 (95%)    | 64 (86%)  | 10 (14%) | 5           | 29 |
| 43  | YX    | 74/78 (95%)    | 60 (81%)  | 14 (19%) | 2           | 13 |
| 44  | RY    | 85/91 (93%)    | 63 (74%)  | 22 (26%) | 0           | 5  |

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| Mol | Chain | Analysed         | Rotameric  | Outliers   | Percentiles |    |
|-----|-------|------------------|------------|------------|-------------|----|
| 44  | YY    | 85/91 (93%)      | 64 (75%)   | 21 (25%)   | 1           | 6  |
| 45  | RZ    | 162/179 (90%)    | 138 (85%)  | 24 (15%)   | 4           | 25 |
| 45  | YZ    | 162/179 (90%)    | 145 (90%)  | 17 (10%)   | 8           | 41 |
| 46  | R0    | 65/67 (97%)      | 60 (92%)   | 5 (8%)     | 16          | 56 |
| 46  | Y0    | 65/67 (97%)      | 59 (91%)   | 6 (9%)     | 11          | 48 |
| 47  | R1    | 82/83 (99%)      | 73 (89%)   | 9 (11%)    | 8           | 39 |
| 47  | Y1    | 82/83 (99%)      | 70 (85%)   | 12 (15%)   | 4           | 26 |
| 48  | R2    | 64/67 (96%)      | 55 (86%)   | 9 (14%)    | 4           | 28 |
| 48  | Y2    | 64/67 (96%)      | 57 (89%)   | 7 (11%)    | 8           | 39 |
| 49  | R3    | 51/52 (98%)      | 45 (88%)   | 6 (12%)    | 6           | 34 |
| 49  | Y3    | 51/52 (98%)      | 43 (84%)   | 8 (16%)    | 3           | 22 |
| 50  | R4    | 63/63 (100%)     | 46 (73%)   | 17 (27%)   | 0           | 4  |
| 50  | Y4    | 63/63 (100%)     | 44 (70%)   | 19 (30%)   | 0           | 3  |
| 51  | R5    | 51/52 (98%)      | 39 (76%)   | 12 (24%)   | 1           | 7  |
| 51  | Y5    | 51/52 (98%)      | 39 (76%)   | 12 (24%)   | 1           | 7  |
| 52  | R6    | 48/52 (92%)      | 35 (73%)   | 13 (27%)   | 0           | 4  |
| 52  | Y6    | 48/52 (92%)      | 38 (79%)   | 10 (21%)   | 1           | 10 |
| 53  | R7    | 42/42 (100%)     | 34 (81%)   | 8 (19%)    | 2           | 12 |
| 53  | Y7    | 42/42 (100%)     | 35 (83%)   | 7 (17%)    | 3           | 19 |
| 54  | R8    | 54/55 (98%)      | 39 (72%)   | 15 (28%)   | 0           | 4  |
| 54  | Y8    | 54/55 (98%)      | 38 (70%)   | 16 (30%)   | 0           | 3  |
| 55  | R9    | 34/34 (100%)     | 32 (94%)   | 2 (6%)     | 24          | 66 |
| 55  | Y9    | 34/34 (100%)     | 32 (94%)   | 2 (6%)     | 24          | 66 |
| All | All   | 9702/10066 (96%) | 8159 (84%) | 1543 (16%) | 3           | 21 |

5 of 1543 residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 48  | R2    | 53  | LEU  |
| 7   | XG    | 78  | ARG  |
| 44  | YY    | 97  | ARG  |
| 50  | R4    | 62  | ARG  |
| 2   | XB    | 82  | ARG  |

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 29 such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 50  | R4    | 6   | HIS  |
| 2   | XB    | 19  | HIS  |
| 28  | YE    | 48  | GLN  |
| 55  | R9    | 29  | ASN  |
| 2   | XB    | 204 | ASN  |

### 5.3.3 RNA ⓘ

| Mol | Chain | Analysed        | Backbone Outliers | Pucker Outliers |
|-----|-------|-----------------|-------------------|-----------------|
| 1   | QA    | 1498/1522 (98%) | 279 (18%)         | 43 (2%)         |
| 1   | XA    | 1498/1522 (98%) | 282 (18%)         | 37 (2%)         |
| 22  | QV    | 76/77 (98%)     | 21 (27%)          | 1 (1%)          |
| 22  | XV    | 76/77 (98%)     | 13 (17%)          | 1 (1%)          |
| 23  | QX    | 8/25 (32%)      | 2 (25%)           | 0               |
| 23  | XX    | 9/25 (36%)      | 1 (11%)           | 0               |
| 24  | QY    | 15/17 (88%)     | 2 (13%)           | 0               |
| 24  | XY    | 15/17 (88%)     | 1 (6%)            | 0               |
| 25  | RA    | 2879/2915 (98%) | 606 (21%)         | 50 (1%)         |
| 25  | YA    | 2879/2915 (98%) | 607 (21%)         | 56 (1%)         |
| 26  | RB    | 119/122 (97%)   | 22 (18%)          | 2 (1%)          |
| 26  | YB    | 119/122 (97%)   | 27 (22%)          | 1 (0%)          |
| 56  | Z5    | 1/3 (33%)       | 0                 | 0               |
| 56  | Z6    | 1/3 (33%)       | 0                 | 0               |
| All | All   | 9193/9362 (98%) | 1863 (20%)        | 191 (2%)        |

5 of 1863 RNA backbone outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | QA    | 9   | G    |
| 1   | QA    | 32  | A    |
| 1   | QA    | 39  | G    |
| 1   | QA    | 47  | C    |
| 1   | QA    | 48  | C    |

5 of 191 RNA pucker outliers are listed below:

| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 25  | RA    | 2530 | A    |
| 1   | XA    | 266  | G    |
| 25  | YA    | 1955 | U    |

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| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 25  | RA    | 2622 | C    |
| 1   | XA    | 31   | G    |

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

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

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 926 ligands modelled in this entry, 922 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  | PAR  | QA    | 1681 | -    | 45,45,45     | 1.43 | 8 (17%)  | 59,67,67    | 1.37 | 6 (10%)  |
| 58  | PAR  | XA    | 1710 | -    | 45,45,45     | 1.44 | 7 (15%)  | 59,67,67    | 1.28 | 5 (8%)   |
| 60  | PPU  | Z5    | 101  | 56   | 30,40,41     | 2.58 | 6 (20%)  | 37,57,60    | 3.24 | 11 (29%) |
| 60  | PPU  | Z6    | 101  | 56   | 30,40,41     | 2.58 | 6 (20%)  | 37,57,60    | 3.24 | 11 (29%) |

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  | PAR  | QA    | 1681 | -    | -       | 0/18/94/94 | 0/4/4/4 |
| 58  | PAR  | XA    | 1710 | -    | -       | 0/18/94/94 | 0/4/4/4 |
| 60  | PPU  | Z5    | 101  | 56   | -       | 0/21/43/44 | 0/4/4/4 |
| 60  | PPU  | Z6    | 101  | 56   | -       | 0/21/43/44 | 0/4/4/4 |

The worst 5 of 27 bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms  | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|--------|-------|-------------|----------|
| 60  | Z6    | 101 | PPU  | C9-N6  | -5.63 | 1.31        | 1.45     |
| 60  | Z5    | 101 | PPU  | C9-N6  | -5.62 | 1.32        | 1.45     |
| 60  | Z6    | 101 | PPU  | C10-N6 | -5.28 | 1.32        | 1.45     |
| 60  | Z5    | 101 | PPU  | C10-N6 | -5.25 | 1.32        | 1.45     |
| 60  | Z5    | 101 | PPU  | C5-N7  | -2.04 | 1.32        | 1.39     |

The worst 5 of 33 bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms      | Z      | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|--------|-------------|----------|
| 60  | Z6    | 101 | PPU  | C2'-C1'-N9 | -10.33 | 98.51       | 114.29   |
| 60  | Z5    | 101 | PPU  | C2'-C1'-N9 | -10.32 | 98.52       | 114.29   |
| 60  | Z5    | 101 | PPU  | N3-C2-N1   | -9.77  | 121.42      | 128.89   |
| 60  | Z6    | 101 | PPU  | N3-C2-N1   | -9.72  | 121.45      | 128.89   |
| 60  | Z5    | 101 | PPU  | C3'-N3'-C  | -8.22  | 110.23      | 123.18   |

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

4 monomers are involved in 25 short contacts:

| Mol | Chain | Res  | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 58  | QA    | 1681 | PAR  | 4       | 0            |
| 58  | XA    | 1710 | PAR  | 2       | 0            |
| 60  | Z5    | 101  | PPU  | 12      | 0            |
| 60  | Z6    | 101  | PPU  | 7       | 0            |

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.



## 6 Fit of model and data ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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   | QA    | 1500/1522 (98%) | 0.09   | 16 (1%) 82 70 | 40, 98, 191, 460      | 0     |
| 1   | XA    | 1500/1522 (98%) | 0.09   | 10 (0%) 89 81 | 37, 88, 192, 384      | 0     |
| 2   | QB    | 237/256 (92%)   | 0.71   | 26 (10%) 7 6  | 91, 151, 229, 303     | 0     |
| 2   | XB    | 237/256 (92%)   | 0.40   | 7 (2%) 54 38  | 71, 131, 209, 300     | 0     |
| 3   | QC    | 205/239 (85%)   | 0.34   | 1 (0%) 91 86  | 79, 138, 213, 261     | 0     |
| 3   | XC    | 205/239 (85%)   | 0.01   | 0 100 100     | 53, 95, 150, 275      | 0     |
| 4   | QD    | 208/209 (99%)   | 0.14   | 1 (0%) 91 86  | 59, 105, 170, 323     | 0     |
| 4   | XD    | 208/209 (99%)   | -0.09  | 0 100 100     | 43, 92, 156, 208      | 0     |
| 5   | QE    | 151/162 (93%)   | 0.14   | 1 (0%) 89 81  | 66, 112, 178, 228     | 0     |
| 5   | XE    | 151/162 (93%)   | -0.13  | 0 100 100     | 44, 86, 140, 204      | 0     |
| 6   | QF    | 101/101 (100%)  | -0.12  | 0 100 100     | 48, 92, 135, 211      | 0     |
| 6   | XF    | 101/101 (100%)  | -0.03  | 0 100 100     | 47, 96, 150, 271      | 0     |
| 7   | QG    | 155/156 (99%)   | 0.60   | 13 (8%) 14 10 | 86, 136, 192, 401     | 0     |
| 7   | XG    | 155/156 (99%)   | 0.37   | 9 (5%) 26 18  | 63, 118, 165, 229     | 0     |
| 8   | QH    | 138/138 (100%)  | 0.18   | 1 (0%) 89 81  | 66, 110, 155, 279     | 0     |
| 8   | XH    | 138/138 (100%)  | 0.02   | 1 (0%) 89 81  | 62, 104, 145, 170     | 0     |
| 9   | QI    | 127/128 (99%)   | 0.86   | 16 (12%) 5 5  | 82, 153, 208, 251     | 0     |
| 9   | XI    | 127/128 (99%)   | 0.27   | 0 100 100     | 56, 131, 179, 246     | 0     |
| 10  | QJ    | 99/105 (94%)    | 0.83   | 10 (10%) 9 7  | 101, 158, 246, 398    | 0     |
| 10  | XJ    | 99/105 (94%)    | 0.63   | 9 (9%) 11 8   | 60, 121, 205, 240     | 0     |
| 11  | QK    | 119/129 (92%)   | 0.91   | 15 (12%) 5 5  | 60, 100, 188, 269     | 0     |
| 11  | XK    | 119/129 (92%)   | 0.53   | 6 (5%) 32 22  | 37, 93, 164, 272      | 0     |
| 12  | QL    | 125/132 (94%)   | 0.33   | 4 (3%) 51 37  | 47, 91, 145, 263      | 0     |
| 12  | XL    | 125/132 (94%)   | 0.19   | 3 (2%) 62 47  | 42, 72, 139, 285      | 0     |

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| Mol | Chain | Analysed        | <RSRZ> | #RSRZ>2        | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|-----------------|--------|----------------|-----------------------|-------|
| 13  | QM    | 121/126 (96%)   | 0.65   | 12 (9%) 9 7    | 91, 151, 204, 320     | 0     |
| 13  | XM    | 121/126 (96%)   | 0.21   | 3 (2%) 61 46   | 58, 116, 178, 305     | 0     |
| 14  | QN    | 60/61 (98%)     | 0.63   | 1 (1%) 73 59   | 88, 128, 188, 195     | 0     |
| 14  | XN    | 60/61 (98%)     | 0.02   | 0 100 100      | 49, 90, 129, 159      | 0     |
| 15  | QO    | 88/89 (98%)     | 0.02   | 0 100 100      | 41, 92, 137, 169      | 0     |
| 15  | XO    | 88/89 (98%)     | 0.12   | 1 (1%) 82 70   | 56, 97, 143, 170      | 0     |
| 16  | QP    | 84/88 (95%)     | 0.35   | 1 (1%) 81 69   | 62, 95, 137, 206      | 0     |
| 16  | XP    | 84/88 (95%)     | 0.59   | 1 (1%) 81 69   | 74, 110, 158, 267     | 0     |
| 17  | QQ    | 100/105 (95%)   | 0.29   | 0 100 100      | 57, 99, 132, 165      | 0     |
| 17  | XQ    | 100/105 (95%)   | 0.27   | 0 100 100      | 68, 112, 143, 168     | 0     |
| 18  | QR    | 70/88 (79%)     | 0.21   | 4 (5%) 27 19   | 64, 101, 147, 191     | 0     |
| 18  | XR    | 70/88 (79%)     | 0.22   | 1 (1%) 78 65   | 62, 104, 164, 181     | 0     |
| 19  | QS    | 84/93 (90%)     | 0.72   | 5 (5%) 25 17   | 100, 157, 204, 241    | 0     |
| 19  | XS    | 84/93 (90%)     | 0.58   | 2 (2%) 62 47   | 66, 121, 190, 335     | 0     |
| 20  | QT    | 99/106 (93%)    | 0.41   | 2 (2%) 68 54   | 55, 101, 164, 255     | 0     |
| 20  | XT    | 99/106 (93%)    | 0.75   | 7 (7%) 19 12   | 80, 141, 215, 265     | 0     |
| 21  | QU    | 25/27 (92%)     | 0.70   | 2 (8%) 15 10   | 95, 140, 198, 248     | 0     |
| 21  | XU    | 25/27 (92%)     | 0.30   | 1 (4%) 42 29   | 76, 110, 159, 180     | 0     |
| 22  | QV    | 77/77 (100%)    | 0.17   | 1 (1%) 79 66   | 38, 106, 168, 231     | 0     |
| 22  | XV    | 77/77 (100%)    | 0.24   | 1 (1%) 79 66   | 42, 84, 137, 180      | 0     |
| 23  | QX    | 9/25 (36%)      | 0.45   | 0 100 100      | 63, 86, 158, 171      | 0     |
| 23  | XX    | 10/25 (40%)     | 0.53   | 1 (10%) 9 7    | 47, 69, 148, 219      | 0     |
| 24  | QY    | 16/17 (94%)     | 0.44   | 1 (6%) 23 15   | 87, 115, 167, 175     | 0     |
| 24  | XY    | 16/17 (94%)     | 0.22   | 0 100 100      | 68, 95, 153, 191      | 0     |
| 25  | RA    | 2882/2915 (98%) | 0.15   | 116 (4%) 42 29 | 27, 74, 249, 510      | 0     |
| 25  | YA    | 2882/2915 (98%) | 0.17   | 105 (3%) 46 33 | 27, 69, 246, 557      | 0     |
| 26  | RB    | 120/122 (98%)   | 0.08   | 1 (0%) 87 78   | 90, 127, 170, 210     | 0     |
| 26  | YB    | 120/122 (98%)   | -0.12  | 0 100 100      | 61, 90, 124, 152      | 0     |
| 27  | RD    | 272/276 (98%)   | -0.11  | 1 (0%) 93 88   | 22, 61, 105, 222      | 0     |
| 27  | YD    | 272/276 (98%)   | -0.04  | 1 (0%) 93 88   | 22, 61, 105, 185      | 0     |
| 28  | RE    | 205/206 (99%)   | 0.27   | 5 (2%) 62 47   | 39, 83, 168, 336      | 0     |

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| Mol | Chain | Analysed       | <RSRZ> | #RSRZ>2       | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|----------------|--------|---------------|-----------------------|-------|
| 28  | YE    | 205/206 (99%)  | 0.14   | 3 (1%) 76 64  | 31, 91, 177, 273      | 0     |
| 29  | RF    | 202/210 (96%)  | 0.30   | 4 (1%) 68 54  | 23, 99, 171, 216      | 0     |
| 29  | YF    | 202/210 (96%)  | 0.11   | 4 (1%) 68 54  | 32, 78, 149, 227      | 0     |
| 30  | RG    | 181/182 (99%)  | 0.69   | 11 (6%) 25 16 | 92, 150, 197, 231     | 0     |
| 30  | YG    | 181/182 (99%)  | 0.25   | 4 (2%) 65 50  | 61, 98, 160, 244      | 0     |
| 31  | RH    | 170/180 (94%)  | 1.44   | 43 (25%) 1 1  | 102, 193, 270, 361    | 0     |
| 31  | YH    | 170/180 (94%)  | 0.45   | 5 (2%) 55 40  | 53, 105, 164, 210     | 0     |
| 32  | RI    | 146/148 (98%)  | 0.55   | 10 (6%) 20 13 | 67, 125, 195, 258     | 0     |
| 32  | YI    | 146/148 (98%)  | 0.52   | 8 (5%) 29 20  | 48, 123, 189, 271     | 0     |
| 33  | RN    | 138/140 (98%)  | 0.22   | 3 (2%) 65 50  | 51, 93, 154, 202      | 0     |
| 33  | YN    | 138/140 (98%)  | 0.28   | 3 (2%) 65 50  | 47, 92, 157, 220      | 0     |
| 34  | RO    | 122/122 (100%) | 0.18   | 1 (0%) 87 78  | 48, 80, 114, 148      | 0     |
| 34  | YO    | 122/122 (100%) | 0.08   | 0 100 100     | 27, 64, 103, 120      | 0     |
| 35  | RP    | 150/150 (100%) | 0.52   | 6 (4%) 42 29  | 28, 99, 159, 288      | 0     |
| 35  | YP    | 150/150 (100%) | 0.22   | 4 (2%) 58 43  | 31, 90, 162, 231      | 0     |
| 36  | RQ    | 141/141 (100%) | 0.63   | 8 (5%) 27 19  | 54, 102, 180, 226     | 0     |
| 36  | YQ    | 141/141 (100%) | 0.20   | 4 (2%) 56 42  | 35, 73, 140, 222      | 0     |
| 37  | RR    | 118/118 (100%) | -0.11  | 0 100 100     | 29, 70, 104, 138      | 0     |
| 37  | YR    | 118/118 (100%) | 0.13   | 1 (0%) 87 78  | 51, 91, 139, 190      | 0     |
| 38  | RS    | 111/112 (99%)  | 0.52   | 4 (3%) 46 33  | 81, 120, 204, 273     | 0     |
| 38  | YS    | 111/112 (99%)  | 0.15   | 2 (1%) 71 58  | 67, 101, 156, 201     | 0     |
| 39  | RT    | 137/146 (93%)  | 0.10   | 2 (1%) 76 64  | 50, 91, 188, 276      | 0     |
| 39  | YT    | 137/146 (93%)  | 0.05   | 0 100 100     | 51, 89, 212, 242      | 0     |
| 40  | RU    | 117/118 (99%)  | 0.26   | 5 (4%) 39 27  | 35, 81, 155, 298      | 0     |
| 40  | YU    | 117/118 (99%)  | -0.01  | 1 (0%) 85 75  | 40, 81, 152, 243      | 0     |
| 41  | RV    | 101/101 (100%) | 0.75   | 7 (6%) 20 13  | 55, 114, 183, 398     | 0     |
| 41  | YV    | 101/101 (100%) | 0.41   | 4 (3%) 42 29  | 44, 111, 174, 335     | 0     |
| 42  | RW    | 113/113 (100%) | 0.13   | 3 (2%) 58 43  | 36, 63, 115, 296      | 0     |
| 42  | YW    | 113/113 (100%) | 0.16   | 5 (4%) 38 27  | 37, 74, 134, 258      | 0     |
| 43  | RX    | 92/96 (95%)    | 0.36   | 1 (1%) 82 70  | 51, 77, 128, 164      | 0     |
| 43  | YX    | 92/96 (95%)    | 0.35   | 3 (3%) 50 36  | 37, 73, 112, 140      | 0     |

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| Mol | Chain | Analysed          | <RSRZ> | #RSRZ>2        | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|-------------------|--------|----------------|-----------------------|-------|
| 44  | RY    | 102/110 (92%)     | 0.95   | 15 (14%) 3 3   | 55, 119, 185, 325     | 0     |
| 44  | YY    | 102/110 (92%)     | 0.22   | 4 (3%) 43 31   | 42, 92, 162, 273      | 0     |
| 45  | RZ    | 183/206 (88%)     | 0.91   | 21 (11%) 6 6   | 104, 153, 230, 292    | 0     |
| 45  | YZ    | 183/206 (88%)     | 0.51   | 4 (2%) 65 50   | 55, 116, 202, 300     | 0     |
| 46  | R0    | 82/85 (96%)       | 0.46   | 2 (2%) 62 47   | 48, 88, 127, 238      | 0     |
| 46  | Y0    | 82/85 (96%)       | 0.13   | 0 100 100      | 44, 71, 99, 142       | 0     |
| 47  | R1    | 97/98 (98%)       | 0.45   | 3 (3%) 52 38   | 37, 80, 161, 290      | 0     |
| 47  | Y1    | 97/98 (98%)       | 0.40   | 4 (4%) 41 29   | 39, 75, 176, 210      | 0     |
| 48  | R2    | 69/72 (95%)       | 0.69   | 7 (10%) 9 7    | 63, 105, 160, 274     | 0     |
| 48  | Y2    | 69/72 (95%)       | 0.19   | 3 (4%) 39 27   | 47, 80, 151, 219      | 0     |
| 49  | R3    | 59/60 (98%)       | 0.62   | 3 (5%) 32 22   | 63, 97, 155, 205      | 0     |
| 49  | Y3    | 59/60 (98%)       | 0.75   | 9 (15%) 3 2    | 55, 89, 162, 293      | 0     |
| 50  | R4    | 71/71 (100%)      | 1.66   | 18 (25%) 1 1   | 150, 244, 350, 423    | 0     |
| 50  | Y4    | 71/71 (100%)      | 0.87   | 13 (18%) 2 1   | 69, 162, 340, 411     | 0     |
| 51  | R5    | 59/60 (98%)       | 0.27   | 4 (6%) 20 13   | 40, 77, 216, 261      | 0     |
| 51  | Y5    | 58/60 (96%)       | 0.49   | 7 (12%) 6 5    | 44, 97, 231, 342      | 0     |
| 52  | R6    | 49/54 (90%)       | 3.46   | 35 (71%) 0 0   | 119, 194, 264, 286    | 0     |
| 52  | Y6    | 49/54 (90%)       | 3.18   | 40 (81%) 0 0   | 115, 171, 260, 295    | 0     |
| 53  | R7    | 49/49 (100%)      | -0.18  | 1 (2%) 68 54   | 27, 54, 110, 166      | 0     |
| 53  | Y7    | 49/49 (100%)      | -0.21  | 1 (2%) 68 54   | 32, 51, 111, 180      | 0     |
| 54  | R8    | 64/65 (98%)       | 0.26   | 2 (3%) 52 38   | 42, 82, 134, 223      | 0     |
| 54  | Y8    | 64/65 (98%)       | 0.00   | 0 100 100      | 35, 68, 120, 229      | 0     |
| 55  | R9    | 37/37 (100%)      | 5.80   | 36 (97%) 0 0   | 134, 200, 317, 510    | 0     |
| 55  | Y9    | 37/37 (100%)      | 5.49   | 35 (94%) 0 0   | 134, 206, 322, 404    | 0     |
| 56  | Z5    | 2/3 (66%)         | 0.21   | 0 100 100      | 50, 50, 50, 60        | 0     |
| 56  | Z6    | 2/3 (66%)         | 0.08   | 0 100 100      | 38, 38, 38, 41        | 0     |
| All | All   | 20878/21490 (97%) | 0.28   | 851 (4%) 41 29 | 22, 92, 205, 557      | 0     |

The worst 5 of 851 RSRZ outliers are listed below:

| Mol | Chain | Res  | Type | RSRZ |
|-----|-------|------|------|------|
| 55  | R9    | 14   | CYS  | 18.4 |
| 25  | YA    | 2165 | G    | 14.0 |

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| Mol | Chain | Res  | Type | RSRZ |
|-----|-------|------|------|------|
| 25  | YA    | 2179 | C    | 12.9 |
| 55  | Y9    | 34   | GLN  | 12.6 |
| 35  | RP    | 149  | GLU  | 11.1 |

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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates 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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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  | LLDF   | B-factors(Å <sup>2</sup> ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|--------|----------------------------|-------|
| 57  | MG   | YA    | 3319 | 1/1   | 0.76 | 0.80 | 123.14 | 34,34,34,34                | 0     |
| 57  | MG   | YA    | 3192 | 1/1   | 0.41 | 0.76 | 48.89  | 60,60,60,60                | 0     |
| 57  | MG   | R5    | 101  | 1/1   | 0.80 | 1.07 | 40.76  | 162,162,162,162            | 0     |
| 57  | MG   | YA    | 3140 | 1/1   | 0.92 | 0.60 | 39.84  | 58,58,58,58                | 0     |
| 57  | MG   | YA    | 3268 | 1/1   | 0.88 | 0.51 | 37.82  | 43,43,43,43                | 0     |
| 57  | MG   | YA    | 3030 | 1/1   | 0.99 | 0.52 | 36.44  | 9,9,9,9                    | 0     |
| 57  | MG   | QA    | 1655 | 1/1   | 0.98 | 0.69 | 33.07  | 19,19,19,19                | 0     |
| 57  | MG   | RA    | 3033 | 1/1   | 0.98 | 0.46 | 32.67  | 16,16,16,16                | 0     |
| 57  | MG   | RA    | 3034 | 1/1   | 0.95 | 0.72 | 30.23  | 49,49,49,49                | 0     |
| 57  | MG   | YA    | 3232 | 1/1   | 0.85 | 0.56 | 30.00  | 25,25,25,25                | 0     |
| 57  | MG   | YA    | 3354 | 1/1   | 0.87 | 0.54 | 28.17  | 61,61,61,61                | 0     |
| 57  | MG   | RA    | 3169 | 1/1   | 0.80 | 0.42 | 25.55  | 35,35,35,35                | 0     |
| 57  | MG   | RA    | 3298 | 1/1   | 0.85 | 0.36 | 24.86  | 53,53,53,53                | 0     |
| 57  | MG   | XA    | 1688 | 1/1   | 0.96 | 0.61 | 24.46  | 60,60,60,60                | 0     |
| 57  | MG   | RA    | 3272 | 1/1   | 0.88 | 0.58 | 23.89  | 30,30,30,30                | 0     |
| 57  | MG   | RA    | 3320 | 1/1   | 0.88 | 0.48 | 23.52  | 32,32,32,32                | 0     |
| 57  | MG   | YA    | 3134 | 1/1   | 0.83 | 0.55 | 23.35  | 30,30,30,30                | 0     |
| 57  | MG   | YA    | 3230 | 1/1   | 0.98 | 0.56 | 23.07  | 20,20,20,20                | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-------|-----------------------------|-------|
| 57  | MG   | QA    | 1659 | 1/1   | 0.91 | 0.51 | 22.53 | 40,40,40,40                 | 0     |
| 57  | MG   | YA    | 3077 | 1/1   | 0.95 | 0.50 | 22.50 | 21,21,21,21                 | 0     |
| 57  | MG   | YA    | 3138 | 1/1   | 0.88 | 0.42 | 22.40 | 50,50,50,50                 | 0     |
| 57  | MG   | YA    | 3326 | 1/1   | 0.90 | 0.36 | 21.94 | 49,49,49,49                 | 0     |
| 57  | MG   | YA    | 3046 | 1/1   | 0.95 | 0.39 | 21.67 | 18,18,18,18                 | 0     |
| 57  | MG   | RA    | 3235 | 1/1   | 0.94 | 0.62 | 21.64 | 71,71,71,71                 | 0     |
| 57  | MG   | RA    | 3283 | 1/1   | 0.94 | 0.53 | 21.27 | 32,32,32,32                 | 0     |
| 57  | MG   | YA    | 3048 | 1/1   | 0.95 | 0.43 | 20.06 | 21,21,21,21                 | 0     |
| 57  | MG   | YA    | 3173 | 1/1   | 0.78 | 0.51 | 19.93 | 63,63,63,63                 | 0     |
| 57  | MG   | RA    | 3123 | 1/1   | 0.84 | 0.40 | 19.85 | 33,33,33,33                 | 0     |
| 57  | MG   | RA    | 3321 | 1/1   | 0.82 | 0.53 | 19.38 | 40,40,40,40                 | 0     |
| 57  | MG   | YA    | 3187 | 1/1   | 0.98 | 0.51 | 19.24 | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3233 | 1/1   | 0.95 | 0.46 | 19.15 | 16,16,16,16                 | 0     |
| 57  | MG   | YA    | 3033 | 1/1   | 0.93 | 0.55 | 19.09 | 27,27,27,27                 | 0     |
| 57  | MG   | YA    | 3303 | 1/1   | 0.92 | 0.49 | 19.05 | 53,53,53,53                 | 0     |
| 57  | MG   | QA    | 1656 | 1/1   | 0.50 | 0.40 | 18.74 | 63,63,63,63                 | 0     |
| 57  | MG   | RA    | 3285 | 1/1   | 0.94 | 0.62 | 18.26 | 57,57,57,57                 | 0     |
| 57  | MG   | YA    | 3238 | 1/1   | 0.90 | 0.67 | 18.23 | 43,43,43,43                 | 0     |
| 57  | MG   | XA    | 1667 | 1/1   | 0.91 | 0.50 | 18.22 | 23,23,23,23                 | 0     |
| 57  | MG   | YA    | 3025 | 1/1   | 0.98 | 0.58 | 18.20 | 39,39,39,39                 | 0     |
| 57  | MG   | XA    | 1649 | 1/1   | 0.76 | 0.49 | 17.74 | 39,39,39,39                 | 0     |
| 57  | MG   | XA    | 1619 | 1/1   | 0.90 | 0.60 | 17.29 | 40,40,40,40                 | 0     |
| 57  | MG   | RA    | 3279 | 1/1   | 0.79 | 0.48 | 17.26 | 54,54,54,54                 | 0     |
| 57  | MG   | YA    | 3022 | 1/1   | 0.96 | 0.41 | 16.82 | 28,28,28,28                 | 0     |
| 57  | MG   | YA    | 3327 | 1/1   | 0.82 | 0.47 | 16.76 | 56,56,56,56                 | 0     |
| 57  | MG   | YA    | 3009 | 1/1   | 0.94 | 0.46 | 16.72 | 30,30,30,30                 | 0     |
| 57  | MG   | RA    | 3057 | 1/1   | 0.96 | 0.43 | 16.52 | 19,19,19,19                 | 0     |
| 57  | MG   | RA    | 3059 | 1/1   | 0.96 | 0.37 | 16.52 | 15,15,15,15                 | 0     |
| 57  | MG   | YA    | 3251 | 1/1   | 0.96 | 0.37 | 16.34 | 37,37,37,37                 | 0     |
| 57  | MG   | QA    | 1640 | 1/1   | 0.66 | 0.84 | 16.34 | 63,63,63,63                 | 0     |
| 57  | MG   | RA    | 3155 | 1/1   | 0.96 | 0.47 | 16.22 | 55,55,55,55                 | 0     |
| 57  | MG   | YA    | 3169 | 1/1   | 0.93 | 0.66 | 16.12 | 85,85,85,85                 | 0     |
| 57  | MG   | YA    | 3264 | 1/1   | 0.94 | 0.53 | 15.70 | 65,65,65,65                 | 0     |
| 57  | MG   | YA    | 3323 | 1/1   | 0.94 | 0.49 | 15.67 | 42,42,42,42                 | 0     |
| 57  | MG   | RA    | 3005 | 1/1   | 0.96 | 0.55 | 15.54 | 10,10,10,10                 | 0     |
| 57  | MG   | YA    | 3095 | 1/1   | 0.95 | 0.38 | 15.23 | 30,30,30,30                 | 0     |
| 57  | MG   | YA    | 3214 | 1/1   | 0.70 | 0.40 | 15.08 | 40,40,40,40                 | 0     |
| 57  | MG   | YA    | 3170 | 1/1   | 0.92 | 0.44 | 14.99 | 52,52,52,52                 | 0     |
| 57  | MG   | YA    | 3240 | 1/1   | 0.99 | 0.43 | 14.90 | 21,21,21,21                 | 0     |
| 57  | MG   | YA    | 3307 | 1/1   | 0.95 | 0.37 | 14.57 | 37,37,37,37                 | 0     |
| 57  | MG   | RA    | 3003 | 1/1   | 0.99 | 0.44 | 14.56 | 11,11,11,11                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-------|-----------------------------|-------|
| 57  | MG   | RA    | 3118 | 1/1   | 0.97 | 0.46 | 14.38 | 40,40,40,40                 | 0     |
| 57  | MG   | YA    | 3076 | 1/1   | 0.94 | 0.53 | 14.23 | 15,15,15,15                 | 0     |
| 57  | MG   | QA    | 1660 | 1/1   | 0.89 | 0.41 | 14.01 | 31,31,31,31                 | 0     |
| 57  | MG   | XA    | 1692 | 1/1   | 0.92 | 0.29 | 13.83 | 58,58,58,58                 | 0     |
| 57  | MG   | RA    | 3227 | 1/1   | 0.81 | 0.34 | 13.61 | 23,23,23,23                 | 0     |
| 57  | MG   | XA    | 1643 | 1/1   | 0.77 | 0.40 | 13.60 | 59,59,59,59                 | 0     |
| 57  | MG   | XA    | 1634 | 1/1   | 0.92 | 0.41 | 13.49 | 38,38,38,38                 | 0     |
| 57  | MG   | RA    | 3160 | 1/1   | 0.94 | 0.42 | 13.28 | 55,55,55,55                 | 0     |
| 57  | MG   | XA    | 1632 | 1/1   | 0.52 | 0.35 | 13.11 | 58,58,58,58                 | 0     |
| 57  | MG   | RA    | 3031 | 1/1   | 0.98 | 0.36 | 13.08 | 40,40,40,40                 | 0     |
| 57  | MG   | QA    | 1613 | 1/1   | 0.95 | 0.48 | 12.92 | 40,40,40,40                 | 0     |
| 57  | MG   | YA    | 3161 | 1/1   | 0.91 | 0.41 | 12.83 | 39,39,39,39                 | 0     |
| 57  | MG   | YA    | 3156 | 1/1   | 0.83 | 0.44 | 12.82 | 76,76,76,76                 | 0     |
| 57  | MG   | RA    | 3119 | 1/1   | 0.93 | 0.54 | 12.76 | 50,50,50,50                 | 0     |
| 57  | MG   | RA    | 3062 | 1/1   | 0.97 | 0.46 | 12.34 | 3,3,3,3                     | 0     |
| 57  | MG   | XA    | 1633 | 1/1   | 0.93 | 0.77 | 12.31 | 47,47,47,47                 | 0     |
| 57  | MG   | RA    | 3052 | 1/1   | 0.97 | 0.34 | 12.25 | 5,5,5,5                     | 0     |
| 57  | MG   | RA    | 3098 | 1/1   | 0.97 | 0.41 | 12.16 | 14,14,14,14                 | 0     |
| 57  | MG   | YA    | 3102 | 1/1   | 0.98 | 0.36 | 11.89 | 16,16,16,16                 | 0     |
| 57  | MG   | QA    | 1672 | 1/1   | 0.93 | 0.35 | 11.73 | 41,41,41,41                 | 0     |
| 57  | MG   | RA    | 3049 | 1/1   | 0.92 | 0.41 | 11.43 | 14,14,14,14                 | 0     |
| 57  | MG   | RA    | 3007 | 1/1   | 0.93 | 0.55 | 11.33 | 12,12,12,12                 | 0     |
| 57  | MG   | RA    | 3315 | 1/1   | 0.95 | 0.74 | 11.30 | 42,42,42,42                 | 0     |
| 57  | MG   | RA    | 3232 | 1/1   | 0.82 | 0.40 | 11.24 | 46,46,46,46                 | 0     |
| 57  | MG   | XA    | 1679 | 1/1   | 0.96 | 0.57 | 11.12 | 27,27,27,27                 | 0     |
| 57  | MG   | RA    | 3264 | 1/1   | 0.90 | 0.45 | 11.02 | 58,58,58,58                 | 0     |
| 57  | MG   | RA    | 3040 | 1/1   | 0.99 | 0.31 | 10.29 | 24,24,24,24                 | 0     |
| 57  | MG   | YA    | 3082 | 1/1   | 0.96 | 0.34 | 9.91  | 12,12,12,12                 | 0     |
| 57  | MG   | RA    | 3142 | 1/1   | 0.92 | 0.45 | 9.77  | 19,19,19,19                 | 0     |
| 57  | MG   | RA    | 3009 | 1/1   | 0.87 | 0.31 | 9.72  | 39,39,39,39                 | 0     |
| 57  | MG   | QA    | 1629 | 1/1   | 0.68 | 0.32 | 9.69  | 52,52,52,52                 | 0     |
| 57  | MG   | YA    | 3114 | 1/1   | 0.93 | 0.39 | 9.62  | 40,40,40,40                 | 0     |
| 57  | MG   | QA    | 1612 | 1/1   | 0.95 | 0.45 | 9.60  | 39,39,39,39                 | 0     |
| 57  | MG   | RA    | 3063 | 1/1   | 0.96 | 0.51 | 9.56  | 9,9,9,9                     | 0     |
| 57  | MG   | YA    | 3096 | 1/1   | 0.98 | 0.44 | 9.54  | 21,21,21,21                 | 0     |
| 57  | MG   | QA    | 1605 | 1/1   | 0.97 | 0.47 | 9.52  | 30,30,30,30                 | 0     |
| 57  | MG   | YA    | 3014 | 1/1   | 0.93 | 0.30 | 9.47  | 6,6,6,6                     | 0     |
| 57  | MG   | YA    | 3103 | 1/1   | 0.97 | 0.32 | 9.26  | 11,11,11,11                 | 0     |
| 57  | MG   | XA    | 1700 | 1/1   | 0.89 | 0.57 | 9.13  | 50,50,50,50                 | 0     |
| 57  | MG   | YA    | 3347 | 1/1   | 0.84 | 0.41 | 9.03  | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3013 | 1/1   | 0.96 | 0.51 | 8.84  | 20,20,20,20                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | RA    | 3088 | 1/1   | 0.96 | 0.30 | 8.77 | 18,18,18,18                 | 0     |
| 57  | MG   | YA    | 3023 | 1/1   | 0.92 | 0.41 | 8.74 | 23,23,23,23                 | 0     |
| 57  | MG   | RA    | 3087 | 1/1   | 0.97 | 0.44 | 8.74 | 23,23,23,23                 | 0     |
| 57  | MG   | YA    | 3313 | 1/1   | 0.64 | 0.39 | 8.49 | 50,50,50,50                 | 0     |
| 57  | MG   | RA    | 3097 | 1/1   | 0.97 | 0.35 | 8.47 | 5,5,5,5                     | 0     |
| 57  | MG   | RA    | 3047 | 1/1   | 0.97 | 0.43 | 8.41 | 12,12,12,12                 | 0     |
| 57  | MG   | YA    | 3085 | 1/1   | 0.93 | 0.38 | 8.37 | 31,31,31,31                 | 0     |
| 57  | MG   | YA    | 3219 | 1/1   | 0.95 | 0.27 | 8.33 | 37,37,37,37                 | 0     |
| 57  | MG   | XA    | 1639 | 1/1   | 0.97 | 0.44 | 8.16 | 43,43,43,43                 | 0     |
| 57  | MG   | RA    | 3280 | 1/1   | 0.83 | 0.45 | 8.13 | 53,53,53,53                 | 0     |
| 57  | MG   | YA    | 3249 | 1/1   | 0.96 | 0.37 | 7.97 | 44,44,44,44                 | 0     |
| 57  | MG   | XA    | 1624 | 1/1   | 0.97 | 0.44 | 7.95 | 41,41,41,41                 | 0     |
| 57  | MG   | RA    | 3249 | 1/1   | 0.86 | 0.32 | 7.92 | 57,57,57,57                 | 0     |
| 57  | MG   | RA    | 3135 | 1/1   | 0.92 | 0.39 | 7.73 | 15,15,15,15                 | 0     |
| 57  | MG   | YA    | 3246 | 1/1   | 0.97 | 0.31 | 7.67 | 34,34,34,34                 | 0     |
| 57  | MG   | RA    | 3013 | 1/1   | 0.95 | 0.38 | 7.65 | 23,23,23,23                 | 0     |
| 57  | MG   | YA    | 3075 | 1/1   | 0.93 | 0.34 | 7.53 | 21,21,21,21                 | 0     |
| 57  | MG   | YA    | 3209 | 1/1   | 0.62 | 0.33 | 7.41 | 50,50,50,50                 | 0     |
| 57  | MG   | RA    | 3026 | 1/1   | 0.93 | 0.41 | 7.40 | 27,27,27,27                 | 0     |
| 57  | MG   | RA    | 3085 | 1/1   | 0.97 | 0.33 | 7.39 | 9,9,9,9                     | 0     |
| 57  | MG   | RA    | 3079 | 1/1   | 0.97 | 0.40 | 7.32 | 36,36,36,36                 | 0     |
| 57  | MG   | YA    | 3086 | 1/1   | 0.95 | 0.42 | 7.32 | 56,56,56,56                 | 0     |
| 57  | MG   | RA    | 3130 | 1/1   | 0.94 | 0.39 | 7.28 | 21,21,21,21                 | 0     |
| 57  | MG   | YA    | 3236 | 1/1   | 0.90 | 0.40 | 7.13 | 28,28,28,28                 | 0     |
| 57  | MG   | XA    | 1616 | 1/1   | 0.98 | 0.37 | 7.09 | 29,29,29,29                 | 0     |
| 57  | MG   | QA    | 1650 | 1/1   | 0.94 | 0.37 | 6.98 | 41,41,41,41                 | 0     |
| 57  | MG   | RA    | 3054 | 1/1   | 0.79 | 0.24 | 6.71 | 15,15,15,15                 | 0     |
| 57  | MG   | YA    | 3094 | 1/1   | 0.91 | 0.51 | 6.66 | 26,26,26,26                 | 0     |
| 57  | MG   | XA    | 1613 | 1/1   | 0.98 | 0.36 | 6.63 | 17,17,17,17                 | 0     |
| 57  | MG   | RA    | 3038 | 1/1   | 0.99 | 0.28 | 6.59 | 13,13,13,13                 | 0     |
| 57  | MG   | RA    | 3010 | 1/1   | 0.80 | 0.33 | 6.53 | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3297 | 1/1   | 0.98 | 0.34 | 6.53 | 32,32,32,32                 | 0     |
| 57  | MG   | QA    | 1617 | 1/1   | 0.88 | 0.28 | 6.52 | 38,38,38,38                 | 0     |
| 57  | MG   | YA    | 3197 | 1/1   | 0.80 | 0.29 | 6.35 | 55,55,55,55                 | 0     |
| 57  | MG   | QA    | 1644 | 1/1   | 0.93 | 0.55 | 6.32 | 54,54,54,54                 | 0     |
| 57  | MG   | QA    | 1654 | 1/1   | 0.96 | 0.34 | 6.29 | 68,68,68,68                 | 0     |
| 57  | MG   | XA    | 1685 | 1/1   | 0.98 | 0.28 | 6.27 | 21,21,21,21                 | 0     |
| 57  | MG   | RA    | 3251 | 1/1   | 0.90 | 0.28 | 6.23 | 47,47,47,47                 | 0     |
| 57  | MG   | YA    | 3049 | 1/1   | 0.99 | 0.29 | 6.21 | 8,8,8,8                     | 0     |
| 57  | MG   | YA    | 3152 | 1/1   | 0.96 | 0.23 | 6.20 | 18,18,18,18                 | 0     |
| 57  | MG   | YA    | 3328 | 1/1   | 0.91 | 0.36 | 6.18 | 45,45,45,45                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | YA    | 3340 | 1/1   | 0.81 | 0.29 | 6.18 | 56,56,56,56                 | 0     |
| 57  | MG   | QA    | 1651 | 1/1   | 0.97 | 0.29 | 6.12 | 29,29,29,29                 | 0     |
| 57  | MG   | XA    | 1642 | 1/1   | 0.98 | 0.38 | 6.11 | 27,27,27,27                 | 0     |
| 57  | MG   | YA    | 3011 | 1/1   | 0.98 | 0.31 | 6.06 | 13,13,13,13                 | 0     |
| 57  | MG   | RA    | 3006 | 1/1   | 0.99 | 0.38 | 6.05 | 7,7,7,7                     | 0     |
| 57  | MG   | YA    | 3164 | 1/1   | 0.77 | 0.27 | 5.96 | 51,51,51,51                 | 0     |
| 57  | MG   | RA    | 3240 | 1/1   | 0.98 | 0.28 | 5.90 | 35,35,35,35                 | 0     |
| 57  | MG   | YA    | 3191 | 1/1   | 0.74 | 0.32 | 5.87 | 56,56,56,56                 | 0     |
| 57  | MG   | YU    | 201  | 1/1   | 0.81 | 0.34 | 5.85 | 62,62,62,62                 | 0     |
| 57  | MG   | RA    | 3300 | 1/1   | 0.86 | 0.31 | 5.80 | 48,48,48,48                 | 0     |
| 57  | MG   | RA    | 3025 | 1/1   | 0.85 | 0.29 | 5.79 | 11,11,11,11                 | 0     |
| 57  | MG   | QE    | 201  | 1/1   | 0.92 | 0.71 | 5.75 | 59,59,59,59                 | 0     |
| 57  | MG   | YA    | 3293 | 1/1   | 0.64 | 0.53 | 5.57 | 47,47,47,47                 | 0     |
| 57  | MG   | XA    | 1606 | 1/1   | 0.91 | 0.40 | 5.57 | 40,40,40,40                 | 0     |
| 57  | MG   | XA    | 1705 | 1/1   | 0.69 | 0.30 | 5.56 | 52,52,52,52                 | 0     |
| 57  | MG   | YA    | 3357 | 1/1   | 0.76 | 0.42 | 5.56 | 66,66,66,66                 | 0     |
| 57  | MG   | RA    | 3234 | 1/1   | 0.96 | 0.28 | 5.56 | 18,18,18,18                 | 0     |
| 57  | MG   | QA    | 1618 | 1/1   | 0.90 | 0.30 | 5.51 | 58,58,58,58                 | 0     |
| 57  | MG   | YA    | 3132 | 1/1   | 0.96 | 0.31 | 5.48 | 21,21,21,21                 | 0     |
| 57  | MG   | QA    | 1602 | 1/1   | 0.97 | 0.52 | 5.48 | 22,22,22,22                 | 0     |
| 57  | MG   | XA    | 1623 | 1/1   | 0.76 | 0.28 | 5.43 | 48,48,48,48                 | 0     |
| 57  | MG   | RA    | 3326 | 1/1   | 0.97 | 0.34 | 5.43 | 24,24,24,24                 | 0     |
| 57  | MG   | YA    | 3309 | 1/1   | 0.92 | 0.58 | 5.29 | 69,69,69,69                 | 0     |
| 57  | MG   | YA    | 3040 | 1/1   | 0.97 | 0.45 | 5.22 | 11,11,11,11                 | 0     |
| 57  | MG   | YA    | 3316 | 1/1   | 0.94 | 0.31 | 4.97 | 34,34,34,34                 | 0     |
| 57  | MG   | YA    | 3016 | 1/1   | 0.97 | 0.27 | 4.97 | 28,28,28,28                 | 0     |
| 57  | MG   | RA    | 3022 | 1/1   | 0.97 | 0.34 | 4.91 | 14,14,14,14                 | 0     |
| 57  | MG   | YA    | 3043 | 1/1   | 0.88 | 0.30 | 4.80 | 9,9,9,9                     | 0     |
| 57  | MG   | YA    | 3037 | 1/1   | 0.97 | 0.26 | 4.76 | 12,12,12,12                 | 0     |
| 57  | MG   | YA    | 3027 | 1/1   | 0.92 | 0.27 | 4.74 | 17,17,17,17                 | 0     |
| 57  | MG   | RA    | 3268 | 1/1   | 0.89 | 0.27 | 4.70 | 67,67,67,67                 | 0     |
| 57  | MG   | XA    | 1621 | 1/1   | 0.98 | 0.29 | 4.66 | 25,25,25,25                 | 0     |
| 57  | MG   | YA    | 3004 | 1/1   | 0.90 | 0.28 | 4.62 | 22,22,22,22                 | 0     |
| 57  | MG   | YA    | 3047 | 1/1   | 0.93 | 0.32 | 4.59 | 15,15,15,15                 | 0     |
| 57  | MG   | XA    | 1652 | 1/1   | 0.93 | 0.34 | 4.54 | 72,72,72,72                 | 0     |
| 57  | MG   | QA    | 1658 | 1/1   | 0.60 | 0.73 | 4.53 | 62,62,62,62                 | 0     |
| 57  | MG   | YA    | 3265 | 1/1   | 0.92 | 0.28 | 4.46 | 42,42,42,42                 | 0     |
| 57  | MG   | YA    | 3174 | 1/1   | 0.56 | 0.26 | 4.41 | 89,89,89,89                 | 0     |
| 57  | MG   | YA    | 3068 | 1/1   | 0.90 | 0.25 | 4.40 | 29,29,29,29                 | 0     |
| 57  | MG   | YA    | 3216 | 1/1   | 0.94 | 0.28 | 4.35 | 25,25,25,25                 | 0     |
| 57  | MG   | RR    | 201  | 1/1   | 0.72 | 0.60 | 4.32 | 25,25,25,25                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | XA    | 1641 | 1/1   | 0.97 | 0.27 | 4.32 | 21,21,21,21                 | 0     |
| 57  | MG   | RA    | 3021 | 1/1   | 0.98 | 0.27 | 4.25 | 4,4,4,4                     | 0     |
| 57  | MG   | YA    | 3078 | 1/1   | 0.84 | 0.22 | 4.23 | 17,17,17,17                 | 0     |
| 57  | MG   | RA    | 3152 | 1/1   | 0.92 | 0.25 | 4.19 | 34,34,34,34                 | 0     |
| 57  | MG   | YA    | 3024 | 1/1   | 0.96 | 0.28 | 4.15 | 15,15,15,15                 | 0     |
| 57  | MG   | RA    | 3157 | 1/1   | 0.87 | 0.25 | 4.15 | 26,26,26,26                 | 0     |
| 57  | MG   | YA    | 3136 | 1/1   | 0.78 | 0.26 | 4.10 | 40,40,40,40                 | 0     |
| 57  | MG   | XA    | 1631 | 1/1   | 0.91 | 0.25 | 4.07 | 63,63,63,63                 | 0     |
| 57  | MG   | YA    | 3069 | 1/1   | 0.97 | 0.34 | 4.02 | 8,8,8,8                     | 0     |
| 57  | MG   | RA    | 3181 | 1/1   | 0.84 | 0.27 | 4.01 | 48,48,48,48                 | 0     |
| 57  | MG   | RA    | 3230 | 1/1   | 0.99 | 0.37 | 3.97 | 22,22,22,22                 | 0     |
| 57  | MG   | QA    | 1653 | 1/1   | 0.96 | 0.41 | 3.73 | 30,30,30,30                 | 0     |
| 57  | MG   | RA    | 3072 | 1/1   | 0.98 | 0.30 | 3.72 | 26,26,26,26                 | 0     |
| 57  | MG   | RA    | 3094 | 1/1   | 0.98 | 0.35 | 3.72 | 18,18,18,18                 | 0     |
| 57  | MG   | YA    | 3006 | 1/1   | 0.93 | 0.45 | 3.56 | 33,33,33,33                 | 0     |
| 57  | MG   | YA    | 3028 | 1/1   | 0.97 | 0.31 | 3.48 | 17,17,17,17                 | 0     |
| 57  | MG   | YA    | 3034 | 1/1   | 0.98 | 0.27 | 3.48 | 19,19,19,19                 | 0     |
| 57  | MG   | RA    | 3281 | 1/1   | 0.94 | 0.33 | 3.36 | 39,39,39,39                 | 0     |
| 57  | MG   | YA    | 3269 | 1/1   | 0.97 | 0.28 | 3.32 | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3031 | 1/1   | 0.95 | 0.29 | 3.30 | 11,11,11,11                 | 0     |
| 57  | MG   | RA    | 3020 | 1/1   | 0.96 | 0.31 | 3.27 | 2,2,2,2                     | 0     |
| 57  | MG   | RA    | 3201 | 1/1   | 0.62 | 0.27 | 3.26 | 55,55,55,55                 | 0     |
| 57  | MG   | RA    | 3236 | 1/1   | 0.97 | 0.28 | 3.19 | 21,21,21,21                 | 0     |
| 57  | MG   | XA    | 1663 | 1/1   | 0.95 | 0.28 | 3.17 | 26,26,26,26                 | 0     |
| 57  | MG   | YA    | 3105 | 1/1   | 0.96 | 0.25 | 3.13 | 45,45,45,45                 | 0     |
| 57  | MG   | YA    | 3002 | 1/1   | 0.95 | 0.30 | 3.12 | 14,14,14,14                 | 0     |
| 57  | MG   | YA    | 3099 | 1/1   | 0.98 | 0.26 | 3.11 | 5,5,5,5                     | 0     |
| 57  | MG   | RA    | 3106 | 1/1   | 0.97 | 0.26 | 3.04 | 21,21,21,21                 | 0     |
| 57  | MG   | YA    | 3041 | 1/1   | 0.98 | 0.38 | 3.04 | 31,31,31,31                 | 0     |
| 57  | MG   | YA    | 3036 | 1/1   | 0.99 | 0.25 | 2.99 | 10,10,10,10                 | 0     |
| 57  | MG   | YA    | 3355 | 1/1   | 0.95 | 0.32 | 2.89 | 19,19,19,19                 | 0     |
| 57  | MG   | QA    | 1610 | 1/1   | 0.98 | 0.31 | 2.70 | 20,20,20,20                 | 0     |
| 57  | MG   | YA    | 3348 | 1/1   | 0.95 | 0.24 | 2.69 | 40,40,40,40                 | 0     |
| 57  | MG   | YA    | 3194 | 1/1   | 0.66 | 0.20 | 2.67 | 90,90,90,90                 | 0     |
| 57  | MG   | YA    | 3147 | 1/1   | 0.86 | 0.22 | 2.65 | 27,27,27,27                 | 0     |
| 57  | MG   | XA    | 1627 | 1/1   | 0.85 | 0.19 | 2.60 | 98,98,98,98                 | 0     |
| 57  | MG   | RA    | 3266 | 1/1   | 0.85 | 0.23 | 2.58 | 40,40,40,40                 | 0     |
| 57  | MG   | YA    | 3119 | 1/1   | 0.91 | 0.24 | 2.58 | 20,20,20,20                 | 0     |
| 57  | MG   | RA    | 3036 | 1/1   | 0.99 | 0.24 | 2.56 | 12,12,12,12                 | 0     |
| 57  | MG   | XA    | 1603 | 1/1   | 0.97 | 0.32 | 2.55 | 16,16,16,16                 | 0     |
| 57  | MG   | YA    | 3108 | 1/1   | 0.97 | 0.27 | 2.51 | 7,7,7,7                     | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | YA    | 3241 | 1/1   | 0.98 | 0.21 | 2.46 | 45,45,45,45                 | 0     |
| 57  | MG   | YA    | 3067 | 1/1   | 0.98 | 0.22 | 2.42 | 10,10,10,10                 | 0     |
| 57  | MG   | RA    | 3176 | 1/1   | 0.72 | 0.23 | 2.42 | 31,31,31,31                 | 0     |
| 57  | MG   | YP    | 202  | 1/1   | 0.93 | 0.33 | 2.42 | 32,32,32,32                 | 0     |
| 59  | ZN   | QD    | 301  | 1/1   | 0.75 | 0.34 | 2.33 | 77,77,77,77                 | 0     |
| 57  | MG   | YA    | 3032 | 1/1   | 0.98 | 0.32 | 2.19 | 16,16,16,16                 | 0     |
| 57  | MG   | YA    | 3228 | 1/1   | 0.82 | 0.35 | 2.18 | 43,43,43,43                 | 0     |
| 57  | MG   | RA    | 3214 | 1/1   | 0.71 | 0.20 | 2.16 | 33,33,33,33                 | 0     |
| 57  | MG   | RA    | 3077 | 1/1   | 0.92 | 0.25 | 2.14 | 7,7,7,7                     | 0     |
| 57  | MG   | XA    | 1684 | 1/1   | 0.78 | 0.30 | 2.12 | 56,56,56,56                 | 0     |
| 57  | MG   | RA    | 3171 | 1/1   | 0.91 | 0.29 | 2.11 | 34,34,34,34                 | 0     |
| 57  | MG   | YA    | 3247 | 1/1   | 0.98 | 0.41 | 2.08 | 70,70,70,70                 | 0     |
| 57  | MG   | RP    | 201  | 1/1   | 0.98 | 0.38 | 2.06 | 31,31,31,31                 | 0     |
| 57  | MG   | YA    | 3026 | 1/1   | 0.98 | 0.24 | 2.03 | 6,6,6,6                     | 0     |
| 57  | MG   | RA    | 3220 | 1/1   | 0.99 | 0.34 | 1.96 | 23,23,23,23                 | 0     |
| 57  | MG   | YA    | 3090 | 1/1   | 0.95 | 0.28 | 1.92 | 45,45,45,45                 | 0     |
| 58  | PAR  | XA    | 1710 | 42/42 | 0.95 | 0.24 | 1.91 | 56,56,57,57                 | 0     |
| 57  | MG   | RA    | 3015 | 1/1   | 0.97 | 0.23 | 1.87 | 15,15,15,15                 | 0     |
| 60  | PPU  | Z6    | 101  | 37/38 | 0.94 | 0.26 | 1.84 | 36,37,38,38                 | 0     |
| 57  | MG   | YA    | 3199 | 1/1   | 0.83 | 0.20 | 1.80 | 63,63,63,63                 | 0     |
| 58  | PAR  | QA    | 1681 | 42/42 | 0.91 | 0.27 | 1.80 | 71,71,72,72                 | 0     |
| 57  | MG   | YA    | 3112 | 1/1   | 0.87 | 0.24 | 1.79 | 39,39,39,39                 | 0     |
| 59  | ZN   | XD    | 301  | 1/1   | 0.98 | 0.31 | 1.72 | 49,49,49,49                 | 0     |
| 57  | MG   | RA    | 3093 | 1/1   | 0.97 | 0.32 | 1.62 | 45,45,45,45                 | 0     |
| 60  | PPU  | Z5    | 101  | 37/38 | 0.95 | 0.27 | 1.57 | 45,47,48,48                 | 0     |
| 57  | MG   | RA    | 3167 | 1/1   | 0.92 | 0.20 | 1.52 | 26,26,26,26                 | 0     |
| 57  | MG   | YA    | 3184 | 1/1   | 0.96 | 0.20 | 1.51 | 22,22,22,22                 | 0     |
| 57  | MG   | YA    | 3288 | 1/1   | 0.99 | 0.22 | 1.32 | 28,28,28,28                 | 0     |
| 57  | MG   | QA    | 1616 | 1/1   | 0.96 | 0.34 | 1.32 | 35,35,35,35                 | 0     |
| 57  | MG   | RA    | 3260 | 1/1   | 0.90 | 0.30 | 1.30 | 56,56,56,56                 | 0     |
| 57  | MG   | RA    | 3173 | 1/1   | 0.83 | 0.25 | 1.29 | 19,19,19,19                 | 0     |
| 57  | MG   | YA    | 3008 | 1/1   | 0.97 | 0.22 | 1.22 | 11,11,11,11                 | 0     |
| 57  | MG   | YA    | 3259 | 1/1   | 0.91 | 0.23 | 1.20 | 43,43,43,43                 | 0     |
| 57  | MG   | RA    | 3217 | 1/1   | 0.43 | 0.19 | 1.19 | 48,48,48,48                 | 0     |
| 57  | MG   | XA    | 1617 | 1/1   | 0.98 | 0.22 | 1.18 | 41,41,41,41                 | 0     |
| 57  | MG   | YA    | 3130 | 1/1   | 0.90 | 0.26 | 1.17 | 37,37,37,37                 | 0     |
| 57  | MG   | YA    | 3356 | 1/1   | 0.95 | 0.25 | 1.17 | 28,28,28,28                 | 0     |
| 57  | MG   | XD    | 302  | 1/1   | 0.95 | 0.26 | 1.16 | 82,82,82,82                 | 0     |
| 57  | MG   | YA    | 3137 | 1/1   | 0.90 | 0.20 | 1.14 | 76,76,76,76                 | 0     |
| 57  | MG   | RA    | 3024 | 1/1   | 0.98 | 0.23 | 1.14 | 6,6,6,6                     | 0     |
| 57  | MG   | QA    | 1666 | 1/1   | 0.83 | 0.22 | 1.06 | 50,50,50,50                 | 0     |
| 57  | MG   | YA    | 3087 | 1/1   | 0.97 | 0.26 | 1.03 | 51,51,51,51                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-------|-----------------------------|-------|
| 57  | MG   | XA    | 1626 | 1/1   | 0.80 | 0.26 | 0.95  | 31,31,31,31                 | 0     |
| 57  | MG   | RA    | 3185 | 1/1   | 0.90 | 0.25 | 0.89  | 28,28,28,28                 | 0     |
| 57  | MG   | RA    | 3075 | 1/1   | 0.97 | 0.22 | 0.88  | 4,4,4,4                     | 0     |
| 57  | MG   | RA    | 3086 | 1/1   | 0.99 | 0.21 | 0.86  | 30,30,30,30                 | 0     |
| 57  | MG   | RA    | 3114 | 1/1   | 0.94 | 0.20 | 0.80  | 12,12,12,12                 | 0     |
| 57  | MG   | RA    | 3134 | 1/1   | 0.91 | 0.19 | 0.80  | 64,64,64,64                 | 0     |
| 57  | MG   | YA    | 3252 | 1/1   | 0.98 | 0.21 | 0.70  | 11,11,11,11                 | 0     |
| 57  | MG   | RA    | 3120 | 1/1   | 0.98 | 0.18 | 0.67  | 40,40,40,40                 | 0     |
| 57  | MG   | YA    | 3060 | 1/1   | 0.97 | 0.24 | 0.65  | 17,17,17,17                 | 0     |
| 57  | MG   | YA    | 3129 | 1/1   | 0.86 | 0.20 | 0.60  | 39,39,39,39                 | 0     |
| 57  | MG   | RA    | 3081 | 1/1   | 0.96 | 0.24 | 0.59  | 39,39,39,39                 | 0     |
| 57  | MG   | QV    | 102  | 1/1   | 0.96 | 0.19 | 0.50  | 27,27,27,27                 | 0     |
| 57  | MG   | RA    | 3042 | 1/1   | 0.98 | 0.20 | 0.40  | 12,12,12,12                 | 0     |
| 57  | MG   | RA    | 3064 | 1/1   | 0.98 | 0.19 | 0.23  | 13,13,13,13                 | 0     |
| 57  | MG   | YA    | 3200 | 1/1   | 0.87 | 0.20 | 0.17  | 32,32,32,32                 | 0     |
| 57  | MG   | RA    | 3058 | 1/1   | 0.65 | 0.20 | 0.12  | 10,10,10,10                 | 0     |
| 57  | MG   | YA    | 3074 | 1/1   | 0.96 | 0.22 | 0.08  | 22,22,22,22                 | 0     |
| 57  | MG   | QA    | 1642 | 1/1   | 0.93 | 0.21 | 0.07  | 62,62,62,62                 | 0     |
| 57  | MG   | RA    | 3019 | 1/1   | 0.99 | 0.18 | 0.05  | 9,9,9,9                     | 0     |
| 57  | MG   | YA    | 3057 | 1/1   | 0.88 | 0.20 | -0.01 | 12,12,12,12                 | 0     |
| 57  | MG   | YA    | 3181 | 1/1   | 0.88 | 0.17 | -0.05 | 47,47,47,47                 | 0     |
| 57  | MG   | QA    | 1628 | 1/1   | 0.94 | 0.20 | -0.10 | 64,64,64,64                 | 0     |
| 57  | MG   | Y7    | 101  | 1/1   | 0.89 | 0.24 | -0.15 | 33,33,33,33                 | 0     |
| 57  | MG   | YA    | 3358 | 1/1   | 0.74 | 0.21 | -0.20 | 61,61,61,61                 | 0     |
| 57  | MG   | XA    | 1653 | 1/1   | 0.92 | 0.19 | -0.21 | 42,42,42,42                 | 0     |
| 57  | MG   | YA    | 3158 | 1/1   | 0.94 | 0.17 | -0.23 | 18,18,18,18                 | 0     |
| 57  | MG   | RA    | 3065 | 1/1   | 0.97 | 0.24 | -0.24 | 3,3,3,3                     | 0     |
| 57  | MG   | RA    | 3148 | 1/1   | 0.80 | 0.16 | -0.27 | 41,41,41,41                 | 0     |
| 57  | MG   | RA    | 3243 | 1/1   | 0.91 | 0.17 | -0.30 | 47,47,47,47                 | 0     |
| 57  | MG   | YA    | 3070 | 1/1   | 0.84 | 0.18 | -0.38 | 27,27,27,27                 | 0     |
| 57  | MG   | RA    | 3189 | 1/1   | 0.52 | 0.17 | -0.43 | 69,69,69,69                 | 0     |
| 57  | MG   | YA    | 3058 | 1/1   | 0.97 | 0.18 | -0.47 | 33,33,33,33                 | 0     |
| 57  | MG   | QA    | 1619 | 1/1   | 0.92 | 0.21 | -0.51 | 40,40,40,40                 | 0     |
| 57  | MG   | RA    | 3104 | 1/1   | 0.97 | 0.18 | -0.51 | 19,19,19,19                 | 0     |
| 57  | MG   | YA    | 3248 | 1/1   | 0.94 | 0.18 | -0.51 | 27,27,27,27                 | 0     |
| 57  | MG   | RA    | 3080 | 1/1   | 0.96 | 0.17 | -0.52 | 24,24,24,24                 | 0     |
| 57  | MG   | YA    | 3305 | 1/1   | 0.95 | 0.23 | -0.53 | 12,12,12,12                 | 0     |
| 57  | MG   | YA    | 3298 | 1/1   | 0.92 | 0.17 | -0.57 | 45,45,45,45                 | 0     |
| 57  | MG   | QA    | 1682 | 1/1   | 0.86 | 0.19 | -0.63 | 104,104,104,104             | 0     |
| 57  | MG   | QA    | 1620 | 1/1   | 0.95 | 0.20 | -0.63 | 66,66,66,66                 | 0     |
| 57  | MG   | XA    | 1618 | 1/1   | 0.87 | 0.21 | -0.64 | 37,37,37,37                 | 0     |
| 57  | MG   | QA    | 1662 | 1/1   | 0.88 | 0.19 | -0.67 | 48,48,48,48                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-------|-----------------------------|-------|
| 57  | MG   | YA    | 3109 | 1/1   | 0.93 | 0.19 | -0.67 | 26,26,26,26                 | 0     |
| 57  | MG   | XV    | 102  | 1/1   | 0.98 | 0.18 | -0.68 | 14,14,14,14                 | 0     |
| 57  | MG   | RA    | 3203 | 1/1   | 0.88 | 0.16 | -0.69 | 47,47,47,47                 | 0     |
| 57  | MG   | YA    | 3160 | 1/1   | 0.85 | 0.14 | -0.69 | 70,70,70,70                 | 0     |
| 57  | MG   | RA    | 3017 | 1/1   | 0.98 | 0.17 | -0.72 | 24,24,24,24                 | 0     |
| 57  | MG   | RA    | 3145 | 1/1   | 0.95 | 0.17 | -0.76 | 41,41,41,41                 | 0     |
| 57  | MG   | XA    | 1636 | 1/1   | 0.75 | 0.18 | -0.78 | 66,66,66,66                 | 0     |
| 57  | MG   | YA    | 3123 | 1/1   | 0.93 | 0.20 | -0.86 | 54,54,54,54                 | 0     |
| 57  | MG   | YA    | 3239 | 1/1   | 0.95 | 0.20 | -0.86 | 19,19,19,19                 | 0     |
| 59  | ZN   | XN    | 101  | 1/1   | 0.95 | 0.16 | -0.87 | 81,81,81,81                 | 0     |
| 57  | MG   | YA    | 3005 | 1/1   | 0.95 | 0.16 | -0.93 | 16,16,16,16                 | 0     |
| 57  | MG   | XA    | 1647 | 1/1   | 0.92 | 0.21 | -0.93 | 82,82,82,82                 | 0     |
| 57  | MG   | RA    | 3149 | 1/1   | 0.96 | 0.17 | -0.95 | 37,37,37,37                 | 0     |
| 57  | MG   | QA    | 1638 | 1/1   | 0.79 | 0.17 | -0.96 | 53,53,53,53                 | 0     |
| 57  | MG   | XA    | 1612 | 1/1   | 0.89 | 0.15 | -0.96 | 68,68,68,68                 | 0     |
| 57  | MG   | RA    | 3121 | 1/1   | 0.93 | 0.16 | -1.05 | 24,24,24,24                 | 0     |
| 57  | MG   | RA    | 3110 | 1/1   | 0.96 | 0.15 | -1.19 | 33,33,33,33                 | 0     |
| 57  | MG   | RA    | 3105 | 1/1   | 0.98 | 0.17 | -1.26 | 12,12,12,12                 | 0     |
| 57  | MG   | RA    | 3116 | 1/1   | 0.95 | 0.13 | -1.27 | 65,65,65,65                 | 0     |
| 57  | MG   | YA    | 3310 | 1/1   | 0.90 | 0.16 | -1.29 | 26,26,26,26                 | 0     |
| 57  | MG   | YB    | 202  | 1/1   | 0.98 | 0.17 | -1.30 | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3107 | 1/1   | 0.86 | 0.18 | -1.34 | 42,42,42,42                 | 0     |
| 57  | MG   | RA    | 3131 | 1/1   | 0.91 | 0.13 | -1.35 | 52,52,52,52                 | 0     |
| 59  | ZN   | QN    | 101  | 1/1   | 0.94 | 0.14 | -1.41 | 135,135,135,135             | 0     |
| 57  | MG   | RA    | 3074 | 1/1   | 0.86 | 0.15 | -1.50 | 58,58,58,58                 | 0     |
| 57  | MG   | XA    | 1620 | 1/1   | 0.96 | 0.16 | -1.53 | 52,52,52,52                 | 0     |
| 57  | MG   | RA    | 3101 | 1/1   | 0.91 | 0.14 | -1.58 | 38,38,38,38                 | 0     |
| 57  | MG   | YA    | 3106 | 1/1   | 0.96 | 0.16 | -1.61 | 32,32,32,32                 | 0     |
| 57  | MG   | QA    | 1607 | 1/1   | 0.97 | 0.16 | -1.64 | 35,35,35,35                 | 0     |
| 57  | MG   | YA    | 3179 | 1/1   | 0.76 | 0.12 | -1.66 | 52,52,52,52                 | 0     |
| 57  | MG   | YA    | 3055 | 1/1   | 0.95 | 0.17 | -1.67 | 13,13,13,13                 | 0     |
| 57  | MG   | Y1    | 101  | 1/1   | 0.97 | 0.10 | -1.70 | 35,35,35,35                 | 0     |
| 57  | MG   | YA    | 3218 | 1/1   | 0.98 | 0.15 | -1.71 | 55,55,55,55                 | 0     |
| 57  | MG   | RA    | 3179 | 1/1   | 0.95 | 0.14 | -1.71 | 28,28,28,28                 | 0     |
| 57  | MG   | RA    | 3309 | 1/1   | 0.93 | 0.17 | -1.71 | 39,39,39,39                 | 0     |
| 57  | MG   | RA    | 3314 | 1/1   | 0.80 | 0.14 | -1.79 | 67,67,67,67                 | 0     |
| 57  | MG   | RA    | 3126 | 1/1   | 0.92 | 0.15 | -1.89 | 24,24,24,24                 | 0     |
| 57  | MG   | XA    | 1610 | 1/1   | 0.98 | 0.15 | -1.99 | 21,21,21,21                 | 0     |
| 57  | MG   | RA    | 3205 | 1/1   | 0.94 | 0.15 | -2.15 | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3157 | 1/1   | 0.94 | 0.15 | -2.16 | 44,44,44,44                 | 0     |
| 57  | MG   | RA    | 3327 | 1/1   | 0.95 | 0.07 | -2.18 | 62,62,62,62                 | 0     |
| 57  | MG   | QA    | 1609 | 1/1   | 0.98 | 0.16 | -2.20 | 42,42,42,42                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-------|-----------------------------|-------|
| 57  | MG   | QA    | 1632 | 1/1   | 0.96 | 0.16 | -2.22 | 28,28,28,28                 | 0     |
| 57  | MG   | YA    | 3100 | 1/1   | 0.88 | 0.16 | -2.30 | 20,20,20,20                 | 0     |
| 57  | MG   | XA    | 1683 | 1/1   | 0.93 | 0.11 | -2.31 | 48,48,48,48                 | 0     |
| 57  | MG   | YA    | 3064 | 1/1   | 0.96 | 0.13 | -2.52 | 9,9,9,9                     | 0     |
| 57  | MG   | RA    | 3310 | 1/1   | 0.74 | 0.12 | -2.55 | 56,56,56,56                 | 0     |
| 57  | MG   | XA    | 1646 | 1/1   | 0.81 | 0.17 | -2.62 | 72,72,72,72                 | 0     |
| 57  | MG   | RA    | 3183 | 1/1   | 0.93 | 0.13 | -2.64 | 49,49,49,49                 | 0     |
| 57  | MG   | XA    | 1654 | 1/1   | 0.96 | 0.08 | -2.69 | 78,78,78,78                 | 0     |
| 57  | MG   | RA    | 3245 | 1/1   | 0.99 | 0.11 | -2.73 | 68,68,68,68                 | 0     |
| 57  | MG   | RA    | 3014 | 1/1   | 0.92 | 0.12 | -2.81 | 16,16,16,16                 | 0     |
| 57  | MG   | RA    | 3182 | 1/1   | 0.92 | 0.13 | -2.89 | 37,37,37,37                 | 0     |
| 57  | MG   | YA    | 3126 | 1/1   | 0.86 | 0.11 | -2.98 | 43,43,43,43                 | 0     |
| 57  | MG   | RA    | 3153 | 1/1   | 0.91 | 0.11 | -2.98 | 26,26,26,26                 | 0     |
| 57  | MG   | YA    | 3318 | 1/1   | 0.97 | 0.11 | -3.13 | 63,63,63,63                 | 0     |
| 57  | MG   | RA    | 3209 | 1/1   | 0.92 | 0.15 | -3.16 | 68,68,68,68                 | 0     |
| 57  | MG   | RA    | 3035 | 1/1   | 0.98 | 0.12 | -3.38 | 10,10,10,10                 | 0     |
| 57  | MG   | RA    | 3068 | 1/1   | 0.87 | 0.13 | -3.38 | 39,39,39,39                 | 0     |
| 57  | MG   | XA    | 1691 | 1/1   | 0.93 | 0.11 | -3.42 | 105,105,105,105             | 0     |
| 57  | MG   | RB    | 201  | 1/1   | 0.97 | 0.12 | -3.44 | 99,99,99,99                 | 0     |
| 57  | MG   | YA    | 3167 | 1/1   | 0.95 | 0.12 | -3.60 | 49,49,49,49                 | 0     |
| 57  | MG   | XA    | 1677 | 1/1   | 0.75 | 0.12 | -4.15 | 81,81,81,81                 | 0     |
| 57  | MG   | RA    | 3140 | 1/1   | 0.97 | 0.09 | -4.23 | 36,36,36,36                 | 0     |
| 57  | MG   | YA    | 3185 | 1/1   | 0.93 | 0.14 | -4.70 | 87,87,87,87                 | 0     |
| 57  | MG   | QA    | 1674 | 1/1   | 0.96 | 0.09 | -5.06 | 56,56,56,56                 | 0     |
| 57  | MG   | YA    | 3195 | 1/1   | 0.96 | 0.08 | -5.48 | 53,53,53,53                 | 0     |
| 57  | MG   | YA    | 3035 | 1/1   | 0.97 | 0.16 | -5.53 | 23,23,23,23                 | 0     |
| 57  | MG   | XA    | 1608 | 1/1   | 0.97 | 0.13 | -5.60 | 21,21,21,21                 | 0     |
| 57  | MG   | RA    | 3231 | 1/1   | 0.88 | 0.42 | -     | 36,36,36,36                 | 0     |
| 57  | MG   | XA    | 1708 | 1/1   | 0.91 | 0.28 | -     | 33,33,33,33                 | 0     |
| 57  | MG   | RA    | 3028 | 1/1   | 0.94 | 0.30 | -     | 18,18,18,18                 | 0     |
| 57  | MG   | YB    | 204  | 1/1   | 0.96 | 0.36 | -     | 27,27,27,27                 | 0     |
| 57  | MG   | RA    | 3313 | 1/1   | 0.86 | 0.34 | -     | 59,59,59,59                 | 0     |
| 57  | MG   | RA    | 3225 | 1/1   | 0.79 | 0.35 | -     | 60,60,60,60                 | 0     |
| 57  | MG   | YA    | 3317 | 1/1   | 0.89 | 0.38 | -     | 45,45,45,45                 | 0     |
| 57  | MG   | RA    | 3096 | 1/1   | 0.95 | 0.46 | -     | 31,31,31,31                 | 0     |
| 57  | MG   | RA    | 3301 | 1/1   | 0.87 | 0.46 | -     | 37,37,37,37                 | 0     |
| 57  | MG   | QA    | 1679 | 1/1   | 0.86 | 0.33 | -     | 52,52,52,52                 | 0     |
| 57  | MG   | RA    | 3143 | 1/1   | 0.95 | 0.34 | -     | 60,60,60,60                 | 0     |
| 57  | MG   | RA    | 3168 | 1/1   | 0.95 | 0.28 | -     | 26,26,26,26                 | 0     |
| 57  | MG   | RA    | 3247 | 1/1   | 0.97 | 0.44 | -     | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3296 | 1/1   | 0.73 | 0.46 | -     | 55,55,55,55                 | 0     |
| 57  | MG   | YA    | 3144 | 1/1   | 0.73 | 0.27 | -     | 98,98,98,98                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | QA    | 1647 | 1/1   | 0.90 | 0.34 | -    | 35,35,35,35                 | 0     |
| 57  | MG   | RA    | 3195 | 1/1   | 0.93 | 0.36 | -    | 56,56,56,56                 | 0     |
| 57  | MG   | RA    | 3276 | 1/1   | 0.86 | 0.59 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | YA    | 3217 | 1/1   | 0.88 | 0.52 | -    | 83,83,83,83                 | 0     |
| 57  | MG   | QA    | 1608 | 1/1   | 0.99 | 0.08 | -    | 18,18,18,18                 | 0     |
| 57  | MG   | QA    | 1665 | 1/1   | 0.92 | 0.26 | -    | 55,55,55,55                 | 0     |
| 57  | MG   | RA    | 3055 | 1/1   | 0.97 | 0.40 | -    | 14,14,14,14                 | 0     |
| 57  | MG   | YA    | 3295 | 1/1   | 0.80 | 0.53 | -    | 61,61,61,61                 | 0     |
| 57  | MG   | RA    | 3291 | 1/1   | 0.96 | 0.23 | -    | 37,37,37,37                 | 0     |
| 57  | MG   | RA    | 3206 | 1/1   | 0.86 | 0.19 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | YA    | 3224 | 1/1   | 0.79 | 0.48 | -    | 41,41,41,41                 | 0     |
| 57  | MG   | YA    | 3280 | 1/1   | 0.88 | 0.23 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | XA    | 1630 | 1/1   | 0.96 | 0.45 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | RA    | 3286 | 1/1   | 0.95 | 0.35 | -    | 26,26,26,26                 | 0     |
| 57  | MG   | RA    | 3125 | 1/1   | 0.98 | 0.26 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | RA    | 3212 | 1/1   | 0.75 | 0.80 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | QY    | 101  | 1/1   | 0.57 | 0.27 | -    | 66,66,66,66                 | 0     |
| 57  | MG   | XA    | 1615 | 1/1   | 0.96 | 0.26 | -    | 25,25,25,25                 | 0     |
| 57  | MG   | YA    | 3073 | 1/1   | 0.97 | 0.28 | -    | 10,10,10,10                 | 0     |
| 57  | MG   | RA    | 3275 | 1/1   | 0.94 | 0.34 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | YA    | 3324 | 1/1   | 0.88 | 0.40 | -    | 34,34,34,34                 | 0     |
| 57  | MG   | QA    | 1643 | 1/1   | 0.85 | 0.26 | -    | 23,23,23,23                 | 0     |
| 57  | MG   | RA    | 3128 | 1/1   | 0.89 | 0.25 | -    | 42,42,42,42                 | 0     |
| 57  | MG   | YE    | 301  | 1/1   | 0.82 | 0.30 | -    | 49,49,49,49                 | 0     |
| 57  | MG   | RA    | 3150 | 1/1   | 0.89 | 0.36 | -    | 37,37,37,37                 | 0     |
| 57  | MG   | YA    | 3117 | 1/1   | 0.91 | 0.24 | -    | 42,42,42,42                 | 0     |
| 57  | MG   | RA    | 3292 | 1/1   | 0.96 | 0.16 | -    | 58,58,58,58                 | 0     |
| 57  | MG   | RA    | 3122 | 1/1   | 0.94 | 0.20 | -    | 74,74,74,74                 | 0     |
| 57  | MG   | YA    | 3151 | 1/1   | 0.54 | 0.27 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | QA    | 1604 | 1/1   | 0.89 | 0.60 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | RA    | 3256 | 1/1   | 0.97 | 1.02 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | YA    | 3286 | 1/1   | 0.82 | 0.53 | -    | 58,58,58,58                 | 0     |
| 57  | MG   | YA    | 3304 | 1/1   | 0.93 | 0.44 | -    | 50,50,50,50                 | 0     |
| 57  | MG   | YA    | 3335 | 1/1   | 0.69 | 0.83 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | RA    | 3293 | 1/1   | 0.87 | 0.22 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | RA    | 3100 | 1/1   | 0.94 | 0.20 | -    | 32,32,32,32                 | 0     |
| 57  | MG   | YA    | 3244 | 1/1   | 0.95 | 0.60 | -    | 38,38,38,38                 | 0     |
| 57  | MG   | XA    | 1698 | 1/1   | 0.89 | 0.79 | -    | 76,76,76,76                 | 0     |
| 57  | MG   | QA    | 1657 | 1/1   | 0.94 | 0.27 | -    | 29,29,29,29                 | 0     |
| 57  | MG   | YA    | 3038 | 1/1   | 0.94 | 0.18 | -    | 8,8,8,8                     | 0     |
| 57  | MG   | RA    | 3166 | 1/1   | 0.83 | 0.67 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | RA    | 3289 | 1/1   | 0.88 | 0.35 | -    | 44,44,44,44                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | XA    | 1609 | 1/1   | 0.94 | 0.32 | -    | 25,25,25,25                 | 0     |
| 57  | MG   | YA    | 3021 | 1/1   | 0.97 | 0.32 | -    | 17,17,17,17                 | 0     |
| 57  | MG   | RA    | 3137 | 1/1   | 0.62 | 0.28 | -    | 61,61,61,61                 | 0     |
| 57  | MG   | RA    | 3056 | 1/1   | 0.93 | 0.29 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | YA    | 3271 | 1/1   | 0.87 | 0.88 | -    | 32,32,32,32                 | 0     |
| 57  | MG   | YB    | 203  | 1/1   | 0.91 | 0.30 | -    | 37,37,37,37                 | 0     |
| 57  | MG   | YA    | 3054 | 1/1   | 0.94 | 0.27 | -    | 11,11,11,11                 | 0     |
| 57  | MG   | YA    | 3207 | 1/1   | 0.94 | 0.63 | -    | 28,28,28,28                 | 0     |
| 57  | MG   | YA    | 3089 | 1/1   | 0.96 | 0.48 | -    | 17,17,17,17                 | 0     |
| 57  | MG   | YA    | 3283 | 1/1   | 0.96 | 0.16 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3256 | 1/1   | 0.92 | 0.54 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | RA    | 3297 | 1/1   | 0.68 | 0.31 | -    | 53,53,53,53                 | 0     |
| 57  | MG   | YA    | 3149 | 1/1   | 0.89 | 0.58 | -    | 69,69,69,69                 | 0     |
| 57  | MG   | RA    | 3132 | 1/1   | 0.95 | 0.34 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | RA    | 3109 | 1/1   | 0.94 | 0.48 | -    | 54,54,54,54                 | 0     |
| 57  | MG   | Y0    | 101  | 1/1   | 0.95 | 0.24 | -    | 10,10,10,10                 | 0     |
| 57  | MG   | RA    | 3066 | 1/1   | 0.97 | 0.28 | -    | 13,13,13,13                 | 0     |
| 57  | MG   | YA    | 3215 | 1/1   | 0.92 | 0.15 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | RA    | 3138 | 1/1   | 0.92 | 0.30 | -    | 26,26,26,26                 | 0     |
| 57  | MG   | YA    | 3210 | 1/1   | 0.94 | 0.20 | -    | 32,32,32,32                 | 0     |
| 57  | MG   | YA    | 3330 | 1/1   | 0.85 | 0.58 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | XA    | 1697 | 1/1   | 0.93 | 0.41 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | XA    | 1607 | 1/1   | 0.94 | 0.43 | -    | 29,29,29,29                 | 0     |
| 57  | MG   | QA    | 1636 | 1/1   | 0.98 | 0.14 | -    | 12,12,12,12                 | 0     |
| 57  | MG   | RA    | 3317 | 1/1   | 0.96 | 0.35 | -    | 40,40,40,40                 | 0     |
| 57  | MG   | QA    | 1624 | 1/1   | 0.73 | 0.27 | -    | 77,77,77,77                 | 0     |
| 57  | MG   | RA    | 3198 | 1/1   | 0.91 | 0.91 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | XA    | 1656 | 1/1   | 0.89 | 0.25 | -    | 56,56,56,56                 | 0     |
| 57  | MG   | YA    | 3193 | 1/1   | 0.95 | 0.21 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | RA    | 3252 | 1/1   | 0.93 | 0.34 | -    | 29,29,29,29                 | 0     |
| 57  | MG   | RA    | 3083 | 1/1   | 0.91 | 0.41 | -    | 26,26,26,26                 | 0     |
| 57  | MG   | YA    | 3045 | 1/1   | 0.97 | 0.32 | -    | 14,14,14,14                 | 0     |
| 57  | MG   | YA    | 3196 | 1/1   | 0.89 | 0.49 | -    | 62,62,62,62                 | 0     |
| 57  | MG   | YA    | 3056 | 1/1   | 0.99 | 0.34 | -    | 21,21,21,21                 | 0     |
| 57  | MG   | YA    | 3353 | 1/1   | 0.66 | 0.63 | -    | 67,67,67,67                 | 0     |
| 57  | MG   | RA    | 3103 | 1/1   | 0.96 | 0.20 | -    | 33,33,33,33                 | 0     |
| 57  | MG   | XA    | 1658 | 1/1   | 0.96 | 0.33 | -    | 30,30,30,30                 | 0     |
| 57  | MG   | RA    | 3053 | 1/1   | 0.97 | 0.35 | -    | 10,10,10,10                 | 0     |
| 57  | MG   | YA    | 3044 | 1/1   | 0.95 | 0.34 | -    | 19,19,19,19                 | 0     |
| 57  | MG   | XA    | 1666 | 1/1   | 0.96 | 0.28 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | XA    | 1644 | 1/1   | 0.91 | 0.41 | -    | 42,42,42,42                 | 0     |
| 57  | MG   | RA    | 3127 | 1/1   | 0.94 | 0.25 | -    | 60,60,60,60                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | RA    | 3037 | 1/1   | 0.98 | 0.24 | -    | 15,15,15,15                 | 0     |
| 57  | MG   | YA    | 3176 | 1/1   | 0.95 | 0.17 | -    | 56,56,56,56                 | 0     |
| 57  | MG   | YA    | 3351 | 1/1   | 0.79 | 0.37 | -    | 66,66,66,66                 | 0     |
| 57  | MG   | RA    | 3186 | 1/1   | 0.92 | 0.22 | -    | 68,68,68,68                 | 0     |
| 57  | MG   | XA    | 1689 | 1/1   | 0.93 | 0.63 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | QA    | 1631 | 1/1   | 0.95 | 0.12 | -    | 69,69,69,69                 | 0     |
| 57  | MG   | QA    | 1603 | 1/1   | 0.76 | 0.62 | -    | 80,80,80,80                 | 0     |
| 57  | MG   | YA    | 3281 | 1/1   | 0.72 | 0.56 | -    | 64,64,64,64                 | 0     |
| 57  | MG   | XA    | 1661 | 1/1   | 0.94 | 0.39 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | RE    | 301  | 1/1   | 0.94 | 0.32 | -    | 20,20,20,20                 | 0     |
| 57  | MG   | YA    | 3352 | 1/1   | 0.84 | 0.49 | -    | 50,50,50,50                 | 0     |
| 57  | MG   | YA    | 3279 | 1/1   | 0.94 | 0.31 | -    | 33,33,33,33                 | 0     |
| 57  | MG   | RA    | 3324 | 1/1   | 0.69 | 0.21 | -    | 60,60,60,60                 | 0     |
| 57  | MG   | XA    | 1681 | 1/1   | 0.89 | 0.46 | -    | 21,21,21,21                 | 0     |
| 57  | MG   | YA    | 3289 | 1/1   | 0.84 | 0.41 | -    | 71,71,71,71                 | 0     |
| 57  | MG   | RA    | 3117 | 1/1   | 0.89 | 0.27 | -    | 62,62,62,62                 | 0     |
| 57  | MG   | QA    | 1675 | 1/1   | 0.96 | 0.21 | -    | 36,36,36,36                 | 0     |
| 57  | MG   | XF    | 201  | 1/1   | 0.60 | 0.25 | -    | 65,65,65,65                 | 0     |
| 57  | MG   | XA    | 1702 | 1/1   | 0.95 | 0.31 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | YA    | 3263 | 1/1   | 0.91 | 0.60 | -    | 65,65,65,65                 | 0     |
| 57  | MG   | QA    | 1601 | 1/1   | 0.93 | 0.15 | -    | 31,31,31,31                 | 0     |
| 57  | MG   | YA    | 3066 | 1/1   | 0.96 | 0.21 | -    | 36,36,36,36                 | 0     |
| 57  | MG   | QA    | 1606 | 1/1   | 0.97 | 0.41 | -    | 20,20,20,20                 | 0     |
| 57  | MG   | RA    | 3190 | 1/1   | 0.81 | 0.22 | -    | 49,49,49,49                 | 0     |
| 57  | MG   | RB    | 203  | 1/1   | 0.92 | 0.25 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | XA    | 1669 | 1/1   | 0.97 | 0.25 | -    | 21,21,21,21                 | 0     |
| 57  | MG   | RA    | 3255 | 1/1   | 0.77 | 1.65 | -    | 78,78,78,78                 | 0     |
| 57  | MG   | RA    | 3306 | 1/1   | 0.90 | 0.38 | -    | 38,38,38,38                 | 0     |
| 57  | MG   | RA    | 3188 | 1/1   | 0.64 | 0.21 | -    | 58,58,58,58                 | 0     |
| 57  | MG   | YA    | 3050 | 1/1   | 0.95 | 0.43 | -    | 22,22,22,22                 | 0     |
| 57  | MG   | RA    | 3233 | 1/1   | 0.91 | 0.48 | -    | 16,16,16,16                 | 0     |
| 57  | MG   | YA    | 3165 | 1/1   | 0.95 | 0.38 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | XA    | 1668 | 1/1   | 0.95 | 0.53 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | YA    | 3258 | 1/1   | 0.64 | 0.29 | -    | 34,34,34,34                 | 0     |
| 57  | MG   | RA    | 3115 | 1/1   | 0.91 | 0.23 | -    | 50,50,50,50                 | 0     |
| 57  | MG   | QA    | 1623 | 1/1   | 0.94 | 0.31 | -    | 54,54,54,54                 | 0     |
| 57  | MG   | YA    | 3135 | 1/1   | 0.83 | 0.74 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3182 | 1/1   | 0.98 | 0.18 | -    | 41,41,41,41                 | 0     |
| 57  | MG   | RA    | 3296 | 1/1   | 0.90 | 0.57 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | XX    | 101  | 1/1   | 0.90 | 0.47 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | RA    | 3192 | 1/1   | 0.93 | 0.23 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3212 | 1/1   | 0.88 | 0.28 | -    | 89,89,89,89                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | RA    | 3108 | 1/1   | 0.90 | 0.44 | -    | 34,34,34,34                 | 0     |
| 57  | MG   | RA    | 3090 | 1/1   | 0.79 | 0.30 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | YA    | 3148 | 1/1   | 0.98 | 0.29 | -    | 34,34,34,34                 | 0     |
| 57  | MG   | YA    | 3250 | 1/1   | 0.94 | 0.48 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | QA    | 1673 | 1/1   | 0.75 | 0.60 | -    | 63,63,63,63                 | 0     |
| 57  | MG   | XA    | 1601 | 1/1   | 0.98 | 0.88 | -    | 35,35,35,35                 | 0     |
| 57  | MG   | RA    | 3221 | 1/1   | 0.95 | 0.41 | -    | 4,4,4,4                     | 0     |
| 57  | MG   | RA    | 3211 | 1/1   | 0.96 | 0.63 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | YB    | 201  | 1/1   | 0.95 | 0.20 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3221 | 1/1   | 0.93 | 0.22 | -    | 18,18,18,18                 | 0     |
| 57  | MG   | YA    | 3229 | 1/1   | 0.97 | 0.45 | -    | 24,24,24,24                 | 0     |
| 57  | MG   | YA    | 3159 | 1/1   | 0.89 | 0.50 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | RA    | 3216 | 1/1   | 0.88 | 0.24 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3208 | 1/1   | 0.86 | 0.41 | -    | 40,40,40,40                 | 0     |
| 57  | MG   | XA    | 1664 | 1/1   | 0.84 | 0.50 | -    | 38,38,38,38                 | 0     |
| 57  | MG   | QA    | 1678 | 1/1   | 0.95 | 0.45 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | XA    | 1670 | 1/1   | 0.93 | 0.47 | -    | 37,37,37,37                 | 0     |
| 57  | MG   | XA    | 1690 | 1/1   | 0.92 | 0.61 | -    | 50,50,50,50                 | 0     |
| 57  | MG   | YA    | 3017 | 1/1   | 0.91 | 0.49 | -    | 29,29,29,29                 | 0     |
| 57  | MG   | YA    | 3116 | 1/1   | 0.96 | 0.41 | -    | 58,58,58,58                 | 0     |
| 57  | MG   | YA    | 3253 | 1/1   | 0.96 | 0.28 | -    | 32,32,32,32                 | 0     |
| 57  | MG   | RA    | 3238 | 1/1   | 0.92 | 0.30 | -    | 7,7,7,7                     | 0     |
| 57  | MG   | QA    | 1669 | 1/1   | 0.89 | 0.34 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | RA    | 3089 | 1/1   | 0.95 | 0.62 | -    | 31,31,31,31                 | 0     |
| 57  | MG   | QA    | 1677 | 1/1   | 0.84 | 0.32 | -    | 29,29,29,29                 | 0     |
| 57  | MG   | RA    | 3004 | 1/1   | 0.93 | 0.27 | -    | 26,26,26,26                 | 0     |
| 57  | MG   | QA    | 1622 | 1/1   | 0.85 | 0.30 | -    | 70,70,70,70                 | 0     |
| 57  | MG   | RA    | 3261 | 1/1   | 0.84 | 0.29 | -    | 99,99,99,99                 | 0     |
| 57  | MG   | YA    | 3124 | 1/1   | 0.88 | 0.17 | -    | 17,17,17,17                 | 0     |
| 57  | MG   | YA    | 3093 | 1/1   | 0.93 | 0.23 | -    | 42,42,42,42                 | 0     |
| 57  | MG   | YA    | 3311 | 1/1   | 0.87 | 0.30 | -    | 24,24,24,24                 | 0     |
| 57  | MG   | RA    | 3107 | 1/1   | 0.93 | 0.17 | -    | 32,32,32,32                 | 0     |
| 57  | MG   | YA    | 3204 | 1/1   | 0.94 | 0.41 | -    | 70,70,70,70                 | 0     |
| 57  | MG   | RA    | 3039 | 1/1   | 0.98 | 0.32 | -    | 12,12,12,12                 | 0     |
| 57  | MG   | YA    | 3299 | 1/1   | 0.88 | 0.64 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | RA    | 3067 | 1/1   | 0.84 | 0.20 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | XA    | 1650 | 1/1   | 0.94 | 0.28 | -    | 54,54,54,54                 | 0     |
| 57  | MG   | YA    | 3059 | 1/1   | 0.98 | 0.21 | -    | 2,2,2,2                     | 0     |
| 57  | MG   | YA    | 3122 | 1/1   | 0.96 | 0.27 | -    | 38,38,38,38                 | 0     |
| 57  | MG   | XA    | 1604 | 1/1   | 0.90 | 0.43 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | YA    | 3083 | 1/1   | 0.96 | 0.36 | -    | 7,7,7,7                     | 0     |
| 57  | MG   | RA    | 3274 | 1/1   | 0.95 | 0.65 | -    | 59,59,59,59                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | RA    | 3070 | 1/1   | 0.93 | 0.26 | -    | 32,32,32,32                 | 0     |
| 57  | MG   | RA    | 3242 | 1/1   | 0.95 | 0.20 | -    | 84,84,84,84                 | 0     |
| 57  | MG   | YA    | 3274 | 1/1   | 0.93 | 0.67 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | YA    | 3345 | 1/1   | 0.89 | 0.20 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | RA    | 3041 | 1/1   | 0.91 | 0.33 | -    | 9,9,9,9                     | 0     |
| 57  | MG   | YA    | 3198 | 1/1   | 0.95 | 0.25 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | YA    | 3202 | 1/1   | 0.94 | 0.20 | -    | 75,75,75,75                 | 0     |
| 57  | MG   | RA    | 3187 | 1/1   | 0.97 | 0.25 | -    | 53,53,53,53                 | 0     |
| 57  | MG   | QA    | 1641 | 1/1   | 0.86 | 0.25 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | XA    | 1696 | 1/1   | 0.92 | 0.78 | -    | 65,65,65,65                 | 0     |
| 57  | MG   | RA    | 3303 | 1/1   | 0.90 | 0.20 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | YA    | 3188 | 1/1   | 0.87 | 0.28 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | RA    | 3129 | 1/1   | 0.88 | 0.97 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | RA    | 3213 | 1/1   | 0.80 | 0.25 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | RB    | 204  | 1/1   | 0.90 | 0.28 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | RA    | 3207 | 1/1   | 0.97 | 0.28 | -    | 22,22,22,22                 | 0     |
| 57  | MG   | YA    | 3180 | 1/1   | 0.80 | 0.25 | -    | 62,62,62,62                 | 0     |
| 57  | MG   | YA    | 3139 | 1/1   | 0.91 | 0.39 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | YA    | 3339 | 1/1   | 0.97 | 0.20 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | QA    | 1635 | 1/1   | 0.91 | 0.32 | -    | 58,58,58,58                 | 0     |
| 57  | MG   | XA    | 1703 | 1/1   | 0.97 | 0.35 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | QA    | 1663 | 1/1   | 0.84 | 0.36 | -    | 55,55,55,55                 | 0     |
| 57  | MG   | RA    | 3008 | 1/1   | 0.85 | 0.54 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | RA    | 3172 | 1/1   | 0.98 | 0.33 | -    | 42,42,42,42                 | 0     |
| 57  | MG   | YA    | 3183 | 1/1   | 0.94 | 0.49 | -    | 37,37,37,37                 | 0     |
| 57  | MG   | XA    | 1645 | 1/1   | 0.94 | 0.31 | -    | 31,31,31,31                 | 0     |
| 57  | MG   | YA    | 3091 | 1/1   | 0.96 | 0.24 | -    | 32,32,32,32                 | 0     |
| 57  | MG   | YA    | 3276 | 1/1   | 0.94 | 0.44 | -    | 50,50,50,50                 | 0     |
| 57  | MG   | YA    | 3312 | 1/1   | 0.94 | 0.44 | -    | 37,37,37,37                 | 0     |
| 57  | MG   | RA    | 3284 | 1/1   | 0.84 | 0.32 | -    | 58,58,58,58                 | 0     |
| 57  | MG   | YA    | 3245 | 1/1   | 0.95 | 0.34 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | RA    | 3151 | 1/1   | 0.91 | 0.12 | -    | 54,54,54,54                 | 0     |
| 57  | MG   | XA    | 1659 | 1/1   | 0.77 | 0.21 | -    | 105,105,105,105             | 0     |
| 57  | MG   | XA    | 1706 | 1/1   | 0.76 | 0.80 | -    | 66,66,66,66                 | 0     |
| 57  | MG   | RA    | 3270 | 1/1   | 0.69 | 0.42 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | YA    | 3237 | 1/1   | 0.95 | 0.51 | -    | 31,31,31,31                 | 0     |
| 57  | MG   | XA    | 1686 | 1/1   | 0.59 | 0.37 | -    | 72,72,72,72                 | 0     |
| 57  | MG   | YA    | 3291 | 1/1   | 0.86 | 0.76 | -    | 60,60,60,60                 | 0     |
| 57  | MG   | RA    | 3210 | 1/1   | 0.96 | 0.12 | -    | 62,62,62,62                 | 0     |
| 57  | MG   | XA    | 1625 | 1/1   | 0.91 | 0.12 | -    | 32,32,32,32                 | 0     |
| 57  | MG   | RA    | 3141 | 1/1   | 0.86 | 0.34 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | YA    | 3350 | 1/1   | 0.84 | 0.43 | -    | 47,47,47,47                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | RA    | 3099 | 1/1   | 0.86 | 0.29 | -    | 28,28,28,28                 | 0     |
| 57  | MG   | YA    | 3302 | 1/1   | 0.95 | 0.54 | -    | 42,42,42,42                 | 0     |
| 57  | MG   | RA    | 3254 | 1/1   | 0.96 | 0.35 | -    | 35,35,35,35                 | 0     |
| 57  | MG   | QA    | 1670 | 1/1   | 0.87 | 0.35 | -    | 37,37,37,37                 | 0     |
| 57  | MG   | RA    | 3200 | 1/1   | 0.78 | 0.41 | -    | 65,65,65,65                 | 0     |
| 57  | MG   | YA    | 3053 | 1/1   | 0.83 | 0.54 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | RA    | 3226 | 1/1   | 0.95 | 0.39 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | RA    | 3304 | 1/1   | 0.87 | 0.40 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | YA    | 3226 | 1/1   | 0.90 | 0.91 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | XA    | 1665 | 1/1   | 0.90 | 0.57 | -    | 35,35,35,35                 | 0     |
| 57  | MG   | YA    | 3104 | 1/1   | 0.98 | 0.15 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | RA    | 3012 | 1/1   | 0.96 | 0.27 | -    | 16,16,16,16                 | 0     |
| 57  | MG   | YA    | 3155 | 1/1   | 0.94 | 0.47 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3015 | 1/1   | 0.94 | 0.09 | -    | 6,6,6,6                     | 0     |
| 57  | MG   | YA    | 3145 | 1/1   | 0.88 | 0.50 | -    | 34,34,34,34                 | 0     |
| 57  | MG   | RA    | 3305 | 1/1   | 0.91 | 0.33 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | RA    | 3224 | 1/1   | 0.91 | 0.55 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | XA    | 1614 | 1/1   | 0.98 | 0.35 | -    | 13,13,13,13                 | 0     |
| 57  | MG   | YA    | 3315 | 1/1   | 0.91 | 0.51 | -    | 38,38,38,38                 | 0     |
| 57  | MG   | YA    | 3349 | 1/1   | 0.95 | 0.40 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | YA    | 3343 | 1/1   | 0.96 | 0.48 | -    | 67,67,67,67                 | 0     |
| 57  | MG   | RA    | 3095 | 1/1   | 0.96 | 0.38 | -    | 5,5,5,5                     | 0     |
| 57  | MG   | YA    | 3261 | 1/1   | 0.95 | 0.34 | -    | 22,22,22,22                 | 0     |
| 57  | MG   | RA    | 3197 | 1/1   | 0.90 | 0.64 | -    | 49,49,49,49                 | 0     |
| 57  | MG   | RA    | 3288 | 1/1   | 0.83 | 0.38 | -    | 26,26,26,26                 | 0     |
| 57  | MG   | QA    | 1637 | 1/1   | 0.96 | 0.22 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | YA    | 3098 | 1/1   | 0.87 | 0.10 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | RA    | 3136 | 1/1   | 0.95 | 0.47 | -    | 24,24,24,24                 | 0     |
| 57  | MG   | RA    | 3044 | 1/1   | 0.93 | 0.28 | -    | 5,5,5,5                     | 0     |
| 57  | MG   | YA    | 3282 | 1/1   | 0.84 | 0.35 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | QA    | 1668 | 1/1   | 0.74 | 0.56 | -    | 36,36,36,36                 | 0     |
| 57  | MG   | YA    | 3051 | 1/1   | 0.98 | 0.34 | -    | 22,22,22,22                 | 0     |
| 57  | MG   | YA    | 3080 | 1/1   | 0.89 | 0.38 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | RA    | 3199 | 1/1   | 0.82 | 0.46 | -    | 60,60,60,60                 | 0     |
| 57  | MG   | RA    | 3078 | 1/1   | 0.97 | 0.39 | -    | 53,53,53,53                 | 0     |
| 57  | MG   | YA    | 3272 | 1/1   | 0.86 | 0.35 | -    | 60,60,60,60                 | 0     |
| 57  | MG   | RA    | 3154 | 1/1   | 0.86 | 0.54 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | YA    | 3110 | 1/1   | 0.98 | 0.32 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | XA    | 1672 | 1/1   | 0.92 | 0.35 | -    | 36,36,36,36                 | 0     |
| 57  | MG   | RA    | 3253 | 1/1   | 0.89 | 0.19 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | XA    | 1699 | 1/1   | 0.93 | 0.44 | -    | 35,35,35,35                 | 0     |
| 57  | MG   | YA    | 3131 | 1/1   | 0.84 | 0.24 | -    | 71,71,71,71                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | YA    | 3225 | 1/1   | 0.75 | 0.66 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | RA    | 3250 | 1/1   | 0.74 | 0.45 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3120 | 1/1   | 0.86 | 0.15 | -    | 26,26,26,26                 | 0     |
| 57  | MG   | R0    | 101  | 1/1   | 0.80 | 0.25 | -    | 14,14,14,14                 | 0     |
| 57  | MG   | RA    | 3204 | 1/1   | 0.92 | 0.29 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | YA    | 3125 | 1/1   | 0.86 | 0.12 | -    | 54,54,54,54                 | 0     |
| 57  | MG   | XA    | 1651 | 1/1   | 0.97 | 0.50 | -    | 62,62,62,62                 | 0     |
| 57  | MG   | YA    | 3255 | 1/1   | 0.79 | 1.11 | -    | 35,35,35,35                 | 0     |
| 57  | MG   | RA    | 3177 | 1/1   | 0.87 | 0.36 | -    | 33,33,33,33                 | 0     |
| 57  | MG   | RA    | 3215 | 1/1   | 0.91 | 0.27 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3329 | 1/1   | 0.95 | 0.28 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3172 | 1/1   | 0.62 | 1.16 | -    | 74,74,74,74                 | 0     |
| 57  | MG   | YA    | 3189 | 1/1   | 0.75 | 0.51 | -    | 62,62,62,62                 | 0     |
| 57  | MG   | YA    | 3018 | 1/1   | 0.92 | 0.43 | -    | 16,16,16,16                 | 0     |
| 57  | MG   | QA    | 1667 | 1/1   | 0.96 | 0.39 | -    | 38,38,38,38                 | 0     |
| 57  | MG   | YA    | 3211 | 1/1   | 0.97 | 0.22 | -    | 31,31,31,31                 | 0     |
| 57  | MG   | YA    | 3254 | 1/1   | 0.97 | 0.20 | -    | 33,33,33,33                 | 0     |
| 57  | MG   | QA    | 1627 | 1/1   | 0.61 | 0.31 | -    | 69,69,69,69                 | 0     |
| 57  | MG   | RB    | 205  | 1/1   | 0.86 | 0.30 | -    | 61,61,61,61                 | 0     |
| 57  | MG   | YA    | 3266 | 1/1   | 0.87 | 0.28 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | RA    | 3048 | 1/1   | 0.95 | 0.17 | -    | 7,7,7,7                     | 0     |
| 57  | MG   | RA    | 3023 | 1/1   | 0.96 | 0.16 | -    | 22,22,22,22                 | 0     |
| 57  | MG   | YA    | 3308 | 1/1   | 0.82 | 0.56 | -    | 42,42,42,42                 | 0     |
| 57  | MG   | RA    | 3164 | 1/1   | 0.93 | 0.07 | -    | 36,36,36,36                 | 0     |
| 57  | MG   | QA    | 1664 | 1/1   | 0.95 | 0.24 | -    | 30,30,30,30                 | 0     |
| 57  | MG   | QV    | 103  | 1/1   | 0.92 | 0.23 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | YA    | 3121 | 1/1   | 0.94 | 0.70 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3097 | 1/1   | 0.92 | 0.43 | -    | 19,19,19,19                 | 0     |
| 57  | MG   | RA    | 3051 | 1/1   | 0.96 | 0.33 | -    | 4,4,4,4                     | 0     |
| 57  | MG   | YA    | 3111 | 1/1   | 0.74 | 1.33 | -    | 53,53,53,53                 | 0     |
| 57  | MG   | YA    | 3084 | 1/1   | 0.91 | 0.30 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3306 | 1/1   | 0.59 | 0.33 | -    | 72,72,72,72                 | 0     |
| 57  | MG   | RA    | 3084 | 1/1   | 0.96 | 0.29 | -    | 21,21,21,21                 | 0     |
| 57  | MG   | QA    | 1683 | 1/1   | 0.93 | 0.11 | -    | 66,66,66,66                 | 0     |
| 57  | MG   | YA    | 3061 | 1/1   | 0.98 | 0.26 | -    | 12,12,12,12                 | 0     |
| 57  | MG   | YA    | 3133 | 1/1   | 0.83 | 0.20 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | QA    | 1680 | 1/1   | 0.87 | 0.58 | -    | 53,53,53,53                 | 0     |
| 57  | MG   | QA    | 1676 | 1/1   | 0.94 | 0.39 | -    | 63,63,63,63                 | 0     |
| 57  | MG   | QA    | 1646 | 1/1   | 0.94 | 0.32 | -    | 61,61,61,61                 | 0     |
| 57  | MG   | RA    | 3060 | 1/1   | 0.96 | 0.33 | -    | 11,11,11,11                 | 0     |
| 57  | MG   | RA    | 3061 | 1/1   | 0.70 | 0.19 | -    | 61,61,61,61                 | 0     |
| 57  | MG   | YA    | 3336 | 1/1   | 0.67 | 0.38 | -    | 89,89,89,89                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | XA    | 1674 | 1/1   | 0.98 | 0.24 | -    | 4,4,4,4                     | 0     |
| 57  | MG   | YA    | 3177 | 1/1   | 0.85 | 0.32 | -    | 50,50,50,50                 | 0     |
| 57  | MG   | XA    | 1687 | 1/1   | 0.98 | 0.57 | -    | 33,33,33,33                 | 0     |
| 57  | MG   | RA    | 3208 | 1/1   | 0.73 | 0.40 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | RA    | 3223 | 1/1   | 0.94 | 0.19 | -    | 28,28,28,28                 | 0     |
| 57  | MG   | XA    | 1673 | 1/1   | 0.98 | 0.51 | -    | 21,21,21,21                 | 0     |
| 57  | MG   | RA    | 3113 | 1/1   | 0.86 | 0.39 | -    | 21,21,21,21                 | 0     |
| 57  | MG   | QA    | 1639 | 1/1   | 0.89 | 0.23 | -    | 67,67,67,67                 | 0     |
| 57  | MG   | QA    | 1661 | 1/1   | 0.73 | 0.45 | -    | 37,37,37,37                 | 0     |
| 57  | MG   | YA    | 3270 | 1/1   | 0.94 | 0.41 | -    | 32,32,32,32                 | 0     |
| 57  | MG   | RA    | 3163 | 1/1   | 0.90 | 0.25 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | RA    | 3323 | 1/1   | 0.92 | 0.41 | -    | 38,38,38,38                 | 0     |
| 57  | MG   | RA    | 3162 | 1/1   | 0.81 | 0.38 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | YP    | 201  | 1/1   | 0.82 | 0.19 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | RA    | 3239 | 1/1   | 0.90 | 0.64 | -    | 17,17,17,17                 | 0     |
| 57  | MG   | RA    | 3032 | 1/1   | 0.96 | 0.38 | -    | 19,19,19,19                 | 0     |
| 57  | MG   | RA    | 3156 | 1/1   | 0.93 | 0.38 | -    | 42,42,42,42                 | 0     |
| 57  | MG   | RA    | 3263 | 1/1   | 0.74 | 0.47 | -    | 63,63,63,63                 | 0     |
| 57  | MG   | YA    | 3065 | 1/1   | 0.96 | 0.43 | -    | 22,22,22,22                 | 0     |
| 57  | MG   | XA    | 1711 | 1/1   | 0.98 | 0.12 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | YA    | 3142 | 1/1   | 0.97 | 0.29 | -    | 33,33,33,33                 | 0     |
| 57  | MG   | XA    | 1629 | 1/1   | 0.86 | 0.18 | -    | 63,63,63,63                 | 0     |
| 57  | MG   | YA    | 3062 | 1/1   | 0.77 | 0.19 | -    | 25,25,25,25                 | 0     |
| 57  | MG   | YA    | 3010 | 1/1   | 0.95 | 0.22 | -    | 6,6,6,6                     | 0     |
| 57  | MG   | QA    | 1611 | 1/1   | 0.90 | 0.45 | -    | 21,21,21,21                 | 0     |
| 57  | MG   | RA    | 3287 | 1/1   | 0.90 | 0.28 | -    | 49,49,49,49                 | 0     |
| 57  | MG   | YA    | 3278 | 1/1   | 0.90 | 0.42 | -    | 25,25,25,25                 | 0     |
| 57  | MG   | RA    | 3184 | 1/1   | 0.83 | 0.45 | -    | 60,60,60,60                 | 0     |
| 57  | MG   | RA    | 3295 | 1/1   | 0.92 | 0.30 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | RA    | 3246 | 1/1   | 0.94 | 0.18 | -    | 55,55,55,55                 | 0     |
| 57  | MG   | YA    | 3201 | 1/1   | 0.85 | 0.66 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | RA    | 3180 | 1/1   | 0.88 | 0.33 | -    | 29,29,29,29                 | 0     |
| 57  | MG   | RA    | 3262 | 1/1   | 0.92 | 0.47 | -    | 33,33,33,33                 | 0     |
| 57  | MG   | YA    | 3079 | 1/1   | 0.99 | 0.35 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | YA    | 3338 | 1/1   | 0.91 | 0.62 | -    | 55,55,55,55                 | 0     |
| 57  | MG   | RA    | 3146 | 1/1   | 0.95 | 0.25 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | QA    | 1630 | 1/1   | 0.88 | 0.16 | -    | 24,24,24,24                 | 0     |
| 57  | MG   | YA    | 3341 | 1/1   | 0.92 | 0.27 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3007 | 1/1   | 0.95 | 0.36 | -    | 10,10,10,10                 | 0     |
| 57  | MG   | XA    | 1638 | 1/1   | 0.88 | 0.32 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | XA    | 1660 | 1/1   | 0.91 | 0.93 | -    | 53,53,53,53                 | 0     |
| 57  | MG   | YA    | 3287 | 1/1   | 0.94 | 0.94 | -    | 69,69,69,69                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | YY    | 201  | 1/1   | 0.76 | 0.19 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | YA    | 3337 | 1/1   | 0.65 | 0.77 | -    | 78,78,78,78                 | 0     |
| 57  | MG   | RA    | 3043 | 1/1   | 0.81 | 0.41 | -    | 65,65,65,65                 | 0     |
| 57  | MG   | RA    | 3011 | 1/1   | 0.92 | 0.59 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | YA    | 3127 | 1/1   | 0.87 | 0.27 | -    | 50,50,50,50                 | 0     |
| 57  | MG   | RA    | 3316 | 1/1   | 0.95 | 0.76 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | XB    | 301  | 1/1   | 0.94 | 0.18 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3222 | 1/1   | 0.90 | 0.34 | -    | 41,41,41,41                 | 0     |
| 57  | MG   | RA    | 3278 | 1/1   | 0.95 | 0.91 | -    | 40,40,40,40                 | 0     |
| 57  | MG   | YA    | 3260 | 1/1   | 0.84 | 0.35 | -    | 40,40,40,40                 | 0     |
| 57  | MG   | RA    | 3082 | 1/1   | 0.97 | 0.21 | -    | 18,18,18,18                 | 0     |
| 57  | MG   | RA    | 3002 | 1/1   | 0.91 | 0.56 | -    | 42,42,42,42                 | 0     |
| 57  | MG   | YA    | 3301 | 1/1   | 0.82 | 1.31 | -    | 63,63,63,63                 | 0     |
| 57  | MG   | QA    | 1648 | 1/1   | 0.89 | 0.23 | -    | 71,71,71,71                 | 0     |
| 57  | MG   | RA    | 3267 | 1/1   | 0.89 | 0.39 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | RA    | 3029 | 1/1   | 0.96 | 0.44 | -    | 15,15,15,15                 | 0     |
| 57  | MG   | QA    | 1652 | 1/1   | 0.95 | 0.49 | -    | 34,34,34,34                 | 0     |
| 57  | MG   | RA    | 3092 | 1/1   | 0.92 | 0.39 | -    | 18,18,18,18                 | 0     |
| 57  | MG   | YA    | 3150 | 1/1   | 0.96 | 0.17 | -    | 41,41,41,41                 | 0     |
| 57  | MG   | RA    | 3193 | 1/1   | 0.91 | 0.16 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | YA    | 3154 | 1/1   | 0.91 | 0.30 | -    | 67,67,67,67                 | 0     |
| 57  | MG   | RA    | 3318 | 1/1   | 0.94 | 0.28 | -    | 32,32,32,32                 | 0     |
| 57  | MG   | YA    | 3223 | 1/1   | 0.88 | 0.45 | -    | 56,56,56,56                 | 0     |
| 57  | MG   | RA    | 3165 | 1/1   | 0.92 | 0.36 | -    | 36,36,36,36                 | 0     |
| 57  | MG   | YA    | 3118 | 1/1   | 0.96 | 0.32 | -    | 14,14,14,14                 | 0     |
| 57  | MG   | RA    | 3277 | 1/1   | 0.89 | 0.23 | -    | 34,34,34,34                 | 0     |
| 57  | MG   | YA    | 3332 | 1/1   | 0.96 | 0.23 | -    | 67,67,67,67                 | 0     |
| 57  | MG   | QA    | 1671 | 1/1   | 0.94 | 0.34 | -    | 23,23,23,23                 | 0     |
| 57  | MG   | RA    | 3302 | 1/1   | 0.78 | 0.64 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | QA    | 1614 | 1/1   | 0.96 | 0.27 | -    | 30,30,30,30                 | 0     |
| 57  | MG   | QF    | 201  | 1/1   | 0.48 | 0.34 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | RA    | 3111 | 1/1   | 0.96 | 0.12 | -    | 58,58,58,58                 | 0     |
| 57  | MG   | YA    | 3300 | 1/1   | 0.71 | 0.66 | -    | 53,53,53,53                 | 0     |
| 57  | MG   | XA    | 1709 | 1/1   | 0.97 | 0.23 | -    | 38,38,38,38                 | 0     |
| 57  | MG   | YA    | 3257 | 1/1   | 0.96 | 0.20 | -    | 54,54,54,54                 | 0     |
| 57  | MG   | YA    | 3052 | 1/1   | 0.92 | 0.45 | -    | 23,23,23,23                 | 0     |
| 57  | MG   | RA    | 3158 | 1/1   | 0.87 | 0.35 | -    | 30,30,30,30                 | 0     |
| 57  | MG   | YA    | 3113 | 1/1   | 0.94 | 0.45 | -    | 23,23,23,23                 | 0     |
| 57  | MG   | RA    | 3091 | 1/1   | 0.96 | 0.30 | -    | 29,29,29,29                 | 0     |
| 57  | MG   | RA    | 3307 | 1/1   | 0.66 | 0.52 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | YA    | 3242 | 1/1   | 0.91 | 0.34 | -    | 33,33,33,33                 | 0     |
| 57  | MG   | RA    | 3311 | 1/1   | 0.81 | 0.27 | -    | 55,55,55,55                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | YA    | 3334 | 1/1   | 0.83 | 0.23 | -    | 60,60,60,60                 | 0     |
| 57  | MG   | YA    | 3072 | 1/1   | 0.97 | 0.53 | -    | 19,19,19,19                 | 0     |
| 57  | MG   | XA    | 1682 | 1/1   | 0.94 | 0.35 | -    | 60,60,60,60                 | 0     |
| 57  | MG   | RA    | 3248 | 1/1   | 0.94 | 0.41 | -    | 41,41,41,41                 | 0     |
| 57  | MG   | YA    | 3143 | 1/1   | 0.96 | 0.28 | -    | 23,23,23,23                 | 0     |
| 57  | MG   | RA    | 3282 | 1/1   | 0.94 | 0.46 | -    | 65,65,65,65                 | 0     |
| 57  | MG   | RA    | 3258 | 1/1   | 0.95 | 0.41 | -    | 50,50,50,50                 | 0     |
| 57  | MG   | QA    | 1649 | 1/1   | 0.96 | 0.07 | -    | 81,81,81,81                 | 0     |
| 57  | MG   | RA    | 3229 | 1/1   | 0.96 | 0.36 | -    | 22,22,22,22                 | 0     |
| 57  | MG   | YA    | 3168 | 1/1   | 0.91 | 0.24 | -    | 54,54,54,54                 | 0     |
| 57  | MG   | YA    | 3101 | 1/1   | 0.92 | 0.39 | -    | 36,36,36,36                 | 0     |
| 57  | MG   | XA    | 1657 | 1/1   | 0.94 | 0.63 | -    | 49,49,49,49                 | 0     |
| 57  | MG   | QA    | 1634 | 1/1   | 0.87 | 0.28 | -    | 58,58,58,58                 | 0     |
| 57  | MG   | XA    | 1611 | 1/1   | 0.96 | 0.10 | -    | 20,20,20,20                 | 0     |
| 57  | MG   | XA    | 1694 | 1/1   | 0.74 | 0.22 | -    | 69,69,69,69                 | 0     |
| 57  | MG   | RA    | 3016 | 1/1   | 0.98 | 0.33 | -    | 15,15,15,15                 | 0     |
| 57  | MG   | YA    | 3163 | 1/1   | 0.85 | 0.09 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | RA    | 3218 | 1/1   | 0.87 | 0.27 | -    | 58,58,58,58                 | 0     |
| 57  | MG   | QV    | 101  | 1/1   | 0.92 | 0.35 | -    | 50,50,50,50                 | 0     |
| 57  | MG   | YA    | 3178 | 1/1   | 0.90 | 0.21 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | Y0    | 103  | 1/1   | 0.85 | 0.44 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | YA    | 3331 | 1/1   | 0.57 | 0.58 | -    | 69,69,69,69                 | 0     |
| 57  | MG   | RA    | 3299 | 1/1   | 0.87 | 0.25 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | RA    | 3069 | 1/1   | 0.93 | 0.35 | -    | 9,9,9,9                     | 0     |
| 57  | MG   | QA    | 1625 | 1/1   | 0.86 | 0.14 | -    | 22,22,22,22                 | 0     |
| 57  | MG   | YA    | 3290 | 1/1   | 0.75 | 0.67 | -    | 74,74,74,74                 | 0     |
| 57  | MG   | YA    | 3029 | 1/1   | 0.86 | 0.51 | -    | 36,36,36,36                 | 0     |
| 57  | MG   | RA    | 3133 | 1/1   | 0.80 | 0.16 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | QA    | 1621 | 1/1   | 0.97 | 0.52 | -    | 61,61,61,61                 | 0     |
| 57  | MG   | XA    | 1676 | 1/1   | 0.89 | 0.22 | -    | 41,41,41,41                 | 0     |
| 57  | MG   | RA    | 3294 | 1/1   | 0.96 | 0.42 | -    | 29,29,29,29                 | 0     |
| 57  | MG   | XA    | 1635 | 1/1   | 0.85 | 0.45 | -    | 58,58,58,58                 | 0     |
| 57  | MG   | Y0    | 102  | 1/1   | 0.81 | 0.63 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | RA    | 3244 | 1/1   | 0.98 | 0.42 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | QA    | 1645 | 1/1   | 0.93 | 0.19 | -    | 73,73,73,73                 | 0     |
| 57  | MG   | YA    | 3275 | 1/1   | 0.36 | 0.37 | -    | 80,80,80,80                 | 0     |
| 57  | MG   | XA    | 1678 | 1/1   | 0.95 | 0.22 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | YA    | 3001 | 1/1   | 0.97 | 0.45 | -    | 24,24,24,24                 | 0     |
| 57  | MG   | RA    | 3161 | 1/1   | 0.98 | 0.19 | -    | 18,18,18,18                 | 0     |
| 57  | MG   | XA    | 1675 | 1/1   | 0.51 | 0.41 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | YA    | 3220 | 1/1   | 0.88 | 0.20 | -    | 60,60,60,60                 | 0     |
| 57  | MG   | XA    | 1662 | 1/1   | 0.77 | 0.52 | -    | 38,38,38,38                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | YA    | 3231 | 1/1   | 0.98 | 0.38 | -    | 24,24,24,24                 | 0     |
| 57  | MG   | YA    | 3285 | 1/1   | 0.92 | 0.29 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | RA    | 3045 | 1/1   | 0.98 | 0.27 | -    | 13,13,13,13                 | 0     |
| 57  | MG   | RA    | 3175 | 1/1   | 0.74 | 0.32 | -    | 28,28,28,28                 | 0     |
| 57  | MG   | RA    | 3265 | 1/1   | 0.87 | 1.44 | -    | 53,53,53,53                 | 0     |
| 57  | MG   | YA    | 3243 | 1/1   | 0.86 | 0.34 | -    | 36,36,36,36                 | 0     |
| 57  | MG   | XA    | 1648 | 1/1   | 0.62 | 0.35 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | YA    | 3012 | 1/1   | 0.97 | 0.45 | -    | 8,8,8,8                     | 0     |
| 57  | MG   | YA    | 3141 | 1/1   | 0.91 | 0.23 | -    | 9,9,9,9                     | 0     |
| 57  | MG   | YA    | 3115 | 1/1   | 0.69 | 0.62 | -    | 49,49,49,49                 | 0     |
| 57  | MG   | XA    | 1671 | 1/1   | 0.89 | 0.53 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | RA    | 3194 | 1/1   | 0.94 | 0.25 | -    | 15,15,15,15                 | 0     |
| 57  | MG   | YA    | 3063 | 1/1   | 0.97 | 0.20 | -    | 55,55,55,55                 | 0     |
| 57  | MG   | XA    | 1640 | 1/1   | 0.96 | 0.49 | -    | 41,41,41,41                 | 0     |
| 57  | MG   | XA    | 1712 | 1/1   | 0.97 | 0.24 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | XA    | 1605 | 1/1   | 0.93 | 0.60 | -    | 34,34,34,34                 | 0     |
| 57  | MG   | XA    | 1695 | 1/1   | 0.77 | 0.15 | -    | 78,78,78,78                 | 0     |
| 57  | MG   | YA    | 3359 | 1/1   | 0.94 | 0.30 | -    | 28,28,28,28                 | 0     |
| 57  | MG   | YA    | 3262 | 1/1   | 0.95 | 0.39 | -    | 30,30,30,30                 | 0     |
| 57  | MG   | YA    | 3019 | 1/1   | 0.91 | 0.53 | -    | 24,24,24,24                 | 0     |
| 57  | MG   | YA    | 3344 | 1/1   | 0.96 | 0.20 | -    | 28,28,28,28                 | 0     |
| 57  | MG   | RA    | 3027 | 1/1   | 0.98 | 0.34 | -    | 24,24,24,24                 | 0     |
| 57  | MG   | XA    | 1693 | 1/1   | 0.93 | 0.43 | -    | 40,40,40,40                 | 0     |
| 57  | MG   | YA    | 3235 | 1/1   | 0.94 | 0.24 | -    | 26,26,26,26                 | 0     |
| 57  | MG   | RA    | 3191 | 1/1   | 0.85 | 0.27 | -    | 31,31,31,31                 | 0     |
| 57  | MG   | RA    | 3290 | 1/1   | 0.80 | 0.34 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | RA    | 3139 | 1/1   | 0.85 | 0.29 | -    | 25,25,25,25                 | 0     |
| 57  | MG   | RA    | 3271 | 1/1   | 0.94 | 0.61 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | YA    | 3092 | 1/1   | 0.99 | 0.23 | -    | 23,23,23,23                 | 0     |
| 57  | MG   | YA    | 3081 | 1/1   | 0.97 | 0.38 | -    | 23,23,23,23                 | 0     |
| 57  | MG   | RA    | 3001 | 1/1   | 0.91 | 0.26 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | YA    | 3146 | 1/1   | 0.88 | 0.44 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | RA    | 3018 | 1/1   | 0.95 | 0.28 | -    | 18,18,18,18                 | 0     |
| 57  | MG   | QA    | 1633 | 1/1   | 0.73 | 0.34 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | YA    | 3020 | 1/1   | 0.99 | 0.39 | -    | 16,16,16,16                 | 0     |
| 57  | MG   | XA    | 1704 | 1/1   | 0.85 | 0.30 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | RA    | 3071 | 1/1   | 0.93 | 0.51 | -    | 52,52,52,52                 | 0     |
| 57  | MG   | RA    | 3050 | 1/1   | 0.96 | 0.19 | -    | 22,22,22,22                 | 0     |
| 57  | MG   | RA    | 3228 | 1/1   | 0.87 | 0.35 | -    | 37,37,37,37                 | 0     |
| 57  | MG   | RA    | 3322 | 1/1   | 0.93 | 0.66 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | RA    | 3219 | 1/1   | 0.82 | 0.45 | -    | 75,75,75,75                 | 0     |
| 57  | MG   | QA    | 1615 | 1/1   | 0.96 | 0.13 | -    | 57,57,57,57                 | 0     |

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| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | RA    | 3259 | 1/1   | 0.83 | 0.24 | -    | 45,45,45,45                 | 0     |
| 57  | MG   | YA    | 3277 | 1/1   | 0.87 | 0.52 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | RA    | 3241 | 1/1   | 0.97 | 0.24 | -    | 20,20,20,20                 | 0     |
| 57  | MG   | YA    | 3227 | 1/1   | 0.91 | 0.40 | -    | 19,19,19,19                 | 0     |
| 57  | MG   | YA    | 3042 | 1/1   | 0.97 | 0.43 | -    | 15,15,15,15                 | 0     |
| 57  | MG   | RA    | 3112 | 1/1   | 0.79 | 0.21 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | RA    | 3222 | 1/1   | 0.97 | 0.33 | -    | 6,6,6,6                     | 0     |
| 57  | MG   | RA    | 3308 | 1/1   | 0.93 | 0.51 | -    | 54,54,54,54                 | 0     |
| 57  | MG   | RA    | 3030 | 1/1   | 0.97 | 0.31 | -    | 30,30,30,30                 | 0     |
| 57  | MG   | YA    | 3186 | 1/1   | 0.89 | 0.46 | -    | 19,19,19,19                 | 0     |
| 57  | MG   | RA    | 3159 | 1/1   | 0.89 | 0.23 | -    | 82,82,82,82                 | 0     |
| 57  | MG   | YA    | 3003 | 1/1   | 0.93 | 0.21 | -    | 23,23,23,23                 | 0     |
| 57  | MG   | YA    | 3322 | 1/1   | 0.92 | 0.37 | -    | 40,40,40,40                 | 0     |
| 57  | MG   | XA    | 1680 | 1/1   | 0.85 | 0.29 | -    | 65,65,65,65                 | 0     |
| 57  | MG   | XA    | 1602 | 1/1   | 0.96 | 0.56 | -    | 19,19,19,19                 | 0     |
| 57  | MG   | YA    | 3175 | 1/1   | 0.97 | 0.31 | -    | 19,19,19,19                 | 0     |
| 57  | MG   | YA    | 3190 | 1/1   | 0.88 | 0.23 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | YA    | 3267 | 1/1   | 0.97 | 0.37 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | YA    | 3320 | 1/1   | 0.88 | 0.21 | -    | 39,39,39,39                 | 0     |
| 57  | MG   | YA    | 3321 | 1/1   | 0.96 | 0.27 | -    | 49,49,49,49                 | 0     |
| 57  | MG   | XA    | 1655 | 1/1   | 0.93 | 0.50 | -    | 53,53,53,53                 | 0     |
| 57  | MG   | RA    | 3102 | 1/1   | 0.91 | 0.15 | -    | 25,25,25,25                 | 0     |
| 57  | MG   | YA    | 3292 | 1/1   | 0.84 | 0.14 | -    | 62,62,62,62                 | 0     |
| 57  | MG   | YA    | 3294 | 1/1   | 0.93 | 0.53 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | YA    | 3203 | 1/1   | 0.81 | 0.35 | -    | 73,73,73,73                 | 0     |
| 57  | MG   | YA    | 3128 | 1/1   | 0.93 | 0.39 | -    | 42,42,42,42                 | 0     |
| 57  | MG   | XA    | 1628 | 1/1   | 0.88 | 0.48 | -    | 36,36,36,36                 | 0     |
| 57  | MG   | RA    | 3312 | 1/1   | 0.76 | 0.78 | -    | 68,68,68,68                 | 0     |
| 57  | MG   | YA    | 3284 | 1/1   | 0.93 | 1.02 | -    | 67,67,67,67                 | 0     |
| 57  | MG   | RA    | 3170 | 1/1   | 0.94 | 0.23 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | RA    | 3257 | 1/1   | 0.93 | 0.40 | -    | 48,48,48,48                 | 0     |
| 57  | MG   | RA    | 3073 | 1/1   | 0.98 | 0.23 | -    | 8,8,8,8                     | 0     |
| 57  | MG   | QX    | 101  | 1/1   | 0.94 | 0.20 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | XA    | 1707 | 1/1   | 0.89 | 0.80 | -    | 50,50,50,50                 | 0     |
| 57  | MG   | YA    | 3213 | 1/1   | 0.85 | 0.32 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | RA    | 3174 | 1/1   | 0.96 | 0.25 | -    | 31,31,31,31                 | 0     |
| 57  | MG   | YA    | 3273 | 1/1   | 0.78 | 0.31 | -    | 46,46,46,46                 | 0     |
| 57  | MG   | RA    | 3147 | 1/1   | 0.97 | 0.21 | -    | 38,38,38,38                 | 0     |
| 57  | MG   | RA    | 3202 | 1/1   | 0.60 | 0.30 | -    | 70,70,70,70                 | 0     |
| 57  | MG   | YA    | 3346 | 1/1   | 0.96 | 0.16 | -    | 49,49,49,49                 | 0     |
| 57  | MG   | RA    | 3124 | 1/1   | 0.92 | 0.29 | -    | 54,54,54,54                 | 0     |
| 57  | MG   | RA    | 3144 | 1/1   | 0.95 | 0.42 | -    | 40,40,40,40                 | 0     |

*Continued on next page...*

*Continued from previous page...*

| Mol | Type | Chain | Res  | Atoms | RSCC | RSR  | LLDF | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|------|-------|------|------|------|-----------------------------|-------|
| 57  | MG   | XA    | 1701 | 1/1   | 0.91 | 0.23 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | RA    | 3196 | 1/1   | 0.77 | 0.46 | -    | 44,44,44,44                 | 0     |
| 57  | MG   | YA    | 3153 | 1/1   | 0.92 | 0.27 | -    | 37,37,37,37                 | 0     |
| 57  | MG   | RA    | 3325 | 1/1   | 0.88 | 0.99 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | YA    | 3325 | 1/1   | 0.88 | 0.52 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | YA    | 3071 | 1/1   | 0.85 | 0.60 | -    | 38,38,38,38                 | 0     |
| 57  | MG   | QA    | 1626 | 1/1   | 0.91 | 0.20 | -    | 65,65,65,65                 | 0     |
| 57  | MG   | YA    | 3234 | 1/1   | 0.98 | 0.45 | -    | 10,10,10,10                 | 0     |
| 57  | MG   | RA    | 3076 | 1/1   | 0.95 | 0.27 | -    | 5,5,5,5                     | 0     |
| 57  | MG   | YA    | 3205 | 1/1   | 0.83 | 0.27 | -    | 25,25,25,25                 | 0     |
| 57  | MG   | YA    | 3333 | 1/1   | 0.88 | 0.36 | -    | 59,59,59,59                 | 0     |
| 57  | MG   | YA    | 3039 | 1/1   | 0.98 | 0.42 | -    | 12,12,12,12                 | 0     |
| 57  | MG   | XA    | 1622 | 1/1   | 0.93 | 0.59 | -    | 33,33,33,33                 | 0     |
| 57  | MG   | YA    | 3206 | 1/1   | 0.73 | 0.68 | -    | 49,49,49,49                 | 0     |
| 57  | MG   | YA    | 3342 | 1/1   | 0.92 | 0.28 | -    | 55,55,55,55                 | 0     |
| 57  | MG   | RB    | 202  | 1/1   | 0.84 | 0.16 | -    | 69,69,69,69                 | 0     |
| 57  | MG   | YA    | 3314 | 1/1   | 0.82 | 0.34 | -    | 30,30,30,30                 | 0     |
| 57  | MG   | RA    | 3178 | 1/1   | 0.80 | 0.49 | -    | 47,47,47,47                 | 0     |
| 57  | MG   | Y5    | 101  | 1/1   | 0.95 | 0.21 | -    | 17,17,17,17                 | 0     |
| 57  | MG   | YA    | 3088 | 1/1   | 0.98 | 0.31 | -    | 13,13,13,13                 | 0     |
| 57  | MG   | XA    | 1637 | 1/1   | 0.95 | 0.13 | -    | 74,74,74,74                 | 0     |
| 57  | MG   | YA    | 3171 | 1/1   | 0.92 | 0.61 | -    | 43,43,43,43                 | 0     |
| 57  | MG   | RA    | 3046 | 1/1   | 0.97 | 0.43 | -    | 27,27,27,27                 | 0     |
| 57  | MG   | YA    | 3166 | 1/1   | 0.93 | 0.45 | -    | 25,25,25,25                 | 0     |
| 57  | MG   | XV    | 103  | 1/1   | 0.92 | 0.20 | -    | 22,22,22,22                 | 0     |
| 57  | MG   | RA    | 3269 | 1/1   | 0.77 | 0.68 | -    | 41,41,41,41                 | 0     |
| 57  | MG   | XV    | 101  | 1/1   | 0.91 | 0.25 | -    | 34,34,34,34                 | 0     |
| 57  | MG   | RA    | 3237 | 1/1   | 0.97 | 0.09 | -    | 57,57,57,57                 | 0     |
| 57  | MG   | RA    | 3319 | 1/1   | 0.90 | 0.43 | -    | 62,62,62,62                 | 0     |
| 57  | MG   | YA    | 3162 | 1/1   | 0.92 | 0.23 | -    | 51,51,51,51                 | 0     |
| 57  | MG   | RA    | 3273 | 1/1   | 0.79 | 0.49 | -    | 46,46,46,46                 | 0     |

## 6.5 Other polymers [i](#)

There are no such residues in this entry.